STUDIO MELEE

To: All Plan Holders and Prospective Bidders

Re: State Center Fire Department
Renovation & Addition – Redesign
109 E Main Street
State Center, Iowa 50247

ADDENDUM #02

January 09, 2026

This addendum incorporates the following changes to the bid documents dated 18 December 2025. To be considered, bidders shall indicate on the Bid Form that this communication was received and that all changes were included in their bid total. It is the responsibility of the contractor to contact the owner's representative prior to bid date to verify the issuing of any and all clarifying addenda.

These items shall supersede all statements to the contrary in the drawings and project manual (specifications) and shall take precedence over those documents. These items are not listed in any particular order and are intended to add, omit, revise and/or clarify the original scope of work.

Addendum #2: **25 Pages Total**

Please feel free to contact me via phone at 515-460-5431 or email at chris@studiomelee.com if you have any questions or comments concerning this addendum or if you require additional information/clarification.

Respectfully submitted,

Christopher P. Wernimont, AIA

STUDIO MELEE

Architectural Addendum:

Item #A1: **087100 – ELECTRIFIED DOOR OPERTOR SUBSTITUTIONS**

1. **Approved Manufacturer's:**
   a. Horton Automatics
   b. Stanley Access Technologies
2. **Note:** See approval note on substitution request forms (attached).

Item #A2: **133400 – METAL PANEL ACCESSORY CLARIFICATIONS & SUBSTITUTIONS**

1. **Omit** paragraph 2.6.A. Anti-Condensation Felt, for underside of steel panels– product not used.
2. **Approved Manufacturer & Products:**
   a. American Building Components (ABC):
      i. Metal Panel 2A (Field): AVP Exposed Fastener Wall Panel.
      Finish: Ash Gray or as selected by Architect from mfg's full color line.
      ii. Metal Panel 2B (Accent): AVP Exposed Fastener Wall Panel.
      Finish: Scarlet Red or as selected by Architect from mfg's full color line.
      iii. Metal Panel 2C (Roof): PBR Exposed Fastener Roof Panel.
      Finish: Ash Gray or as selected by Architect from mfg's full color line.
      iv. Metal Liner Panels (MLP): PBD Exposed Fastener Liner Panel (for walls).
      Finish: Polar White or as selected by Architect from mfg's full color line.
      v. Metal Liner Panels (MLP): PBR (reversed rolled) Exposed Fastener Liner Panel (for roof).
      Finish: Polar White or as selected by Architect from mfg's full color line.

Item #A3: **SHEET A0.2 – REVISE ASSEMBLIES**

1. **Assembly C1A/B:**
   a. **Omit** Anti-Condensation Felt Backing from assembly **C1A**.
   b. **Add** 10-mil poly vapor barrier to assembly **C1B**. Vapor barrier to be located between GWB and wood framing.
2. **Assemblies W5A/B, W5C, W5D/E:**
   a. **Revise** framing type from metal stud framing to **wood stud framing**.

Item #A4: **SHEET A4.1 and SHEET A8.1 – REVISE SOFFIT ASSEMBLY TYPE @ INSET WIDOW**

1. **Revise** 1/A4.1 soffit assembly from S1 to **C1A** at soffit of inset window- S1 not used.
2. **Revise** 1/A8.1 soffit assembly from S1 to **C1A** at soffit of inset window- S1 not used.

Item #A5: **SHEET A9.1 – FINISH SCHEDULE – RM #114 REVISE CEILING FINISH**

1. **Revise** room #114 Apparatus Storage ceiling finish to **MLP**.
   a. **Note:** ceiling finish shown correctly on A8.1 Ceiling Plan.

STUDIO MELEE

Item #A6: **SHEET A9.1 – FINISH LEGEND REVISIONS**

1. **Revise** manufacturer listing for 'MLP', 'MRP', 'MWP-1', 'MWP-2', 'PFIN-1', and 'PFIN2' from Butler MFG. to **McElroy Metal**.
2. **Revise** description listing for MWP-1 from Metal Wall Panel – Type 1 to **Metal Wall Panel – Type 2A (field)**.
3. **Revise** description listing for MWP-2 from Metal Wall Panel – Type 2 to **Metal Wall Panel – Type 2B (accent)**.

Item #A7: **BIDDER QUESTIONS & DESIGN TEAM RESPONSES**

1. Q: Will a water softener be needed since specification mentions use of salt pellets?
   A: A water softener is not needed since the City of State Center has a city-wide R/O system.
2. Q: Please provide clarification on where accent metal finishes are located.?
   A: Accent metal panels and trims are anticipated at Chief Office inset window and at overhead door openings- reference elevations 2 &3/A2.1 and details 8/A5.2 & 5/A5.3.

End of Architectural Addendum

SUBSTITUTION REQUEST FORM

We hereby submit for your review & consideration the following product in lieu of the specified item for the following project:

PROJECT TITLE: State Center Fire Department – Renovation & Addition – Redesign

	SECTION	TITLE	PARAGRAPH	ITEM
SPECIFICATION	133400	MLP	D	Wall Liner
	NUMBER	**TITLE**	**ITEM**	

DRAWING

PBD

Proposed Substitution: 29 gauge ~~Econo~~ panel For Wall Liner.

Complete the attached information on changes to the Specifications and/or Drawings for the proposed substitution. Provide additional information for any changes required for proper installation of the proposed substitution.

Submit, as requested, all necessary samples and backup information to prove equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance. Failure to do so will result in a returned, non-reviewed substitution request form.

Substitutions of the materials and equipment described in the Bid Documents will be considered during the bidding period only. Substitution requests shall be reviewed and approved by the Design Professional prior to the date set for receipt of bids as described in the front end of the specification.

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE

The undersigned states that the function, appearance, and quality are equivalent or superior to the specified item.

Submitted by: Jason LaRue

Signature: _____ Title: President

Organization: The Pro-Line Building Co. of Iowa

Address: 1365 Hwy 63 Nwest Sheldon IA 51201

Telephone: 641-657-4075 Email: jlarue@plbc.com Date: 1/9/26

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

For Use by Design Professional:

_____ Approved
_____ Not Approved
X Approved as Noted
_____ Received Too Late

Signed by: _____ Date: 09 Jan. 2026

PBD metal liner panel as mfg'd by ABC is approved for substitution.
Metal panel finish to be selected by Architect from mfg's full range of finishes/colors.
Installer to provide all necessary trims, flashings, mounting hardware, fasteners, and accessories for a complete and warrantied installation.

SUBSTITUTION REQUEST FORM

We hereby submit for your review & consideration the following product in lieu of the specified item for the following project:

PROJECT TITLE: State Center Fire Department – Renovation & Addition – Redesign

	SECTION	TITLE	PARAGRAPH	ITEM
SPECIFICATION	133400	Prefinished Materials	2.5	A, B & C
	NUMBER	**TITLE**	**ITEM**	
DRAWING				

Proposed Substitution: PBR Roof panels & AVP wall panels from American Building Components

Complete the attached information on changes to the Specifications and/or Drawings for the proposed substitution. Provide additional information for any changes required for proper installation of the proposed substitution.

Submit, as requested, all necessary samples and backup information to prove equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance. Failure to do so will result in a returned, non-reviewed substitution request form.

Substitutions of the materials and equipment described in the Bid Documents will be considered during the bidding period only. Substitution requests shall be reviewed and approved by the Design Professional prior to the date set for receipt of bids as described in the front end of the specification.

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE

The undersigned states that the function, appearance, and quality are equivalent or superior to the specified item.

Submitted by: Jason LaRue

Signature: [signature] Title: President

Organization: The Parkline Building Co of Iowa

Address: 1385 Hwy 63 New Sharon IA 50207

Telephone: 641-637-4035 Email: jlarue@plbco.com Date: 1/9/26

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

For Use by Design Professional:

_____ Approved X Approved as Noted
_____ Not Approved _____ Received Too Late

Signed by: [signature] Date: 09 Jan. 2026

PBR metal roof panel and AVP metal wall panels as mfg'd by ABC are approved for substitution.
Metal panel finishes to be selected by Architect from mfg's full range of finishes/colors.
Installer to provide all necessary trims, flashings, mounting hardware, fasteners, and accessories for a complete and warrantied installation.

SUBSTITUTION REQUEST FORM

We hereby submit for your review & consideration the following product in lieu of the specified item for the following project:

PROJECT TITLE: State Center Fire Department – Renovation & Addition – Redesign

	SECTION	TITLE	PARAGRAPH	ITEM
SPECIFICATION	133400	Ceiling Liner	D page 8	Liner for Ceiling
	NUMBER	**TITLE**	**ITEM**	

DRAWING

Proposed Substitution: Utility R 26 gauge Reverse Roll for Ceiling Liner

Complete the attached information on changes to the Specifications and/or Drawings for the proposed substitution. Provide additional information for any changes required for proper installation of the proposed substitution.

Submit, as requested, all necessary samples and backup information to prove equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance. Failure to do so will result in a returned, non-reviewed substitution request form.

Substitutions of the materials and equipment described in the Bid Documents will be considered during the bidding period only. Substitution requests shall be reviewed and approved by the Design Professional prior to the date set for receipt of bids as described in the front end of the specification.

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE

The undersigned states that the function, appearance, and quality are equivalent or superior to the specified item.

Submitted by: Jason LeRue

Signature: [signature] Title: President

Organization: The Pro-Line Building Co. of Iowa

Address: 1385 Hwy 63 New Sharon IA 50207

Telephone: 641-637-4035 Email: Jlaverpblco.com Date: 1/9/26

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

For Use by Design Professional:

_____ Approved __X__ Approved as Noted
_____ Not Approved _____ Received Too Late

Signed by: [signature] Date: 09 Jan. 2026

The PBR (utility R 26) metal liner panel as mfg'd by ABC is approved for substitution for the ceiling liner only.
Metal panel finish to be selected by Architect from mfg's full range of finishes/colors.
Installer to provide all necessary trims, flashings, mounting hardware, fasteners, and accessories for a complete and warrantied installation.

SUBSTITUTION REQUEST
(During the Bidding/Negotiating Phase)

BASEPOINT BUILDING AUTOMATIONS

PROJECT: State Center Fire Department Renovation & Addition

SUBSTITUTION REQUEST NUMBER: na

FROM: James Moland

TO: Chris Wernimont

DATE: 1/7/26

A/E PROJECT NUMBER: SCFD-Renovation & Addition

RE: Automatic Operators

CONTRACT FOR:

SPECIFICATION TITLE: Door Hardware

DESCRIPTION: Electrohydraulic Door Operators

SECTION: 087100 **PAGE:** 15 & 16

ARTICLE/PARAGRAPH: 2.13

PROPOSED SUBSTITUTUION: Horton HD Swing 4100 LE

MANUFACTURER: Horton Automatics **ADDRESS:** 4242 Baldwin Blvd Corpus Christi Tx 78405 **PHONE:** 800-531-3111

TRADE NAME: Horton HD Swing 4100 LE **MODEL NO.:** 4100 LE

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.
Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:
- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

SUBMITTED BY: James Moland

SIGNED BY: James Moland

FIRM: Basepoint Building Automations

ADDRESS: 6200 Thornton Ave. Suite 190

TELEPHONE: 515-558-9474

A/E's REVIEW AND RECOMMENDATION:

- ☐ Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- ☒ Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- ☐ Reject Substitution—Use specified materials.
- ☐ Substitution Request received too late—Use specified materials.

Door hardware supplier shall provide all necessary components for a complete and operational installation.
Door hardware installer shall coordinate install with all other door hardware, door & frame mfgs/installers, and with all other trades.
Architect shall select hardware finish and accessories from mfg. full line of finishes and accessory offerings.

SIGNED BY:

DATE: 09 Jan. 2026

SUPPORTING DATA ATTACHED: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

SUBSTITUTION REQUEST
(During the Bidding/Negotiating Phase)

BASEPOINT BUILDING AUTOMATIONS

PROJECT: State Center Fire Department Renovation & Addition

SUBSTITUTION REQUEST NUMBER: na

FROM: James Moland

TO: Chris Wernimont

DATE: 1/7/26

A/E PROJECT NUMBER: SCFD-Renovation & Addition

RE: Automatic Operators

CONTRACT FOR:

SPECIFICATION TITLE: Door Hardware

DESCRIPTION: Electrohydraulic Door Operators

SECTION: 087100

PAGE: 15 & 16

ARTICLE/PARAGRAPH: 2.13

PROPOSED SUBSTITUTUION: Stanley Magic Force

MANUFACTURER: Stanley Access Technologies

ADDRESS: 65 Scott Swamp Rd Farmington, Ct 06032

PHONE: 1-800-722-2377

TRADE NAME: Stanley Access Technologies

MODEL NO.: Magic Force

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.
Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:
- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

SUBMITTED BY: James Moland

SIGNED BY: James Moland

FIRM: Basepoint Building Automations

ADDRESS: 6200 Thornton Ave. Suite 190

TELEPHONE: 515-558-9474

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Architect shall select hardware finish and accessories from mfg. full line of finishes and accessory offerings.

SIGNED BY:

DATE: 09 Jan. 2026

SUPPORTING DATA ATTACHED: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

STRUCTUREFY

SCFD – Addendum #2 Changes

- Sheet S001
  - Revised Note S.2 in Concrete and Reinforcement General Notes to indicate drainage fill thickness under floor slab
- Sheet S101
  - No changes
- Sheet S102
  - No changes
- Sheet S201
  - Revised notes and shaded area to more accurately reflect approximate over-excavation locations
- Sheet S501
  - Revised Details 6, 7, & 8 to clarify trench footing construction if unsuitable soils are found. Option of extended footing or using lean concrete through unsuitable soils down to suitable soils are given. This is also found in the geotechnical report.
- Sheet S502
  - No changes

STRUCTUREFY ENGINEERING, INC
515.991.4176 | bjb@structurefy.com | www.structurefy.com
5550 Wild Rose Ln, Suite 400, West Des Moines, IA 50266

DESIGN CODES:

A. INTERNATIONAL BUILDING CODE (IBC) 2015 ADDITION & ADOPTED AMENDMENTS BY THE CITY OF STATE CENTER, IOWA
B. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE/SEI 7-16)
C. SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360-16)
D. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-14)
  1. HOT WEATHER CONCRETE: ACI 305
  2. COLD WEATHER CONCRETE: ACI 306
E. BUILDING CODE FOR MASONRY STRUCTURES (TMS 402-2016)
F. NORTH AMERICAN SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBER (AISI S100-16)
G. NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (NDS 2016)
H. STEEL JOIST INSTITUTE STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, LONG-SPAN JOISTS, DEEP LONG-SPAN JOISTS, AND JOIST GIRDERS
I. MBMA METAL BUILDING SYSTEMS MANUAL 2018

DESIGN LOADS:

A. OCCUPANCY CATEGORY: "IV"
B. ROOF LIVE LOADS:
  1. GROUND SNOW — Pg = 30 psf
  2. EXPOSURE FACTOR — Ce = 1.0
  3. IMPORTANCE FACTOR — I = 1.20
  4. THERMAL FACTOR — Ct = 1.0
  5. MINIMUM ROOF SNOW LOAD — Pf = 28.8 psf
  6. DRIFTING/SLIDING SNOW — Pd = AS INDICATED ON DRAWINGS
C. FLOOR LIVE LOADS:
  1. SLABS ON GRADE — 100 psf
D. PRE-ENGINEERED BUILDING LOADS:
  1. ALL LOCATIONS: — 5 psf
    a. LIGHTING: — 1 psf
    b. INSULATION: — 1 psf
    c. SPRINKLER: — 3 psf
E. WIND LOADS:
  1. ULTIMATE WIND SPEED (3 SEC GUST) — 122 MPH
  2. IMPORTANCE FACTOR — I = 1.0
  3. EXPOSURE CATEGORY — C
  4. INTERNAL PRESSURE COEFFICIENT — ± 0.18
  5. WALLS (**1.0W**)
    a. INTERIOR: — 27 psf
    b. END: — 29 psf
  6. ROOF (**1.0W**)
    a. INTERIOR: — -33 psf
    b. EDGE: — -44 psf
    c. CORNER: — -44 psf
    d. NOTE: SUBTRACT 10 psf FOR NET UPLIFT LOADING, UNO
F. SEISMIC LOADS:
  1. SITE CLASS — D
  2. DESIGN CATEGORY — A
  3. RESISTING SYSTEM — WOOD SHEAR WALLS
  4. RESPONSE MODIFICATION — R = 6.5
  5. IMPORTANCE FACTOR — I = 1.5
  6. SHORT PERIOD — SS = 0.059 g
  7. 1-SECOND PERIOD — S1 = 0.050 g
  8. SHORT PERIOD — SDS = 0.063 g
  9. 1-SECOND PERIOD — SD1 = 0.080 g
  10. RESPONSE COEFFICIENT — CS = 0.015
  11. DESIGN BASE SHEAR — 3.1 KIPS
  12. ANALYSIS PROCEDURE: — EQUIVALENT LATERAL FORCE
G. GEOTECHNICAL REPORT
  1. BY — TEAM SERVICES
  2. REPORT NUMBER — 1-5630
  3. DATE — FEBRUARY 19, 2025
H. NET ALLOWABLE BEARING PRESSURES
  1. ISOLATED FOOTINGS — 1500 PSF — PER GEOTECH
  2. CONTINUOUS FOOTINGS — 1500 PSF — PER GEOTECH
I. FOUNDATION ITEMS
  1. FROST DEPTH BELOW GRADE — 42"
  2. OVER-EXCAVATION REQUIRED — YES, POORLY COMPACTED FILL EXISTS ON SITE AT BORING #1 OF GEOTECHNICAL REPORT, NEAR SW CORNER OF ADDITION, TO A DEPTH OF APPROXIMATELY 3'-0 BELOW EXISTING GRADE. SITE EXTENTS AND DEPTH TO BE FIELD VERIFIED DURING SPECIAL INSPECTIONS. CONTRACTOR TO OBTAIN OVER-EXCAVATION COST ON A PER-UNIT BASIS FOR BIDDING.
    a. FOOTINGS — YES, POORLY COMPACTED FILL TO BE COMPLETELY REMOVED. SEE GEOTECHNICAL REPORT.
    b. SLAB — YES, POORLY COMPACTED FILL TO BE COMPLETELY REMOVED. SEE GEOTECHNICAL REPORT.
    c. EXISTING SITE SOILS ARE NOT SUITABLE FOR FILL.
  3. DEEP FOUNDATIONS REQUIRED — NO, ASSUMED
  4. LARGE FILL DEPTH (SETTLEMENT) — NO, ASSUMED. NOTIFY EOR.

GENERAL:

A. THESE DRAWINGS REPRESENT THE COMPLETED PROJECT WHICH HAS BEEN DESIGNED FOR THE LOADS AND MATERIALS INDICATED ON THE DRAWINGS. THE STRUCTURAL ENGINEER HAS ONLY REVIEWED STABILITY OF THE STRUCTURE IN ITS COMPLETED FORM. DETERMINATION OF ALLOWABLE CONSTRUCTION LOADS AND DESIGN OF CONSTRUCTION FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC. IS SOLELY THE CONTRACTOR'S RESPONSIBILITY.
B. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR THE DESIGN OF SYSTEMS NOT SHOWN ON THE STRUCTURAL DOCUMENTS, INCLUDING BUT NOT LIMITED TO STEEL STAIRS, HANDRAILS, PRE-ENGINEERED WOOD BUILDING, CURTAINWALL/WINDOW WALL SYSTEMS, OR COLD-FORMED METAL FRAMING. SUCH SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY OTHERS. STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR CONNECTION OF THESE SYSTEMS TO THE STRUCTURE BUT THESE SYSTEM DESIGNERS SHALL CONFORM WITH THE DESIGN INTENT DEPICTED IN THE STRUCTURAL DOCUMENTS. REVIEW OF SHOP DRAWINGS FOR SUCH SYSTEMS BY THE STRUCTURAL ENGINEER OF RECORD SHALL BE FOR GENERAL CONFORMANCE WITH THE PROJECT PARAMETERS AS INDICATED ON THE DRAWINGS AND IN THE STRUCTURAL NOTES.
C. ALTERNATE PRODUCTS OF SIMILAR STRENGTH, NATURE AND FORM FOR SPECIFIED ITEMS MAY BE SUBMITTED WITH SUPPORTING TECHNICAL DOCUMENTATION, INCLUDING CALCULATIONS IF APPLICABLE, TO THE STRUCTURAL ENGINEER FOR REVIEW. ALTERNATES THAT DEVIATE SIGNIFICANTLY FROM THE DESIGN INTENT MAY BE REJECTED. ALTERNATES THAT REQUIRE SUBSTANTIAL REVIEW TIME WILL NOT BE REVIEWED UNLESS AUTHORIZED BY THE OWNER.
D. IF APPLICABLE, EXISTING BUILDING INFORMATION SHOWN IS AS INDICATED ON EXISTING BUILDING DRAWINGS OR FIELD MEASUREMENTS BY OTHERS. FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF AY DISCREPANCIES PRIOR TO STARTING WORK.
E. DO NOT CUT/MODIFY ANY BEAMS, COLUMNS, JOISTS, AND SLABS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
F. CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS AND METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS
G. DO NOT SCALE DRAWINGS OR MEASURE OBJECTS IN ELECTRONIC FILES TO DETERMINE DIMENSIONS. NOTIFY ARCHITECT/STRUCTURAL ENGINEER OF ANY DISCREPANCIES OR REQUIREMENTS FOR ADDITIONAL DIMENSIONS NOT SHOWN.
H. WHERE CONFLICTS EXIST BETWEEN STRUCTURAL DOCUMENTS THE STRICTEST REQUIREMENTS SHALL GOVERN.
I. CONTRACTOR SHALL NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF DISCREPENCIES WITHIN STRUCTURAL DOCUMENTS AND BETWEEN DISCIPLINES OF THE DESIGN TEAM.
J. STRUCTUREFy ENGINEERING DOES NOT PROVIDE ANY WARRANTY, EXPRESSED OR IMPLIED, FOR CAD OR BIM FILES PROVIDED TO THE CONTRACTOR NOR ANY GUARANTEE OF THE ACCURACY OF INFORMATION FURNISHED VIA ELECTRONIC FORM. IN ALL CASES, THE HARD COPY OF THE STRUCTURAL CONTRACT DOCUMENTS SUPERSEDES ANY AND ALL CAD OR BIM FILES.

