RFCSP 200099

HARLANDALE INDEPENDENT SCHOOL DISTRICT

CAREER TECHNOLOGY EDUCATION BUILDING

BOARD OF TRUSTEES

RICARDO MORENO	PRESIDENT	DISTRICT 7
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GERARDO SOTO	SUPERINTENDENT OF SCHOOLS
LUCIA GUTIERREZ	EXECUTIVE ADMINISTRATIVE ASSISTANT
PATTI JUAREZ	ADMINISTRATIVE ASSISTANT
JUAN HINOJOSA	EXECUTIVE DIRECTOR OF OPERATIONS
VALERIE HERNANDEZ	ADMINISTRATIVE ASSISTANT TO THE EXECUTIVE DIRECTOR

SHEET INDEX

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SAN ANTONIO, TEXAS 78230
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FIRE PROTECTION CONSULTING GROUP, LLC
14439 NW MILITARY HIGHWAY, SUITE 108 #430
SAN ANTONIO, TEXAS 78231
Phone: (210) 858-2389
ADMIN@FIREPCG.COM

PROJECT DATA:

PROJECT DECRIPTION:
RENOVATION OF AN EXISTING ELEMENTARY SCHOOL, SOON TO BECOME A VOCATIONAL SCHOOL.
PROPOSED CHANGES INCLUDE TURNING THE 1ST FLOOR CAFETERIA, LIBRARY, AND SOME CLASSROOMS INTO SHOPS (WELDING, PLUMBING, ELECTRICAL, HVAC, BARBER AND DENTAL ASSISTING) AS NOTED ON THE PROJECT DOCUMENTS.
RENOVATIONS ARE LIMITED TO THE 1ST FLOOR ONLY.
THERE WILL NOT BE ANY ADDITIONS CONSTRUCTED AS PART OF THIS SCOPE OF WORK.

APPLICABLE CODES:
2021 INTERNATIONAL EXISTING BUILDING CODE, IEBC
2021 INTERNATIONAL BUILDING CODE, IBC
2021 INTERNATIONAL FIRE CODE, IFC
2021 INTERNATIONAL MECHANICAL CODE, IMC
2021 INTERNATIONAL PLUMBING CODE, IPC
2020 NATIONAL ELECTRICAL CODE, NEC
2021 INTERNATIONAL FUEL GAS CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE, IECC
2019 NFPA 13
2019 NFPA 72
COSA AMENDMENTS

ADDRESS:
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

PROPERTY DESCRIPTION:
SITE ACREAGE: 3,420
LOT & BLOCK NUMBERS: LOT 21, BLOCK 75, N.C.B. 9357

PLAT ID NUMBER: 000387

TYPE OF CONSTRUCTION
TYPE IIB

AUTOMATIC SPRINKLER SYSTEM:
NFPA 13 SPRINKLER SYSTEM

FIRE ALARM:
EMERGENCY VOICE ALARM COMMUNICATION SYSTEM

HEIGHT:
>30-ft

STORIES: 2

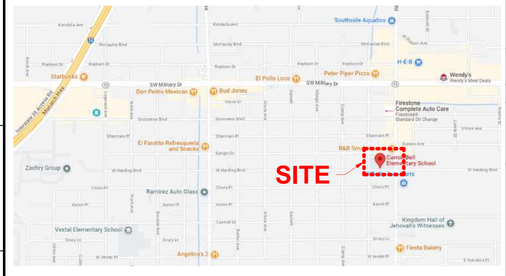
AREA:
EXISTING: 66,046 sf
i. 1st: 39,926 sf
ii. 2nd: 26,120 sf

PRIMARY OCCUPANCY: E

CALCULATED OCUPANT LOAD:
1,642 OCCUPANTS
I. 1ST FLOOR:
1. PREVIOUS PERMIT DOCUMENTS: 1,104 OCCUPANTS
2. REDUCTION PER RENOVATIONS: -318 OCCUPANTS
A. TOTAL NEW 1ST FLOOR OCCUPANT LOAD: 786 OCCUPANTS
II. 2ND FLOOR:
856 OCCUPANTS (EXISTING UNCHANGED)

NUMBER OF EXITS/EXIT ACCESSES AND EXIT CAPACITY
1ST FLOOR: 9; 3,840 OCCUPANTS
2ND FLOOR: 3; 900 OCCUPANTS

NOTED LABS:
SMOKE RESISTANT (IBC 509)



VICINITY MAP

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS
1-31-2024

ARCHITECTURA S. A.

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: Author
Checked By: Checker
Job Number.: 23-09

TITLE SHEET

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
G-000

23/02/2024 02:37:23 p. m.

