PROJECT DIRECTORY:

MECHANICAL/ELECTRICAL ENGINEER: **OWNER:** 

JOE SCHMIDT MUTUAL OF OMAHA PLAZA 4940 N 118 ST OMAHA, NE 68175 OMAHA NE 68164

CONTRACTOR:

119 SOUTH 49TH AVENUE OMAHA, NE 68132 402-551-0800

MTC SUITE 3107 SUBDIVISION

220 S 31ST AVENUE #3107

#### INDEX OF DRAWINGS:

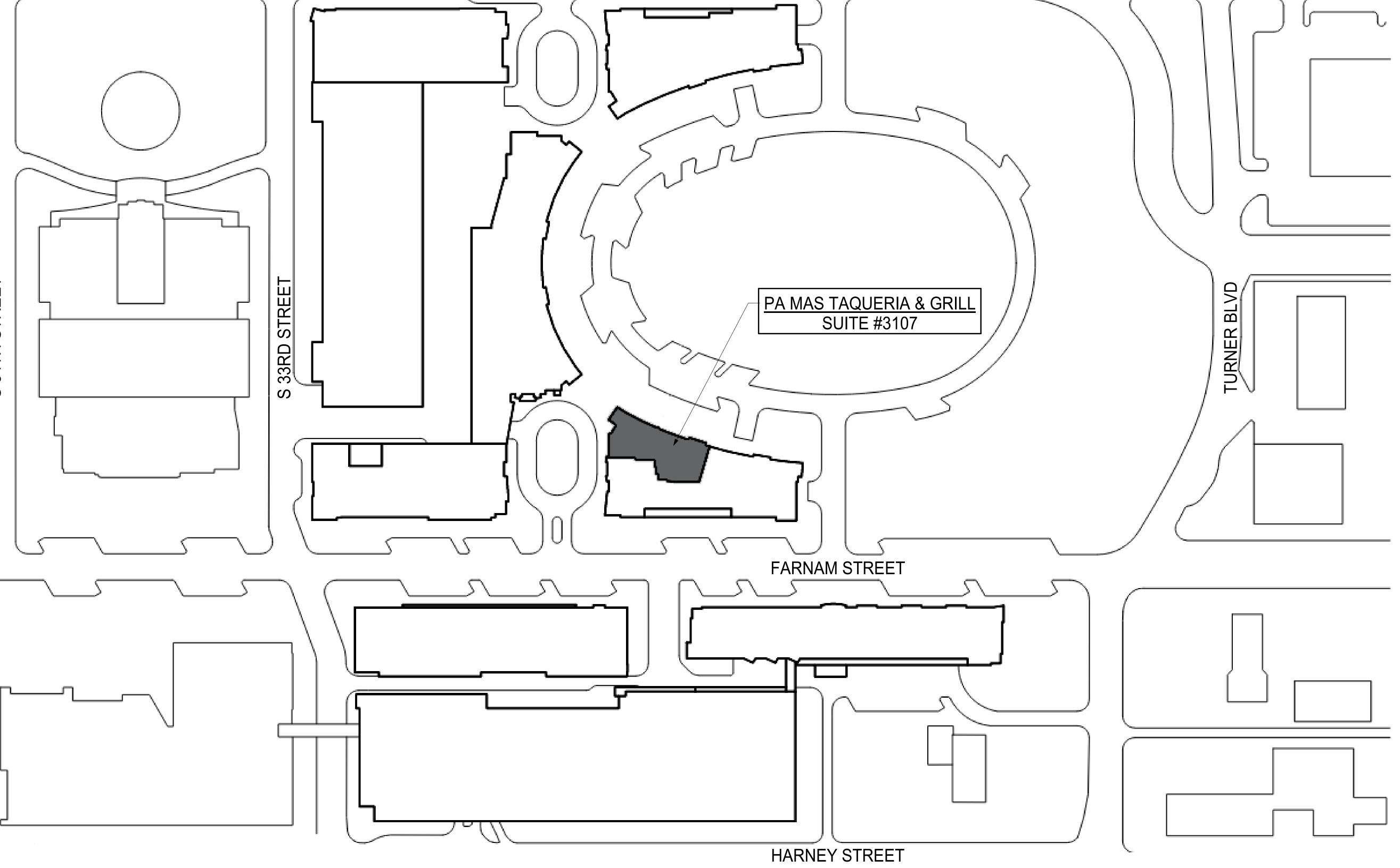
**COVER SHEET** ARCHITECTURAL SYMBOLS & ABBREVIATIONS A0.11 | CODE REVIEW PLANS A0.31 CODE DETAILS SPECIFICATIONS AD1.01 DEMOLITION PLANS A1.01 FIRST FLOOR PLAN A1.02 MEZZANINE PLAN A1.21 FIRST FLOOR REFLECTED CEILING PLAN A2.01 DOOR & FRAME TYPES & SCHEDULE &

PARTITION TYPES

MECHANICAL FIRST FLOOR - HVAC DEMO FIRST FLOOR - HVAC FIRST FLOOR - PLUMBING MECHANICAL DETAILS AND SCHEDULES

DODGE STREET

ELECTRICAL COVER SHEET FIRST FLOOR - ELECTRICAL DEMO .FIRST FLOOR - LIGHTING FRIST FLOOR - POWER ELECTRICAL RISER. DETAILS AND SCHEDULES **ELECTRCIAL SPECIFICATIONS** 



#### GENERAL ORIENTATION PLAN NOTES

- 1. ORIENTATION PLAN IS FOR REFERENCE ONLY. SEE CIVIL
- SEE CIVIL FOR FINISH FLOOR ELEVATIONS AND ACTUAL BUILDING LOCATIONS

Description

**AGENCY APPROVAL** 

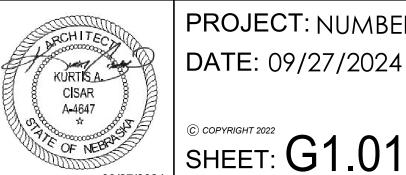
EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

**COVER SHEET** 

# **Architects**

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800



PROJECT: NUMBER DATE: 09/27/2024

ORIENTATION PLAN

G1.01 NOT TO SCALE

I, KURTIS A. CISAR AM THE COORDINATING PROFESSIONAL FOR THE MTC SUITE 3107 SUBDIVISION PROJECT

#### **GENERAL NOTES**

1. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO COMMENCEMENT OF THE WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE INSTALLATION OF NEW WORK WITHIN THESE EXISTING CONDITIONS. DEVIATIONS IN THE EXISTING CONDITIONS OR DIMENSIONS INDICATED SHALL BE COORDINATED WITH THE ARCHITECT AND OWNER IN ORDER TO MODIFY THE DRAWINGS ACCORDINGLY.

#### STANDARD ABBREVIATIONS

AIR CONDITIONING ARCHITECT/ENGINEER ANCHOR BOLT ACOUSTIC INSULATION ACC DEMO ACOUSTICAL AREA DRAIN DIM ADDL ADDITIONAL DIST ADDM ADDENDUM **ADJUSTABLE** ADJACENT ACCESS FLOOR ABOVE FINISHED FLOOR AIR HANDLING UNIT **ALUMINUM** ALTERNATE ANOD ANODIZED **ACCESS PANEL** ACOUSTIC PANEL CEILING ARCHITECT (URAL) AST ARTIFICIAL STONE TILE **AUDIO VISUAL AVENUE** ACOUSTIC WALL PANEL BALLED AND BURLAPPED BLDG BUILDING BLK BLOCK BLKG **BLOCKING** BLKHD BULKHEAD **BOTTOM OF EQUIP** BOTTOM **EQUIV** BOTTOM OF WALL EST BUMPER RAIL BEARING **BEARING PLATE BSMT** BASEMENT BUR **BUILT-UP ROOF** C&G **CURB AND GUTTER CENTER TO CENTER** CUBICLE CURTAIN CEM CEM PLAS CEMENT PLASTER CER CFCI **CONTRACTOR FURNISHED** CONTRACTOR INSTALLED CUBIC FEET PER MINUTE CORNER GUARD CAST IRON CAST IN PLACE **CONTROL JOINT** CENTER LINE CLG CEILING CEILING HEIGHT CLG HT CLOS CLOSET CLR CLEAR CMT CERAMIC MOSAIC TILE CMU CONCRETE MASONRY UNIT CO CLEANOUT COL COLUMN GB CONC CONCRETE CONF CONFERENCE CONT CONTINUOUS

COORD

CP

CPT

CS

CSMT

COORDINATE

CASEMENT

CONCRETE - POLISHED

CONCRETE - SEALED

CONCRETE - STAINED CERAMIC TILE HDBD **HDWR DEMOLISH/DEMOLITION** HIWC **DEPARTMENT** HLB DRINKING FOUNTAIN HORIZ HPC **DAMPPROOFING** INSUL **DOWNSPOUT DISHWASHER** JST EXT INSUL & FINISH SYSTEM **EXPANSION JOINT** LLH LLV **EXPANDED POLYSTYRENE** LVL **EQUALLY SPACED** LVR LW MAINT MAS MATL **ELECTRIC WATER COOLER** MAX MDF MDO MECH MED MEMB MET FACE TO FACE

MEZZ

MFG

MFR

NIC

NO

NOM

NST

NTS

O/O

OA

OC

OD

OP

OFCI

ON CENTER

INSTALLED

INSTALLED

OVERHEAD

OUTSIDE DIAMETER

OWNER FURNISHED CONTRACTOR

OWNER FURNISHED OWNER

OPERABLE PARTITION

MICRO

CASEWORK

DIMENSION

EACH FACE

**ELEVATION** 

ELECTRICAL

**ELEVATOR** 

**EMERGENCY** 

**EQUIPMENT** 

**EQUIVALENT** 

**ESTIMATE** 

**EACH WAY** 

**EXISTING** 

**EXTENSION** 

FACE BRICK

FLOOR DRAIN

FOUNDATION

FIXTURE

FLOOR

FEET

GEN

FOOTING

GROUT

FIELD VERIFY

GALVANIZED

GLAZED CMU

GLASS TILE

GYPSUM

GLASS/GLAZING

GLASS MOSAIC TILE

GYPSUM WALL BOARD

GENERAL CONTRACTOR

GENERAL/GENERATOR

GROUND FAULT INTERRUPTER

GRAB BAR

FIRE EXTINGUISHER

FIXT FURN & EQUIP

FIREPROOFING

FIRE EXTINGUISHER CABINET

FIBERGLASS REINFOCED PLASTIC

FINISH FLOOR ELEVATION

**DISTANCE** 

DIVIDER

DOWN

GYP PLAS GYPSUM PLASTER HARDBOARD ORIG HIGH IMPACT WALL COVERING HORIZONTAL LOUVER BLINDS **HOLLOW METAL** PERIM HORIZONTAL HIGH-PERFOMANCE COATINGS HAND RAIL **HEIGHT** HEATING, VENTILATION INSIDE DIAMETER PLYWD **INVERT ELEVATION** INCH INSULATION INTERIOR JOIST JOINT KNOCKOUT LAVATORY POUND LINEAR FOOT LEFT HAND PVG LEFT HAND REVERSE **PVMT** PWR LONG LEG HORIZONTA LINEOLEUM QUAL LEVEL LOUVER LIGHTWEIGH<sup>\*</sup> RCP MATERIAL MAXIMUM MEDIUM DENSITY FIREBOARD MEDIUM DENSITY OVERLAY **MECHANICAL** MEDIUM REQ **MEMBRANE** MEZZANINE MANUFACTURING **MANUFACTURER MICROWAVE** MISCELLANEOUS MOISTUREPROOFING METAL TILE NOT APPLICABLE NOT IN CONTRACT SCT NOMINAL NATURAL STONE TILE SECT **OUT TO OUT OVERALL** 

PARTICLEBOARD PRECAST CONCRETE **PERFORATED** PERIMETER PERPENDICULAR PROJECTION FACTOR PHASE PLASTIC LAMINATE/PLATE PLYWOOD PANEL POLISHED POLYISO PREFABRICATED PRELIM **PRELIMINARY PROJECT** PROPERTY LINE PORCELAIN TIL **PARTITION** PAVING **PAVEMENT** POWER **QUARRY TILE** QUANTITY QUALITY RISER/RADIUS RESILIENT BASE RESIDENTIAL CONCRETE REFLECTED CEILING PLAN **ROOF DRAIN** RECEIVED **RECTANGULAR** REFERENCE REINFORCEMENT **REMOVABLE** REQUIRED REVERSE RUBBER FLOORING RIGHT HAND RIGHT HAND REVERSE ROOM ROUND **ROUGH OPENING ROLLER SHADES** RESILIENT STAIR ACCESSORIES **ROOF VENT** REVERSE/REVISION SOUTH/STAIN SOLID CORE/SPECIAL COATING SCHEDULE SCHED STATIC CONTROL TILE STORM DRAIN SEALANT/ SEALER SECTION SQUARE FOOT SIMILAR SLEEV E SLV SHEET METAL SOFF SOFFIT SPEC **SPECIFICATION** SPKLR **SPRINKLER** SQUARE STAINLESS STEEL SOLID SURFACE MATERIAL

OPPOSITE

**OPTIONAL** 

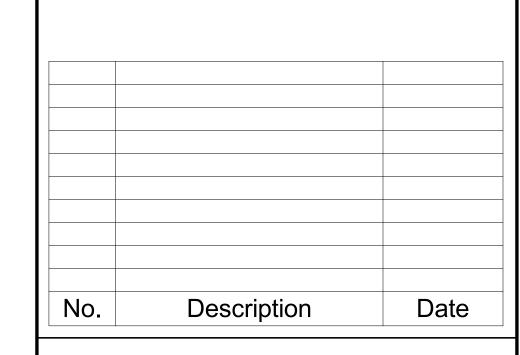
SERVICE SINK SIMULATED STONE SOLID SURFACE VENEER SSV STAG STAGGERED STD STANDARD STL STL PL STEEL PLATE STRUCT STRUCTURAL STRUCT STRUCTURAL STEEL STL SUPPL SUPPLEMENT SUSPENDED SUSP CLG SUSPENDED CEILING SQUARE YARD SYM SYMBOL SYMMETERICAL TOP AND BOTTOM **TONGUE AND GROOVE TOILET & BATH ACCESSORY** TBD TO BE DETERMINED TOP OF CURB TECH **TECHNICAL** TEMP **TEMPORARY** TER TERRAZZO THROUGH TACKBOARD TOP OF TOJ TOP OF JOIST TOS TOP OF STEEL TOT TOTAL TOP OF WALL **TOILET PARTITION** TRANSITION STRIP TUBE STEEL TELEVISION TEXTILE WALL COVERING TYP **TYPICAL** UNEX UNEXCAVATED UNFIN UNO **UNLESS NOTED OTHERWISE** UTIL UTILITY VAV VARIABLE AIR VOLUME VCT VINYL COMPOSITION TILE VERT VERTICAL VEST VESTIBULE VLB VERTICAL LOUVER BLINDS VOL VINYL TILE VINYL WALL COVERING WEST WITH W/O WITHOUT W/W WALL TO WALL WOOD (INCLUDES HARDWOOD AND WOOD VENEER) WDW WINDOW WMT WALK-OFF MAT WATERPROOFING WT WEIGHT WELDED WIRE MESH

MATERIAL SYMBOLS EARTH WORKS (SECTION / DETAIL) GRANULAR FILL CONCRETE (SECTION / DETAIL) CONCRETE CONCRETE -SAND / MORTAR/ MASONRY (SECTION / DETAIL) CONCRETE -COMMON / FACE BRICK MASONRY UNIT STONE (SECTION / DETAIL) METAL (SECTION / DETAIL) ALUMINUM WOOD (SECTION / DETAIL) PLYWOOD INSULATION (SECTION / DETAIL) BATT / LOOSE FILL FINISHES (SECTION / DETAIL) **GYPSUM WALLBOARD ELEVATIONS** CONCRETE CONCRETE -MASONRY UNITS CONCRETE -EIFS SHINGLES

PRECAST

DETAIL REFERENCE SECTION REFERENCE NO REFERENCE **ELEVATION REFERENCE** - EXTERIOR **ELEVATION REFERENCE** ROOM NAME NO XX SF ROOM INDICATOR DOOR INDICATOR WINDOW TYPE INDICATOR **ELEVATION REFERENCE** NO NO PARTITION/WALL TYPE INDICATOR REVISION INDICATOR

REFERENCE SYMBOLS



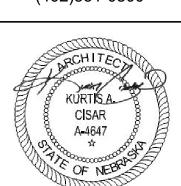
EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

> SYMBOLS & **ABBREVIATIONS**

# **Architects**

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800



PROJECT: NUMBER DATE: 09/27/2024

SHEET: G1.02

B. Progress Meetings: Semimonthly intervals. 1.05 REFERENCE STANDARDS A. Conform to reference standard by date of issue current as of date of Contract

Documents.

1.06 SUBMITTALS A. Construction Progress Schedule: Horizontal bar chart. B. Proposed Products List: Submit within 10 days after date of Notice to Proceed. C. Shop Drawings and Product Data: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. D. Samples: Submit two samples of each product requested. One sample will be

E. Other Submittals: Submit one electronic copy in PDF format of manufacturer's instructions and certificates

TESTING AND INSPECTION AGENCIES AND SERVICES A. Owner will employ and pay for services of an independent testing agency to perform testing and inspection required by codes, ordinances, or by a plan approval authority. CONTRACTOR'S DESIGN-RELATED PROFESSIONAL DESIGN SERVICES A. Coordination: Contractor's professional design services are subject to requirements of project's Conditions for Construction Contract

B. Base design on performance and/or design criteria indicated in individual specification

1. Submit a Request for Interpretation to Architect if the criteria indicated are not sufficient to perform required design services. C. Designer Qualifications: Where professional engineering design services and design data submittals are specifically required of Contractor by Contract Documents, provide services of a Professional Engineer experienced in design of this type of work and

licensed in the State in which the Project is located D. Designer's Qualification Statement: Submit for Architect's knowledge as contract administrator, or for Owner's information. 1. Include information for each individual professional responsible for producing, or

supervising production of, design-related professional services provided by Contractor. a. Full name. b. Professional licensure information. c. Statement addressing extent and depth of experience specifically relevant to

design of items assigned to Contractor. E. Scope of Contractor's Professional Design Services: Provide for the following items of 1. Structural Design: Include physical characteristics, engineering calculations, and

resulting dimensional limitations as described in Section 08 4313 - Aluminum-

Framed Storefronts. 1.09 TEMPORARY FACILITIES AND CONTROLS A. Temporary Utilities

1. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes. B. Telecommunications Services

1. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization. 2. Telecommunications services shall include: Telephone Lines: One line, minimum.

b. Internet Connections: Minimum of one; DSL modem, Cable modem, or T-1 line c. Email: Account/address available for project use. C. Temporary Sanitary Facilities 1. Provide and maintain required facilities and enclosures. Provide at time of project

2. Maintain daily in clean and sanitary condition. D. Interior Enclosures: Provide temporary partitions to separate work areas from Owner occupied areas, constructed of framing and plywood or gypsum board sheet materials

with closed joints and sealed edges at intersections with existing surfaces. Paint surfaces exposed to view from Owner occupied areas. E. Security: Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft. Parking: Arrange for temporary parking areas to accommodate construction personnel

G. Progress Cleaning and Waste Removal: Collect and maintain areas free of waste materials, debris, and rubbish H. Field Offices and Sheds: Provide space for Project meetings, weather tight, with lighting, electrical outlets, heating, and ventilating equipment.

1.10 SYSTEM STARTUP, DEMONSTRATION AND INSTRUCTION A. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions. B. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.

ADJUSTING A. Adjust operating products and equipment to ensure smooth and unhindered operation. 1.12 FINAL CLEANING A. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum

B. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment. C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned Replace filters of operating equipment.

E. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, drainage systems, and exterior spaces F. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury. PROJECT RECORD DOCUMENTS

A. Maintain on site one set of record documents; record actual revisions to the Work: Drawings. 2. Addenda.

4. Reviewed shop drawings, product data, and samples. B. Record information concurrent with construction progress. C. Scan or otherwise convert to digital medium. 1.14 OPERATION AND MAINTENANCE MANUALS AND MATERIALS

3. Change Orders and other modifications to the Contract.

A. Digital Document Medium: Submit one copy in pdf file format. B. Spare Parts and Maintenance Materials: Deliver to Project site and place in location as

WARRANTIES A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined. PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed. C. Products Specified by Naming One or More Manufacturers with a Provision for

Substitutions: Submit a request for substitution for any manufacturer not named. D. Products Specified as Basis of Design: Use product specified, or if Other Acceptable Manufacturers are listed, provide a product or assembly that meets the characteristics of the Basis of Design and otherwise complies with the specified requirements, subject to

the approval of the Architect PART 2 PRODUCTS - NOT USED PART 3 EXECUTION

3.01 ALTERATIONS A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only. 1. Verify that construction and utility arrangements are as indicated. Report discrepancies to Architect before disturbing existing installation. Beginning of alterations work constitutes acceptance of existing conditions.

B. Keep areas in which alterations are being conducted separated from other areas that are still occupied. 1. Provide, erect, and maintain temporary dustproof partitions of construction described hereinbefore in locations as required.

C. Remove existing work as indicated and as required to accomplish new work. Remove items indicated on drawings. 2. Where new surface finishes are to be applied to existing work, perform removals,

patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish. 3. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible. D. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and

Telecommunications): Remove, relocate, and extend existing systems to accommodate 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow

access or provide access panel. 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required

3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service. a. Disable existing systems only to make switchovers and connections; minimize duration of outages. b. Provide temporary connections as required to maintain existing systems in

4. Verify that abandoned services serve only abandoned facilities. 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.

E. Protect existing work to remain. 1. Prevent movement of structure; provide shoring and bracing if necessary. 2. Perform cutting to accomplish removals neatly and as specified for cutting new

3. Repair adjacent construction and finishes damaged during removal work. F. Adapt existing work to fit new work: Make as neat and smooth transition as possible.

rework floors, walls, and ceilings to a smooth plane without breaks, steps, or 2. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request

1. Where removal of partitions or walls results in adjacent spaces becoming one,

G. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.

H. Refinish existing surfaces as indicated: 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes. 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.

Clean existing systems and equipment Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.

**SECTION 01 0045 CUTTING AND PATCHING** 1.01 SUBMITTALS

A. Cutting and Patching Proposal: Submit a proposal describing procedures well in advance of the time cutting and patching will be performed. Request approval to proceed. Include the following information, as applicable, in the proposal: 1. Describe the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided 2. Describe anticipated results in terms of changes to existing construction. Include

changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements. 3. List products to be used and firms or entities that will perform Work. 4. Indicate dates when cutting and patching will be performed. 5. Utilities: List utilities that cutting and patching procedures will disturb or affect.

List utilities that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted. 1.02 QUALITY ASSURANCE A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio. 1. Obtain approval of the cutting and patching proposal before cutting and patching

structural elements. B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or

1. Obtain approval of the cutting and patching proposal before cutting and patching operating elements or safety related systems. C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Architect's opinion, reduce the

construction cut and patched in a visually unsatisfactory manner. 1. If possible retain the original Installer or fabricator to cut and patch the exposed Work listed below. If it is impossible to engage the original Installer or fabricator, engage another recognized experienced and specialized firm.

building's aesthetic qualities. Do not cut and patch construction in a manner that

would result in visual evidence of cutting and patching. Remove and replace

**SECTION 06 1000** ROUGH CARPENTRY PART 1 GENERAL - NOT USED

PART 2 PRODUCTS 2.01 DIMENSION LUMBER FOR CONCEALED APPLICATIONS A. Sizes: Nominal sizes as indicated on drawings, S4S. B. Miscellaneous Blocking, Nailers, Grounds, and Furring:

. Stud grade or better Hem-Fir, Spruce-Pine-Fir or Douglas Fir-Larch. 2.02 CONSTRUCTION PANELS A. Communications and Electrical Room Mounting Boards: ASTM E84.

2.03 ACCESSORIES A. Fasteners and Anchors: . Metal and Finish: Unfinished steel.

2. Drywall Screws: Bugle head, hardened steel, power driven type. 3. Anchors: Expansion shield and lag bolt type for anchorage to solid masonry or

PART 3 EXECUTION - NOT USED END OF SECTION

**SECTION 07 8400 FIRESTOPPING** PART 1 GENERAL

1.01 SUBMITTALS A. Schedule of Firestopping: List each type of penetration, fire rating of the penetrated assembly, and firestopping test or design number. B. Product Data: Provide data on product characteristics, performance ratings, and

1.02 QUALITY ASSURANCE

A. Fire Testing: Provide firestopping assemblies of designs that provide the scheduled fire ratings when tested in accordance with methods indicated. 1.03 FIELD CONDITIONS

A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation. Maintain minimum temperature before, during, and for 3 days after installation of materials. PART 2 PRODUCTS 2.01 FIRESTOPPING SYSTEMS

A. Firestopping: Any material meeting requirements. 1. Fire Ratings: Use any system listed by UL or tested in accordance with ASTM E814 that has F Rating equal to fire rating of penetrated assembly and minimum T Rating of 1 hour for penetrations in horizontal assemblies when penetrant is located outside of a wall cavity, but no less than the fire resistance rating of the floor construction being penetrated and that meets all other specified requirements

2.02 MATERIALS A. Elastomeric Latex Firestopping: Single component latex elastomeric compound and compatible latex sealant; conforming to the following: . Conform to the requirements of ASTM C920 for Elastomeric joint sealants, Type S, Grade NS, class 25, use NT, G, A and M.

B. Elastomeric Silicone Firestopping: Single component silicone elastomeric compound and compatible silicone sealant; conforming to the following: 1. Conform to the requirements of ASTM C920 for Elastomeric joint sealants, Type S, Grade NS, class 25, use NT, G, A and M.

C. Foam Firestoppping: Multiple component silicone foam compound; conforming to the following: 1. Multicomponent, silicone-based liquid elastomers, that when mixed, expand and cure in place to produce a flexible, non-shrinking foam.

D. Fiber Firestopping: Mineral fiber insulation used in conjunction with elastomeric surface sealer forming airtight bond to opening; conforming to the following: Durability and Longevity: Permanent. E. Firestop Devices - Wrap, Cable Management, or Preformed Joint Type: Mechanical device with incombustible filler and sheet stainless steel jacket, intended to be installed after penetrating item has been installed; conforming to the following:

1. Durability and Longevity: Permanent; suitable for pedestrian traffic. F. Firestop Devices - Cast-In Type: Sleeve and sealing material, intended to be cast in concrete floor forms or in concrete on metal deck, not requiring any additional

materials to achieve penetration seal. Durability and Longevity: Permanent. G. Intumescent Putty: Compound that expands on exposure to surface heat gain; conformina to the following

Durability and Longevity: Permanent H. Reusable Firestopping: Removable intumescent compressible shapes, pillows, or blocks specifically tested in removable configuration; conforming to the following: 1. Durability and Longevity: Permanent. I. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Type

required for tested assembly design. PART 3 EXECUTION 3.01 INSTALLATION A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.

