August 17th, 2023

To: All Potential Respondents
From: Construction Procurement
Subject: RFQ 928900-02 DOC FDCF Unit H Gym Concessions

Request for Quote

The State of Iowa is conducting a Request for Quote for a contractor to construct a concessions room within the Gym of Building H. See Exhibit B for additional detail.

All work must be done on-site at the Fort Dodge Correctional Facility and all personnel must pass a background check. Information required for the background check includes full name, birthdate, state driver's license # or State id#, and social security number.

Construction is expected to start on January 18th, 2023 and be substantially complete by March 11th, 2024.

The Project is located at 1500 L St, Fort Dodge, IA 50501.

Please email your quote using the Exhibit A pricing form to construction.procurement@iowa.gov prior to September 21st, 2023 at 2:00 PM (CT).

All questions regarding this solicitation must be received by email by 2:00 PM (CT) ON September 14th, 2023.

A Pre-Bid meeting will be held on August 29th, 2023 at 1:00 PM at 1500 L St, Fort Dodge, IA 50501

Contract Terms and Conditions

This procurement will result in a Consensus 802 Agreement. By submitting a quote, respondent agrees to the contract terms and conditions available at
https://das.iowa.gov/sites/default/files/procurement/pdf/ConsensusDoc802.pdf

Performance Bond

Respondent must provide a Performance and Payment Bond in accordance with Section 10.8 of Consensus 802 Agreement.

Insurance Requirements

See sample Certificate of insurance attached as Exhibit D for required limits, additional insured requirements, and waiver of subrogation.

Attachments:
Exhibit A Pricing Form

Exhibit B Scope of Work
Exhibit C Facility Work Requirements
Exhibit D Certificate of Insurance
Exhibit E Proposed Schedule

Exhibit A Pricing Form
DOC FDCF Unit H Gym Concessions
Fort Dodge Correctional Facility
Request for Quote RFQ 928900-02

Due Tuesday, September 21st, 2023 at 2:00 PM (CT)

Please submit this completed form with your Quote to:
Attention: Michael Bradbury
Iowa Department of Administrative Services - Central Procurement
construction.procurement@iowa.gov

This form is to be completed in ink or typewritten.
Only pricing on this form or an exact copy of this form will be accepted.
Pricing Form shall be signed by an officer of the firm with authority to bind Respondent to Contract.

Respondent acknowledges receipt of the following Addenda (if issued) which are part of the RFQ documents:

Addendum No. _____Date_____

Addendum No._____ Date _____

Freight Terms: FOB Destination, Freight Pre-Paid

The State reserves the right to reject any or all quotes without penalty and to waive minor deficiencies and informalities if, in the judgement of the State, it's best interests will be served.

Respondents must submit pricing for all scope of work items indicated per the attached Exhibit B. The State reserves the right to evaluate pricing. The State intends to make one Award for this project.

Lump Sum Price for FDCF Unit H Gym Concessions

Base Bid: Unit H Concessions Room Construction and associated MEPs (Labor and Materials)
$_____

Please note all pricing is to be delivered price. That is why we are stating FOB Destination, Freight Pre-Paid.

Signature _____

Name (Print) _____

Title _____

Company _____

Address _____

City, St., Zip _____

Phone #_____ **Fax #**_____

E-mail _____

Exhibit B Scope of Work

DOC FDCF Unit H Gym Concessions
Fort Dodge Correctional Facility
Request for Quote RFQ 928900-02

Due Tuesday, September 21st, 2023 at 2:00 PM (CT)

Base Bid: Enclose a section of the Building H Gym using metal stud framing, sheet metal, and impact-resistant drywall to create a secured space that will serve as a concessions room for the facility. Please note that the enclosed space will not have a ceiling and will be open to the rest of the gym. The existing metal caging is to be repurposed along the top of this new wall and secured to the roof structure. A window opening will be sawcut into the existing pre-cast concrete wall panel and secured with a steel lintel.

1. The Contractor's Work includes all labor, supervision, materials, equipment, services, supplies, tools, facilities, transportation, hoisting, storage, receiving, licenses, inspections, certifications, overhead, profit, or other items required or reasonably inferable to properly and timely perform and complete all work and services to be performed by the Contractor pursuant to this Agreement. Unless specifically stated otherwise, incidental work required to accomplish the work of this Bid Package shall be included the bid. This would include, but not be limited to, temporary facilities, protection of the work, security of equipment, materials, and work in progress, etc. Contractor's Work shall be performed in accordance with the Drawings and Specifications.
2. Contractor is responsible for all labor and equipment to unload, account for all material delivered, stock, and delivery for this scope of work. Storage and delivery of materials and equipment at the Site shall be permitted only to the extent approved in advance by the Construction Manager, and if anything so stored obstructs the progress of any portion of the work, it shall be promptly removed or relocated by the Contractor without reimbursement.
3. On site supervision by Prime Contractor at all times work by that contractor or their subcontractors/suppliers is taking place.
4. Provide all temporary facilities required for this scope of work including trailer, trailer power, telephone, secured storage, temporary power for work, temporary and task lighting for work, etc. as determined necessary by Contractor. Coordinate location of trailers, material storage and utility lines with Construction Manager. Limited space is available, and permission to bring any such facility or excess materials on to the site shall be approved by the Construction Manager.
5. Contractor shall provide all equipment and tools for Contractor's own cleanup. Clean up shall be done at end of every shift or more frequently if required for the Contractor to perform their work, for other Contractors to perform their work, as required by the Owner's operations, and at the discretion of the Construction Manager.
6. All turf, landscaping, and subgrade disturbances caused by equipment traffic or other activities related to the Contractor's scope shall be repaired or restored to proper conditions by the owner, but the contractor is responsible to minimize any damage caused to the facility's landscaping.
7. Protect adjacent existing building elements from damage from Scope of work. Repair existing building elements damaged during Contractor's Scope of work.

<u>Specifications</u>

- 00 0105 Specifications of Certifications
- 00 0115 Enumeration of Drawings
- 01 1000 Summary
- 02 4119 Selective Structural Demolition

- 05 1200 Structural Steel Framing
- 05 5000 Metal Fabrications
- 07 8400 Penetration Firestopping
- 07 9200 Joint Sealants
- 08 1113 Hollow Metal Doors and Frames
- 08 5113 Aluminum Windows
- 08 7100 Door Hardware
- 08 8000 Glazing
- 09 2216 Non-Structural Metal Framing
- 09 2900 Gypsum Board
- 09 6513 Resilient Base
- 26 0505 Selective Demolition for Electrical
- 26 0519 Low Voltage Electrical Power Conductors and Cables
- 26 0529 Hangers and Supports for Electrical Systems
- 26 0533.13 Conduit for Electrical Systems
- 26 0533.16 Boxes for Electrical Systems
- 26 0553 Identification for Electrical Systems
- 26 2726 Wiring Devices
- 26 5100 Interior Lighting
- Appendix A Project Photos

Architectural Drawings

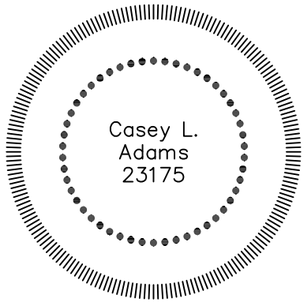
- A0.0 Cover, Sheet Index, & Contacts
- A0.1 Symbols, Legend, & Abbreviations
- A0.2 Location Map and Staging
- A0.3 Code Information
- A1.0 First Floor Plan
- A1.1 Equipment Plan & Upper Concessions Plan
- A2.0 Gym Elevation
- A3.0 Opening Schedule & Details
- A4.0 Details
- A4.1 Details

Structural Drawings

- S1.0 Structural Details

Electrical Drawings

- E1.0 Electrical Plans



I hereby certify that this engineering document was prepared by me or under my direct personal supervision, and that I am a duly licensed professional engineer under the laws of the state of Iowa.

Signature 7845

CASEY ADAMS, PE Reg. No.

Pages or Sheets covered in part or whole by this seal:
E1.0

Date Issued: Aug. 3, 2023

I hereby certify that this engineering document was prepared by me or under my direct personal supervision, and that I am a duly licensed professional engineer under the laws of the state of Iowa.

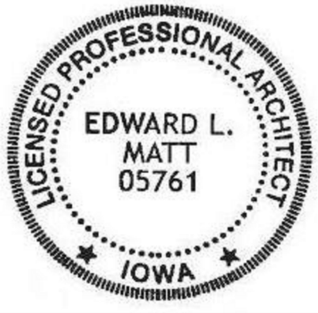
Donald G. Peterson, P.E. Digitally signed by Donald G. Peterson, P.E.
DN: C=US, E=PeteEngrs@aol.com, O=PETERSON ENGINEERS, CN="Donald G. Peterson, P.E."
Date: 2023.08.10 14:55:54-05'00'

Signature 7845

DON PETERSON, PE Reg. No.

Pages or Sheets covered in part or whole by this seal:
S1.0

Date Issued: Aug. 3, 2023



I hereby certify that the portion of this technical submission described below was prepared by me or under my supervisor and responsible charge. I am a duly registered Architect under the laws of the State of Iowa.

Edward L Matt Digitally signed by Edward L Matt
DN: C=US, E=matt@gendsn.com, O="", O=GENESIS Design, CN=Edward L Matt
Date: 2023.08.10 16:06:12-05'00'

Signature 05761

Edward L. Matt Reg. No.

Pages or Sheets covered in part or whole by this seal:
A0.0, A0.1, A0.2, A0.3, A1.0, A1.1, A2.0, A3.0, A4.0, & A4.1

Date Issued: Aug. 3, 2023

DOC FDCF BLDG H GYM CONCESSIONS

FOR THE FT. DODGE CORRECTIONAL FACILITY 1550 L STREET FT. DODGE, IA 50501

DAS PROJECT No. 9289.00
GENESIS PROJECT No. 2205

SHEET INDEX

CONTACT INFO:

OWNER
IOWA DEPT OF ADMIN. SERVICES
OWNER'S REPRESENTATIVE:
JENNIFER KLEENE
STATE DESIGN & CONSTR. RESOURCES BUREAU
109 S.E. 13TH STREET
DES MOINES, IA 50319
OFFICE: 515-822-8197

ON-SITE CONTACT
FT DODGE CORRECTIONAL FACILITY
PHYSICAL PLANT MANAGER:
JEREMIAH JOHNSON
1550 L AVENUE
FT DODGE, IA 50501
PH: 515-574-4716

CONSTRUCTION MANAGER
MCGOUGH CONSTRUCTION
PROJECT MANAGER:
ADAM DOUGLAS
217 E. 2ND STREET, SUITE 120
DES MOINES, IA 50309
PH: 515-822-4229

ARCHITECT
GENESIS ARCHITECTURAL DESIGN
PROJECT ARCHITECT:
EDWARD MATT, AIA
939 OFFICE PARK ROAD
SUITE 101
WEST DES MOINES, IA 50265
OFFICE: 515-440-1681

STRUCTURAL
PETERSON ENGINEERS
DONALD PETERSON, P.E.
1200 VALLEY WEST DRIVE, SUITE 505
WEST DES MOINES, IA 50266
PH: 515-225-2821

MECHANICAL & ELECTRICAL
DURANTEM MEP CONSULTING
CASEY ADAMS, P.E.
PO BOX 782
WAUKEE, IA 50263
PH: 515-707-8392

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

COVER, SHEET INDEX, & CONTACTS

DAS PROJECT NO.
9289.00

GEN PROJECT NO.
2205

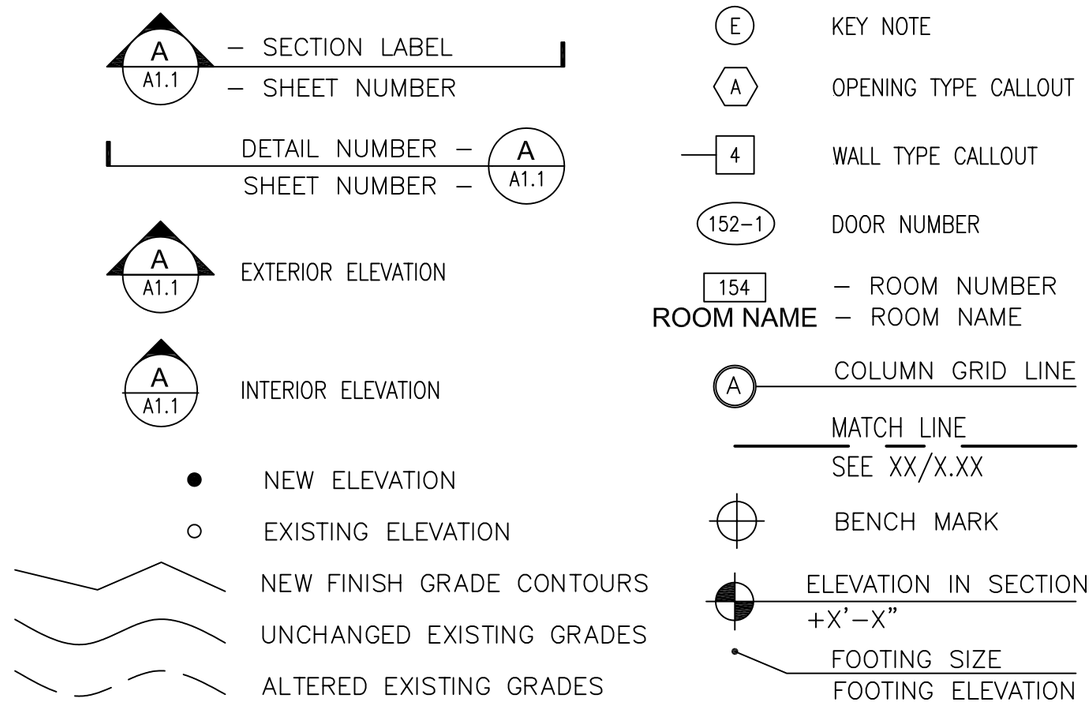
ISSUE DATE
AUG. 3, 2023

SHEET NUMBER
A0.0

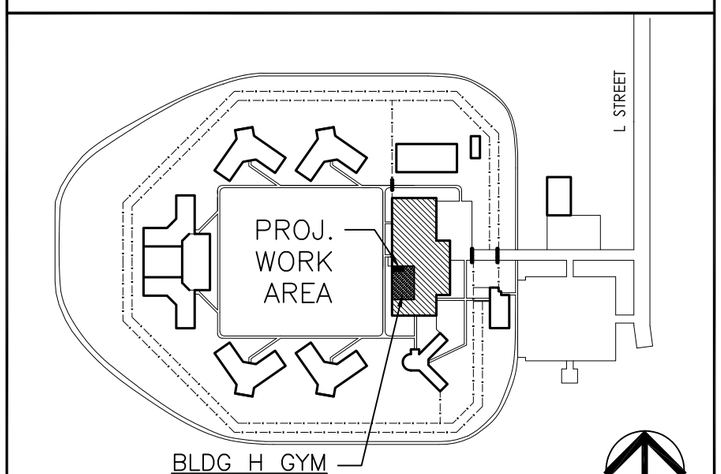
ABBREVIATIONS

ADJ	ADJUSTABLE
A/E	ARCHITECT / ENGINEER
AMT	AMOUNT
APPROX	APPROXIMATELY
ARCH	ARCHITECT
AVE	AVERAGE
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BRK	BRICK
BSMT	BASEMENT
CC	CENTER TO CENTER
CJ	CONTROL JOINT
℄	CENTER LINE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONTR	CONTRACTOR
CRS	COURSES
CTR	CENTER
D	DEPTH
DEMO	DEMOLITION
DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DO	REPEAT
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
EJF	EXPANSION JOINT FILLER
ELEV	ELEVATION
ENGR	ENGINEER
EQ	EQUAL
EX/EXST	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
FIN	FINISH
FLR	FLOOR
FT	FOOT OR FEET
GA	GAUGE
GALV	GALVANIZED
GND	GROUND
H	HIGH
HGT	HEIGHT
HORIZ	HORIZONTAL
IAW	IN ACCORDANCE WITH
INCL	INCLUDED
INT	INTERIOR
IS	INSIDE
JT	JOINT
KW	KEY WALL
MAS	MASONRY
MTL	METAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OPNG	OPENING
ORIG	ORIGINAL
OS	OUTSIDE
PR	PAIR
PROT	PROTECTION
PT	PAINT
R&R	REMOVE AND REPLACE
RAD	RADIUS
RCJ	REINFORCED CONTROL JOINT
RCMU	REINFORCED CONC. MASONRY JT.
REBAR	REINFORCING BAR
REINF	REINFORCED
REJ	ROOF EXPANSION JOINT
REQ'D	REQUIRED
RQMT	REQUIREMENT
SECT	SECTION
SF	SQUARE FOOT OR FEET
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
STD	STANDARD
STL	STEEL
T&B	TOP AND BOTTOM
TOW	TOP OF WALL
T.P.	TUCK POINT
TWF	THROUGH WALL FLASHING
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WIDTH
W/	WITH
W/O	WITHOUT
WCJ	WALL CONTROL JOINT
WD	WOOD
WEJ	WALL EXPANSION JOINT
WGT	WEIGHT

SYMBOLS LEGEND

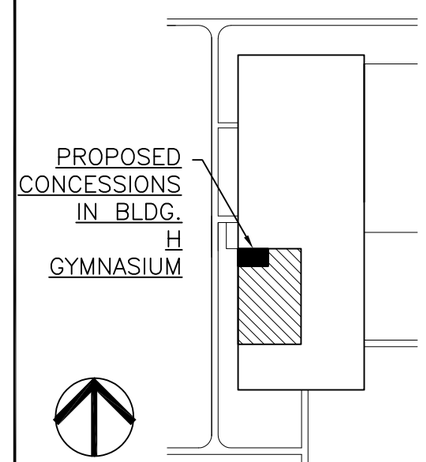


KEY PLAN:
FT DODGE CORRECTIONAL FACILITY



SCALE: NTS

KEY PLAN: BUILDING "H"
FT DODGE CORRECTIONAL FACILITY



SCALE: NTS

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

SYMBOLS, LEGEND, & ABBREVIATIONS

DAS PROJECT NO. 9289.00

GEN PROJECT NO. 2205

ISSUE DATE AUG. 3, 2023

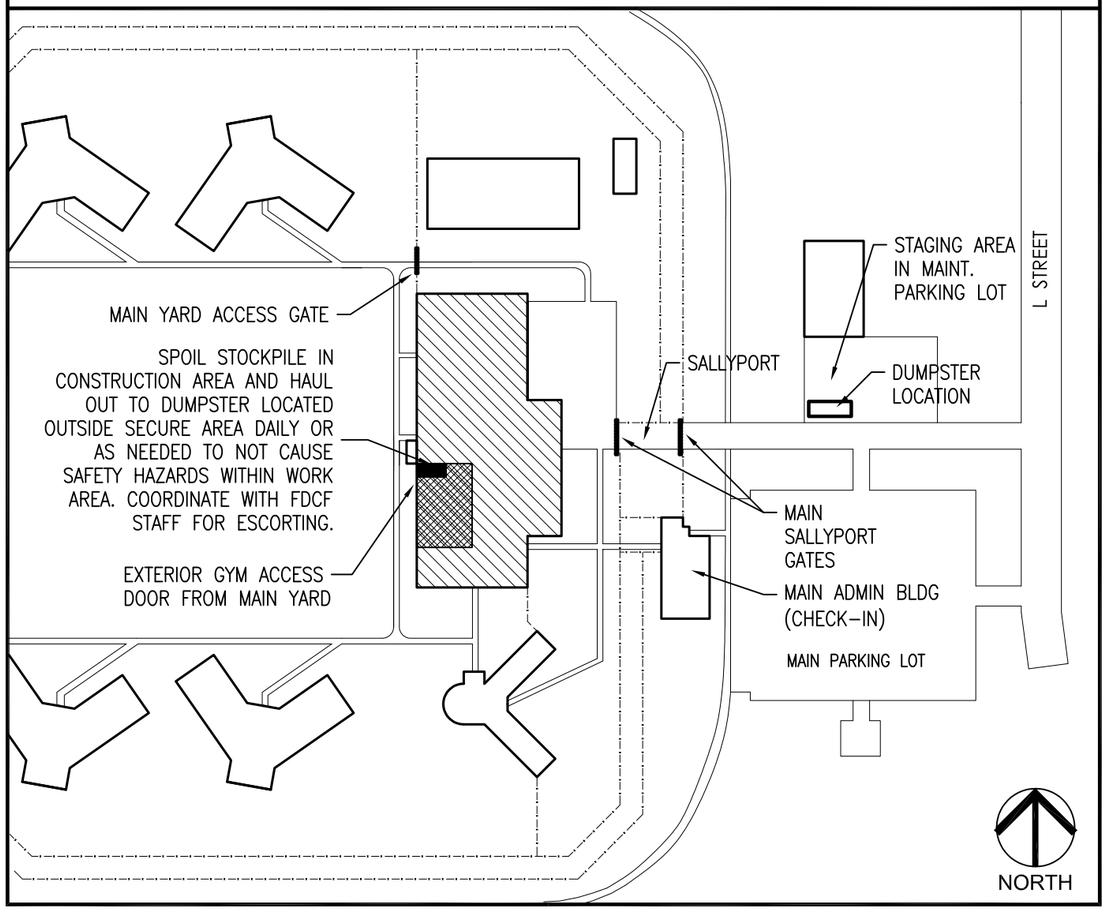
SHEET NUMBER A0.1

SECURITY AND STAGING

1. ALL CONTRACTOR'S PERSONNEL ARE TO HAVE BACKGROUND CHECKS PREAPPROVED BEFORE BEING ALLOWED ON SITE FOR WORK.
2. CONTRACTOR'S PERSONNEL ARE TO FOLLOW ALL RULES FOR CONSTRUCTION WORKERS & ATTEND CONTRACTOR'S PREA ORIENTATION. SEE SPECIFICATION FOR REQUIREMENTS.
3. CONTRACTOR TO COORDINATE IN ADVANCE WITH FDCF STAFF FOR ALL GATE PASSINGS. GATE LOCATIONS ARE IDENTIFIED IN THE SKETCH BELOW.
4. CONTRACTOR TO COORDINATE PROPOSED DAILY WORK SCHEDULE WITH FDCF STAFF AND CONSTRUCTION MANAGER. IDENTIFY THE SCOPE FOR EACH DAY'S WORK AND REQUIRED MATERIALS.
5. ALL WORK AREAS ARE TO BE THOROUGHLY CLEANED UP AT THE END OF EACH DAY.
6. SEE SPECIFICATION FOR DAILY TOOL INVENTORY REQUIREMENTS. A STANDARDIZED LIST OF DAILY TOOLS ENTERING AND EXITING IS PREFERRED. ALL CONSTRUCTION EQUIPMENT MUST BE REMOVED FROM THE PRISON DAILY TO THE DESIGNATED STAGING AREA IN THE PARKING LOT WITH THE EXCEPTION OF A JOB BOX THAT WILL REMAIN SECURED IN THE GYM WORK AREA.
7. CONTRACTOR IS RESPONSIBLE TO PROVIDE A TRAILER FOR DAILY HAULING IN AND OUT CONSTRUCTION WASTE AND NEW MATERIALS.
8. SEE SPECIFICATION FOR WORK HOURS. COORDINATE ANY PROPOSED EXTENDED WORK HOURS INCLUDING WEEKENDS.
9. CONTRACTOR SHALL INCLUDE POLY BARRIER AND TAKE NECESSARY PRECAUTIONS TO NOT CAUSE DUST AND DEBRIS TO BE AIRBORNE DURING DEMO OR NEW INSTALLATION. INSTALL POLY BARRIER BETWEEN WORK SITE AND GYM.