SUBMITTALS:

A. SUBMITTAL OF SHOP DRAWINGS, ERECTION LAYOUTS, DETAILS, FITMENT, PLACEMENT AND PRODUCT DATA ARE REQUIRED FOR ITEMS INDICATED BELOW. SUBMITTALS MAY BE PROVIDED ELECTRONICALLY OR HARD COPY.
B. SUBMITTALS SHALL BE MADE IN TIME TO PROVIDE A MINIMUM OF TWO WEEKS FOR REVIEW PRIOR TO THE ONSET OF FABRICATION. REVIEW TIME BY ENGINEER MAY BE LONGER THAN TWO WEEKS FOR LARGE SUBMITTALS. REVIEW OF MULTIPLE SUBMITTALS CONCURRENTLY WILL EXTEND THE REVIEW TIME. IN THESE INSTANCES, CONTRACTOR SHALL SUBMIT A PRIORITIZED LIST OF SHOP DRAWINGS REQUIRING REVIEW, TO BE REVIEWED IN PRIORITIZED ORDER.
C. PRIOR TO SUBMISSION TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW THE SUBMITTAL FOR COMPLETENESS. DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER AND THEREFORE MUST BE VERIFIED BY THE GENERAL CONTRACTOR. CONTRACTOR SHALL PROVIDE ANY NECESSARY DIMENSIONAL DETAILS REQUESTED BY THE DETAILER AND PROVIDE THE CONTRACTOR'S REVIEW STAMP AND SIGNATURE BEFORE FORWARDING THE SUBMITTAL TO THE ENGINEER.
D. ONCE THE CONTRACTOR HAS COMPLETED HIS REVIEW, THE ENGINEER WILL REVIEW THE SUBMITTAL FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND THE CONTRACT DOCUMENTS OF THE BUILDING AND WILL STAMP THE SUBMITTAL ACCORDINGLY. MARKUPS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, NOR DEPARTURES THERE FROM.
E. REQUIRED SUBMITTALS:
  1. CONCRETE
    a. MIX DESIGNS WITH TESTING DATA
    b. REINFORCEMENT SIZE AND PLACEMENT
  2. MASONRY
    a. GROUT AND MORTAR MIX DESIGNS
    b. UNIT MATERIAL PROPERTIES (COMPRESSIVE STRENGTH, ETC)
    c. UNIT LAYOUT
    d. REINFORCEMENT SIZE AND PLACEMENT
    e. BOND BEAM LINTEL DETAILS
  3. COLD FORMED FRAMING
    a. PRODUCT DATA DETAILS
F. DEFERRED DESIGN SUBMITTALS THAT REQUIRE DRAWINGS, DETAILS, CONNECTIONS, AND SUBMITTALS SHALL BE STAMPED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE THE PROJECT IS WITHIN.
G. DEFERRED DESIGN ITEMS SHALL BE DESIGNED TO RESIST THE LOADS INDICATED ON THE PLANS AND DETAILS INCLUDING: DEAD, LIVE, SNOW, WIND, NET UPLIFT, OTHERS INDICATED.
H. DEFERRED DESIGN SUBMITTALS ARE DESIGNED BY THE CONTRACTOR:
  1. PRE-ENGINEERED WOOD BUILDING
    a. LAYOUT AND DETAILS
    b. CALCULATIONS

SPECIAL-INSPECTIONS & TESTING:

A. SPECIAL INSPECTIONS ARE REQUIRED PER IBC CHAPTER 17 AND AS SPECIFIED IN THE SPECIAL INSPECTION STATEMENT AND PROJECT SPECIFICATIONS.
B. SPECIAL INSPECTORS SHALL BE EMPLOYED BY THE OWNER TO PROVIDE SPECIAL INSPECTIONS FOR THE PROJECT. SPECIAL INSPECTIONS MAY BE SCHEDULED AND COORDINATED BETWEEN OWNER AND CONTRACTOR.
C. SPECIAL INSPECTION REPORTS SHALL BE FURNISHED TO THE BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR, AND, IF NOT CORRECTED, SHALL BE REPORTED TO THE BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER.
D. SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING THAT THE STRUCTURAL WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, PERFORMED IN ACCORDANCE WITH THE APPROVED DRAWINGS, SPECIFICATIONS, AND THE BUILDING CODE.
E. SPECIAL INSPECTIONS ARE REQUIRED FOR THE FOLLOWING ITEMS:
  1. SOILS
  2. CONCRETE
  3. COLD FORMED METAL FRAMING

SPECIAL INSPECTION SCHEDULE: SOILS

INSPECTION TASK	REQUIRED	FREQUENCY	
		CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	X	-	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	X	-	X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	X	-	X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	X	-
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	X		X

SPECIAL INSPECTION SCHEDULE: CIP FOUNDATION ELEMENTS

INSPECTION TASK	REQUIRED	FREQUENCY	
		CONTINUOUS	PERIODIC
ISOLATED SPREAD CONCRETE FOOTINGS	X	-	X
CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS	X	-	X
CONCRETE FOUNDATION WALLS	X	-	X

SPECIAL INSPECTION SCHEDULE: CONCRETE CONSTRUCTION

INSPECTION TASK	REQUIRED	FREQUENCY	
		CONTINUOUS	PERIODIC
INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	X	-	X
REINFORCING BAR WELDING			
1. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	X	-	X
2. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	X	-	X
3. INSPECT ALL OTHER WELDS	X	X	-
INSPECT ANCHORS CAST IN CONCRETE	X	-	X
INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBER			
1. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	X	-
2. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED ABOVE	X	-	X
VERIFY USE OF REQUIRED DESIGN MIX	X	-	X
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	X	-
INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	X	-
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	X	-	X
INSPECT PRESTRESSED CONCRETE FOR			
1. APPLICATION OF PRESTRESSING FORCES	X	X	-
2. GROUTING OF BONDED PRESTRESSING TENDONS	X	X	-
INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	X	-	X
VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	X	-	X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	X	-	X

SPECIAL INSPECTION SCHEDULE: COLD FORMED METAL FRAMING

INSPECTION TASK	REQUIRED	FREQUENCY	
		CONTINUOUS	PERIODIC
INSPECT MATERIAL GRADE AND THICKNESS	X	-	X
INSPECT FRAMING AND DETAILS			
1. FRAMING LAYOUT, MEMBER SIZES AND BEARING LENGTHS	X	-	X
2. BLOCKING, BRIDGING AND WEB STIFFENERS	X	-	X
3. HOLES	X	-	X
INSPECT CONNECTIONS			
1.BOLTED AND SCREWED CONNECTIONS, INCLUDING DIAMETER, LENGTH, SPACING AND EDGE DISTANCE	X	-	X
2. WELDED CONNECTIONS	X	-	X
3. PROPRIETARY HANGERS AND FRAMING ANCHORS, INCLUDING FASTENER SIZES AND QUANTITIES	X	-	X
4. TIE-DOWN ANCHORS, INCLUDING ANCHOR ROD SIZES AND FASTENER SIZES AND QUANTITIES	X	-	X
INSPECT SHEAR WALLS AND DIAPHRAGMS			
1. PANEL GRADE AND THICKNESS	X	-	X
2. STEEL STRAPPING SIZE, GRADE AND THICKNESS	X	-	X
3. FASTENER SIZE, LENGTH AND SPACING	X	-	X
4. FRAMING MEMBER SIZES AT PANEL EDGES	X	-	X
5. BLOCKING AT PANEL EDGES	X	-	X
INSPECT COLD FORMED METAL TRUSSES			
1. TEMPORARY INSTALLATION RESTRAINT/BRACING FOR TRUSSES SPANNING 60 FEET OR MORE	X	-	X
2. PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING FOR TRUSSES SPANNING 30 FEET OR MORE	X	-	X

CONCRETE AND REINFORCEMENT:

A. CONCRETE SHALL CONFORM TO CHAPTER 19 OF THE IBC AND BE PLACED IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)" AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301)" U.N.O.
B. MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c):
  1. FOOTINGS — 3,500 psi
  2. FOUNDATION WALLS — 4,000 psi
  3. ALL OTHER CONCRETE — 4,000 psi
C. MAXIMUM WATER/CEMENT RATIO FOR GIVEN f'c:
  1. 3,500 psi — 0.50
  2. 4,000 psi — 0.45
  3. 5,000 psi — 0.40
D. CONCRETE SLUMP:
  1. WITHOUT WATER REDUCER — 3"-5"
  2. WITH WATER REDUCER — 6"-8"
E. AIR CONTENT:
  1. EXPOSED TO EARTH OR WEATHER — 6% PLUS OR MINUS 1.5%
  2. ALL OTHER CONCRETE — NATURAL
F. MATERIAL REQUIREMENTS:
  1. PORTLAND CEMENT — ASTM C595, TYPE IL
  2. NORMAL WEIGHT AGGREGATES — ASTM C33
  3. MAXIMUM AGGREGATE SIZE — 1"
  4. POTABLE WATER — ASTM C94
  5. DEFORMED BARS — ASTM A615, GRADE 60
  6. WELDED DEFORMED BARS — ASTM A706, GRADE 60
  7. WELDED WIRE FABRIC (MATS ONLY) — ASTM A185
G. CONCRETE COVER OVER REINFORCING:
  1. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH — 3"
  2. EXPOSED TO EARTH OR WEATHER — 2"
  3. NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH THE GROUND — 2"
H. FLY ASH SHALL NOT EXCEED 15% OF ALL CEMENTITIOUS MATERIALS FOR ALL CONCRETE.
I. ALL ADMIXTURES TO BE INCLUDED IN THE CONCRETE MIX DESIGN SUBMITTAL FOR REVIEW/APPROVAL. NO ADMIXTURES TO BE USED WITHOUT APPROVAL BY STRUCTURAL ENGINEER.
J. NO ADMIXTURES OR MATERIALS CONTAINING CALCIUM CHLORIDE, SALT OR ANTIFREEZE IS PERMITTED TO BE USED IN CONCRETE.
K. DETAIL AND PLACE REINFORCING STEEL IN ACCORDANCE WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315) U.N.O.
L. REINFORCING STEEL SHALL BE SECURED IN PLACE AND PROPERLY SUPPORTED PRIOR TO PLACING CONCRETE.
M. REINFORCING SPLICES SHALL HAVE CLASS B TENSION SPLICES U.N.O.
N. CORNER BARS TO BE PROVIDED AT ALL INTERSECTIONS OF HORIZONTAL REINFORCING IN WALLS AND FOOTINGS. LAP CORNER BARS 2'-0" EACH SIDE, MATCH SIZE AND SPACING OF SPACING OF HORIZONTAL BARS
O. VERTICAL REINFORCING TO BE CONTINUOUS WITHOUT SPLICES, U.N.O.
P. HORIZONTAL REINFORCEMENT TO BE CONTINUOUS THROUGH PILASTERS, COLUMNS, AND WALL INTERSECTIONS.
Q. PROVIDE 2 @ #5 x4'-0" DIAGONAL BARS AT EACH OPENING CORNER IN WALLS AND FLOOR SLABS, U.N.O. DIAGONAL BARS SHALL BE CENTERED AT OPENING CORNERS.
R. ALL EXPOSED EDGES TO HAVE A 3/4" CHAMFER, U.N.O.
S. SLABS-ON-GRADE:
  1. POORLY COMPACTED FILL SOILS THAT REQUIRE FULL OVER EXCAVATION AND BACKFILL ARE KNOWN TO BE IN THE AREA. EXISTING SITE SOILS ARE NOT SUITABLE FOR BACKFILL. THE AREA NEAR THE SW CORNER OF THE ADDITION, BORING #1 IN THE GEOTECHNICAL REPORT, IS WHERE THESE SOILS WERE FOUND. EXTENTS ON THE SITE ARE UNKNOWN, BUT ARE TO BE DETERMINED DURING SPECIAL INSPECTIONS. CONTRACTOR TO PROVIDE COST ON A PER-UNIT BASIS DURING BIDDING.
  2. NEW IMPORTED BACKFILL TO BE COMPACTED IN 12" LOOSE LIFTS WHERE LARGE CONSTRUCTION EQUIPMENT IS USED, AND 4" LOOSE LIFTS WHERE MANUAL EQUIPMENT IS USED.
  3. NEW SLAB CONSTRUCTION SHALL BE 6" THICK OVER VAPOR BARRIER (SEE ARCHITECT) OVER 4" MIN. GRANULAR DRAINAGE FILL OVER NEW COMPACTED BACKFILL. SLAB SHALL BE REINFORCED WITH #4 @ 18" O.C. PLACED ON CHAIRS TO LOCATE THE REINFORCEMENT 1 1/2" FROM THE TOP OF SLAB. LOCATED AT MID-SLAB THICKNESS AT CONSTRUCTION JOINTS. 2
  4. TOPPING SLAB OVER EXISTING SLAB ON GRADE SHALL BE 4" THICK OVER BOND BREAKER. SLAB SHALL BE REINFORCED WITH 6x6 W2.9xW2.9 WWF PLACED ON CHAIRS TO LOCATE THE REINFORCEMENT 1 1/2" AWAY FROM THE TOP OF SLAB. LOCATED AT MID-SLAB THICKNESS AT CONSTRUCTION JOINTS.
  5. WET BURLAP CURE IS STRONGLY RECOMMENDED FOR ALL SLABS ON GRADE AND NEW CONCRETE TOPPING SLAB. ALTERNATES MAY BE PROVIDED BY THE CONTRACTOR.
  6. PROVIDE 1/2" EXPANSION JOINT BETWEEN SLABS-ON-GRADE AND ALL COLUMNS, WALLS, AND VERTICAL SURFACES
  7. PROVIDE 1/8" X 1/4" DEEP CONTROL JOINTS OR FULL DEPTH CONSTRUCTION JOINTS IN SLABS-ON-GRADE. MAXIMUM SPACING IN OF CONTROL/CONSTRUCTION JOINTS TO BE 30 TIMES THE SLAB THICKNESS.
  8. CONSTRUCTION JOINTS IN SLABS-ON-GRADE SHALL BE AT CONTROL JOINT LOCATIONS AS IDENTIFIED ABOVE WHEN ENTIRE FLOOR SLAB IS NOT PLACED IN ONE SEQUENCE. SEE DETAILS FOR PLATE DOWEL REQUIREMENTS.
  9. SEE ARCHITECTURAL DRAWINGS FOR SLAB SLOPES AND DEPRESSIONS.
  10. USE IMPORTED SAND FOR EXPOSED SLAB ON GRADE AND FOUNDATION WALLS.
T. FLOOR FLATNESS:
  1. GENERAL / OFFICE (CARPET):
    A. OVERALL FF: 25
    B. OVERALL FL: 20
    C. LOCAL FF: 35
    D. LOCAL FL: 20

PRE-ENGINEERED BUILDING:

A. PRE-ENGINEERED BUILDINGS (PEB) SHALL CONFORM TO CHAPTER 22 OF THE IBC AND APPLICABLE BUILDING SYSTEMS MANUAL.
B. PEB FRAMING MATERIALS AND STRENGTHS:
  1. BY PEB MANUF.
C. CONNECTIONS SHALL BE AS DIRECTED IN PEB DOCUMENTS.
D. TEMPORARY BRACING OF STRUCTURAL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS. CONSTRUCTION SHALL CONFORM TO OSHA GUIDELINES.
E. NOTIFY SUPPLIER AND ENGINEER OF ANY FABRICATION OR ERECTION ERRORS OR DEVIATIONS. WRITTEN APPROVAL IS REQUIRED BEFORE ANY FIELD CORRECTIONS ARE MADE.
F. PROVIDE ONE SHOP COAT OF PRIMER ON ALL STEEL EXCEPT FOR ITEMS TO BE HOT-DIP GALVANIZED OR SPRAY FIREPROOFED.
G. DIMENSIONS, BUILDING SIZE, COLUMN LOCATIONS, AND WALL SIZE TO MATCH AND BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. DEVIATION REQUESTS MUST BE SUBMITTED FOR APPROVAL PRIOR TO CHANGES BEING MADE.
H. ALL COMPONENTS AND ASSEMBLIES TO BE DESIGNED AND DETAILED BY THE MANUFACTURER TO RESIST THE LOADING ON THE DRAWINGS. NOTE THAT SOME MUNICIPALITIES DEVIATE SNOW AND OTHER LOADING FROM THE IBC AND SHALL BE INCLUDED IN THE DESIGN.
I. MAXIMUM ALLOWABLE DEFLECTION LIMITS:
  1. ARCHITECTURAL
    a. JOISTS/BEAMS: — SPAN / 240
    b. ROOF PANELS: — SPAN / 180
    c. WALL FRAMING: — SPAN / 240
    d. WALL FRAMING WITH BRICK: — SPAN / 600
    e. RIGID FRAME DRIFT: — HEIGHT / 400
J. MEMBERS SUPPORTING BRICK AND OTHER BRITTLE CLADDING SHALL BE DESIGNED FOR HORIZONTAL AND VERTICAL DEFLECTION: SPAN / 600.
K. DEFLECTION OF PRIMARY MEMBERS SHALL BE ACCOMMODATED WITHIN DESIGN OF OTHER FRAMING COMPONENTS AND SYSTEMS.
L. ADJACENT BUILDING IS PRESENT:
  1. YES. A BUILDING EXPANSION JOINT IS REQUIRED BETWEEN THE BUILDING TO ACCOUNT FOR 2" OF BUILDING DIFFERENTIAL MOVEMENT UNLESS PEB SUPPLIER ENGINEER DESIGNS THE BUILDINGS TO CONNECT, ACT, AND MOVE CONGRUENTLY.

COLD FORMED METAL FRAMING (CFMF)

A. COLD FORMED METAL FRAMING SHALL CONFORM TO CHAPTER 22 OF THE IBC.
B. ALL COLD FORMED METAL FRAMING SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF "NORTH AMERICAN SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" BY AISI.
C. COLD FORM METAL FRAMING MATERIALS AND STRENGTHS:
  1. 18-GAGE OR THINNER: ASTM A653, 33 KSI
  2. 16-GAGE OR THICKER: ASTM A653, 50 KSI
D. ALL MEMBERS TO BE HOT-DIP GALVANIZED STEEL. COATING TO CONFORM TO ASTM A924 DESIGNATION G60. IN HIGHLY CORROSIVE ENVIRONMENTS G90 SHALL BE USED.
E. THESE STRUCTURAL DRAWINGS TYPICALLY SHOW ONLY THE PRIMARY STRUCTURAL FRAMING ELEMENTS OF THE SYSTEM. CONTRACTOR SHALL PROVIDE ALL ACCESSORIES INCLUDING TRACKS, WEB STIFFENERS, BLOCKING, HEADERS, CLIP ANGLES, REINFORCEMENTS, FASTENING DEVICES, BRACING, AND OTHER ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER TO PROVIDE A COMPLETE FRAMING SYSTEM.
F. THE COLD FORMED METAL STUD FRAMING CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF COLD FORMED METAL FRAMING IF INDICATED IN THE SUBMITTALS SECTION OF THE GENERAL NOTES. IF LISTED, SHOP DRAWINGS SHOWING PLANS, ELEVATIONS, SECTIONS AND DETAILS SHALL BE SUBMITTED WITH CALCULATIONS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE THE PROJECT IS LOCATED.
G. FASTENING OF COMPONENTS SHALL BE WITH SELF-TAPPING SCREWS OR WELDS. ALL WELDS OF GALVANIZED FRAMING SHALL BE TOUCHED UP WITH ZINC-RICH PAINT. ALL WELDS OF CARBON SHEET STEEL SHALL BE TOUCHED UP WITH RUST INHIBITIVE PAINT.
H. SCREWS WHICH ARE REMOVED SHALL BE REPLACED BY A SCREW OF A LIGHTER DIAMETER WHERE THE REPLACEMENT IS MADE INTO AN EXISTING HOLE. REPLACE ALL SCREWS WHICH STRIP OUT MATERIAL. SCREWS SHALL BE SPACED NO CLOSER THAN 5/8" ON CENTER AND WITH A MINIMUM FREE EDGE DISTANCE OF 1/2".
I. ALL WELDING SHALL BE PERFORMED BY WELDERS EXPERIENCED IN COLD-FORMED METAL FRAMING WORK. ALL WELDING SHALL USE E60 SERIES ELECTRODES AND SHALL CONFORM WITH THE LATEST AMERICAN WELDING SOCIETY STANDARDS.
J. DO NOT CUT OR OTHERWISE DAMAGE LOAD-BEARING STUDS, JOISTS, OR RAFTERS DURING INSTALLATION OF WORK BY OTHER TRADES.
K. EXTERIOR WALL STUDS:
  1. THE MINIMUM SIZE AND SPACING SHALL BE AS INDICATED IN THE PLANS.
  2. ALL STUDS SHALL BE SECURELY SEATED FOR FULL END BEARING ON TOP AND BOTTOM TRACK. PROVIDE DOUBLE STUDS AT ALL JAMBS, CORNERS, INTERSECTIONS, AND BEAM BEARING LOCATIONS, UNLESS NOTED OTHERWISE.
  3. WALL STUD BRIDGING AS RECOMMENDED BY THE STUD MANUFACTURERS SHALL BE INSTALLED TO PREVENT BOTH WEAK AXIS BENDING AND STUD ROTATION AT 4'-0" MAX INTERVALS. WALLS 8'-0" AND SHORTER SHALL HAVE A SINGLE ROW OF BRIDGING AT MID-HEIGHT. ADDITIONALLY, BRIDGING SHALL BE PROVIDED AT ROOF LINES AND WHERE NOTED ON THE PLANS. SOLID BLOCKING SHALL BE INSTALLED IN LIEU OF BRIDGING WHERE NOTED ON DRAWINGS.
  4. BRIDGING: FASTBRIDGE CLIPS FB43 WITH 2 @ #10 SCREWS PER CLIP, UNO, OR UNLESS PART OF DEFERRED SUBMITTAL.
  5. WALL STUDS SHALL BE LIMITED IN DEFLECTION TO:
    a. WALLS WITH BRICK: HEIGHT/600
    b. WALLS WITH STUCCO: HEIGHT/360
    c. OTHER WALLS: HEIGHT/240
  6. WALL STUDS SHALL ALIGN WITH FLOOR AND ROOF FRAMING MEMBERS IN LOAD-BEARING STUD APPLICATIONS.
L. JOISTS AND RAFTERS:
  1. THE MINIMUM SIZE AND SPACING SHALL BE AS INDICATED IN THE PLANS.
  2. JOISTS SHALL BE REINFORCED WITH WEB STIFFENERS AT ALL LOAD-BEARING LOCATIONS.
  3. JOIST FLANGES MUST BE FASTENED TO ALL SUPPORTS.
  4. STRAPPING OR FULL-HEIGHT BLOCKING SHALL BE LOCATED AT 8'-0" ON CENTER MAXIMUM WHEN SHEATHING IS APPLIED ONLY TO THE COMPRESSION FLANGE. IF STRAPPING IS USED, FULL-HEIGHT BLOCKING BETWEEN JOISTS AT 10'-0" ON CENTER IS REQUIRED ALONG THE LENGTH OF THE STRAPPING.
  5. FLOOR JOISTS SHALL BE LIMITED IN DEFLECTION TO:
    a. TOTAL LOAD: SPAN/240
    b. LIVE LOAD WITH BRITTLE FINISH ON TOP: SPAN/480
    c. LIVE LOAD: SPAN/360
M. BUILT-UP MEMBERS (MULTIPLE MEMBERS) MUST BE FASTENED TOGETHER TO ACT AS ONE UNIT TO RESIST THE APPLIED LOADING. THIS IS TO BE DESIGNED BY THE COMPONENT DESIGNER, UNLESS DETAILED OTHERWISE ON THE DRAWINGS.