ABBREVIATIONS

@	AT
A/C	AIR CONDITIONING
ABV	ABOVE
ACOUS	ACOUSTIC(AL)
AD	AREA DRAIN
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
AP	ACCESS PANEL
APPROX	APPROXIMATE
AVC	AUDIO VISUAL CONSOLE
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BRG	BEARING
BRJ	BRICK RELIEF JOINT
BRZ	BRONZE
BYO	BY OWNER
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CER	CERAMIC
CHBD	CHALKBOARD
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLO	CLOSET
CMU	CONCRET MASONRY UNIT
CO	CASED OPENING
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONTR	CONCTRACT(OR)
CPT	CARPET
CT	CARPET TILE
DET	DEATIL
DF	DRYWALL FURRING
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DP	DRYWALL PARTITION
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EAV	ELECTRICAL-AUDIO/VISUAL
EDF	ELECTRIC DRINKING FOUNTAIN
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR OR ELEVATION
EP	ELECTRICAL PANEL
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FEB	FIRE EXTINGUISHER W/BRACKET
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FIN	FINISH(ED)
FL	FLOOR
FM	FLOOR MAT
FR	FRAME
FTVM	FUTURE TV MONITOR
FURR	FURRED
FV	FIELD VERIFY
GA	GAGE/GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS
GR	GROUND ROD ACCESS BOX
GST	GALZED CERAMIC TILE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HC	HANDICAP
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HT	HEIGHT
ID	INSIDE DIMENSION
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JAN	JANITOR
JOC	JOB ORDER CONTRACTOR
JT	JOINT
LAM	LAMINATED
LAV	LAVATORY
LP	LOW POINT
MAX	MAXIMUM
MB	MARKER BOARD
MECH	MECHANICAL
MFGR	MANUFACTURE/MANUFACTURER
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELANEOUS
ML	MODULE LINE/METHAL LATH
MO	MASONRY OPENING
MOD	MODULE/MODULAR
MONO	MONOLITHIC
MP	MASONRY PARTITION
MT	METAL THRESHOLD
MTL	METAL
MWP	MEMBRANE WATERPROOFING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O/	ON TO OF, OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
OV	OVERHEAD
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLAYWOOD
PS	PROJECTION SCREEN
PTD	PAINTED
PTN	PARTITION
R	RISER
R/A	RETURN AIR
RD	ROOF DRAIN
RE.	REF REFERENCE
REINF	REINFORCE(MENT)
REQ'D	REQUIRED
RM	ROOM
RTU	ROOFTOP UNIT
SCHED	SCHEDULE(D)
SF	SAND FINISH
SHLVS	SHELVES
SHT	SHEET
SIM	SIMILAR
SK	SINK
SM	SMOOTH
SPEC	SPECIFICATIONS/SPECIFIED
SQ	SQUARE
SS	SERVICE SINK
ST STL	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE/STRUCTURAL
SUSP	SUSPENDED
TA	TOILET ACCESSORY
TB	TACKBOARD
TC	TOP OF CURB
TEMP	TEMPERED
THK	THICK
TKBD	TACKBOARD
TRANS	TRANSPARENT
TVM	TV MONITOR
TVP	TV PROJECTOR
TYP	TYPICAL
U	URINAL
U.N.O.	UNLESS NOTED OTHERWISE
UNFIN	UNFINISHED
UV	UNDERFLOOR VENT
VC	VALVE CABINET
VERT	VERTICAL
VIN	VINYL
VP	VISION PANEL
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WOOJ	WORK OUT ON JOB
WP	WATERPROOFING
WWF	WELDED WIRE FABRIC

SYMBOL LEGEND

BUILDING SECTION MARKER	1 SIM / A101 — view number, sheet number
EXTERIOR ELEVATION MARKER	Ref / 1 / A101 — view number, sheet number
INTERIOR ELEVATION MARKER	1Ref / Ref / A101 — view number, sheet number
ROOM TAG	Room name / 101 — room number
DOOR TAG	101 / 1t — door number, door type
WINDOW TAG	1 / 1t — window number, window type
SPECIALTY EQUIP. TAG	EQ1 — equipment mark
CURTAIN WALL/STOREFRONT TAG	CW1 — curtain wall number
WALL TAG	1t — wall type
SIGNAGE TAG	1 — sign type
CLASSROOM EQUIPMENT TAG	M1 — classroom equipment type
FIRE EXTINGUISHER BRACKET	F.E.B.
FIRE EXTINGUISHER CABINET	F.E.C.