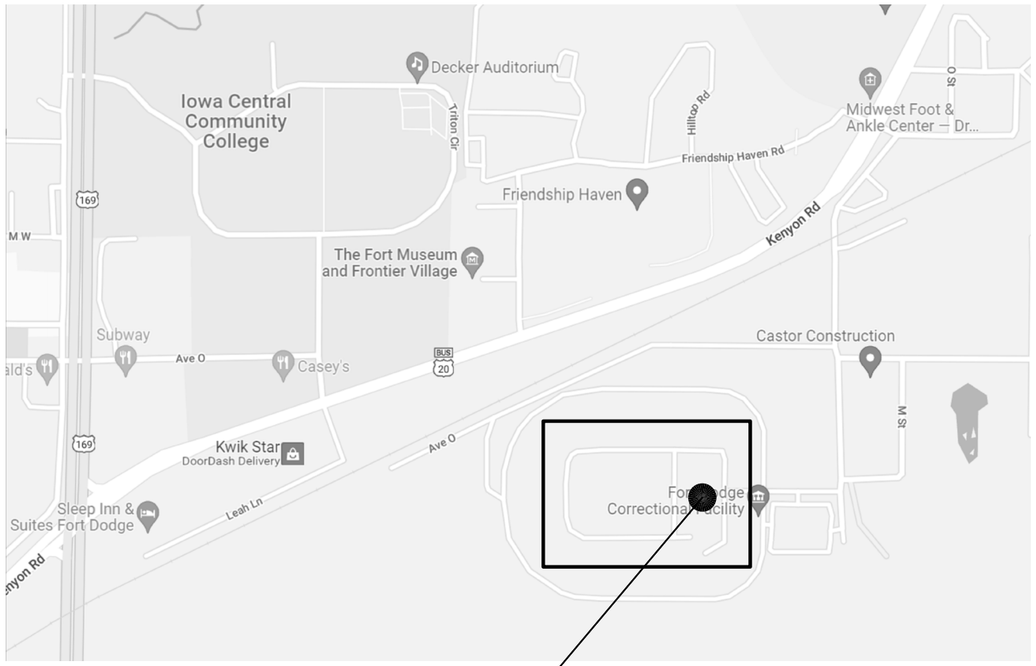
STAGING & SECURITY MAP:

SCALE: NTS



LOCATION MAP:

SCALE: NTS



939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

LOCATION MAP & STAGING

DAS PROJECT NO. 9289.00

GEN PROJECT NO. 2205

ISSUE DATE AUG. 3, 2023

SHEET NUMBER A0.2

CODE INFORMATION

PROJECT SUMMARY:
ENCLOSING A 465 SQ. FT. AREA OF EXISTING FIRST FLOOR EXERCISE ROOM IN BUILDING H GYMNASIUM TO CREATE A CONCESSIONS SERVING ROOM. CONCESSIONS WILL HAVE A SERVING WINDOW THROUGH EXTERIOR WALL. NOTE THAT CONCESSIONS ROOM IS FOR PRE-PACKAGED SNACK STORAGE AND SALES. NO FOOD PREPARATION WILL TAKE PLACE IN THIS SPACE. AREA ABOVE CONCESSIONS WILL BE OPEN TO THE GYM, BUT SEPARATED BY SECURITY SCREENING.

CH. 3 OCCUPANCY: GRP I-3.
MIXED USE A - GYM, B - BUSINESS, S2 - STORAGE.

CH. 6 CONSTR. TYPE: II-A FLOOR & BEARING WALL TO BE 1 HR. CONSTR.

CH. 8 INTERIOR FINISHES TO BE CLASS B & C.

CH. 9 BUILDING HAS THE FOLLOWING FIRE PROTECTION SYSTEMS:
- FULLY SPRINKLERED
- EXISTING COVERAGE, NO CHANGE, OPEN TO BELOW
- FIRE ALARM W/ CNTL PNL
- SMOKE DETECTORS

CH. 10 MEANS OF EGRESS
TABLE 1004.5
OCCUPANT LOAD - CONCESSIONS: S-2 465 SF OLF 300 = 1.55
TOTAL OCCUPANTS: 1.5 = 2 PER OLF.
OWNER'S ACTUAL OCCUPANCY WILL BE 2-4 PEOPLE IN CONCESSION'S.

1006.2.1 NUMBER OF EXITS.
I-3 MAX OCCUPANTS IS LESS THAN 10, ONE EXIT IS ALLOWED.
COMMON PATH OF EGRESS IS 67FT < 100FT.

1008.2 MEANS OF EGRESS SHALL BE ILLUMINATED.

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID
DRAWINGS

CODE
INFORMATION

DAS PROJECT NO.
9289.00

GEN PROJECT NO.
2205

ISSUE DATE
AUG. 3, 2023

SHEET NUMBER
A0.3

PAINT NOTES: (ALL PAINTING WILL BE BY OWNER)

1. GYPSUM BOARD: PRIMER & 2 COATS PAINT TO MATCH WALLS.
2. BASE: PAINTED 10" HIGH GRAY BASE IN GYM. 2 COATS – MATCH EXISTING.
3. HM DOOR & FRAME: 2 COATS – MATCH EXISTING.
4. CAGING MATCH EXISTING DARK GRAY.
5. PAINT STEEL CHANNEL OVER WINDOW TO MATCH EXISTING.
6. PAINT & TOUCH UP CUT EDGES OF PRECAST ROUGH OPENING AT INSIDE JAMBS OF WINDOW.

GENERAL NOTES:

A. DRAWING SCALES VARY. FIELD VERIFY ALL MEASUREMENTS AND QUANTITIES.

B. ALL WORK IS TO BE CONSTRUCTED IN COMPLIANCE WITH STATE BUILDING CODES. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES.

C. CONTRACTOR TO INCLUDE ALL CONSTRUCTION PERMITS, FEES AND INSPECTIONS.

D. PROTECT ALL FINISHED WORK FROM ADJACENT CONSTRUCTION FOR THE ENTIRE DURATION OF CONSTRUCTION. COVER GYM FLOOR IN WORK AREA W/ 1/2" FIBERBOARD TO PROTECT GYM FLOOR.

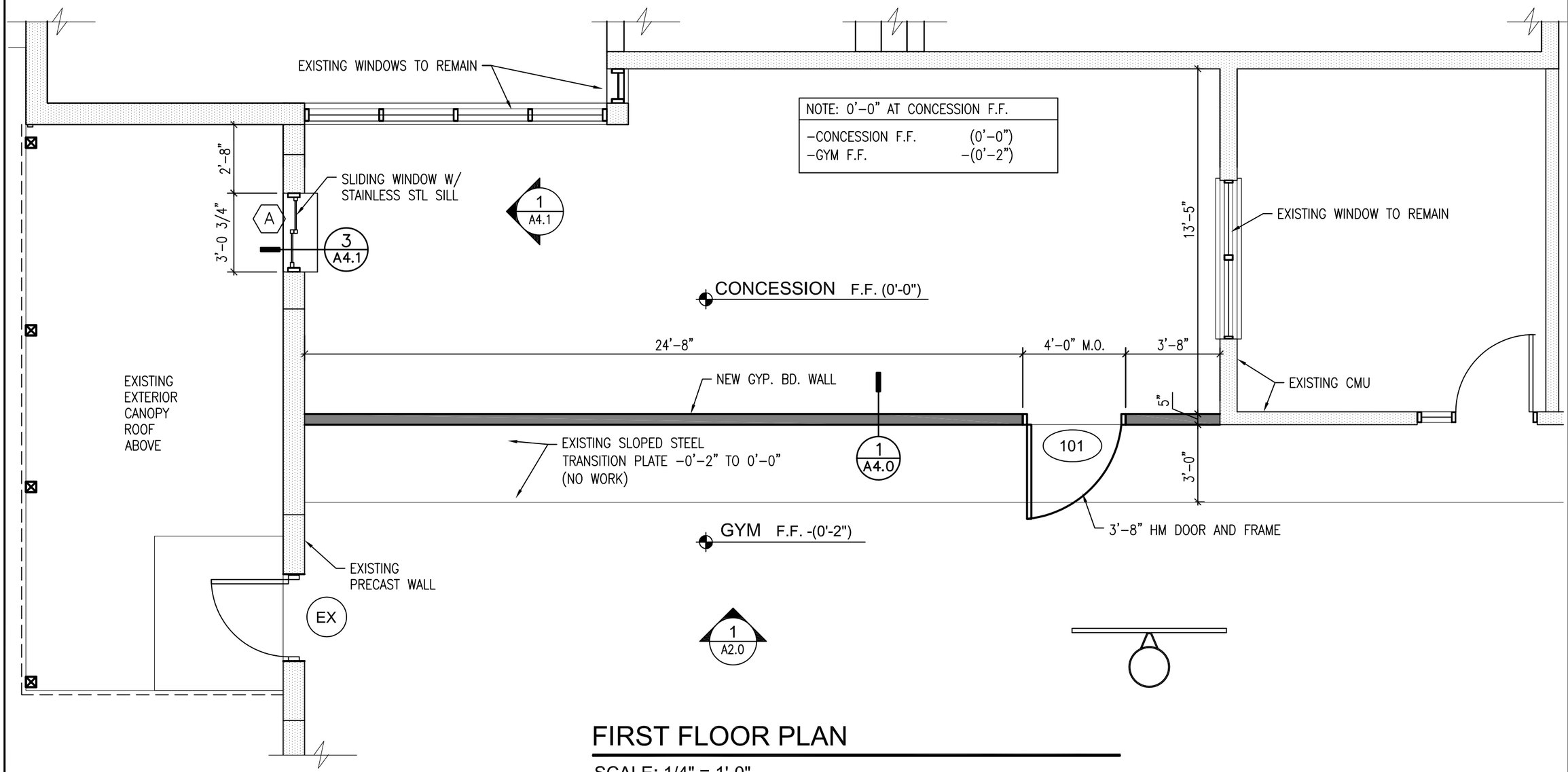
E. COORDINATE DUMPSTER LOCATION WITH FACILITY STAFF. CLEAN, REMOVE & HAUL WASTE OUT DAILY . SEE SHT. A0.2.

F. COORDINATE MATERIAL STAGING, ACCESS, AND TEMPORARY BARRIERS WITH FACILITY AND CONSTRUCTION MANAGER.

G. ALL STEEL TO BE SHIPPED SHOP PRIMED.

H. INSTALL 4" VINYL BASE INSIDE CONCESSIONS FULL PERIMETER ALL WALLS.

I. STRIP AND CLEAN EXISTING CONCRETE FLOOR IN CONCESSIONS OF ANY WAX BUILD UP DOWN TO BARE CONCRETE AND APPLY 2 COATS OF FLOOR SEALER THAT IS A LOW VOC CLEAR SILANE/SILOXANE SEALER.



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

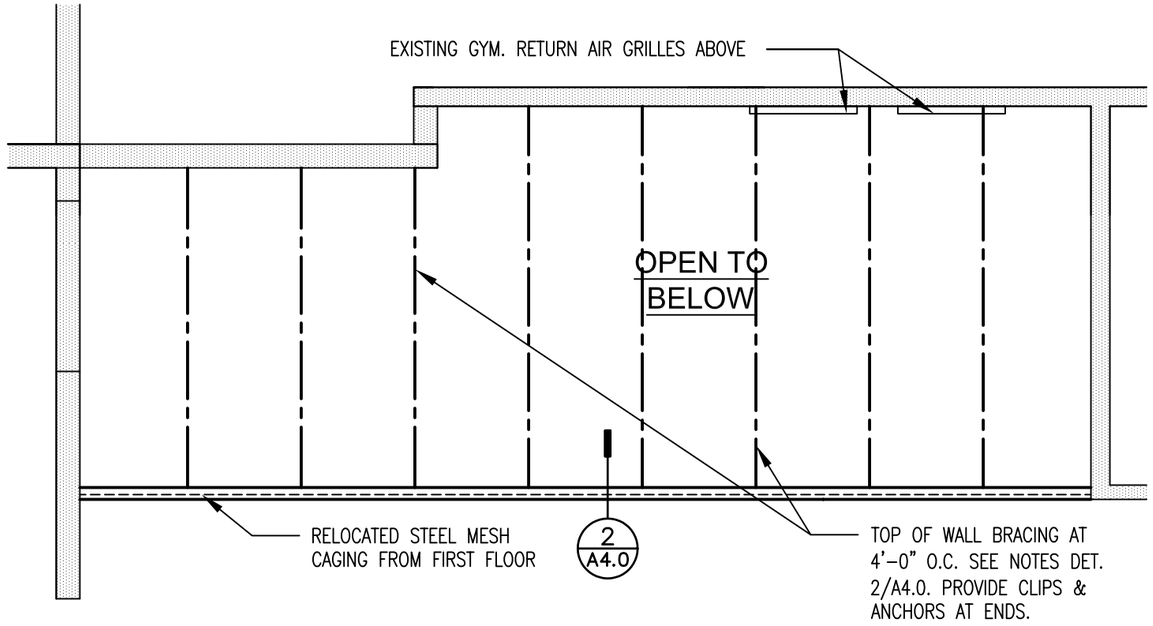
FIRST FLOOR PLAN

DAS PROJECT NO. 9289.00

GEN PROJECT NO. 2205

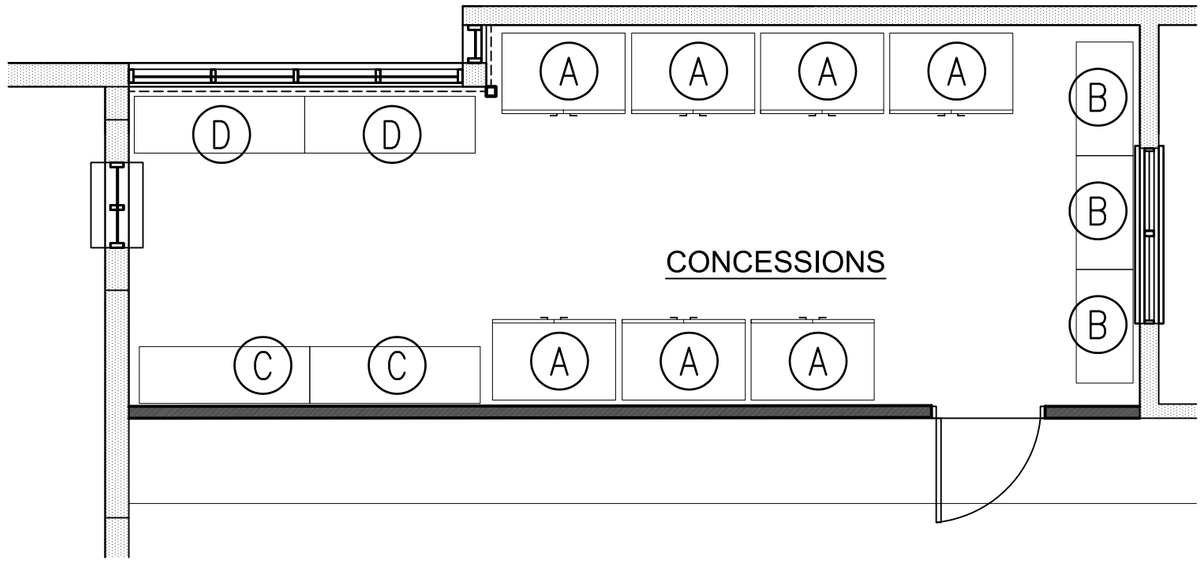
ISSUE DATE AUG. 3, 2023

SHEET NUMBER A1.0



UPPER CONCESSION PLAN AREA

SCALE: 3/16" = 1'-0"



FIRST FLOOR EQUIPMENT PLAN

SCALE: 3/16" = 1'-0"

EQUIPMENT KEYNOTES:

NOTE: ALL EQUIPMENT WILL BE PROVIDED BY THE OWNER

A REACH IN COOLER UNIT (TRAULSEN) 4'-4" X3'-0"

B. 4'W X 2'D X 6' HIGH STAINLESS STL SHELVING

C. 6'W X 2'D X 6' HIGH STAINLESS STL SHELVING

D. STAINLESS STEEL WORK TABLE, 72" X 24"

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

EQUIPMENT PLAN AND UPPER CONCESSION PLAN

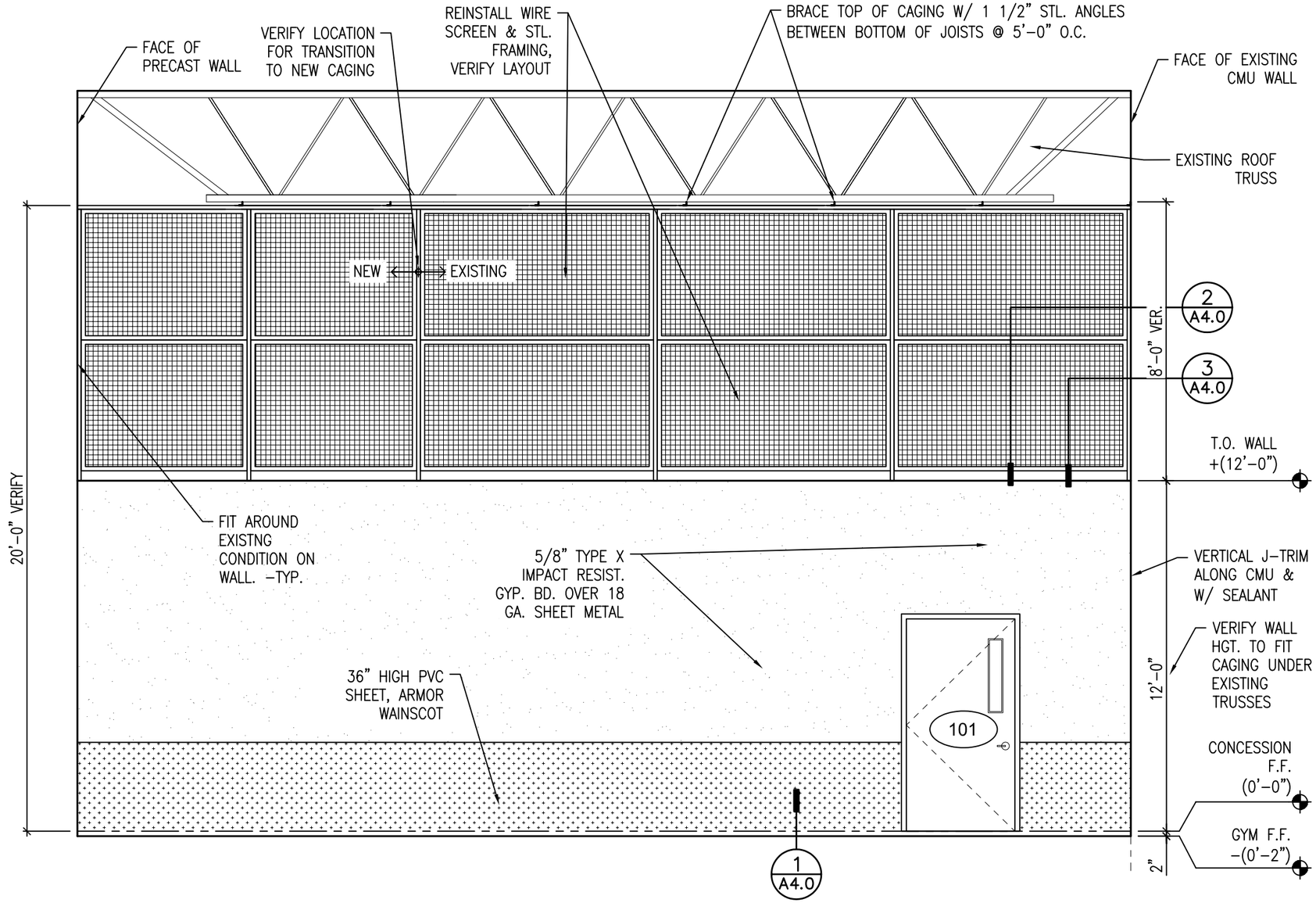
DAS PROJECT NO. 9289.00

GEN PROJECT NO. 2205

ISSUE DATE AUG. 3, 2023

SHEET NUMBER A1.1

NOTE: 0'–0" AT CONCESSION F.F.	
–CONCESSION F.F.	(0'–0")
–GYM F.F.	–(0'–2")



GYM ELEVATION

SCALE: 1/4" = 1'-0"

1 / A2.0

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

GYM ELEVATION

DAS PROJECT NO. 9289.00

GEN PROJECT NO. 2205

ISSUE DATE AUG. 3, 2023

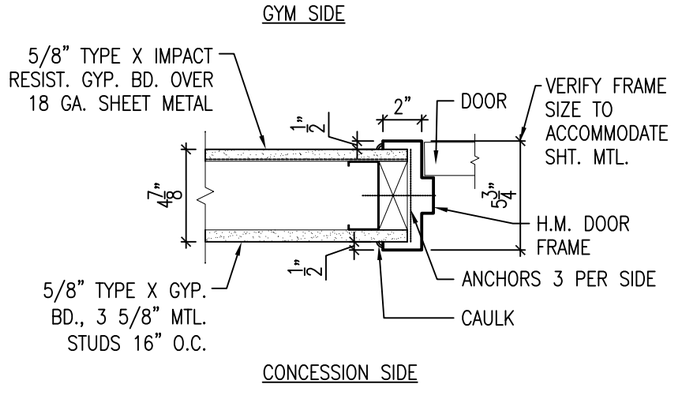
SHEET NUMBER A2.0

OPENING SCHEDULE (FIELD VERIFY ALL DIMENSIONS)

NO.	LOCATION	DOOR / WINDOW SIZE (W x H X D) (NOMINAL)	TYPE OF OPENING: DOOR: GATE	DOOR: HM MTL DOOR	DOOR: ALUM	DOOR: DOOR TYPE	OTHER: BORROWED LITE	OTHER: ALUM. WINDOW	OTHER: OPENING ONLY	LABEL: NO RATING	LABEL: 20 MINUTE	LABEL: 60 MINUTE	LABEL: 90 MINUTE	FRAME ELEVATION	GLAZING: 3/16" SHEET (H.S.)	GLAZING: 1/4" POLISH PLATE (PL)	GLAZING: 1/4" WIRE PLATE (W.P.)	GLAZING: INSULATING	GLAZING: TEMPERED	GLAZING: DARK TINT	GLAZING: ALUM. COMP. PANEL	HARDWARE GROUP	LINTEL	REMARKS & HARDWARE GROUP
																								NOTE: FOR LINTELS – SEE STRUCTURAL
101	CONCESSION	3'–8" X 7'–0" X 1 3/4"		●		101					●			HM–1					●			1		SEE STRUCTURAL FOR LINTEL
A	CONCESSION	3'–0" X 3'–0" WINDOW						●		●				–				●	●					SEE STRUCTURAL FOR LINTEL, COORDINATE R.O. W/ UNIT SIZE

COORDINATE KEY REQUIREMENTS WITH FACILITY STAFF. PROVIDE LOCKSETS TO MATCH OWNER'S 7 PIN LOCK CORES. OWNER WILL CUT KEYS.