 B. Do not cover installed firestopping until inspected by authorities having jurisdiction. C. Install labeling required by code. **END OF SECTION** 

**SECTION 07 9200** JOINT SEALANTS PART 1 GENERAL

1.01 SUBMITTALS A. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used B. Color Cards for Selection: Where sealant color is not specified, submit

manufacturer's color cards showing standard colors available for selection. PART 2 PRODUCTS

2.01 JOINT SEALANT APPLICATIONS A. Scope: 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.

 a. Wall expansion and control joints. Joints between door, window, and other frames and adjacent construction Joints between different exposed materials. d. Other joints indicated below 2. Interior Joints: Do not seal interior joints unless specifically indicated to be

sealed. Interior joints to be sealed include, but are not limited to, the following a. Joints between door, window, and other frames and adjacent construction. b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other

construction; and other flanking sound paths. 1. Exception: Through-penetrations in sound-rated assemblies that are also fire-rated assemblies. c. Other joints indicated below. 3. Do not seal the following types of joints.

c. Joints where installation of sealant is specified in another section.

d. Joints between suspended panel ceilings/grid and walls.

a. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device. b. Joints where sealant is specified to be provided by manufacturer of product to be sealed.

> C. Lock Cylinders: Manufacturer's standard tumbler type, six-pin standard core. D. Keying: Grand master keyed. 1. Include construction keying and control keying with removable core

B. Type 1 -Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise 2.03 Hinges - Basis of Design: STANLEY, unless otherwise noted in specific Hardware Set. Hinges: Provide hinges on every swinging door.

Provide five-knuckle full mortise butt hinges unless otherwise indicated. 3. Type 17 - Bedding window frames and door thresholds: Butyl rubber, non-curing. Provide ball-bearing hinges at all doors having closers. Provide hinges in the quantities indicated. 4. Provide hinge sizes as follows:

a.  $4-1/2 \times 4-1/2$  inch hinges for door widths up to 36 inches. b. 5 x 4-1/2 inch hinges for door widths over 36 inches. c. 5 x 5 inch hinges at any doors that are over 1-3/4 inches thick. Provide non-removable pins on exterior outswinging doors. Provide non-rising pins on outswinging interior doors. Where electrified hardware is mounted in door leaf, provide power transfer

with six-pin core in compliance with BHMA A156.5.

indicated requirements.

otherwise indicated

a. Finish: To match lock or latch.

a. Lever Design: Match existing

DOOR PULLS AND PUSH PLATES

Provide cylinders from same manufacturer as locking device.

b. Flat-Lip Strikes: Provide for locks with three piece antifriction

5. Trim: Provide lever handle or pull trim on outside of each lock, unless

2. Push Plate Type: Flat, with square corners, unless otherwise indicated.

4. On solid doors, provide matching door pull and push plate on opposite

3. Material: Anodized aluminum or stainless steel, unless otherwise

2. Material: Anodized aluminum or stainless steel, unless otherwise

. Overhead Concealed Closers and Bottom Pivots for Glass Swinging Doors:

Non-handed closer for both single and double-acting doors with mechanical

backcheck, and meeting requirements of BHMA A156.4, Grade 1.Overhead

Application: Center hung, with swing as indicated on drawings.

3. Opening Force: Comply with requirements of authorities having

A. Stops: Comply with BHMA A156.8; provide a stop for every swinging door,

Concealed Closers and Bottom Pivots for Glass Swinging Doors: Non-handed

4. Door Weight: Maximum 200 lbs for exterior doors, and 250 lbs for interior

Provide accessories as required for complete installation, including

2. If wall stops are not practical, due to configuration of room or furnishings,

positive stop feature of door closer is not an acceptable substitute for a

3. Stop is not required if positive stop feature is specified for door closer;

2. Include construction keying and control keying with removable core

A. Finishes: Provide door hardware of same finish, unless otherwise indicated

1. Primary Finish: anodized aluminum (at anodized aluminum frames);

2. Secondary Finish: black anodized aluminum (at HM frames & black

A. Install hardware in accordance with manufacturer's instructions and applicable

Mount hardware units at heights indicated in applicable publications listed in

governing regulations and except as otherwise directed by Architect.

E. Set units level, plumb, and true to line and location. Adjust and reinforce the

B. Adjust and check each operating item of hardware and each door to ensure

proper operation or function of every unit. Replace units that cannot be

adjusted to operate freely and smoothly or as intended for the application

attachment substrate as necessary for proper installation and operation.

Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene

mastic sealant complying with requirements specified in Section 07 9200 - Joint

front of this section, except as specifically indicated or required to comply with

a. Where base material metal is specified to be different, provide finish

that is an equivalent appearance in accordance with BHMA A156.18.

A. A. Key Control Systems: Comply with guidelines of BHMA A156.28.

closer for both single and double-acting doors with mechanical backcheck, and

latchbolts as recommended by manufacturer.

Door Pulls and Push Plates: Comply with BHMA A156.6.

a. Edges: Beveled, unless otherwise indicated.

A. Door Pulls and Push Bars: Comply with BHMA A156.6

meeting requirements of BHMA A156.4. Grade 1

. Provide wall stops, unless otherwise indicated.

anodized aluminum frames); BHMA A156.18.

B. Use templates provided by hardware item manufacturer.

Adjust hardware for smooth operation.

A. Hardware Sets: SEE DRAWINGS

Hold Open: Fixed.

wall/floor stop

unless otherwise indicated

BHMA A156.18.

3.02 ADJUSTING

3.03 SCHEDULE.

**END OF SECTION** 

provide overhead stop.

stop unless specifically so stated.

Keying: Grand master keyed.

2.09 STOPS AND HOLDERS

doors, including hardware

Butt Hinges: Comply with BHMA A156.1 and BHMA A156.7. 4. Type 3 -Joints between Fixtures in Wet Areas and Floors, Walls, and Ceilings: Mildew-resistant silicone sealant; white. Quantity of Hinges Per Door: 5. Type 22 - Other Floor Joints: Self-leveling polyurethane "traffic-grade" sealant. 1. Doors From 60 inches High up to 90 inches High: Three hinges. 6. Type 23 - Other Floor Joints: Self-leveling polyurethane "traffic-grade" sealant. 2.04 LOCK CYLINDERS D. Interior Wet Areas: restrooms and kitchens; fixtures in wet areas include plumbing A. Lock Cylinders: Provide key access on outside of each lock, unless otherwise fixtures, food service equipment, countertops, cabinets, and other similar items. E. Sound-Rated Assemblies: Walls and ceilings identified as "STC-rated", "sound-1. Provide Owner approved interchangeable core type cylinders, Grade 1,

3. Provide cams and/or tailpieces as required for locking devices. (VOC) content than indicated in SCAQMD 1168. 2.05 CYLINDRICAL LOCKS 2.03 NONSAG JOINT SEALANTS . Cylindrical Locks (Bored): Comply with BHMA A156.2, Grade 1, 4000 Series. A. Type 6 -Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single Bored Hole: 2-1/8 inch diameter. component; not expected to withstand continuous water immersion or traffic. Latchbolt Throw: 3/4 inch, minimum. Backset: 2-3/4 inch unless otherwise indicated. 1. Movement Capability: Plus and minus 25 percent, minimum. B. Type 14 - Acrylic Emulsion Latex: Water-based; ASTM C834, single component, 4. Strikes: Provide manufacturer's standard strike for each latchset or lockset

non-staining, non-bleeding, non-sagging; not intended for exterior use. 2.04 SELF-LEVELING SEALANTS A. Type 22 - Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; multi-component; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion. 1. Movement Capability: Plus and minus 25 percent, minimum. ACCESSORIES

A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to,

compatible with specific sealant used, and recommended by backing and sealant 2.06

1. Type 17 - Lap Joints in Sheet Metal Fabrications: Butyl rubber, non-curing.

4. Type 8 -Control and Expansion Joints in Concrete Paving: Self-leveling

1. Type 14 - Wall and Ceiling Joints in Non-Wet Areas: Acrylic emulsion latex

3. Type 14 - In Sound-Rated Assemblies: Acrylic emulsion latex sealant.

A. Sealants and Primers: Provide products having lower volatile organic compound

2. Type 14 - Joints between door and window frames and wall surfaces in Non-Wet

C. Type 6 -Interior Joints: Use non-sag polyurethane sealant, unless otherwise

polyurethane "traffic-grade" sealant.

Areas: Acrylic emulsion latex sealant.

rated", or "acoustical".

2.02 JOINT SEALANTS - GENERAL

2. Type 17 - Lap Joints between Manufactured Metal Panels: Butyl rubber, non-

manufacturers for specific application. 1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type C - Closed Cell Polyethylene. . Type for Joints Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type C - Closed Cell Polyethylene 3. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width. B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application. C. Primers: Type recommended by sealant manufacturer to suit application; non-

PART 3 EXECUTION 3.01 EXAMINATION

A. Perform work in accordance with sealant manufacturer's requirements for preparation 2.08 CLOSERS of surfaces and material installation instructions. B. Perform installation in accordance with ASTM C1193.

Perform acoustical sealant application work in accordance with ASTM C919. D. Install bond breaker backing tape where backer rod cannot be used. E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.

F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface. END OF SECTION

HOLLOW METAL DOORS AND FRAMES PART 1 GENERAL

1.01 SUBMITTALS A. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines B. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.

.02 DELIVERY, STORAGE, AND HANDLING A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with 2.10 KEY CONTROL SYSTEMS specified requirements. PART 2 PRODUCTS

2.01 DESIGN CRITERIA A. Requirements for Hollow Metal Doors and Frames: 1. Steel used for fabrication of doors and frames shall comply with one or more of the following requirements; Galvannealed steel conforming to ASTM A653/A653M, 2.11 cold- rolled steel conforming to ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel conforming to ASTM A1011/A1011M, Commercial Steel (CS) Type B for each. Accessibility: Comply with ICC A117.1 and ADA Standards.

3. Door Edge Profile: Beveled strike edge. 4. Typical Door Face Sheets: Flush. 5. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements. B. Combined Requirements: If a particular door and frame unit is indicated to comply 3.01 INSTALLATION with more than one type of requirement, comply with the specified requirements for

each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent. 2.02 HOLLOW METAL FRAMES A. Comply with standards and/or custom guidelines as indicated for corresponding

. Install each hardware item in compliance with the manufacturer's instructions door in accordance with applicable door frame requirements. and recommendations. Where cutting and fitting is required to install hardware B. Frame Finish: Factory primed and field finished. onto or into surfaces that are later to be painted or finished in another way, D. Frames for Wood Doors: Comply with frame requirements in accordance with coordinate removal, storage, and reinstallation or application of surface corresponding door. 1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the accordance with ASTM A653/A653M, with manufacturer's standard coating

2. Frame Metal Thickness: 18 gage, 0.042 inch, minimum. 2.03 ACCESSORIES A. Silencers: Resilient rubber, fitted into drilled hole; 3 on strike side of single door, 3 on center mullion of pairs, and 2 on head of pairs without center mullions. 2.04 FINISHES A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's

standard. PART 3 EXECUTION 3.01 INSTALLATION A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated. B. Coordinate frame anchor placement with wall construction.

**SECTION 08 7100** DOOR HARDWARE PART 1 GENERAL

**END OF SECTION** 

1.01 SUBMITTALS A. Product Data: Manufacturer's catalog literature for each type of hardware,

marked to clearly show products to be furnished for this project. B. Shop Drawings: C. Submittal Sequence: Submit final schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work that is critical in the Project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by door hardware, and other information essential to the coordinated review of

D. Hardware Schedule: Detailed listing of each item of hardware to be installed on each door. Use door numbering scheme as included in the Contract Documents. Identify electrically operated items and include power requirements

E. Keying Schedule: Submit for approval of Owner. 1.02 WARRANTY A. Provide warranties as follows: Lock and latch sets - 5 year

Exit devices - 3 year. Door closers - 10 year. PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS A. Provide door hardware specified, or as required to make doors fully functional. compliant with applicable codes, and secure to the extent indicated.

B. Provide products that comply with the following: Applicable provisions of federal, state, and local codes. 2. Provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless their use is the only means of reinforcing the work adequately to fasten the hardware securely. Through Bolts and Grommet Nuts (TBGN) are not

C. Finishes: Provide door hardware of the same finish as frame unless otherwise 1. Primary Finish: To match finish for corresponding frame. Coordinate with building owner. 2. Finish Definitions: BHMA A156.18. 3. Exceptions:

a. Where base metal is specified to be different, provide finish that is an appearance equivalent according to BHMA A156.18. 2.02 LOCKS AND LATCHES A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking. 1. If no hardware set is indicated for a swinging door provide an office

2. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim. 3. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim. B. Strikes: Provide manufacturer's standard wrought box strike for each latch or lock bolt, with curved lip extended as required to protect frame.

**E.** Latches: Provide a latch for every door that is not required to lock, unless specifically indicated "push/pull" or "not required to latch".

**SECTION 09 2116 GYPSUM BOARD ASSEMBLIES** 

PART 1 GENERAL 1.01 SUBMITTALS

A. Shop Drawings: Indicate special details associated with control joint layout. PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES A. Provide completed assemblies complying with ASTM C840 and GA-216.

 See PART 3 for finishing requirements B. Interior Partitions, Indicated as Acoustic: Provide completed assemblies with the following characteristics: 1. Acoustic Attenuation: STC as indicated on drawings calculated in

accordance with ASTM E413, based on tests conducted in accordance with ASTM E90. 2.02 METAL FRAMING MATERIALS A. Non-Loadbearing Framing System Components: 1; galvanized sheet steel, of size and properties necessary to comply with 2 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf

1. Studs: "C" shaped with flat or formed webs with knurled faces. 2. Runners: U shaped, sized to match studs. 3. Ceiling Channels: C-shaped. 4. Furring: Hat-shaped sections, minimum depth of 7/8 inch. B. Partition Head To Structure Connections: Provide track fastened to structure with legs of sufficient length to accommodate deflection, for friction fit of studs

1. See the Gypsum Association's Fire Resistance Design Manual (GA-600) Figure 8 Perimeter Relief Details for steel stud partition Partial Height Wall Stiffener: ASTM A1003/A1008M, ASTM A653/A653M, Grade 50, 50 ksi minimum yield strength, 65 ksi minimum tensile strength, G-60 (Z180) hot-dipped galvanized coating. ASTM A36/A36M, 36 ksi minimum yield strength, 58-80 ksi tensile strength base plate.

with strike box and curved lip extending to protect frame in compliance with 2.03 BOARD MATERIALS A. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M: sizes to minimize joints in place: ends square cut. 1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.

Thickness: a. Single-Layer Assemblies: Thicknesses as indicated on drawings. 2.04 ACCESSORIES A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type,

unfaced. Thickness: as indicated on the drawings.

do not use solvent-based non-curing butyl sealant. C. Finishing Accessories: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise 1. Types: As detailed or required for finished appearance. 2. Corner Beads: ASTM C1047; Galvanized steel. 3. Edge Trim: ASTM C1047; LC bead, as defined in ASTM C 840.

B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant

4. Expansion (Control) Joint: ASTM C1047; One-piece, rolled zinc with Vshaped slot and removable strip covering slot opening. D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions. 1. Paper Tape: 2 inch wide, creased paper tape for joints and corners, except as otherwise indicated.

2. Joint Compound: Drying type, vinyl-based, ready-mixed. E. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch in Thickness and Wood Members: ASTM C1002; selfpiercing tapping screws, corrosion resistant G. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws, corrosion resistant.

3.01 FRAMING INSTALLATION A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions 3.02 ACOUSTIC ACCESSORIES INSTALLATION

A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind

PART 3 EXECUTION

and around electrical and mechanical items within partitions, and tight to items passing through partitions. 3.03 BOARD INSTALLATION A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing. C. Installation on Metal Framing: Use screws for attachment of gypsum board.

**SECTION 09 5100** 

**ACOUSTICAL CEILINGS** PART 1 GENERAL

Thickness: 5/8 inch.

1.01 SUBMITTALS A. Product Data: Provide data on suspension system components and acoustical units. B. Samples: Submit two samples 4 by 4 inch in size illustrating material and finish of

acoustical units. C. Samples: Submit two samples each, 4 inches long, of suspension system main runner. 1.02 FIELD CONDITIONS A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS 2.01 ACOUSTICAL UNITS A. Acoustical Units - General: ASTM E1264, Class A. B. Glass Fiber Acoustical Panels Type APC-1: Latex painted membrane faced wet-formed mineral fiber, ASTM E1264 Type XII, with the following characteristics:

3. NRC Range: 0.75, determined in accordance with ASTM E1264. 4. Articulation Class (AC): 170, determined in accordance with ASTM E1264. 5. Suspension System: Exposed grid Type GRID-1, White. 2.02 SUSPENSION SYSTEM(S)

2. Light Reflectance: 90 percent, determined in accordance with ASTM E1264.

A. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and

interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required B. Exposed Steel Suspension System Type GRID-1: Formed steel, commercial quality cold rolled; heavy-duty. 1. Construction: Double web.

2.03 ACCESSORIES A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified. B. Perimeter Moldings: Same material and finish as grid.

1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face 2. Edge Trim Fascia: Metal, same finish as grid C. Acoustical Sealant For Perimeter Moldings: Non-hardening, non-skinning, for use in conjunction with suspended ceiling system.

PART 3 EXECUTION 3.01 INSTALLATION - SUSPENSION SYSTEM

A. Install suspension system in accordance with ASTM C 636/C 636M, ASTM E 580/E 580M, and manufacturer's instructions and as supplemented in this section. B. Center grids in room, see reflected ceiling plans for layout. 3.02 INSTALLATION - ACOUSTICAL UNITS

. Install acoustical units in accordance with manufacturer's instructions.

B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function. **END OF SECTION** 

> Description Date No.

**AGENCY APPROVAL** 

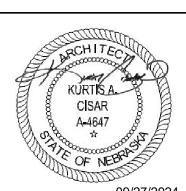
EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

SPECIFICATIONS

# **Architects**

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132



(402)551-0800

PROJECT: NUMBER

' SHEET: **G1.03** 

#### KEYED CODE REVIEW NOTES

•		TAG USED FOR	R THIS SCHEDULE
	1	NFPA 10, IBC 906.1	EXISTING FIRE EXTINGUISHER CABINET - ORDINARY HAZARD ALLOWS 75 MAX TRAVEL DISTANCE TO FIRE EXTINGUISHER
	2	NFPA 10, IBC 906.1	EXISTING PULL FIRE ALARM. SEE ELECTRICAL
	3	IBC 1013.1	EXISTING EXIT SIGNAGE ABOVE. SEE ELECTRICAL
	4	IBC 508.4	1 HR OCCUPANCY SEPARATION

EXISTING (NOT IN SCOPE)

EXISTING (NOT IN SCOPE)

ADJACENT TENANT (TBD)

ADJACENT TENANT (TBD)

650 SF

RESTROOM / CIRCULATION

MIN SPACING BETWEEN EXITS = 73' - 9 1/2" \* 1/3 = 24' - 7"

KITCHEN (COMMERCIAL)

33" 0.2 165 56

ACCESSORY STORAGE

OPEN TO BELOW

#### CODE REVIEW KEY

$\neg$	EGRESS PATH OF TRAVEL:
	EXIT ACCESS PATH OF TRAVE
	EGRESS PATH ID
	COMMON PATH OF TRAVEL

FIRE-RATED PARTITIONS/WALLS: (SEE PARTITION TYPES ON SHEET A2.01 FOR UL ASSEMBLY) \_\_\_1HR\_\_\_\_\_1HR\_\_\_\_1HR\_\_\_\_1

#### **BUILDING EXITS:**

MEZZANINE:

101	EXIT / STAIR NUMBER
33"	EXIT / STAIR WIDTH
0.2	LOAD FACTOR (IBC 1005.1)
165	EXIT CAPACITY (NUMBER OF OCCUPANTS)
121	ANTICIPATED EXIT OCCUPANTS

#### ALLOWABLE HEIGHT & AREA

ALLOWABLE AREA & HEIGHT (IBC TABLE 504.3 & 504.4)

BUILDING HEIGHT: ALLOWABLE HEIGHT: SPRINKLER INCREASE: MODIFIED ALLOWABLE HEIGHT: MEZZANINE:	FEET UL UL NO UL 1/3 FLOOR ARE	STORIES  UL  UL  NO  UL  A NA
BUILDING AREA FIRST FLOOR AREA:		5,119 SF

#### **EXIT CALCULATIONS**

5,119 SF 721 SF

NI IMPED OF EVITS	(IBC 1006.2.1, NFPA 101 39.2.4.3)	NEDA 101 20 2 4 2	
NUMBER OF EXITS	(IDC 1006.2.1, NFPA 101 33.2.4.3)	NFPA 101 39.2.4.3	,
REQUIRED:	2		
DBOVIDED:	2		

EGRESS CAPACITY (IBC 1005.3.1, NFPA 101 7.3.1.2) 208 PERSONS 825 PERSONS EGRESS CAPACITY PROVIDED:

#### **EXITING SCHEDULE** EXIT / STAIR WIDTH LOAD FACTOR EXIT CAPACITY

#### PER NFPA 101 7.3.3.1

#### IBC TRAVEL DISTANCES

PATH OF	COMMON PATH OF TRAVEL	
TRAVEL ID	DISTANCE	TOTAL TRAVEL DISTANCE
Α	0' - 0"	60' - 0"
В	0' - 0"	38' - 6"
С	0' - 0"	26' - 6"

#### LEGEND

ACCESSORY STORAGE	
ASSEMBLY WITHOUT FIXED SEATS (UNCONCENTRATED)	
KITCHEN (COMMERICAL)	
PATIO (ASSEMBLY WITHOUT FIXED SEATS)	

#### OCCUPANCY LOAD (IBC & LFC)

			IBO				LS	С	
ACCESSORY STORAGE	71 SF	/	300 SF	=	1	1	500 SF	=	1
ASSEMBLY WITHOUT FIXED SEATS (UNCONCENTRATED)	1,632 SF	/	15 SF	=	109	1	15 SF	=	109
KITCHEN (COMMERCIAL)	2,215 SF	/	200 SF	=	12	/	100 SF	=	23
PATIO	1,053 SF	/	15 SF	=	71	/	15 SF	=	71
RESTROOM / CIRCULATION	218 SF	/	NA	=	0	/	NA	=	NA
RESTROOM / CIRCULATION (MEZZANINE)	650 SF	/	NA	=	0	/	NA	=	NA
OVERALL TOTAL	5.840 SF				193		•		204

RESTROOM / CIRCULATION AREA

#### PLUMBING CALCULATIONS (OPC)

ACCESSORY STORAGE	71 SF	1	300 SF	=	1
ASSEMBLY WITHOUT FIXED SEATS (UNCONCENTRATED)	1,632 SF	/	15 SF	=	109
KITCHEN (COMMERCIAL)	2,215 SF	1	100 SF	=	23
PATIO	1,053 SF	/	15 SF	=	71
RESTROOM / CIRCULATION	218 SF	1	NA	=	NA
RESTROOM / CIRCULATION (MEZZANINE)	650 SF	/	NA	=	NA
OVERALL TOTAL	5,840 SF				204

#### PLUMBING FIXTURES

CALCULATED OCCUPANT LOAD: 104 MALE

<b>REQUIRED</b> MALE FEMALE	WC 2 5	UR 1	LAV 2 3	DF 0 SEE ABOVE
PROVIDED	wc	UR	LAV	DF
MALE	2	2	3	Ü
FEMALE	5		4	SEE ABOVE

#### GENERAL CODE NOTES

THIS SECTION SUMMARIZES THE APPLICABLE PROVISIONS OF THE CODES REGULATING DESIGN AND CONSTRUCTION OF THE PROPOSED

**AGENCY APPROVAL** 

- FOR ADDITIONAL INTERIOR PARTITION TYPES
- AND INFORMATION, SEE A1.01 MAXIMUM DEAD END CORRIDOR LENGTH (IBC 1020.4, NFPA 101
- 39.2.5.2.2) = **50'** MAX TRAVEL W/ SPRINKLER (IBC TABLE 1017.2, NFPA 101 39.2.6.3) =
- MAX COMMON PATH OF TRAVEL (IBC 1006.2.1, NFPA 101 39.2.5.3.1)

#### **BUILDING STATISTICS**

**APPLICABLE CODES:** 2018 INTERNATIONAL BUILDING CODE 2012 LSC & 2012 IFC 2018 OMAHA PLUMBING CODE 2012 INTERNATIONAL MECHANICAL CODE 2017 ELECTRICAL CODE 2018 ENERGY CONSERVATION CODE

APPLICABLE HANDICAPPED CODES: ICC/ANSI 117.1-2009

MIXED USE AND OCCUPANCY:

CLASSIFICATION OF USE: ASSEMBLY

TYPE OF CONSTRUCTION:

HAZARD OF CONTENTS: ORDINARY

ROOFING CLASSIFICATION:

**DRAFT STOPS**: NA

FIRE PROTECTION SYSTEMS: EXISTING FIRE ALARM

Description

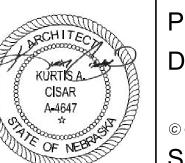
EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

CODE REVIEW PLANS

# **Architects**

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800



PROJECT: NUMBER DATE: 09/27/2024



RESTROOM MEZZANINE CODE PLAN

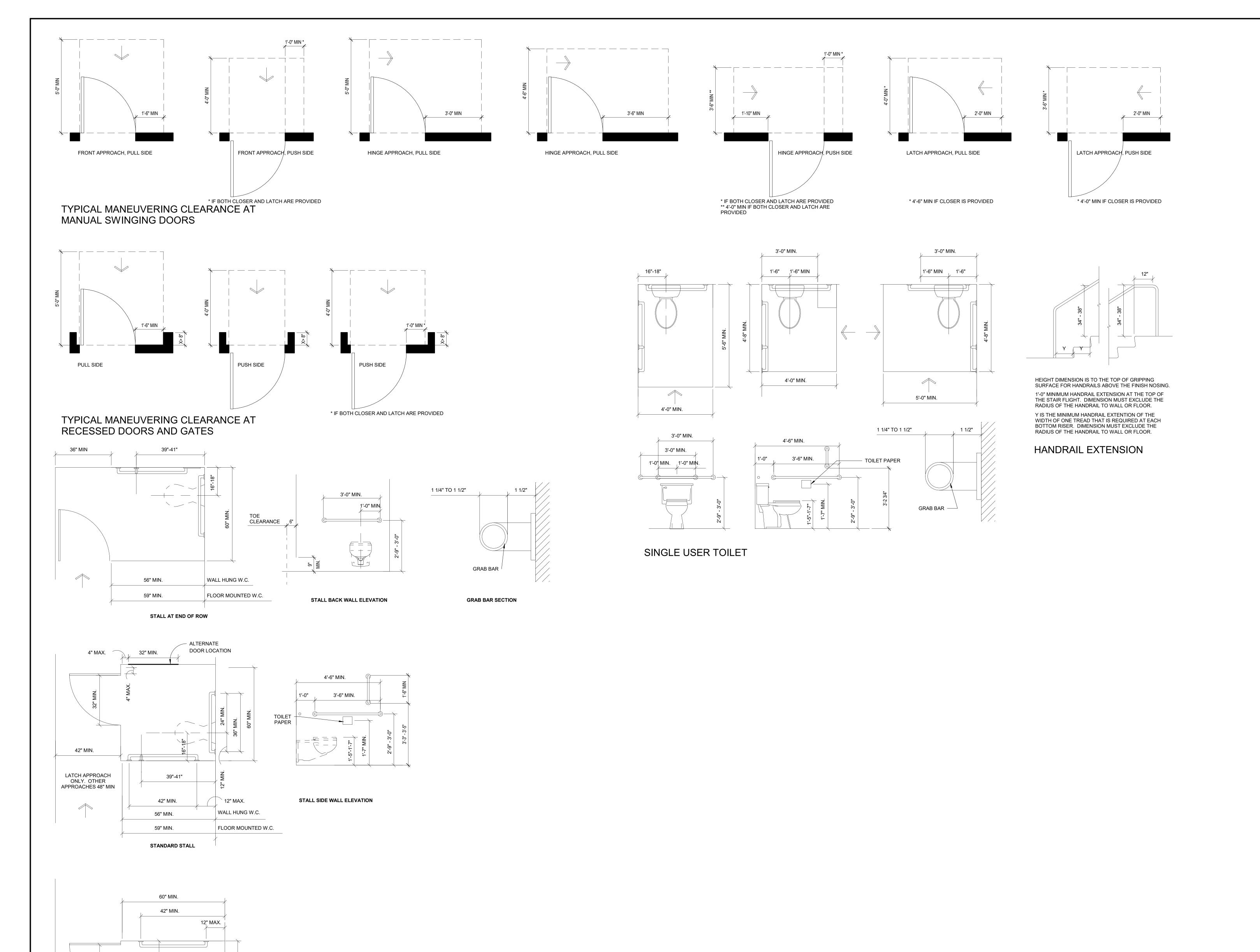
SCALE: 1/8" = 1'-0"

KITCHEN (COMMERCIAL)

ASSEMBLY WITHOUT
FIXED SEATS
(UNCONCENTRATED)

RESTROOM / CIRCULATION

<u>PATIO</u> 1053 SF



\*ALL DIMENSIONS ARE FROM FINISH FACE OF WALL OR TOILET PARTITIONS.