FOUNDATIONS:

A. EXCAVATIONS OF BURIED ITEMS, KNOWN OR UNKNOWN PRIOR TO CONSTRUCTION, SHALL BE BACKFILLED WITH ENGINEERED FILL IN COMPACTED LOOSE LIFTS OF 12" OR LESS, OR AS GUIDED BY THE GEOTECHNICAL ENGINEER.
B. FOUNDATIONS SHALL BEAR ON NATIVE SOIL OR ON COMPACTED ENGINEERED FILL. BEARING CAPACITY AND EXPANSIVE SOIL PROPERTIES TO BE VERIFIED BY QUALIFIED GEOTECHNICAL ENGINEER AS PART OF THE SPECIAL INSPECTION AND TESTING PROGRAM PRIOR TO INSTALLATION OF FOOTINGS/FOUNDATIONS.
C. EXPANSIVE SOILS THAT REQUIRE OVER EXCAVATION AND BACKFILL ARE KNOW TO BE IN THE AREA. REQUIRED DEPTH OF OVER EXCAVATION AND ENGINEERED FILL REQUIREMENTS TO BE DETERMINED BY GEOTECHNICAL ENGINEER AS PART OF THE SPECIAL INSPECTION AND TESTING PROGRAM.
D. ALL EXTERIOR FOOTINGS TO EXTEND BELOW FROST LINE. SEE DESIGN REQUIREMENTS FOR FROST DEPTH. DURING WINTER CONSTRUCTION ALL FOOTINGS TO EXTEND BELOW FROST LINE. CONTACT STRUCTURAL ENGINEER FOR REVISED REINFORCING.
E. IF INDICATED ON ARCHITECTURAL DRAWINGS, PROVIDE 2" RIGID INSULATION ON INSIDE FACE OF FOUNDATION WALL/FOOTINGS EXTENDING FROM TOP OF FOUNDATION TO FROST DEPTH, AND EXTENDING FROM INSIDE EDGE OF FOUNDATION TO 24" TOWARD MIDDLE OF THE STRUCTURE BELOW FLOOR SLAB.
F. FOOTINGS TO BE CENTERED UNDER WALLS/COLUMNS U.N.O.
G. DO NOT BACKFILL WALLS UNTIL BOTH TOP AND BOTTOM OF WALLS ARE ADEQUATELY BRACED BY SLAB OR FLOOR FRAMING. ANY REQUIRED TEMPORARY BRACING FOR BACKFILLING OF WALLS IS THE RESPONSIBILITY OF THE CONTRACTOR.
H. COORDINATE ALL CLEANOUTS, CONNECTIONS, AND DISCHARGE OF DRAIN TILE WITH CIVIL AND MECHANICAL DRAWINGS.

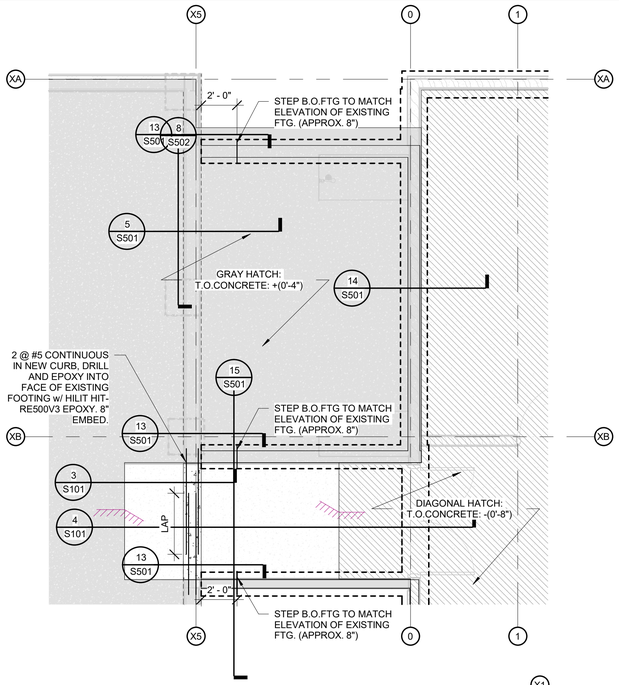
LICENSED PROFESSIONAL ENGINEER
BRANT J
BRISTOW
18967
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PROFESSIONAL SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF IOWA
THIS NOTICE COVERS SHEETS:
S-SHEETS
SIGNATURE:
NAME: BRANT J. BRISTOW
DATE: 09 JAN 2026
MY REGISTRATION EXPIRES IN IOWA: 12/31/2027

STUDIO MELEE
139 4th STREET
DES MOINES, IOWA 50265

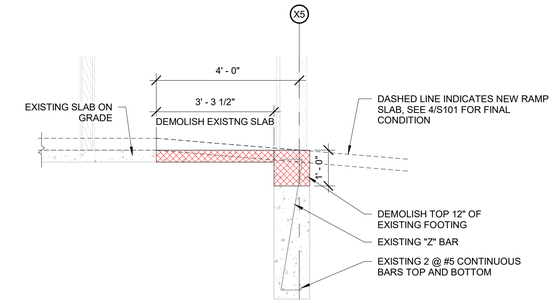
PROJECT: SCFD - RENOVATION & ADDITION
ADDRESS: 109 E MAIN STREET; STATE CENTER, IA50247
CLIENT: STATE CENTER FIRE & EMS
PHASE: ADD. 2
PRINT DATE: 01/08/2026
SHEET NAME: GENERAL NOTES

S001



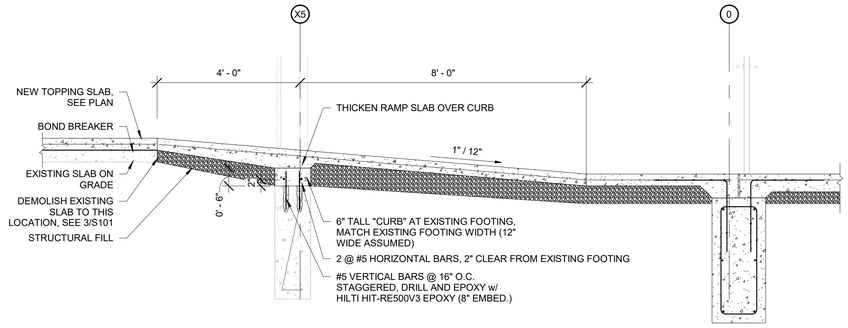
2 - FOUNDATION PLAN - LINK

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



③ LONGITUDINAL SECTION THROUGH RAMP-DEMOLITION PLAN

1/2" = 1'-0"

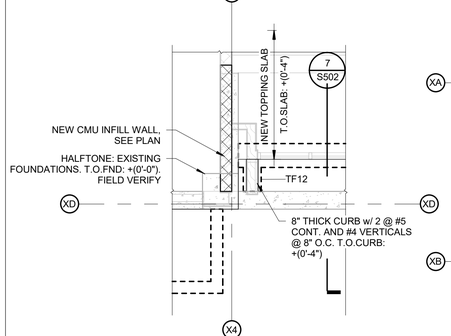


④ LONGITUDINAL SECTION THROUGH RAMP

1/2" = 1'-0"

CONTINUOUS FOOTING SCHEDULE			
TYPE	WIDTH	THICKNESS	REINFORCING
TF8	0' - 8"	3' - 6"	2 @ #5 TOP & BOTTOM CONT. w/ #4 VERT. @ 24" OC
TF12	1' - 0"	3' - 6"	2 @ #5 TOP & BOTTOM & #4 @ MID. CONT. w/ #4 VERT. @ 24" OC
TF16	1' - 4"	3' - 6"	2 @ #5 TOP & BOTTOM & #4 @ MID. CONT. w/ #4 VERT. @ 24" OC
TF18	1' - 6"	3' - 6"	2 @ #5 TOP & BOTTOM & 2 @ #4 @ MID. CONT. w/ #3 TIES. @ 24" OC
TF24	2' - 0"	3' - 6"	2 @ #5 TOP & BOTTOM & 2 @ #4 @ MID. CONT. w/ #3 TIES. @ 24" OC

ISOLATED FOOTING SCHEDULE				
TYPE	WIDTH	LENGTH	THICKNESS	REINFORCING
IF4	4' - 0"	4' - 0"	3' - 6"	4 @ #5 VERT. w/ #3 TIES @ 12" OC

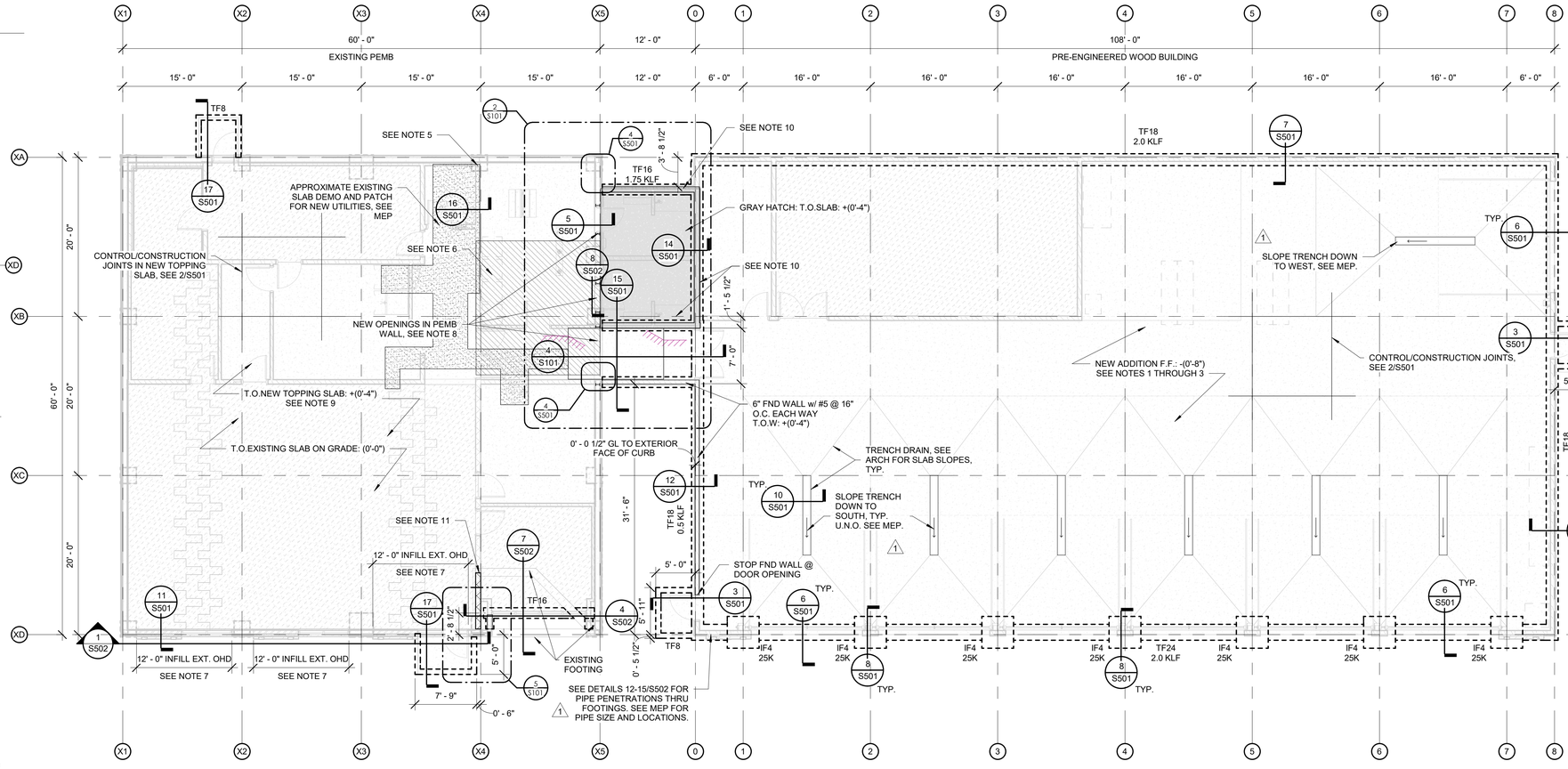


5 - WING WALL FND @ ENTRY

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

NOTES:

1. F.F. ELEVATION:
   - +(0'-0") CORRESPONDS TO TOP OF EXISTING SLAB ON GRADE AND CIVIL ELEVATION 1069.77'. VERIFY w/ CIVIL DRAWINGS.
   - +(0'-4") CORRESPONS TO TOP OF NEW TOPPING SLAB AND CIVIL ELEVATION 1070.1'
   - -(0'-8") CORRESPONDS TO TOP OF SLAB @ ADDITION AND CIVIL ELEVATION 1069.1'
2. SLAB ON GRADE IS INTENDED TO HAVE SEALED SURFACE. VERIFY WITH ARCHITECTURAL DRAWINGS. SEE GENERAL NOTES FOR OVERALL AND LOCAL FF & FL NUMBERS
3. 6" SLAB ON GRADE w/ #4 BARS @ 18" O.C. EACH WAY. SEE GENERAL NOTES AND DETAIL 1/SS01 FOR SUBGRADE PREPARATION.
4. T.O.FTG. TO BE -(1'-4") U.N.O.
5. CAREFUL SLAB DEMOLITION IS CRITICAL @ HAIRPIN LOCATIONS. HYDRO DEMOLITION AND/OR USE OF HAND TOOLS IS REQUIRED. CONTRACTOR TO IMPLEMENT X-RAY OR SIMILAR TESTING PROCEDURES TO LOCATE REINFORCEMENT PRIOR TO DEMOLITION
6. HATCHED AREA INDICATES APPROXIMATE LOCATION OF EXISTING MEZZANINE TO BE DEMOLISHED. CMU WALL TO BE DEMOLISHED, CARE TO BE TAKEN @ HAIRPIN LOCATIONS. SEE NOTE 5. EXISTING W SHAPES AND ASSOCIATED CONNECTION ANGLES TO BE REMOVED
7. 600S200-54 STUDS @ 16" O.C. 1/2" APA RATED SHEATHING TO OUTSIDE FACE OF STUDS w/ #8 SCREWS @ 6" O.C. PERIMETER AND 12" O.C. FIELD
8. 2 @ 600S200-54 STUDS EACH SIDE OF NEW OPENING. EXTEND STUDS TO FIRST WALL GIRT ABOVE OPENING. SEE 8/SS02
9. NEW 4" THICK CONCRETE TOPPING OVER EXISTING SLAB ON GRADE. REINFORCE TOPPING SLAB w/ 6x6 W2.9XW2.9 W.W.F. BOND BREAKER TO BE APPLIED TO TOP OF EXISTING SLAB ON GRADE PRIOR TO PLACING TOPPING SLAB
10. 8" THICK CONCRETE FOUNDATION WALL w/ #5 @ 16" O.C. EACH WAY. T.O.W: -(0'-4")
11. NEW 8" CMU WALL w/ #5 VERTICAL IN GROUTED CELLS AT EACH END AND 48" O.C. TOP OF WALL SLOPES WITH EXISTING FRAME ABOVE. SEE DETAIL 5/SS02 FOR BASE CONNECTION AND 6/SS02 FOR TOP CONNECTION



FOUNDATION PLAN

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

STUDIO MELEE
139 4th STREET
DES MOINES, IOWA 50265

PROJECT: SCFD - RENOVATION & ADDITION
ADDRESS: 109 E MAIN STREET, STATE CENTER, IA50247
CLIENT: STATE CENTER FIRE & EMS

PHASE: ADD. 2
PRINT DATE: 01/08/2026
SHEET NAME: FOUNDATION PLAN

S101

CFMF BOX HEADER SCHEDULE			
MARK	VERTICAL MEMBERS	HORIZONTAL MEMBERS	JAMB
H1	2 @ 800S162-54	2 @ 600T200-54	2 @ 600S162-54 (KING STUDS)

CFMF BOX HEADER NOTES

1. HEADERS ARE FOR THE WALL FRAMING BELOW THE LEVEL SHOWN
2. EACH MEMBER OF MULTI MEMBER HEADERS/JAMBS TO BE FASTENED TOGETHER WITH 2 @ #12 SCREWS @ 12" O.C. U.N.O.

LINTEL SCHEDULE	
MARK	SIZE
L1	2 @ L3 1/2x3 1/2x5/16

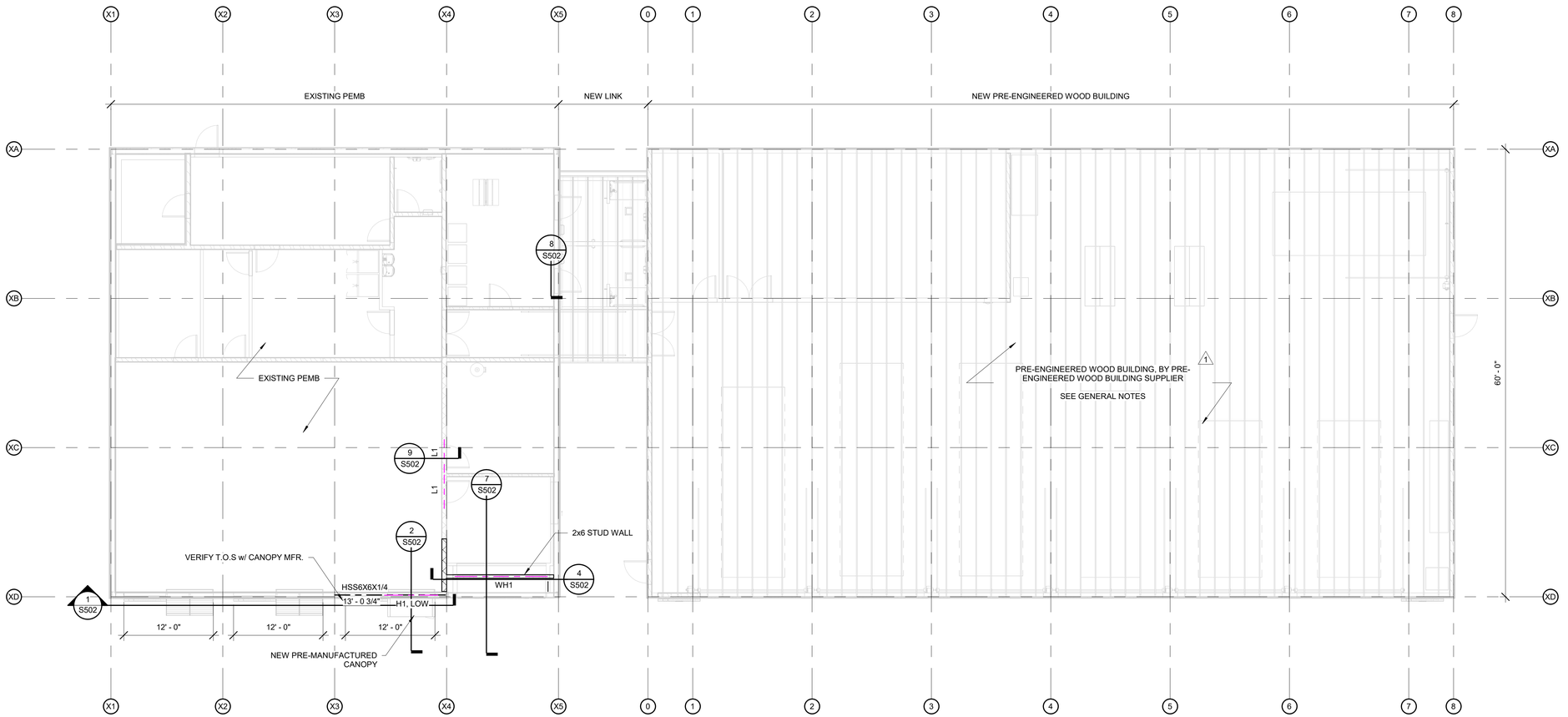
LINTEL NOTES

1. LINTELS ARE FOR THE WALL FRAMING BELOW THE LEVEL SHOWN
2. LINTELS TO BEAR A MINIMUM OF 1" PER FOOT OF OPENING LENTH OR 6", EACH END
3. SEE GENERAL NOTES FOR LINTEL NOT CALLED OUT ON PLAN

WOOD HEADER SCHEDULE	
MARK	SIZE
WH1	3 @ 11 7/8" LVL

WOOD HEADER NOTES

1. HEADERS ARE FOR WALL FRAMING BELOW THE LEVEL SHOWN
2. ALL HEADERS TO BE SUPPORTED BY A MINIMUM OF (3) STUDS U.N.O. (1 KING, 2 JACK)
3. ALL MULTI-PLY FLUSH (F) HEADERS TO BE FASTENED TOGETHER w/ 3 ROWS OF SIMPSON SDW2250 SCREWS @ 12" O.C. U.N.O.