GENERAL ARCHITECTURAL NOTES

1. DO NOT SCALE THE DRAWINGS.
2. GENERAL CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO COMMENCEMENT OF EACH PORTION OF THE WORK.
3. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY:WHAT IS REQUIRED BY ONE IS AS BINDING AS IF REQUIRED BY ALL. THE CONTRACTOR SHALL COORDINATE ALL PORTIONS OF THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS. NOTIFY THE ARCHITECT FOR RESOLUTION OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION.
4. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
5. "FLOOR LINE" REFERS TO TOP OF CONCRETE SLABS. FINISH FLOORING IS INSTALLED ABOVE THE FLOOR LINE. FOR DEPRESSED FLOORS AND CURBS, SEE STRUCTURAL DRAWINGS.
6. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
7. WHERE A DOOR IS LOCATED NEAR CORNER OF ROOM AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 3" FROM FACE OF STUD (WALL) TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS.
8. AT SECURITY WALLS, FULL HEIGHT PARTITIONS SHALL BE SEALED BOTH SIDES WITH ACOUSTIC SEALANT, TOP, BOTTOM, INTERSECTION, DOOR FRAMES, GLAZED OPENING FRAMES, AND ALL OTHER PENETRATIONS.
9. LINE OF EXISTING GRADES, AS SHOWN ON THE BUILDING ELEVATIONS AND SECTIONS ARE APPROXIMATE.
10. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT PROVIDED IN THIS CONTRACT, OR BY OTHERS.
11. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND OTHER CATEGORIES OR DRAWINGS FOR ADDITIONAL NOTES.
12. VERIFY SIZE/LOCATION/FINISH/FIRE-RATING, ETC, AND PROVIDE COMPLETE ALL REQUIRED OPENINGS THROUGH FLOORS AND WALLS, ACCESS DOORS, FURRING, CURBS, ANCHORS AND INSERTS. PROVIDE ALL BASES AND BLOCKING REQUIRED FOR ACCESSORIES, MECHANICAL, ELECTRICAL AND OTHER EQUIPMENT.
13. ALL PENETRATIONS AND OPENINGS SHALL MEET WALL ASSEMBLY FIRE RATINGS.
14. BOXES LOCATED ON OPPOSITE SIDE OF FIRE RATED WALLS & SECURITY WALLS SHALL BE SEPARATED BY A MIN. HORIZONTAL DISTANCE OF 36".
15. REFER TO FINISH-SCHEDULES AND COLOR LISTS FOR WALL FINISH DESIGNATIONS.
16. REFER TO GENERAL STRUCTURAL NOTES & PROJECT SPECIFICATIONS.
17. SEE STRUCTURAL GENERAL NOTES FOR MINIMUM STUD DEPTH, THICKNESS, FLANGE WIDTH AND SPACING.
18. REFER TO STRUCTURAL DRAWINGS FOR ALL REINFORCING INFORMATION.
19. AT ALL PENETRATIONS AND INTERSECTIONS OF FIRE-RATED PARTITIONS, PROVIDE FIRE SEALANT AND/OR FIRESTOPPING TO MAINTAIN CONTINUITY OF PARTITION RATING.
20. MAXIMUM SPACING BETWEEN VERTICAL BRICK VENEER CONTROL JOINTS TO BE 20'-0" O.C. @ EXTERIOR WALLS & 20'-0" @ O.C. INTERIOR WALLS, TYPICAL UNLESS NOTED OTHERWISE.
21. PRIOR TO BEGINNING METAL STUD PARTITIONS, LOCATE WALLS WITH CHALK-LINES. IF QUESTIONS OR CONCERNS ARISE, BRING TO ARCHITECTS ATTENTION.
22. WHEN FINISH OR COLOR IS DESIGNATED "COLOR BY ARCHITECT", COLOR SHALL BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

DRAWING INDEX & CONVENTIONS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

G-001

31/01/2024 02:28:24 p. m.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

EXCEPTIONS:
1. Grab bars shall not be required to be installed in a toilet room for a single occupant accessed only through a private office and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 604.5.
2. In residential dwelling units, grab bars shall not be required to be installed in toilet or bathrooms provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 604.5.
3. In detention or correction facilities, grab bars shall not be required to be installed in housing or holding cells that are specially designed without protrusions for purposes of suicide prevention.

Advisory 604.5 Grab Bars Exception 2. Reinforcement must be sufficient to permit the installation of rear and side wall grab bars that fully meet all accessibility requirements including, but not limited to, required length, installation height, and structural strength.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

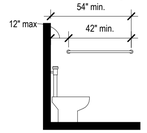

Figure 604.5.1 Side Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.

EXCEPTIONS:
1. The rear grab bar shall be permitted to be 24 inches (610 mm) long minimum, centered on the water closet, where wall space does not permit a length of 36 inches (915 mm) minimum due to the location of a recessed fixture adjacent to the water closet.
2. Where an administrative authority requires flush controls for flush valves to be located in a position that conflicts with the location of the rear grab bar, then the rear grab bar shall be permitted to be split or shifted to the open side of the toilet area.

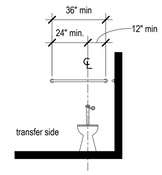

Figure 604.5.2 Rear Wall Grab Bar at Water Closets

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

Advisory 604.6 Flush Controls. If plumbing valves are located directly behind the toilet seat, flush valves and related plumbing can cause injury or imbalance when a person leans back against them. To prevent causing injury or imbalance, the plumbing can be located behind walls or to the side of the toilet; or if approved by the local authority having jurisdiction, provide a toilet seat lid.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

Advisory 604.7 Dispensers. If toilet paper dispensers are installed above the side wall grab bar, the outlet of the toilet paper dispenser must be 48 inches (1220 mm) maximum above the finish floor and the top of the gripping surface of the grab bar must be 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

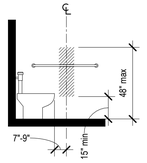

Figure 604.7 Dispenser Outlet Location

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

Advisory 604.8.1.1 Size. The minimum space required in toilet compartments is provided so that a person using a wheelchair can maneuver into position at the water closet. This space cannot be obstructed by baby changing tables or other fixtures or conveniences, except as specified at 604.3.2 (Overlap). If toilet compartments are to be used to house fixtures other than those associated with the water closet, they must be designed to exceed the minimum space requirements. Convenience fixtures such as baby changing tables must also be accessible to people with disabilities as well as to other users. Toilet compartments that are designed to meet, and not exceed, the minimum space requirements may not provide adequate space for maneuvering into position at a baby changing table.

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floormounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm) deep.

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be selfclosing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.

604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.