AMBULATORY STALL

TYPICAL CLEARANCES FOR MULTIUSER TOILET

STALLS AND ACCESSORIES

42" MIN.

LATCH APPROACH ONLY, OTHER APPROACHES 48" MIN.

#### GENERAL CODE DETAIL NOTES

AGENCY APPROVAL

- 1. DETAILS USED ON THIS SHEET ARE FOR REFERENCE ONLY.
- DETAILS ARE FROM 2010 ADA STANDS FOR ACCESSIBLE DESIGN AND ICC/ANSI A117.1-2003.

No. Description Date

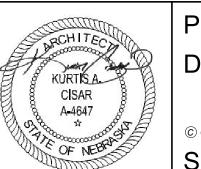
EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

CODE DETAILS

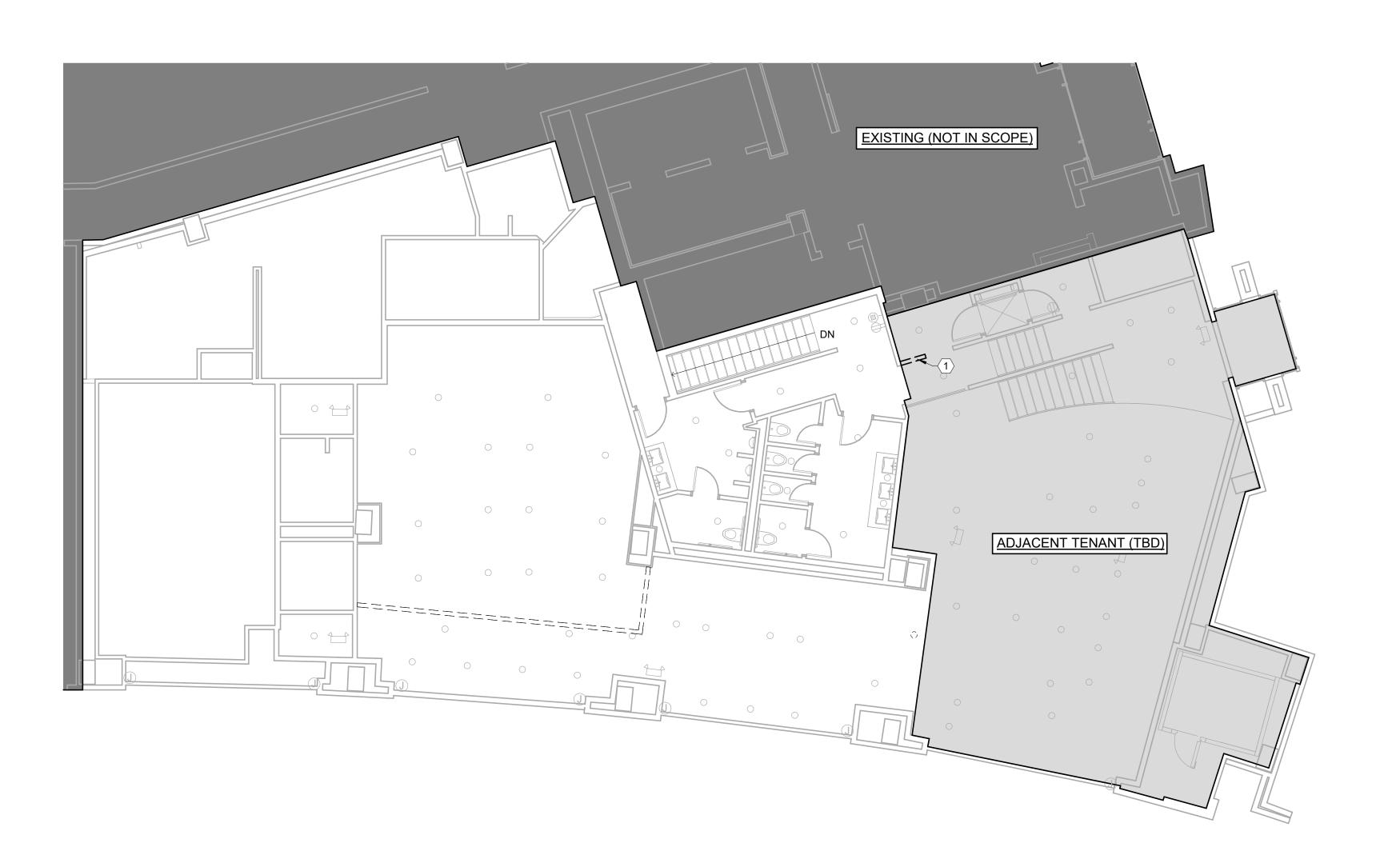
#### Holland Basham Architects

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800



PROJECT: NUMBER DATE: 09/27/2024

SHEET: A0.31



# DEMO ELEVATION SCALE: 1/4" = 1'-0"

# EXISTING INOT IS SCOPE ADJACENT TENANT (TBD) ADJACENT TENANT (TBD)

RESTROOM MEZZANINE DEMOLITION PLAN

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

FIRST FLOOR PLAN DEMOLITION PLAN

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



#### KEYED DEMO PLAN NOTES

TAG USED FOR THIS SCHEDULE

SHOWN TO BE REMOVED.

- 1 REMOVE WALL ASSEMBLY COMPLETE, INCLUDING DOORS, FRAMES, BORROW LITES AND OTHER BUILT-IN ACCESSORIES
- 2 REMOVE DOOR, FRAME AND HARDWARE COMPLETE.

  4 REMOVE PORTION OF EXISTING STOREFRONT FOR INSTALLAITON OF NEW DOOR(S). SEE PLANS AND DEMOLITION
- 5 REMOVE EXISTING LIGHT FIXTURE AND ASSOCIATED HARDWARE AND WIRING.
- 6 REMOVE EXISTING OUTLET RECEPTACLE AND ASSOCIATED WIRING
- 7 REMOVE EXISTING LIGHT SWITCH AND ASSOCIATED WIRING
  8 REMOVE EXISTING WALL FINISH SHOWN DASHED
  9 REMOVE PORTION OF WALL AS REQUIRED FOR NEW 7' OPENING.
  10 REMOVE PORTION OF EXISTING GRID CEILING AS REQUIRED
- FOR NEW WALLS TO EXTEND TO DECK

  11 REMOVE PORTION OF EXISTING RAIL AND GATE TO ALIGN WITH NEW DOOR PAIR.
- 12 REMOVE EXISTING DOOR PAIR FOR REUSE AS DOOR 101.1 SEE DOOR SCHEDULE
- 13 REMOVE COMPLETE EXISTING ABOVE GRADE GAS FIRE PIT
   14 REMOVE PORTIONS OF EXISTING RADIANT HEAT UNITS AS REQUIRED FOR NEW DOOR INSTALLATION. SEE MECHANICAL
- 15 REMOVE EXISTING METAL FIRE PIT CAP AND DECORATIVE WOOD
   16 REMOVE EXISTING COUNTERTOP

17 REMOVE EXISTING BEER TAP SYSTEM. CAP LINES AS REQUIRED

- 19 REMOVE EXISTING BAR SHELVING20 EXISTING WALL BELOW COUNTERTOP TO REMAIN
- 21 GC TO VERIFY EXISTING PLUMBING LINES AND FIXTURES TO REMAIN OR TO BE RELOCATED
- 22 REMOVE SECURITY CAMERA PAIR FOR RELOCATION BY TENANT
  23 REMOVE EXISTING SPEAKER IN CEILING FOR RELOCATION BY
- TENANT

  24 EXISTING DRAIN PAN AND PORTION OF ADJACENT WALL TO
- REMAIN. GC TO RE-INSTALL DRAIN PAN IN NEW COUNTERTOP.

  25 REMOVE EXISTING WOOD CEILING FINISH AS REQUIRED FOR NEW COOLER INSTALLATION.

#### GENERAL DEMOLITION NOTES

**AGENCY APPROVAL** 

- 1. ALL BOLD OR FULL TONE DASHED LINES INDICATE ITEMS TO BE REMOVED OR RELOCATED. ALL LIGHT OR HALF-TONE LINES INDICATE EXISTING ITEMS TO REMAIN.
- WHERE DEMOLITION OCCURS ADJACENT TO SURFACES INDICATED TO REMAIN, CARE SHOULD BE TAKEN NOT TO DESTROY OR DAMAGE EXISTING SURFACES. IF DAMAGE OCCURS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PATCH AND REPAIR THESE SURFACES TO ORIGINAL CONDITION. GENERAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS TO PATCH EXISTING SURFACES DAMAGED BY DEMOLITION OR INSTALLATION OF NEW MECHANICAL AND/OR ELECTRICAL
- 3. THE OWNER RESERVES THE FIRST RIGHT OF SALVAGE ON ALL ITEMS. ANY ITEMS NOT SALVAGED BY THE OWNER SHALL BE REMOVED AND DISPOSED OF OFF SITE.
- 4. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER ALL PROVISIONS FOR DUST CONTROL, DEBRIS REMOVAL SHUT-OFFS, ETC.

SYSTEMS.

5. PATCH AND REPAIR ALL HOLES OR PENETRATIONS THRU FIRE RATED WALLS, FLOOR OR ROOF WITH APPROVED FIRESTOPPING MATERIALS.



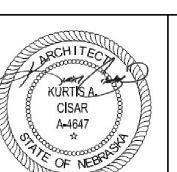
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DEMOLITION PLANS

#### Holland Basham Architects

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800



PROJECT: NUMBER
DATE: 09/27/2024

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FIRST FLOOR REFLECTED CEILING DEMOLITION PLAN

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

#### **KEYED PLAN NOTES**

- TAG USED FOR THIS SCHEDULE
- 1 ALIGN FACE WITH WALL ABOVE 2 ALIGN FACE OF NEW GWB TO ALIGN WITH EXISTING CORNER
- 3 INFILL DEMOLISHED DOOR OPENING AS REQUIRED TO MATCH 5 NEW ELECTRICAL PANELS. SEE ELECTRICAL
- 6 MULLION MATE
- 7 PREP NEW FACES OF WALL OPENING FOR NEW FINISH 8 INFILL OPENING AS REQUIRED WITH NEW GLAZING TO MATCH
- 9 PROVIDE WALL CLOTURE. SEE A2.01
- 10 GC AND OWNER TO VERIFY WALL LOCATION PER EXISITING CONDITIONS AND COOLER REQUIREMENTS
- 11 NEW BAR HEIGHT WALL TO MATCH EXISTING.
- 12 NEW COUNTERTOP BY OWNER AND GC 13 INSTALL NEW WALL SUBSTRATE AS REQUIRED. VERIFY IN FIELD. 14 GC TO COORDINATE WITH OWNER FOR NEW CASEWORK BELOW
- NEW COUNTERTOP
- 15 EXTENT OF EXISTING QUARRY TILE FLOOR. PATCH AND REPLACE AS REQUIRED AFTER DEMOLITION

#### GENERAL PLAN NOTES

FIXTURES OR EQUIPMENT. ALL LIGHT OR HALF-TONE LINES INDICATE EXISTING CONSTRUCTION, FIXTURES OR EQUIPMENT.

1. ALL BOLD OR FULL-TONE LINES INDICATE NEW CONSTRUCTION,

AGENCY APPROVAL

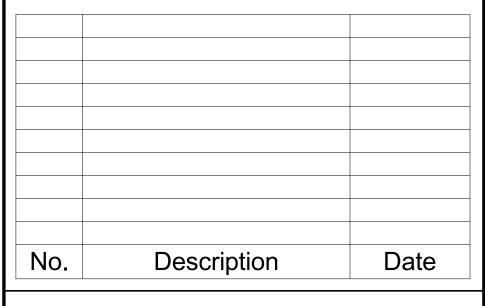
- . ALL DIMENSIONS ARE TAKEN TO THE FACE OF EXISTING CONSTRUCTION OR THE FINISH FACE OF NEW CONSTRUCTION, UNLESS OTHERWISE NOTED ON THE PLANS. LIGHT OR HALF TONE DIMENSIONS ARE SHOWN FOR INFORMATION ONLY.
- 3. FIELD VERIFY ALL DIMENSIONS SHOWN ON THE PLANS WITH THE ACTUAL EXISTING CONDITIONS.
- 4. FINISH FLOOR ELEVATION = 100'-0"
- 5. SEE SHEET **A2.01** FOR PARTITION TYPES.
- 6. PROVIDE CONTINUOUS BLOCKING OR STRAPPING WITHIN NEW WALLS AS REQUIRED FOR ALL WALL MOUNTED CASEWORK, FIXTURES, ACCESSORIES AND EQUIPMENT. ANCHOR BLOCKING BETWEEN THE STUDS, AT THE FACE OF THE STUDS, FOR THE ENTIRE WIDTH OF THE ITEM TO BE MOUNTED ON THE WALL. ANCHOR 22 GA SHEET METAL STRAPPING TO THE FACE OF THE STUDS, FOR THE ENTIRE WIDTH OF THE ITEM TO BE MOUNTED ON THE WALL. VERIFY VERTICAL LOCATION OF
- 7. ALL FURNITURE IS NOT-IN-CONTRACT AND SHOWN FOR INFORMATION AND COORDINATION ONLY.

BLOCKING WITH THE MOUNTING HEIGHT REQUIRED AND THE REQUIREMENTS OF THE ITEM TO BE MOUNTED ON THE WALL.

- 8. FOR DESIGNATED WALL RATING REFER TO BUILDING CODE REVIEW PLANS, SHEET A0.11
- 9. WHEN PARTITIONS OF DIFFERENT RATINGS ARE LOCATED ALONG THE SAME WALL, ALIGN FINISH FACE OF WALL AS
- 10. LIMIT EMBEDMENT OF ALL FASTENERS INTO POST-TENSIONED SLAB ABOVE TO 3/4 INCH. 11. PROVIDE LEVEL 4 GWB FINISH AT ALL WALLS.
- 12. PROVIDE MOISTURE RESISTANT GWB AT RESTROOM WALLS. REMOVE EXISTING GWB AS REQUIRED TO FULFILL

REQUIREMENT.

- 13. ALL FURNITURE, CASEWORK, AND EQUIPMENT SHOWN DASHED ARE SHOWN FOR REFERENCE BY FUTURE TENANT IMPROVEMENT
- 14. VERIFY AND PROVIDE GWB AND INSULATION AT DEMISING WALLS MEETING OWNER'S ACCOUSTIC REQUIREMENTS.
- 15. PATCH AND REPAIR ANY EXSITNG GWB AS REQUIRED TO BE READY FOR PAINT.



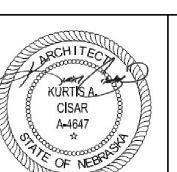
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FIRST FLOOR PLAN

#### Holland Basham **Architects**

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800



PROJECT: NUMBER DATE: 09/27/2024

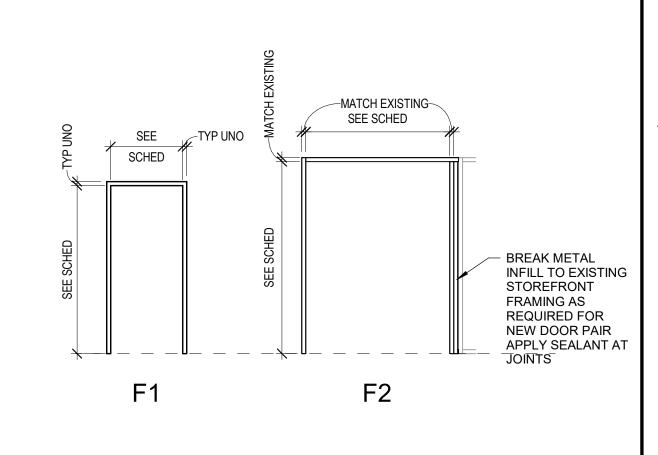


						H	IRA_	CD_l	שטטכ	K SCH	IEDULI	<b>=</b>		
DOOR				DOOR					FRAM	1E				
NO.	PR.	WIDTH	HEIGHT	TYPE	MAT'L	FIN.	TYPE	MAT'L	FIN.	HEAD DETAIL	JAMB DETAIL	LABEL	HDWR.	REMARKS
LEVEL 1														
		6' - 0"	8' - 0"											
101.1	PR.	6' - 0"	8' - 0"	D2	AL	ANOD	F2	AL	ANOD	2/A2.01	2/A2.01		3	REUSE EXISTING DOOR PAIR. SEE DEMO PL
101.2		3' - 0"	8' - 0"	EXISTING	EXISTING		EXISTING	EXISTING						
101.3		3' - 1"	8' - 0"	EXISTING	EXISTING	ANOD	F1	EXISTING	EXISTING	2/A2.01	2/A2.01		2	
104		3' - 0"	7' - 0"	D1	HM		F1	HM		1/A2.01	1/A2.01		1	
105		3' - 0"	7' - 0"	EXISTING	EXISTING		EXISTING	EXISTING						
106		3' - 0"	7' - 0"	EXISTING	EXISTING		EXISTING	EXISTING						
107.2		3' - 0"	7' - 0"	D1	HM		F1	HM		1/A2.01	1/A2.01		1	
107.3		3' - 0"	7' - 0"	EXISTING	EXISTING		EXISTING	EXISTING						
107.4		3' - 0"	7' - 0"	EXISTING	EXISTING		EXISTING	EXISTING						
109	PR.	3' - 0"	7' - 0"	EXISTING	EXISTING		EXISTING	EXISTING						
110		3' - 0"	7' - 0"	EXISTING	EXISTING		EXISTING	EXISTING						
RESTRO	OOM ME	ZZANINE LE	VEL											
111		3' - 0"	7' - 0"	D1	НМ		F1	НМ		1/A2.01	1/A2.01		1	
113		3' - 0"	7' - 0"	D1	НМ		F1	НМ		1/A2.01	1/A2.01		1	
118		3' - 0"	7' - 0"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING		EXISTING	EXISTING		EXISTING	EXISTING
119		3' - 0"	7' - 0"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING		EXISTING	EXISTING		EXISTING	EXISTING
120		3' - 0"	7' - 0"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING		EXISTING	EXISTING		EXISTING	EXISTING

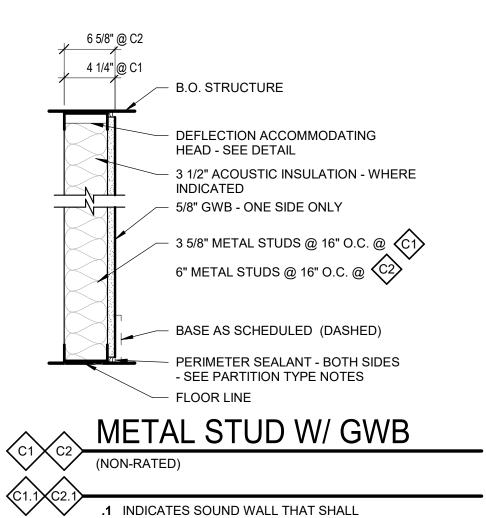
SF	T 1 - SINGLE - I	NTFRIOR
(3)	HINGE	STANLEY, MODEL FBB179-4.5-US26D (06-8438)
(1)	LOCKSET	SCHLAGE, MODEL AL80PD-NEP-626
(1)	TEMP CORE	SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME)
(1)	CLOSER	DORMA, MODEL 8916-AF89P-689 (ALUMINUM) (TOP JAMB)
(1)	CLOSER BACK PLATE	DORMA, MODEL BP89 (ALUMINUM)
(2)	KICKPLATE	HIAWATHA, MODEL KP840-US32D
(1)	DOOR STOP	IVES, MODEL FS18S (ALUMINUM)
(3)	DOOR SILENCERS	IVES, MODEL SR64
(5)	DOON SILLIVOLING	TVES) MIODEL SINO !
SE	T 2 - ENTRY - S	INGLE - PANIC HARDWARE
(1)	HINGE	HAGER, MODEL 780-224HD-83-CLR
(1)	PUSH HARDWARE	ADAMS RITE, MODEL 8801-36-628 (ALUMINUM), C.O. EXIT DEVICE AT 38" FROM BOTTOM OF DOOF
(1)	PULL HARDWARE	ADAMS RITE, MODEL 3001-23-US32D ROUND HANDLE FIXED PULL
(1)	CLOSER	DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM)
(1)	CLOSER BACK PLATE	DORMA, MODEL BP89 (ALUMINUM)
(1)	DOOR STOP	IVES, MODEL FS18S (ALUMINUM)
(1)	OVERHEAD STOP	GLYNN-JOHNSON, MODEL 454S-SP28 (ALUMINUM)
	THRESHOLD	DEESE MODEL \$4244.26
(1)	THINESHOLD	REESE, MODEL S424A-36
` ′	SMOKE SEAL	REESE, MODEL 797B-21
` ′		
(1) (1)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN EN	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  FRY - PAIR
(1) (1) SE (2)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENTHINGE	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  TRY - PAIR  HAGER, MODEL 780-224HD-83-CLR
(1) (1) SE (2) (1)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENTHINGE MORTISE CYLINDER	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  FRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC
(1) (1) SE (2) (1) (1)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN EN  HINGE MORTISE CYLINDER TEMP CORE	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  FRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME)
(1) (1) (2) (1) (1) (1)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN EN  HINGE MORTISE CYLINDER TEMP CORE DEADBOLT	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  FRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME) ADAMS RITE, MODEL MS1850S-310-628
(1) (1) (2) (1) (1) (1) (1)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENT HINGE MORTISE CYLINDER TEMP CORE DEADBOLT HEADER BOLT	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  TRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME) ADAMS RITE, MODEL MS1850S-310-628 ADAMS RITE, MODEL 4016-30-01
(1) (1) (1) (2) (1) (1) (1) (1)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENT HINGE MORTISE CYLINDER TEMP CORE DEADBOLT HEADER BOLT THRESHOLD BOLT	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  TRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME) ADAMS RITE, MODEL MS1850S-310-628 ADAMS RITE, MODEL 4016-30-01 ADAMS RITE, MODEL 4015-18-1B
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(1) (1) (2) (1) (1) (1) (1) (2) (2) (2)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENT HINGE MORTISE CYLINDER TEMP CORE DEADBOLT HEADER BOLT THRESHOLD BOLT PUSH HARDWARE PULL HARDWARE CLOSER	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  TRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME) ADAMS RITE, MODEL MS1850S-310-628 ADAMS RITE, MODEL 4016-30-01 ADAMS RITE, MODEL 4015-18-1B ADAMS RITE, MODEL 8801-36-628 (ALUMINUM), C.O. EXIT DEVICE AT 38" FROM BOTTOM OF DOOF ADAMS RITE, MODEL 3001-23-US32D ROUND HANDLE FIXED PULL DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM)
(1) (1) (1) (2) (1) (1) (1) (2) (2) (2) (2)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN EN  HINGE MORTISE CYLINDER TEMP CORE DEADBOLT HEADER BOLT THRESHOLD BOLT PUSH HARDWARE PULL HARDWARE CLOSER CLOSER BACK PLATE	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  FRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME) ADAMS RITE, MODEL MS1850S-310-628 ADAMS RITE, MODEL 4016-30-01 ADAMS RITE, MODEL 4015-18-1B ADAMS RITE, MODEL 8801-36-628 (ALUMINUM), C.O. EXIT DEVICE AT 38" FROM BOTTOM OF DOOF ADAMS RITE, MODEL 3001-23-US32D ROUND HANDLE FIXED PULL DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM) DORMA, MODEL BP89 (ALUMINUM)
(1) (1) (2) (1) (1) (1) (1) (2) (2) (2) (2)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENT HINGE MORTISE CYLINDER TEMP CORE DEADBOLT HEADER BOLT THRESHOLD BOLT PUSH HARDWARE PULL HARDWARE CLOSER CLOSER BACK PLATE DOOR STOP	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  TRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME) ADAMS RITE, MODEL MS1850S-310-628 ADAMS RITE, MODEL 4016-30-01 ADAMS RITE, MODEL 4015-18-1B ADAMS RITE, MODEL 8801-36-628 (ALUMINUM), C.O. EXIT DEVICE AT 38" FROM BOTTOM OF DOOF ADAMS RITE, MODEL 3001-23-US32D ROUND HANDLE FIXED PULL DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM) IVES, MODEL FS18S (ALUMINUM)
(1) (1) (2) (1) (1) (1) (1) (2) (2) (2) (2) (2)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENT HINGE MORTISE CYLINDER TEMP CORE DEADBOLT HEADER BOLT THRESHOLD BOLT PUSH HARDWARE PULL HARDWARE CLOSER CLOSER CLOSER BACK PLATE DOOR STOP OVERHEAD STOP	REESE, MODEL 797B-21  PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  TRY - PAIR  HAGER, MODEL 780-224HD-83-CLR  SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME)  ADAMS RITE, MODEL MS1850S-310-628  ADAMS RITE, MODEL 4016-30-01  ADAMS RITE, MODEL 4015-18-1B  ADAMS RITE, MODEL 8801-36-628 (ALUMINUM), C.O. EXIT DEVICE AT 38" FROM BOTTOM OF DOOF ADAMS RITE, MODEL 3001-23-US32D ROUND HANDLE FIXED PULL DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM)  DORMA, MODEL BP89 (ALUMINUM)  IVES, MODEL FS18S (ALUMINUM)  GLYNN-JOHNSON, MODEL 454S-SP28 (ALUMINUM)
(1) (1) (2) (1) (1) (1) (1) (2) (2) (2) (2)	SMOKE SEAL DOOR SWEEP  T 3 - MAIN ENT HINGE MORTISE CYLINDER TEMP CORE DEADBOLT HEADER BOLT THRESHOLD BOLT PUSH HARDWARE PULL HARDWARE CLOSER CLOSER BACK PLATE DOOR STOP	REESE, MODEL 797B-21 PEMKO, MODEL SFSC-200-36, TENANT FURNISHED  TRY - PAIR  HAGER, MODEL 780-224HD-83-CLR SCHLAGE, MODEL 80-103 (BRUSHED CHROME), C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOC SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME) ADAMS RITE, MODEL MS1850S-310-628 ADAMS RITE, MODEL 4016-30-01 ADAMS RITE, MODEL 4015-18-1B ADAMS RITE, MODEL 8801-36-628 (ALUMINUM), C.O. EXIT DEVICE AT 38" FROM BOTTOM OF DOOF ADAMS RITE, MODEL 3001-23-US32D ROUND HANDLE FIXED PULL DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM) IVES, MODEL FS18S (ALUMINUM)