FRAMING PLAN

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

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139 4th STREET
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PHASE: ADD. 2
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SHEET NAME: FRAMING PLAN

S102

NOTES:

1. INFORMATION SHOWN ON THIS PLAN VIEW IS TO BE USED IN ADDITION TO GEOTECHNICAL REPORT. SEE GEOTECHNICAL REPORT FOR MORE INFORMATION REGARDING ON-SITE SOILS, OVEREXCAVATION, AND TEST PITS

OVEREXCAVATION PLAN

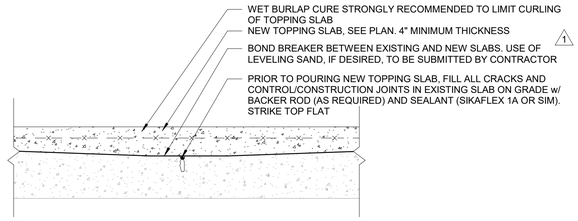
SCALE: 1/8" = 1'-0"

STUDIO MELEE
139 4th STREET
DES MOINES, IOWA 50265

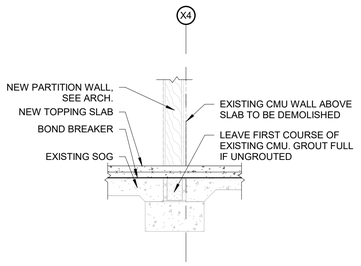
PROJECT: SCFD - RENOVATION & ADDITION
ADDRESS: 109 E MAIN STREET; STATE CENTER, IA50247
CLIENT: STATE CENTER FIRE & EMS

PRINT DATE: 01/08/2026
PHASE: ADD. 2
SHEET NAME: OVEREXCAVATION PLAN

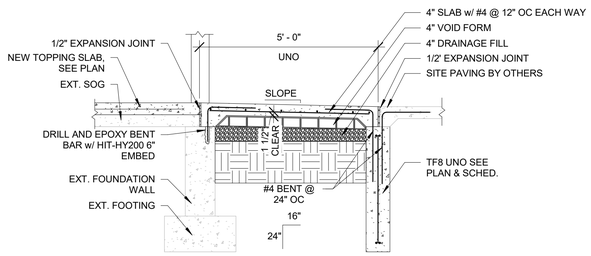
S201



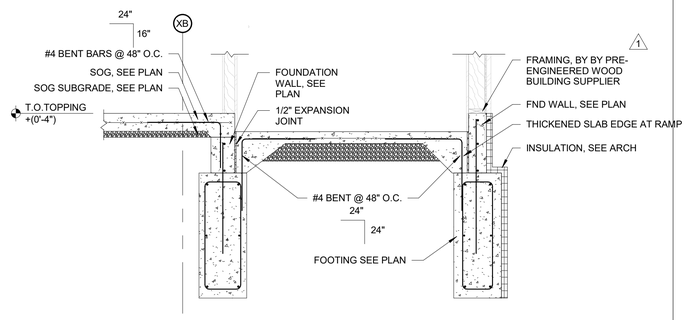
18 TOPPING SLAB OVER EXT. SOG
1" = 1'-0"



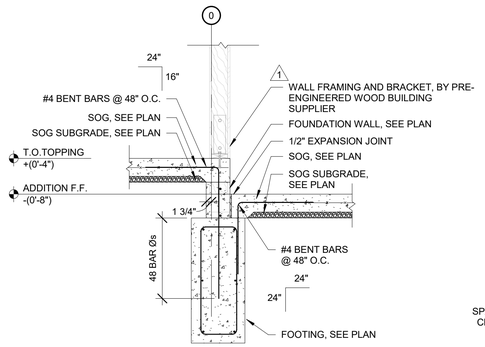
16 EXIST CMU WALL DEMO
1/2" = 1'-0"



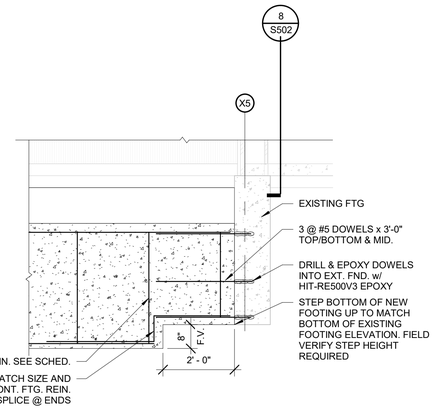
17 2040B STOOP @ EXT FOOTING
1/2" = 1'-0"



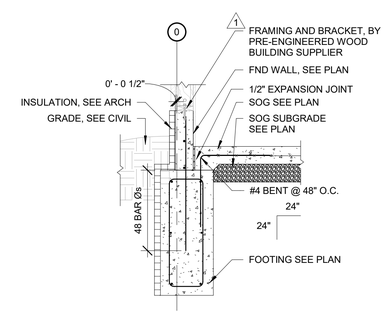
15 RAMP CROSS SECTION
1/2" = 1'-0"



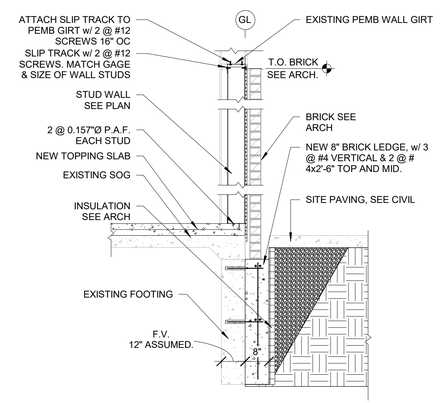
14 SLAB STEP @ CONNECTOR BAY
1/2" = 1'-0"



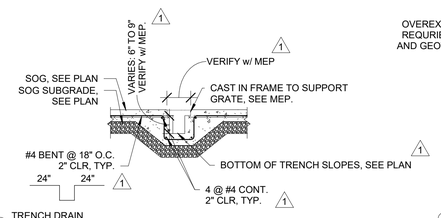
13 FTG STEP @ EXISTING
1/2" = 1'-0"



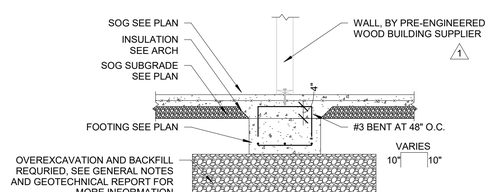
12 CURB DETAIL
1/2" = 1'-0"



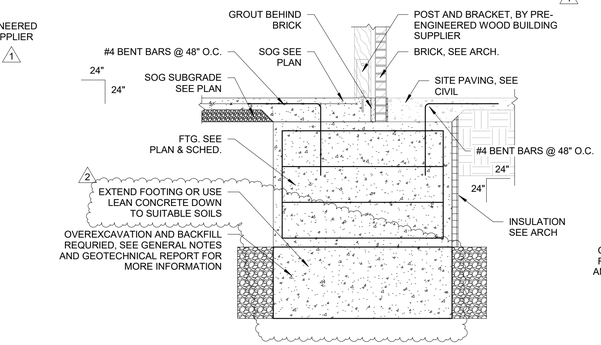
11 EXIST. PEMB CONTINUOUS FOOTING w/ BRICK
1/2" = 1'-0"



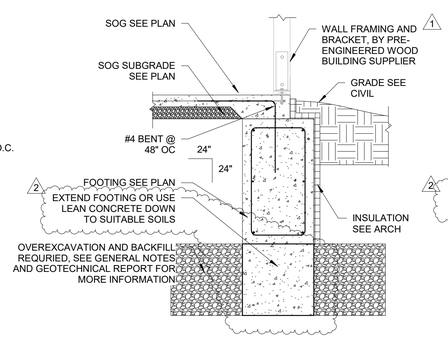
10 TRENCH DRAIN
1/2" = 1'-0"



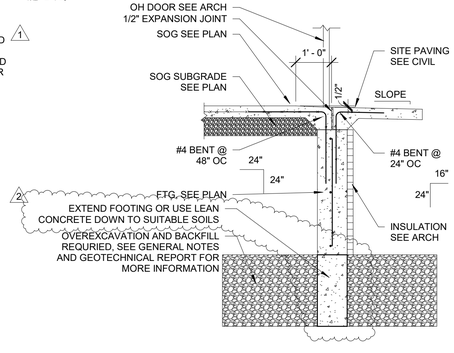
9 CONTINUOUS FTG
1/2" = 1'-0"



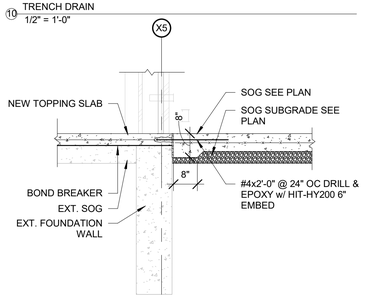
8 POST FOOTING
1/2" = 1'-0"



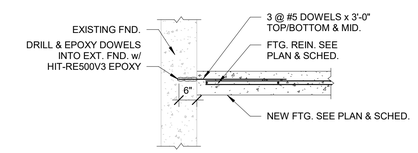
7 CONTINUOUS FROST FTG
1/2" = 1'-0"



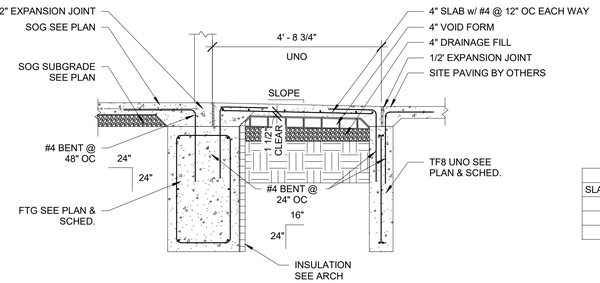
6 OH DOOR @ FOOTING
1/2" = 1'-0"



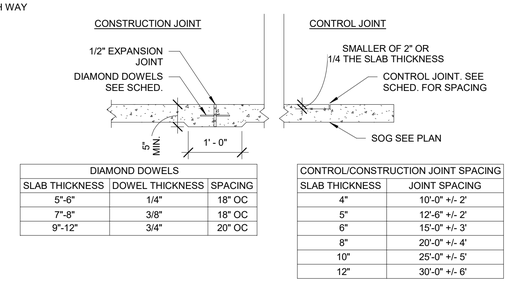
5 SLAB TIE IN
1/2" = 1'-0"



4 TF8,12,16 FOOTING TIE IN
1/2" = 1'-0"



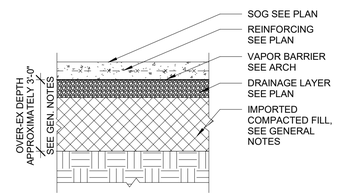
3 STOOP FOOTING
1/2" = 1'-0"



DIAMOND DOWELS		
SLAB THICKNESS	DOWEL THICKNESS	SPACING
5"-6"	1/4"	18" OC
7"-8"	3/8"	18" OC
9"-12"	3/4"	20" OC

CONTROL/CONSTRUCTION JOINT SPACING	
SLAB THICKNESS	JOINT SPACING
4"	10'-0" +/- 2'
5"	12'-6" +/- 2'
6"	15'-0" +/- 3'
8"	20'-0" +/- 4'
10"	25'-0" +/- 5'
12"	30'-0" +/- 6'

2 CONTROL/CONSTRUCTION JOINTS
3/4" = 1'-0"



1 SOG SUBGRADE
3/4" = 1'-0"

STUDIO MELEE
139 4th STREET
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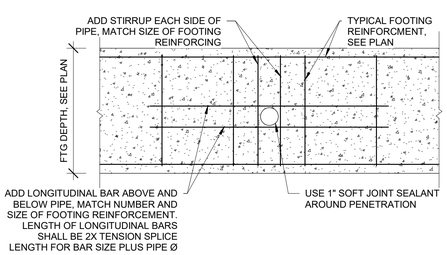
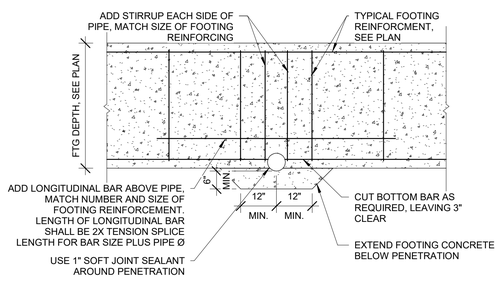
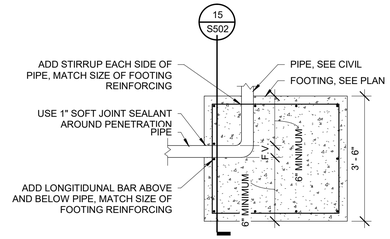
S501



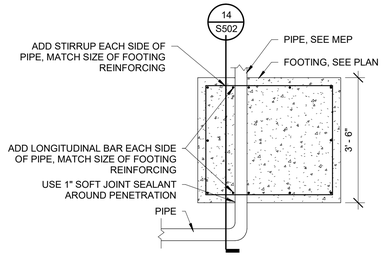
19 PENETRATION THRU FOOTING ELEVATION - 2
1/2" = 1'-0"



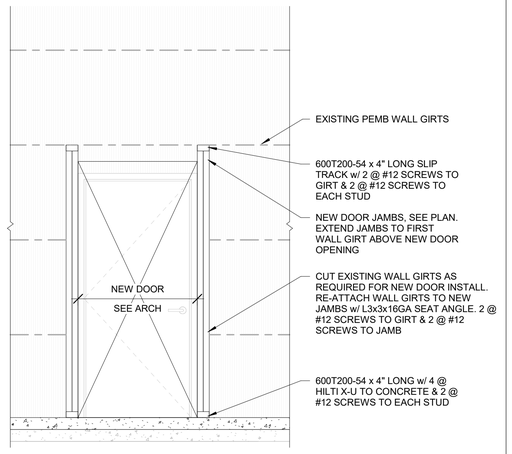
14 PENETRATION THRU FOOTING ELEVATION - 1
1/2" = 1'-0"



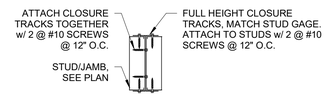
13 PENETRATION THRU FOOTING - 2
1/2" = 1'-0"

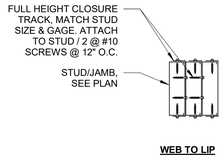


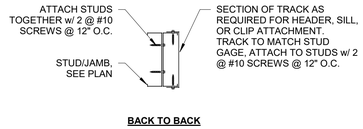
12 PENETRATION THRU FOOTING - 1
1/2" = 1'-0"



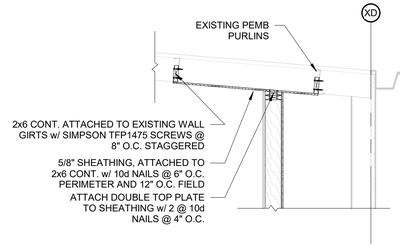
8 NEW DOOR OPENINGS
1/2" = 1'-0"



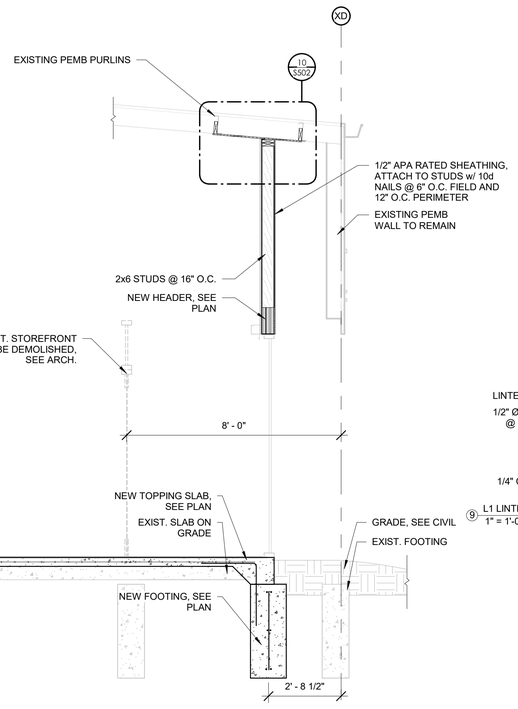




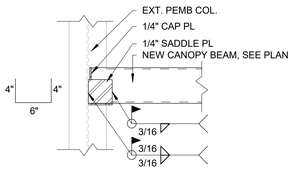
11 CFMF STUD CONFIGURATIONS CONTRACTOR OPTION
1 1/2" = 1'-0"



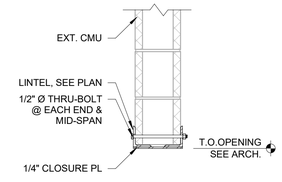
10 TOP OF WOOD WALL @ EXT. PEMB
1/2" = 1'-0"



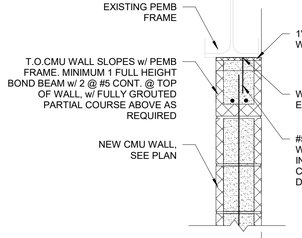
7 SECTION @ NEW ENTRY
3/8" = 1'-0"



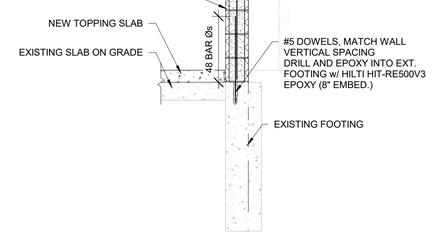
3 HSS TO EXISTING COLUMN
1" = 1'-0"



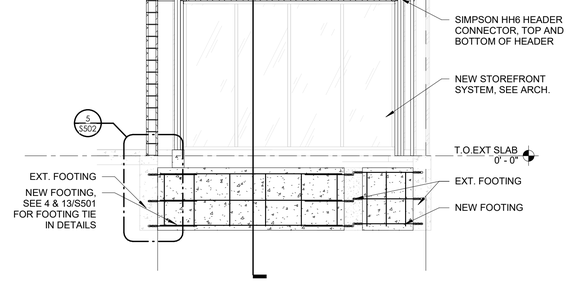
9 L1 LINTEL
1" = 1'-0"



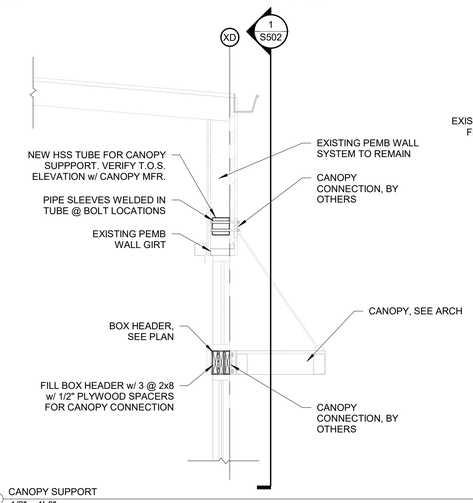
6 T.O.CMU WALL
1" = 1'-0"



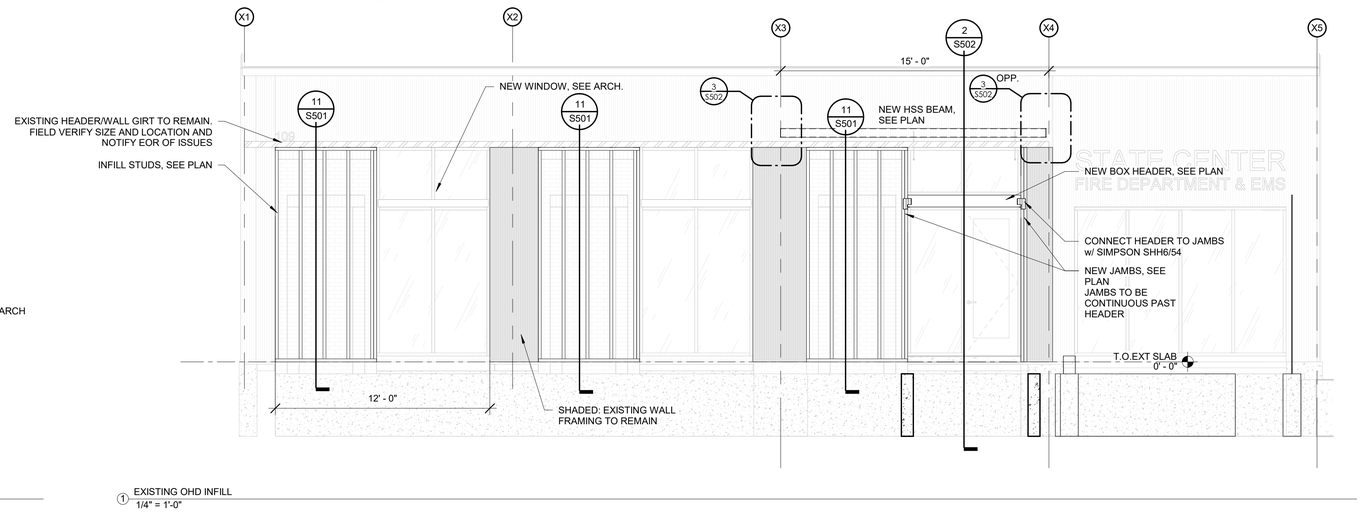
5 NEW CMU @ EXT. FOOTING
1/2" = 1'-0"



4 NEW FRAMING @ ENTRY
1/4" = 1'-0"



2 CANOPY SUPPORT
1/2" = 1'-0"



1 EXISTING OHD INFILL
1/4" = 1'-0"

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SHEET NAME: DETAILS

S502

Addendum #2

Project:	State Center Fire Station	Project Number:	23-006	Date:	January 9, 2026

Note { *This addendum has been issued to modify and/or interpret the bidding documents, including the drawings and specifications. Unless otherwise instructed, the information contained on the addendum shall take precedence over anything contrary on the original bidding documents and shall be hereinafter considered as a party of the bidding documents.*

Specifications

Section 22 3000 – Plumbing Equipment

1. **DELETE** Part 1.01.C Water Softener.
2. **DELETE** Part 1.07.B.
3. **DELETE** Part 1.07.C.
4. **DELETE** Part 1.08 Maintenance Products.
5. **DELETE** Part 1.09 Extra Materials.

Section 23 1123 – Natural Gas Piping

1. **REVISE** Part 3.02.C. to read, "Any charges by the gas utility company to provide service to the building shall be billed directly to the Owner."

Plans

Sheet P1.0 – Piping Underfloor Plan

1. Mech/Storage 103
    A. **REVISE** sanitary piping to line up with Janitor Sink and Floor Drain locations.
2. RR 110
    A. **REVISE** sanitary piping to line up Floor Drain location.
3. RR 111
    A. **REVISE** sanitary piping to line up Floor Drain location.

Sheet P5.1 – Piping Details

1. Gas Metering Detail
    A. **REVISE** gas pressure outlet to ½ psi.

Sheet P6.1 – Plumbing Schedules

1. Plumbing Specialties Schedule
    A. **ADD** Sand Oil Interceptor SOI-1 to be 500-gallon precast tank with traffic rated covers as described in schedule.

Sheet M1.1 – Mechanical Plan

1. EMT Storage 113
    A. **ADD** return grille high in stud wall.
2. Apparatus Storage 114
    A. **ADD** return grille low in stud wall.

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DES MOINES
130 EAST 3RD ST. STE. 300
DES MOINES, IOWA 50309
TEL 515.251.7280

IOWA CITY
118 EAST COLLEGE ST. STE. 200
IOWA CITY, IOWA 52240
TEL 319.248.4600

WATERLOO
214 EAST 4TH ST.
WATERLOO, IOWA 50703
TEL 319.235.0650

   B. **ADD** exhaust fan EF-6 and associated exhaust duct, controls, and accessories.
   C. **ADD** Referenced Note 26.
3. Referenced Notes
   A. **ADD** Note 26 to read, "Install high/low grilles in stud space of wall for EF-6 makeup air."

Sheet M6.1 – Mechanical Schedules

1. Exhaust Fan Schedule
   A. **ADD** exhaust fan EF-6.
   B. **REVISE** Note 2 to read, "EF-1, EF-2, EF-3, EF-6 shall operate with wall switch. refer to electrical plans."