604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5.

604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605 Urinals

605.1 General. Urinals shall comply with 605.
Advisory 605.1 General. Stall-type urinals provide greater accessibility for a broader range of persons, including people of short stature.

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

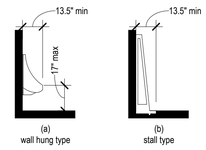

Figure 604.2 Height and Depth of Urinals

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided.

605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks

606.1 General. Lavatories and sinks shall comply with 606.

Advisory 606.1 General. If soap and towel dispensers are provided, they must be located within the reach ranges specified in 308. Locate soap and towel dispensers so that they are conveniently usable by a person at the accessible lavatory.

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

EXCEPTIONS:
1. A parallel approach complying with 305 shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided and to wet bars.
2. A lavatory in a toilet room or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to provide knee and toe clearance complying with 306.
3. In residential dwelling units, cabinetry shall be permitted under lavatories and kitchen sinks provided that all of the following conditions are met:
(a) the cabinetry can be removed without removal or replacement of the fixture;
(b) the finish floor extends under the cabinetry; and
(c) the walls behind and surrounding the cabinetry are finished.
4. A knee clearance of 24 inches (610 mm) minimum above the finish floor or ground shall be permitted at lavatories and sinks used primarily by children 6 through 12 years where the rim or counter surface is 31 inches (785 mm) maximum above the finish floor or ground.
5. A parallel approach complying with 305 shall be permitted to lavatories and sinks used primarily by children 5 years and younger.
6. The dip of the overflow shall not be considered in determining knee and toe clearances.
7. No more than one bowl of a multi-bowl sink shall be required to provide knee and toe clearance complying with 306.

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

EXCEPTIONS:
1. A lavatory in a toilet or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 606.3.
2. In residential dwelling unit kitchens, sinks that are adjustable to variable heights, 29 inches (735 mm) minimum and 36 inches (915 mm) maximum, shall be permitted where rough-in plumbing permits connections of supply and drain pipes for sinks mounted at the height of 29 inches (735 mm).

606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks

607 Bathtubs

607.1 General. Bathtubs shall comply with 607.

607.2 Clearance. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory complying with 606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

607.3 Seat. A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with 610.

607.4 Grab Bars. Grab bars for bathtubs shall comply with 609 and shall be provided in accordance with 607.4.1 or 607.4.2.

EXCEPTIONS:
1. Grab bars shall not be required to be installed in a bathtub located in a bathing facility for a single occupant accessed only through a private office and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 607.4.
2. In residential dwelling units, grab bars shall not be required to be installed in bathtubs located in bathing facilities provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 607.4.

607.4.1 Bathtubs With Permanent Seats. For bathtubs with permanent seats, grab bars shall be provided in accordance with 607.4.1.

607.4.1.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (380 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

607.4.2 Bathtubs Without Permanent Seats. For bathtubs without permanent seats, grab bars shall comply with 607.4.2.

607.4.2.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 24 inches (610 mm) long minimum and shall be installed 24 inches (610 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

607.4.2.3 Head End Wall. A grab bar 12 inches (305 mm) long minimum shall be installed on the head end wall at the front edge of the bathtub.

607.5 Controls. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Controls shall comply with 309.4.

607.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

Advisory 607.6 Shower Spray Unit and Water. Ensure that hand-held shower spray units are capable of delivering water pressure substantially equivalent to fixed shower heads.

607.7 Bathtub Enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.

608 Shower Compartments

608.1 General. Shower compartments shall comply with 608.
Advisory 608.1 General. Shower stalls that are 60 inches (1525 mm) wide and have no curb may increase the usability of a bathroom because the shower area provides additional maneuvering space.

608.2 Size and Clearances for Shower Compartments. Shower compartments shall have sizes and clearances complying with 608.2.

608.2.1 Transfer Type Shower Compartments. Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (915 mm) wide minimum by 48 inches (1220 mm) long minimum measured from the control wall shall be provided.

608.2.2 Standard Roll-In Type Shower Compartments. Standard roll-in type shower compartments shall be 30 inches (760 mm) wide minimum by 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches (1525 mm) wide minimum entry on the face of the shower compartment.

608.2.2.1 Clearance. A 30 inch (760 mm) wide minimum by 60 inch (1525 mm) long minimum clearance shall be provided adjacent to the open face of the shower compartment.

EXCEPTION: A lavatory complying with 606 shall be permitted on one 30 inch (760 mm) wide minimum side of the clearance provided that it is not on the side of the clearance adjacent to the controls or, where provided, not on the side of the clearance adjacent to the shower seat.

608.2.3 Alternate Roll-In Type Shower Compartments. Alternate roll-in type shower compartments shall be 36 inches (915 mm) wide and 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (915 mm) wide minimum entry shall be provided at one end of the long side of the compartment.

608.3 Grab Bars. Grab bars shall comply with 609 and shall be provided in accordance with 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor.

EXCEPTIONS:
1. Grab bars shall not be required to be installed in a shower located in a bathing facility for a single occupant accessed only through a private office, and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 608.3.
2. In residential dwelling units, grab bars shall not be required to be installed in showers located in bathing facilities provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 608.3.