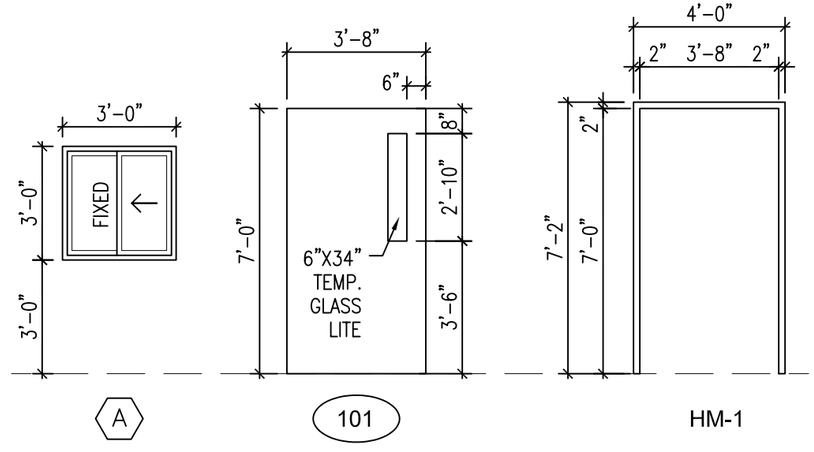
HARDWARE GROUP 1
1 – LEVER LOCK SET (STORAGE FUNCTION)
3 – HINGES (NRP)
1 – CLOSER
1 – OVERHEAD STOP
1 – SMOKE GASKET
1 – 42" X 30" PVC ARMOR PLATE (BOTH SIDES)



JAMB DETAIL

SCALE: 1 1/2" = 1'-0"

2 / A3.0



DOOR, WINDOW & FRAME ELEVATION

SCALE: 1/4" = 1'-0"

1 / A3.0

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

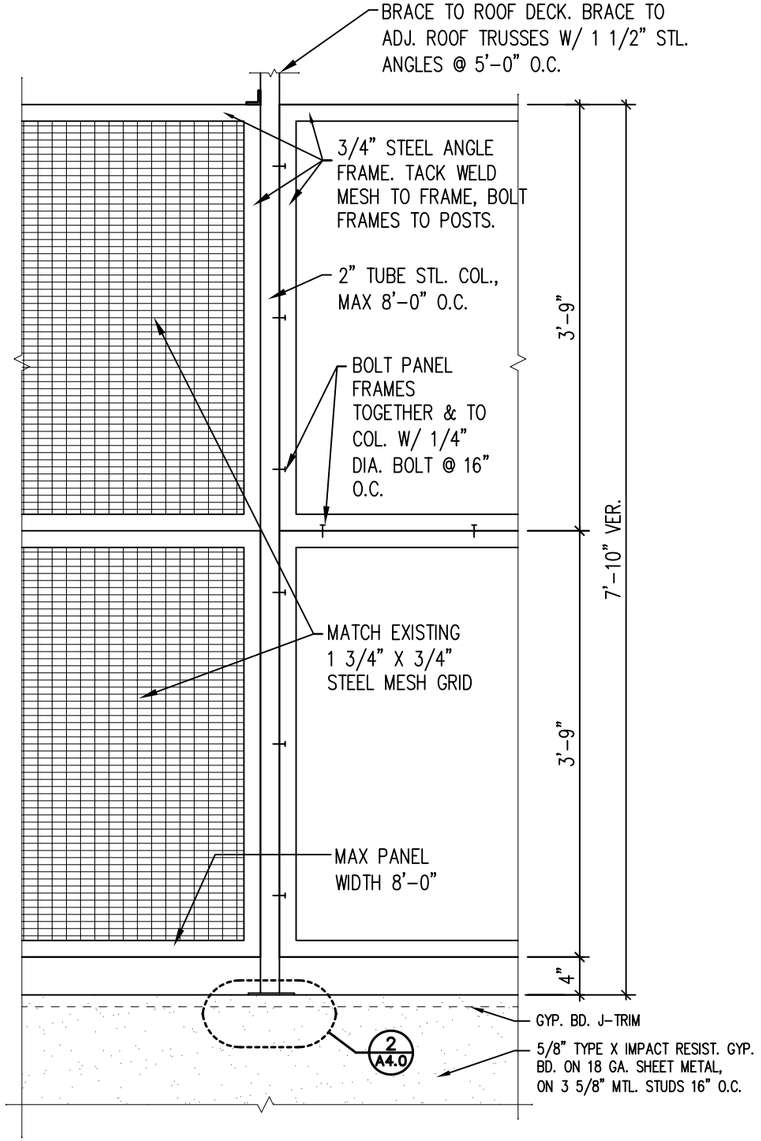
DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

OPENING SCHEDULE & DETAILS

DAS PROJECT NO. 9289.00
GEN PROJECT NO. 2205
ISSUE DATE AUG. 3, 2023
SHEET NUMBER A3.0

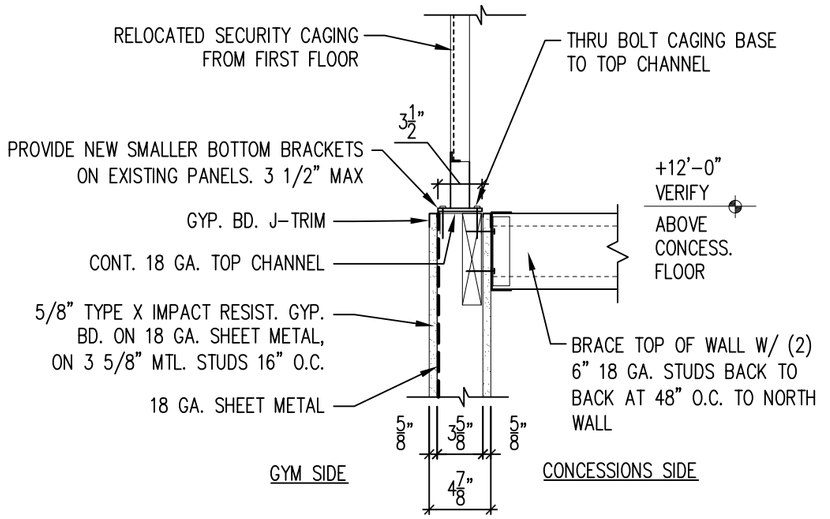
NOTES:
- VERIFY AND MATCH ALL COMPONENTS OF EXISTING SECURITY CAGING. PAINT NEW CAGING TO MATCH EXISTING OR PROVIDE PREFINISHED.
- CONTRACTORS' OPTION TO PROVIDE PREFABRICATED CAGING PANELS TO MATCH.
- EXISTING SECURITY CAGING PANELS ARE 10 GA. WIRE MESH BY WIRE CRAFTERS LLC IN LOUISVILLE, KY.



SCREEN WALL

SCALE: 3/4" = 1'-0"

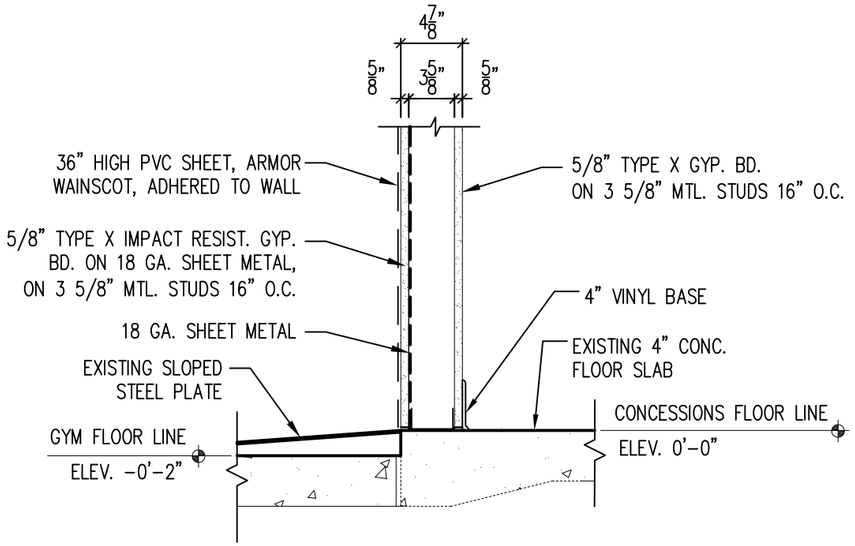
3 A4.0



SECTION DETAIL

SCALE: 1" = 1'-0"

2 A4.0



SECTION DETAIL

SCALE: 1" = 1'-0"

1 A4.0

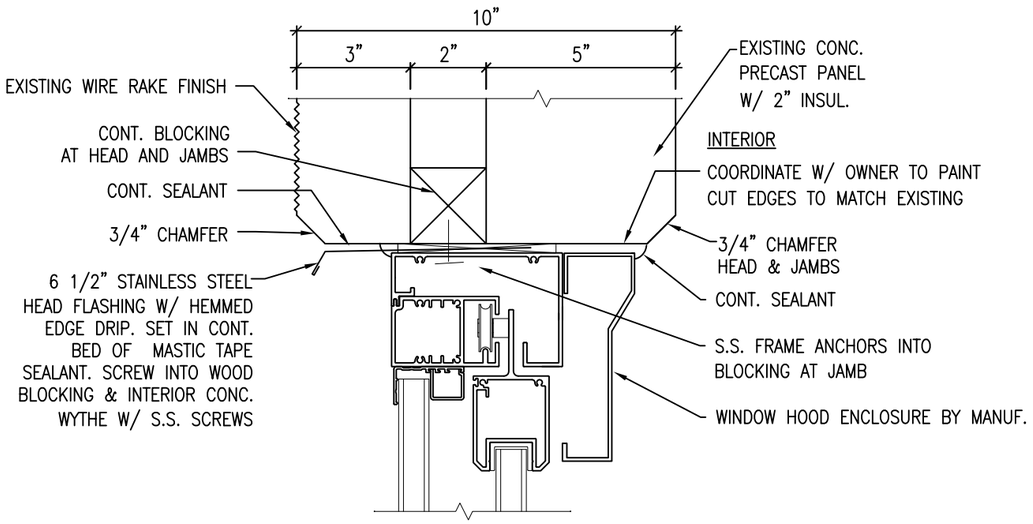
939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

DETAILS

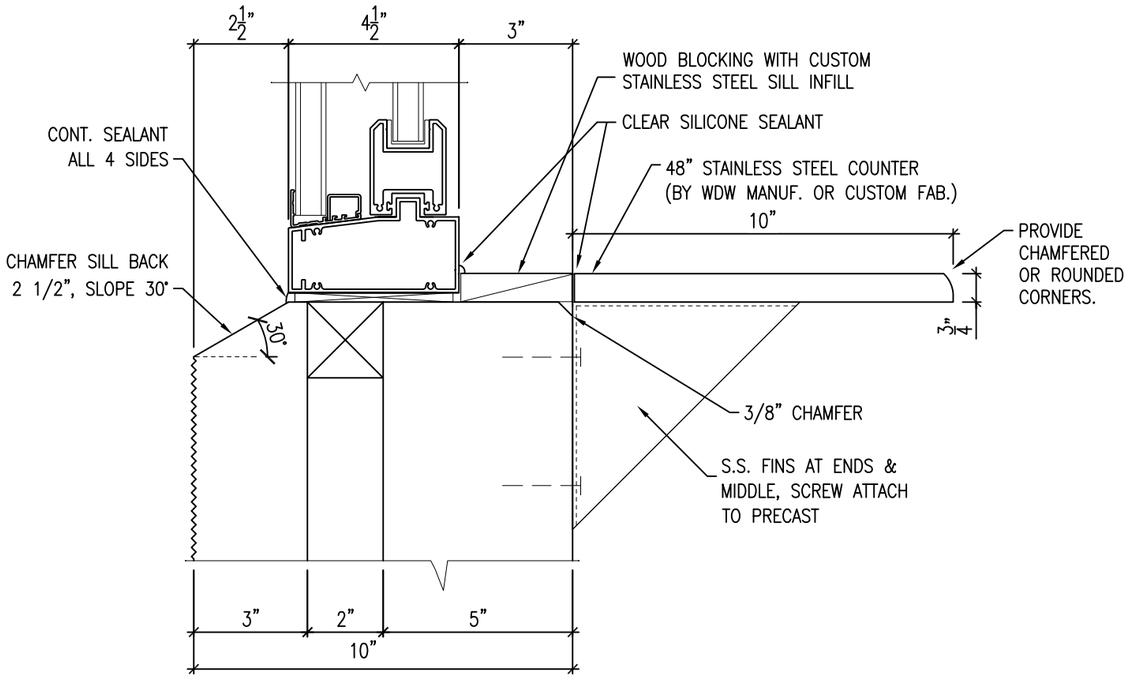
DAS PROJECT NO.	9289.00
GEN PROJECT NO.	2205
ISSUE DATE	AUG. 3, 2023
SHEET NUMBER	A4.0



WINDOW HEAD & SILL DETAIL

SCALE: 3" = 1'-0"

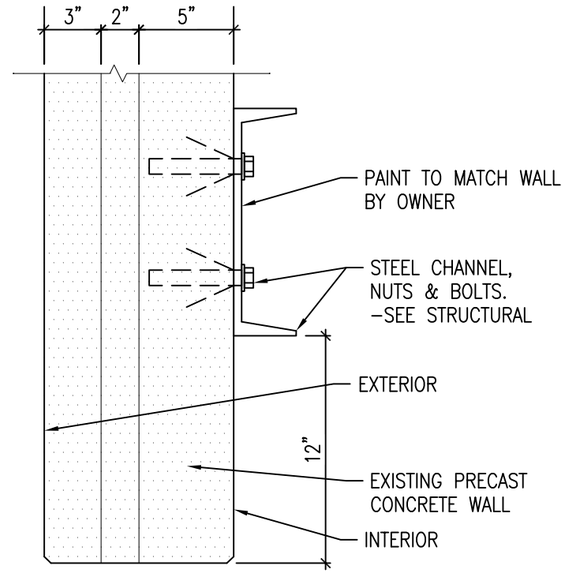
3 / A4.1



INTERIOR WINDOW ELEVATION

SCALE: 1/4" = 1'-0"

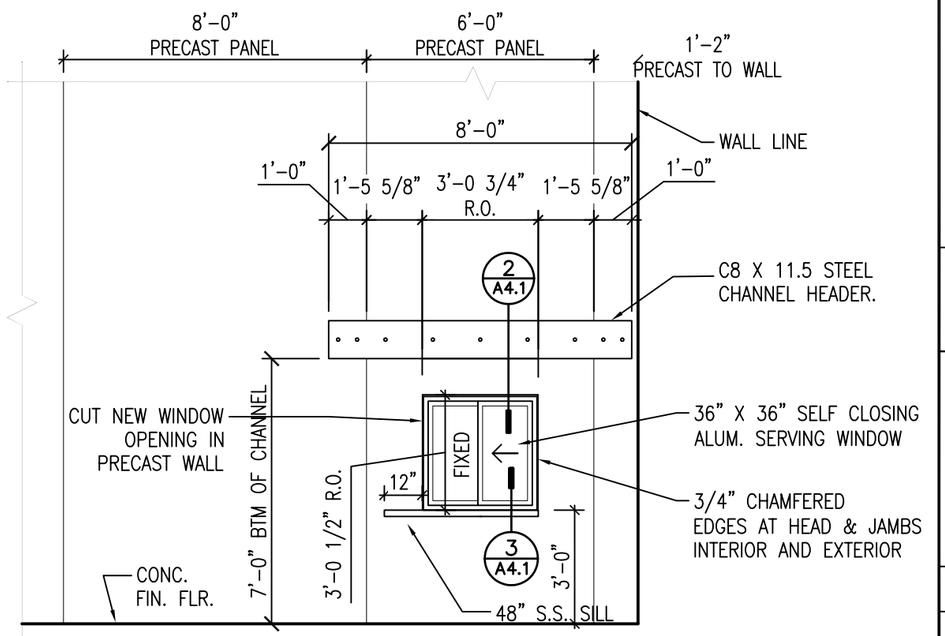
1 / A4.1



HEADER DETAIL

SCALE: 1 1/2" = 1'-0"

2 / A4.1



939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

DETAILS

DAS PROJECT NO. 9289.00

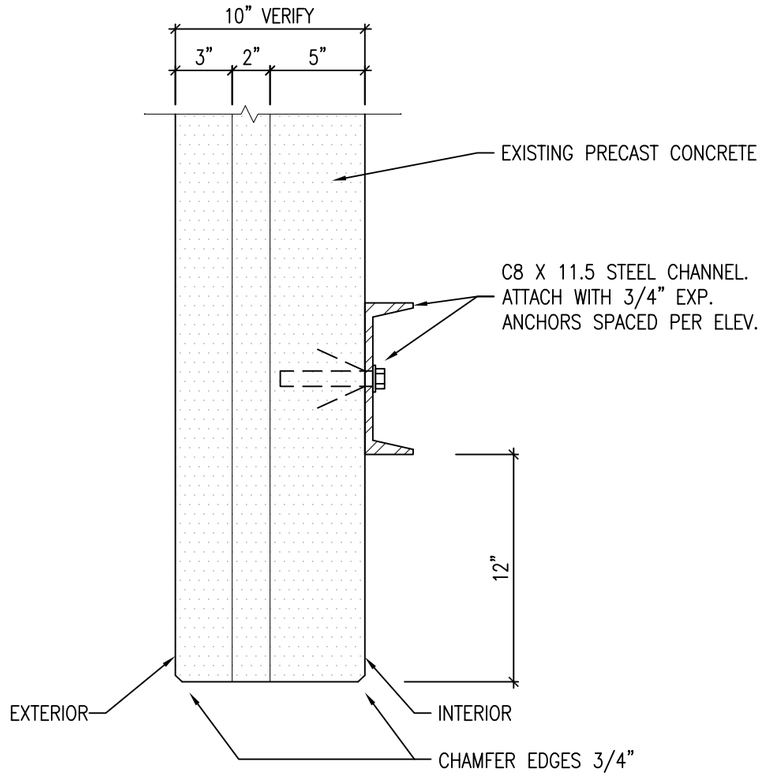
GEN PROJECT NO. 2205

ISSUE DATE AUG. 3, 2023

SHEET NUMBER A4.1

STRUCTURAL NOTES:

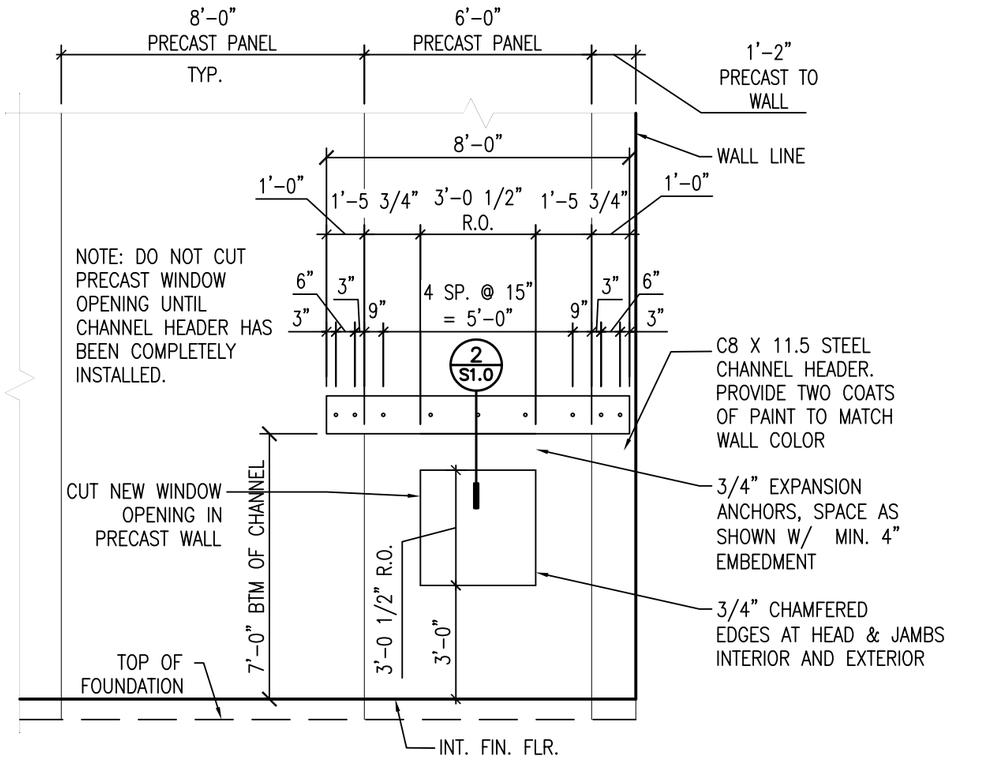
1. FIELD VERIFY ALL MEASUREMENTS BEFORE FABRICATING.
2. ALL STRUCTURAL STEEL TO BE SHOP PRIMED & PAINTED BLACK SATIN ALKYD PAINT. FIELD TOUCH UP AS NEEDED.
3. STRUCTURAL STEEL, STEEL PLATES AND OTHER SHAPES: AISC SPECS. A36
4. DOOR LINTEL: PR. 6" STEEL STUD FRAMED BOX LINTEL BACK TO BACK. 8" BEARING EA. END.



HEADER DETAIL

SCALE: 1 1/2" = 1'-0"

2 / S1.0



PRECAST WINDOW ELEVATION

SCALE: 1/4" = 1'-0"

1 / S1.0

939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

STRUCTURAL DETAILS

DAS PROJECT NO. 9289.00

GEN PROJECT NO. 2205

ISSUE DATE AUG. 3, 2023

SHEET NUMBER **S1.0**

ELECTRICAL NOTES:

(A) REMOVE EXISTING BRANCH PANEL, BREAKERS AND ASSOCIATED CONDUITS AND CONDUCTORS. RELOCATE TO LOCATION INDICATED IN PENTHOUSE.

(B) EXISTING MAIN DISTR. PANEL. TIE IN FOR NEW BRANCH CONDUIT FEED.

(C) RELOCATE BRANCH PANEL FROM FIRST FLOOR TO PENTHOUSE. REWORK EXISTING 60 AMP TO 100 AMP PANEL. ALL NEW WIRING FOR NEW 100 AMP SERVICE PANEL.

(D) EXISTING FIRE ALARM STROBE.

(E) NEW FIRE ALARM STROBE DEVICE WITH GUARD. TIE INTO EXISTING FIRE ALARM SYSTEM.