Sheet E1.1 – Electrical Power Plan

1. Electrical Plan
   A. **ADD** referenced note 17 tag to exhaust fans in RR 108, RR 110, and RR 111.
   B. **ADD** line voltage toggle switch and associated Referenced Note 16 tag for exhaust fan control in Apparatus Storage 114.
   C. **ADD** power for exhaust fan EF-6 in Apparatus Storage 114.
2. Referenced Notes
   A. **ADD** referenced note 16 that reads "PROVIDE LINE VOLTAGE TOGGLE SWITCH FOR CONTROL OF APPARATUS STORAGE EXHAUST FAN. SWITCH SHALL BE GANGED WITH ROOM LIGHT SWITCH AND CEILING FAN CONTROL SWITCH."
   B. **ADD** referenced note 17 that reads "SEE ELECTRICAL LIGHTING PLAN FOR INFORMATION ON EXHAUST FAN CONTRTOL."

Sheet E2.1 – Electrical Lighting Plan

1. Lighting Plan
   A. **ADD** referenced note 7 tag to lighting control switches in RR 108, RR 110, and RR 111.
2. Referenced Notes
   A. **ADD** referenced note 7 that reads "CONTROL DEVICE SHALL HAVE AN ADDITIONAL AUXILIARY RELAY FOR CONTROL OF RESTROOM EXHAUST FAN. EXHAUST FAN SHALL OPERATE WITH THE LIGHTING."

Sheet E6.1 – Electrical Schedules

1. MDP Panel Schedule
   A. **REVISE** circuits MDP-58 – MDP-64 to include branch circuit for exhaust fan EF-6 and (6) spare 20A-1P spare breakers.
2. Lighting Fixture Schedule
   A. **ADD** Day-Brite CFI as an approved manufacturer for type PA.
   B. **ADD** the following equal manufacturers:
      a. Type DA – Nora
      b. Type EA – Exitronix
      c. Type EB – Exitronix
      d. Type EC – Exitronix
      e. Type PA – ILP, Day-Brite CFI
      f. Type PB – Trace-Lite
      g. Type RA – Trace-Lite
      h. Type RB – Trace-Lite
      i. Type ZA – Lumencia
      j. Type ZB – Lumencia
      k. Type ZC – Lumencia

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Attachments

Sheet P1.0 – Piping Underfloor Plan… (24 x 36)

Sheet P6.1 – Plumbing Schedules… (24 x 36)

Sheet M1.1 – Mechanical Plan… (24 x 36)

Sheet M6.1 – Mechanical Schedules… (24 x 36)

Sheet E1.1 – Electrical Power Plan… (24 x 36)

Sheet E2.1 – Electrical Lighting Plan… (24 x 36)

Sheet E6.1 – Electrical Schedules… (24 x 36)

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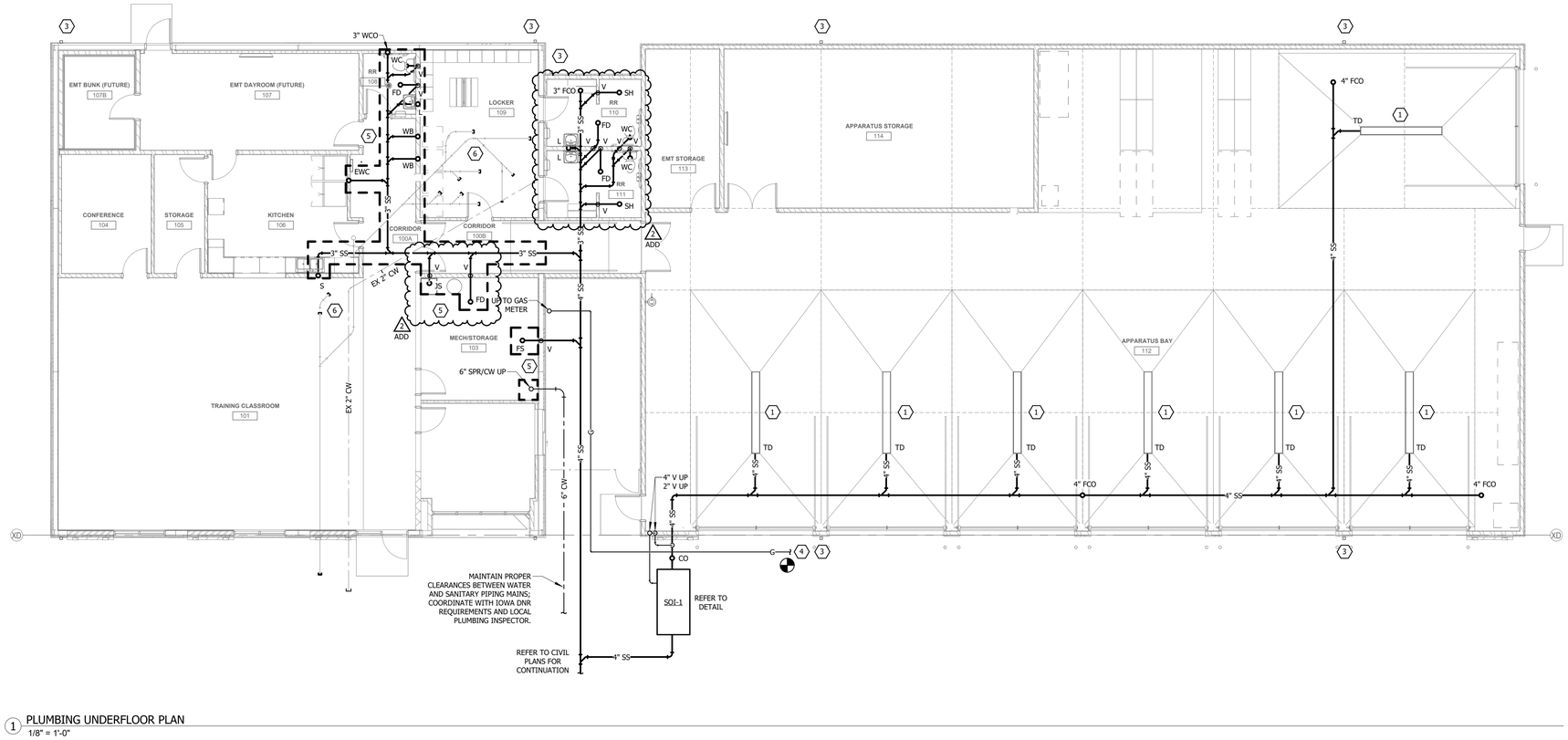

1 PLUMBING UNDERFLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES:

A. INSTALLATION PLANS ARE SCHEMATIC IN NATURE. CONTRACTOR TO VERIFY PLACEMENT OF NEW EQUIPMENT/FIXTURES PRIOR TO INSTALLATION.

B. MAINTAIN SERVICE CLEARANCE AROUND ALL MECHANICAL EQUIPMENT AND ABOVE ELECTRICAL EQUIPMENT. DO NOT ROUTE PIPING IN CLEARANCE SPACE.

C. COORDINATE PIPING LAYOUT AND ELEVATIONS WITH FOOTINGS, FLOW LINES, LOCAL PLUMBING CODE AND THE SPECIFICATIONS.

D. VERIFY ALL SITE CONDITIONS PRIOR TO START OF WORK.

E. COORDINATE ALL PLUMBING AND PIPING ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCES AND FLOW REQUIREMENTS.

F. ALL CONDENSATE DRAIN PIPING SHALL BE 3/4" COPPER WITH INSULATION UNLESS NOTED OTHERWISE. WHITE IN APPARATUS BAY AND BLACK IN ADMIN ADDITION.

G. COORDINATE ALL VENTS THROUGH ROOF WITH STRUCTURAL DRAWINGS AND MAINTAIN 10FT REQUIRED DISTANCE FROM MECHANICAL EQUIPMENT INTAKES. OFFSET PIPING AS NECESSARY.

H. COORDINATE ALL EXPOSED PIPE ROUTING WITH DESIGN TEAM PRIOR TO ROUGH-IN. SPECIFIC RACKING REQUIREMENTS MAY BE REQUIRED.

I. COORDINATE ALL FLOOR DRAIN LOCATIONS WITH MECHANICAL EQUIPMENT AND RESPECTIVE TRADES PRIOR TO ROUGH-IN.

J. COORDINATE STORM AND SANITARY SEWER CONNECTIONS WITH STRUCTURAL & CIVIL DRAWINGS TO MAINTAIN REQUIRED SLOPING AND PROPER ELEVATIONS.

K. SEE PLUMBING FIXTURE CONNECTION SCHEDULE FOR FIXTURE CONNECTION SIZES.

L. FIELD VERIFY ALL NEW AND EXISTING PIPE ROUTING WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN. MAKE NECESSARY OFFSETS AS REQUIRED.

M. COORDINATE ALL WALL CLEANOUT LOCATIONS WITH DESIGN TEAM PRIOR TO ROUGH-IN. COORDINATE ALL FLOOR CLEANOUT LOCATIONS BEING INSTALLED IN CARPET OR OTHER SPECIALTY FLOOR AREAS WITH DESIGN TEAM PRIOR TO ROUGH-IN.

O. PROVIDE ISOLATION BALL VALVES ON BRANCH PIPING TAPS FROM MAIN ON ALL COLD AND HOT WATER PIPES. ENSURE VALVES ARE INSTALLED IN ACCESSIBLE LOCATIONS.

P. PROVIDE A INSULATED PLUMBING VENT BOOT FLASHING IN LOCATIONS THRU THERMAL ENVELOPE.

Q. ALL ROOF PENETRATIONS TO OCCUR NORTH OF ROOF RIDGE OR THRU EXTERIOR WALLS. ANY PENETRATIONS NOT SHOWN ON ARCHITECTURAL ELEVATIONS SHALL BE COORDINATED WITH ARCHITECT & ENGINEER PRIOR TO INSTALLATION.

REFERENCED NOTES: (#)

1. NEW TRENCH DRAINS AND CATCH BASINS. REFER TO ARCHITECTURAL DOCUMENTS FOR MORE INFORMATION ON PROPOSED SLOPED FLOOR SLAB EXTENTS & PROPOSED TRENCH DRAIN RIM ELEVATIONS.
2. EXTEND 2" CW UNDERSLAB TO NEW METER AND BACKFLOW LOCATION.
3. COORDINATE STORM DOWNSPOUT PIPING WITH CIVIL SITE PLANS.
4. COORDINATE NEW GAS PIPE ROUTING WITH CIVIL SITE PLANS. CONNECT TO EXISTING GAS MAIN.
5. CUT AND PATCH EXISTING FLOOR SLAB TO MATCH EXISTING. REFER TO ALL BID DOCUMENTS FOR ADDITIONAL INFORMATION.
6. CAP EXISTING UNDERFLOOR PIPING BELOW FLOOR IN EXISTING BUILDING AFTER PIPING IS BLOWN OUT AND COMPLETELY DISCONNECTED FROM SYSTEM MAINS. PATCH CONCRETE TO MATCH EXISTING.

PLUMBING FIXTURE CONNECTION SCHEDULE

ITEM	WASTE SIZE	VENT SIZE	WATER SIZE	
			HOT	COLD
WATER CLOSET (TANK)	3"	2"	-	3/4"
LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
SINK	1-1/2"	1-1/2"	1/2"	1/2"
JANITOR SINK	3"	1-1/2"	3/4"	3/4"
DRINKING FOUNTAIN	1-1/2"	1-1/2"	-	1/2"
SHOWER	2"	1-1/2"	3/4"	3/4"
WASHER BOX	2"	1-1/2"	1/2"	1/2"
TYPICAL WASTE STACK	4"	-	-	-
TYPICAL VENT STACK	-	3"	-	-

NOTES:
1. ALL SANITARY SEWER BELOW GRADE SHALL BE A MINIMUM OF 3" UNLESS OTHERWISE NOTED.
2. ALL VENT BELOW GRADE SHALL BE A MINIMUM OF 2" UNLESS OTHERWISE NOTED.

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P1.0

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PLUMBING FIXTURE SCHEDULE

UNIT TAG	TYPE	MANUFACTURER	MODEL	MATERIAL	COLOR	ADA	FIXTURE DESCRIPTION	MISCELLANEOUS	TRIM	APPROVED EQUALS
EEW-1	EMERGENCY EYE WASH	HAWS	7260BT-7270BT	ABS & CHROME	GREEN	-	WALL MOUNTED EYE/FACE WASH SHALL INCLUDE A GREEN ABS PLASTIC 11" BOWL, AN AXION® MSR EYE/FACE WASH HEAD SHALL FEATURE INVERTED DIRECTIONAL LAMINAR FLOW WHICH ACHIEVES ZERO VERTICAL VELOCITY™ SUPPLIED BY AN INTEGRAL 3.7 GPM FLOW CONTROL, CHROME PLATED BRASS STAY-OPEN BALL VALVE EQUIPPED WITH STAINLESS STEEL BALL AND STEM, TAIL PIECE AND TRAP, AND CHROME-PLATED BRASS IN-LINE 50 X 50 MESH WATER STRAINER. UNIT SHALL ALSO INCLUDE CAST-ALUMINUM CHROMATE PROTECTED WALL BRACKET, YELLOW PLASTIC POP-OFF DUST COVER FOR EYEWASH HEAD, DRAIN TRAP AND TAILPIECE, UNIVERSAL SIGN, 1/2 " NPT INLET, AND 1-1/2" NPT WASTE.	HAWS MIXING VALVE MODEL 921EW MOUNTED ON THE WALL IN A STAINLESS STEEL BOX.	-	BRADLEY, GUARDIAN
EWC-1	ELECTRIC WATER COOLER	ELKAY	EZSTL8WSLK	STAINLESS STEEL/PLASTIC	STEEL	YES	BI-LEVEL ELECTRIC WATER COOLER WITH NON-FILTERED INTEGRAL AIR-COOLED CHILLER, AUTOMATIC STREAM REGULATOR, FLEXI-GUARD SAFETY BUBBLER WITH STREAM GUARD BOTTLE FILL WITH NO TOUCH SENSOR ACTIVATION, 20 SEC AUTO SHUT-OFF, NON-FILTERED	CAPACITY: 8.0 GPH OF 50 DEGREE FARENHEIGHT WATER WITH INLET AT 80 DEGREE FARENHEIGHT AND ROOM TEMP OF 90 DEGREE FARENHEIGHT, MAX 1/5 HP COMPRESSOR, 120V/1PHASE, WARRANTY: 1 YEAR ELECTRONIC COMPONENT, 5 YEAR REFRIGERATION SYSTEM	-	HALSEY TAYLOR, ENGINEER APPROVED EQUAL
JS-1	JANITORIAL SINK	FIAT	MSBIDTG2424	MOLDED STONE	WHITE	NO	MOLDED STONE 24"x24"x10" DEEP FLOOR MOUNTED MOP SERVICE BASIN WITH 1" WIDE SHOULDERS, 3" INTEGRAL DRAIN	MOP HANGER (889-CC), SST WALL GUARD (MSG2424), VINYL BUMPERGUARD (E-77-AA), HOSE/HOSE BRACKET (832-AA) AND FAUCET (830AA)	JSF-1	STERN WILLIAMS, PROFLO, ENGINEER APPROVED EQUAL
L-1	LAVATORY	KOHLER	KINGSTON K-2005-0	VITREOUS CHINA	WHITE	YES	21-1/4" X 18-1/8" WALL MOUNTED LAVATORY, THREE HOLE, 4" CENTERS	WATTS WCA-411 FLOOR MOUNTED LAVATORY CARRIER. VERIFY MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS.	LF-1	AMERICAN STANDARD, SLOAN
SH-1	SHOWER	FREEDOM	APFQ6233BFF875	ACRYLIC	WHITE	YES	62"x323/4"x785/8" ONE-PIECE ADA SHOWER ANSI COMPLIANT, SMOOTH WALLS, TEXTURED FLOOR, FOLD UP SEAT, GRAB BARS, BARRIER FREE, CENTER DRAIN	PROVIDE FLOOR DRAIN COMPATIBLE WITH SHOWER BASE, VERIFY TRIM MOUNTING HEIGHT WITH ARCHITECT	SHV-1	ENGINEER APPROVED EQUAL
WC-1	WATER CLOSET	KOHLER	HIGHLINE K-3999-0	VITREOUS CHINA	WHITE	YES	1.28 GPF, FLOOR MOUNTED, SIPHON JET, CLASS FIVE FLUSHING SYSTEM, LEFT-HAND TRIP LEVER	CLOSE COUPLED TANK AND SUPPLY WITH LOOSE KEY STOP	WCA-1	AMERICAN STANDARD, SLOAN

NOTES:
1. VERIFY SLAB RECESS REQUIREMENTS FOR BARRIER-FREE ADA COMPLIANT INSTALLATION WITH MFG PRIOR TO INSTALLATION OF SH-1.

PLUMBING FIXTURE TRIM SCHEDULE

UNIT	TYPE	MANUFACTURER	MODEL	COLOR	FIXTURE DESCRIPTION	MISCELLANEOUS	APPROVED EQUALS
JSF-1	SERVICE SINK FAUCET	FIAT	830AA	CHROME	EXPOSED WALL MOUNT, TWO HANDLE,CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK, AND 3/4" HOSE THREAD ON SPOUT, 8" CENTERS	FIAT #1453-BB STAINLESS STRAINER	DELTA, ENGINEER APPROVED EQUAL
LF-1	LAVATORY FAUCET	KRAUS	KSB-10001	CHROME	SENSOR OPERATED CENTER SET ELECTRONIC HAND WASHING FAUCET, 1.2 GPM LAMINAR FLOW VANDAL-RESISTANT AERATOR, 4AA BATTERIES AND CONTROL BOX.	METAL GRID STRAINER WITH 1-1/2" 17 GA CHROME PLATED P-TRAP, OFFSET TAILPIECE AS REQUIRED, TRU-BRO LAV GUARD, 1/4 TURN LOOSE KEY STOPS, [DESIGNER NOTE: ONLY SLOAN OFFERS BLUETOOTH CONNECTIVITY. INCLUDE THE FOLLOWING BLURB ONLY IF SOLE-SOURCING SLOAN. [BLUETOOTH CONNECTIVITY VIA SLOAN CONNECT APP]	ENGINEER APPROVED EQUAL
SHV-1	SHOWER SYSTEM	SYMMONS	9605-PLR	CHROME	SHOWER SYSTEM WITH 1.5 GPM TEMPTROL PRESSURE BALANCING VALVE, LEVER HANDLE, SEPARATE LEVER DIVERTER, SINGLE MODE SHOWERHEAD ARM AND FLANGE, HAND SHOWER WITH METAL HOSE, INLINE VACUUM BREAKER AND WALL CONNECTION, 36" ADA SLIDE BAR, INTEGRAL CHECK STOPS	OATEY SHOWER DRAIN WITH STAINLESS STEEL STRAINER	POWERS, ENGINEER APPROVED EQUAL
WCA-1	SEAT	CHURCH	380TCA	WHITE	CLOSED FRONT SEAT WITH COVER, ELONGATED, SELF-SUSTAINING CHECK HINGE, STAINLESS STEEL BOLTS	-	BEMIS, ENGINEER APPROVED EQUAL

PLUMBING SPECIALITIES SCHEDULE

UNIT	TYPE	MANUFACTURER	MODEL	DESCRIPTION	MISCELLANEOUS & ACCESSORIES	APPROVED EQUALS
FD-1	FLOOR DRAIN	ZURN	Z415B	EPOXY COATED CAST IRON BODY, ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR, PRIMARY AND SECONDARY WEEP HOLES, ADJUSTABLE 7" DIAMETER CHROME PLATED BRONZE STRAINER.	PROVIDE WITH MEMBRANE CLAMP ON ALL FLOOR DRAINS INSTALLED ABOVE SLAB ON GRADE. PROVIDE WITH STRAINER EXTENSION TO ACCOMMODATE THICK FILLS AS REQUIRED. [PROVIDE IN-DRAIN TRAP SEAL RECTORSEAL, OATEY, OR ENGINEER APPROVED EQUAL.] CONTRACTOR TO SELECT OUTLET TYPE. OUTLET SIZE AS NOTED ON DRAWINGS.	SMITH, WATTS, JOSAM, WADE, SUN DRAINAGE, ENGINEER APPROVED EQUAL
FS-1	FLOOR SINK	ZURN	Z1901	FLOOR SINK WITH ANCHOR FLANGE AND CLAMP COLLAR, WHITE ACID RESISTANT PORCELAIN ENAMEL COATED INTERIOR, LOOSE SET PORCELAIN ENAMEL COATED CAST IRON GRATE AND ALUMINUM ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER, ASME A112.6.3. PROVIDE WITH ALUMINUM SEDIMENT BUCKET AND FLANGE WITH WEEP HOLES.	3/4 GRATE, CONTRACTOR TO SELECT OUTLET TYPE. OUTLET SIZE AS NOTED ON DRAWINGS.	SMITH, WATTS, JOSAM, WADE, SUN DRAINAGE, ENGINEER APPROVED EQUAL
HB-1	HOSE BIBB	WOODFORD	B24	INTERIOR: BRASS WITH INTEGRAL MOUNTING FLANGE, REPLACEABLE HEXAGONAL DISC, HOSE THREAD SPOUT, METAL HANDLE. VACUUM BREAKER IN CONFORMANCE WITH ASSE 1011.	CHROME FINISH	PRIER, ENGINEER APPROVED EQUAL
ADD SOI-1	SAND/OIL INTERCEPTOR	JENSON	JP-500	500 GALLON PRECAST TANK WITH 4 INCH ASSEMBLY 24"E, 24"E SINGLE BAFFLE. TRAFFIC RATED COVERS. PROVIDE EXTENSIONS AS REQUIRED FOR PROPER DRAINS FROM TRENCH DRAINS TO SITE SANITARY MAIN.	TRAFFIC RATED COVERS, VENT PIPING	ZURN, STRIEM, LISTER, ENGINEER APPROVED EQUAL
TD-1	TRENCH DRAIN GRATES	ZURN	Z712-HDG	PROVIDE MULTIPLE 12" WIDE X 24" LONG, RATED LOAD CLASS E HEAVY DUTY DUCTILE IRON SLOTTED GRATES TO MATCH LENGTH OF CONCRETE TRENCH DRAIN.	REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR TRENCH DRAIN LENGTHS PRIOR TO ORDERING.	JOSAM, WATTS, ENGINEER APPROVED EQUAL
VB-1	ICE MAKER VALVE BOX	GUY GRAY	MIB1AB	WHITE POWDER COATED STEEL ICE MAKER OUTLET BOX WITH LEAD FREE VALVE.	-	IPS, GUY GRAY, OATLEY, ENGINEER APPROVED EQUAL
WB-1	WASHER BOX	GUY GRAY	MWB30	CENTER DRAIN WHITE POWDER COATED METAL WASHING MACHINE OUTLET BOX WITH 1/4 TURN VALVES AND WATER HAMMER ARRESTORS	-	IPS, GUY GRAY, OATLEY, ENGINEER APPROVED EQUAL
WH-1	WALL HYDRANT	WOODFORD	B67	ASSE 1019 NON-FREEZE, SELF-DRAINING TYPE WITH LOCKABLE RECESSED BOX HOSE THREAD SPOUT, LOCKSHIELD AND REMOVABLE KEY WITH INTEGRAL DOUBLE CHECK BACKFLOW PREVENTER, 3/4" INLET AND OUTLET.	CHROME FINISH	PRIER, ENGINEER APPROVED EQUAL

GAS WATER HEATER SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	STORAGE CAPACITY (GAL)	FUEL TYPE	INPUT (MBH)	MIN RECOVERY 90ºF RISE (GPH)	FIRST HOUR RECOVERY	VOLTAGE/Ø
GWH-1	STATE	GS6 50 YBVIS	50	NATURAL GAS	40	44.7	90	120/1

NOTES:
1. POWER VENT COMMMERCIAL-GRADE RESIDENTIAL WATER HEATER WITH 3-POSITION ROTATABLE BLOWER OUTLET.