#### GLAZING SEE SPEC FOR STILE AND RAIL WIDTHS\_\_\_ MEDIUM STILE D1 D2

#### DOOR TYPES

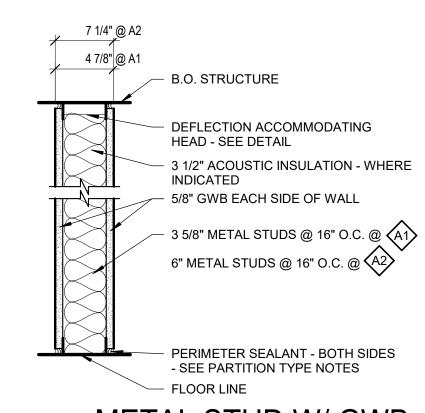


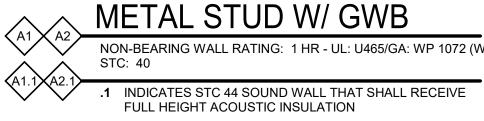
#### DOOR HARDWARE



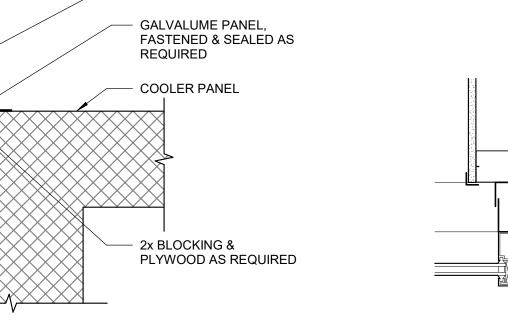
RECEIVE FULL HEIGHT ACOUSTIC INSULATION

#### FRAME TYPES

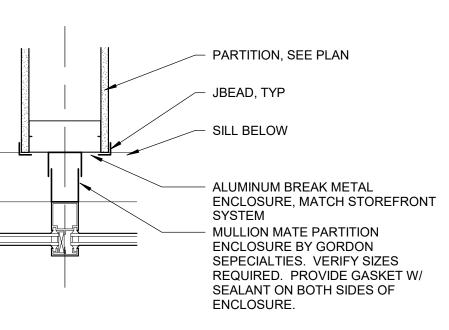




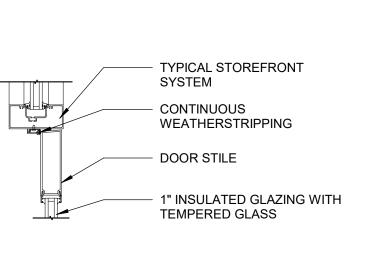
#### PARTITION TYPES



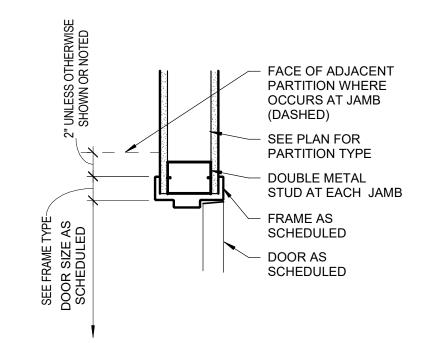




ALSF WALL INTERSECTION **A2.01** SCALE: 1 1/2" = 1'-0"



STOREFRONT DOOR JAMB - HEAD SIM **A2.01** SCALE: 1 1/2" = 1'-0"



1 DOOR JAMB DETAIL - HEAD SIM **A2.01** SCALE: 1 1/2" = 1'-0"

#### **GENERAL NOTES**

AGENCY APPROVAL

- DOOR THICKNESS AT 1 3/4" THICKNESS AS SPECIFIED UNLESS OTHERWISE NOTED.
- 2. CONTRACTOR TO VERIFY LOCATIONS OF REQUIRED SAFETY GLAZING WITH LOCAL CODE AND PROVIDE AS NECESSARY.
- 3. HOLLOW METAL DOOR AND FRAME (HM). TYPICAL FRAME WIDTH 2 INCHES UNO
- 4. NEW DOOR & FRAME FINISHES BY FUTURE TENANT **IMPROVEMENT**

#### PARTITION TYPE NOTES

- 1. EXTEND WALL FRAMING AND GYPSUM BOARD AT ALL PARTITIONS FULL HEIGHT UNLESS OTHERWISE SHOWN OR NOTED. EXTEND WALL FURRING AND GYPSUM BOARD A MINIMUM OF 4 INCHES ABOVE THE FINISH CEILING. IF NO CEILING OCCURS, EXTEND FURRING AND GYPSUM BOARD FULL HEIGHT. < IF ROOM IS INDICATED ON PLAN TO RECEIVE A VAPOR RETARDER, EXTEND FURRING AND GYPSUM BOARD FULL HEIGHT.>
- . USE ACOUSTICAL SEALANT, TYPICAL AT THE PERIMETERS OF PARTITION WALLS AS SHOWN ON THE PARTITION TYPES AND SPECIFIED IN SECTION 07 9005 - JOINT SEALERS. USE FIRE SEALANT AT RATED PARTITIONS (PERIMETER AND PENETRATIONS AS SPECIFIED IN SECTION 07 8400 -FIRESTOPPING). SEALANT NOT REQUIRED AT NON RATED WALLS OR NON SOUND WALLS.
- 3. CONSTRUCT PERIMETER RELIEF AND CONTROL JOINTS IN ACCORDANCE WITH 'GA-600-2000 FIRE RESISTANCE DESIGN MANUAL - 16th EDITION', FIGURES 9 AND 10.
- 4. SEE SPECIFICATIONS FOR LOCATION OF PAPER FACED GYPSUM WALLBOARD, GLASS-MAT-FACED GYPSUM WALLBOARD AND CEMENT-BASED WALLBOARD.



EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

DOOR & FRAME TYPES & SCHEDULE & PARTITION **TYPES** 

# **Architects**

119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800

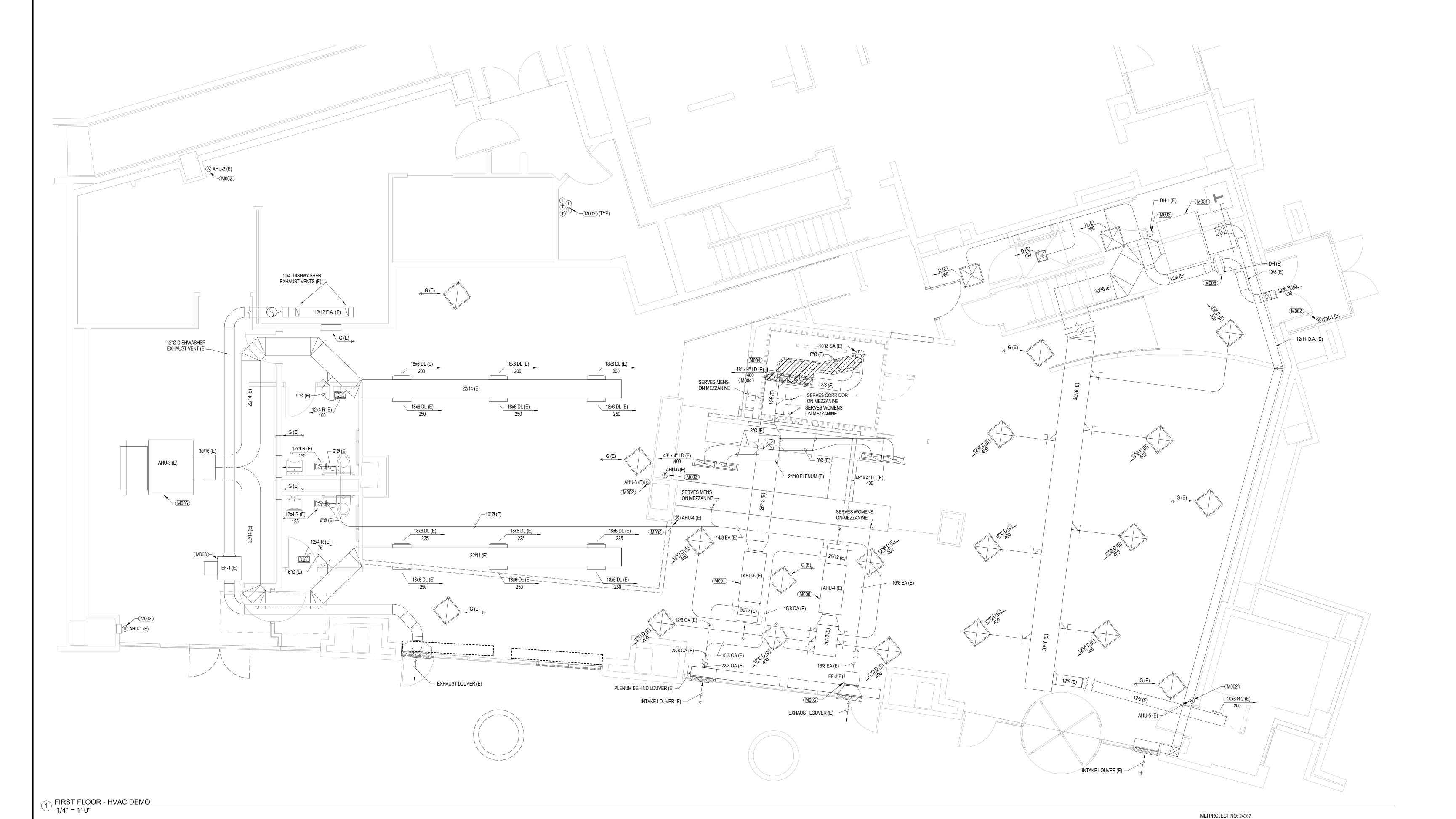


PROJECT: NUMBER DATE: 09/27/2024

#### MECHANICAL GENERAL DEMO NOTES

- 1. ALL MECHANICAL ITEMS SHOWN ARE EXISTING. NOT ALL EXISTING MECHANICAL ITEMS ARE SHOWN. ITEMS SHOWN DASHED / HATCHED ARE TO BE RELOCATED / REMOVED.
- 2. EXISTING DRAWINGS ARE BASED ON APPROXIMATIONS FROM FIELD OBSERVATIONS. DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK AND PIPING. EQUIPMENT, DUCTWORK AND PIPING DISCOVERED ON SITE TO BE REMOVED BUT NOT INDICATED ON PLANS TO BE IDENTIFIED BY CONTRACTOR AND REMOVED AS DIRECTED BY ENGINEER.
- 3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO PROVIDING NEW WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING REMOVAL AS REQUIRED TO ACCOMODATE ACTUAL CONDITIONS.
- 4. COORDINATE PHASING OF DEMOLITION AND REMOVAL WITH GENERAL CONTRACTOR. PLAN ALL WORK TO MINIMIZE SHUT DOWNS. WHERE APPLICABLE, COORDINATE EXTENT OF DEMOLITION WORK WITH NEW
- 5. HOLES CUT IN WALLS, FLOORS AND CEILINGS TO PERMIT THE REMOVAL OF EXISTING EQUIPMENT, PIPING, ETC. SHALL BE CAREFULLY MADE AND RESTRICTED TO THE SMALLEST PRACTICAL SIZE. PATCH ALL HOLES NOT REQUIRED FOR NEW WORK TO MATCH EXISTING. SEAL ALL HOLES OF EXTERIOR ENVELOPE WATER TIGHT.
- 6. THE OWNER RESERVES THE FIRST RIGHT OF SALVAGE OF ANY ITEMS REMOVED. CONTRACTOR SHALL REMOVE ALL UNWANTED MATERIALS FROM THE SITE. OWNER'S DUMPSTER OR OTHER TRASH RECEPTACLES ARE NOT TO BE UTILIZED.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF CEILING GRID AND TILE AS REQUIRED FOR DEMOLITION AND INSTALLATION OF NEW WORK. REPLACE ALL DAMAGED CEILING TILES WITH NEW TO MATCH EXISTING.WHERE APPLICABLE, COORDINATE EXTENT OF DEMOLITION WITH NEW WORK.

- M001 EXISTING AHU TO REMAIN. PROVIDE COMPLETE SERVICE INCLUDING, CHARGE REFRIGERANT, CLEANING OF COILS, CHANGE OF BELTS AND NEW
- FILTERS. REPORT ADIDTIONAL NEEDED REPAIRS TO BUILDING OWNER.
- M002 EXISTING THERMOSTAT / SENSOR TO REMAIN. M003 EXISTING EXHAUST FAN TO REMAIN.
- M004 REMOVE EXISTING LINEAR DIFFUSER AND SUPPLY DUCT TO LOCATION INDICATED. PREPARE EXISTING DUCT FOR NEW DUCT CONNECTION.
- M005 EXISTING DUCT HEATER TO REMAIN. M006 EXISTING AHU TO REMAIN.



No. Description

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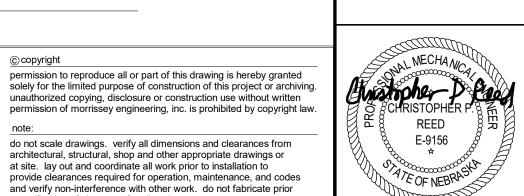
EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

FIRST FLOOR - HVAC DEMO

#### Holland Basham **A**rchitects

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do not scale drawings. verify all dimensions and clearances from architectural, structural, shop and other appropriate drawings or at site. lay out and coordinate all work prior to installation to

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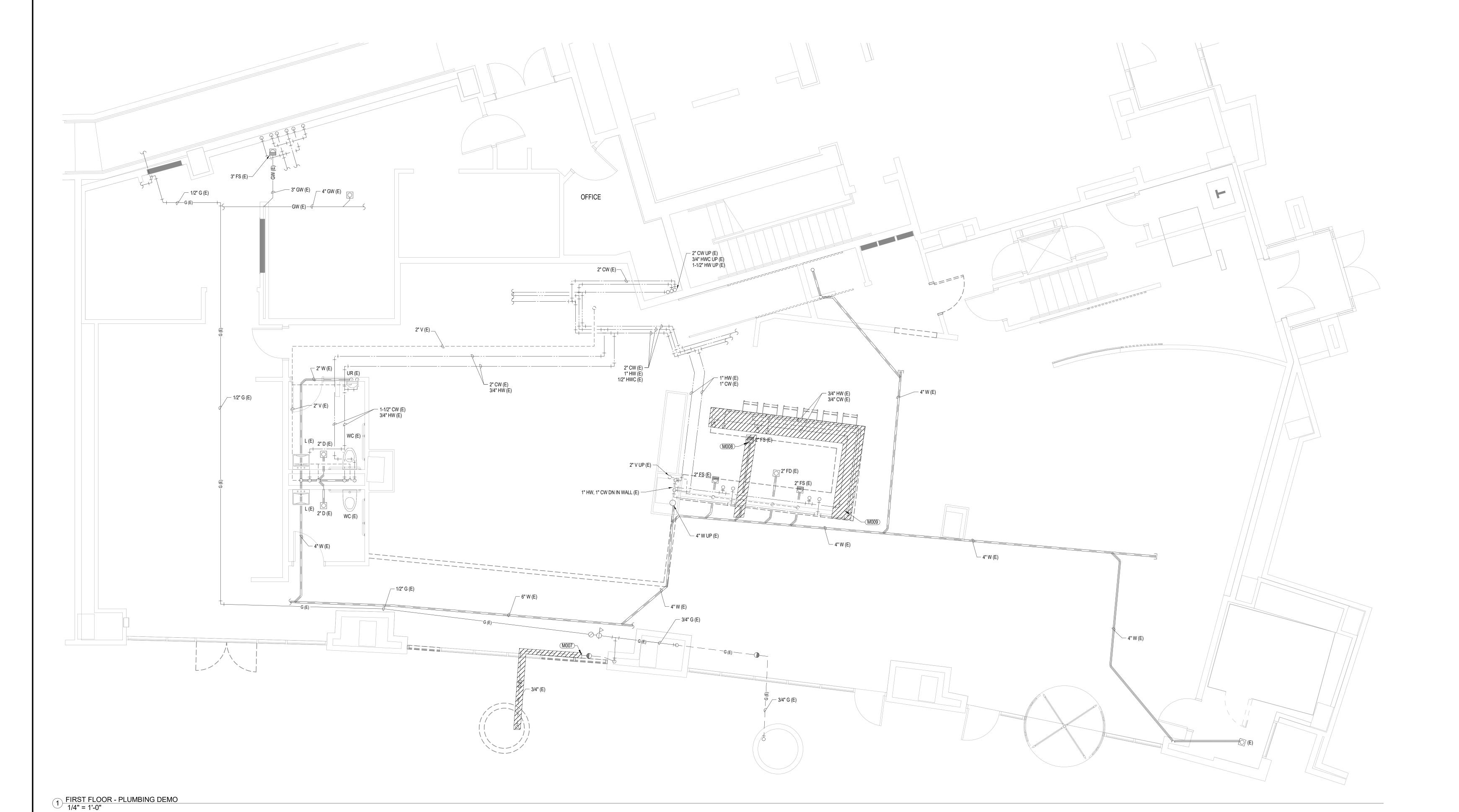
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#### MECHANICAL GENERAL DEMO NOTES

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- 3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO PROVIDING NEW WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING REMOVAL AS REQUIRED TO ACCOMODATE ACTUAL CONDITIONS.
- 4. COORDINATE PHASING OF DEMOLITION AND REMOVAL WITH GENERAL CONTRACTOR. PLAN ALL WORK TO MINIMIZE SHUT DOWNS. WHERE APPLICABLE, COORDINATE EXTENT OF DEMOLITION WORK WITH NEW
- 5. HOLES CUT IN WALLS, FLOORS AND CEILINGS TO PERMIT THE REMOVAL OF EXISTING EQUIPMENT, PIPING, ETC. SHALL BE CAREFULLY MADE AND RESTRICTED TO THE SMALLEST PRACTICAL SIZE. PATCH ALL HOLES NOT REQUIRED FOR NEW WORK TO MATCH EXISTING. SEAL ALL HOLES OF EXTERIOR ENVELOPE WATER TIGHT.
- 6. THE OWNER RESERVES THE FIRST RIGHT OF SALVAGE OF ANY ITEMS REMOVED. CONTRACTOR SHALL REMOVE ALL UNWANTED MATERIALS FROM THE SITE. OWNER'S DUMPSTER OR OTHER TRASH RECEPTACLES ARE NOT TO BE UTILIZED.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF CEILING GRID AND TILE AS REQUIRED FOR DEMOLITION AND INSTALLATION OF NEW WORK. REPLACE ALL DAMAGED CEILING TILES WITH NEW TO MATCH EXISTING.WHERE APPLICABLE, COORDINATE EXTENT OF DEMOLITION WITH NEW WORK.

- M007 REMOVE EXISTING PATIO FIRE PIT AND ASSOCIATED GAS PIPE TO LOCATION
- INDICATED. PREPARE EXISTING GAS PIPE FOR NEW PIPE CONNECTION. M008 REMOVE EXISTING FLOOR SINK AND ASSOCIATED WASTE PIPE TO LOCATION INDICATED. PREPARE EXISTING WASTE PIPE FOR NEW PIPE CONNECTION.
- PATCH FLOOR PENETRATION TO MATCH EXISTING. REMOVE EXISTING CW/HW PIPE FROM UNDER REMOVED BAR TO LOCATION INDICATED. PREPARE EXISTING CW/HW PIPE FOR NEW PIPE CONNECTION.



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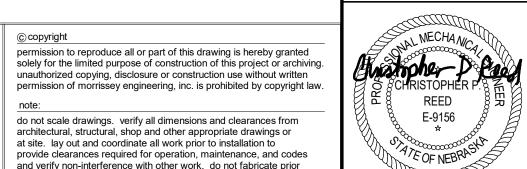
Description

MTC SUITE 3107 SUBDIVISION

FIRST FLOOR - PLUMBING DEMO

# **A**rchitects

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to verification of clearance for all trades.

provide clearances required for operation, maintenance, and codes and verify non-interference with other work. do not fabricate prior

MEI PROJECT NO: 24367

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Nebraska COA Number: CA-0835 www.morrisseyengineering.com

#### MECHANICAL GENERAL NOTES **KEYNOTES** 1. DO NOT ROUTE DUCTWORK OR LOCATE EQUIPMENT ABOVE ELECTRICAL PANELS. M101 DO NOT ROUTE DUCTWORK OVER ELECTRICAL PANELS. MAINTAIN ALL CODE MAINTAIN ALL CODE REQUIRED CLEARANCES. REQUIRED CLEARANCES. M102 CONNECT NEW DUCTWORK TO EXISTING DUCTWORK AT LOCATION 2. MECHANICAL ITEMS SHOWN LIGHT AND / OR INDICATED WITH (E) ARE EXISTING. ITEMS INDICATED. FIELD VERIFY EXACT SIZE, LOCATION AND ELEVATION OF INDICATED WITH (R) ARE RELOCATED. ALL ITEMS DARK ARE NEW. EXISTING DUCTWORK PRIOR TO CONNECTION. TRANSITION, EXTEND AND OFFSET NEW DUCTWORK AS REQUIRED TO MAKE CONNECTION AND AVOID 3. EXISTING DRAWINGS ARE BASED ON EXISTING CONSTRUCTION DOCUMENTS AND APPROXIMATIONS FROM FIELD OBSERVATIONS. DRAWINGS ARE SCHEMATIC IN NATURE. M103 EXISTING AHU TO REMAIN. PROVIDE COMPLETE SERVICE INCLUDING, FIELD VERIFY EXACT LOCATION OF ALL MECHANICAL ITEMS. MECHANICAL ITEMS CHARGE REFRIGERANT, CLEANING OF COILS, CHANGE OF BELTS AND NEW DISCOVERED ON SITE TO BE REMOVED BUT NOT INDICATED ON PLANS TO BE IDENTIFIED FILTERS. REPORT ADIDTIONAL NEEDED REPAIRS TO BUILDING OWNER. BY CONTRACTOR AND REMOVED / RELOCATED AS DIRECTED BY THE ENGINEER. BALANCE SUPPLY AIR TO 1900 CFM AND OUTSIDE AIR TO 400 CFM. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AROUND UNIT. 4. PLANS ARE SCHEMATIC IN NATURE. COORDINATE EXACT ROUTING AND EQUIPMENT LOCATIONS WITH ALL OTHER TRADES. PROVIDE OFFSETS AS REQUIRED. M104 EXISTING AHU TO REMAIN. M105 EXISTING DUCT HEATER TO REMAIN. 5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO NEW WORK. M106 EXISTING EXHAUST FAN TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING DUCTWORK AS NECESSARY TO EXISTING THERMOSTAT / SENSOR TO REMAIN. AVOID CONFLICTS WITH EXISTING CONDITIONS AND WITH ALL TRADES OF NEW WORK AT REMOTE ACCU FOR WALK-IN COOLER / BEER COOLER LOCATED IN GARAGE NO ADDITIONAL COST TO THE OWNER. BELOW. COORDINATE EXACT LOCATION AND FLOOR PENETRATIONS WITH GENERAL CONTRACTOR AND LANDLORD. COORDINATE PENETRATIONS WITH 6. COORDINATE ALL ROOF, WALL AND FLOOR PENETRATIONS WITH GENERAL STRUCTURAL. VERIFY FLOOR SLAB IS NOT POST TENTION SLAB PRIOR TO CONTRACTOR. SEAL PENETRATIONS OF EXTERIOR ENVELOPE WATERTIGHT. ANY FLOOR PENETRATION. SEAL ALL FLOOR PENETRATIONS WATER TIGHT. ROUTE AND SIZE REFRIGERANT LINES PER MANUFACTURER'S 7. MAINTAIN CODE AND MANUFACTURER'S REQUIRED CLEARANCES AROUND ALL RECOMMENDATIONS. MECHANICAL EQUIPMENT TO ALLOW PROPER OPERATION AND FOR EASY MAINTENANCE AND FILTER ACCESS. INSTALL ALL MECHANICAL EQUIPMENT PER MANUFACTURER'S 8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENTLY ADOPTED LOCAL AND STATE CODES AS WELL AS OWNER STANDARDS. 9. MECHANICAL CONTRACTOR TO PROVIDE ALL LOW VOLTAGE CONTROL WIRING AND ELECTRICAL CONTRACTOR TO PROVIDE ALL POWER AND LINE VOLTAGE CONTROL WIRING REQUIRED FOR COMPLETE OPERATION OF ALL MECHANICAL EQUIPMENT. 10. SEE DUCT FITTING DETAIL 1 ON SHEET M3.1. 11. SPACE IS LIMITED. COORDINATE DUCT ROUTING WITH STRUCTURE AND ALL OTHER TRADES. OFFSET AND EXTEND DUCTWORK AS REQUIRED TO AVOID CONFLICTS. 12. INSTALL ALL VOLUME DAMPERS ABOVE ACCESSIBLE CEILINGS OR IN ACCESSIBLE 13. ROUND RUN-OUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK UNLESS NOTED OTHERWISE. SEE DIFFUSER CONNECTION DETAIL 2 ON SHEET M3.1. 14. COORDINATE ALL CEILING-MOUNTED DIFFUSER, REGISTER AND GRILLE LOCATIONS WITH ARCHITECTURAL DRAWINGS. ALL DEVICES INSTALLED IN GYP BOARD SHALL BE INSTALLED SYMMETRICALLY TO EACH OTHER AND SYMMETRICALLY WITH LIGHT 15. PLAN WORK TO MINIMIZE SHUT-DOWNS. COORDINATE ALL REQUIRED SHUT-DOWNS WITH GENERAL CONTRACTOR AND LANDLORD. M101) → 10/4 DISHWASHER EXHAUST VENTS (E) - WALK- IN COOLER / BEER ACCU (IN PARKING GARAGE BELOW) 12/12 E.A. (E) 12"Ø DISHWASHER EXHAUST VENT (E) 8"x6" R-1 175 SERVES MENS ON MEZZANINE — \_\_\_24/10 PLENUM (E) SERVES WOMENS ON MEZZANINE $\neg$ M107 S AHU-1 (E) 22/8 OA (E) — PLENUM BEHIND LOUVER (E) INTAKE LOUVER (E) -1) FIRST FLOOR - HVAC 1/4" = 1'-0" MEI PROJECT NO: 24367 permission to reproduce all or part of this drawing is hereby granted solely for the limited purpose of construction of this project or archiving.

No. Description Date

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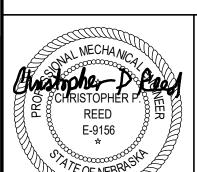
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FIRST FLOOR - HVAC

#### Holland Basham Architects

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Nebraska COA Number: CA-0835

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PROJECT: 24119 DATE: 10/7/2024

SHEET: M1.1

#### **PLUMBING GENERAL NOTES**

- 1. NOT ALL EXISTING MECHANICAL ITEMS ARE SHOWN ON PLAN. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS. PRIOR TO NEW WORK. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING PIPING AS NECESSARY TO AVOID CONFLICTS WITH EXISTING CONDITIONS AND WITH ALL TRADES OF NEW WORK.
- 2. MECHANICAL ITEMS SHOWN LIGHT AND / OR INDICATED WITH (E) ARE EXISTING. ALL ITEMS SHOWN
- 3. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS. MAINTAIN ALL CODE REQUIRED CLEARANCES. 4. PLANS ARE SCHEMATIC IN NATURE. PIPE ROUTING IS SHOWN FOR CLARITY AND FOR GENERAL ROUTING INFORMATION. COORDINATE EXACT ROUTING WITH ALL OTHER TRADES. PROVIDE ALL
- 5. MECHANICAL CONTRACTOR TO COORDINATE ALL KITCHEN EQUIPMENT ROUGH-IN REQUIREMENTS WITH FOOD SERVICE EQUIPMENT SUPPLIER AND EQUIPMENT MANUFACTURER.