608.3.1 Transfer Type Shower Compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (455 mm) from the control wall.

608.3.2 Standard Roll-In Type Shower Compartments. Where a seat is provided in standard roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall opposite the seat. Grab bars shall not be provided above the seat. Where a seat is not provided in standard roll-in type shower compartments, grab bars shall be provided on three walls. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

608.3.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

608.4 Seats. A folding or non-folding seat shall be provided in transfer type shower compartments. A folding seat shall be provided in roll-in type showers required in transient lodging guest rooms with mobility features complying with 806.2. Seats shall comply with 610.

EXCEPTION: In residential dwelling units, seats shall not be required in transfer type shower compartments provided that reinforcement has been installed in walls so as to permit the installation of seats complying with 608.4.

608.5 Controls. Controls, faucets, and shower spray units shall comply with 309.4.

608.5.1 Transfer Type Shower Compartments. In transfer type shower compartments, the controls, faucets, and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm) maximum from the centerline of the seat toward the shower opening.

608.5.2 Standard Roll-In Type Shower Compartments. In standard roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be installed on the back wall adjacent to the seat wall and shall be located 27 inches (685 mm) maximum from the seat wall.

Advisory 608.5.2 Standard Roll-In Type Shower Compartments. In standard roll-in type showers without seats, the shower head and operable parts can be located on any of the three walls of the shower without adversely affecting accessibility.

608.5.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be located on the side wall adjacent to the seat 27 inches (685 mm) maximum from the side wall behind the seat or shall be located on the back wall opposite the seat 15 inches (380 mm) maximum, left or right, of the centerline of the seat. Where a seat is not provided, the controls, faucets, and shower spray unit shall be installed on the side wall farthest from the compartment entry.

608.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

EXCEPTION: A fixed shower head located at 48 inches (1220 mm) maximum above the shower finish floor shall be permitted instead of a hand-held spray unit in facilities that are not medical care facilities, long-term care facilities, transient lodging guest rooms, or residential dwelling units.

Advisory 608.6 Shower Spray Unit and Water. Ensure that hand-held shower spray units are capable of delivering water pressure substantially equivalent to fixed shower heads. 608.7 Thresholds. Thresholds in roll-in type shower compartments shall be 1/2 inch (13 mm) high maximum in accordance with 303. In transfer type shower compartments, thresholds 1/2 inch (13 mm) high maximum shall be beveled, rounded, or vertical.

EXCEPTION: A threshold 2 inches (51 mm) high maximum shall be permitted in transfer type shower compartments in existing facilities where provision of a 1/2 inch (13 mm) high threshold would disturb the structural reinforcement of the floor slab.

608.8 Shower Enclosures. Enclosures for shower compartments shall not obstruct controls, faucets, and shower spray units or obstruct transfer from wheelchairs onto shower seats.

609 Grab Bars

609.1 General. Grab bars in toilet facilities and bathing facilities shall comply with 609.

609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2.

609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a crosssection dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.

EXCEPTION: The space between the grab bars and shower controls, shower fittings, and other grab bars above shall be permitted to be 1 1/2 inches (38 mm) minimum.

609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

610 Seats

610.1 General. Seats in bathtubs and shower compartments shall comply with 610.

610.2 Bathtub Seats. The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement. Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.

610.3 Shower Compartment Seats. Where a seat is provided in a standard roll-in shower compartment, it shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. Where a seat is provided in an alternate roll-in type shower compartment, it shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry. In transfer-type showers, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the
seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. Seats shall comply with 610.3.1 or 610.3.2.

610.3.1 Rectangular Seats. The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1 1/2 inches (38 mm) maximum from the adjacent wall.

610.3.2 L-Shaped Seats. The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches maximum (585 mm) from the main seat wall.

610.4 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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Checked By:	SAV
Job Number.:	23-09

ACCESSIBILITY STANDARDS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

G-002

31/01/2024 02:28:24 p. m.

302 Floor or Ground Surfaces

302.1 General. Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302.

EXCEPTIONS:
1. Within animal containment areas, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.
2. Areas of sport activity shall not be required to comply with 302.

Advisory 302.1 General. A stable surface is one that remains unchanged by contaminants or applied force, so that when the contaminant or force is removed, the surface returns to its original condition. A firm surface resists deformation by either indentations or particles moving on its surface. A slipresistant surface provides sufficient frictional counterforce to the forces exerted in walking to permit safe ambulation.

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Pile height shall be 1/2 inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge. Carpet edge trim shall comply with 303.

Advisory 302.2 Carpet. Carpets and permanently affixed mats can significantly increase the amount of force (roll resistance) needed to propel a wheelchair over a surface. The firmer the carpeting and backing, the lower the roll resistance. A pile thickness up to 1/2 inch (13 mm) (measured to the backing, cushion, or pad) is allowed, although a lower pile provides easier wheelchair maneuvering. If a backing, cushion or pad is used, it must be firm. Preferably, carpet pad should not be used because the soft padding increases roll resistance.

302.3 Openings. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

303 Changes in Level

303.1 General. Where changes in level are permitted in floor or ground surfaces, they shall comply with 303.

EXCEPTIONS:
1. Animal containment areas shall not be required to comply with 303.
2. Areas of sport activity shall not be required to comply with 303.