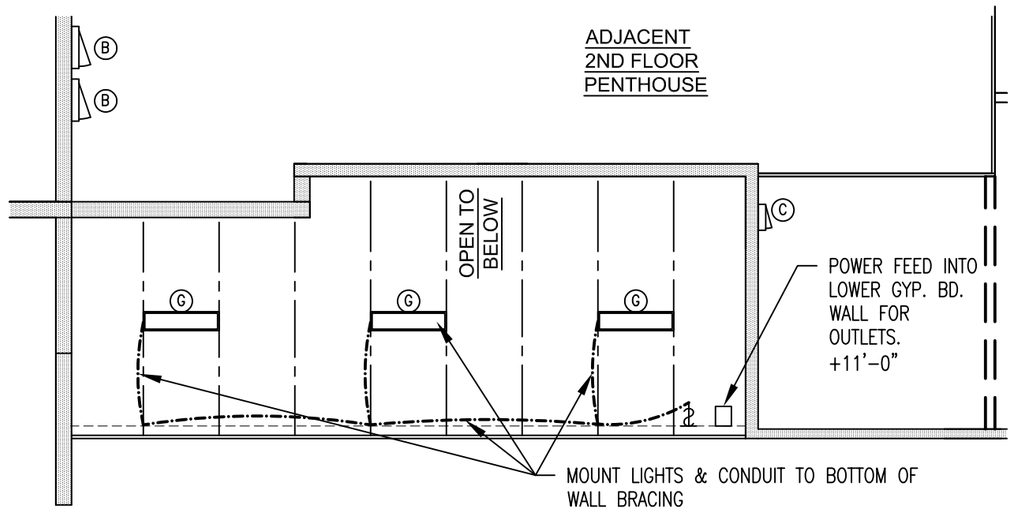
(F) INDICATES DEDICATED CIRCUIT.

(G) SURFACE MOUNT 1 FT. X 4 FT. LED LIGHTS.

BASE OF DESIGN:

LITHONIA CLX-L48-5000LM-SEF-RDL-WD-MVOLT-GZ10-40K-80CRI

(OR APPROVED EQUAL)



ELECTRICAL PLAN - UPPER GYM

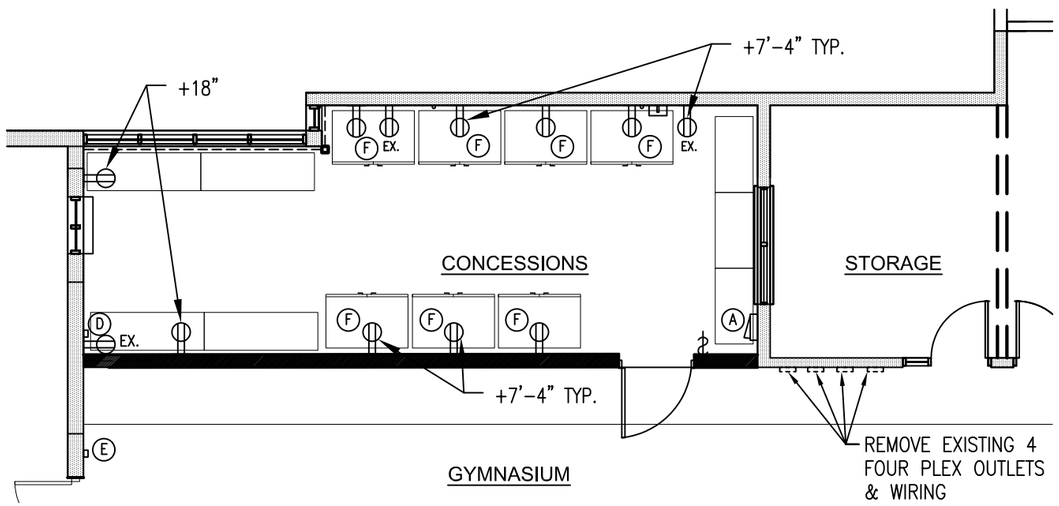
2 / E1.0

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. FIELD VERIFY ALL MEASUREMENTS AND QUANTITIES.
2. ALL ELECTRICAL WORK IS TO BE CONSTRUCTED IN COMPLIANCE WITH STATE BUILDING CODES. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES.
3. CONTRACTOR IS RESPONSIBLE TO COORDINATE AND VERIFY WITH OTHER TRADES, THE LOCATIONS AND DIMENSIONS OF OPENINGS, SLEEVES, ROUGH-INS, AND OTHER PROJECT SCOPE AND CONDITIONS.
4. ANY CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR PERFORMING THE WORK.
5. CONTRACTOR TO COORDINATE AND SCHEDULE ALL REQUIRED ELECTRICAL INSPECTIONS.
6. FACILITY STAFF WILL SELF PERFORM ANY ADDITIONAL ELECTRICAL WORK NOT SHOWN.
7. PAINT ALL EXPOSED CONDUITS AND BOXES TO MATCH ADJACENT WALL. (BY OWNER)
8. ALL DEVICE COVERS TO BE STAINLESS STEEL.
9. NOTE THAT ALL CONDUITS ON EXISTING WALLS WILL BE SURFACE MOUNTED. RECESS OUTLETS IN NEW FRAMED GYP. BD. WALL.
10. FIRESTOP ALL PENETRATIONS INTO PENTHOUSE.

NOTE: EXISTING FIRE ALARM SYSTEM IS BY SIMPLEX. ALL FIRE ALARM DEVICES MUST BE TIED INTO THE OWNER'S EXISTING SYSTEM. PERFORM FUNCTIONAL TESTS FOR FAULTS BEFORE REACTIVATING SYSTEM ZONE.

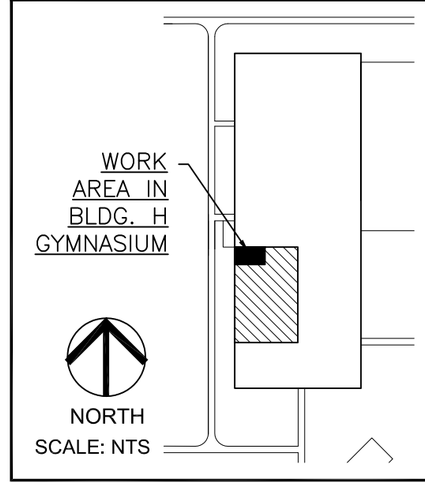


ELECTRICAL POWER PLAN - FIRST FLOOR

1 / E1.0

SCALE: 1/8" = 1'-0"

KEY PLAN: BUILDING "H"
FT DODGE CORRECTIONAL FACILITY



939 OFFICE PARK RD., #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DOC FDCF BLDG H
GYM CONCESSIONS
FOR
FT. DODGE CORRECTIONAL FACILITY

BID DRAWINGS

ELECTRICAL PLANS

DAS PROJECT NO. 9289.00

GEN PROJECT NO. 2205

ISSUE DATE AUG. 3, 2023

SHEET NUMBER E1.0

GENESIS
ARCHITECTURAL DESIGN

SPECIFICATIONS MANUAL FOR:

DOC FDCF BLDG H GYM CONCESSIONS

AT THE

FT. DODGE CORRECTIONAL FACILITY
FT DODGE, IA

DAS Project Numbers
9289.00

GENESIS Project No. 2205

OWNER:
Iowa Department of Administrative Services
Architectural & Engineering Services
109 SE 13th Street
Des Moines, IA 50319
Phone: (515) 822-8197

ARCHITECT:
GENESIS Architectural Design
939 Office Park Road, Suite 101
West Des Moines, Iowa 50265
Phone: (515) 440-1681

Construction Manager:
McGough Construction
217 E. 2nd Street, Suite 120
Des Moines, IA 50309
Adam Douglas, PM
Cell: 515-240-8629

SECTION 00 0105 – CERTIFICATION PAGE

I hereby certify that the portion of this technical submission described below was prepared by me or under my supervision and responsible charge. I am a duly registered architect under the laws of the state of Iowa.

GENESIS Architectural Design
Edward L. Matt, AIA

Signature

Pages or sheets covered in part or whole by this seal:
Specifications Div.1 thru 26.

Date Issued: August 3, 2023

I hereby certify that the portion of this technical submission described below was prepared by me or under my supervision and responsible charge. I am a duly licensed Professional Engineer under the laws of the state of Iowa.

Casey L. Adams Reg No. 23175

Pages or sheets covered in part or whole by this seal:
Specifications Div.23 thru 26.

Date Issued: August 3, 2023

SECTION 00 0115 – ENUMERATION OF DRAWINGS

ARCHITECTURAL DRAWINGS
A0.0 COVER, SHEET INDEX & CONTACTS
A0.1 SYMBOLS, LEGEND & ABBREVIATIONS
A0.2 LOCATION MAP AND STAGING
A0.3 CODE INFORMATION
A1.0 FIRST FLOOR PLAN
A1.1 EQUIPMENT PLAN & UPPER CONCESSIONS PLAN
A2.0 GYM ELEVATION
A3.0 OPENING SCHEDULE & DETAILS
A4.0 DETAILS
A4.1 DETAILS

STRUCTURAL DRAWINGS
S1.0 STRUCTURAL DETAILS

ELECTRICAL DRAWINGS
E1.0 ELECTRICAL PLANS

SECTION 01 1000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Work covered by the Contract Documents.
2. Work under other contracts.
3. Use of premises.
4. Specification formats and conventions.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Project # 2205, DOC FDCF Building H Gym Concessions.

B. Project Location: Building H Gymnasium, Ft. Dodge Correctional Facility, 1550 L Street, Ft. Dodge IA 50501.

C. Owners: State of Iowa, Department of Administrative Services, 109 SE 13th Street, Des Moines, Iowa 50319.

D. Client: Iowa Dept., of Corrections, Ft. Dodge Correctional Facility, 1550 L Street, Ft. Dodge IA 50501.

E. Construction Manager: Amy Fetters, McGough Construction, 217 E. 2nd St, Suite 120, Des Moines, IA 50309.

F. Architect: Edward L. Matt, AIA, GENESIS Architectural Design, 939 Office Park Road, West Des Moines, Iowa 50265.

G. The Work consists of the following:

The Work consists of renovating a 470 square foot existing exercise area of the gym in Building H into a concession room. Demolition includes cutting a window into an existing exterior precast concrete panel, and removing and relocating existing security caging. New construction consists of additional security caging, hollow metal door and frame, exterior aluminum window, metal framing studs with gypsum board and sealants.

Electrical work includes minor demolition, conduit, wiring, relocating an existing branch distribution panel, and lighting. Other construction includes adding a fire alarm/strobe.

1.3 WORK PHASES

A. The Work shall be conducted in a single phase.

B. Before commencing Work submit a schedule showing the sequence, commencement and completion dates for all portions of the Work.

1.4 USE OF PREMISES

A. General: Contractors shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.

B. Use of Site: Limit use of premises to work in the immediate construction areas of the building. Do not disturb portions of project site beyond. Coordinate in advance for access to any areas outside of the immediate work area.

1. Limits: Confine construction operations to limit site disturbance to the property immediately surrounding the building unless pre-approved by Owner.

C. Use of Existing Building: Maintain existing building in a weather tight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

1. Driveways and Entrances: Keep roads, driveways, loading areas, and entrances serving premises clear and available at all times. Do not use these areas for parking or storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

2. Demolition and Hauling: Coordinate daily trips in and out of secure prison facility for materials in and demolition out. See Rules for Construction Workers.

1.5 OWNER'S OCCUPANCY REQUIREMENTS

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

1. Maintain access to existing walkways, and other adjacent occupied or used facilities. Do not close or obstruct walkways, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.

1.6 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are organized into Divisions and Sections using the 33-division format and CSI/CSC's "Master Format" numbering system.

1. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.

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

1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

    a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 1000

SECTION 02 4119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes demolition and removal of selected portions of building or structure.

1.2 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 them for reuse, and reinstall them where indicated.

C. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 SUBMITTALS

A. Schedule of Selective Demolition Activities: Submit proposed demolition schedule to Construction Manager and Architect for review, discussion, coordination and approval at Pre-Construction Conference. This can be incorporated as a part of the overall project schedule. Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity, interruption of utility services, and locations of temporary partitions and means of egress.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Predemolition Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

A. Owner will occupy portions of buildings immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the work.
   1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.

E. Storage or sale of removed items or materials on or off site is not permitted.

F. 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 (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. 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.

D. Review building conditions to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.

E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.

B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.

   1. Arrange to shut off indicated utilities with facility staff. Coordinate 72 hours prior with Owner.

2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.

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.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required. Record existing conditions by use of preconstruction photographs.

C. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

3.4 SELECTIVE DEMOLITION

A. General: Do not demolish building elements beyond what is indicated on Drawings without Architect's approval. 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. 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 storage.
3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment.

C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be reused or reinstalled; remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill. 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 02 4119

SECTION 05 1200 - STRUCTURAL STEEL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes structural steel.

1.2 SUBMITTALS

A. Shop Drawings: Show fabrication of structural-steel components.

1.3 QUALITY ASSURANCE

A. Fabricator Qualifications: A qualified fabricator who participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD**,** or is accredited by the IAS Fabricator Inspection Program for Structural Steel (AC 172).

B. Comply with applicable provisions of the following specifications and documents:

1. AISC 303.
2. AISC 360.
3. RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."

PART 2 - PRODUCTS

2.1 STRUCTURAL-STEEL MATERIALS

A. Channels, Angles**,** and Shapes: ASTM A 36/A 36M, Grade 36.

2.2 BOLTS, CONNECTORS, AND ANCHORS

A. High-Strength Bolts, Nuts, and Washers: ASTM A 325 (ASTM A 325M), Type 1, heavy hex steel structural bolts; ASTM A 563 (ASTM A 563M) heavy hex carbon-steel nuts; and ASTM F 436 (ASTM F 436M) hardened carbon-steel washers.

B. Shear Connectors: ASTM A 108, Grades 1015 through 1020, headed-stud type, cold-finished carbon steel; AWS D1.1, Type B.

2.3 PRIMER

A. Primer: SSPC-Paint 25, Type II, iron oxide, zinc oxide, raw linseed oil, and alkyd.

B. Primer: Fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.

2.4 FABRICATION

A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC's "Code of Standard Practice for Steel Buildings and Bridges."

2.5 SHOP PRIMING

A. Shop prime steel surfaces except the following:

1. Surfaces to be high-strength bolted with slip-critical connections.
2. Surfaces enclosed in interior construction.

B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:

1. SSPC-SP 2, "Hand Tool Cleaning."
2. SSPC-SP 3, "Power Tool Cleaning."

C. Priming: Immediately after surface preparation, apply primer according to manufacturer's written instructions and at rate recommended by SSPC to provide a dry film thickness of not less than 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.

PART 3 - EXECUTION

3.1 ERECTION

A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.

3.2 FIELD CONNECTIONS

A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.

END OF SECTION 05 1200

SECTION 05 5000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Miscellaneous steel angle bracing and supports.
2. Miscellaneous steel trim. (For Security Caging if not purchasing prefabricated Units)

A. Products furnished, but not installed, under this Section include the following:

1. Steel angles, steel tubes, framing angles and channels.
2. Metal wire mesh.

1.2 ACTION SUBMITTALS

A. Product Data: For each steel trim profile, metal wire mesh, and steel angles.

B. Shop Drawings: Show fabrication and installation details. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

1.3 SUBMITTALS

A. Shop Drawings: Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.

2.2 METALS

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

B. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

C. Steel Tubing: ASTM A 500/A 500M, cold-formed steel tubing.

D. Slotted Channel Framing: Cold-formed metal box channels (struts) complying with MFMA-4.

1. Size of Channels: As indicated to match existing security caging.

2.3 FASTENERS

A. General: Zinc-plated fasteners with coating complying with ASTM B 633, at exterior walls. Select fasteners for type, grade, and class required.

2.4 MISCELLANEOUS MATERIALS

A. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.

2.5 FABRICATION

A. General: Preassemble items in the shop to greatest extent possible. Use connections that maintain structural value of joined pieces.

1. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges. Remove sharp or rough areas on exposed surfaces.
2. Weld corners and seams continuously. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals. Obtain fusion without undercut or overlap. Remove welding flux immediately. Finish exposed welds smooth and blended.
3. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Locate joints where least conspicuous.

2.6 MISCELLANEOUS STEEL TRIM

A. Unless otherwise indicated, fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible.

B. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work.

C. Prime miscellaneous steel trim with zinc-rich primer.

2.7 STEEL ANGLES

A. Provide steel angles not specified in other Sections, for items supported or braced as needed to complete the Work.

2.8 FINISHES

A. Steel and Iron Finishes:

1. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with requirements indicated below for environmental exposure conditions of installed metal fabrications:

a. Exteriors (SSPC Zone 1B) and Items Indicated to Receive Zinc-Rich Primer: "Commercial Blast Cleaning."
b. Interiors (SSPC Zone 1A): "Power Tool Cleaning."

2. Shop Priming: Apply shop primer to uncoated surfaces of metal fabrications, except those with galvanized finishes and those to be embedded in concrete, sprayed-on fireproofing, or masonry, to comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting," for shop painting.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B. Fit exposed connections accurately together to form hairline joints.

C. Field welding is not allowed.

D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.

3.2 ADJUSTING AND CLEANING

A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

END OF SECTION 05 5000

SECTION 07 8400 - PENETRATION FIRESTOPPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Penetrations in fire-resistance-rated walls.
2. Penetrations in horizontal assemblies.
3. Penetrations in smoke barriers.

1.2 PERFORMANCE REQUIREMENTS

A. General: For penetrations through fire-resistance-rated constructions, including both empty openings and openings containing penetrating items, provide through-penetration firestop systems that are produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated.

B. Rated Systems: Provide through-penetration firestop systems with the following ratings determined per ASTM E 814.

1. F-Rated Systems: Provide through-penetration firestop systems with F-ratings indicated, but not less than that equaling or exceeding fire-resistance rating of constructions penetrated.

2. Provide minimum system rating for 1 hour rated fire resistance.

C. For through-penetration firestop systems exposed to view, traffic, moisture, and physical damage, provide products that, after curing, do not deteriorate when exposed to these conditions both during and after construction.

1. For piping penetrations on exterior walls, provide moisture-resistant through-penetration firestop systems.
2. For penetrations involving insulated piping, provide through-penetration firestop systems not requiring removal of insulation.

D. For through-penetration firestop systems exposed to view, provide products with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, as determined per ASTM E 84.

1.3 SUBMITTALS.

A. Product Data: For each type of product indicated.

B. Shop Drawings: For each through-penetration firestop system, submit documentation, including illustrations, from a qualified testing and inspecting agency, showing each type of construction condition penetrated, relationships to adjoining construction, and type of penetrating item.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: A firm that has been approved by FMG according to FMG 4991, "Approval of Firestop Contractors."

B. Installation Responsibility: Assign installation of through-penetration firestop systems in Project to a single qualified installer.

C. Coordinate construction of openings and penetrating items to ensure that through-penetration firestop systems are installed according to specified requirements.

D. Do not cover up through-penetration firestop system installations that will become concealed behind other construction until each installation has been examined by building inspector, if required by authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, through-penetration firestop systems that may be incorporated into the Work include, but are not limited to, those systems indicated that are produced by one of the following manufacturers:

1. A/D Fire Protection Systems Inc.
2. Grace, W. R. & Co. - Conn.
3. Hilti, Inc.
4. Johns Manville.
5. Nelson Firestop Products.
6. 3M; Fire Protection Products Division.
7. Tremco; Sealant/Weatherproofing Division.
8. Others as pre-approved.

2.2 FIRESTOPPING

A. Compatibility: Provide through-penetration firestop systems that are compatible with one another; with the substrates forming openings; and with the items, if any, penetrating through-penetration firestop systems, under conditions of service and application, as demonstrated by through-penetration firestop system manufacturer based on testing and field experience.

B. Accessories: Provide components for each through-penetration firestop system that are needed to install fill materials and to comply with Part 1 "Performance Requirements" Article. Use

only components specified by through-penetration firestop system manufacturer and approved by qualified testing and inspecting agency for firestop systems indicated.

1. Provide metal sleeves in bored holes at masonry walls.

PART 3 - EXECUTION

3.1 THROUGH-PENETRATION FIRESTOP SYSTEM INSTALLATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of the Work.

B. General: Install through-penetration firestop systems to comply with Part 1 "Performance Requirements" Article and with firestop system manufacturer's written installation instructions and published drawings for products and applications indicated.

C. Install forming/damming/backing materials and other accessories of types required to support fill materials during their application and in the position needed to produce cross-sectional shapes and depths required to achieve fire ratings indicated.

1. After installing fill materials and allowing them to fully cure, remove combustible forming materials and other accessories not indicated as permanent components of firestop systems.

D. Install fill materials for firestop systems by proven techniques to produce the following results:

1. Fill voids and cavities formed by openings, forming materials, accessories, and penetrating items as required to achieve fire-resistance ratings indicated.
2. Apply materials so they contact and adhere to substrates formed by openings and penetrating items.
3. For fill materials that will remain exposed after completing Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.

3.2 IDENTIFICATION

A. Wall Identification: Permanently label walls containing penetration firestopping systems with the words "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS," using lettering not less than 3 inches high and with minimum 0.375-inch strokes.

B. Penetration Identification: Identify each penetration firestopping system with legible metal or plastic labels. Attach labels permanently to surfaces adjacent to and within 6 inches of penetration firestopping system edge so labels are visible to anyone seeking to remove penetrating items or firestopping systems. Use mechanical fasteners or self-adhering-type labels with adhesives capable of permanently bonding labels to surfaces on which labels are placed. Include the following information on labels:

1. The words "Warning - Through-Penetration Firestop System - Do Not Disturb."
2. Contractor's name, address, and phone number.
3. Date of installation.
4. Firestop system manufacturer's name.

3.3 FIELD QUALITY CONTROL

A. Architect will inspect through-penetration firestops. Where deficiencies are found, repair or replace through-penetration firestop systems so they comply with requirements.

B. Proceed with enclosing through-penetration firestop systems with other construction only after inspection and firestop installations comply with requirements.

END OF SECTION 07 8400

SECTION 07 9200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes joint sealants for the following applications:

1. Exterior joints in vertical surfaces and horizontal nontraffic surfaces.
2. Interior joints in vertical surfaces and horizontal non-traffic surfaces.
3. Interior joints in horizontal traffic surfaces.

1.2 PERFORMANCE REQUIREMENTS

A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

1.3 SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Color Samples: Submit color charts or actual samples for each type and color of joint sealant required.

1.4 WARRANTY

A. Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those 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.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed in other Part 2 articles.

2.2 MATERIALS, 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 sealant manufacturer, based on testing and field experience.

B. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

1. Sealants: 250 g/L.
2. Sealant Primers for Nonporous Substrates: 250 g/L.
3. Sealant Primers for Porous Substrates: 775 g/L.

C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.3 ELASTOMERIC JOINT SEALANTS

A. Elastomeric Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

C. Suitability for Contact with Food: Where elastomeric sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

D. Single-Component Silicone Sealant:

1. Available Products:

a. Dow Corning Corporation;
b. GE Silicones;
c. Pecora Corporation;
d. Sika Corporation, Inc.;
e. Tremco;
f. Others as pre-approved.

2. Type and Grade: S (single component) and NS (nonsag).
3. Class: 50.
4. Use Related to Exposure: I for water.
5. Uses Related to Joint Substrates: O as applicable to joint substrates indicated.

E. Single-Component Nonsag Urethane Sealant:

1. Available Products:

a. Bostik Findley.

b. Pecora Corporation; Dynatrol I-XL.
c. Polymeric Systems Inc.
d. Sika Corporation, Inc.; Sikaflex 15LM
e. MasterSeal Sonneborn: NP-1.
f. Tremco; DyMonic.
g. Tremco; Vulkem 116.
h. Others as pre-approved.

2. Type and Grade: S (single component) and NS (nonsag).
3. Class: 35.
4. Use Related to Exposure: NT (nontraffic).

F. Latex Sealant: Comply with ASTM C 834, Type O P, Grade NF.

a. Available Products:
b. Bostik Findley; Chem-Calk 600.
c. Pecora Corporation; AC-20+.
d. Schnee-Morehead, Inc.; SM 8200.
e. Sonneborn, Division of ChemRex Inc.; Sonolac.
f. Tremco; Tremflex 834.
g. Others as pre-approved.