ADDITIONAL OFFSETS AS REQUIRED TO COMPLETE INSTALLATION.

- 6. MECHANICAL CONTRACTOR TO MAKE FINAL CONNECTIONS TO KITCHEN EQUIPMENT. COORDINATE CONNECTION SIZE, LOCATION AND REQUIRED PLUMBING SPECIALTIES WITH FOOD SERVICE EQUIPMENT SUPPLIER AND EQUIPMENT MANUFACTURER.
- 7. PROVIDE BACKFLOW PREVENTERS AT WATER CONNECTIONS TO KITCHEN EQUIPMENT AS REQUIRED BY OMAHA PLUMBING CODE.
- 8. PROVIDE WATER STOPS AT EACH PIECE OF KITCHEN EQUIPMENT. WATER STOPS SHALL BE IN AN ACCESSIBLE LOCATION.
- 9. SPACE ABOVE CEILINGS IS LIMITED. COORDINATE PIPE ROUTING WITH ALL OTHER TRADES. PROVIDE ALL ADDITIONAL OFFSETS AND TRANSITIONS AS REQUIRED TO COMPLETE INSTALLATION.
- 10. INSTALL ALL ISOLATION VALVES AND BALANCING VALVES IN ACCESSIBLE LOCATIONS.
- 11. ALL PIPING SHOWN FOR CLARITY, ROUTE WASTE, VENT, WATER AND GAS PIPING CONCEALED IN CHASES, IN WALLS OR ABOVE CEILINGS AS REQUIRED.
- 12. DO NOT ROUTE WATER PIPING IN EXTERIOR WALLS UNLESS OTHERWISE NOTED. PIPING ROUTED IN EXTERIOR WALLS SHALL BE LOCATED ON WARM-IN-WINTER SIDE OF INSULATION.
- 13. NOT ALL CLEANOUTS ARE SHOWN. PROVIDE CLEANOUTS PER OMAHA PLUMBING CODE. COORDINATE CLEANOUT LOCATIONS WITH GENERAL CONTRACTOR.
- 14. COORDINATE ALL BELOW FLOOR PIPING WITH EXISTING STRUCTURE IN PARKING GARAGE. OFFSET BELOW FLOOR PIPING AS REQUIRED TO AVOID CONFLICTS.

15. SEE WASTE AND VENT RISER DIAGRAMS ON THIS SHEET FOR COMPLETE PLUMBING SIZES AND

17. SEE KITCHEN EQUIPMENT SCHEDULE ON SHEET M3.1 FOR KITCHEN EQUIPMENT CONNECTION

- 16. SEE PLUMBING FIXTURE SCHEDULE ON SHEET M3.1 FOR PLUMBING FIXTURE CONNECTION
- 18. ALL PLUMBING SHALL BE IN ACCORDANCE WITH THE OMAHA PLUMBING CODE.

FIRST FLOOR - PLUMBING

<sup>/</sup> 1/4" = 1'-0"

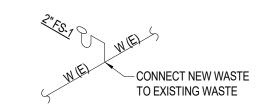
#### FIRE SPRINKLER NOTES

AUTHORITY HAVING JURISDICTION.

- 1. THE EXISTING BUILDING IS PROTECTED BY A WET PIPE NFPA 13 FIRE SPRINKLER SYSTEM. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS INCLUDING PIPE SIZES AND LOCATIONS, SPRINKLER HEAD LOCATIONS, FLOW SWITCHES, ZONE VALVES, AVAILABLE PRESSURE, ETC. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND MATERIALS OF NFPA 13 AND THE
- 2. EXISTING FIRE SPRINKLER PIPING SHALL BE REMOVED AS REQUIRED FOR NEW WORK ASSOCIATED WITH TENANT FINISH. COORDINATE EXTENT OF DEMOLITION REQUIRED WITH MECHANICAL DRAWINGS AND ARCHITECTURAL DRAWINGS. NEW DUCTWORK AND NEW CEILINGS HAVE PRIORITY OVER EXISTING FIRE SPRINKLER PIPING. IF CONFLICTS OCCUR WITH EXISTING FIRE SPRINKLER PIPING, EXISTING FIRE SPRINKLER SHALL BE REMOVED.
- 3. MODIFY EXISTING FIRE SPRINKLER SYSTEM TO ACCOMMODATE TENANT FINISH SUCH TO PROVIDE A FIRE SPRINKLER SYSTEM THAT MEETS THE REQUIREMENTS OF NFPA 13 AND AUTHORITY HAVING JURISDICTION.
- 4. CONNECT NEW FIRE SPRINKLER PIPING TO EXISTING SPRINKLER PIPING. RELOCATE EXISTING SPRINKLER PIPING AS REQUIRED BY NEW WALLS, CEILING, LIGHTS MECHANICAL EQUIPMENT, DUCTWORK, ETC. COORDINATE WITH ALL OTHER TRADES.
- 5. PIPING MATERIALS AND SPRINKLER HEADS SHALL MEET THE REQUIREMENTS OF NFPA 13. CPVC PIPING WILL NOT BE ALLOWED. ENTIRE TENANT FINISH SHALL HAVE NEW FIRE SPRINKLER HEADS. SEE FIRE SPRINKLER SPEC SECTION211000 ON SHEET M3.1 FOR FIRE SPRINKLER HEAD REQUIREMENTS.
- 6. COORDINATE LOCATIONS OF ALL SPRINKLER HEADS AND PIPING WITH ALL OTHER TRADES. IF CONFLICTS DO OCCUR SUCH THAT LIGHTS. DUCTWORK OR CEILING SYSTEMS CANNOT BE INSTALLED DUE TO SPRINKLER PIPING INTERFERENCE, THE PIPING SHALL BE RELOCATED AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- 7. SEE SPECIFICATION SECTION 211000 ON SHEET M3.1.

#### <u>KEYNOTES</u>

- M201 DO NOT ROUTE PIPING OVER ELECTRICAL PANELS. MAINTAIN ALL CODE
- REQUIRED CLEARANCES. CONNECT NEW 2" CW TO EXISTING 2" CW WITH ISOLATION VALVE. FIELD VERIFY EXACT SIZE AND CONNECTION LOCATION OF EXISTING CW. EXTEND AND OFFSET NEW PIPING AS REQUIRED TO MAKE CONNECTION TO EXISTING
- M203 CONNECT NEW WASTE PIPE TO EXISTING WASTE PIPE AT LOCATION INDICATED. FIELD VERIFY EXACT SIZE, LOCATION, ELEVATION AND DIRECTION OF FLOW OF EXISTING WASTE. EXTEND AND OFFSET NEW PIPING AS REQUIRED TO MAKE CONNECTION IF EXISTING LOCATION VARIES FROM WHAT IS INDICATED ON PLAN. SAW CUT FLOOR AS REQUIRED. PATCH FLOOR TO
- MATCH EXISTING. M204 REMOTE ACCU FOR WALK-IN COOLER / BEER COOLER LOCATED IN GARAGE BELOW. COORDINATE EXACT LOCATION AND FLOOR PENETRATIONS WITH GENERAL CONTRACTOR AND LANDLORD. SEAL ALL FLOOR PENETRATIONS WATER TIGHT. ROUTE AND SIZE REFRIGERANT LINES PER MANUFACTURER'S
- RECOMMENDATIONS. M205 ROUTE CONDENSATE DRAIN FROM WALK-IN COOLER/BEER COOLER
- EVAPORATOR TO INDIRECT DISCHARGE AT FLOOR SINK. CAP AND VALVE 2" CW FOR FUTURE TENANT SPACE USE. FUTURE TENANT SHALL PROVIDE A SUBMETER FOR WATER SERVICE. COORDINATE WITH
- M207 CAP EXISTING GAS PIPE IN PARKING GARAGE AT LOCATION INDICATED. FIELD VERIFY EXACT LOCATION.
- PROVIDE NEW FLOOR SINK FOR WALK IN COOLER. ROUTE SANITARY PIPE IN GARAGE BELOW. COORDINATE EXACT LOCATION AND FLOOR PENETRATIONS AND SANITARY PIPE ROUTING WITH GENERAL CONTRACTOR AND LANDLORD. COORDINATE PENETRATIONS WITH STRUCTURAL. VERIFY FLOOR SLAB IS NOT POST TENTION SLAB PRIOR TO ANY FLOOR PENETRATION. SEAL ALL FLOOR PENETRATIONS WATER TIGHT.
- M209 CAP EXISTING WASTE PIPE IN PARKING GARAGE AT LOCATION INDICATED. FIELD VERIFY EXACT LOCATION.
- CAP EXISTING CW/HW BELOW BAR AT LOCATION INDICATED. FIELD VERIFY EXACT LOCATION.



2 WASTE AND VENT RISER DIAGRAM
1/4" = 1'-0"

<u>M201</u> 2" CW UP (E) 3/4" HWC UP (E) 1-1/2" HW UP (E) 2" CW (E) — 1" HW (E) 1/2" HWC (E) -- 2" CW (E) 3/4" HW (E) 2" V UP (E) -1" HW, 1" CW DN IN WALL (E) 4" W UP (E) ─ 4"W (E) ─ 4" W (E)

No. Description

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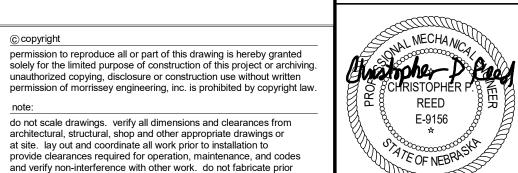
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FIRST FLOOR - PLUMBING

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and verify non-interference with other work. do not fabricate prior

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<u>SECTION 210100 - GENERAL REQUIREMENTS FOR FIRE SUPPRESSION</u> A. RELATED DOCUMENTS

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this

2. Division 21, 22 and 23 Conditions apply to this Section

B. SUMMARY

1. This Section includes general mechanical requirements and shall apply to all phases of the work specified indicated on the drawings or required to provide for complete installation of fire suppression systems.

2. Refer to Section 230100 for General Requirements for Mechanical

3. Refer to Section 230500 for Basic Mechanical Materials and Methods

4. Refer to Section 230505 for Basic Piping Materials and Methods

#### SECTION 211000 - WATER-BASED FIRE-SUPPRESSION SYSTEMS (RENOVATION)

A. The building is protected by an existing wet pipe NFPA 13 fire sprinkler system. Contractor shall verify existing conditions including pipe sizes and locations, sprinkler head locations, flow switches, zone valves, available pressure and flow, etc. Contractor shall provide all equipment and materials necessary to modify system to meet requirements of NFPA 13 and the Authority Having Jurisdiction.

B. Drawings indicate general layout. Final pipe sizing, pipe routing, and sprinkler head layout shall be by the fire sprinkler contractor.

C. Piping material, fire sprinkler heads, and accessories shall be constructed of materials that meet the requirements of NFPA 13 and the Authority Having Jurisdiction. Steel piping shall be minimum Schedule 10 wall

D. Sprinkler heads shall be as follows:

- 1. Sprinkler heads in unheated attic or other areas subject to freezing shall be dry pipe pendant or sidewall
- 2. Sprinkler heads in areas without ceilings shall be upright or pendant type. 3. Sprinkler heads in areas with ceiling shall be concealed sprinkler heads with cover plate. Cover plate

color shall be selected by the architect from manufacturer's standard colors.

4. Fire sprinkler heads shall be centered in tile where installed in lay-in tile ceilings. E. Space above ceilings is limited. Coordinate location of all sprinkler heads and all existing and new piping with all other trades. If conflicts do occur such that lights, mechanical piping, plumbing or ceiling systems cannot be installed due to sprinkler piping interference, the sprinkler piping shall be relocated at no additional cost to the

#### SECTION 220100 - GENERAL REQUIREMENTS FOR PLUMBING A. RELATED DOCUMENTS

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this

2. Division 22 and 23 Conditions apply to this Section.

B. SUMMARY

1. This Section includes general mechanical requirements and shall apply to all phases of the work specified indicated on the drawings or required to provide for complete installation of plumbing systems.

2. Refer to Section 230100 for General Requirements for Mechanical

3. Refer to Section 230500 for Basic Mechanical Materials and Methods

#### <u>SECTION 220720 - PIPE INSULATION FOR PLUMBING</u>

A. MINERAL-FIBER INSULATION: Glass fibers bonded with a thermosetting resin. Preformed Pipe Insulation: Comply with ASTM C 547, Type 1, with factory-applied, all-purpose, vapor-retarder jacket. Flame-spread rating of 25 or less, and smoke-developed rating of 50 or less. Apply insulation to pipes buy securing each layer of preformed pipe insulation to pipe with wire, tape, or bands without deforming insulation materials.

B. FLEXIBLE ELASTOMERIC THERMAL INSULATION: Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C 534, Type I for tubular materials and Type II for sheet materials. Adhesive as recommended by insulation material manufacturer. Ultraviolet-Protective coating as recommended by insulation manufacturer. Flame-spread rating of 25 or less, and smoke-developed rating of 50 or less. Follow manufacturer's written instructions for applying insulation. Seal longitudinal seams and end joints with manufacturer's recommended adhesive

C. VAPOR RETARDER: On piping systems operating below ambient space temperature, seal joints and seams with vapor-retarder mastic. Seal penetrations in insulation at hangers, supports, anchors, and other projections with vapor-retarder mastic Mastics.

D. INSULATION APPLICATION SCHEDULE

Service: Domestic cold water (CW) Thickness/Material: 1/2" Mineral Fiber Vapor Retarder Required: Yes

Service: Domestic hot water and circulating water (HW, HWC) Thickness/Material: Mineral Fiber. Apply the following insulation thicknesses:

a. Systems without recirculation: 1/2" b. 1/2" to 2" pipe: 1"

c. 2 ½" and larger: 1-1/2" Vapor Retarder Required: No

Service: Domestic hot and cold water, direct buried Thickness/Material: 3/4" Flexible Elastomeric Vapor Retarder Required: Yes

Plumbing vents (V or AV), 2 foot section below roof Thickness/Material: 1/2" Mineral Fiber

Vapor Retarder Required: Yes

Service: Sanitary waste piping

NO SCALE

Insulation Material: None SECTION 221116 - WATER DISTRIBUTION PIPING

A. DOMESTIC WATER PIPING: Above ground; hard copper tube, ASTM B 88, Type L; copper, 95-5 solder-joint fittings; and soldered joints. Underground; Soft copper tube, ASTM B 88, Type K; wrought-copper, solder-joint pressure fittings; and soldered joints.

B. VALVES: Provide gate, ball or butterfly isolation valves close to main on each branch and riser serving plumbing fixtures or equipment, and where indicated . Provide globe, ball or butterfly valve for throttling where indicated. Provide supply stops at each plumbing fixture. Provide calibrated or automatic balancing valves as

C. TESTING: Test water distribution piping according to authority having jurisdiction. Clean and disinfect water distribution piping. Fill water piping. Check components to determine that they are not air bound and that piping is full of water.

SECTION 221316 - DRAINAGE AND VENT PIPING

A. ABOVEGROUND, SANITARY WASTE AND VENT AND STORM PIPING: CISPI 301, ASTM A888, Hubless, cast-iron soil pipe; hubless, cast-iron, soil-pipe fittings and hubless, cast-iron, Neoprene sleeve coupling with stainless steel clamps.

B. UNDERGROUND, SANITARY WASTE, AND VENT AND STORM PIPING: ASTM A74. Hub-and-spigot, cast-iron soil pipe, Service class; hub-and-spigot, cast-iron, soil-pipe fittings, lead & oakum or compression joints.

C. PIPING INSTALLATION: Make changes in direction for drainage and vent piping using appropriate branches, bends, and long-sweep bends. Do not make change in direction of flow greater than 90 degrees. Lay buried building drain piping beginning at low point of each system. Install true to grades and alignment indicated, with unbroken continuity of invert. Place hub ends of piping upstream. Install required gaskets according to manufacturer's written instructions.

D. SLOPE: Install drainage and vent piping at the following minimum slopes, unless otherwise indicated:

1. Sanitary Piping: 2 percent downward in direction of flow for piping 3-inch NPS and smaller; 1 percent downward in direction of flow for piping 4-inch NPS and larger.

2. Vent Piping: 1 percent down toward vertical fixture vent or toward vent stack.

E. TESTING: Test drainage and vent piping according to procedures of authorities having jurisdiction SECTION 221319 - PLUMBING SPECIALTIES

A. WATER HAMMER ARRESTERS: ASME A112.26.1M, ASSE 1010, or PDI-WH 201, bellows or piston type with pressurized cushioning chamber. Provide at each battery of fixtures.

B. WATER PRESSURE REGULATORS: water regulators, rated for initial working pressure of 150 psig minimum, of size, flow rate, and inlet for 80 psig outlet pressure. Install on building service piping.

C. WALL CLEANOUTS (WCO): Cast iron body adaptable to pipe with cast bronze, brass cleanout plug; stainless steel cover, vandal proof screws. Install as shown and as required by code.

D. CLEANOUT PLUGS (CO): Cast iron or brass, threads complying with ANSI B2.1, countersunk head. Engrave heads to identify system.

E. FLOOR CLEANOUTS (FCO): Cast iron body and frame with cleanout plug and adjustable round nickel bronze top. Provide to match floor system:

Exposed finish type, standard mill finish. Exposed flush type, standard non-slip scored or abrasive finish. Exposed flush type, standard mill finish and carpet marker.

4. Heavy duty for traffic applications.

#### 224000 PLUMBING FIXTURES

A. Installation: Install handles for accessible water closets and urinals with handle mounted on wide side of compartment. Install individual stop valve in each water supply to fixture. Install water-supply stop valves in accessible locations. Install traps on fixture outlets. Omit traps on fixtures having integral traps and on indirect wastes. Vent all fixtures as required by local code. Seal joints between fixtures and walls, floors, and counters using sanitary-type, 1-part, mildew-resistant, silicone sealant. Match sealant color to fixture color. Install hot and cold water supply, waste and vent piping of sizes indicated, but not smaller than required by authorities having

#### B. See Plumbing Fixture Schedule on this sheet for plumbing fixture specifications. SECTION 230100 - GENERAL REQUIREMENTS FOR MECHANICAL

A. WARRANTIES - All materials, workmanship and equipment shall be warranted against defects or against injury from proper and usual wear for a period of one year after the date of substantial completion. Any item that becomes defective within the warranty period shall be repaired or replaced, at no additional cost to the Owner. Warranty shall include repair of faulty workmanship.

B. DEFINITIONS ABBREVIATIONS - The following shall apply throughout the contract documents:

Furnish Supply and deliver to site ready for installation Indicated Noted, scheduled or specified

Provide Furnish, install and connect complete and ready for final use ADA Americans with Disabilities Act

ANSI American National Standards Institute ASHRAE American Society of Heating, Refrigeration and Air Conditioning Engineers

NEC National Electric Code (NFPA 70) NEMA National Electrical Manufacturers Association

NFPA National Fire Protection Association SMACNA Sheet Metal and Air Conditioning Contractors National Association Underwriters Laboratories Inc.

C. CODES AND STANDARDS - All work shall be performed by competent craftsmen skilled in the trade involved and shall be done in a manner consistent with normal industry standards. All work shall conform to the currently adopted edition of the National Electric Code (NEC), Local Building Code, Local Plumbing Code, Local Mechanical Code, Local Fire Code, and all other applicable state and local codes or standards. Where there is a conflict between the code and the contract documents, the code shall have precedence only then it is more

stringent than the contract documents. D. PERMITS - Contractor shall become familiar and comply with all requirements regarding permits, fees, licenses, etc. All permits, licenses, inspections and arrangements required for the work shall be obtained by Contractor's effort and expense. All utilities shall be installed in accordance with the local rules and regulations and all charges shall be paid by the Contractor.

E. SUBMITTALS - Shop drawings shall be submitted to Architect/Engineer for all items of mechanical equipment including the following:

Diffusers, Registers, Grilles Sheet Metal Accessories HVAC equipment Plumbing Fixtures

Plumbing Specialties

1. Shop drawings include fabrication and installation drawings, diagrams, schedules and other data specifically prepared for the project. Include dimensions and notations showing compliance with specified standards. Unless otherwise noted, submit a minimum of six (6) copies of shop drawings for review. Electronic copies (in pdf format) by e-mail are acceptable in lieu of hard copies.

2. Architect/Engineer will review or take appropriate action for submittals. Review is only to determine general conformance with design shown in contract documents. Review of submittals shall not relieve contractor of responsibility for deviation from requirements of the contract documents or from errors or omissions within

F. MATERIALS - All materials and equipment used in the construction of the project shall be new unused and undamaged unless otherwise specified. Materials and equipment shall be of latest design standards of manufacturer specified. Verify installation details and requirements for materials and equipment furnished by others and installed under this contract.

G. DEMONSTRATION AND TRAINING - Instruct Owner's personnel to adjust, operate, and maintain mechanical systems. Schedule training with Owner with at least seven days' advance notice.

H. STARTING AND ADJUSTING - Start and test all equipment and operating components to confirm proper operation. Test and adjust all systems to achieve designed capacity and performance. All equipment and systems discrepancies shall be corrected prior to final acceptance.

#### DUCTWORK MAIN + R=1XD - HI-EFFICIENCY TAKEOFF (UNLESS SHOWN WITH VOLUME DAMPER OTHERWISE) VOLUME DAMPER -- ROUND DUCT TO DIFFUSER "Y" BRANCH FITTING DIFFUSER TAKE-OFF 45° ENTRY BRANCH /|30° MAX. CONVERGING TEE 45° ENTRY BRANCH NOTE: WHERE FITTING CONVERGING TEE NOT POSSIBLE, (ROUND) -USE EXTRACTOR.-**DOUBLE BRANCH TAKE-OFF** SINGLE BRANCH TAKE-OFF 45° ROUND TAKE-OFF

CONSTRUCTION. STRAIGHT TAPS WILL NOT BE ACCEPTABLE. **DUCT FITTING DETAIL** DIFFUSER CONNECTION DETAIL

<u>SECTION 230500 - BASIC MECHANICAL MATERIALS AND METHODS</u>

A. PIPING INSTALLATION: Install piping at required slope. Install components with pressure rating equal to or greater than system operating pressure. Install piping in concealed locations, except in equipment rooms and service areas. Install piping free of sags and bends. Install piping at right angles or parallel to building walls. Install piping tight to slabs, beams, joists, columns, walls, and other building elements. Locate groups of pipes parallel to each other, spaced to permit valve servicing. Install fittings for changes in direction and branch connections. Install pipe escutcheons for exposed pipe penetrations walls and ceilings. Install sleeves for pipes passing through concrete and masonry walls, and concrete floor and roof slabs. Provide dielectric fitting where two different types of pipe materials are joined. Comply with MSS-69 for pipe hanger selection and application.

B. EQUIPMENT INSTALLATION: Install equipment per manufacturer's recommendations Install equipment as high as possible. Install equipment level and plumb, parallel and perpendicular to building. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Install equipment giving right of way to piping installed at required slope.

C. LABELING AND IDENTIFYING

Piping: Provide pipe markers on each system where pipe is exposed to view and above removable ceilings. Include pipe description of system and arrows showing normal direction of flow.

Equipment: Install engraved plastic-laminate sign or equipment marker on or near each major item of mechanical equipment.

D. CUTTING AND PATCHING: Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other surfaces necessary for mechanical installations. Perform cutting by skilled mechanics of trades involved. Repair cut surfaces to match adjacent surfaces. SECTION 230593 - TESTING, ADJUSTING, AND BALANCING

A. Examine air-handling equipment to ensure clean filters have been installed, bearings are greased, belts are aligned and tight, and equipment with functioning controls is ready for operation. Check dampers for proper

B. Perform testing and balancing procedures on each system according to the procedures contained in NEBB's "Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems" and this Section.

C. Adjust fans to deliver total design airflow within the maximum allowable rpm listed by the fan manufacturer.

Provide new fan sheaves as required. Measure fan airflow, static pressure, rpm and amp draw. D. Adjust volume dampers to achieve design airflow within 10% of specified values. Adjust diffusers, registers and grilles. Adjust minimum and maximum outside airflow.

E. Prepare report listing date, project information, equipment data and measured airflow results. Report shall include drawing indicating locations of air outlets and final measured airflow of each outlet. Submit four copies of report to engineer for review. SECTION 230700 - DUCT INSULATION

A. MINERAL-FIBER BLANKET THERMAL INSULATION: Glass fibers bonded with a thermosetting resin. Comply with ASTM C 553, Type II, with all-service jacket manufactured from kraft paper, reinforcing scrim, aluminum foil, and vinyl film. Flame-spread rating of 25 or less, and smoke-developed rating of 50 or less. Apply insulation materials, accessories, and finishes according to the manufacturer's written instructions with the least number of joints practical. Seal joints and seams with vapor-retarder mastic on cold air ducts. Seal penetrations in insulation at hangers, supports, anchors, and other projections with vapor-retarder mastic.

B. ACOUSTICAL DUCT LINER: ASTM C 518 with resin and black mat coated surface exposed to air stream to prevent erosion of glass fibers. Thermal Conductivity (k-Value): 0.26 at 75 deg F mean temperature. Nominal Density 1.5 lbs per cubic foot, minimum noise reduction characteristic shall be 0.55 for 1" thickness; rated for 6000 fpm air velocity; air friction multiplier less than 1.6 at 2000 fpm. Adhere a duct liner with 100 percent coverage of adhesive. Butt transverse joints without gaps and coat joint with adhesive. Secure liner with mechanical fasteners. Apply metal nosing on leading edge of liner.

C. EXISTING INSULATION: All existing insulation damaged by this contractor shall be replaced with new insulation as specified within.

D. APPLICATION SCHEDULE

1. Service: SUPPLY AIR - All, concealed Thickness/Material: 2-3/16" Mineral-Fiber Blanket Minimum Installed R-Value: R6

Vapor Retarder Required: Yes Service: RETURN AIR - All, concealed Thickness/Material: 2-3/16" Mineral-Fiber Blanket

Minimum Installed R-Value: R6

Minimum Installed R-Value: R6

Vapor Retarder Required: Yes Service: GENERAL EXHAUST AIR - From fan back 36" into building Thickness/Material: 2-3/16" Mineral-fiber Blanket

Vapor Retarder Required: Yes SECTION 233113 - METAL DUCTS AND ACCESSORIES

A. GENERAL: Drawings indicate general arrangement of ducts, fittings, and accessories. Minor modifications to route, size and shape of duct may be made to meet structural and other interference. Changes which could affect system performance shall be reviewed by Architect/Engineer prior to fabrication or installation of duct. Coordinate layout with suspended ceiling, fire- and smoke-control dampers, lighting layouts, and similar finished work.

B. DUCT FABRICATION: Sizes shown on plans are inside clear dimensions. Ductwork utilizing duct liner shall be increased in size to accommodate the duct liner thickness.

C. MATERIAL: Construct all rectangular and round ducts from galvanized sheet steel: Lock-forming quality; ASTM A 653/A 653M, G90 coating designation; mill-phosphatized finish for surfaces of ducts exposed to view.