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical. Figure 303.2 Vertical Change in Level

303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

Advisory 303.3 Beveled. A change in level of 1/2 inch (13 mm) is permitted to be 1/4 inch (6.4 mm) vertical plus 1/4 inch (6.4 mm) beveled. However, in no case may the combined change in level exceed 1/2 inch (13 mm). Changes in level exceeding 1/2 inch (13 mm) must comply with 405 (Ramps) or 406 (Curb Ramps).

303.4 Ramps. Changes in level greater than 1/2 inch (13 mm) high shall be ramped, and shall comply with 405 or 406.

401 General

401.1 Scope. The provisions of Chapter 4 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

402 Accessible Routes

402.1 General. Accessible routes shall comply with 402.

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

Advisory 402.2 Components. Walking surfaces must have running slopes not steeper than 1:20, see 403.3. Other components of accessible routes, such as ramps (405) and curb ramps (406), are permitted to be more steeply sloped.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

EXCEPTION: Where the clear width at the turn is 60 inches (1525 mm) minimum compliance with 403.5.2 shall not be required.

403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either: a space 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or, an intersection of two walking surfaces providing a T-shaped space complying with 304.3.2 where the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

403.6 Handrails. Where handrails are provided along walking surfaces with running slopes not steeper than 1:20 they shall comply with 505.

Advisory 403.6 Handrails. Handrails provided in elevator cabs and platform lifts are not required to comply with the requirements for handrails on walking surfaces.

404 Doors, Doorways, and Gates

404.1 General. Doors, doorways, and gates that are part of an accessible route shall comply with 404.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with 404.2.7, 404.2.8, 404.2.9, 404.3.2 and 404.3.4 through 404.3.7.

Advisory 404.1 General Exception. Security personnel must have sole control of doors that are eligible for the Exception at 404.1. It would not be acceptable for security personnel to operate the doors for people with disabilities while allowing others to have independent access.

404.2 Manual Doors, Doorways, and Manual Gates. Manual doors and doorways and manual gates intended for user passage shall comply with 404.2.

404.2.1 Revolving Doors, Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

404.2.2 Double-Leaf Doors and Gates. At least one of the active leaves of doorways with two leaves shall comply with 404.2.3 and 404.2.4.

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

EXCEPTIONS:
1. In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear width shall be permitted for the latch side stop.
2. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

EXCEPTION: Entry doors to hospital patient rooms shall not be required to provide the clearance beyond the latch side of the door.

404.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.4.1.

TABLE 404.2.4.1 Manuevering Clearances at Manual Swinging Doors & Gates

Type of Use		Minimum Maneuvering Clearance	
APPROACH DIRECTION	DOOR OR GATE SIDE	PERPENDICULAR TO DOORWAY	PARALLEL TO DOORWAY (BEYOND LATCH SIDE UNLESS NOTED)
From front	Pull	60 inches	18 inches
From front	Push	48 inches	0 inches[1]
From hinge side	Pull	60 inches	36 inches
From hinge side	Pull	54 inches	42 inches
From hinge side	Push	42 inches[2]	22 inches[2]
From latch side	Pull	48 inches[4]	24 inches
From latch side	Push	42 inches[4]	24 inches

Table 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

1. Add 12 inches (305 mm) if closer and latch are provided.
2. Add 6 inches (150 mm) if closer and latch are provided.
3. Beyond hinge side.
4. Add 6 inches (150 mm) if closer is provided.

404.2.4.2 Doorways without Doors or Gates, Sliding Doors, and Folding Doors. Doorways less than 36 inches (915 mm) wide without doors or gates, sliding doors, or folding doors shall have maneuvering clearances complying with Table 404.2.4.2.

Doors or Gates, Manual Swinging Doors, and Manual Folding Doors

Minimum Maneuvering Clearance		
APPROACH DIRECTION	PERPENDICULAR TO DOORWAY	PARALLEL TO DOORWAY (BEYOND LATCH SIDE UNLESS NOTED)
From front	48 inches	0 inches
From side[1]	42 inches	0 inches
From pocket/hinge side	42 inches	22 inches[2]
From stop/latch door	42 inches	24 inches

1. Doorway with no door only.
2. Beyond pocket/hinge side.

404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

Advisory 404.2.4.3 Recessed Doors and Gates. A door can be recessed due to wall thickness or because of the placement of casework and other fixed elements adjacent to the doorway. This provision must be applied wherever doors are recessed.

404.2.4.4 Floor or Ground Surface. Floor or ground surface within required maneuvering clearances shall comply with 302. Changes in level are not permitted.

EXCEPTIONS:
1. Slopes not steeper than 1:48 shall be permitted.
2. Changes in level at thresholds complying with 404.2.5 shall be permitted.
404.2.5 Thresholds. Thresholds, if provided at doorways, shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303.

EXCEPTION: Existing or altered thresholds 3/4 inch (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.

404.2.6 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of doors or gates swinging into the space.

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

EXCEPTIONS:
1. Existing locks shall be permitted in any location at existing glazed doors without stiles, existing overhead rolling doors or grilles, and similar existing doors or grilles that are designed with locks that are activated only at the top or bottom rail.
2. Access gates in barrier walls and fences protecting pools, spas, and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finish floor or ground provided the self-latching devices are not also selflocking devices and operated by means of a key, electronic opener, or integral combination lock.