PUMP SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	SYSTEM	LOCATION	FLOW RATE (GPM)	TOTAL HEAD (FT)	MOTOR SPEED (RPM)	VOLATGE /PHASE
CP-1	BELL AND GOSSETT	PL-36	DOMESTIC HOT WATER	WATER/UTIL 103	2	14	3300	120/1

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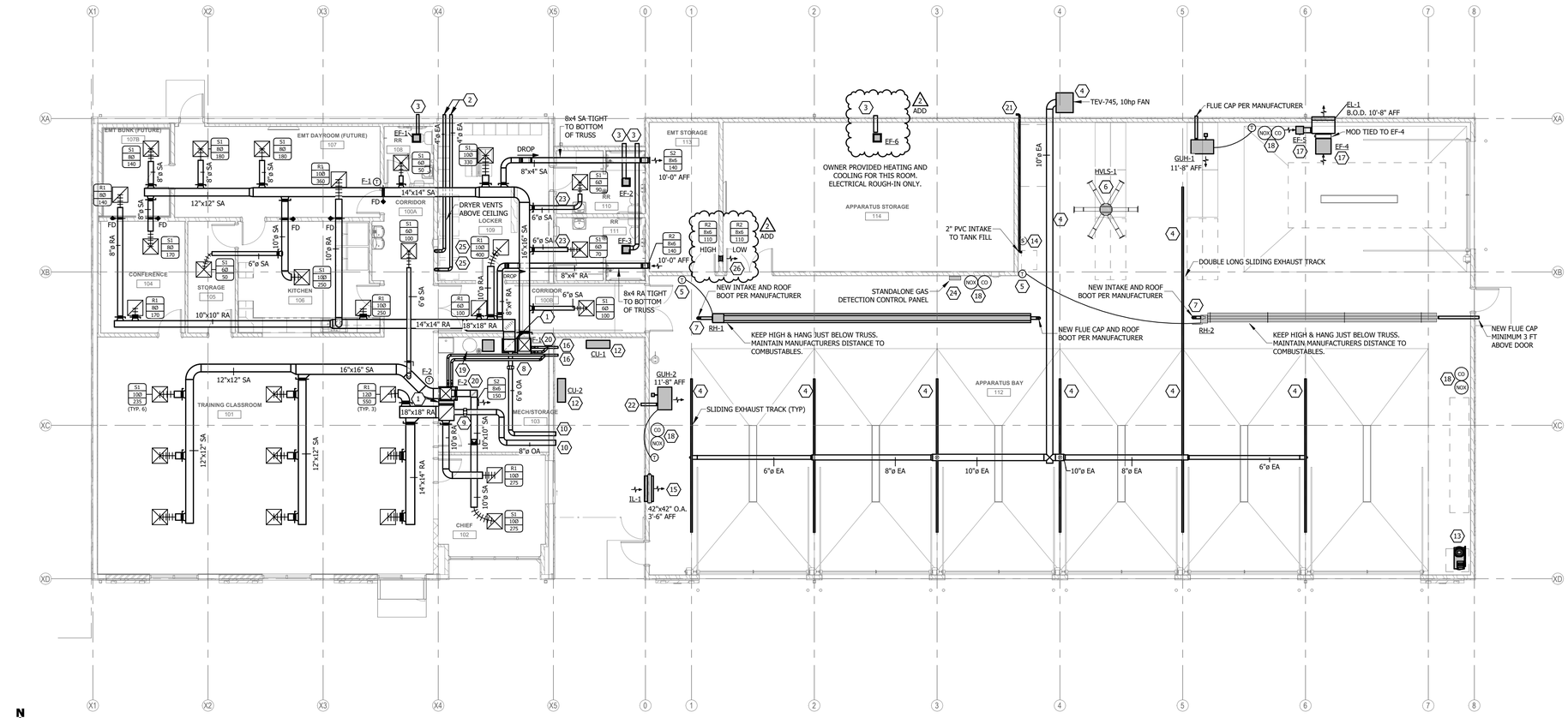

1 HVAC PLAN
1/8" = 1'-0"

GENERAL NOTES:

A. LAYOUT AND ROUTING SHOWN IS DIAGRAMMATIC AND SCHEMATIC IN NATURE. NOT ALL OFFSETS MAY BE SHOWN. CONTRACTOR SHALL VERIFY EXACT ROUTING REQUIRED AND NUMBER OF OFFSETS AND TRANSITIONS.

B. MAINTAIN SERVICE CLEARANCE IN FRONT OF AND ABOVE ELECTRICAL EQUIPMENT AND ACCESS. DO NOT INSTALL EQUIPMENT OR ROUTE DUCTS IN CLEARANCE SPACE. REFER TO EQUIPMENT INSTALLATION AND INSTRUCTIONS.

C. COORDINATE THERMOSTAT LOCATIONS WITH CASEWORK, WALL TYPES, AND FURNISHINGS PRIOR TO ROUGH-IN. COORDINATE FINAL LOCATIONS WITH OWNER.

D. PROVIDE VOLUME CONTROL BALANCING DAMPERS ON ALL SUPPLY, RETURN, EXHAUST AIR TAPS IN ACCESSIBLE LOCATIONS FOR AIR BALANCING. INSTALL CABLE OPERATED DAMPER OR ACCESS PANEL IF DAMPER IS LOCATED ABOVE GYP CEILINGS.

E. COORDINATE DUCT ROUTING WITH STRUCTURAL AND ALL TRADES.

F. COORDINATE ALL EXPOSED DUCTWORK ROUTING WITH DESIGN TEAM PRIOR TO ROUGH-IN.

G. COORDINATE SUPPLY, RETURN, AND EXHAUST GRILLE/DIFFUSER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN AND ALL TRADES.

H. ALL ROOFTOP PENETRATIONS SHALL OCCUR NORTH OF ROOF RIDGE LINE. PROVIDE & INSTALL BOOT FLASHING AND OTHER ASSOCIATED ACCESSORIES AS REQUIRED FOR PROPER OPERATION AND INSTALLATION. **PAINT ALL PIPE PENETRATIONS TO MATCH FINISH OF METAL ROOF PANELS.**

I. COORDINATE DUCT ROUTING IN LOCATIONS WITH EXISTING CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO ROUGH-IN.

J. DESIGN INTENT SHALL BE ALL MECHANICAL, ELECTRICAL, & PLUMBING RUNS WITHIN NEW ADMIN AREA, LOCKER ROOM & RESTROOMS SHALL BE RUN WITHIN NEW WALL ASSEMBLIES, ABOVE FINISH CEILING ASSEMBLIES OR TIGHT TO UNDERSIDE OF STRUCTURE UNLESS NOTED OTHERWISE. COORDINATE ANY EXPOSED ROUTING WITHIN THESE SPACES WITH ARCHITECT & ENGINEER PRIOR TO FABRICATION & INSTALLATION.

REFERENCED NOTES: (#)

1. PROVIDE AND INSTALL MERV 11 25"x20"x2" SIDE RETURN FILTER RACK.
2. 4" ALUMINUM DRYER VENT WALL CAP WITH PRE-FINISHED METAL BACKPLATE TO MATCH METAL SIDING AS REQUIRED FOR PROPER SEAL TO BUILDING ENVELOPE.
3. 6" ALUMINUM BATH FAN WALL CAP WITH PRE-FINISHED METAL BACKPLATE TO MATCH METAL SIDING AS REQUIRED FOR PROPER SEAL TO BUILDING ENVELOPE.
4. PLYMOVENT SYSTEM (TRACKS, FAN, DUCTING & CONTROLS) BY OWNER. SHOWN FOR COORDINATION.
5. PROVIDE NEW HEATING ONLY DIGITAL THERMOSTAT, WIRING & CONDUIT FOR NEW RADIANT TUBE HEATER. EACH HEATER CONTROLLED BY ITS OWN STAT.
6. MOUNT HVLS-1 HIGH. COORDINATE FINAL LOCATION TO NOT INTERFERE WITH PLYMOVENT AND LIGHTING.
7. DUCT NEW RADIANT TUBE HEATERS COMBUSTION AIR UP AND OUT NORTH SIDE OF ROOF RIDGE.
8. FIELD CONTROLS 100cfm 6" FAVC DAMPER, SENSORS AND CONTROLLER SET TO ECONOMY MODE FOR NORTHERN CLIMATE.
9. FIELD CONTROLS 200cfm 8" FAVC DAMPER, SENSORS AND CONTROLLER SET TO ECONOMY MODE FOR NORTHERN CLIMATE.
10. BROAN 6" ROUND INTAKE AIR HOOD MODEL 641FA. KEEP A MINIMUM 10' FROM EXHAUST OUTLETS AND MAINTAIN REQUIRED CLEARANCE FROM GAS METER PRESSURE REGULATOR.
11. BROAN 8" ROUND INTAKE AIR HOOD MODEL 643FA. KEEP A MINIMUM 10' FROM EXHAUSTS.
12. G.C. TO INSTALL 4" HOUSEKEEPING PAD FOR CONDENSING UNITS. COORDINATE SIZE WITH FINAL EQUIPMENT.
13. RELOCATED EXISTING AIR COMPRESSOR AND HOSE REEL. COORDINATE FINAL MOUNTING LOCATION OF RELOCATED HOSE REEL WITH OWNER.
14. FIXED WALL MOUNT SPEED CONTROLLER FOR HVLS-1 FAN.
15. NEW WALL SLEEVE, INTAKE LOUVER & MOTOR OPERATED DAMPER TIED INTO PURGE CONTROL AND EF-4.
16. PROVIDE AND INSTALL MANUFACTURERS CONCENTRIC WALL VENT.
17. SEE DETAIL 6 ON SHEET M5.1. KEEP FAN HIGH AS POSSIBLE & INSTALL WITH INLET GUARD SCREEN.
18. CO SENSOR MOUNTED APPROXIMATELY 4' ABOVE FINISHED FLOOR. NOX SENSOR MOUNTED APPROXIMATELY 2' FROM CEILING. TIED INTO EF-4 AND IL-1 MOD.
19. PVC WATER HEATER VENT AND COMBUSTION INTAKE SIZED PER WATER HEATER MANUFACTURER, UP AND OUT NORTH SIDE OF ROOF RIDGE. FLASH AND SEAL WATER TIGHT.
20. ROUTE F-2 CONDENSATE TO MOP SINK. ROUTE F-1 CONDENSATE TO FLOOR DRAIN NEAR WATER HEATER.
21. 2" PVC INTAKE FILL FOR OXYGEN TANK FILL. VERIFY SIZE WITH UNIT MANUFACTURER. KEEP 10' FROM ALL EXHAUST SOURCES.
22. NEW GUH FLUE AND CAP OUT WALL PER MANUFACTURER. MAINTAIN MINIMUM OF 10' FROM ALL FRESH AIR INTAKES.
23. ROUTE 6"Ø SA IN WOOD JOIST WEBBING. FIELD COORDINATE EXACT LOCATION.
24. PROVIDE A NETWORK HONEYWELL 301-C-DLC GAS DETECTION CONTROL PANEL, WIRING, AND ACCESSORIES REQUIRED TO MONITOR AND CONTROL THE ASSOCIATED GAS SENSORS, INTAKE LOUVER DAMPER, AND PURGE EXHAUST FAN EF-4.
25. PROVIDE RECESSED DRYER BOX IN WALL.
26. INSTALL HIGH/LOW GRILLES IN STUD SPACE OF WALL FOR EF-6 MAKEUP AIR.

ADD

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M1.1

EXHAUST FAN SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	SERVES	AIRFLOW (CFM)	ESP (IN. WG)	MOTOR WATTS	FAN SPEED (RPM)	DRIVE TYPE	SOUND LEVEL (SONES)	MCA	MOP	V/C/P
EF-1	BROAN	QTXEG080	BATHROOMS	80	0.10	23.9	-	DIRECT	0.4	0.2	20	115/60/1
EF-2	BROAN	QTXEG110	BATHROOMS	110	0.10	23.9	-	DIRECT	0.4	0.3	20	115/60/1
EF-3	BROAN	QTXEG110	BATHROOMS	110	0.10	23.9	-	DIRECT	0.4	0.3	20	115/60/1
EF-4	GREENHECK	SQ-160-VG	APPARATUS BAY PURGE	4000	0.35	2 HP	1473	DIRECT	18.7	15.6	25	208/60/1
EF-5	BROAN	L300EL	APPARATUS BAY CONSTANT	265	0.125	0.2 AMPS	1256	DIRECT	5	0.2	20	115/60/1
EF-6	BROAN	QTXEG110	STORAGE 114	110	0.10	23.9	-	DIRECT	0.4	0.3	20	115/60/1

NOTES:
1. PROVIDE AND INSTALL NEOPRENE ISOLATION HANGERS OR OPEN SPRING ISOLATION HANGERS FOR EF-4 & EF-5.
2. EF-1, EF-2, EF-3, EF-6 SHALL OPERATE WITH WALL SWITCH. REFER TO ELECTRICAL PLANS.
3. EF-4 SHALL BE CONTROLLED BY GAS DETECTION CONTROL PANEL.
4. PROVIDE A MOTORIZED CONTROL DAMPER WITH EF-4 TO OPEN WITH EF-4 IS RUNNING AND CLOSED WHEN EF-4 IS OFF.
5. EF-5 SHALL RUN CONTINUOUSLY.

1 ADD

FURNACE SCHEDULE

			FAN SECTION				GAS HEATING SECTION				COOLING PERFORMANCE		ELECTRICAL		
UNIT TAG	MANUFACTURER	MODEL	AIRFLOW (CFM)	ESP (IN WC)	HP	FILTER	FUEL	INPUT CAPACITY	OUTPUT CAPACITY	STAGES	TOTAL CAPACITY (MBH)	STAGES	MCA	MOCP	VOLTAGE/ PHASE
F-1	DAIKIN	DR96TN0804CN	1800	0.6	.75	MERV 8	GAS	80	76.8	TWO	53	VARIABLE	11.4	20	120/1
F-2	DAIKIN	DR96TN1005CN	1995	0.6	1	MERV 8	GAS	100	96	TWO	53	VARIABLE	14.4	25	120/1

NOTES:
1. PROVIDE AND INSTALL WITH DAIKIN AHRI MATCHED CASED COIL WITH ELECTRONIC EXPANSION VALVE.
2. PROVIDE AND INSTALL DAIKIN ONE THERMOSTAT. **SET TARGET HUMIDITY TO 50%**. COORDINATE FINAL LOCATIONS WITH OWNER PRIOR TO INSTALLATION.
3. PROVIDE AND INSTALL CONCENTRIC WALL VENT KITS.

GAS UNIT HEATER SCHEDULE

			FAN SECTION		HEATING SECTION				ELECTRICAL		
UNIT TAG	MANUFACTURER	MODEL	AIRFLOW (CFM)	TEMP RISE	FUEL	INPUT CAPACITY (MBH)	OUTPUT CAPACITY (MBH)	STAGES	MCA	MOCP	VOLTAGE/ PHASE
GUH-1	MODINE	PTP	2140	53	NAT. GAS	150	123	SINGLE	-	15	120/1
GUH-2	MODINE	PTP	2140	53	NAT. GAS	150	123	SINGLE	-	15	120/1

NOTES:
1. PROVIDE FACTORY WALL OR CEILING HANGER KIT.
2. PROVIDE FACTORY DISCONNECT.
3. PROVIDE STANDALONE WALL MOUNTED THERMOSTAT FOR EACH UNIT.

LOUVER SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	UNIT SERVED	FACE VELOCITY (FPM)	AIFLOW (CFM)	PRESSURE DROP (IN WC)	LOUVER WIDTH (IN)	LOUVER HEIGHT (IN)	FREE AREA (SQ FT)
EL-1	RUSKIN	ELF520DD	EF-4	909	4000	0.21	36	36	4.40
IL-1	RUSKIN	ELF520DD	PURGE INTAKE	643	4000	0.10	42	42	6.22

NOTES:
1. CUSTOM COLOR SELECTION BY ARCHITECT. COLOR SHALL MATCH METAL SIDING.

GRILLES, REGISTERS, AND DIFFUSERS SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	MATERIAL	SYSTEM TYPE	NECK SIZE	FACE SIZE	RANGE	MAX N.C.	NOTE
S1	TITUS	OMNI	STEEL	SUPPLY	SEE DWG	24x24	SEE DWG	20	1,2
S2	TITUS	300FL	ALUMINUM	SUPPLY	8x6	-	SEE DWG	20	1
R1	TITUS	OMNI	STEEL	RETURN	SEE DWG	24x24	SEE DWG	20	1,2
R2	TITUS	301FL	ALUMINUM	RETURN	8x6	-	SEE DWG	20	1

NOTES:
1. COLOR TO BE WHITE UNLESS OTHERWISE NOTED ON PLANS.
2. VERIFY CEILING TYPE WITH ARCHITECTURAL PLANS FOR BORDER TYPE NEEDED PRIOR TO ORDERING.

CONDENSING UNIT SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	CAPACITY (MBH)	REFRIGERANT	COMPRESSSOR TYPE	CAPACITY STEPS	MCA	MOCP	VOLTAGE/ PHASE	WEIGHT (LBS)
CU-1	DAIKIN	DC6VS	45.5	R-32	SWING	VARIABLE	31.8	35	208/1	163
CU-2	DAIKIN	DC6VS	53.5	R-32	SWING	VARIABLE	37.5	40	208/1	174

NOTES:
1. VARIABLE SPEED COMPRESSOR.
2. PROVIDE AND INSTALL LINESET WITH PRE-INSULATED UV RESISTANT JACKET.
3. COMPATIBLE WITH FURNACE AND CONTROL SYSTEM.
4. PROVIDE WALL MOUNT KIT FOR CONDENSING UNITS OR 4" CONCRETE HOUSEKEEPING PAD. COORDINATE WITH WALL CONDITION AND DESIGN TEAM PRIOR TO INSTALLATION.

HIGH VOLUME LOW SPEED FAN SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	WEIGHT (LBS)	FAN DIAMETER (FT)	MAX SPEED (RPM)	ELECTRICAL		
						*MCA	MOCP	VOLTAGE/PHASE
HVLS-1	BIG ASS FAN	i6	40.3	8	80	36 WATTS	15	120/1

NOTES:
1. PROVIDE AND INSTALL MANUFACTURER'S CEILING MOUNT KIT.
2. PROVIDE AND INSTALL WITH FIXED WALL MOUNT REMOTE SPEED CONTROLLER.
3. ARCHITECT SHALL SELECT FINISH DURING SUBMITTAL REVIEW.
4. PROVIDE AND INSTALL WITH 12" DOWNROD.

RADIANT HEATER SCHEDULE

			HEATING SECTION			ELECTRICAL		
UNIT TAG	MANUFACTURER	MODEL	FUEL	INPUT CAPACITY (MBH)	STAGES	MCA	MOCP	VOLTAGE/ PHASE
RH-1	DETROIT RADIANT	DES3-30-75	NAT. GAS	75	ONE	4.8	15	120/1
RH-2	DETROIT RADIANT	DES3-40-75	NAT. GAS	75	ONE	4.8	15	120/1

NOTES:
1. 0° MOUNTING ANGLE.
2. MAINTAIN ALL MANUFACTURERS DISTANCES TO COMBUSTIBLES.

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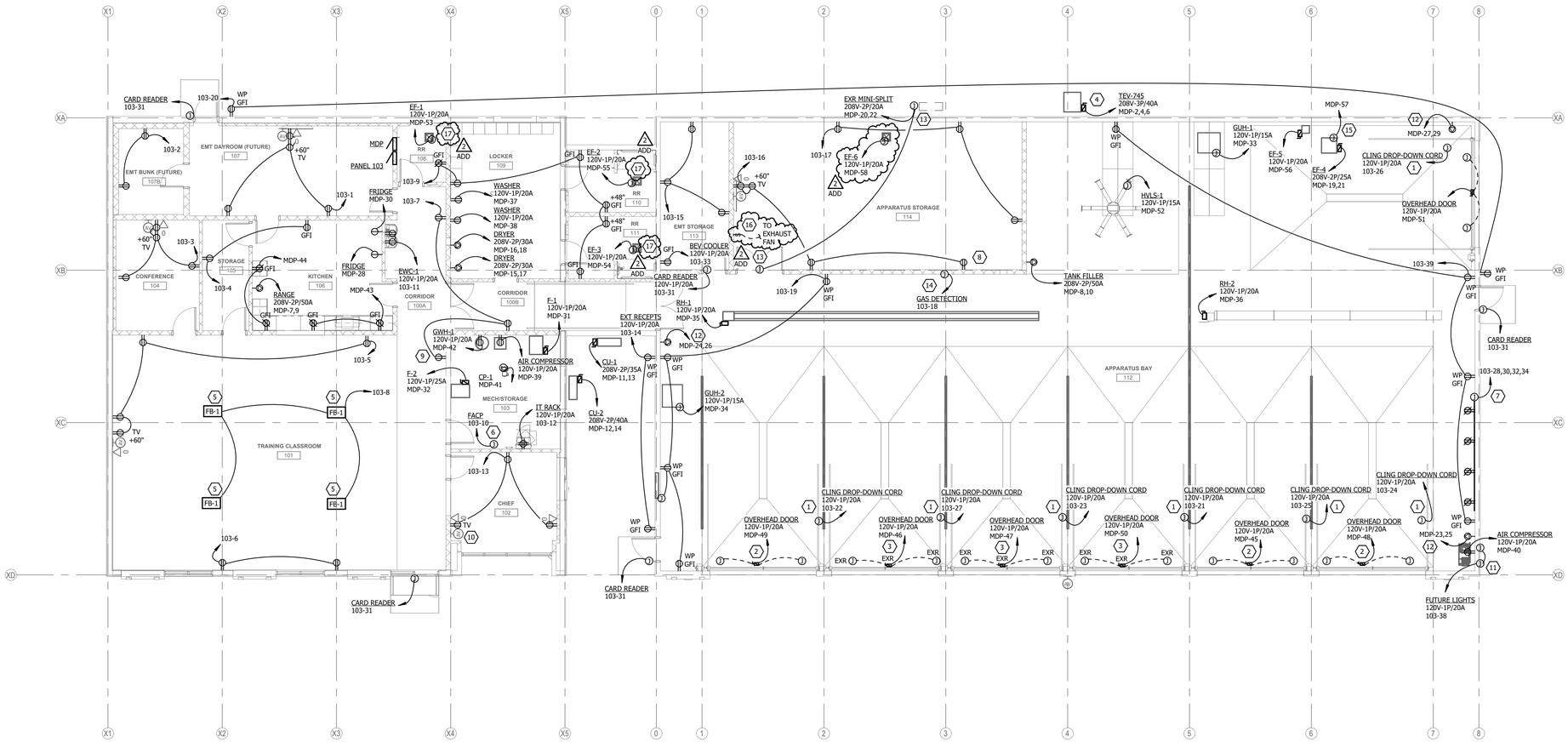
PROJECT: STATE CENTER FIRE STATION
ADDRESS: 109 E MAIN STREET; STATE CENTER, IA 50247
CLIENT: STATE CENTER FIRE DEPARTMENT

PHASE: CD
PRINT DATE: 12.18.2025
SHEET NAME: MECHANICAL SCHEDULES

M6.1



N

1 ELECTRICAL PLAN
1/8" = 1'-0"

POWER GENERAL NOTES:

A. ALL DISCONNECTS ON MECHANICAL EQUIPMENT SHALL BE MOUNTED ON STRUCTURE TO ALLOW REMOVAL OF THE EQUIPMENT FOR MAINTENANCE WITH A MINIMUM OF WIRING WORK. VERIFY NEC CLEARANCE REQUIREMENTS ARE MET PRIOR TO ROUGH-IN.