2.4 JOINT-SEALANT BACKING

A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. 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 where such adhesion would result in sealant failure. 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: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant.

a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.

B. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on 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 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.

3.2 INSTALLATION

A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

B. For exterior sealants, the temperature must be 40°F (5°C) or above at the time the sealant is applied.

C. Install sealant backings of type 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.

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 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 configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.

G. 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.

3.3 EXTERIOR JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application EJS-1: Exterior perimeter joints between adjacent materials and frames of windows.

1. Joint Sealant: Single-component non-sag polymer modified urethane sealant.
2. Joint-Sealant Color: Match trim color.

3.4 INTERIOR JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application IJS-1: Interior perimeter joints between wall surfaces and frames of doors and windows.

1. Joint Sealant: Latex sealant.
2. Joint-Sealant Color: To be selected. Provide paintable sealant.

B. Joint-Sealant Application IJS-2: Interior joint at stainless steel window sill.

1. Joint Sealant: Single component silicone sealant.
2. Joint-Sealant Color: Clear.

END OF SECTION 07 9200

1.4 QUALITY ASSURANCE

A. Installer: A qualified installer, approved by manufacturer to install manufacturer's products.

1.5 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace aluminum windows that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Failure to meet performance requirements.
b. Structural failures including excessive deflection, water leakage, air infiltration, or condensation.
c. Faulty operation of movable sash and hardware.
d. Deterioration of metals, other materials, and metal finishes beyond normal weathering.
e. Failure of insulating glass.

2. Warranty Period:

a. Window: Two [2] years from date of Substantial Completion.
b. Glazing: See Section 08 8000 Glazing.
c. Metal Finish: Ten [10] years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Drawings are based on Covenant Security Equipment. Model CSE-RA-275-SC-35-35. Subject to compliance with performance requirements, provide a comparable product by one of the following:

1. EFCO Corporation.
2. Gerkin Windows.
3. Kawneer; an Alcoa Company.
4. TRACO.
5. Others as pre-approved.

2.2 ALUMINUM WINDOWS

A. Window Type: Aluminum self-closing drive-through sliding window. Right hand sliding.

B. Comply with AAMA/WDMA 101/I.S.2/NAFS.

1. Performance Class and Grade: HC 45 minimum.

C. Condensation-Resistance Factor (CRF): Provide aluminum windows tested for thermal performance according to AAMA 1503, showing a CRF of 45.

D. Thermal Transmittance: Provide aluminum windows with a whole-window, U-factor maximum indicated at 15-mph exterior wind velocity and winter condition temperatures when tested according to ASTM E 1423. Provide a U-Factor of 0.40 Btu/sq. ft. x h x deg F or less.

2.3 FRAMES

A. Provide window frames, mullions and sashes of aluminum. Provide 4" thick thermally broken frame sections as provided by the manufacturer.

2.4 SILL

A. Stainless Steel Sill: Manufacturer’s standard 10 inch deep interior sill unit fabricated with 13 gauge stainless steel. Furnish with welded 3/4” side returns and end brackets. Covenant Model CSE-RA-SS-4710.

B. Provide a custom stainless steel sill cover over wood blocking to infill between the window and interior sill as shown in Drawings.

2.5 GLAZING

A. Glazing Materials: Refer to Division 08 Section "Glazing" for glazing requirements applicable to glazed aluminum window units.

B. Glass: For standard 1 inch thick insulating-glass units complying with Division 08 Section "Glazing."

2.6 HARDWARE

A. Locking handles shall be cam or spring type and manufactured from high-pressure die-cast zinc with a phosphate coated, electrostatically painted baked enamel finish to match window.

2.7 ACCESSORIES

A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, non-bleeding fasteners and accessories compatible with adjacent materials.

B. Anchors: Expansion type anchors or self tapping anchors that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.

1. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A 123/A 123M or ASTM A 153/A 153M requirements.

SECTION 08 7100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Commercial door hardware.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings:

1. Door Hardware Sets: Prepared by or under the supervision of Installer, detailing fabrication and assembly of door hardware, as well as procedures and diagrams.

a. Format: Use same scheduling sequence and format and use same door numbers as in the Contract Documents.
b. Content: Include the following information:

1) Identification number, location, hand, fire rating, and material of each door and frame.
2) Type, style, function, size, quantity, and finish of each door hardware item. Include description and function of each lockset and exit device.
3) Complete designations of every item required for each door or opening including name and manufacturer.

2. Keying Schedule: Prepared by or under the supervision of Installer, detailing Owner's final keying instructions for locks.

1.3 QUALITY ASSURANCE

A. Installer's responsibilities include supplying and installing door hardware and providing a consultation during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.

B. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver all key blanks and permanent cores, with identifying tags, to Owner or contractor per Owner's instructions.

1.5 WARRANTY

A. Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 3 years from date of Substantial Completion, except as follows:

a. Mortised Locksets: 10 years from date of Substantial Completion.
b. Closers: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Rated Door Assemblies: Where fire-rated doors are indicated, provide door hardware complying with NFPA 80 that is listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.

B. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that complies with requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.

2.2 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in this Section and door hardware sets indicated in the Opening Schedule and door hardware sets indicated in Part 3 "Door Hardware Groups".

1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and products equivalent in function and comparable in quality to named products.
2. References to BHMA Standards: Provide products complying with these standards and requirements for description, quality, and function.

2.3 HINGES, GENERAL

A. Template Requirements: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.

B. Hinge Base Metal: Unless otherwise indicated, provide the following:

1. Interior Hinges: Steel, with steel pin.

2. Hinges for Fire-Rated Assemblies: Steel, with steel pin.

C. Nonremovable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed.

D. Fasteners: Comply with the following:

1. Machine Screws: For metal doors and frames. Install into drilled and tapped holes.

2.4 HINGES

A. Butts and Hinges: BHMA A156.1.

B. Template Hinge Dimensions: BHMA A156.7.

C. Manufacturers:

1. Baldwin Hardware Corporation (BH).
2. Bommer Industries, Inc. (BI).
3. Hager Companies (HAG).
4. McKinney Products Company; an ASSA ABLOY Group company (MCK).
5. Stanley Security Solutions, Inc.; Div. of The Stanley Works (STH).
6. Others as pre-approved.

2.5 LOCKS AND LATCHES, GENERAL

A. Accessibility Requirements: Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.

B. Latches and Locks for Means of Egress Doors: Comply with NFPA 101. Latches shall not require more than 15 lbf to release the latch. Locks shall not require use of a key, tool, or special knowledge for operation.

C. Lock Trim:

1. Levers: Equal to Sargent Heavy Duty 8200 Series, L Style.

D. Lock Throw: Comply with testing requirements for length of bolts required for labeled fire doors.

E. Backset: 2-3/4 inches, unless otherwise indicated.

F. Strikes: Manufacturer's standard strike with strike box for each latchbolt or lock bolt, with curved lip extended to protect frame, finished to match door hardware set.

G. Mortised Locks: BHMA A156.13, Grade 1. Provide and match owner’s existing Sargent 8200 series with L style lever handle. Function as called out in Hardware Groups.

2.6 LOCK CYLINDERS

A. Standard Lock Cylinders: BHMA A156.5, Grade 1.

B. Cylinders: Manufacturer's standard tumbler type, constructed from brass or bronze, stainless steel, or nickel silver, and complying with the following:

1. Number of Pins: Seven.

C. Permanent Cores: Manufacturer's standard; finish face to match lockset; with removable cores.

D. Manufacturer: Provide Sargent cores to match Owner’s existing system.

2.7 KEYING

A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, Appendix A.

B. Owner’s Existing Key System:

1. Existing System: Master key or grand master key locks to Owner's existing system.

C. Keys: Nickel silver; Provide key blanks. Owner’s security staff will cut keys.

D. Quantity: Provide two keys for each lock or core, and two grand master keys.

2.8 CLOSERS

A. Accessibility Requirements: Comply with the following maximum opening-force requirements:
1. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.

B. Door Closers for Means of Egress Doors: Comply with NFPA 101. Door closers shall not require more than 30 lbf to set door in motion and not more than 15 lbf to open door to minimum required width.

C. Size of Units: Unless otherwise indicated, comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.

D. Provide closers body of cast metal in either aluminum or steel. Arms shall be forged with heavy duty main arms. Closer covers shall be of metal attached with screws. Closers hall have two pressure relief valves for both the opening and closing pressures.

E. Closer mounting and action shall allow for min. 120 degree door opening.

F. Installer to properly adjust all hydraulic and spring adjustments for proper operation of closer and door.

G. Contractor to check and adjust all closers when final mechanical systems are in operation and balanced.

H. Surface Closers: BHMA A156.4, Provide Grade 1, extra heavy duty closers. Equal to Sargent 281 Series.

1. Provide type of arm required for closer to be located on non-public side of door, unless otherwise indicated.

2. Manufacturers:

a. Corbin Russwin Architectural Hardware; an ASSA ABLOY Group company (CR).
b. DORMA Architectural Hardware; Member of The DORMA Group North America (DAH).
c. LCN Closers; an Ingersoll-Rand Company (LCN).
d. Norton Door Controls; ASSA ABLOY, (NDC).
e. SARGENT Manufacturing Company; ASSA ABLOY, (SGT).
f. Yale Commercial Locks and Hardware; ASSA ABLOY, (YAL).
g. Others as pre-approved.

2.9 PROTECTIVE TRIM UNITS

A. Size: 2 inches less than door width on both sides, by height specified in door hardware sets. Install with countersunk screw heads.

B. PVC Protective Trim Units: BHMA A156.6; beveled all 4 sides; fabricated from the following material:

1. Material: 1/8” thick PVC panels.
2. Manufacturers:

a. Baldwin Hardware Corporation (BH).
b. Burns Manufacturing Incorporated (BM).
c. Hager Companies (HAG).
d. Hiawatha, Inc. (HIA).
e. IPC Door and Wall Protection Systems, Inc.; Div. of InPro Corporation (IPC).
f. IVES Hardware; an Ingersoll-Rand Company (IVS).
g. Rockwood Manufacturing Company (RM).
h. Trimco (TBM).
i. Others as pre-approved.

2.10 OVERHEAD STOPS AND HOLDERS

A. Overhead Stops: BHMA A156.8. Heavy duty, Surface mounted.

1. Manufacturers:

a. Baldwin Hardware Corporation (BH).

b. DORMA Architectural Hardware; (DAH).
c. Glynn-Johnson; an Ingersoll-Rand Company (GJ).
d. Hager Companies (HAG).
e. IVES Hardware; an Ingersoll-Rand Company (IVS).
f. Rixson Door Controls. (RIX).
g. Rockwood Manufacturing Company (RM).
h. SARGENT Manufacturing Company; ASSA ABLOY, (SGT).
i. Others as pre-approved.

2.11 DOOR GASKETING

A. Standard: BHMA A156.22.

B. General: Provide continuous weather-strip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated or scheduled. Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

1. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

C. Smoke-Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke-control ratings indicated, based on testing according to UL 1784.

1. Provide smoke-labeled gasketing on 20-minute-rated doors and on smoke-labeled doors.

D. Gasketing Materials: ASTM D 2000 and AAMA 701/702.

E. Silencers are not required at frames that are to have gasketing or weatherstripping installed

F. Manufacturers:

1. Hager Companies (HAG).
2. M-D Building Products, Inc. (MD).
3. National Guard Products (NGP).
4. Pemko Manufacturing Co. (PEM).
5. Reese Enterprises (RE).
6. Sealeze; a unit of Jason Incorporated (SEL).
7. Others as pre-approved.

2.12 FABRICATION

A. Base Metals: Produce door hardware units of base metal, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18. Do not furnish manufacturer's standard materials or forming methods if different from specified standard.

B. Fasteners: Provide screws according to commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.

1. Comply with NFPA 80 for fasteners of door hardware in fire-rated applications.

2.13 HARDWARE FINISH

A. All hardware is to be provided with a BHMA 630 or US 322D Satin Stainless Steel finish unless noted otherwise. Design intent is to match adjacent hardware finish. Notify and coordinate with architect when adjacent hardware does not match a US 32D finish.

B.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Steel Doors and Frames: Comply with DHI A115 Series. Drill and tap doors and frames for surface-applied door hardware according to ANSI A250.6.

B. Mounting Heights: Mount door hardware units at heights indicated as follows unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."

C. Install each door hardware item to comply with manufacturer's written instructions. Use templates provided with hardware.

D. Hinges: Install types and in quantities indicated in door hardware schedule, but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

E. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

F. Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Door Closers: Unless otherwise required by authorities having jurisdiction, adjust sweep period so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the leading edge of the door.

3.2 DOOR HARDWARE GROUPS

A. Provide door hardware groups for each door as indicated in the Opening Schedule of the Drawings.

END OF SECTION 08 7100

SECTION 08 8000 - GLAZING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes glazing for the following products and applications:

1. Windows.
2. Doors.

1.2 DEFINITIONS

A. Interspace: Space between lites of an insulating-glass unit that contains dehydrated air or a specified gas.

B. Deterioration of Insulating Glass: Failure of hermetic seal under normal use that is attributed to the manufacturing process and not to causes other than glass breakage and practices for maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1.3 PERFORMANCE REQUIREMENTS

A. General: Provide glazing systems capable of withstanding normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, and installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Glass Design: Glass thickness designations indicated are minimums and are for detailing only. Confirm glass thicknesses by analyzing Project loads and in-service conditions. Provide glass lites in the thickness designations indicated for various size openings, but not less than thicknesses and in strengths (annealed or heat treated) required to meet or exceed the following minimum Glass Thickness for Exterior Lites: Not less than 1/4 inch thick.

C. Thermal Movements: Provide glazing that allows for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures acting on glass framing members and glazing components. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

1.4 SUBMITTALS

A. Product Data: For each glass product and glazing material indicated.

1.5 WARRANTY

A. Manufacturer's Standard Warranty on Insulating Glass: Manufacturer's standard form, made out to Owner and signed by insulating-glass manufacturer agreeing to replace insulating-glass units that deteriorate as defined in "Definitions" Article, f.o.b. the nearest shipping point to Project site, within specified warranty period indicated below.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

A. Annealed Float Glass: (F.G.) ASTM C 1036, Type I, (transparent flat glass), Quality-Q3; of class indicated.

1. Float Plate Glass: Class I (clear); with a minimum 79 percent visible light transmission and a minimum solar heat gain coefficient of 0.70.

a. Products:

1) AFG Industries Inc.;
2) Pilkington Building Products North America;
3) PPG Industries, Inc.; Vitro.
4) Others as pre-approved.

B. Insulated Glass Units: (I.G.) Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, and complying with ASTM E 774 for Class CBA units and with requirements specified in this Article and in Part 2 "Insulating-Glass Units" Article.

1. Provide Kind HS (heat-strengthened) float glass in place of annealed glass where needed to resist thermal stresses induced by differential shading of individual glass lites and to comply with glass design requirements specified in Part 1 "Performance Requirements" Article.
2. Overall Unit Thickness and Thickness of Each Lite: Dimensions indicated for insulating-glass units are nominal and the overall thicknesses of units are measured perpendicularly from outer surfaces of glass lites at unit's edge.
3. Sealing System: Dual seal.
4. Spacer Specifications: Manufacturer's standard spacer material and construction.

C. Tempered Glass: (T.G.) ASTM C 1048, Kind FT (fully tempered), Type I (transparent flat glass), Class 1 (clear), and of quality, finish, and tint specified.

D. Sputter-Coated Float Glass: ASTM C 1376, float glass with Low –E metallic-oxide or-nitride coating deposited by vacuum deposition process after manufacture and heat treatment (if any), and complying with other requirements specified.

2.2 GLAZING GASKETS

A. Dense Compression Gaskets: Molded or extruded gaskets of material indicated below, complying with standards referenced with name of elastomer indicated below, and of profile and hardness required to maintain watertight seal:

1. Neoprene, ASTM C 864.
2. EPDM, ASTM C 864.
3. Silicone, ASTM C 1115.
4. Thermoplastic polyolefin rubber, ASTM C 1115.

B. Soft Compression Gaskets: Extruded or molded, closed-cell, integral-skinned gaskets of material indicated below; complying with ASTM C 509, Type II, black; and of profile and hardness required to maintain watertight seal:

1. Neoprene.
2. EPDM.
3. Silicone.
4. Thermoplastic polyolefin rubber.

2.3 GLAZING SEALANTS

A. General: Provide products of type indicated, complying with the following requirements:

1. Compatibility: Select glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
3. Colors of Exposed Glazing Sealants: As indicated by manufacturer's designations.

2.4 GLAZING TAPES

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based elastomeric tape with a solids content of 100 percent; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; packaged on rolls with a release paper backing; and complying with ASTM C 1281 and AAMA 800 for products indicated below:

1. AAMA 804.3 tape, where indicated.
2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.

3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

2.5 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

D. Spacers: Elastomeric blocks or continuous extrusions with a Shore, Type A durometer hardness required by glass manufacturer to maintain glass lites in place for installation indicated.

E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

F. Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

2.6 FABRICATION OF GLAZING UNITS

A. Fabricate glazing units in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

2.7 MONOLITHIC FLOAT-GLASS UNITS

A. Uncoated Clear Tempered Glass Units: - (T.G.): Class 1 (clear), Kind FT (fully tempered), float glass.

1. Thickness: 1/4" inch thick.

2.8 INSULATING-GLASS UNITS

A. Clear Low-E Insulating-Tempered Glass Units - (I.G-1): Provide manufacturer’s products meeting the following design criteria:

1. Overall Unit Thickness and Thickness of Each Lite: 1 inch and ¼ inch thick.
2. Interspace Content: Air.
3. Outdoor Lite: Class 1 (clear) float glass. Kind FT (fully tempered).
4. Indoor Lite: Class 1 (clear) float glass. Kind FT (fully tempered).
5. Visible Light Transmittance: 70% percent minimum.
6. Solar Heat Gain Coefficient: 0.38 percent maximum.

7. U-Value: 0.35 maximum.

PART 3 - EXECUTION

3.1 GLAZING

A. General: Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.

1. Glazing channel dimensions, as indicated on Drawings, provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by Project conditions during installation.
2. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.
3. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction sealant-substrate testing.
4. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
5. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
6. Provide spacers for glass lites where length plus width is larger than 50 inches.
7. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

B. Tape Glazing: Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.

1. Cover vertical framing joints by applying tapes to heads and sills first and then to jambs. Cover horizontal framing joints by applying tapes to jambs and then to heads and sills.
2. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
3. Apply heel bead of elastomeric sealant.
4. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
5. Apply cap bead of elastomeric sealant over exposed edge of tape.

C. Gasket Glazing (Dry): Fabricate compression gaskets in lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.

1. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.

2. Center glass lites in openings on setting blocks and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
3. Install gaskets so they protrude past face of glazing stops.

3.2 CLEANING AND PROTECTION

A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Protect glass from contact with contaminating substances resulting from construction operations, including weld splatter. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended by glass manufacturer.

B. Remove nonpermanent labels, and clean surfaces.

C. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.

END OF SECTION 08 8000

SECTION 09 2216 - NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes non-load-bearing steel framing members for the following applications:

1. Interior framing systems (e.g., supports for partition walls, framed soffits, furring, etc.).

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

1.3 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.

PART 2 - PRODUCTS

2.1 NON-LOAD-BEARING STEEL FRAMING, GENERAL

A. Framing Members, General: Comply with ASTM C 754 for conditions indicated.

1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal, unless otherwise indicated.
2. Protective Coating: ASTM A 653/A 653M, G60, hot-dip galvanized or manufacturer's standard corrosion-resistant zinc coating, unless otherwise indicated.

2.2 STEEL FRAMING FOR FRAMED ASSEMBLIES

A. Steel Studs and Runners: ASTM C 645 “Standard Specification for Non-Structural Steel Framing Members”.

1. Minimum Uncoated Base-Metal Thickness: 0.0296 inch or 20 gauge.
2. Stud members have a minimum flange of 1-1/4" and a minimum return lip of 3/16".
3. Tracks shall have a minimum side flange of 1 inch on both sides.
4. Depth: 3-5/8 inches.

B. Cold-Rolled Channel Bridging: 0.0538-inch bare-steel thickness, with minimum 1/2-inch wide flanges.

1. Depth: 1-1/2 inches.
2. Clip Angle: Not less than 1-1/2 by 1-1/2 inches, by 0.068-inch thick, galvanized steel.

2.3 AUXILIARY MATERIALS

A. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

B. Sheet Metal Panels: Provide 18 gauge galvanized steel sheet metal over studs (on Gym side) to provide solid impact resistance before installing finished impact resistant gypsum board.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Installation Standard: ASTM C 754.

1. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

3.2 INSTALLING FRAMED ASSEMBLIES

A. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.

B. Install tracks (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings, except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts penetrating partitions above ceiling.

1. Other Framed Openings: Frame openings other than door openings the same as required for door openings, unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
2. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.

C. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

END OF SECTION 09 2216

SECTION 09 2900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Interior gypsum board.
2. Gypsum board accessories.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

1.3 QUALITY ASSURANCE

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.

PART 2 - PRODUCTS

2.1 INTERIOR GYPSUM BOARD

A. General: Complying with ASTM C 36/C 36M or ASTM C 1396/C 1396M, as applicable to type of gypsum board indicated and whichever is more stringent.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. American Gypsum Co.
b. G-P Gypsum.
c. Lafarge North America Inc.
d. National Gypsum Company.
e. PABCO Gypsum.
f. USG Corporation.
g. Others as pre-approved.

B. Abuse-Resistant Type: Manufactured to produce greater resistance to surface indentation and through-penetration (impact resistance) than standard, regular-type, and Type X gypsum board.

1. Core: 5/8 inch, Type X.
2. Long Edges: Tapered.

2.2 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet
2. Shapes:

    a. Corner bead.
    b. L-Bead: L-shaped; exposed long flange receives joint compound.

2.3 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:

1. Interior Gypsum Wallboard: Paper.

C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats. Provide wallboard tape finishes utilizing a Level 4 Finish as follows:

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 setting-type taping compound.

    a. Use setting-type compound for installing paper-faced metal trim accessories.

3. Fill Coat: For second coat, use setting-type, sandable topping compound.
4. Finish Coat: For third coat, use setting-type, sandable topping compound.

2.4 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.

C. PVC Wall Protection Panels. UHMW Polyethylene Plastic Sheets.

1. Size: 1/8" thick x 48" wide x 96" long.

2. Available Manufacturers:

    a. Global Industrial (888-978-7759)
    b. Interstate Plastics.
    c. Others as pre-approved.

2.5 TEXTURE FINISHES

1. Textures and Finishes:

a. Walls - Smooth

PART 3 - EXECUTION

3.1 APPLYING INTERIOR GYPSUM BOARD

A. Install interior gypsum board in the following locations:

1. Type X: On walls and ceilings in locations indicated on Drawings exposed to have rated wall construction.

3.2 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. Interior Trim: Install in the following locations:

1. Cornerbead: Use at outside corners.
2. U-Bead: Use at exposed panel edges.

C. PVC Wall Protection: Install using construction adhesive in locations as shown on the Drawings. Butt end joints flush.