Advisory 404.2.7 Door and Gate Hardware. Door hardware that can be operated with a closed fist or a loose grip accommodates the greatest range of users. Hardware that requires simultaneous hand and finger movements require greater dexterity and coordination, and is not recommended.

404.2.8 Closing Speed. Door and gate closing speed shall comply with 404.2.8.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:
1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.
2. Sliding or folding doors: 5 pounds (22.2 N) maximum.
These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

Advisory 404.2.9 Door and Gate Opening Force. The maximum force pertains to the continuous application of force necessary to fully open a door, not the initial force needed to overcome the inertia of the door. It does not apply to the force required to retract bolts or to disengage other devices used to keep the door in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS:
1. Sliding doors shall not be required to comply with 404.2.10.
2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at 60 degrees minimum from the horizontal shall not be required to meet the 10 inch (255 mm) bottom smooth surface height requirement.
3. Doors and gates that do not extend to within 10 inches (255 mm) of the finish floor or ground shall not be required to comply with 404.2.10.
4. Existing doors and gates without smooth surfaces within 10 inches (255 mm) of the finish floor or ground shall not be required to provide smooth surfaces complying with 404.2.10 provided that if added kick plates are installed, cavities created by such kick plates are capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

EXCEPTION: Vision lights with the lowest part more than 66 inches (1675 mm) from the finish floor or ground shall not be required to comply with 404.2.11.

404.3 Automatic and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with 404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10 (incorporated by reference, see "Referenced Standards" in Chapter 1). Low-energy and powerassisted doors shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

404.3.1 Clear Width. Doorways shall provide a clear opening of 32 inches (815 mm) minimum in power-on and power-off mode. The minimum clear width for automatic door systems in a doorway shall be based on the clear opening provided by all leaves in the open position.

404.3.2 Maneuvering Clearance. Clearances at power-assisted doors and gates shall comply with 404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with 404.2.4.

EXCEPTION: Where automatic doors and gates remain open in the power-off condition, compliance with 404.2.4 shall not be required.

404.3.3 Thresholds. Thresholds and changes in level at doorways shall comply with 404.2.5.

404.3.4 Doors in Series and Gates in Series. Doors in series and gates in series shall comply with 404.2.6.

404.3.5 Controls. Manually operated controls shall comply with 309. The clear floor space adjacent to the control shall be located beyond the arc of the door swing.

404.3.6 Break Out Opening. Where doors and gates without standby power are a part of a means of egress, the clear break out opening at swinging or sliding doors and gates shall be 32 inches (815 mm) minimum when operated in emergency mode.

EXCEPTION: Where manual swinging doors and gates comply with 404.2 and serve the same means of egress compliance with 404.3.6 shall not be required.

404.3.7 Revolving Doors, Revolving Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

405 Ramps

405.1 General. Ramps on accessible routes shall comply with 405.

EXCEPTION: In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with 405.
405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

EXCEPTION: In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations.

TABLE 405.2 Maximum Ramp Slope and Rise for Existing Sites, Buildings, and Facilities

Slope[1]	Max. Rise
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches

1. A slope steeper than 1:8 is prohibited.

Advisory 405.2 Slope. To accommodate the widest range of users, provide ramps with the least possible running slope and, wherever possible, accompany ramps with stairs for use by those individuals for whom distance presents a greater barrier than steps, e.g., people with heart disease or limited stamina.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

Advisory 405.3 Cross Slope. Cross slope is the slope of the surface perpendicular to the direction of travel. Cross slope is measured the same way as slope is measured (i.e., the rise over the run).

405.4 Floor or Ground Surfaces. Floor or ground surfaces of ramp runs shall comply with 302. Changes in level other than the running slope and cross slope are not permitted on ramp runs.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

EXCEPTION: Within employee work areas, the required clear width of ramps that are a part of common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum.

405.7 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

Advisory 405.7 Landings. Ramps that do not have level landings at changes in direction can create a compound slope that will not meet the requirements of this document. Circular or curved ramps continually change direction. Curvilinear ramps with small radii also can create compound cross slopes and cannot, by their nature, meet the requirements for accessible routes. A level landing is needed at the accessible door to permit maneuvering and simultaneously door operation.

Figure 405.7 Ramp Landings

405.7.1 Slope. Landings shall comply with 302. Changes in level are not permitted.
EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

405.7.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.

405.7.3 Length. The landing clear length shall be 60 inches (1525 mm) long minimum.

405.7.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum.

405.7.5 Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by 404.2.4 and 404.3.2 shall be permitted to overlap the required landing area.

405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with 505.

EXCEPTION: Within employee work areas, handrails shall not be required where ramps that are part of common use circulation paths are designed to permit the installation of handrails complying with 505. Ramps not subject to the exception to 405.5 shall be designed to maintain a 36 inch (915 mm) minimum clear width when handrails are installed.

405.9 Edge Protection. Edge protection complying with 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

EXCEPTIONS:
1. Edge protection shall not be required on ramps that are not required to have handrails and have sides complying with 406.3.
2. Edge protection shall not be required on the sides of ramp landings serving an adjoining ramp run or stairway.
3. Edge protection shall not be required on the sides of ramp landings having a vertical drop-off of ½ inch (13 mm) maximum within 10 inches (255 mm) horizontally of the minimum landing area specified in 405.7.