D. QUALITY ASSURANCE: Fabricate and install duct per SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" and applicable codes. Comply with requirements for metal thickness, reinforcing types and intervals, tie-rod applications, and joint types and intervals. Comply with NFPA 90A, "Installation of Air Conditioning and Ventilating Systems," unless otherwise indicated.

E. PRESSURE CLASS: Unless otherwise noted construct all ducts to 2.0" WG positive or 2.0" WG negative pressure class.

F. DUCT SEALING: UL classified, non-combustible, flame spread 25 or less, smoke developed rating of 540 or less, resistant to water, pressure rupture rating of 16" WG minimum, suitable for use alone or with tape, application an operational temperature ranges appropriate for usage. Seal all duct per SMACNA class 'C' duct seal requirements.

G. TURNING VANES: Fabricate of 1-1/2" wide, curved blades 3/4" on center. Provide turning vanes in all

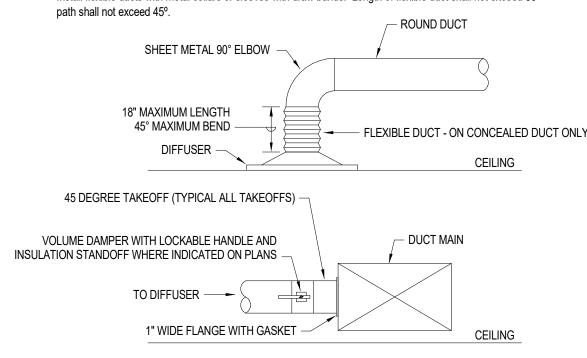
H. DUCT ACCESS DOORS: Install insulated duct access doors with hinges and latches for access to inlet side of coils, equipment, control dampers, fire dampers, and smoke dampers.

I. VOLUME DAMPERS: Fabricate single blade dampers for duct sizes 9 1/2: high x 30" width maximum. Fabricate multi-blade dampers of opposed blade pattern using minimum 16 gauge steel with maximum blade sizes 6" x 48" for larger ducts. Provide end bearings with end seals for pressure class required except in round duct 12" in diameter and smaller. Provide locking indicating quadrant regulators on all volume dampers. Mark ends of damper shanks for open/closed indication. Insulated ducts to have elevated dial indicators. Motorized dampers to have 115 volt operators. Provide manual volume dampers at branch take-offs and as shown. Provide motorized

for temperatures and pressures of application, approximately 6" wide, crimped into metal edge strip. Provide flexible connections to motor driven equipment.

J. FLEXIBLE CONNECTORS: Flame-retarded or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1. Neoprene double-coated woven glass fibber fabric in accordance with NFPA 90A, suitable

K. FLEXIBLE DUCTS: Factory-fabricated, insulated, round duct, with an outer jacket enclosing 1-1/2-inch-thick, glass-fiber insulation around a continuous inner liner, steel-wire helix encapsulated in polyethylene inner liner. Comply with UL 181, Class 1. Final connections to air outlets and terminal units may be made with flexible duct. Install flexible ducts with metal collars or sleeves with draw bands. Length of flexible duct shall not exceed 36" path shall not exceed 45°.



NOTES:

1. USE OF FLEX DUCT FOR 90 DEGREE TURNS INTO DIFFUSERS WILL NOT BE ACCEPTABLE. 2. FLEX DUCT SHALL BE LIMITED TO 18" MAXIMUM. ALL DIFFUSER RUNOUTS AND TAKEOFFS FROM MAIN DUCTWORK SHALL UTILIZE 45 DEGREE TAKEOFFS AS INDICATED. ALTERNATIVE TAKEOFFS MAY BE UTILIZED (I.E. TRUE BELLMOUTH FITTINGS - NOT CONICAL FITTINGS) UPON APPROVAL FROM ENGINEER PRIOR TO

M2.1

PLUMBING FIXTURE SCHEDULE (1) FIXTURE (2) CONNECTIONS CW HW WASTE VENT DESCRIPTION: FLOOR SINK WITH SEDIMENT BUCKET, ACID RESISTANT COATED CAST IRON BODY, FLASHING COLLAR, AND REMOVABLE 8-1/2" SQUARE NICKEL BRONZE TOP. PROVIDE THE FOLLOWING 2" 1-1/2" FEATURES: - 3" 1-1/2 . HINGED GRATE - - 4" 2" 2. 3/4 GRATE SEE FLOOR PLANS FOR WASTE AND VENT SIZE REQUIREMENTS MODEL: J.R. SMITH #3101

(1) SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS INCLUDING STOPS, FITTINGS AND ALL OTHER SPECIALTIES. (2) PICTURES OF FIXTURES DO NOT INDICATE ACTUAL FIXTURE SPECIFIED. PICTURES ARE GRAPHICAL IN NATURE. SEE DESCRIPTION FOR ACTUAL FIXTURE AND MODEL.

KITCHEN EQUIPMENT CONNECTION SCHEDULE (1) (2) (3) (4) (6)													
MARK ITEM	CW	HW	FILTERED CW	WASTE	VENT	GAS	NATURAL GAS LOAD (CFH)	REMARKS					
1 WALK-IN COOLER/FREEZER	-	-	-	3/4"	-	-	-	(5)					
REMARKS (1) VERIFY ALL EQUIPMENT CONNECTIO AND FOOD SERVICE DRAWINGS. FIE INSTALL ALL EQUIPMENT PER EQUIP (2) VERIFY ALL BACKFLOW PREVENTION REQUIRED BY LOCAL PLUMBING COL	ELD VERIFY ( MENT MANU I REQUIREM	CONNECTIO FACTURER'	N SIZES AND S RECOMME	MODIFY SIZ NDATIONS A	ZE AND LOCA ND LOCAL F	ATION OF UT PLUMBING C	TILITIES AS REQUIRED ODE.	).					

DISCHARGE TO FLOOR SINK. INFORMATION INCLUDED IN SCHEDULE HAS BEEN BASED ON LIMITED DESIGN INFORMATION AVAILABLE AT TIME OF CONSTRUCTION DOCUMENTS. COORDINATE EQUIPMENT LOCATIONS, CONDUIT ROUTING, DEVICE MOUNTING HEIGHTS AND POWER CONNECTIONS INCLUDING VOLTAGE, PHASE, BREAKER, CONDUCTOR, CONDUIT AND RECEPTACLE CONFIGURATION WITH WITH OWNER, KITCHEN EQUIPMENT SUPPLIER AND REVIEWED KITCHEN EQUIPMENT SUBMITTALS PRIOR TO ROUGH IN AND PURCHASE OF LONG LEAD TIME EQUIPMENT. COORDINATE ANY CHANGES REQUIRED TO THE INFORMATION ABOVE WITH THE ENGINEER OF RECORD. MAKE ANY CHANGES REQUIRED AT NO ADDITIONAL COST TO OWNER.

HARD PIPE INDIRECT WASTE CONNECTION FROM EQUIPMENT DRAIN TO NEAREST FLOOR SINK. MAINTAIN CODE REQUIRED AIR GAP AND

PROVIDE ISOLATION VALVES, FLOW CONTROL VALVE, SIPHON BREAKER AND LL OTHER SPECIALTIES PER EQUIPMENT

PROVIDE WATER STOPS AT EACH PIECE OF EQUIPMENT. WATER STOPS SHALL BE IN AN ACCESSIBLE LOCATION.

DIFFU	SER REGISTE	R AND GR	RILLE SCHE	EDULE
PLAN TAG		R-1		
MANUFACTUF	RER	KRUEGER (4)		
ODEL NUMB	ER	880H		
UNCTION		SUPPLY		
ESCRIPTION		REGISTER		
DEFLECTION		ADJ. 2-WAY		
MAX. STATIC I	PRESSURE (IN W.G.)	0.1"		
CONSTRUCTION	ON MATERIAL	STEEL		
INISH		WHITE		
NECK SIZE (IN	l)	SEE PLANS		
ACE SIZE (IN	l)	NECK + 1-3/4"		
CCESSORIE	S	(3)		
REMARKS (1)	(2)	(1) (2)		
REMARKS	IATERIAL.			

(2) NOISE CRITERIA (NC) SHALL BE LESS THAN 25 ON DIFFUSERS, REGISTERS

(4) SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY

ONE OF THE FOLLOWING MANUFACTURER'S: KRUEGER, TITUS AND PRICE.

AND GRILLES LOCATED IN OCCUPIED SPACES.

(3) PROVIDE OPPOSED BLADE DAMPER.

MANUFACTURER'S RECOMMENDATIONS AND LOCAL PLUMBING CODE.

ENEF	RG۱	CODE	COMPLIANCE	
CODE			2018 IECC	
ComCHECK			NO	(1)
COMMISSION	NING		NO	(2)
AB REPORT	-		YES	(3) (4)
REMARKS	1. 2. 3.	COMMISSIC SCOPE OF N REQUIRED BUILDING C THE DATE (	IS NOT REQUIRED.  NING IS NOT REQUIRED BECAUSE EQUIPMEN  WORK MEETS THE CAPACITY EXCEPTIONS IN  DOCUMENTS (REFER TO CODE) SHALL BE PROPOSED OF THE CERTIFICATE OF OCCUPACITIVE SPECIFICATION SECTIONS FOR ADDITION.	THE CODE. OVIDED TO THE 90 DAYS OF NCY.

	MECHANICA	L SY	MBOLS
YMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TYPICAL	PIPING	
+ +			LINION
<u> </u>	PIPE TEE / PIPE ELBOW	<u> </u>	UNION CTANNED WITH DI CIMPOWAL
<del>0 +0</del>	ELBOW DN / ELBOW UP		STRAINER WITH BLOWDOWN
<b>-⊘</b> -	ISOLATION VALVE (BALL OR BUTTERFLY)	-\-\\	CHECK VALVE (ARROW INDICATES FLOW)
<u>—</u> ——	BALANCING VALVE	-\$\$-	
<del></del>	GATE VALVE	<u> </u>	PRESSURE REGULATING VALVE (PRV)
-  <b>&gt;</b> <	GLOBE VALVE	φ	PRESSURE GAUGE
P.1.1.	PRESSURE/TEMPERATURE TEST PORT		THERMOMETER
	PLUM	IBING	
	DOMESTIC COLD WATER (CW)	<b>—</b>	GAS COCK
	DOMESTIC HOT WATER (HW) (NUMBER INDICATES TEMPERATURE)	○ 2" D-1	FLOOR DRAIN - SIZE TYPE
	DOMESTIC HOT WATER CIRCULATION (HWC) (NUMBER INDICATES TEMPERATURE)	<u> 2" RD-1</u>	ROOF DRAIN - SIZE TYPE
	SANITARY WASTE (BELOW GRADE)	<u>ව" OFD-1</u>	OVERFLOW ROOF DRAIN - SIZE TYPE
	SANITARY WASTE (ABOVE GRADE)	<u> </u>	HOSE BIBB
	VENT PIPING	<u> </u>	WALL HYDRANT (NON-FREEZE)
ST	STORM PIPING (BELOW GRADE)	VTR	VENT THROUGH ROOF
—ST—	STORM PIPING (ABOVE GRADE)	I.E.	I.E. INVERT ELEVATION
OF	OVERFLOW STORM PIPING (BELOW GRADE)	F.L.	FLOW LINE
—0F—	OVERFLOW STORM PIPING (ABOVE GRADE)	WC	WATER CLOSET (SEE SPECIFICATIONS FOR TYPE)
	ACID WASTE PIPING (BELOW GRADE)	UR	URINAL (SEE SPECIFICATIONS FOR TYPE)
—AW ——	ACID WASTE PIPING (ABOVE GRADE)	LAV	LAVATORY (SEE SPECIFICATIONS FOR TYPE)
-AV	ACID VENT PIPING	S	SINK (SEE SPECIFICATIONS FOR TYPE)
—A——	COMPRESSED AIR PIPING	EWC	ELECTRIC WATER COOLER (SEE SPECIFICATIONS FOR TYPE)
—G—	NATURAL GAS PIPING	MS	MOP SINK (SEE SPECIFICATIONS FOR TYPE)
— SAN —	SITE SANITARY PIPING	DI	DUCTILE IRON
—ST —	SITE STORM PIPING	CI	CAST IRON
w	SITE WATER PIPING	PVC	POLY VINYL CHLORIDE
	HV	AC	
		(S)	SENSOR
6x6 R-1	SIDEWALL SUPPLY REGISTER OR GRILLE  NECK SIZE (IN), TAG AIRFLOW (CFM)	(T)	THERMOSTAT
		(H)	HUMIDISTAT
6x6 R-1 100 ►	SIDEWALL RETURN OR EXHAUST REGISTER OR GRILLE NECK SIZE (IN), TAG AIRFLOW (CFM)	M— - —	MOTORIZED CONTROL DAMPER WITH ACTUATOR
		<u>M</u> — — B.D.D.	BACKDRAFT DAMPER  BACKDRAFT DAMPER
6"□ D-1 100	SUPPLY AIR REGISTER NECK SIZE (IN), TAG	V.D.	VOLUME DAMPER  VOLUME DAMPER
		FR.D.	FIRE DAMPER WITH SLEEVE AND ACCESS DOOR
$< \parallel > < \parallel$	SUPPLY AIR, OUTSIDE AIR OR MIXED AIR DUCT END OR RISER UP / RISER DN	100	SMOKE DAMPER WITH SLEEVE AND ACCESS DOOR
		M 5.D. M ▼ F.S.D.	FIRE/SMOKE DAMPER WITH SLEEVE AND ACCESS DOOR
/  /4	RETURN AIR, EXHAUST AIR OR RELIEF AIR DUCT END OR RISER UP / RISER DN		SUPPLY AIR
		S.A.	
- 12/8 -	RECTANGULAR DUCTWORK (WIDTH/DEPTH)(IN) (FIRST NUMBER IS SIDE SHOWN)	R.A.	RETURN AIR
		E.A.	EXHAUST AIR
12"□ 🦠	ROUND DUCTWORK (DIAMETER)(IN) (SPIRAL DUCT IN EXPOSED AREAS)	RLF.A.	RELIEF AIR
		O.A.	OUTSIDE AIR
	TURNING VANES	M.A.	MIXED AIR
	FIRE PRO	TECTION	
- F —	FIRE SPRINKLER PIPING	<b>₩</b> FH	FIRE HYDRANT
— SP ——	STANDPIPE PIPING	- N PIV	POST INDICATOR VALVE
0-0-	SPRINKLER BRANCH AND HEADS		ALARM CHECK VALVE
FHC	FIRE HOSE CABINET	<del>-</del> \$	O,S&Y VALVE
FVC	FIRE VALVE CABINET	FS	FLOW SWITCH

No. Description

AGENCY APPROVAL

EAST CAMPUS REALTY

MTC SUITE 3107 SUBDIVISION

MECHANICAL DETAILS AND SCHEDULES

#### Holland Basham **A**rchitects

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PROJECT: 24119 DATE: 10/7/2024

MEI PROJECT NO: 24367

morrissey engineering inc mechanical | electrical | lighting | technology | sustainability 4940 North 118th Street Omaha, NE 68164 P: 402.491.4144

Nebraska COA Number: CA-0835

www.morrisseyengineering.com

do not scale drawings. verify all dimensions and clearances from architectural, structural, shop and other appropriate drawings or at site. lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify non-interference with other work. do not fabricate prior

to verification of clearance for all trades.

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- (1) WALL SWITCH, WALL OCCUPANCY SENSOR SWITCH, WALL BOX DIMMER SWITCH, OR ENTRY STATION
- (2) THERMOSTAT, TEMPERATURE SENSOR, OR CARBON DIOXIDE SENSOR ROUGH-IN
- (3) FIRE ALARM AUDIO/VISUAL INDICATING DEVICE
- (4) FIRE ALARM PULL STATION
- (5) ACCESS CONTROL CARD READER
- (7) A/V TOUCHSCREEN

6 EXIT SIGN

- 1. ALIGN DEVICES VERTICALLY AND HORIZONTALLY WHEREVER POSSIBLE. NOT ALL DEVICES OR CONFIGURATIONS ARE DEPICTED ON THIS DETAIL. FOR ANY CONFIGURATIONS WITH FOUR OR MORE DEVICES, COORDINATE ARRANGEMENT WITH THE ENGINEER PRIOR TO ROUGH-IN. SEE FLOOR PLANS FOR INDIVIDUAL DOOR REQUIREMENTS.
- 2. WHERE MULTIPLE SWITCHES OR WALL BOX DIMMERS ARE GANGED TOGETHER, ALIGN FIRST GANG WITH DEVICES ABOVE AND ADD DEVICES TO THE RIGHT AS REQUIRED.

3. DIMENSIONS ARE TO BE MEASURED FROM OUTSIDE EDGE OF DOOR FRAME OR TRIM. WHERE SIDE LIGHT WINDOWS

ARE PROVIDED, DIMENSIONS SHOULD BE MEASURED FROM OUTSIDE EDGE OF SIDE LIGHT WINDOW FRAME OR TRIM. 4. ALL DEVICES SHALL BE LOCATED TO MAINTAIN ALL A.D.A. MOUNTING HEIGHT REQUIREMENTS AND SUCH THAT CENTER OF ADJACENT DEVICES ARE AT SAME ELEVATION (TYPICALLY 44" A.F.F. TO CENTER OF DEVICE). NOTIFY

2 DEVICE ALIGNMENT DETAIL NOT TO SCALE

#### **ELECTRICAL NOTES**

- 1. MINIMUM BRANCH CIRCUIT CONDUIT SHALL BE 1/2". MINIMUM DATA/COMMUNICATIONS CONDUIT SHALL BE 1". SEE DRAWINGS FOR AREAS WHERE LARGER CONDUIT SIZES ARE REQUIRED.
- 2. PROVIDE A DEDICATED NEUTRAL CONDUCTOR AND GREEN INSULATED GROUND WIRE FOR EACH BRANCH CIRCUIT.
- 3. SEE DEVICE ALIGNMENT DETAIL FOR MOUNTING LOCATION AND HEIGHT OF ELECTRICAL DEVICES ADJACENT TO DOORS.
- 4. PROVIDE APPROPRIATELY RATED DEVICES OR ENCLOSURES AS REQUIRED TO MAINTAIN THE INTEGRITY OF FIRE AND SMOKE RATED CONSTRUCTION. ENSURE ALL PENETRATIONS THROUGH FIRE AND SMOKE BARRIERS ARE PROPERLY FIRESTOPPED. CONTRACTOR SHALL COORDINATE REQUIRED LOCATIONS AND RATINGS WITH ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS.
- 5. ALL LOW VOLTAGE CABLING THAT PENETRATES WALLS SHALL BE ROUTED THROUGH CONDUIT SLEEVES. PROVIDE SMOKE AND ACOUSTIC SLEEVES (HILTI CS-SL SA OR EQUAL BY STI), OR APPROPRIATELY RATED SLEEVE FOR ALL FIRE AND SMOKE RATED CONSTRUCTION. REFER TO PLANS FOR REQUIRED SLEEVE LOCATIONS AND PROVIDE ADDITIONAL SLEEVES AT CONTRACTOR'S DISCRETION AS REQUIRED TO ROUTE CABLING. LOCATE SLEEVES ABOVE ACCESSIBLE CEILINGS AND PROVIDE INSULATED BUSHINGS ON EACH END.
- 6. EXPOSED STRUCTURE: ROUTE CONDUIT TIGHT TO DECK IN SPACES WITHOUT CEILINGS OR PARTIALLY-OPEN CEILINGS. EXPOSED WIRING OR CABLING OF ANY TYPE IS NOT ALLOWED UNLESS NOTED OTHERWISE. CONDUIT SHALL BE ROUTED PARALLEL OR PERPENDICULAR TO STRUCTURE IN A NEAT AND WORKMANLIKE MANNER AND GROUPED WHERE POSSIBLE. PAINT EXPOSED CONDUIT AND BOXES TO MATCH STRUCTURE IN ALL FINISHED AREAS.
- 7. ALL CABLING AND RACEWAY INSTALLED IN EXPOSED OR CONCEALED LOCATIONS NEAR METAL CORRUGATED ROOF DECKING SHALL BE INSTALLED WITH THE REQUIRED CLEARANCE PER NEC SECTION 300.4(E).
- 8. CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE IN ALL NEW AND EXISTING WALLS. IF CONDUIT IS UNABLE TO BE CONCEALED IN EXISTING WALLS DUE TO STRUCTURAL LIMITATIONS, PROVIDE WIREMOLD SURFACE METAL RACEWAY AT NO ADDITIONAL COST TO THE OWNER. WIREMOLD 2400 SERIES SHALL BE USED FOR DATA CABLING. FOR LOCATIONS WITH BOTH POWER AND DATA CABLING, PROVIDE WIREMOLD 4000 SERIES WITH DIVIDERS INSTALLED FOR POWER, AV. AND TELECOMMUNICATIONS CABLING. COORDINATE ROUTING OF EXPOSED RACEWAYS IN FINISHED AREAS WITH ARCHITECT PRIOR TO INSTALLATION.
- 9. PROVIDE TYPED AS-BUILT DIRECTORY FOR ALL ELECTRICAL PANELS, LIGHTING CONTROL PANELS, AND FIRE ALARM SYSTEM AT COMPLETION OF PROJECT. UPDATE ALL EXISTING PANELBOARD DIRECTORIES IMPACTED BY ELECTRICAL WORK. DIRECTORY LABELS SHALL INCLUDE A DESCRIPTION OF THE LOAD AS WELL AS THE OWNER'S ROOM NAME AND NUMBER.

- 1. COMPLETE EXTENT OF DEMOLITION IS NOT INDICATED ON THE ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL VISIT THE SITE AND SHALL BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BID DATE.
- 2. DEMOLITION DRAWINGS INDICATE LUMINAIRES, DEVICES AND MAJOR PIECES OF EQUIPMENT WHICH ARE TO BE REMOVED OR RECONNECTED (INDICATED DASHED). REMOVE ASSOCIATED ITEMS NOT INDICATED BUT WHICH MUST BE REMOVED TO ACCOMMODATE REMODELING. SEE PROJECT MANUAL "WORK IN EXISTING BUILDINGS" FOR ADDITIONAL INFORMATION.
- 3. SUBSCRIPT 'E' INDICATES AN EXISTING LUMINAIRE OR DEVICE TO REMAIN. PROVIDE ADDITIONAL CONDUIT AND WIRING TO MAINTAIN CIRCUIT CONTINUITY FOR DOWNSTREAM DEVICES/LUMINAIRES.
- 4. SUBSCRIPT 'R' INDICATES AN EXISTING LUMINAIRE OR DEVICE TO BE RELOCATED. REMOVE EXISTING LUMINAIRE OR DEVICE, PROTECT, AND STORE FOR RE-INSTALLATION. SEE NEW WORK PLANS FOR NEW LOCATION AND RECONNECT AS INDICATED.
- ITEMS AND WHERE EXISTING WALLS ARE TO BE REMOVED. DISCONNECT AND REMOVE ELECTRICAL DEVICES, EQUIPMENT AND ASSOCIATED WIRING AS REQUIRED TO ACCOMMODATE CONSTRUCTION.

5. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL ELECTRICAL DEMOLITION

- 6. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ALL ELECTRICAL ITEMS. CONTRACTOR SHALL COORDINATE REQUIREMENTS WITH OWNER AND DISPOSE OF UNWANTED ITEMS.
- 7. WHERE EXISTING CIRCUITS ARE NOT REUSED, REMOVE CONDUCTORS AND ASSOCIATED RACEWAYS BACK TO THEIR SOURCE. CONDUITS CONCEALED IN WALLS MAY BE ABANDONED UNLESS NOTED
- REPLACEMENT OF ALL EXISTING WALLS, CEILING, FLOORS, OR OTHER BUILDING ELEMENTS WHICH ARE DISTURBED AS PART OF THE DEMOLITION OR INSTALLATION OF NEW ELECTRICAL WORK.

8. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING, AND

- 9. POWER TO EXISTING AREAS NOT BEING REMODELED SHALL BE MAINTAINED EXCEPT FOR SHORT TERM OUTAGES NECESSARY TO RECONNECT EXISTING CIRCUITS. COORDINATE REQUIRED OUTAGES WITH THE OWNER TO ACCOMMODATE THEIR SCHEDULE.
- 10. THIS PROJECT WILL BE PHASED. SEE PROJECT MANUAL AND ARCHITECTURAL DRAWINGS FOR DETAILS, ELECTRICAL CIRCUITS SERVING AREAS NOT UNDER CONSTRUCTION SHALL REMAIN ACTIVE UNTIL THOSE AREAS ARE TURNED OVER TO THE CONTRACTOR. PROVIDE TEMPORARY POWER AS REQUIRED FOR OTHER TRADES TO PROCEED WITH CONSTRUCTION AND AS REQUIRED FOR THE OWNER TO OCCUPY THE SPACE.

PRIOR TO ROUGH-IN.

ENGINEER OF ANY CONFLICTS WITH THE PROPOSED INSTALLATION.

- 1. ELECTRICAL CONTRACTOR SHALL PROVIDE ROUGH-IN FOR ALL THERMOSTATS AND SENSORS. ROUGH-IN TO INCLUDE 4" SQUARE BOX, SINGLE GANG MUD RING, AND 1/2" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING. LOCATE BOX PER DEVICE ALIGNMENT DETAIL. REFER TO MECHANICAL DRAWINGS FOR THERMOSTAT AND/OR SENSOR LOCATIONS.
- 2. PROVIDE TAMPER RESISTANT RECEPTACLES PER NEC 406.12. TAMPER RESISTANT RECEPTACLE LOCATIONS ARE NOT INDICATED ON THE DRAWINGS.
- 3. PROVIDE CONVENIENCE RECEPTACLES AT EQUIPMENT REQUIRING SERVICING PER 2017 NEC 210.63. 4. REFER TO ACCESS CONTROL DETAIL FOR DOOR HARDWARE ROUGH-IN REQUIREMENTS. COORDINATE WITH ARCHITECTURAL DOOR HARDWARE SCHEDULE AND EQUIPMENT SUPPLIER
- 5. COORDINATE ALL FLOOR BOX LOCATIONS WITH ARCHITECT AND FURNITURE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
- 6. COORDINATE MOUNTING HEIGHT AND EXACT LOCATION OF DEVICES FOR ALL TELEVISIONS WITH ARCHITECT PRIOR TO ROUGH-IN.

- 1. MINIMUM WIRE SIZE FOR EMERGENCY LIGHTING CIRCUITS SHALL BE #10 AWG UNLESS OTHERWISE NOTED. ROUTE EMERGENCY CIRCUITS IN SEPARATE CONDUIT.
- 2. PROVIDE SENSING CONNECTIONS AS REQUIRED FOR OPERATION OF ALL EMERGENCY LIGHTING DEVICES. FOR LUMINAIRES WITH INTEGRAL BATTERIES, CONNECT BATTERY LEADS TO GENERAL LIGHTING CIRCUIT SERVING AREA AHEAD OF ALL CONTROL DEVICES.
- 3. CONTRACTOR TO PROVIDE INITIAL AIMING USING INFORMATION CONTAINED IN DRAWINGS. FINAL AIMING OF ALL LIGHTS SHALL BE PERFORMED BY CONTRACTOR UNDER DIRECTION OF ENGINEER. AIMING SHALL OCCUR AFTER DARK - COORDINATE TIME AND DATE WITH ENGINEER GIVEN 2 WEEKS PRIOR NOTICE. CONTRACTOR SHALL PROVIDE EQUIPMENT REQUIRED TO ACCESS TO LUMINAIRES (LADDERS, LIFTS, ETC).