B. MAINTAIN SERVICE CLEARANCE AROUND ALL MECHANICAL & ELECTRICAL EQUIPMENT. DO NOT ROUTE PIPING OR CONDUIT IN CLEARANCE SPACE.

C. SURFACE RACEWAY AND CONDUIT SHALL NOT BE USED IN ANY FINISHED AREAS WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND ARCHITECT.

D. ALL RECEPTACLE CIRCUITS SHALL HAVE DEDICATED NEUTRALS.

E. INSTALL DEVICES SUCH THAT NO TWO DEVICES ON OPPOSITE SIDES OF SAME WALL ARE WITHIN 6" OF EACH OTHER.

F. PROVIDE CONDUIT SLEEVES WITH INSULATED BUSHINGS SERVING ALL LOW VOLTAGE CABLING. DO NOT EXCEED 40% FILL.

G. PRIOR TO ROUGH-IN, COORDINATE ALL WALL DEVICES WITH FINAL CASEWORK ELEVATIONS AND OTHER TRADES. CONFLICTS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER AND ARCHITECT.

H. ALL FLOOR BOXES SHALL HAVE THEIR EXACT ROUGH-IN LOCATION DETERMINED BY DESIGN TEAM THROUGH DIMENSIONED DRAWINGS SIGNED BY OWNER PRIOR TO ROUGH-IN. LOCATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY.

I. PROVIDE AN ADDITIONAL 20A-1P BREAKER IN LOCAL PANEL FOR CONNECTION TO FIRE SMOKE DAMPERS (FSD). SEE HVAC PLANS FOR EXACT LOCATIONS. CLEARLY INDICATE ON AS-BUILT DRAWINGS.

J. IN ROOMS WHERE MULTIPLE COUNTER HEIGHTS EXIST, ALL ABOVE-COUNTER RECEPTACLE SHALL BE INSTALLED AT THE SAME HEIGHT ABOVE FLOOR. COORDINATE WITH DESIGN TEAM DURING CONSTRUCTION.

K. REFER TO T-SHEETS FOR ADDITIONAL ROUGH-IN INFORMATION. ALL AUDIO INPUTS SHALL BE ROUGHED IN ADJACENT TO RECEPTACLES SHOWN ON THIS PLAN UNLESS NOTED OTHERWISE.

L. PROVIDE ALL NEW ELECTRICAL DEVICES AND FACEPLATES FOR EXISTING (EX) DEVICES SHOWN.

M. REFER TO ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS FOR SPECIFIC DEVICE ROUGH-IN AND PLACEMENT. ANY DEVIATIONS FROM THE ARCHITECTURAL ELEVATIONS AND RCP 'S SHALL BE REVIEWED AND APPROVED BY THE DESIGN TEAM PRIOR TO ROUGH-IN. IF A DEVICE IS REQUIRED PER SPECIFICATION, REQUIRED FOR OPERATION, OR IS DIFFERENT IN CONFIGURATION THAN SHOWN ON ELEVATIONS AND RCP'S, CLARIFICATION AND DIRECTION MUST BE GIVEN BY THE DESIGN TEAM BEFORE ROUGH-IN. DEVIATIONS OR ADDITIONAL DEVICES NOT APPROVED PRIOR TO INSTALLATION SHALL BE CORRECTED AT CONTRACTOR'S EXPENSE. THIS INCLUDES BUT IS NOT LIMITED TO THERMOSTATS, CONTROL SYSTEM SENSORS, ELECTRICAL DEVICES, SWITCHES, DIMMERS, TECHNOLOGY DEVICES, A/V DEVICES, SPEAKERS, FIRE ALARM DEVICES, ETC.

N. CEILING CONTRACTOR SHALL PROVIDE AND INSTALL CEILING ACCESS PANELS FOR ACCESSIBILITY TO ELECTRICAL JUNCTION BOXES, PLUMBING VALVES, BALANCING DAMPERS, CIRCUIT SETTERS, ETC. WHERE ABSOLUTELY NECESSARY. LOCATIONS WILL NEED TO BE APPROVED AND COORDINATED WITH THE DESIGN TEAM PRIOR TO INSTALLATION.

O. DESIGN INTENT SHALL BE ALL MECHANICAL, ELECTRICAL, & PLUMBING RUNS WITHIN NEW ADMIN AREA, LOCKER ROOM & RESTROOMS SHALL BE RUN WITHIN NEW WALL ASSEMBLIES, ABOVE FINISH CEILING ASSEMBLIES OR TIGHT TO UNDERSIDE OF STRUCTURE UNLESS NOTED OTHERWISE. COORDINATE ANY EXPOSED ROUTING WITHIN THESE SPACES WITH ARCHITECT & ENGINEER PRIOR TO FABRICATION & INSTALLATION.

POWER REFERENCED NOTES: (#)

1. COORDINATE LOCATION OF DROP-DOWN CORD REEL WITH OWNER PRIOR TO ROUGH-IN.
2. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT PATHWAYS FOR SENSORS, CONTROLLER, AND POWER TO THE MOTOR FOR EACH OVERHEAD DOOR. MANUFACTURER SHALL FURNISH AND INSTALL THE OVERHEAD DOOR, ALL LOW VOLTAGE WIRING, AND ASSOCIATED OPENERS, AND SENSORS. COORDINATE ALL WORK WITH DOOR MANUFACTURER PRIOR TO ROUGH-IN.
3. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT PATHWAYS FOR SENSORS, CONTROLLER, AND POWER TO THE MOTOR FOR EACH OVERHEAD DOOR. ELECTRICAL CONTRACTOR SHALL REFEED EXISTING, RELOCATED OVERHEAD DOOR MOTOR AND COMPONENTS. REUSE EXISTING WIRE AND CONDUIT IF IN GOOD CONDITION.
4. COORDINATE FINAL ELECTRICAL CONNECTION AND LOCATION WITH PLYMOVENT INSTALLER.
5. REFERENCE ARCHITECTURAL DRAWINGS FOR FLOOR BOX DIMENSIONAL LOCATIONS. COORDINATE FINAL ELECTRICAL LOCATION WITH ARCHITECT.
6. PROVIDE POWER CONNECTION TO FIRE ALARM CONTROL PANEL PER MANUFACTURER'S INSTRUCTIONS.
7. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL PLUG MOLD ABOVE COUNTER. PLUG MOLD SHALL HAVE (4) DEDICATED CIRCUITS. COORDINATE FINAL ELECTRICAL CONNECTION AND LOCATION WITH ENGINEER AND ARCHITECT.
8. ELECTRICAL CONTRACTOR SHALL PROVIDE ROUGH-IN FOR EXISTING TO RELOCATE MINI-SPLIT. CONFIRM LOCATION AND POWER REQUIREMENTS WITH OWNER BEFORE ROUGH-IN.
9. ROUTE CONDUIT ON EXISTING CMU WALL IN MECHANICAL ROOM TO FLUSH MOUNTED RECEPTACLE IN TRAINING CLASSROOM.
10. WALL DEVICE SHALL BE RECESSED MOUNTED WITH CONDUIT WITHIN NEW CMU WALL. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
11. COORDINATE FUTURE LIGHT ROUGH-IN LOCATIONS WITH DESIGN TEAM PRIOR TO ROUGH-IN.
12. COORDINATE WITH OWNER FOR FINAL INSTALLATION LOCATION OF NEMA 10-50R WELDING RECEPTACLES.
13. PROVIDE CONDUIT PATHWAYS TO ABOVE STORAGE DOOR FOR FUTURE MINI SPLIT POWER.
14. ELECTRICAL CONTRACTOR SHALL COORDINATE GAS DETECTION CONTROL PANEL POWER REQUIREMENTS AND LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
15. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT PATHWAYS BETWEEN EXTERIOR AND ABOVE APPARATUS STORAGE DOOR FOR EXISTING MINI SPLIT TO BE RELOCATED UNDER PROJECT SCOPE. COORDINATE WITH OWNER FOR EQUIPMENT SPECIFIC REQUIREMENTS. REUSE SAFETY SWITCH FROM EXISTING MINI SPLIT IF DEEMED IN GOOD CONDITION, ELSE, PROVIDE NEW HEAVY DUTY SAFETY DISCONNECT SWITCH.
16. PROVIDE LINE VOLTAGE TOGGLE SWITCH FOR CONTROL OF APPARATUS STORAGE EXHAUST FAN. SWITCH SHALL BE GANGED WITH ROOM LIGHT SWITCH AND CEILING FAN CONTROL SWITCH.
17. SEE ELECTRICAL LIGHTING PLAN FOR INFORMATION ON EXHAUST FAN CONTROL.

ADD

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PRINT DATE: 12.18.2025
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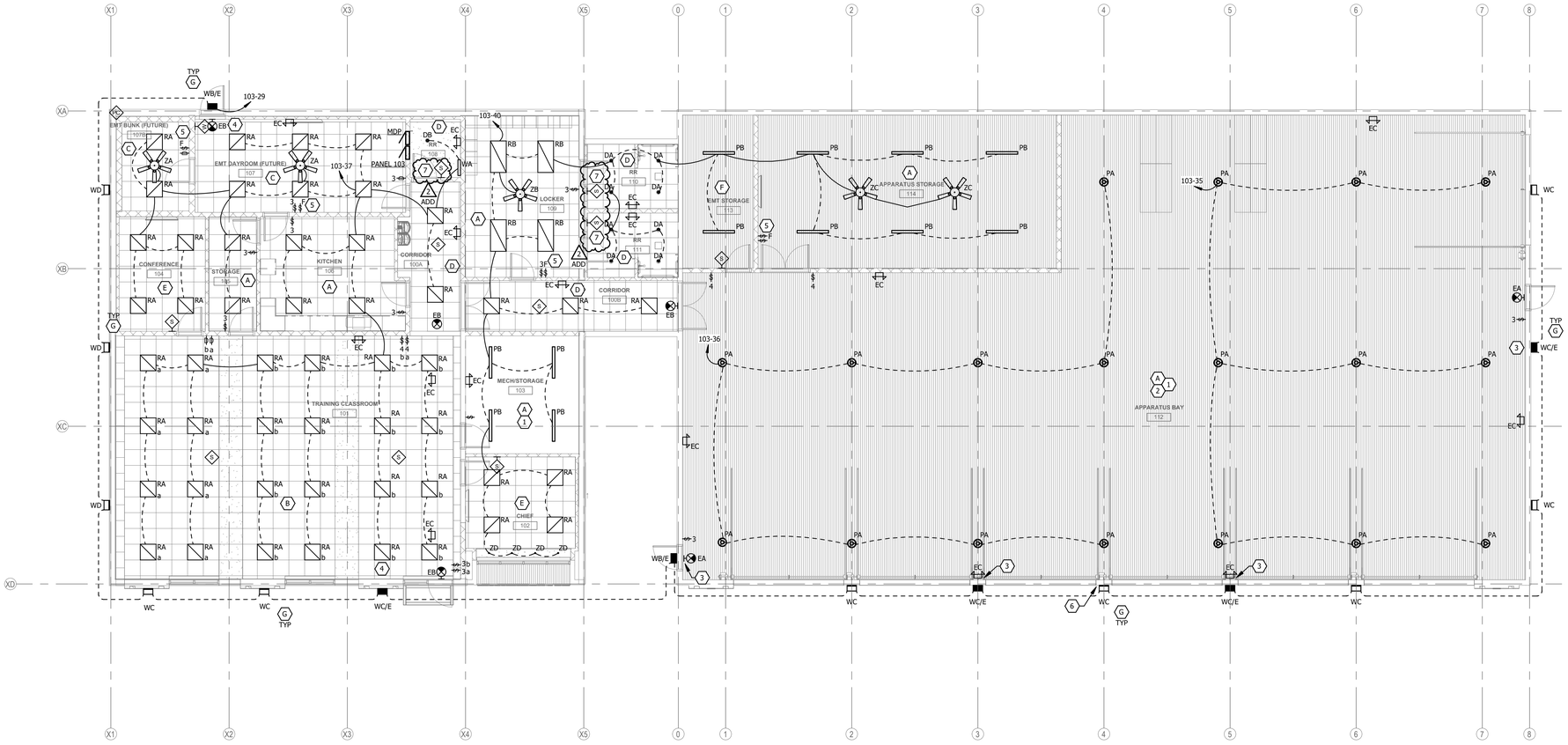
SHEET NAME: ELECTRICAL POWER PLAN

E1.1



1 LIGHTING PLAN
1/8" = 1'-0"

LIGHTING GENERAL NOTES:

A. SURFACE RACEWAY SHALL NOT BE USED IN ANY FINISHED AREAS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

B. INSTALL DEVICES SUCH THAT NO TWO DEVICES ON OPPOSITE SIDES OF SAME WALL ARE WITHIN 6" OF EACH OTHER.

C. COORDINATE ALL DEVICES WITH ARCHITECTURAL PLANS AND CASEWORK SUBMITTALS.

D. ALL LIGHTING FIXTURES SHALL BE INSTALLED IN SUCH WAY THAT DRIVERS ARE ACCESSIBLE WITHOUT CUTTING OF CEILING. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF AREAS WHERE THIS IS NOT POSSIBLE.

E. ALL WALL-MOUNTED FIXTURES SHALL HAVE EXACT ROUGH-IN LOCATION DETERMINED BY DESIGN TEAM PRIOR TO ROUGH-IN.

F. THE ELECTRICAL CONTRACTOR SHALL EXTEND AN "UNSWITCHED" HOT CONDUCTOR FROM THE NEAREST NORMAL LIGHTING CIRCUIT TO EVERY UL924 LISTED EMERGENCY LIGHT AND EXIT SIGN REQUIRED FOR EMERGENCY EGRESS OPERATION. THE "UNSWITCHED" HOT CONDUCTOR SHALL BE USED FOR SENSING PURPOSES ONLY.

G. UNLESS NOTED OTHERWISE BY DESIGNATED "LIGHTING CONTROL ZONES", SWITCHLEG WIRING, AND LOWERCASE LETTER SWITCHLEG TAGS, SWITCHES SHOWN WILL CONTROL ALL FIXTURES IN THE ROOM SHOWN.

H. ALL LIGHTING CONTROL SHALL OPERATE "MANUAL ON/AUTO OFF" PER CODE (IECC OR ASHRAE 90.1) UNLESS OTHERWISE NOTED IN THE SEQUENCE OF OPERATIONS OR THESE REFERENCE NOTES.

I. REFER TO ARCHITECTURAL ELEVATIONS AND REFLECTED CEILING PLANS FOR SPECIFIC DEVICE ROUGH-IN AND PLACEMENT. ANY DEVIATIONS FROM THE ARCHITECTURAL ELEVATIONS AND RCP'S SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT PRIOR TO ROUGH-IN. IF A DEVICE IS REQUIRED PER SPECIFICATION, REQUIRED FOR OPERATION, OR IS DIFFERENT IN CONFIGURATION THAN SHOWN ON ELEVATIONS AND RCP'S, CLARIFICATION AND DIRECTION MUST BE GIVEN BY THE ARCHITECT BEFORE ROUGH-IN. DEVIATIONS OR ADDITIONAL DEVICES NOT APPROVED PRIOR TO INSTALLATION SHALL BE CORRECTED AT CONTRACTORS EXPENSE. THIS INCLUDES BUT IS NOT LIMITED TO THERMOSTATS, CONTROL SYSTEM SENSORS, ELECTRICAL DEVICES, SWITCHES, DIMMERS, TECHNOLOGY DEVICES, A/V DEVICES, SPEAKERS, FIRE ALARM DEVICES, ETC.

J. CEILING CONTRACTOR SHALL PROVIDE AND INSTALL CEILING ACCESS PANELS FOR ACCESSIBILITY TO ELECTRICAL JUNCTION BOXES, PLUMBING VALVES, BALANCING DAMPERS, CIRCUIT SETTERS, ETC. WHERE ABSOLUTELY NECESSARY. LOCATIONS WILL NEED TO BE APPROVED AND COORDINATED WITH THE DESIGN TEAM PRIOR TO INSTALLATION.

K. REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR WALLPACK LIGHTING HEIGHTS AFG.

L. SENSORS SHALL BE INSTALLED CENTERED IN CEILING TILES WHERE APPLICABLE.

M. EXISTING SITE LIGHTING TO BE REMOVED AS WORK BY THE CITY. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE CITY TO AVOID INTERRUPTING THIS WORK.

LIGHTING REFERENCED NOTES: (#)

(NOT ALL NOTES MAY BE APPLICABLE TO THIS SHEET)

1. COORDINATE LIGHTING MOUNTED IN THIS AREA WITH MECHANICAL EQUIPMENT. LIGHTING SHALL BE MOUNTED BELOW EQUIPMENT AT ALL TIMES. OFFSET AS REQUIRED. REFER TO ARCHITECTURAL ELEVATIONS FOR INSTALLATION HEIGHTS.
2. COORDINATE FINAL LIGHT LOCATIONS WITH DESIGN TEAM PRIOR TO FINAL INSTALLATION. OFFSET AS NEEDED FOR MECHANICAL EQUIPMENT AND PLYMOVENT SYSTEM. LIGHTS SHALL BE INSTALLED WITH SURFACE BRACKET TO BOTTOM OF METAL LID, UNLESS DIRECTED OTHERWISE BY DESIGN TEAM. THERE SHALL BE A PRE-INSTALLATION MEETING FOR CEILING SYSTEMS IN THE APPARATUS BAY.
3. REMOTE BACKUP BATTERY SERVING EXTERIOR EMERGENCY LUMINAIRE SHALL BE INSTALLED ON INTERIOR WALL AT AN ACCESSIBLE LOCATION BEHIND LUMINAIRE. COORDINATE WITH OTHER EQUIPMENT OR WALL DEVICES.
4. REMOTE BACKUP BATTERY SERVING EXTERIOR EMERGENCY LUMINAIRE SHALL BE INSTALLED ABOVE CEILING AT AN ACCESSIBLE LOCATION BEHIND LUMINAIRE.
5. FAN CONTROL DEVICE. DEVICE SHALL BE GANGED WITH LIGHTING CONTROL SWITCH. SEE LIGHTING FIXTURE SCHEDULE FOR MORE INFORMATION.
6. PROVIDE ROUGH-IN FOR FUTURE WARNING LIGHT. COORDINATE LOCATION WITH DESIGN TEAM PRIOR TO ROUGH-IN FOR FINAL COORDINATION WITH EMERGENCY LIGHT FIXTURE.
7. CONTROL DEVICE SHALL HAVE AN ADDITIONAL AUXILIARY RELAY FOR CONTROL OF RESTROOM EXHAUST FAN. EXHAUST FAN SHALL OPERATE WITH THE LIGHTING.