3.3 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 those with trim having flanges not intended for tape.

D. Provide wallboard tape finishes utilizing a Level 4 Finish as follows:

1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.

2. Embedding and First Coat: Apply setting-type taping compound for embedding tape and first coat on joints, fasteners, and trim flanges,. Fully embed tape in joint compound, and then wipe with a joint knife, leaving a thin coat of compound over tape. Lightly sand smooth before recoating.
3. Fill Coat: For second coat, use setting-type, sandable topping compound. Lightly sand smooth before recoating.
4. Finish Coat: For third coat, use setting-type, sandable topping compound. Provide final sanding to leave a smooth surface without pockets, dimples, bumps or ridges. Final sanding should leave a surface that is ready to receive paint primer.

3.4 PROTECTION

A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

B. 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 09 2900

SECTION 09 6513 - RESILIENT BASE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Resilient base.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Color Samples: For each type of product indicated, in manufacturer's standard-size samples representing the full product color selection.

1.3 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.

1.4 PROJECT CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer in spaces to receive resilient products.

B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer.

C. Install resilient products after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 RESILIENT BASE

A. Resilient Base:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
   a. Armstrong World Industries, Inc.
   b. Burke Mercer Flooring Products; Division of Burke Industries, Inc.
   c. Endura Rubber Flooring; Division of Burke Industries, Inc.

d. Flexco, Inc.
e. Johnsonite.
f. Mondo Rubber International, Inc.
g. Musson, R. C. Rubber Co.
h. Nora Rubber Flooring; Freudenberg Building Systems, Inc.
i. Roppe Corporation, USA.
j. VPI, LLC; Floor Products Division.
k. Others as pre-approved.

B. Resilient Base Standard: ASTM F 1861.

1. Material Requirement: Type TV (vinyl, thermoplastic)
2. Manufacturing Method: Group I (solid, homogeneous)
3. Style: Coved (base with toe)

C. Minimum Thickness: 0.125 inch .

D. Height: 4 inches .

E. Lengths: Coils in manufacturer's standard length.

F. Outside Corners: Job formed.

G. Inside Corners: Job formed.

H. Finish: Satin.

I. Colors: As selected by Architect from full range of industry colors.

2.2 INSTALLATION MATERIALS

A. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

1. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

a. Cove Base Adhesives: Not more than 50 g/L.
b. Rubber Floor Adhesives: Not more than 60 g/L.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.

B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.

C. Do not install resilient products until they are same temperature as the space where they are to be installed.

1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.

D. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.2 RESILIENT BASE INSTALLATION

A. Comply with manufacturer's written instructions for installing resilient base.

B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.

C. Install resilient base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.

D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.

E. Do not stretch resilient base during installation.

3.3 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.

B. Cover resilient products until Substantial Completion.

END OF SECTION 09 6513

SECTION 26 0505
SELECTIVE DEMOLITION FOR ELECTRICAL

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Electrical demolition.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. Materials and equipment for patching and extending work: As specified in individual sections.

PART 2 EXECUTION

3.01 EXAMINATION

A. Verify field measurements and circuiting arrangements are as indicated.

B. Verify that abandoned wiring and equipment serve only abandoned facilities.

C. Demolition drawings are based on casual field observation and existing record documents.

D. Report discrepancies to Owner before disturbing existing installation.

E. Beginning of demolition means installer accepts existing conditions.

3.02 PREPARATION

A. Disconnect electrical systems in walls, floors, and ceilings to be removed.

B. Coordinate utility service outages with utility company.

C. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.

D. Existing Electrical Service: Maintain existing system in service until new system is complete and ready for service. Disable system only to make switchovers and connections. Minimize outage duration.
   1. Obtain permission from Owner at least 24 hours before partially or completely disabling system.
   2. Make temporary connections to maintain service in areas adjacent to work area.

3.03 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

A. Perform work for removal and disposal of equipment and materials containing toxic substances regulated under the Federal Toxic Substances Control Act (TSCA) in accordance with applicable federal, state, and local regulations. Applicable equipment and materials include, but are not limited to:
   1. PCB- and DEHP-containing lighting ballasts.
   2. Mercury-containing lamps and tubes, including fluorescent lamps, high intensity discharge (HID), arc lamps, ultra-violet, high pressure sodium, mercury vapor, ignitron tubes, neon, and incandescent.

B. Remove, relocate, and extend existing installations to accommodate new construction.

C. Remove abandoned wiring to source of supply.

D. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.

E. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets that are not removed.

F. Disconnect and remove abandoned panelboards and distribution equipment.

G. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.

H. Disconnect and remove abandoned luminaires. Remove brackets, stems, hangers, and other accessories.

I. Repair adjacent construction and finishes damaged during demolition and extension work.

J. Maintain access to existing electrical installations that remain active. Modify installation or provide access panel as appropriate.

K. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified.

3.04 CLEANING AND REPAIR

A. Clean and repair existing materials and equipment that remain or that are to be reused.

END OF SECTION

SECTION 26 0519
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Single conductor building wire.

B. Wiring connectors.

C. Electrical tape.

D. Heat shrink tubing.

E. Oxide inhibiting compound.

F. Wire pulling lubricant.

G. Cable ties.

1.02 RELATED REQUIREMENTS

A. Section 07 8400 - Firestopping.

1.03 REFERENCE STANDARDS

A. ASTM B3 - Standard Specification for Soft or Annealed Copper Wire 2013 (Reapproved 2018).

B. ASTM B8 - Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft 2011 (Reapproved 2017).

C. ASTM B33 - Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes 2010, with Editorial Revision (2020).

D. ASTM B787/B787M - Standard Specification for 19 Wire Combination Unilay-Stranded Copper Conductors for Subsequent Insulation 2004 (Reapproved 2020).

E. ASTM D3005 - Standard Specification for Low-Temperature Resistant Vinyl Chloride Plastic Pressure-Sensitive Electrical Insulating Tape 2017.

F. ASTM D4388 - Standard Specification for Nonmetallic Semi-Conducting and Electrically Insulating Rubber Tapes 2020.

G. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.

H. NEMA WC 70 - Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy 2021.

I. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

J. UL 44 - Thermoset-Insulated Wires and Cables Current Edition, Including All Revisions.

K. UL 83 - Thermoplastic-Insulated Wires and Cables Current Edition, Including All Revisions.

L. UL 486A-486B - Wire Connectors Current Edition, Including All Revisions.

M. UL 486C - Splicing Wire Connectors Current Edition, Including All Revisions.

N. UL 486D - Sealed Wire Connector Systems Current Edition, Including All Revisions.

O. UL 510 - Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Coordinate sizes of raceways, boxes, and equipment enclosures installed under other sections with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.

2. Coordinate with electrical equipment installed under other sections to provide terminations suitable for use with the conductors to be installed.
3. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store conductors and cables in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 CONDUCTOR AND CABLE APPLICATIONS

A. Do not use conductors and cables for applications other than as permitted by NFPA 70 and product listing.

B. Provide single conductor building wire installed in suitable raceway unless otherwise indicated, permitted, or required.

C. Nonmetallic-sheathed cable is not permitted.

D. Armored cable is not permitted.

E. Metal-clad cable is not permitted.

2.02 CONDUCTOR AND CABLE GENERAL REQUIREMENTS

A. Provide products that comply with requirements of NFPA 70.

B. Provide products listed, classified, and labeled as suitable for the purpose intended.

C. Provide new conductors and cables manufactured not more than one year prior to installation.

D. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, etc. as required for a complete operating system.

E. Comply with NEMA WC 70.

F. Thermoplastic-Insulated Conductors and Cables: Listed and labeled as complying with UL 83.

G. Thermoset-Insulated Conductors and Cables: Listed and labeled as complying with UL 44.

H. Conductor Material:
1. Provide copper conductors only. Aluminum conductors are not acceptable for this project. Conductor sizes indicated are based on copper.
2. Copper Conductors: Soft drawn annealed, 98 percent conductivity, uncoated copper conductors complying with ASTM B3, ASTM B8, or ASTM B787/B787M unless otherwise indicated.
3. Tinned Copper Conductors: Comply with ASTM B33.

I. Minimum Conductor Size:
1. Branch Circuits: 12 AWG.
2. Control Circuits: 14 AWG.

J. Where conductor size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

K. Conductor Color Coding:
1. Color code conductors as indicated unless otherwise required by the authority having jurisdiction. Maintain consistent color coding throughout project.

2. Color Coding Method: Integrally colored insulation.
3. Color Code:
   a. 208Y/120 V, 3 Phase, 4 Wire System:
      1) Phase A: Black.
      2) Phase B: Red.
      3) Phase C: Blue.
      4) Neutral/Grounded: White.
   b. Equipment Ground, All Systems: Green.
   c. For modifications or additions to existing wiring systems, comply with existing color code when existing code complies with NFPA 70 and is approved by the authority having jurisdiction.

2.03 SINGLE CONDUCTOR BUILDING WIRE

A. Description: Single conductor insulated wire.

B. Conductor Stranding:
   1. Feeders and Branch Circuits:
      a. Size 10 AWG and Smaller: Solid.
      b. Size 8 AWG and Larger: Stranded.

C. Insulation Voltage Rating: 600 V.

D. Insulation:
   1. Copper Building Wire: Type THHN/THWN or THHN/THWN-2, except as indicated below.
      a. Size 4 AWG and Larger: Type XHHW-2.

2.04 WIRING CONNECTORS

A. Description: Wiring connectors appropriate for the application, suitable for use with the conductors to be connected, and listed as complying with UL 486A-486B or UL 486C as applicable.

B. Wiring Connectors for Splices and Taps:
   1. Copper Conductors Size 8 AWG and Smaller: Use twist-on insulated spring connectors.
   2. Copper Conductors Size 6 AWG and Larger: Use mechanical connectors.

C. Wiring Connectors for Terminations:
   1. Provide terminal lugs for connecting conductors to equipment furnished with terminations designed for terminal lugs.
   2. Provide compression adapters for connecting conductors to equipment furnished with mechanical lugs when only compression connectors are specified.
   3. Where over-sized conductors are larger than the equipment terminations can accommodate, provide connectors suitable for reducing to appropriate size, but not less than required for the rating of the overcurrent protective device.
   4. Copper Conductors Size 8 AWG and Larger: Use mechanical connectors or compression connectors where connectors are required.

D. Do not use insulation-piercing or insulation-displacement connectors designed for use with conductors without stripping insulation.

E. Do not use push-in wire connectors as a substitute for twist-on insulated spring connectors.

F. Twist-on Insulated Spring Connectors: Rated 600 V, 221 degrees F for standard applications and 302 degrees F for high temperature applications; pre-filled with sealant and listed as complying with UL 486D for damp and wet locations.

G. Mechanical Connectors: Provide bolted type or set-screw type.

H. Compression Connectors: Provide hex type crimp configuration.

2.05 ACCESSORIES

A. Electrical Tape:
   1. Vinyl Color Coding Electrical Tape: Integrally colored to match color code indicated; listed as complying with UL 510; minimum thickness of 7 mil; resistant to abrasion, corrosion, and sunlight; suitable for continuous temperature environment up to 221 degrees F.
   2. Vinyl Insulating Electrical Tape: Complying with ASTM D3005 and listed as complying with UL 510; minimum thickness of 7 mil; resistant to abrasion, corrosion, and sunlight; conformable for application down to 0 degrees F and suitable for continuous temperature environment up to 221 degrees F.
   3. Rubber Splicing Electrical Tape: Ethylene Propylene Rubber (EPR) tape, complying with ASTM D4388; minimum thickness of 30 mil; suitable for continuous temperature environment up to 194 degrees F and short-term 266 degrees F overload service.
   4. Electrical Filler Tape: Rubber-based insulating moldable putty, minimum thickness of 125 mil; suitable for continuous temperature environment up to 176 degrees F.

B. Heat Shrink Tubing: Heavy-wall, split-resistant, with factory-applied adhesive; rated 600 V; suitable for direct burial applications; listed as complying with UL 486D.

C. Oxide Inhibiting Compound: Listed; suitable for use with the conductors or cables to be installed.

D. Wire Pulling Lubricant: Listed; suitable for use with the conductors or cables to be installed and suitable for use at the installation temperature.

E. Cable Ties: Material and tensile strength rating suitable for application.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that interior of building has been protected from weather.

B. Verify that work likely to damage wire and cable has been completed.

C. Verify that raceways, boxes, and equipment enclosures are installed and are properly sized to accommodate conductors and cables in accordance with NFPA 70.

D. Verify that field measurements are as indicated.

E. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Clean raceways thoroughly to remove foreign materials before installing conductors and cables.

3.03 INSTALLATION

A. Circuiting Requirements:
   1. Unless dimensioned, circuit routing indicated is diagrammatic.
   2. When circuit destination is indicated without specific routing, determine exact routing required.
   3. Arrange circuiting to minimize splices.
   4. Circuiting Adjustments: Unless otherwise indicated, when branch circuits are indicated as separate, combining them together in a single raceway is not permitted.
   5. Common Neutrals: Unless otherwise indicated, sharing of neutral/grounded conductors among single phase branch circuits of different phases installed in the same raceway is not permitted. Provide dedicated neutral/grounded conductor for each individual branch circuit.

B. Install products in accordance with manufacturer's instructions.

C. Perform work in accordance with NECA 1 (general workmanship).

D. Installation in Raceway:
   1. Tape ends of conductors and cables to prevent infiltration of moisture and other contaminants.
   2. Pull all conductors and cables together into raceway at same time.
   3. Do not damage conductors and cables or exceed manufacturer's recommended maximum pulling tension and sidewall pressure.
   4. Use suitable wire pulling lubricant where necessary, except when lubricant is not recommended by the manufacturer.

E. Paralleled Conductors: Install conductors of the same length and terminate in the same manner.

F. Secure and support conductors and cables in accordance with NFPA 70 using suitable supports and methods approved by the authority having jurisdiction. Provide independent support from building structure. Do not provide support from raceways, piping, ductwork, or other systems.

G. Install conductors with a minimum of 12 inches of slack at each outlet.

H. Neatly train and bundle conductors inside boxes, wireways, panelboards and other equipment enclosures.

I. Group or otherwise identify neutral/grounded conductors with associated ungrounded conductors inside enclosures in accordance with NFPA 70.

J. Make wiring connections using specified wiring connectors.
   1. Make splices and taps only in accessible boxes. Do not pull splices into raceways or make splices in conduit bodies or wiring gutters.
   2. Remove appropriate amount of conductor insulation for making connections without cutting, nicking or damaging conductors.
   3. Do not remove conductor strands to facilitate insertion into connector.
   4. Clean contact surfaces on conductors and connectors to suitable remove corrosion, oxides, and other contaminates. Do not use wire brush on plated connector surfaces.
   5. Mechanical Connectors: Secure connections according to manufacturer's recommended torque settings.
   6. Compression Connectors: Secure connections using manufacturer's recommended tools and dies.

K. Insulate splices and taps that are made with uninsulated connectors using methods suitable for the application, with insulation and mechanical strength at least equivalent to unspliced conductors.
   1. Dry Locations: Use insulating covers specifically designed for the connectors, electrical tape, or heat shrink tubing.
      a. For taped connections, first apply adequate amount of rubber splicing electrical tape or electrical filler tape, followed by outer covering of vinyl insulating electrical tape.
   2. Wet Locations: Use heat shrink tubing.

L. Insulate ends of spare conductors using vinyl insulating electrical tape.

M. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.

N. Unless specifically indicated to be excluded, provide final connections to all equipment and devices, including those furnished by others, as required for a complete operating system.

END OF SECTION

SECTION 26 0529
HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Support and attachment requirements and components for equipment, conduit, cable, boxes, and other electrical work.

1.02 RELATED REQUIREMENTS

A. Section 26 0533.13 - Conduit for Electrical Systems: Additional support and attachment requirements for conduits.

B. Section 26 0533.16 - Boxes for Electrical Systems: Additional support and attachment requirements for boxes.

C. Section 26 5100 - Interior Lighting: Additional support and attachment requirements for interior luminaires.

1.03 REFERENCE STANDARDS

A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.

B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2016a.

C. ASTM B633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel 2019.

D. MFMA-4 - Metal Framing Standards Publication 2004.

E. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.

F. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate sizes and arrangement of supports and bases with the actual equipment and components to be installed.
   2. Coordinate the work with other trades to provide additional framing and materials required for installation.
   3. Coordinate compatibility of support and attachment components with mounting surfaces at the installed locations.
   4. Coordinate the arrangement of supports with ductwork, piping, equipment and other potential conflicts installed under other sections or by others.
   5. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 QUALITY ASSURANCE

A. Comply with NFPA 70.

B. Comply with applicable building code.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 SUPPORT AND ATTACHMENT COMPONENTS

A. General Requirements:
   1. Provide all required hangers, supports, anchors, fasteners, fittings, accessories, and hardware as necessary for the complete installation of electrical work.
   2. Provide products listed, classified, and labeled as suitable for the purpose intended, where applicable.
   3. Where support and attachment component types and sizes are not indicated, select in accordance with manufacturer's application criteria as required for the load to be supported. Include consideration for vibration, equipment operation, and shock loads where applicable.
   4. Do not use products for applications other than as permitted by NFPA 70 and product listing.
   5. Do not use wire, chain, perforated pipe strap, or wood for permanent supports unless specifically indicated or permitted.
   6. Steel Components: Use corrosion resistant materials suitable for the environment where installed.
      a. Indoor Dry Locations: Use zinc-plated steel or approved equivalent unless otherwise indicated.
      b. Outdoor and Damp or Wet Indoor Locations: Use galvanized steel, stainless steel, or approved equivalent unless otherwise indicated.
      c. Zinc-Plated Steel: Electroplated in accordance with ASTM B633.
      d. Galvanized Steel: Hot-dip galvanized after fabrication in accordance with ASTM A123/A123M or ASTM A153/A153M.

B. Conduit and Cable Supports: Straps, clamps, etc. suitable for the conduit or cable to be supported.
   1. Conduit Straps: One-hole or two-hole type; steel or malleable iron.
   2. Conduit Clamps: Bolted type unless otherwise indicated.

C. Outlet Box Supports: Hangers, brackets, etc. suitable for the boxes to be supported.

D. Metal Channel (Strut) Framing Systems: Factory-fabricated continuous-slot metal channel (strut) and associated fittings, accessories, and hardware required for field-assembly of supports.
   1. Comply with MFMA-4.
   2. Channel Material:
      a. Indoor Dry Locations: Use painted steel, zinc-plated steel, or galvanized steel.
      b. Outdoor and Damp or Wet Indoor Locations: Use galvanized steel.
   3. Minimum Channel Thickness: Steel sheet, 12 gage, 0.1046 inch.
   4. Minimum Channel Dimensions: 1-5/8 inch width by 13/16 inch height.

E. Hanger Rods: Threaded zinc-plated steel unless otherwise indicated.

F. Anchors and Fasteners:
   1. Unless otherwise indicated and where not otherwise restricted, use the anchor and fastener types indicated for the specified applications.
   2. Concrete: Use expansion anchors.
   3. Solid or Grout-Filled Masonry: Use expansion anchors.
   4. Hollow Masonry: Use toggle bolts.
   5. Sheet Metal: Use sheet metal screws.
   6. Wood: Use wood screws.
   7. Plastic and lead anchors are not permitted.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that mounting surfaces are ready to receive support and attachment components.

C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Perform work in accordance with NECA 1 (general workmanship).

C. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.

D. Unless specifically indicated or approved by Architect, do not provide support from suspended ceiling support system or ceiling grid.

E. Unless specifically indicated or approved by Architect, do not provide support from roof deck.

F. Do not penetrate or otherwise notch or cut structural members without approval of Structural Engineer.

G. Equipment Support and Attachment:
   1. Use metal fabricated supports or supports assembled from metal channel (strut) to support equipment as required.
   2. Use metal channel (strut) secured to studs to support equipment surface-mounted on hollow stud walls when wall strength is not sufficient to resist pull-out.
   3. Use metal channel (strut) to support surface-mounted equipment in wet or damp locations to provide space between equipment and mounting surface.
   4. Securely fasten floor-mounted equipment. Do not install equipment such that it relies on its own weight for support.

H. Conduit Support and Attachment: Also comply with Section 26 0533.13.

I. Box Support and Attachment: Also comply with Section 26 0533.16.

J. Interior Luminaire Support and Attachment: Also comply with Section 26 5100.

K. Secure fasteners according to manufacturer's recommended torque settings.

L. Remove temporary supports.

3.03 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for additional requirements.

B. Inspect support and attachment components for damage and defects.

C. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.

D. Correct deficiencies and replace damaged or defective support and attachment components.

END OF SECTION

SECTION 26 0533.13
CONDUIT FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Galvanized steel rigid metal conduit (RMC).

B. Intermediate metal conduit (IMC).

C. Electrical metallic tubing (EMT).

D. Conduit fittings.

E. Accessories.

1.02 RELATED REQUIREMENTS

A. Section 07 8400 - Firestopping.

B. Section 26 0529 - Hangers and Supports for Electrical Systems.

1.03 REFERENCE STANDARDS

A. ANSI C80.1 - American National Standard for Electrical Rigid Steel Conduit (ERSC) 2020.

B. ANSI C80.3 - American National Standard for Electrical Metallic Tubing -- Steel (EMT-S) 2020.

C. ANSI C80.6 - American National Standard for Electrical Intermediate Metal Conduit 2018.

D. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.

E. NECA 101 - Standard for Installing Steel Conduits (Rigid, IMC, EMT) 2020.

F. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable 2014.

G. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

H. UL 6 - Electrical Rigid Metal Conduit-Steel Current Edition, Including All Revisions.

I. UL 514B - Conduit, Tubing, and Cable Fittings Current Edition, Including All Revisions.

J. UL 797 - Electrical Metallic Tubing-Steel Current Edition, Including All Revisions.

K. UL 1242 - Electrical Intermediate Metal Conduit-Steel Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate minimum sizes of conduits with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
   2. Coordinate the arrangement of conduits with structural members, ductwork, piping, equipment and other potential conflicts installed under other sections or by others.
   3. Verify exact conduit termination locations required for boxes, enclosures, and equipment installed under other sections or by others.
   4. Coordinate the work with other trades to provide roof penetrations that preserve the integrity of the roofing system and do not void the roof warranty.
   5. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

B. Sequencing:
   1. Do not begin installation of conductors and cables until installation of conduit is complete between outlet, junction and splicing points.

1.05 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store conduit and fittings in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 CONDUIT APPLICATIONS

A. Do not use conduit and associated fittings for applications other than as permitted by NFPA 70 and product listing.

B. Unless otherwise indicated and where not otherwise restricted, use the conduit types indicated for the specified applications. Where more than one listed application applies, comply with the most restrictive requirements. Where conduit type for a particular application is not specified, use galvanized steel rigid metal conduit.

C. Concealed Within Hollow Stud Walls: Use electrical metallic tubing (EMT).

D. Exposed, Interior, Not Subject to Physical Damage: Use intermediate metal conduit (IMC).

E. Exposed, Interior, Subject to Physical Damage: Use galvanized steel rigid metal conduit.
   1. Locations subject to physical damage include, but are not limited to:
      a. Where exposed below 8 feet, except within electrical and communication rooms or closets.

2.02 CONDUIT REQUIREMENTS

A. Existing Work: Where existing conduits are indicated to be reused, they may be reused only where they comply with specified requirements, are free from corrosion, and integrity is verified by pulling a mandrel through them.