#### SPECIAL SYSTEMS:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SPECIAL SYSTEMS ROUGH-INS.

	ELE		L 5 Y	MBOLS
SYMBOL	DESCRIPTION		SYMBOL	DESCRIPTION
		LIGH	TING	
	LUMINAIRE		S	SINGLE POLE SWITCH
<u> </u>	LUMINAIRE  LUMINAIRE CONNECTED TO EMERGENCY CIRCUIT OR BATTERY		S <sub>3</sub>	3 - WAY SWITCH
<u>/////////////////////////////////////</u>	STRIP LUMINAIRE		<u></u> 54	4 - WAY SWITCH WALL BOX DIMMER SWITCH
			<b>♦</b>	CEILING MOUNTED MOTION SENSOR/SWITCH
	WALL MOUNTED LUMINAIRE	NUMBER OR LETTER	ЬÓ	WALL MOUNTED MOTION SENSOR/SWITCH
$\Theta$	WALL MOUNTED LUMINAIRE	DENOTES TYPE, SEE CORRESPONDING	⊢ <b>∳</b> ₀	WALL MOUNTED MOTION SENSOR/SWITCH WITH 0-10V DIMMING
$\Diamond$	TRACK LUMINAIRE  EMERGENCY BATTERY PACK	MARK	<u>:</u> ⊢⊛	LOW VOLTAGE LIGHTING CONTROL SWITCH  WALL MOUNTED PHOTOCELL
	CEILING MOUNTED EXIT LIGHT WITH DIRECTIONAL ARROW	IN LUMINAIRE SCHEDULE	®	CEILING MOUNTED PHOTOCELL
⊢⊗ļ	WALL OR END MOUNTED EXIT LIGHT WITH DIRECTIONAL ARROW	30.112.012	PP	POWER PACK
β ⊸O	POLE MOUNTED LUMINAIRE BOLLARD LUMINAIRE			
Ц	BOLLARD LUMINAIRE	EIDE /	ALARM	
•	FIRE ALARM SMOKE DETECTOR	FINE F	F.	FIRE ALARM HORN & STROBE COMBINATION
$\overline{}$	FIRE ALARM HEAT DETECTOR		E◀	FIRE ALARM MINI-HORN & STROBE COMBINATION
<del>-</del>	DUCT MOUNTED SMOKE DETECTOR		(F)	CEILING FIRE ALARM STROBE
F	FIRE ALARM MANUAL PULL STATION		HF.	WALL FIRE ALARM STROBE
₽¥ ₽	FIRE SPRINKLER VALVE TAMPER SWITCH FIRE SPRINKLER FLOW SWITCH		(A)	CEILING FIRE ALARM HORN & STROBE COMBINATION  CEILING FIRE ALARM SPEAKER & STROBE COMBINATION
FACP	FIRE ALARM CONTROL PANEL		HF)	WALL FIRE ALARM SPEAKER & STROBE COMBINATION
FAA	FIRE ALARM ANNUNCIATOR PANEL		(§) <sup>F</sup>	CEILING FIRE ALARM SPEAKER
H	FIRE ALARM MAGNETIC DOOR HOLDER		⊬®F	WALL FIRE ALARM SPEAKER
		DΟI	VER	
=	DUPLEX RECEPTACLE		VER ⊗	CEILING MOUNTED DOUBLE DUPLEX RECEPTACLE
<b>→</b> 6	"G" DENOTES GFCI TYPE		•••	FLOOR BOX - COMBINATION POWER & DATA
± D	"⊳" DENOTES ISOLATED GROUND TYPE		0	POKE-THRU - COMBINATION POWER & DATA
+	"H" DENOTES HOSPITAL GRADE TYPE			FLOOR MOUNTED DUPLEX RECEPTACLE
∓ TR → U	"TR" DENOTES TAMPER RESISTANT TYPE  "U" DENOTES UNIVERSAL SERIAL BUS (USB) TYPE		₩# □	MOTOR ("#" DENOTES HORSEPOWER RATING) DISCONNECT SWITCH
	DOUBLE SHADING DENOTES RED DEVICE		Ste	THERMAL ELEMENT SWITCH
<b>+</b>	SINGLE SHADING DENOTES SPLIT WIRED DEVICE		<b>■</b> N	SWITCH & FUSE
Ď	HORIZONTAL MOUNTED DUPLEX RECEPTACLE		□r\	SWITCH & FUSTAT
<u> </u>	CEILING MOUNTED DUPLEX RECEPTACLE  DOUBLE DUPLEX RECEPTACLE		⊠   ⊠	MAGNETIC MOTOR STARTER  COMBINATION MAGNETIC STARTER/DISCONNECT
<del></del>	SINGLE RECEPTACLE		<u>:</u>	MOTOR CONTROL PUSHBUTTON STATION
H	DRYER RECEPTACLE NEMA 14-30 (125/250V 30A)		R	RELAY
<u></u>	RANGE RECEPTACLE NEMA 14-50 (125/250V 50A)			MULTI-OUTLET ASSEMBLY - LENGTH AS INDICATED
₩ HD	"W" DENOTES WELDER RECEPTACLE NEMA 6-50 (250V 50A)  SPECIAL PURPOSE RECEPTACLE (NEMA CONFIG. AS NOTED)			
Ÿ	,	COMMUN	VICATION	
-	WALL PHONE OUTLET		(S)	INTERCOM CEILING SPEAKER
H	WALL COMMUNICATIONS DATA OUTLET		K§)	INTERCOM WALL SPEAKER
O	CEILING COMMUNICATIONS DATA OUTLET  CEILING WIRELESS ACCESS POINT OUTLET		HS	SOUND REINFORCEMENT WALL SPEAKER
■ WAP HTV	TELEVISION/VIDEO OUTLET		<u></u>	SOUND REINFORCEMENT CEILING SPEAKER WALL MICROPHONE OUTLET
<u> </u>	WALL CLOCK		₩	CEILING MICROPHONE OUTLET
V	VOLUME CONTROL		C	CALL-IN DEVICE
	BASKET CABLE TRAY  AV RACK OUTLET			LADDER CABLE TRAY
HAIR	AV RACK OUTLET	SECI	JRITY	
㈜	CEILING MOUNTED SECURITY MOTION DETECTOR	3500		VIDEO SURVEILLANCE CAMERA (# INDICATES TYPE)
<u>▼</u>	WALL MOUNTED SECURITY MOTION DETECTOR		CR #	SECURITY CARD READER
H <b>∑</b> RTE	WALL MOUNTED REQUEST TO EXIT MOTION SENSOR		ES	ELECTRIC STRIKE
	DOOR POSITION SWITCH		EL	ELECTRONIC LATCH RETRACTION
M	MAGNETIC LOCK		KP	INTRUSION KEYPAD
IC.	INTERCOM STATION		WG	
IC	INTERCOM STATION		WG	WANDER GUARD
ic		GEN	ERAL	WANDER GUARD
	LIGHTING PANEL		ERAL +①	WANDER GUARD  WALL MOUNTED JUNCTION BOX
		TER	ERAL	WANDER GUARD
	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENTED ON CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED ON BRANCH CIRCUIT - EXPOSED	TER	ERAL ⊢① ①	WALL MOUNTED JUNCTION BOX JUNCTION BOX CONDUIT SEAL CIRCUIT DOWN
	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENTED OF CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL	TER	ERAL  O  o	WALL MOUNTED JUNCTION BOX JUNCTION BOX CONDUIT SEAL CIRCUIT DOWN CIRCUIT UP
	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENTED OF CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL  BRANCH CIRCUIT CONCEALED IN FLOOR	TER	ERAL  D  O	WANDER GUARD  WALL MOUNTED JUNCTION BOX  JUNCTION BOX  CONDUIT SEAL  CIRCUIT DOWN  CIRCUIT UP  CONDUIT STUB-OUT
	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENTED OF CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL	TER N PLANS	ERAL  O  o	WALL MOUNTED JUNCTION BOX JUNCTION BOX CONDUIT SEAL CIRCUIT DOWN CIRCUIT UP
	LIGHTING PANEL DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENT CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED BRANCH CIRCUIT CONCEALED IN CEILING OR WALL BRANCH CIRCUIT CONCEALED IN FLOOR BRANCH CIRCUIT - CLASS TWO WIRING	TER N PLANS	ERAL  O  O  O  O  O  O  O  O  O  O  O  O  O	WANDER GUARD  WALL MOUNTED JUNCTION BOX  JUNCTION BOX  CONDUIT SEAL  CIRCUIT DOWN  CIRCUIT UP  CONDUIT STUB-OUT  CIRCUIT BREAK  BELL  PUSH BUTTON
	LIGHTING PANEL DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CEN' CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED BRANCH CIRCUIT CONCEALED IN CEILING OR WALL BRANCH CIRCUIT CONCEALED IN FLOOR BRANCH CIRCUIT - CLASS TWO WIRING HOMERUN TO PANEL (QUANTITY OF ARROWS INDICATES QUANT SPECIAL PURPOSE HOMERUN AS INDICATED CONDUIT / CONDUIT SLEEVE (SIZE INDICATED ON PLANS)	TER N PLANS  TTY OF CIRCUITS)	ERAL  O  N  N  D  D  D	WANDER GUARD  WALL MOUNTED JUNCTION BOX  JUNCTION BOX  CONDUIT SEAL  CIRCUIT DOWN  CIRCUIT UP  CONDUIT STUB-OUT  CIRCUIT BREAK  BELL  PUSH BUTTON  BUZZER
	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENT CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL  BRANCH CIRCUIT CONCEALED IN FLOOR BRANCH CIRCUIT - CLASS TWO WIRING HOMERUN TO PANEL (QUANTITY OF ARROWS INDICATES QUANT SPECIAL PURPOSE HOMERUN AS INDICATED  CONDUIT / CONDUIT SLEEVE (SIZE INDICATED ON PLANS)  SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHER	TER N PLANS  TTY OF CIRCUITS)	ERAL  O  O  N  O  O  O  O  O  O  O  O  O  O	WANDER GUARD  WALL MOUNTED JUNCTION BOX  JUNCTION BOX  CONDUIT SEAL  CIRCUIT DOWN  CIRCUIT UP  CONDUIT STUB-OUT  CIRCUIT BREAK  BELL  PUSH BUTTON  BUZZER  THERMOSTAT
WP WP	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CEN' CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED ON BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL BRANCH CIRCUIT CONCEALED IN FLOOR  BRANCH CIRCUIT - CLASS TWO WIRING  HOMERUN TO PANEL (QUANTITY OF ARROWS INDICATES QUANT SPECIAL PURPOSE HOMERUN AS INDICATED  CONDUIT / CONDUIT SLEEVE (SIZE INDICATED ON PLANS)  SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHER NEMA TYPE 3R OR EQUIVALENT	TER N PLANS  TTY OF CIRCUITS)	ERAL  O  N  N  D  D  D	WANDER GUARD  WALL MOUNTED JUNCTION BOX  JUNCTION BOX  CONDUIT SEAL  CIRCUIT DOWN  CIRCUIT UP  CONDUIT STUB-OUT  CIRCUIT BREAK  BELL  PUSH BUTTON  BUZZER
	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENT CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL  BRANCH CIRCUIT CONCEALED IN FLOOR BRANCH CIRCUIT - CLASS TWO WIRING HOMERUN TO PANEL (QUANTITY OF ARROWS INDICATES QUANT SPECIAL PURPOSE HOMERUN AS INDICATED  CONDUIT / CONDUIT SLEEVE (SIZE INDICATED ON PLANS)  SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHER	TER N PLANS  TTY OF CIRCUITS)	ERAL  O  O  N  O  S  S  S	WALL MOUNTED JUNCTION BOX JUNCTION BOX CONDUIT SEAL CIRCUIT DOWN CIRCUIT UP CONDUIT STUB-OUT CIRCUIT BREAK BELL PUSH BUTTON BUZZER THERMOSTAT SENSOR
WP WP	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENT CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OR BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL BRANCH CIRCUIT CONCEALED IN FLOOR BRANCH CIRCUIT - CLASS TWO WIRING HOMERUN TO PANEL (QUANTITY OF ARROWS INDICATES QUANT SPECIAL PURPOSE HOMERUN AS INDICATED CONDUIT / CONDUIT SLEEVE (SIZE INDICATED ON PLANS) SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHER NEMA TYPE 3R OR EQUIVALENT SUBSCRIPT "3R" OR "RT" APPLIED TO ANY SYMBOL INDICATES WEATHERPROOF NEMA TYPE 3R OR EQUIVALENT SUBSCRIPT "PD" ADDED TO ANY FLOOR OUTLET INDICATES PEDE	TER N PLANS  ITY OF CIRCUITS)	ERAL  O  S  E  R  (TYP)	WANDER GUARD  WALL MOUNTED JUNCTION BOX  JUNCTION BOX  CONDUIT SEAL  CIRCUIT DOWN  CIRCUIT DOWN  CIRCUIT BREAK  BELL  PUSH BUTTON  BUZZER  THERMOSTAT  SENSOR  SUBSCRIPT "E" ADDED TO ANY SYMBOL INDICATES EXISTING  SUBSCRIPT "R" ADDED TO ANY SYMBOL INDICATES RELOCATED  WHERE (TYP) IS USED ON PLANS INDICATES A TYPICAL NOTE OR CONDITION
WP 3R OR RT	LIGHTING PANEL  DISTRIBUTION PANEL SWITCHBOARD OR MOTOR CONTROL CENT CABINET, ENCLOSURE, OR CONTROL PANEL, TYPE INDICATED OF BRANCH CIRCUIT - EXPOSED  BRANCH CIRCUIT CONCEALED IN CEILING OR WALL BRANCH CIRCUIT CONCEALED IN FLOOR BRANCH CIRCUIT - CLASS TWO WIRING HOMERUN TO PANEL (QUANTITY OF ARROWS INDICATES QUANT SPECIAL PURPOSE HOMERUN AS INDICATED  CONDUIT / CONDUIT SLEEVE (SIZE INDICATED ON PLANS)  SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHER NEMA TYPE 3R OR EQUIVALENT  SUBSCRIPT "3R" OR "RT" APPLIED TO ANY SYMBOL INDICATES WEATHERPROOF NEMA TYPE 3R OR EQUIVALENT	TER N PLANS  TTY OF CIRCUITS)  PROOF	ERAL  O  N  N  R  R  R	WALL MOUNTED JUNCTION BOX JUNCTION BOX CONDUIT SEAL CIRCUIT DOWN CIRCUIT UP CONDUIT STUB-OUT CIRCUIT BREAK BELL PUSH BUTTON BUZZER THERMOSTAT SENSOR SUBSCRIPT "E" ADDED TO ANY SYMBOL INDICATES EXISTING SUBSCRIPT "R" ADDED TO ANY SYMBOL INDICATES RELOCATED

	ENERGY CODE COMPLIANCE	
CODE	2018 INTERNATIONAL ENERGY CONSERVATION CODE	
ComCHECK	NO	(1)
COMMISSIONING	NO	(2) (3) (4)

- ComCHECK IS NOT REQUIRED.
- 2. COMMISSIONING IS NOT REQUIRED BECAUSE EQUIPMENT WITHIN THE SCOPE OF WORKS MEETS THE CAPACITY EXCEPTIONS IN THE CODE.
- 3. REQUIRED DOCUMENTS (REFER TO CODE) SHALL BE PROVIDED TO THE BUILDING OWNER OR OWNER REPRESENTATIVE WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.
- 4. SEE RESPECTIVE SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.

No.	Description	Date

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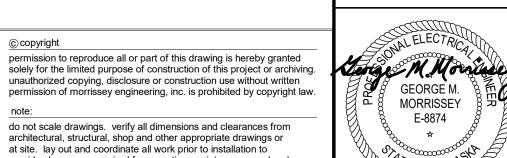
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ELECTRICAL COVER

#### **A**rchitects

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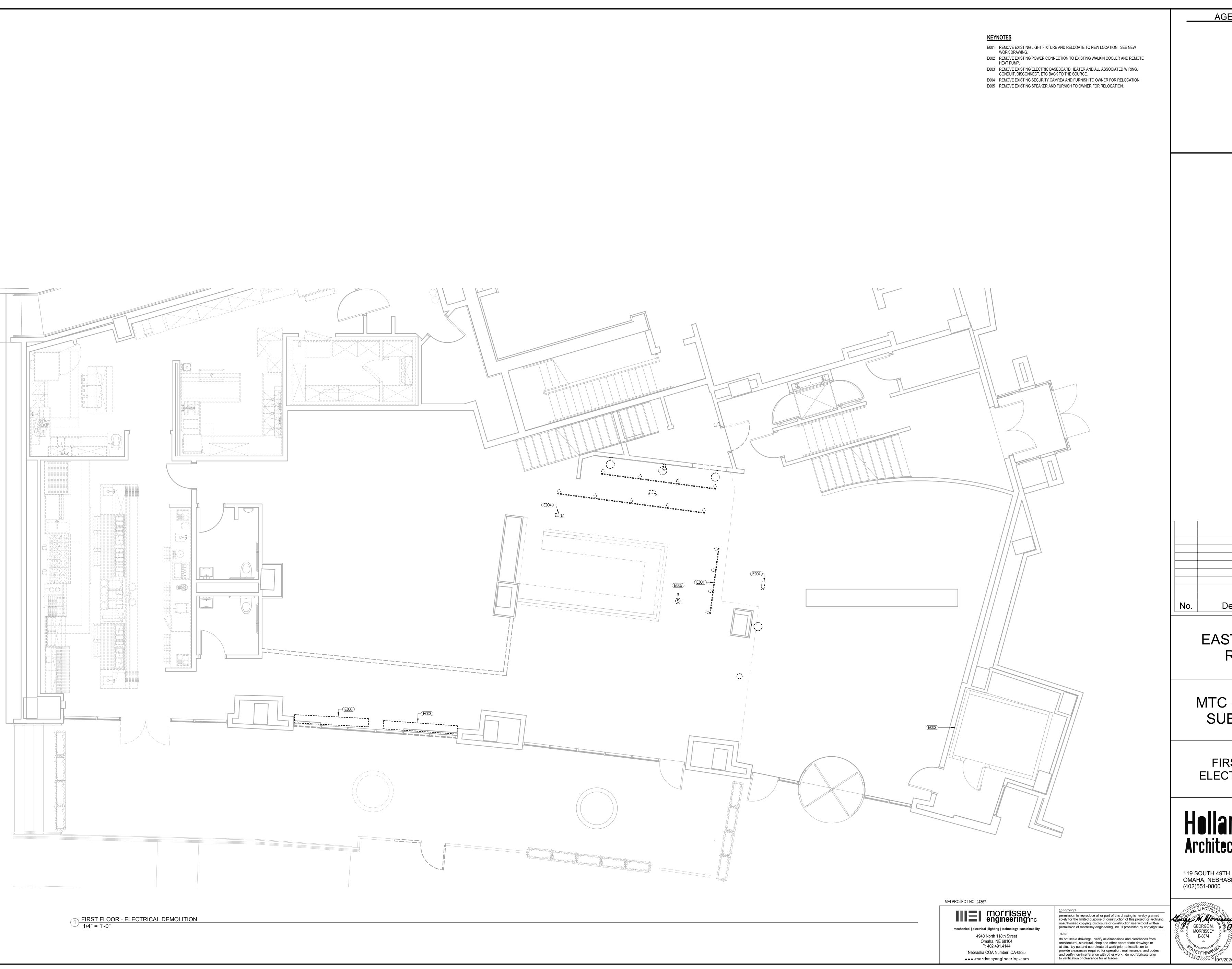
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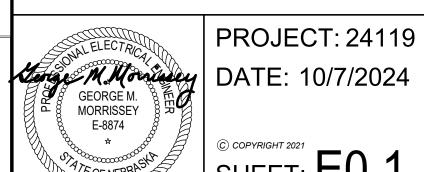
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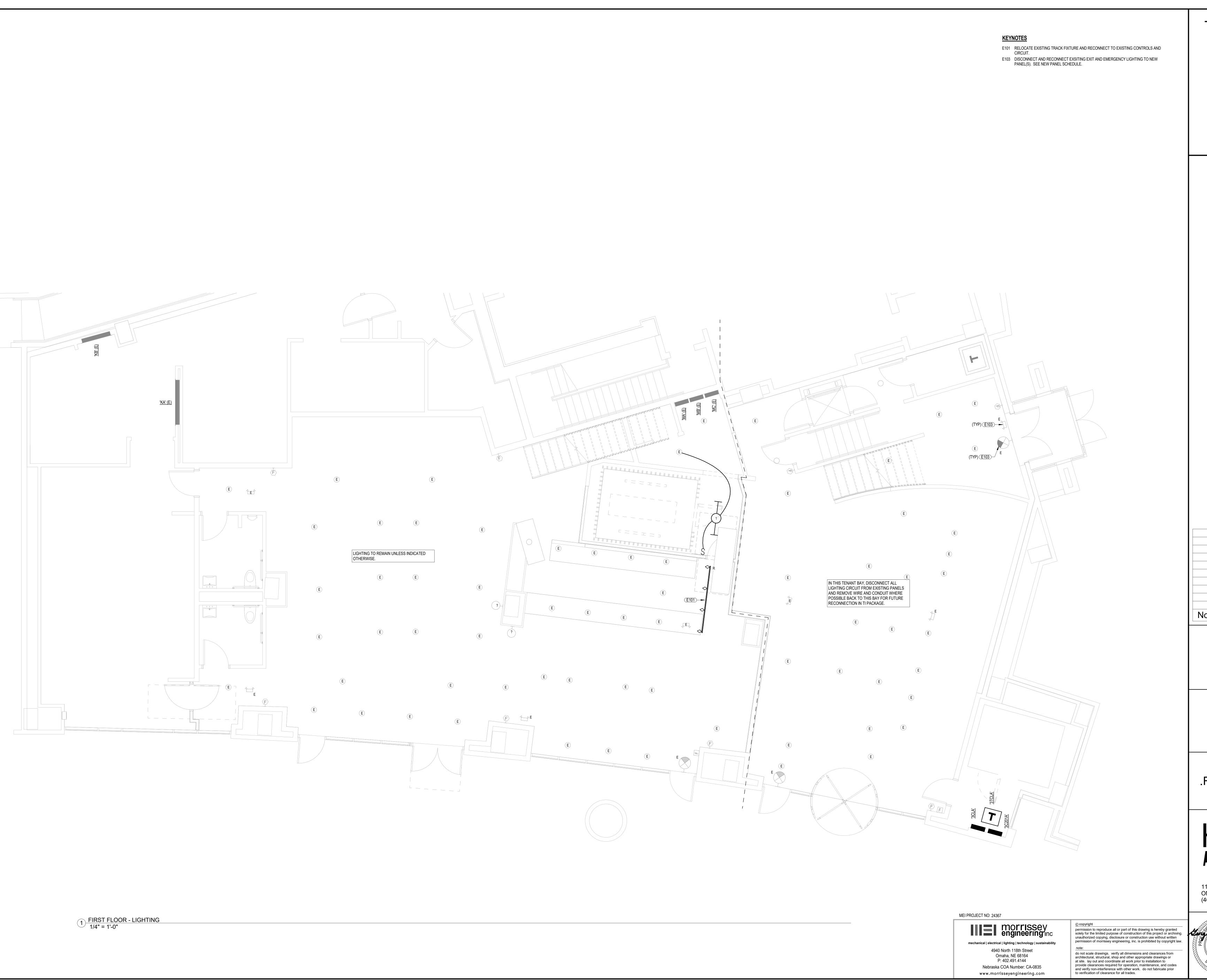
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FIRST FLOOR -ELECTRICAL DEMO

# Holland Basham

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Description

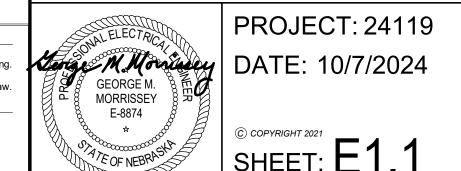
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.FIRST FLOOR - LIGHTING

# Holland Basham

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Description

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FRIST FLOOR - POWER

#### Holland Basham **A**rchitects

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DRY-TYPE TRANSFORMER SCHEDULE  VOLTAGE GROUNDING											
			VOL1	TAGE		GROUNDING					
MARK	TRANSFORMER TYPE	kVA	PRIMARY	SECONDARY	MOUNTING	ELECTRODE	REMARKS				
3TCLA	GENERAL PURPOSE	45 KVA	480 V	208Y/120V	SUSPENDED	#6-1/2"C.	SEE MOUNTING DETAIL 1/E4.1				

Panel: 3C201A Voltage: 480/277 Rating: 200 A Phase: 3 Mounting: SURFACE Wire: 4 Type: MLO W/FEED THRU LUGS AND GND. BAR A.I.C. Rating: 18000 Integral SPD: NO													
Circuit Description	ОРТ	R	Р	СКТ	Α	В	С	СКТ	Р	R	ОРТ	Circuit Description	
AHU-5		70	3	1 3 5				2 4 6	3	125		3TCLA	
HP-5		30	3	7 9				8	1	20		SPARE SPARE	
SPARE		20	1	11 13				12 14	1	20		SPARE SPARE	
SPARE		20	1	15				16	1	20		SPARE	
SPARE		20	1	17				18	1	20		SPARE	
SPARE		20	1	19				20	1	20		SPARE	
SPARE		20	1	21				22	1	20		SPARE	
SPARE		20	1	23				24	1	20		SPARE	
SPARE		20	1	_				26	1	20		SPARE	
SPARE		20	1	27				28	1	20		SPARE	
SPACE			1	29				30	1			SPACE	
SPACE			1	31				32	1			SPACE	
SPACE			1	33				34	1			SPACE	
SPACE			1	35				36	1			SPACE	
SPACE			1	37				38	1			SPACE	
SPACE			1	39				40	1			SPACE	
			Ė	41				42	1			SPACE	

Panel: 3CLA Voltage: 120/208 Rating: 225 A Phase: 3 Mounting: SURFACE Wire: 4														
<b>_</b> .										Wire:				
Integral SPD: NO														
ОРТ		Р		A	В	С		Р	R	ОРТ				
	20	1					2	1	20		REC - PHONEBOARD			
T	20	2								L	EXIT LIGHTS			
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						A/C SUPPLY OR ETURN DIFFUSER			PER NFPA 72 2013 A.298.3.3 AND FIGURE A.29.8.3.3 NO RESTRICTION FROM THE CORNER TO THE CLOSEST SMOKE DETECTOR
CEILING			4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4	4 4 4 4		3' MIN -	CEILING MOUNTED SMOKE/HEAT DETECTOR (TYP)	NOTE: MEASUREMENTS SHOARE TO THE CLOSEST EDGE DETECTOR.
	THE VISI	ILING HEIGHTS LESS THAN 86" UAL LENS MOUNTING HEIGHT BE WITHIN 6" OF THE CEILING. ——		AUDIBLE ONLY	NFPA 72 AUDIBLE APPLIANCE 6" MIN BELOW FINISHED CEILING	<b>▼</b> TO EX	TIT DOOR 5' MAX	MINUS 3" HERE —	12
ANNUNCIATOR PRODUCTION AND ANNUNCIATOR STATE OF THE PRODUCTION AND AND AND AND AND AND AND AND AND AN	80" MIN 96" — 96" MAX	AUDIBLE/VISUAL & VISUAL ONLY APPLIANCES SYNCHRONIZE MORE THAN TWO APPLIANCES IN ANY FIELD OF VIEW	80" MIN (ADA) 80" MIN (NFPA) TO BOTTOM OF LENS	TO TOP OF LENS	— 90" MIN ABOVE FINISHED FLOOR (OTHER MOUNTING HEIGHTS SHALL BE PERMITTED BY THE AHJ PROVIDING IT MEETS THE SOUND LEVEL OUTPUT REQUIRED.)		MAGNETIC DOOR HOLDER  ALARM STATION	HERE E COMPL 72 2013	/HEAT FORS NOT XCEPT IF IANT TO NFPA OR LATER  WALL MOUNTED SMOKE/HEAT DETECTOR  FINISHED WALL
INISHED LOOR ▼ ▼	<b>V</b>		ļ	<b>↓</b>	<b>↓</b>	<b>∠</b> ⊢			

				LUMIN	IAIRE SCHE	DULE						
				LIGHT SOURCE			ELECT	RICAL			ACCEPTABLE	
MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	SPEC.	CCT	TYPE	LOAD	VOLTS	FINISH	MOUNTING	MANUFACTURERS	<b>REMARKS</b>
1	4' LED STRIPLIGHT			5,000 LM	3500 K	LED	41 W	120 V	WHITE	SURFACE/CEILING	NOTE 1	

#### **GENERAL REQUIREMENTS:**

A. CONTRACTOR SHALL VERIFY CATALOG NUMBERS AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING. NOTIFY ENGINEER OF ANY CONFLICTS WITH PROPOSED INSTALLATION.