(7) ADD

LIGHTING CONTROL - SEQUENCE OF OPERATION (A)

(HEXAGONAL TAGS WITH LETTERS INDICATE LIGHTING CONTROL SEQUENCES)

TAG	ACTIVATION	DESCRIPTION	SCHEDULE
A	MANUAL ON / OFF	MANUAL LINE VOLTAGE TOGGLE SWITCH(ES). PROVIDE 3- OR 4-WAY SWITCHING AS SHOWN ON PLANS. TOGGLE SWITCH GANGED WITH CEILING FAN CONTROL WHERE APPLICABLE.	N/A
B	MANUAL ON / AUTO OFF w/ DIMMING	MANUAL ON / AUTO OFF w/ DIMMING VIA LINE VOLTAGE WALL CONTROL STATION WITH 0-10V CAPABILITY, LINE VOLTAGE TOGGLE SWITCHES, AND LINE VOLTAGE CEILING CENSOR(S). SEE LOWERCASE LETTER SWITCHLEG TAGS WHERE APPLICABLE.	30 MINUTE TIMEOUT
C	MANUAL ON / OFF w/ DIMMING	MANUAL ON / MANUAL OFF w/ DIMMING VIA LINE VOLTAGE WALL CONTROL STATION WITH 0-10V CAPABILITY. WALL CONTROL STATION GANGED WITH CEILING FAN CONTROL WHERE APPLICABLE.	N/A
D	AUTO ON / AUTO OFF	AUTO ON / AUTO OFF VIA LINE VOLTAGE WALL OR CEILING MOUNTED SENSOR(S), AS APPROPRIATE.	30 MINUTE TIMEOUT
E	MANUAL ON / AUTO OFF w/ DIMMING	MANUAL ON / AUTO OFF w/ DIMMING VIA LINE VOLTAGE WALL SENSOR / SWITCH COMBINATION DEVICE WITH 0-10V DIMMING CAPABILITY.	30 MINUTE TIMEOUT
F	MANUAL ON / AUTO OFF	MANUAL ON / AUTO OFF VIA LINE VOLTAGE WALL SENSOR / SWITCH COMBINATION DEVICE.	30 MINUTE TIMEOUT
G	AUTO ON / AUTO OFF	AUTO ON / AUTO OFF VIA LINE VOLTAGE PHOTOCELL.	DUSK TO DAWN

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PROJECT: STATE CENTER FIRE STATION
ADDRESS: 109 E MAIN STREET; STATE CENTER, IA 50247
CLIENT: STATE CENTER FIRE DEPARTMENT

PRINT DATE: 12.18.2025
PHASE: CD
SHEET NAME: ELECTRICAL LIGHTING PLAN

E2.1

BRANCH MDP

Location: EMT DAYROOM (FUTURE)...
Supply From:
Mounting: Surface
Enclosure: Type 1
Available Isc: 19,046 A

Volts: 120/208 Wye
Phases: 3
Wires: 4

S.C.C.R. Rating: 22,000 AIC
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 400 A
SPD: NONE

Notes:
PANEL SHALL BE RATED FOR SERVICE ENTRANCE

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
MDP-1	PANEL 103	N	100 A	3	7020	3358					3	40 A	N	TEV-745	MDP-2
MDP-3	--	--	--	--			7306	3358			--	--	--	--	MDP-4
MDP-5	--	--	--	--					6344	3358	--	--	--	--	MDP-6
MDP-7	RANGE	N	50 A	2	4725	3536					2	50 A	N	TANK FILLER	MDP-8
MDP-9	--	--	--	--			4725	3536			--	--	--	--	MDP-10
MDP-11	CU-1	N	35 A	2					3012	3012	2	40 A	N	CU-2	MDP-12
MDP-13	--	--	--	--	3012	3012					--	--	--	--	MDP-14
MDP-15	DRYER	G	30 A	2			2496	2496			2	30 A	G	DRYER	MDP-16
MDP-17	--	--	--	--					2496	2496	--	--	--	--	MDP-18
MDP-19	EF-4	N	25 A	2	1298	0					2	20 A	N	EXR MINI-SPLIT	MDP-20
MDP-21	--	--	--	--			1298	0			--	--	--	--	MDP-22
MDP-23	WELDING RECEPTACLE	N	50 A	2					4160	4160	2	50 A	N	WELDING RECEPTACLE	MDP-24
MDP-25	--	--	--	--	4160	4160					--	--	--	--	MDP-26
MDP-27	WELDING RECEPTACLE	N	50 A	2			4160	800			1	20 A	N	FRIDGE	MDP-28
MDP-29	--	--	--	--					4160	800	1	20 A	N	FRIDGE	MDP-30
MDP-31	F-1	N	20 A	1	1094	1382					1	25 A	N	F-2	MDP-32
MDP-33	GUH-1	N	15 A	1			1440	1440			1	15 A	N	GUH-2	MDP-34
MDP-35	RH-1	N	20 A	1					576	576	1	20 A	N	RH-2	MDP-36
MDP-37	WASHER	G	20 A	1	1920	1920					1	20 A	G	WASHER	MDP-38
MDP-39	AIR COMPRESSOR	N	20 A	1			1900	1900			1	20 A	N	AIR COMPRESSOR	MDP-40
MDP-41	CP-1	N	20 A	1					700	180	1	20 A	N	GWH-1	MDP-42
MDP-43	KITCHEN RECEPTS	N	20 A	1	360	180					1	20 A	N	KITCHEN RECEPTS	MDP-44
MDP-45	OVERHEAD DOOR	N	20 A	1			1130	1130			1	20 A	N	OVERHEAD DOOR	MDP-46
MDP-47	OVERHEAD DOOR	N	20 A	1					1130	1130	1	20 A	N	OVERHEAD DOOR	MDP-48
MDP-49	OVERHEAD DOOR	N	20 A	1	1130	1130					1	20 A	N	OVERHEAD DOOR	MDP-50
MDP-51	OVERHEAD DOOR	N	20 A	1			1130	36			1	15 A	N	HVLS-1	MDP-52
MDP-53	EF-1	N	20 A	1					20	20	1	20 A	N	EF-3	MDP-54
MDP-55	EF-2	N	20 A	1	20	20					1	20 A	N	EF-5	MDP-56
MDP-57	EF-4 DAMPER	N	20 A	1			18	20			1	20 A	N	EF-6	MDP-58
MDP-59	SPARE	N	20 A	1					0	0	1	20 A	N	SPARE	MDP-60
MDP-61	SPARE	N	20 A	1	0	0					1	20 A	N	SPARE	MDP-62
MDP-63	SPARE	N	20 A	1			0	0			1	20 A	N	SPARE	MDP-64
MDP-65	SPACE		--	1	--	--					--	--		SPACE	MDP-66
MDP-67	SPACE		--	1	--	--					1	--		SPACE	MDP-68
MDP-69	SPACE		--	1			--	--			1	--		SPACE	MDP-70
MDP-71	SPACE		--	1					--	--	1	--		SPACE	MDP-72
			Total Load:		43487 VA		40320 VA		38330 VA						
			Total Amps:		365 A		339 A		319 A						

2 ADD

Type Legend:
N=NORMAL G=GFI M=MOTORIZED E=EXISTING ST=SHUNT TRIP A=ARC FAULT H=HANDLE LOCK

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	28011 VA	100.00%	28011 VA		
Motor	12410 VA	103.83%	12885 VA	**Total Conn. Load:**	122.1 kVA
Other	720 VA	100.00%	720 VA	**Total Est. Demand:**	117.7 kVA
Power	3805 VA	100.00%	3805 VA	**Total Conn. Current:**	339 A
Heating	3456 VA	100.00%	3456 VA	**Total Est. Demand Current:**	327 A
Receptacles	20232 VA	74.71%	15116 VA		
Water Heater	180 VA	125.00%	225 VA		
Electric Clothes Dryer	21632 VA	100.00%	21632 VA		
Lighting - Exterior	240 VA	125.00%	300 VA		
Equipment	15392 VA	100.00%	15392 VA		
Kitchen Equipment	11050 VA	90.00%	9945 VA		
Lighting	5009 VA	125.00%	6261 VA		

Notes:
PANEL SHALL BE RATED FOR SERVICE ENTRANCE

LIGHTING FIXTURE SCHEDULE

TYPE	BOD MANUFACTURER	MODEL NUMBER	DESCRIPTION	LAMP/CCT/CRI	CONTROL	DELIVERED LUMENS	WATTS	VOLTS	EQUALS
DA	GOTHAM	EVO45H-35/10-DFR-SOL-MVOLT-EZ1	4-INCH APERTURE RECESSED LED SHOWER DOWNLIGHT. BATWING DISTRIBUTION. TEXTURED LENS.	LED/3500K/85	NON-DIM	843	8.8	UNV	PRESCOLITE, LIGHTOLIER, PORTFOLIO, NORA
DB	GOTHAM	IVO4-D-10LM-35K-80CRI-WD-MIN10-MVOLT-ZT-NCH-P-AR-LSS-F	4-INCH APERTURE OPEN RECESSED LED DOWNLGHT. 75-DEGREE DISTRIBUTION. CLEAR PARABOLIC REFLECTOR WITH SEMI-SPECULAR FINISH.	LED/3500K/80	NON-DIM	991	9.8	UNV	PRESCOLITE, LIGHTOLIER, PORTFOLIO
EA	DUAL-LITE	EVE-U-X-E	THERMOPLASTIC LED EXIT SIGN. UNIVERSAL MOUNTING. BACKUP BATTERY FOR 90-MINUTE EMERGENCY RUNTIME. FINISH AND LETTER COLOR SELECTED BY ARCHITECT DURING SUBMITTALS.	LED/COLOR	N/A	N/A	N/A	UNV	LITHONIA, EVENLITE, MULE, SURE-LITES, EXITRONIX
EB	COMPASS	CELR1XNE	ARCHITECTURAL EDGE-LIT LED EXIT SIGN. RECESSED MOUNTING FOR CEILING OR WALL. BACKUP BATTERY FOR 90-MINUTE EMERGENCY RUNTIME. BRUSHED ALUMINUM FINISH. LETTER COLOR SELECTED BY ARCHITECT DURING SUBMITTALS.	LED/COLOR	N/A	N/A	N/A	UNV	LITHONIA, EVENLITE, MULE, SURE-LITES, EXITRONIX
EC	DUAL-LITE	EV-2	LED BATTERY LIGHT FOR EMERGENCY LIGHTING. 90-MINUTE RUNTIME. WALL OR CEILING MOUNT. WHITE STANDARD, OPTIONAL BLACK FINISH TO BE SELECTED BY ARCHITECT DURING SUBMITTALS.	LED	N/A	N/A	N/A	UNV	LITHONIA, EVENLITE, MULE, SURE-LITES, EXITRONIX
PA	LITHONIA	REBL-ALO13-WD-UVOLT-SWW9-80CRI-L/DIM-X-REBLSMB1-X-M10	ROUND LED HIGH BAY LIGHT. SELECTABLE LUMENS AND CCT. SET SELECTABLE LUMENS TO 15,000. SET SELECTABLE CCT TO 5000K. SURFACE MOUNT BRACKET. FINISH TO BE SELECTED BY ARCHITECT DURING SUBMITTALS.	LED/SELECTABLE/80	NON-DIM	12,693 - 18,852	80 - 117	UNV	METALUX, ILP, DAY-BRITE CFI
PB	LITHONIA	CSS-L48-ALO3-MVOLT-SWW3-80CRI-HC36 M12	4-FT CHAIN-HUNG LED STRIP LIGHT. SELECTABLE LUMENS AND CCT. SET SELECTABLE LUMENS AND CCT TO OWNER'S PREFERENCES.	LED/SELECTABLE/80	NON-DIM	3,851 - 5,884	27 - 43	UNV	COLUMBIA, DAY-BRITE CFI, METALUX, TRACE-LITE
RA	COLUMBIA	CBT22-A-LSCS-EDD	2x2 RECESSED LED FLAT PANEL FOR LAY-IN CEILING INSTALLATION. SELECTABLE LUMENS AND CCT. SET SELECTABLE LUMENS AND CCT TO OWNER'S PREFERENCES.	LED/SELECTABLE/80	0-10V TO 1%	2,750 - 4,600 (NOM)	24 - 38	UNV	LITHONIA, DAY-BRITE CFI, METALUX, TRACE-LITE
RB	COLUMBIA	CBT24-A-LSCS-EDD	2x4 RECESSED LED FLAT PANEL FOR LAY-IN CEILING INSTALLATION. SELECTABLE LUMENS AND CCT. SET SELECTABLE LUMENS AND CCT TO OWNER'S PREFERENCES.	LED/SELECTABLE/80	0-10V TO 1%	3,300 - 5,800 (NOM)	28 - 48	UNV	LITHONIA, DAY-BRITE CFI, METALUX, TRACE-LITE
WA	LUX ILLUMINAIRE	EOS 2.0-W-D-ASY-375-2-35K-8-UNV-S1-X	2-INCH APERTURE LED LINEAR WALL-MOUNT LIGHT FOR VANITY. ASYMMETRIC DISTRIBUTION. REFER TO ARCHITECTURAL ELEVATIONS FOR INSTALLATION HEIGHT. FINISH SELECTED BY ARCHITECT DURING SUBMITTALS.	LED/3500K/80	NON-DIM	750 (NOM)	6.8	UNV	AXIS, LEDALITE, STARTEK
WB/E	CONTRACTOR TO HOLD AN ALLOWANCE OF $750 IN THEIR BID FOR WALL-MOUNTED LOW-PROFILE WALLPACK WITH EMERGENCY BACKUP. DIE-CAST ALUMINUM HOUSING, POLYESTER POWDER COAT FINISH. TYPE 2 DISTRIBUTION. IP65. REMOTE BACKUP BATTERY. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS. FINISH SELECTED BY ARCHITECT DURING SUBMITTALS.								
WC	CONTRACTOR TO HOLD AN ALLOWANCE OF $750 IN THEIR BID FOR WALL-MOUNTED LOW-PROFILE WALLPACK. DIE-CAST ALUMINUM HOUSING, POLYESTER POWDER COAT FINISH. TYPE 3 DISTRIBUTION. IP65. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS. FINISH SELECTED BY ARCHITECT DURING SUBMITTALS.								
WC/E	CONTRACTOR TO HOLD AN ALLOWANCE OF $750 IN THEIR BID FOR WALL-MOUNTED LOW-PROFILE WALLPACK WITH EMERGENCY BACKUP. DIE-CAST ALUMINUM HOUSING, POLYESTER POWDER COAT FINISH. TYPE 3 DISTRIBUTION. IP65. REMOTE BACKUP BATTERY. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS. FINISH SELECTED BY ARCHITECT DURING SUBMITTALS.								
WD	CONTRACTOR TO HOLD AN ALLOWANCE OF $750 IN THEIR BID FOR WALL-MOUNTED LOW-PROFILE WALLPACK. DIE-CAST ALUMINUM HOUSING, POLYESTER POWDER COAT FINISH. TYPE 4 DISTRIBUTION. IP65. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS. FINISH SELECTED BY ARCHITECT DURING SUBMITTALS.								
ZA	RP LIGHTING + FANS	FAN: 1037-1-WW-WW LIGHT UNIT: 1RP98LED...	3-BLADE, 44" SWEEP AC MOTOR CEILING FAN. 12-3/8" DEPTH. INTEGRAL LIGHT UNIT WITH DIMMING. WHITE FINISH. WALL 3-SPEED AND LIGHT ON/OFF/DIM SLIDE CONTROL STATION TO BE INCLUDED WITH EACH FAN.	LED/3000K/90	WALL STATION	843	45	120	MODERN FORMS, LUMENCIA
ZB	RP LIGHTING + FANS	FAN: 1037-1-WW-WW WALL CONTROL: WC-13	3-BLADE, 44" SWEEP AC MOTOR CEILING FAN. 12-3/8" DEPTH. NO LIGHT UNIT. WHITE FINISH. WALL 4-SPEED SINGLE FAN SLIDE CONTROL STATION TO BE INCLUDED WITH EACH FAN.	NONE	WALL STATION	N/A	33	120	MODERN FORMS, LUMENCIA
ZC	RP LIGHTING + FANS	FAN: 1037-1-WW-WW WALL CONTROL: WC-4	3-BLADE, 44" SWEEP AC MOTOR CEILING FAN. 12-3/8" DEPTH. NO LIGHT UNIT. WHITE FINISH. WALL 3-SPEED MULTIPLE FAN SLIDE CONTROL STATION - (1) TO BE INCLUDED FOR APPARATUS STORAGE 114.	NONE	WALL STATION	N/A	33	120	MODERN FORMS, LUMENCIA
ZD	CONTRACTOR TO HOLD AN ALLOWANCE OF $100 IN THEIR BID FOR 120V LED LOW-PROFILE BUTTON LIGHT. DIE-CAST ALUMINUM WITH ACRYLIC DIFFUSER. SURFACE OR RECESS MOUNTED. (3) CCT SELECTABLE.								

2 ADD

NOTES:

1. PROVIDE ALL PARTS AND PIECES FOR A COMPLETE AND FULLY FUNCTIONAL LIGHTING SYSTEM.
2. CONTRACTOR SHALL INSTALL ALL FIXTURES PER MANUFACTURER RECOMMENDATIONS IN LOCATIONS SHOWN ON DRAWING AND NOTIFY DESIGN TEAM IF THIS IS NOT POSSIBLE PRIOR TO ROUGH-IN.
3. VERIFY ALL WALL MOUNTED FIXTURE LOCATIONS WITH THE LIGHTING DESIGNER AND ARCHITECT PRIOR TO ROUGH-IN.
4. ARCHITECT SHALL SELECT ALL FINISH/COLORS FROM MANUFACTURER STANDARDS AT TIME OF SUBMITTAL.
5. COORDINATE ALL DRIVERS WITH CONTROLS TO ENSURE FULL COMPATIBILITY.
6. VERIFY ALL FINAL CEILING TYPES AND MOUNTING CONFIGURATIONS PRIOR TO RELEASE OF FIXTURES.
7. PROVIDE LINE ITEM PRICING TO DISTRIBUTOR FOR INDIVIDUAL LIGHT FIXTURE TYPES. LIGHT FIXTURE PACKAGE AND LIGHTING CONTROLS PACKAGE SHALL BE QUOTED SEPARATELY UNDER THEIR RESPECTIVE SPECIFICATION SECTIONS.
8. LIGHTING PRODUCTS SHALL BE PROVIDED THROUGH THE AUTHORIZED LIGHTING MANUFACTURER'S REPRESENTATIVE WITHIN THE PROJECT LOCATION.
9. SUBMITTALS SHALL BE PRODUCED AND SUBMITTED BY LOCAL AUTHORIZED LIGHTING MANUFACTURER'S REPRESENTATIVE. SUBMITTAL SHALL CONTAIN LETTERHEAD WITH REPRESENTATIVES' CONTACT INFORMATION, PROJECT NAME, AND PROJECT LOCATION.

LIGHT FIXTURE SCHEDULE BY: ADAM VANDER HELM, LC - AVANDERHELM@MODUS-ENG.COM

BRANCH PANEL 103

Location: EMT DAYROOM (FUTURE)...
Supply From: MDP
Mounting: Surface
Enclosure: Type 1
Available Isc:

Volts: 120/208 Wye
Phases: 3
Wires: 4

S.C.C.R. Rating: 22,000
Mains Type: MLO
Mains Rating: 225 A
MCB Rating: NONE
SPD: NONE

Notes:
225 A PANEL MAIN FED FROM A 100 A BREAKER IN MDP IN ORDER TO ACHIEVE MORE BREAKER CAPACITY.

CKT	Circuit Description	Type	Trip	Poles	A		B		C		Poles	Trip	Type	Circuit Description	CKT
103-1	EMT DAYROOM RECEPTS	N	20 A	1	840	360					1	20 A	N	EMT BUNK RECEPTS	103-2
103-3	CONFERENCE RECEPTS	N	20 A	1			840	360			1	20 A	N	STORAGE & KITCHEN...	103-4
103-5	TRAINING CLASSROOM...	N	20 A	1					840	360	1	20 A	N	TRAINING CLASSROOM...	103-6
103-7	CORRIDOR RECEPTS	N	20 A	1	540	720					1	20 A	N	TRAINING CLASSROOM...	103-8
103-9	BATHROOM RECEPTS	N	20 A	1			1080	100			1	20 A	N	FACP	103-10
103-11	EWC-1	G	20 A	1					700	1000	1	20 A	N	IT RACK	103-12
103-13	CHIEF OFFICE RECEPTS	N	20 A	1	660	360					1	20 A	N	EXT RECEPTS	103-14
103-15	EMT STORAGE RECEPTS	N	20 A	1			540	840			1	20 A	N	APPARATUS STORAGE...	103-16
103-17	APPARATUS STORAGE...	N	20 A	1					540	18	1	20 A	N	GAS DETECTION	103-18
103-19	APPARATUS BAY...	N	20 A	1	738	360					1	20 A	N	EXT RECEPTS	103-20
103-21	CLING DROP-DOWN...	G	20 A	1			180	180			1	20 A	G	CLING DROP-DOWN...	103-22
103-23	CLING DROP-DOWN...	G	20 A	1					180	180	1	20 A	G	CLING DROP-DOWN...	103-24
103-25	CLING DROP-DOWN...	G	20 A	1	180	180					1	20 A	G	CLING DROP-DOWN...	103-26
103-27	CLING DROP-DOWN...	G	20 A	1			180	180			1	20 A	G	PLUG MOLD	103-28
103-29	EXTERIOR LIGHTS	N	20 A	1					240	180	1	20 A	G	PLUG MOLD	103-30
103-31	CARD READER	N	20 A	1	25	180					1	20 A	G	PLUG MOLD	103-32
103-33	BEV COOLER	G	20 A	1			800	180			1	20 A	G	PLUG MOLD	103-34
103-35	APP BAY LIGHTS	N	20 A	1					1053	1053	1	20 A	N	APP BAY LIGHTS	103-36
103-37	WEST LIGHTS	N	20 A	1	1777	100					1	20 A	N	FUTURE LIGHTS	103-38
103-39	APPARATUS BAY...	N	20 A	1			720	1126			1	20 A	N	CENTRAL LIGHTS	103-40
103-41	SPARE	N	20 A	1					0	0	1	20 A	N	SPARE	103-42
103-43	SPARE	N	20 A	1	0	0					1	20 A	N	SPARE	103-44
103-45	SPARE	N	20 A	1			0	0			1	20 A	N	SPARE	103-46
103-47	SPACE		--	1					--	--	1	--		SPACE	103-48
103-49	SPACE		--	1	--	--					1	--		SPACE	103-50
103-51	SPACE		--	1			--	--			1	--		SPACE	103-52
103-53	SPACE		--	1					--	--	1	--		SPACE	103-54
			Total Load:		7020 VA		7306 VA		6344 VA						
			Total Amps:		59 A		62 A		53 A						

Type Legend:
N=NORMAL G=GFI M=MOTORIZED E=EXISTING ST=SHUNT TRIP A=ARC FAULT H=HANDLE LOCK

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	36 VA	100.00%	36 VA		
Other	720 VA	100.00%	720 VA	**Total Conn. Load:**	20.7 kVA
Power	3445 VA	100.00%	3445 VA	**Total Est. Demand:**	21.4 kVA
Receptacles	11220 VA	94.56%	10610 VA	**Total Conn. Current:**	57 A
Lighting - Exterior	240 VA	125.00%	300 VA	**Total Est. Demand Current:**	59 A
Lighting	5009 VA	125.00%	6261 VA		

Notes:
225 A PANEL MAIN FED FROM A 100 A BREAKER IN MDP IN ORDER TO ACHIEVE MORE BREAKER CAPACITY.

FLOOR BOX SCHEDULE

TYPE	MANUFACTURER	MODEL	DIMENSION	DEVICES	DESCRIPTION
FB-1	LEGRAND HUBBELL STEEL CITY	880CS2 SERIES B4233 SERIES 642 SERIES	8.5"L x 5.5"W x 4"D	2-GANG: (1) POWER, (1) DATA/AV	STANDARD FULLY ADJUSTABLE FLUSH TYPE FLOOR BOX FOR INSTALLATION IN CONCRETE SLAB OR FOR SLAB ON-GRADE APPLICATIONS, CAST IRON, DIE CAST BRUSHED ALUMINUM COVER ASSEMBLY, VERIFY FLANGE TYPE WITH ARCHITECT DURING SHOP DRAWING REVIEW. REFER TO DRAWINGS FOR TELECOM TERMINATION REQUIREMENTS AND TYPES.

MODUS
WATERLOO | DES MOINES | IOWA CITY
214 EAST 4TH ST. WATERLOO, IOWA (319)235-0650
130 EAST 3RD ST. DES MOINES, IOWA (515)251-7280
118 EAST COLLEGE ST. IOWA CITY, IOWA (319)248-4600

STUDIO MELEE
139 4th STREET
DES MOINES, IOWA 50265

PROJECT: STATE CENTER FIRE STATION
ADDRESS: 109 E MAIN STREET; STATE CENTER, IA 50247
CLIENT: STATE CENTER FIRE DEPARTMENT

PRINT DATE: 12.18.2025

PHASE: CD
SHEET NAME: ELECTRICAL SCHEDULES

E6.1