B. Provide all conduit, fittings, supports, and accessories required for a complete raceway system.

C. Provide products listed, classified, and labeled as suitable for the purpose intended.

D. Minimum Conduit Size, Unless Otherwise Indicated:
   1. Branch Circuits: 1/2 inch (16 mm) trade size.
   2. Branch Circuit Homeruns: 3/4 inch (21 mm) trade size.

E. Where conduit size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

2.03 GALVANIZED STEEL RIGID METAL CONDUIT (RMC)

A. Description: NFPA 70, Type RMC galvanized steel rigid metal conduit complying with ANSI C80.1 and listed and labeled as complying with UL 6.

B. Fittings:
   1. Non-Hazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
   2. Material: Use steel or malleable iron.
      a. Do not use die cast zinc fittings.
   3. Connectors and Couplings: Use threaded type fittings only. Threadless set screw and compression (gland) type fittings are not permitted.

2.04 INTERMEDIATE METAL CONDUIT (IMC)

A. Description: NFPA 70, Type IMC galvanized steel intermediate metal conduit complying with ANSI C80.6 and listed and labeled as complying with UL 1242.

B. Fittings:
   1. Non-Hazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
   2. Material: Use steel or malleable iron.
      a. Do not use die cast zinc fittings.

3. Connectors and Couplings: Use threaded type fittings only. Threadless set screw and compression (gland) type fittings are not permitted.

2.05 ELECTRICAL METALLIC TUBING (EMT)

A. Description: NFPA 70, Type EMT steel electrical metallic tubing complying with ANSI C80.3 and listed and labeled as complying with UL 797.

B. Fittings:
   1. Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
   2. Material: Use steel or malleable iron.
      a. Do not use die cast zinc fittings.
   3. Connectors and Couplings: Use compression (gland) or set-screw type.
      a. Do not use indenter type connectors and couplings.

2.06 ACCESSORIES

A. Conduit Joint Compound: Corrosion-resistant, electrically conductive; suitable for use with the conduit to be installed.

B. Sealing Compound for Sealing Fittings: Listed for use with the particular fittings to be installed.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that mounting surfaces are ready to receive conduits.

C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Perform work in accordance with NECA 1 (general workmanship).

C. Install galvanized steel rigid metal conduit (RMC) in accordance with NECA 101.

D. Install intermediate metal conduit (IMC) in accordance with NECA 101.

E. Conduit Routing:
   1. Unless dimensioned, conduit routing indicated is diagrammatic.
   2. When conduit destination is indicated without specific routing, determine exact routing required.
   3. Conceal all conduits unless specifically indicated to be exposed.
   4. Arrange conduit to maintain adequate headroom, clearances, and access.
   5. Arrange conduit to provide no more than the equivalent of four 90 degree bends between pull points.
   6. Arrange conduit to provide no more than 150 feet between pull points.
   7. Route conduits above water and drain piping where possible.
   8. Arrange conduit to prevent moisture traps. Provide drain fittings at low points and at sealing fittings where moisture may collect.
   9. Maintain minimum clearance of 6 inches between conduits and piping for other systems.

F. Conduit Support:
   1. Secure and support conduits in accordance with NFPA 70 and Section 26 0529 using suitable supports and methods approved by the authority having jurisdiction.
   2. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.

3. Use conduit strap to support single surface-mounted conduit.
   a. Use clamp back spacer with conduit strap for damp and wet locations to provide space between conduit and mounting surface.
4. Use metal channel (strut) with accessory conduit clamps to support multiple parallel surface-mounted conduits.
5. Use of wire for support of conduits is not permitted.
6. Where conduit support intervals specified in NFPA 70 and NECA standards differ, comply with the most stringent requirements.

G. Connections and Terminations:
1. Use approved conduit joint compound on field-cut threads of galvanized steel conduits prior to making connections.
2. Where two threaded conduits must be joined and neither can be rotated, use three-piece couplings or split couplings. Do not use running threads.
3. Use suitable adapters where required to transition from one type of conduit to another.
4. Terminate threaded conduits in boxes and enclosures using threaded hubs for dry locations and raintight hubs for wet locations.
5. Provide insulating bushings or insulated throats at all conduit terminations to protect conductors.
6. Secure joints and connections to provide maximum mechanical strength and electrical continuity.

H. Penetrations:
1. Do not penetrate or otherwise notch or cut structural members, including footings and grade beams, without approval of Structural Engineer.
2. Make penetrations perpendicular to surfaces unless otherwise indicated.
3. Provide sleeves for penetrations as indicated or as required to facilitate installation. Set sleeves flush with exposed surfaces unless otherwise indicated or required.
4. Conceal bends for conduit risers emerging above ground.
5. Seal interior of conduits entering the building from underground at first accessible point to prevent entry of moisture and gases.
6. Where conduits penetrate waterproof membrane, seal as required to maintain integrity of membrane.
7. Make penetrations for roof-mounted equipment within associated equipment openings and curbs where possible to minimize roofing system penetrations. Where penetrations are necessary, seal as indicated or as required to preserve integrity of roofing system and maintain roof warranty. Include proposed locations of penetrations and methods for sealing with submittals.
8. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.

I. Conduit Movement Provisions: Where conduits are subject to movement, provide expansion and expansion/deflection fittings to prevent damage to enclosed conductors or connected equipment. This includes, but is not limited to:
1. Where conduits cross structural joints intended for expansion, contraction, or deflection.
2. Where conduits are subject to earth movement by settlement or frost.

J. Condensation Prevention: Where conduits cross barriers between areas of potential substantial temperature differential, provide sealing fitting or approved sealing compound at an accessible point near the penetration to prevent condensation. This includes, but is not limited to:
1. Where conduits pass from outdoors into conditioned interior spaces.
2. Where conduits pass from unconditioned interior spaces into conditioned interior spaces.

3.03 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for additional requirements.

B. Repair cuts and abrasions in galvanized finishes using zinc-rich paint recommended by manufacturer. Replace components that exhibit signs of corrosion.

C. Correct deficiencies and replace damaged or defective conduits.

3.04 CLEANING

A. Clean interior of conduits to remove moisture and foreign matter.

3.05 PROTECTION

A. Immediately after installation of conduit, use suitable manufactured plugs to provide protection from entry of moisture and foreign material and do not remove until ready for installation of conductors.

END OF SECTION

SECTION 26 0533.16
BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Outlet and device boxes up to 100 cubic inches, including those used as junction and pull boxes.

B. Cabinets and enclosures, including junction and pull boxes larger than 100 cubic inches.

1.02 RELATED REQUIREMENTS

A. Section 26 0529 - Hangers and Supports for Electrical Systems.

B. Section 26 0533.13 - Conduit for Electrical Systems:
   1. Conduit bodies and other fittings.
   2. Additional requirements for locating boxes to limit conduit length and/or number of bends between pulling points.

C. Section 26 2726 - Wiring Devices:
   1. Wall plates.
   2. Additional requirements for locating boxes for wiring devices.

1.03 REFERENCE STANDARDS

A. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.

B. NECA 130 - Standard for Installing and Maintaining Wiring Devices 2016.

C. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable 2014.

D. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports 2013 (Reaffirmed 2020).

E. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum) 2020.

F. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

G. UL 50 - Enclosures for Electrical Equipment, Non-Environmental Considerations Current Edition, Including All Revisions.

H. UL 50E - Enclosures for Electrical Equipment, Environmental Considerations Current Edition, Including All Revisions.

I. UL 508A - Industrial Control Panels Current Edition, Including All Revisions.

J. UL 514A - Metallic Outlet Boxes Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances for electrical equipment required by NFPA 70.
   2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
   3. Coordinate minimum sizes of boxes with the actual installed arrangement of conductors, clamps, support fittings, and devices, calculated according to NFPA 70.
   4. Coordinate minimum sizes of pull boxes with the actual installed arrangement of connected conduits, calculated according to NFPA 70.
   5. Coordinate the placement of boxes with millwork, furniture, devices, equipment, etc. installed under other sections or by others.

6. Coordinate the work with other trades to preserve insulation integrity.
7. Coordinate the work with other trades to provide walls suitable for installation of flush-mounted boxes where indicated.
8. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.01 BOXES

A. General Requirements:
   1. Do not use boxes and associated accessories for applications other than as permitted by NFPA 70 and product listing.
   2. Provide all boxes, fittings, supports, and accessories required for a complete raceway system and to accommodate devices and equipment to be installed.
   3. Provide products listed, classified, and labeled as suitable for the purpose intended.
   4. Where box size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.
   5. Provide grounding terminals within boxes where equipment grounding conductors terminate.

B. Outlet and Device Boxes Up to 100 cubic inches, Including Those Used as Junction and Pull Boxes:
   1. Use sheet-steel boxes for dry locations unless otherwise indicated or required.
   2. Use cast aluminum boxes for damp or wet locations unless otherwise indicated or required; furnish with compatible weatherproof gasketed covers.
   3. Use cast aluminum boxes where exposed galvanized steel rigid metal conduit or exposed intermediate metal conduit (IMC) is used.
   4. Use suitable concrete type boxes where flush-mounted in concrete.
   5. Use suitable masonry type boxes where flush-mounted in masonry walls.
   6. Use raised covers suitable for the type of wall construction and device configuration where required.
   7. Use shallow boxes where required by the type of wall construction.
   8. Do not use "through-wall" boxes designed for access from both sides of wall.
   9. Sheet-Steel Boxes: Comply with NEMA OS 1, and list and label as complying with UL 514A.
   10. Cast Metal Boxes: Comply with NEMA FB 1, and list and label as complying with UL 514A; furnish with threaded hubs.
   11. Boxes for Supporting Luminaires: Listed as suitable for the type and weight of load to be supported; furnished with fixture stud to accommodate mounting of luminaire where required.
   12. Boxes for Ganged Devices: Use multigang boxes of single-piece construction. Do not use field-connected gangable boxes unless specifically indicated or permitted.
   13. Minimum Box Size, Unless Otherwise Indicated:
      a. Wiring Devices (Other Than Communications Systems Outlets): 4 inch square by 1-1/2 inch deep (100 by 38 mm) trade size.
      b. Communications Systems Outlets: 4 inch square by 2-1/8 inch (100 by 54 mm) trade size.
   14. Wall Plates: Comply with Section 26 2726.

C. Cabinets and Enclosures, Including Junction and Pull Boxes Larger Than 100 cubic inches:
   1. Comply with NEMA 250, and list and label as complying with UL 50 and UL 50E, or UL 508A.
   2. NEMA 250 Environment Type, Unless Otherwise Indicated:
      a. Indoor Clean, Dry Locations: Type 1, painted steel.
      b. Outdoor Locations: Type 3R, painted steel.
   3. Junction and Pull Boxes Larger Than 100 cubic inches:
      a. Provide screw-cover enclosures unless otherwise indicated.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that mounting surfaces are ready to receive boxes.

C. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Install boxes in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards where mounting heights are not indicated.

C. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.

D. Unless otherwise indicated, provide separate boxes for line voltage and low voltage systems.

E. Box Locations:
   1. Locate boxes to be accessible. Provide access panels in accordance with Section 08 3100 as required where approved by the Architect.
   2. Unless dimensioned, box locations indicated are approximate.
   3. Locate boxes as required for devices installed under other sections or by others.
      a. Switches, Receptacles, and Other Wiring Devices: Comply with Section 26 2726.
   4. Locate boxes so that wall plates do not span different building finishes.
   5. Unless otherwise indicated, where multiple outlet boxes are installed at the same location at different mounting heights, install along a common vertical center line.
   6. Do not install flush-mounted boxes on opposite sides of walls back-to-back. Provide minimum 6 inches horizontal separation unless otherwise indicated.
   7. Locate junction and pull boxes as indicated, as required to facilitate installation of conductors, and to limit conduit length and/or number of bends between pulling points in accordance with Section 26 0533.13.

F. Box Supports:
   1. Secure and support boxes in accordance with NFPA 70 and Section 26 0529 using suitable supports and methods approved by the authority having jurisdiction.
   2. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
   3. Use far-side support to secure flush-mounted boxes supported from single stud in hollow stud walls. Repair or replace supports for boxes that permit excessive movement.

G. Install boxes plumb and level.

H. Flush-Mounted Boxes:
   1. Install boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that front edge of box or associated raised cover is not set back from finished surface more than 1/4 inch or does not project beyond finished surface.
   2. Install boxes in combustible materials such as wood so that front edge of box or associated raised cover is flush with finished surface.
   3. Repair rough openings around boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that there are no gaps or open spaces greater than 1/8 inch at the edge of the box.

I. Install boxes as required to preserve insulation integrity.

J. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.

K. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.

L. Close unused box openings.

M. Install blank wall plates on junction boxes and on outlet boxes with no devices or equipment installed or designated for future use.

3.03 CLEANING

A. Clean interior of boxes to remove dirt, debris, plaster and other foreign material.

3.04 PROTECTION

A. Immediately after installation, protect boxes from entry of moisture and foreign material until ready for installation of conductors.

END OF SECTION

SECTION 26 0553
IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Electrical identification requirements.

B. Identification nameplates and labels.

C. Wire and cable markers.

D. Warning signs and labels.

1.02 RELATED REQUIREMENTS

A. Section 26 0519 - Low-Voltage Electrical Power Conductors and Cables: Color coding for power conductors and cables 600 V and less; vinyl color coding electrical tape.

B. Section 26 2726 - Wiring Devices: Device and wallplate finishes; factory pre-marked wallplates.

1.03 REFERENCE STANDARDS

A. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

B. UL 969 - Marking and Labeling Systems Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Verify final designations for equipment, systems, and components to be identified prior to fabrication of identification products.

B. Sequencing:
   1. Do not conceal items to be identified, in locations such as above suspended ceilings, until identification products have been installed.
   2. Do not install identification products until final surface finishes and painting are complete.

1.05 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

1.06 FIELD CONDITIONS

A. Do not install adhesive products when ambient temperature is lower than recommended by manufacturer.

PART 2 PRODUCTS

2.01 IDENTIFICATION REQUIREMENTS

A. Identification for Equipment:
   1. Use identification nameplate to identify each piece of electrical distribution and control equipment and associated sections, compartments, and components.

B. Identification for Conductors and Cables:
   1. Color Coding for Power Conductors 600 V and Less: Comply with Section 26 0519.
   2. Use wire and cable markers to identify circuit number or other designation indicated for power, control, and instrumentation conductors and cables at the following locations:
      a. At each source and load connection.
      b. Within boxes when more than one circuit is present.

C. Identification for Devices:
   1. Wiring Device and Wallplate Finishes: Comply with Section 26 2726.
   2. Use identification label to identify serving branch circuit for all receptacles.
      a. For receptacles, provide identification on inside surface of wallplate.

2.02 IDENTIFICATION NAMEPLATES AND LABELS

A. Identification Nameplates:
   1. Materials:
      a. Indoor Clean, Dry Locations: Use plastic nameplates.
      b. Outdoor Locations: Use stainless steel nameplates suitable for exterior use.
   2. Plastic Nameplates: Two-layer or three-layer laminated acrylic or electrically non-conductive phenolic with beveled edges; minimum thickness of 1/16 inch; engraved text.
   3. Stainless Steel Nameplates: Minimum thickness of 1/32 inch; engraved or laser-etched text.
   4. Mounting Holes for Mechanical Fasteners: Two, centered on sides for sizes up to 1 inch high; Four, located at corners for larger sizes.

B. Identification Labels:
   1. Materials: Use self-adhesive laminated plastic labels; UV, chemical, water, heat, and abrasion resistant.
      a. Use only for indoor locations.
   2. Text: Use factory pre-printed or machine-printed text. Do not use handwritten text unless otherwise indicated.

C. Format for Equipment Identification:
   1. Minimum Size: 1 inch by 2.5 inches.
   2. Legend:
      a. Equipment designation or other approved description.
   3. Text: All capitalized unless otherwise indicated.
   4. Minimum Text Height:
      a. Equipment Designation: 1/2 inch.
   5. Color:
      a. Normal Power System: White text on black background.

D. Format for Receptacle Identification:
   1. Minimum Size: 3/8 inch by 1.5 inches.
   2. Legend: Power source and circuit number or other designation indicated.
   3. Text: All capitalized unless otherwise indicated.
   4. Minimum Text Height: 3/16 inch.
   5. Color: Black text on clear background.

2.03 WIRE AND CABLE MARKERS

A. Markers for Conductors and Cables: Use wrap-around self-adhesive vinyl cloth, wrap-around self-adhesive vinyl self-laminating, heat-shrink sleeve, or plastic clip-on type markers suitable for the conductor or cable to be identified.

B. Markers for Conductor and Cable Bundles: Use plastic marker tags secured by nylon cable ties.

C. Legend: Power source and circuit number or other designation indicated.

D. Text: Use factory pre-printed or machine-printed text, all capitalized unless otherwise indicated.
   1. Do not use handwritten text.

E. Minimum Text Height: 1/8 inch.

F. Color: Black text on white background unless otherwise indicated.

2.04 WARNING SIGNS AND LABELS

A. Comply with ANSI Z535.2 or ANSI Z535.4 as applicable.

B. Warning Signs:
   1. Materials:
      a. Indoor Dry, Clean Locations: Use factory pre-printed rigid plastic or self-adhesive vinyl signs.
   2. Rigid Signs: Provide four mounting holes at corners for mechanical fasteners.
   3. Minimum Size: 7 by 10 inches unless otherwise indicated.

C. Warning Labels:
   1. Materials: Use factory pre-printed or machine-printed self-adhesive polyester or self-adhesive vinyl labels; UV, chemical, water, heat, and abrasion resistant; produced using materials recognized to UL 969.
   2. Machine-Printed Labels: Use thermal transfer process printing machines and accessories recommended by label manufacturer.
   3. Minimum Size: 2 by 4 inches unless otherwise indicated.

PART 3 EXECUTION

3.01 PREPARATION

A. Clean surfaces to receive adhesive products according to manufacturer's instructions.

3.02 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Install identification products to be plainly visible for examination, adjustment, servicing, and maintenance. Unless otherwise indicated, locate products as follows:
   1. Surface-Mounted Equipment: Enclosure front.
   2. Flush-Mounted Equipment: Inside of equipment door.
   3. Free-Standing Equipment: Enclosure front; also enclosure rear for equipment with rear access.
   4. Elevated Equipment: Legible from the floor or working platform.
   5. Interior Components: Legible from the point of access.
   6. Conductors and Cables: Legible from the point of access.
   7. Devices: Outside face of cover.

C. Install identification products centered, level, and parallel with lines of item being identified.

D. Secure nameplates to exterior surfaces of enclosures using stainless steel screws and to interior surfaces using self-adhesive backing or epoxy cement.

E. Install self-adhesive labels and markers to achieve maximum adhesion, with no bubbles or wrinkles and edges properly sealed.

F. Secure rigid signs using stainless steel screws.

3.03 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for additional requirements.

B. Replace self-adhesive labels and markers that exhibit bubbles, wrinkles, curling or other signs of improper adhesion.

END OF SECTION

SECTION 26 2726
WIRING DEVICES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Wall switches.

B. Receptacles.

C. Wall plates.

1.02 RELATED REQUIREMENTS

A. Section 26 0533.16 - Boxes for Electrical Systems.

B. Section 26 0553 - Identification for Electrical Systems: Identification products and requirements.

1.03 REFERENCE STANDARDS

A. FS W-C-596 - Connector, Electrical, Power, General Specification for 2014h, with Amendments (2017).

B. FS W-S-896 - Switches, Toggle (Toggle and Lock), Flush-mounted (General Specification) 2014g, with Amendment (2017).

C. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.

D. NECA 130 - Standard for Installing and Maintaining Wiring Devices 2016.

E. NEMA WD 1 - General Color Requirements for Wiring Devices 1999 (Reaffirmed 2020).

F. NEMA WD 6 - Wiring Devices - Dimensional Specifications 2021.

G. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

H. UL 20 - General-Use Snap Switches Current Edition, Including All Revisions.

I. UL 498 - Attachment Plugs and Receptacles Current Edition, Including All Revisions.

J. UL 514D - Cover Plates for Flush-Mounted Wiring Devices Current Edition, Including All Revisions.

K. UL 943 - Ground-Fault Circuit-Interrupters Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate the placement of outlet boxes with millwork, furniture, equipment, etc. installed under other sections or by others.
   2. Coordinate wiring device ratings and configurations with the electrical requirements of actual equipment to be installed.
   3. Coordinate the placement of outlet boxes for wall switches with actual installed door swings.
   4. Coordinate the installation and preparation of uneven surfaces, such as split face block, to provide suitable surface for installation of wiring devices.
   5. Notify Architect of any conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.

B. Sequencing:
   1. Do not install wiring devices until final surface finishes and painting are complete.

1.05 SUBMITTALS

A. See Section 01 3300 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.

C. Operation and Maintenance Data:
   1. Wall Dimmers: Include information on operation and setting of presets.
   2. GFCI Receptacles: Include information on status indicators.

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

C. Products: Listed, classified, and labeled as suitable for the purpose intended.

PART 2 PRODUCTS

2.01 WIRING DEVICE APPLICATIONS

A. Provide wiring devices suitable for intended use and with ratings adequate for load served.

B. For single receptacles installed on an individual branch circuit, provide receptacle with ampere rating not less than that of the branch circuit.

C. Provide weather resistant GFCI receptacles with specified weatherproof covers for receptacles installed outdoors or in damp or wet locations.

D. Provide GFCI protection for receptacles installed within 6 feet of sinks.

E. Unless noted otherwise, do not use combination switch/receptacle devices.

2.02 WIRING DEVICE FINISHES

A. Provide wiring device finishes as described below unless otherwise indicated.

B. Wiring Devices, Unless Otherwise Indicated: Gray with stainless steel wall plate.

C. Wiring Devices Installed in Wet or Damp Locations: Gray with specified weatherproof cover.

2.03 WALL SWITCHES

A. Manufacturers:
   1. Hubbell Incorporated: www.hubbell.com.
   2. Leviton Manufacturing Company, Inc: www.leviton.com.
   3. Pass & Seymour, a brand of Legrand North America, Inc: www.legrand.us.
   4. Pre-approved equivalent.

B. Wall Switches - General Requirements: AC only, quiet operating, general-use snap switches with silver alloy contacts, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 20 and where applicable, FS W-S-896; types as indicated on the drawings.
   1. Wiring Provisions: Terminal screws for side wiring and screw actuated binding clamp for back wiring with separate ground terminal screw.

2.04 RECEPTACLES

A. Manufacturers:
   1. Hubbell Incorporated: www.hubbell.com.
   2. Leviton Manufacturing Company, Inc: www.leviton.com.
   3. Pass & Seymour, a brand of Legrand North America, Inc: www.legrand.us.
   4. Pre-approved equivalent.

B. Receptacles - General Requirements: Self-grounding, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 498, and where applicable, FS W-C-596; types as indicated on the drawings.
   1. Wiring Provisions: Terminal screws for side wiring with separate ground terminal screw.
   2. NEMA configurations specified are according to NEMA WD 6.

C. Convenience Receptacles:
   1. Standard Convenience Receptacles: Commercial specification grade, 20A, 125V, NEMA 5-20R; single or duplex as indicated on the drawings.
   2. Weather Resistant Convenience Receptacles: Industrial specification grade, 20A, 125V, NEMA 5-20R, listed and labeled as weather resistant type complying with UL 498 Supplement SE suitable for installation in damp or wet locations; single or duplex as indicated on the drawings.