B. CONTRACTOR SHALL COORDINATE CEILING TRIM OPTIONS FOR LUMINAIRES INSTALLED IN GRID-TYPE SUSPENDED CEILINGS. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

C. UNLESS NOTED OTHERWISE REFER TO PLANS FOR SUSPENSION LENGTHS REQUIRED FOR ALL SUSPENDED LUMINAIRES.

D. PROVIDE EQUAL SECTION LENGTHS FOR LUMINAIRES COMPRISED OF MULTIPLE SECTIONS. SUBMIT SHOP DRAWINGS OF PROPOSED CONFIGURATIONS FOR REVIEW.

#### **LUMINAIRE SCHEDULE NOTES:**

- DOUBLE DUPLEX RECEPTACLE

- 12"L x 2"W x 1/4" TIN PLATED

GROUND BAR KIT PANDUIT #GB2B0306TPI-1 OR

PROVIDE #6 COPPER IN 3/4" PVC CONDUIT TO GROUND BAR IN ELECTRICAL ROOM

> — 2'W, 8'H x 3/4"D AC PLYWOOD PAINTED WITH 2 COATS OF WHITE FIRE RETARDANT PAINT

> > 1ST FLOOR

APPROVED EQUAL

4 ELECTRICAL RISER DIAGRAM NOT TO SCALE

PROVIDE 2" CONDUIT

WITH PULLSTRING TO

TELECOMMBOARD.

3 COMMUNICATIONS BOARD DETAIL NOT TO SCALE

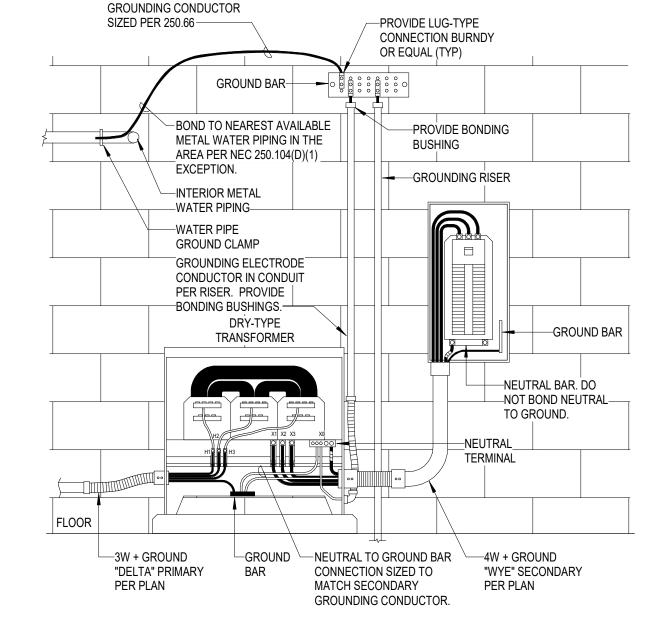
PHONE ROOM B104

1. LUMINAIRE SHALL BE CONSIDERED EQUAL AS MANUFACTURED BY: ACUITY BRANDS, COOPER, CURRENT, SIGNIFY, CREE LIGHTING.

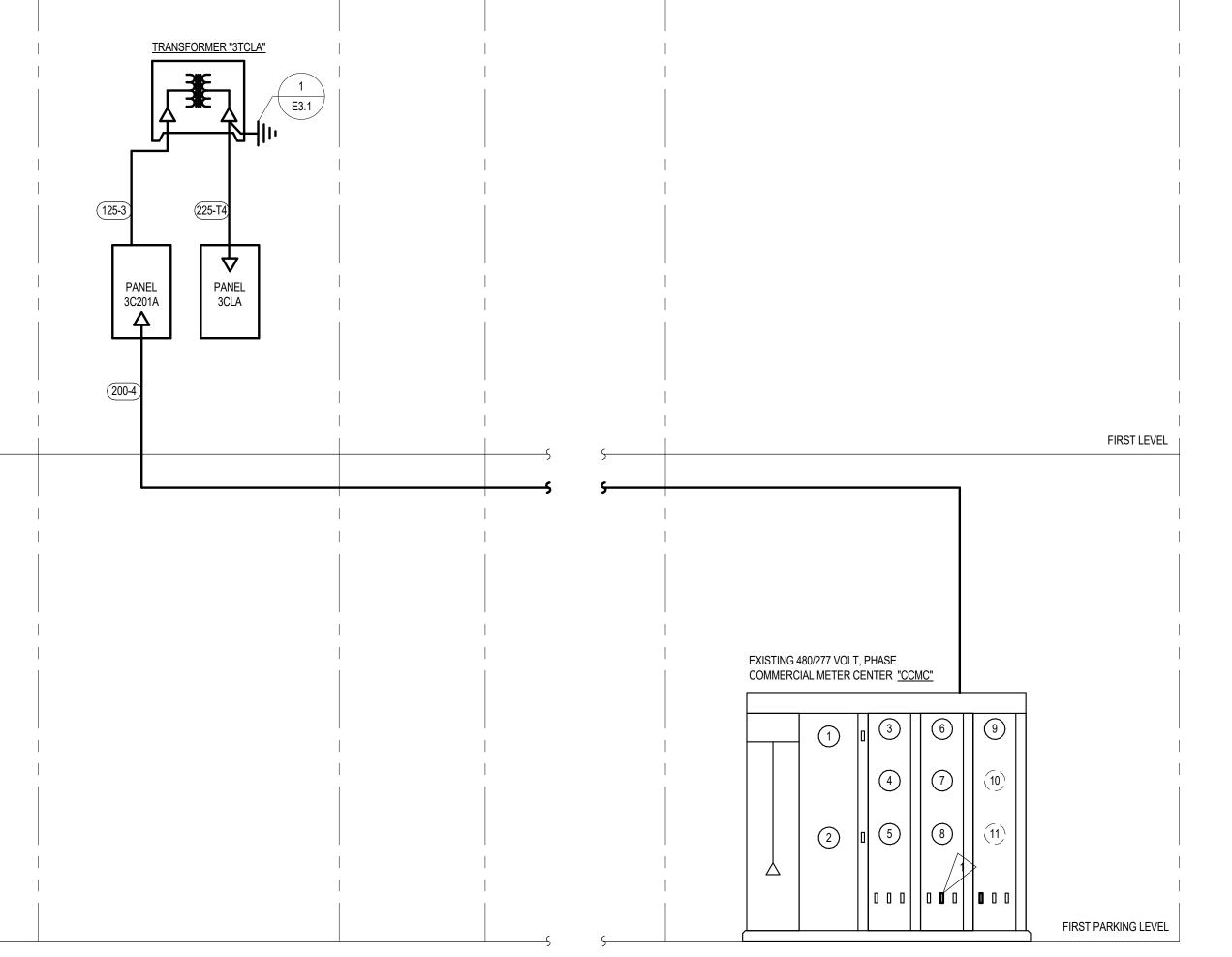
2. LUMINAIRE SHALL BE CONSIDERED EQUAL AS MANUFACTURED BY: GOTHAM, PORTFOLIO, PRESCOLITE, USAI, CSL LIGHTING, ATLANTIC LIGHTING.

3. LUMINAIRE SHALL BE CONSIDERED EQUAL AS MANUFACTURED BY: FOCAL POINT, LUMENWERX, AXIS, STARFIRE.

4. REFER TO PLANS FOR MOUNTING REQUIREMENTS SUCH AS WALL MOUNT, END MOUNT, CEILING MOUNT AND PROVIDE LUMINAIRES ACCORDINGLY. PROVIDE DIRECTIONAL CHEVRON ARROWS AS INDICATED ON PLANS.



NOTE: PHYSICAL LAYOUT SHOULD BE DETERMINED FROM FLOOR PLAN DRAWINGS AND FIELD DIMENSIONS. 1 DRY-TYPE TRANSFORMER GROUNDING DETAIL NOT TO SCALE



FEEDER SCHEDULE	
MARK	WIRE AND CONDUIT
125-3	3-#1, #6 G - 1-1/2"C.
200-4	4-#3/0, #6 G - 2-1/2"C.
225-4T)	4-#4/0, #2 G - 2-1/2"C.

AT CONTRACTOR'S OPTION, COMPACT ELECTRICAL GRADE ALUMINUM CONDUCTORS MAY BE USED FOR PANELBOARD FEEDERS 100 AMPS AND LARGER. IF ALUMINUM IS USED, CONTRACTOR TO SIZE ALUMINUM EQUAL TO FEEDER SCHEDULE (COPPER) AS INDICATED ENGINEER FOR REVIEW.

**FLAG NOTES** 

CONNECT NEW PANEL FEEDER TO EXISTING 200A BREAKER.

MEI PROJECT NO: 24367

morrissey engineering inc mechanical | electrical | lighting | technology | sustainability 4940 North 118th Street Omaha, NE 68164

P: 402.491.4144

Nebraska COA Number: CA-0835

www.morrisseyengineering.com

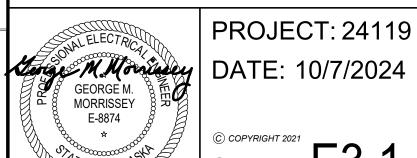
permission to reproduce all or part of this drawing is hereby granted solely for the limited purpose of construction of this project or archiving. unauthorized copying, disclosure or construction use without written permission of morrissey engineering, inc. is prohibited by copyright law do not scale drawings. verify all dimensions and clearances from architectural, structural, shop and other appropriate drawings or at site. lay out and coordinate all work prior to installation to

to verification of clearance for all trades.

E-8874 provide clearances required for operation, maintenance, and codes and verify non-interference with other work. do not fabricate prior

**A**rchitects 119 SOUTH 49TH AVENUE OMAHA, NEBRASKA 68132 (402)551-0800

AGENCY APPROVAL



PROJECT: 24119

Date

Description

EAST CAMPUS

REALTY

MTC SUITE 3107

SUBDIVISION

ELECTRICAL RISER,

**DETAILS AND** 

SCHEDULES

Holland Basham

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B. DEFINITIONS ABBREVIATIONS - The following shall apply throughout the contract documents:

Furnish Supply and deliver to site ready for installation

Indicated Noted, scheduled or specified

Provide Furnish, install and connect complete and ready for final use

NEC National Electric Code (NFPA 70)

NEMA National Electrical Manufacturers Association

NFPA National Fire Protection Association UL Underwriters Laboratories Inc.

C. CODES AND STANDARDS - All work shall be performed by competent craftsmen skilled in the trade involved and shall be done in a manner consistent with normal industry standards. All work shall conform to the currently adopted edition of the National Electric Code (NEC), Local Building Code, and all other applicable state and local codes or standards. Where there is a conflict between the code and the contract documents, the code shall have precedence only then it is more stringent than the contract documents.

D. PERMITS - Contractor shall become familiar and comply with all requirements regarding permits, fees, licenses, etc. All permits, licenses, inspections and arrangements required for the work shall be obtained by Contractor's effort and expense. All utilities shall be installed in accordance with the local rules and regulations and all charges shall be paid by the Contractor.

E. SUBMITTALS - Shop drawings shall be submitted to Architect/Engineer for the following items of electrical

Wiring devices

Enclosed controllers, switches, and circuit breakers

Panelboards

Dry type transformers Lighting fixtures

1. Shop drawings include fabrication and installation drawings, diagrams, schedules and other data specifically prepared for the project. Include dimensions and notations showing compliance with specified standards. Unless otherwise noted, submit a PDF copy of shop drawings for review.

2. Architect/Engineer will review or take appropriate action for submittals. Review is only to determine general conformance with design shown in contract documents. Review of submittals shall not relieve contractor of responsibility for deviation from requirements of the contract documents or from errors or omissions within submittals.

F. MATERIALS - All materials and equipment used in the construction of the project shall be new unused and undamaged unless otherwise specified. Materials and equipment shall be of latest design standards of manufacturer specified. Verify installation details and requirements for materials and equipment furnished by others and installed under this contract.

G. DEMONSTRATION AND TRAINING - Instruct Owner's personnel to adjust, operate, and maintain electrical systems. Schedule training with Owner with at least seven days' advance notice.

H. STARTING AND ADJUSTING - Start and test all equipment and operating components to confirm proper operation. Test and adjust all systems to achieve designed capacity and performance. All equipment and systems discrepancies shall be corrected prior to final acceptance.

I. TEMPORARY POWER AND LIGHTING - Use electric power from Owner's existing system without metering and without payment of use charges.

1. Provide receptacle outlets adequate for connection of power tools and construction equipment. 2. Provide temporary lighting with local switching that provides adequate illumination for construction operations and traffic conditions.

SECTION 260500 - BASIC ELECTRICAL MATERIALS AND METHODS

A. QUALITY ASSURANCE - Electrical Components, Devices, and Accessories shall be listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. COORDINATION - Coordinate chases, slots, inserts, sleeves, and openings with general construction work and arrange in building structure during progress of construction to facilitate the electrical installations that follow. Sequence, coordinate, and integrate installing electrical materials and equipment for efficient flow of the work. Coordinate installing large equipment requiring positioning before closing in the building.

1. Coordinate installation and connection of exterior underground and overhead utilities and services, including provision for electricity-metering components. Comply with requirements of authorities having jurisdiction and of utility company providing electrical power and other services.

C. CONDUCTORS - All conductors shall be installed in raceways. Conductors for pilot and control circuits shall be #14. All other conductors shall be #12 or larger.

1. Conductors, No. 10 AWG and Smaller: Solid or stranded copper. 2. Conductors, Larger Than No. 10 AWG: Stranded copper.

3. Insulation: Thermoplastic, rated at 75 deg C minimum. 4. Wire Connectors and Splices: Units of size, ampacity rating, material, type, and class suitable for

D. RACEWAYS - Minimum raceway size shall be ½". Raceway types and applications shall be as follows: 1. Electrical metallic tubing (EMT): ANSI C80.3, zinc-coated steel, with set-screw or compression fittings.

EMT shall be used for all other applications not listed below. 2. Liquid tight flexible metal conduit (LFMC): Zinc-coated steel with sunlight-resistant and mineral-oilresistant plastic jacket. LFMC shall be used for connections to vibrating equipment or in wet or damp

3. Rigid non-metallic conduit (RNC): NEMA TC 2, Schedule 40 PVC, with NEMA TC3 fittings. RNC shall be used for all underground applications. 4. Raceway Fittings: Specifically designed for the raceway type with which used.

E. JUNCTION AND DEVICE BOXES - Minimum box size shall be 4" square with extension or plaster ring as

required. Box types and applications shall be as follows

for exterior surface mounted applications.

1. Sheet metal boxes: NEMA OS 1 galvanized steel. Sheet metal boxes shall be used for all surface mounted applications and flush mounting in gypsum or plaster walls. 2. Masonry boxes: square cornered suitable for flush mounting in masonry construction. 3. Cast metal boxes: NEMA FB 1, Type FD, cast box with gasketed cover. Cast metal boxes shall be used

F. ELECTRICAL IDENTIFICATION - All conductors shall be color coded throughout the installation. Color coding shall be as prescribed by ANSI A13.1 and NFPA 70.

1. Provide underground warning tape for all buried conductors tape shall be permanent, bright-colored, continuous-printed, vinyl tape not less than 6 inches wide by 4 mils thick with embedded continuous metallic strip and shall be compounded for permanent direct-burial service. 2. Provide engraved-plastic labels for all disconnect switches, switchboards, panelboards, transformers, and control devices. Labels shall be melamine plastic laminate engraving stock with 3/8" engraved

G. FIRESTOPPING - Apply firestopping to cable and raceway penetrations of fire-rated floor and wall assemblies to achieve fire-resistance rating of the assembly.

lettering and shall be punched or drilled for mechanical fasteners.

materials and other surfaces by skilled mechanics of trades involved.

H. DEMOLITION - Protect existing electrical equipment and installations indicated to remain. If damaged or disturbed in the course of the Work, remove damaged portions and install new products of equal capacity,

1. Remove exposed electrical equipment and installations, indicated to be demolished, in their entirety. 2. Cut and remove buried raceway and wiring, indicated to be abandoned in place, 2 inches below the surface of adjacent construction. Cap raceways and patch surface to match existing finish.

3. Remove demolished material from Project site. 4. Remove, store, clean, reinstall, reconnect, and make operational components indicated for relocation. 5. Existing utilities shall not be interrupted without prior written approval from the owner. All interruptions shall occur during off hours. Off hours are Monday - Friday 6:00 PM until 6:00 AM and all day

I. CUTTING AND PATCHING - Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other

surfaces required to permit electrical installations. Perform cutting by skilled mechanics of trades involved 1. Repair and refinish disturbed finish materials and other surfaces to match adjacent undisturbed surfaces. Install new fireproofing where existing firestopping has been disturbed. Repair and refinish

SECTION 262200 - DRY TYPE TRANSFORMERS

A. GENERAL-PURPOSE DISTRIBUTION AND POWER TRANSFORMERS - Transformers shall comply with NEMA ST 20 and list and label as complying with UL 1561. Transformers shall be in an indoor ventilated

1. Transformers 15 kVA or smaller shall have an insulation class of 185 or 220 deg C. Transformers larger

than 15 kVA shall have an insulation class of 220 deg C. 2. Transformer rated temperature rise shall be 115 deg C maximum rise above 40 deg C. 3. Transformer windings shall be copper or aluminum and consist of one coil per phase in primary and secondary. Winding connections shall be suitable for 75 deg C conductors.

4. Make transformer grounding connections to grounding electrodes and bonding connections to metallic piping as indicated on the drawings and to comply with NFPA 70. 5. Transformers shall be manufactured by Acme, Cutler-Hammer, General Electric, Siemens, or Square D.

SECTION 262416 - PANELBOARDS

A. GENERAL - Panelboard cabinets shall be NEMA PB 1, type 1 zinc coated steel with manufacturer's standard enamel finish over corrosion-resistant treatment or primer coat. Each panelboard shall be furnished with a directory card indicating the load served by each branch circuit.

1. Panelboard bus material shall be hard-drawn copper, 98 percent conductivity [Tin-plated aluminum]. 2. Provide each panelboard with an equipment ground bus adequate for feeder and branch-circuit

equipment ground conductors. Bus shall be bonded to box. 3. Where future devices (spaces) are scheduled provide mounting brackets, bus connections, and necessary appurtenances required for future installation of devices.

4. Each panelboard shall be fully rated to interrupt symmetrical short-circuit current available at terminals. See schedules for required interrupting current (A.I.C.). 5. Panelboards shall be mounted with top of trim at 74" above finished floor, unless otherwise indicated.

6. Panelboards shall be mounted plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish. 7. Panelboards shall be manufactured by Cutler-Hammer, General Electric, Siemens, or Square D.

B. [LOAD CENTERS

D. DISTRIBUTION PANELBOARDS

1. Overcurrent Protective Devices: Plug-in, full-module circuit breaker. 2. Conductor Connections: Mechanical type for main, neutral, and ground lugs and buses.]

C. LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

1. Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units. 2. Doors: Front mounted with concealed hinges; secured with flush latch with tumbler lock; keyed alike.

1. Overcurrent Protective Devices: Bolt-on circuit breakers. 2. Doors: Front mounted secured with vault-type latch with tumbler lock; keyed alike.

E. OVERCURRENT PROTECTIVE DEVICES - Thermal-magnetic circuit breakers with inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger. Circuit breaker lugs shall be mechanical style, suitable for number, size, trip ratings, and material of conductors.

1. Each overcurrent protective device shall have an application listing appropriate for the application, listings shall be as follows:

Type SWD for switching fluorescent lighting loads

Type HID for switching high intensity discharge (HID) lighting loads Type HACR for heating, air-conditioning, and refrigerating equipment

Type AFCI for all dwelling unit sleeping rooms

SECTION 262726 - WIRING DEVICES

A. GENERAL - Devices shall be installed plumb and secure. Unless otherwise indicated, flush mount wiring

devices with long dimension vertical, and grounding terminal of receptacles on bottom.

1. Unless otherwise indicated wiring devices shall be mounted at the following heights, measured from

finished floor to centerline of device.

Wall switches and wall box dimmers = 44"

Receptacles = 16"

2. Group adjacent devices under single multi-gang wall plates.

3. Wiring devices shall be manufactured by Pass and Seymour, Leviton, Hubbell, or General Electric. B. RECEPTACLES - Duplex receptacles shall be specification grade 20 ampere, 120 volt.

1. Ground fault interrupting (GFI) receptacles shall be feed-through type arranged to protect connected downstream receptacles on same circuit. Receptacles serving owner furnished equipment shall have configuration to match that of equipment

C. SWITCHES - Snap switches shall be specification grade, quiet type, single pole, two pole, or three-way to

E. WALL PLATES - Plates shall be smooth finish plastic in single and combination types to match corresponding wiring devices. Match color of associated device(s).

D. DEVICE COLOR - Color shall be match existing unless otherwise indicated or required by code.

SECTION 265100 - LIGHTING

A. LUMINAIRE AND FIXTURE COMPONENTS - All metal parts and components shall be free from burrs, sharp corners, and edges. All fixtures shall be shipped pre-wired and ready for mounting.

1. Doors, frames, and other internal access mechanisms shall be smooth operating, free from light leakage under operating conditions, and arranged to permit relamping without use of tools.

B. EMERGENCY LIGHTING UNITS - Unit shall be a self-contained units with sealed, maintenance-free, leadacid type with minimum 5-year nominal life and fully automatic, solid-state type charger with sealed transfer

1. Relay shall automatically turn lamp(s) on when supply circuit voltage drops to 80 percent of nominal voltage or below. Lamp automatically disconnects from battery when voltage approaches deepdischarge level. When normal voltage is restored, relay disconnects lamps, and battery is automatically recharged and floated on charger.

C. LED LIGHT SOURCE REQUIREMENTS:

1. Rated life (L70): Minimum 50,000 hours as defined by IES LM80 and TM21. Color Rendering Index (CRI): 80 CRI minimum.

3. Each luminaire type shall be binned within a three-step MacAdam Ellipse to ensure color consistency among luminaires.

D. LED DRIVER REQUIREMENTS:

MEI PROJECT NO: 24367

morrissey engineering inc

mechanical | electrical | lighting | technology | sustainability

4940 North 118th Street

Omaha, NE 68164

P: 402.491.4144

Nebraska COA Number: CA-0835

www.morrisseyengineering.com

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do not scale drawings. verify all dimensions and clearances from

and verify non-interference with other work. do not fabricate prior

architectural, structural, shop and other appropriate drawings or

at site. lay out and coordinate all work prior to installation to

to verification of clearance for all trades.

2. Total Harmonic Distortion Rating: Less than 20 percent. 3. Ambient Temperature Rating: -40° to + 55° C.

4. Power Factor (100% output): >0.95

E. WARRANTY - Include labor allowance required for replacement on-site at no extra cost to Owner within 1year construction warranty. Transfer remainder of the manufacturer's warranty, including ballast manufacturer's labor stipend to owner after 1-year construction warranty.

1. Ballast and Drivers: 5-year replacement warranty 2. LED system Warranty: 5-year replacement warranty.

F. FINISHES - Luminaire finishes shall be manufacturer's standard, unless otherwise indicated. Painted finishes shall be applied over corrosion-resistant treatment or primer, free of defects. Metallic finishes shall be corrosion resistant.

G. INSTALLATION - Luminaires shall be set level, plumb, and square with ceiling and walls, and secured according to manufacturer's written instructions and approved submittal materials.

1. Luminaires in or on grid-type suspended ceilings shall be supported with support clips and a minimum of

four ceiling support system rods or wires for each fixture, located not more than 6 inches from fixture

2. Luminaires of Sizes Less Than Ceiling Grid shall be arranged as indicated on reflected ceiling plans or center in acoustical panel, and supported independently with at least two 3/4-inch metal channels spanning and secured to ceiling tees.

> Date Description

AGENCY APPROVAL

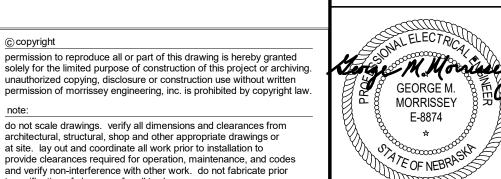
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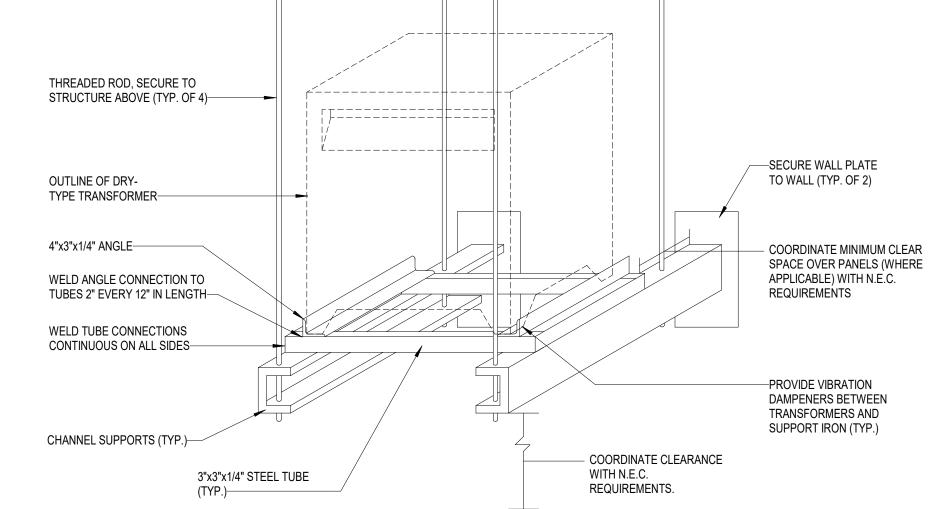
#### **A**rchitects

119 SOUTH 49TH AVENUE OMAHA. NEBRASKA 68132 (402)551-0800



PROJECT: 24119 Kerse M. Moringy DATE: 10/7/2024

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TRANSFORMER MOUNTING DETAIL

✓ NOT TO SCALE