D. GFCI Receptacles:
   1. GFCI Receptacles - General Requirements: Self-testing, with feed-through protection and light to indicate ground fault tripped condition and loss of protection; listed as complying with UL 943, class A.
      a. Provide test and reset buttons of same color as device.
   2. Standard GFCI Receptacles: Commercial specification grade, duplex, 20A, 125V, NEMA 5-20R, rectangular decorator style.
   3. Weather Resistant GFCI Receptacles: Industrial specification grade, duplex, 20A, 125V, NEMA 5-20R, rectangular decorator style, listed and labeled as weather resistant type complying with UL 498 Supplement SE suitable for installation in damp or wet locations.

2.05 WALL PLATES

A. Wall Plates: Comply with UL 514D.
   1. Configuration: One piece cover as required for quantity and types of corresponding wiring devices.
   2. Size: Standard.
   3. Screws: Metal with tamper-resistant heads finished to match wall plate finish.

B. Stainless Steel Wall Plates: Brushed satin finish, Type 302 stainless steel.

C. Weatherproof Covers for Wet Locations: Gasketed, cast aluminum, with hinged lockable cover and corrosion-resistant screws; listed as suitable for use in wet locations while in use with attachment plugs connected and identified as extra-duty type.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate devices and conductors in accordance with NFPA 70.

C. Verify that wall openings are neatly cut and will be completely covered by wall plates.

D. Verify that final surface finishes are complete, including painting.

E. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

F. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.

B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

3.03 INSTALLATION

A. Perform work in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards unless otherwise indicated.

B. Coordinate locations of outlet boxes provided under Section 26 0533.16 as required for installation of wiring devices provided under this section.
   1. Mounting Heights: Unless otherwise indicated, as follows:
      a. Wall Switches: 48 inches above finished floor.
      b. Wall Dimmers: 48 inches above finished floor.
      c. Receptacles: 18 inches above finished floor or 6 inches above counter.
   2. Orient outlet boxes for vertical installation of wiring devices unless otherwise indicated.
   3. Locate wall switches on strike side of door with edge of wall plate 3 inches from edge of door frame. Where locations are indicated otherwise, notify Architect to obtain direction prior to proceeding with work.

C. Install wiring devices in accordance with manufacturer's instructions.

D. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.

E. Where required, connect wiring devices using pigtails not less than 6 inches long. Do not connect more than one conductor to wiring device terminals.

F. Connect wiring devices by wrapping conductor clockwise 3/4 turn around screw terminal and tightening to proper torque specified by the manufacturer. Where present, do not use push-in pressure terminals that do not rely on screw-actuated binding.

G. Unless otherwise indicated, connect wiring device grounding terminal to branch circuit equipment grounding conductor and to outlet box with bonding jumper.

H. Provide GFCI receptacles with integral GFCI protection at each location indicated. Do not use feed-through wiring to protect downstream devices.

I. Install wiring devices plumb and level with mounting yoke held rigidly in place.

J. Install wall switches with OFF position down.

K. Install vertically mounted receptacles with grounding pole on top and horizontally mounted receptacles with grounding pole on left.

L. Install wall plates to fit completely flush to wall with no gaps and rough opening completely covered without strain on wall plate. Repair or reinstall improperly installed outlet boxes or improperly sized rough openings. Do not use oversized wall plates in lieu of meeting this requirement.

M. Install blank wall plates on junction boxes and on outlet boxes with no wiring devices installed or designated for future use.

N. Identify wiring devices in accordance with Section 26 0553.

3.04 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for additional requirements.

B. Inspect each wiring device for damage and defects.

C. Operate each wall switch, wall dimmer, and fan speed controller with circuit energized to verify proper operation.

D. Test each receptacle to verify operation and proper polarity.

E. Test each GFCI receptacle for proper tripping operation according to manufacturer's instructions.

F. Correct wiring deficiencies and replace damaged or defective wiring devices.

3.05 ADJUSTING

A. Adjust devices and wall plates to be flush and level.

3.06 CLEANING

A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

END OF SECTION

SECTION 26 5100
INTERIOR LIGHTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Interior luminaires.

B. Emergency lighting units.

1.02 RELATED REQUIREMENTS

A. Section 26 0529 - Hangers and Supports for Electrical Systems.

B. Section 26 0533.16 - Boxes for Electrical Systems.

1.03 REFERENCE STANDARDS

A. IES LM-79 - Approved Method: Optical and Electrical Measurements of Solid-State Lighting Products 2019.

B. IES LM-80 - Approved Method: Measuring Maintenance of Light Output Characteristics of Solid-State Light Sources 2021.

C. NECA 1 - Standard for Good Workmanship in Electrical Construction 2015.

D. NECA/IESNA 500 - Standard for Installing Indoor Lighting Systems 2006.

E. NECA/IESNA 502 - Standard for Installing Industrial Lighting Systems 1999 (Reaffirmed 2006).

F. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

G. NFPA 101 - Life Safety Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

H. UL 924 - Emergency Lighting and Power Equipment Current Edition, Including All Revisions.

I. UL 1598 - Luminaires Current Edition, Including All Revisions.

J. UL 8750 - Light Emitting Diode (LED) Equipment for Use in Lighting Products Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Coordinate the installation of luminaires with mounting surfaces installed under other sections or by others. Coordinate the work with placement of supports, anchors, etc. required for mounting. Coordinate compatibility of luminaires and associated trims with mounting surfaces at installed locations.
2. Coordinate the placement of luminaires with structural members, ductwork, piping, equipment, diffusers, fire suppression system components, and other potential conflicts installed under other sections or by others.
3. Notify Architect of any conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.

1.05 SUBMITTALS

A. See Section 01 3300 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide manufacturer's standard catalog pages and data sheets including detailed information on luminaire construction, dimensions, ratings, finishes, mounting requirements, listings, service conditions, photometric performance, installed accessories, and ceiling compatibility; include model number nomenclature clearly marked with all proposed features.

1. LED Luminaires:
   a. Include estimated useful life, calculated based on IES LM-80 test data.

C. Operation and Maintenance Data: Instructions for each product including information on replacement parts.

1.06 QUALITY ASSURANCE

A. Comply with requirements of NFPA 70.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.07 DELIVERY, STORAGE, AND PROTECTION

A. Receive, handle, and store products according to NECA/IESNA 500 (commercial lighting) and manufacturer's written instructions.

B. Keep products in original manufacturer's packaging and protect from damage until ready for installation.

1.08 FIELD CONDITIONS

A. Maintain field conditions within manufacturer's required service conditions during and after installation.

1.09 WARRANTY

A. See Section 01 7700 - Closeout Submittals, for additional warranty requirements.

B. Provide five year manufacturer warranty for LED luminaires, including drivers.

PART 2 PRODUCTS

2.01 LUMINAIRE TYPES

A. Furnish products as indicated in luminaire schedule included on the drawings.

2.02 LUMINAIRES

A. Manufacturers:
   1. Acuity Brands, Inc: www.acuitybrands.com.
   2. Cooper Lighting, a division of Cooper Industries: www.cooperindustries.com.
   3. Hubbell Lighting, Inc: www.hubbelllighting.com.
   4. Pre-approved equivalent.

B. Provide products that comply with requirements of NFPA 70.

C. Provide products that are listed and labeled as complying with UL 1598, where applicable.

D. Provide products listed, classified, and labeled as suitable for the purpose intended.

E. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, ballasts, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.

F. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, supports, trims, accessories, etc. as necessary for a complete operating system.

G. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.

H. LED Luminaires:
   1. Components: UL 8750 recognized or listed as applicable.
   2. Tested in accordance with IES LM-79 and IES LM-80.
   3. LED Estimated Useful Life: Minimum of 50,000 hours at 70 percent lumen maintenance, calculated based on IES LM-80 test data.

2.03 EMERGENCY LIGHTING UNITS

A. Description: Emergency lighting units complying with NFPA 101 and all applicable state and local codes, and listed and labeled as complying with UL 924.

B. Operation: Upon interruption of normal power source or brownout condition exceeding 20 percent voltage drop from nominal, solid-state control automatically switches connected lamps to integral battery power for minimum of 90 minutes of rated emergency illumination, and automatically recharges battery upon restoration of normal power source.

C. Battery:
   1. Size battery to supply all connected lamps, including emergency remote heads where indicated.

D. Diagnostics: Provide power status indicator light and accessible integral test switch to manually activate emergency operation.

E. Provide low-voltage disconnect to prevent battery damage from deep discharge.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate conductors in accordance with NFPA 70.

C. Verify that suitable support frames are installed where required.

D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to luminaires.

E. Verify that conditions are satisfactory for installation prior to starting work.

3.02 PREPARATION

A. Provide extension rings to bring outlet boxes flush with finished surface.

B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

3.03 INSTALLATION

A. Coordinate locations of outlet boxes provided under Section 26 0533.16 as required for installation of luminaires provided under this section.

B. Perform work in accordance with NECA 1 (general workmanship).

C. Install products in accordance with manufacturer's instructions.

D. Install luminaires securely, in a neat and workmanlike manner, as specified in NECA 500 (commercial lighting) and NECA 502 (industrial lighting).

E. Provide required support and attachment in accordance with Section 26 0529.

F. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.

G. Install accessories furnished with each luminaire.

H. Bond products and metal accessories to branch circuit equipment grounding conductor.

I. Emergency Lighting Units:
   1. Unless otherwise indicated, connect unit to unswitched power. Bypass local switches, contactors, or other lighting controls.

3.04 FIELD QUALITY CONTROL

A. See Section 01 4000 - Quality Requirements, for additional requirements.

B. Inspect each product for damage and defects.

C. Operate each luminaire after installation and connection to verify proper operation.

D. Test self-powered exit signs, emergency lighting units, and fluorescent emergency power supply units to verify proper operation upon loss of normal power supply.

E. Correct wiring deficiencies and repair or replace damaged or defective products. Repair or replace excessively noisy ballasts as determined by Architect.

3.05 CLEANING

A. Clean surfaces according to NECA 500 (commercial lighting) and manufacturer's instructions to remove dirt, fingerprints, paint, or other foreign material and restore finishes to match original factory finish.

3.06 PROTECTION

A. Protect installed luminaires from subsequent construction operations.

END OF SECTION

EXISTING GYM STORAGE (CONCESSIONS)

EXISTING GYM STORAGE (CONCESSIONS)

EXISTING GYM STORAGE (CONCESSIONS)

EXISTING GYM STORAGE (CONCESSIONS)

Exhibit C Facility Work Requirements

DOC FDCF Unit H Gym Concessions
Fort Dodge Correctional Facility
Request for Quote RFQ 928900-02

Due Tuesday, September 21st, 2023 at 2:00 PM (CT)

WORK HOUR RESTRICTIONS

1. Allowable work hours are from 7:00 AM to 5:00 PM, Monday through Friday unless arrangements are made in advance.

CONTRACTOR USE OF SITE AND PREMISES

1. Construction Operations: Limited to Building H and its exterior.
2. Provide access to and from site as required by law and Owner:
    a. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
    b. Do not obstruct roadways, sidewalks, or other public ways without permission of Owner and permit if required.
3. Facility will be occupied at all times during duration of work. Contractor personnel shall conduct themselves in an agreeable manner at all times. Failure to do so may result in removal from the work site.
4. The contractor shall identify their work zones with a barrier such as caution tape to help delineate the construction areas from public areas.
5. If a crane, lift or other equipment is necessary inside the Facility to perform the work, the mobilization must be coordinated and approved by FDCF Staff and the Construction Manager.
6. Any equipment used inside the perimeter fence must be sized to fit through the sally-port without need to modify the sally-port.

OWNER OCCUPANCY

1. Owner intends to occupy the Project throughout construction.
2. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
3. Schedule the Work to accommodate Owner occupancy.

RULES FOR CONSTRUCTION WORKERS

1. The staff of the State of Iowa has a responsibility to protect the public by providing a secure environment. All work site rules must always be followed.
2. All construction workers must have a background check completed prior to entering the campus to perform work. There is no cost to the Contractor for them.
3. All State properties are tobacco free. No smoking will be permitted or tolerated on campus unless in designated areas.
4. Contractors are permitted access only to the work site and no other areas of the Fort Dodge Correctional Facility.
5. No drugs, alcohol, or firearms are allowed on the work site.
6. Do not leave money, drugs, alcohol, or firearms in your personal vehicle.
7. Company and personal vehicles are to be parked and locked in designated or authorized area of the work.
8. Maintain control of all tools, supplies, and debris always. All tools must always be accounted for

and secured at the end of each shift.

9. All vehicles must be locked when unoccupied and the windows left open no more than 1-inch.
10. Do not give anything to residents or take anything from residents; if they offer, inform your supervisor.
11. Ladders and scaffolding must be taken down when not in use and at the end of each shift.
12. Fuel cans are always to be secured.
13. During an emergency, follow the instructions of the security staff.
14. A correctional facility is a somewhat unstable environment and poses certain potential hazards to individuals living, working and visiting within its confines. As a result, compliance with facility policies and procedures, as well as the directives of facility staff is essential. Individuals working inside the facility agree to follow all known policies and procedures, agree to follow the directives of facility staff, and acknowledge responsibility to seek assistance of facility staff if questions or questionable circumstances arise. Individuals working inside the facility also must follow these guidelines:
    a. Workers must be suitably attired. They will be properly attired as would be expected in a public meeting place. Workers will wear shoes and will not wear miniskirts, shorts, muscle shirts, see-through clothing, halter-tops or clothing made of lycra or spandex material. Split skirts of appropriate length are allowed. Blue chambray shirts are not allowed to be worn with blue jeans. No clothing shall be worn with obscene or lewd slogans, pictures, or words, and similar apparel. All female workers are required to wear a bra and underwear.

    b. Workers will be required to clear a metal detector scan or other scanning device prior to admittance. Any person who is unable to clear the metal detector scan may be pat searched. All other items such as coats shall be searched electronically and may be manually searched as well. Entrance may be denied if the worker is not willing to submit to a search.

    c. Workers will be required to bring a list of tools they will be taking inside the facility. These tools will be inventoried going into the facility and again when the worker is leaving the facility. All tools will be accounted for throughout the day.

    d. For security and safety purposes workers must be escorted by a staff member.

    e. Cell phones, weapons, and cameras/camcorders are not allowed inside the facility. The foreman will be allowed to have one cell phone.

    f. Wallets, purses, and billfolds are not allowed inside the facility.

    g. Tobacco products are not allowed inside the facility.

All unauthorized items shall be locked in vehicles or secured in the lockers provided in the “K”

Exhibit D Sample Certification of Insurance

DOC FDCF Unit H Gym Concessions
Fort Dodge Correctional Facility
Request for Quote RFQ 928900-02

Due Tuesday, September 21st, 2023 at 2:00 PM (CT)

SAMPLE

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): XX/XX/XXXX

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Agent's Information	
Agent's Name Agent's Address	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A: Company A (AM Best Rated A/VI or Better)	Admitted Carriers
INSURED Trade Contractor's Name Trade Contractor's Mailing Address	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

	INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS Minimum	
*	A	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC OTHER:	X	X	#TBD- CGL	3/1/17	3/1/18	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ $ $1,000,000 $2,000,000 $1,000,000 $
	B	AUTOMOBILE LIABILITY [X] ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS	X	X	#TBD-AL	3/1/17	3/1/18	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
	C	UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED RETENTION $	X	X	#TBD-UMB	3/1/17	3/1/18	EACH OCCURRENCE AGGREGATE	$ 2,000,000 $ $
	D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	#TBD-WC	3/1/17	3/1/18	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $500,000 $500,000 $500,000
*	E	Owners Contrators Protective Liability			#TBD-OCP	3/1/17	3/1/18	*Limits equal to CGL (or) as required by owner (Note- Would be either CGL or OCP, not both)	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Additional Insured on a Primary & Non-Contributory basis (CGL;AL;UMB/Excess) in favor of : (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.
Waiver of Subrogation (CGL;AL;WC/EL;UMB/Excess) in favor of: (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.

Project XXXX.XX (Number varies by project)

CERTIFICATE HOLDER

Iowa Department of Administrative Services (DAS)
109 SE 13th Street
Des Moines, IA 50319

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

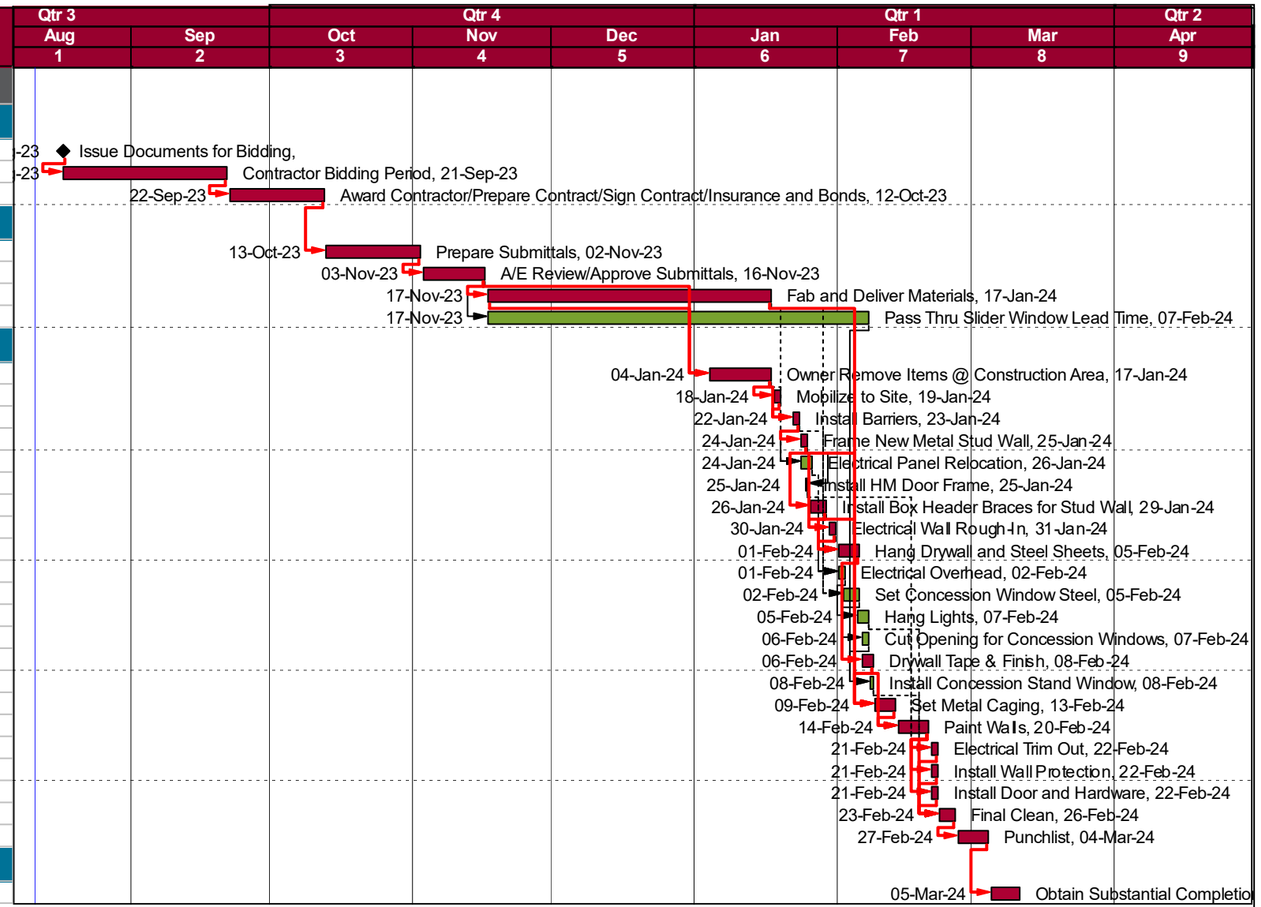
Signature

Exhibit E Proposed Schedule

DOC FDCF Unit H Gym Concessions
Fort Dodge Correctional Facility
Request for Quote RFQ 928900-02

Due Tuesday, September 21st, 2023 at 2:00 PM (CT)

Activity ID	Activity Name	Orig Dur	Start	Finish
State of Iowa DAS - FDCF Bldg H Gym Concessions(Redesigned)		143	17-Aug-23	11-Mar-24
Preconstruction		40	17-Aug-23	12-Oct-23
A1100	Issue Documents for Bidding	0	17-Aug-23	
A1110	Contractor Bidding Period	25	17-Aug-23	21-Sep-23
A1120	Award Contractor/Prepare Contract/Sign Contract/Insurance and Bonds	15	22-Sep-23	12-Oct-23
Procurement		80	13-Oct-23	07-Feb-24
A1130	Prepare Submittals	15	13-Oct-23	02-Nov-23
A1150	A/E Review/Approve Submittals	10	03-Nov-23	16-Nov-23
A1160	Fab and Deliver Materials	40	17-Nov-23	17-Jan-24
A1370	Pass Thru Slider Window Lead Time	55	17-Nov-23	07-Feb-24
Construction		43	04-Jan-24	04-Mar-24
A1170	Owner Remove Items @ Construction Area	10	04-Jan-24	17-Jan-24
A1140	Mobilize to Site	2	18-Jan-24	19-Jan-24
A1180	Install Barriers	2	22-Jan-24	23-Jan-24
A1210	Frame New Metal Stud Wall	2	24-Jan-24	25-Jan-24
A1400	Electrical Panel Relocation	3	24-Jan-24	26-Jan-24
A1420	Install HM Door Frame	1	25-Jan-24	25-Jan-24
A1200	Install Box Header Braces for Stud Wall	2	26-Jan-24	29-Jan-24
A1220	Electrical Wall Rough-In	2	30-Jan-24	31-Jan-24
A1190	Hang Drywall and Steel Sheets	3	01-Feb-24	05-Feb-24
A1390	Electrical Overhead	2	01-Feb-24	02-Feb-24
A1240	Set Concession Window Steel	2	02-Feb-24	05-Feb-24
A1380	Hang Lights	3	05-Feb-24	07-Feb-24
A1250	Cut Opening for Concession Windows	2	06-Feb-24	07-Feb-24
A1360	Drywall Tape & Finish	3	06-Feb-24	08-Feb-24
A1260	Install Concession Stand Window	1	08-Feb-24	08-Feb-24
A1230	Set Metal Caging	3	09-Feb-24	13-Feb-24
A1300	Paint Walls	5	14-Feb-24	20-Feb-24
A1310	Electrical Trim Out	2	21-Feb-24	22-Feb-24
A1410	Install Wall Protection	2	21-Feb-24	22-Feb-24
A1430	Install Door and Hardware	2	21-Feb-24	22-Feb-24
A1320	Final Clean	2	23-Feb-24	26-Feb-24
A1330	Punchlist	5	27-Feb-24	04-Mar-24
Closeout		5	05-Mar-24	11-Mar-24
A1340	Obtain Substantial Completion Certificate	5	05-Mar-24	11-Mar-24



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

State of Iowa DAS - FDCF Bldg H Gym Concessions(Redesigned)
*****Current Schedule*****
17-Aug-23
1 of 1

McGOUGH

Department of Administrative Services
Empowering People Collaboration Customer Service