405.9.1 Extended Floor or Ground Surface. The floor or ground surface of the ramp run or landing shall extend 12 inches (305 mm) minimum beyond the inside face of a handrail complying with 505.

Advisory 405.9.1 Extended Floor or Ground Surface. The extended surface prevents wheelchair casters and crutch tips from slipping off the ramp surface.

405.9.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 4 inch (100 mm) diameter sphere, where any portion of the sphere is within 4 inches (100 mm) of the finish floor or ground surface.

Figure 405.9.2 Curb or Barrier Edge Protection

405.10 Wet Conditions. Landings subject to wet conditions shall be designed to prevent the accumulation of water.

406 Curb Ramps

406.1 General. Curb ramps on accessible routes shall comply with 406, 405.2 through 405.5, and 405.10.

406.2 Counter Slope. Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.

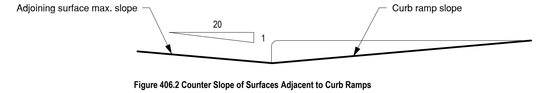

Figure 406.2 Counter Slope of Surfaces Adjacent to Curb Ramps

406.3 Sides of Curb Ramps. Where provided, curb ramp flares shall not be steeper than 1:10.

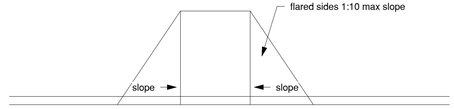

Figure 406.2 Counter Slope of Surfaces Adjacent to Curb Ramps

406.4 Landings. Landings shall be provided at the tops of curb ramps. The landing clear length shall be 36 inches (915 mm) minimum. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.

EXCEPTION: In alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.

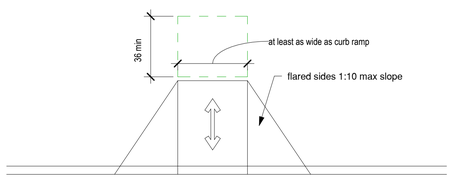

Figure 406.4 Landings at the Top of Curb Ramps

406.5 Location. Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.6 Diagonal Curb Ramps. Diagonal or corner type curb ramps with returned curbs or other welldefined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a clear space 48 inches (1220 mm) minimum outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the curb ramp and within the marked crossing.

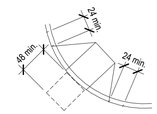

Figure 406.6 Diagonal or Corner Type Curb Ramps

406.7 Islands. Raised islands in crossings shall be cut through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) long minimum by 36 inches (915 mm) wide minimum at the top of the curb ramp in the part of the island intersected by the crossings. Each 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum area shall be oriented so that the 48 inch (1220 mm) minimum length is in the direction of the running slope of the curb ramp it serves. The 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum areas and the accessible route shall be permitted to overlap.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS
1-31-2024

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Checked By:	SAV
Job Number.:	23-09

ACCESSIBILITY STANDARDS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

G-003

31/01/2024 02:28:25 p. m.

407 Elevators

407.1 General. Elevators shall comply with 407 and with ASME A17.1 (incorporated by reference, see "Referenced Standards" in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

Advisory 407.1 General. The ADA and other Federal civil rights laws require that accessible features be maintained in working order so that they are accessible to and usable by those people they are intended to benefit. Building owners should note that the ASME Safety Code for Elevators and Escalators requires routine maintenance and inspections. Isolated or temporary interruptions in service due to maintenance or repairs may be unavoidable; however, failure to take prompt action to effect repairs could constitute a violation of Federal laws and these requirements.

407.2 Elevator Landing Requirements. Elevator landings shall comply with 407.2.

407.2.1 Call Controls. Where elevator call buttons or keypads are provided, they shall comply with 407.2.1 and 309.4. Call buttons shall be raised or flush.

EXCEPTION: Existing elevators shall be permitted to have recessed call buttons.

407.2.1.1 Height. Call buttons and keypads shall be located within one of the reach ranges specified in 308, measured to the centerline of the highest operable part.

EXCEPTION: Existing call buttons and existing keypads shall be permitted to be located at 54 inches (1370 mm) maximum above the finish floor, measured to the centerline of the highest operable part.

407.2.1.2 Size. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension.

EXCEPTION: Existing elevator call buttons shall not be required to comply with 407.2.1.2.

407.2.1.3 Clear Floor or Ground Space . A clear floor or ground space complying with 305 shall be provided at call controls.

Advisory 407.2.1.3 Clear Floor or Ground Space. The clear floor or ground space required at elevator call buttons must remain free of obstructions including ashtrays, plants, and other decorative elements that prevent wheelchair users and others from reaching the call buttons. The height of the clear floor or ground space is considered to be a volume from the floor to 80 inches (2030 mm) above the floor. Recessed ashtrays should not be placed near elevator call buttons so that persons who are blind or visually impaired do not inadvertently contact them or their contents as they reach for the call buttons.

407.2.1.4 Location. The call button that designates the up direction shall be located above the call button that designates the down direction.

EXCEPTION: Destination-oriented elevators shall not be required to comply with 407.2.1.4.

Advisory 407.2.1.4 Location, Exception . A destination-oriented elevator system provides lobby controls enabling passengers to select floor stops, lobby indicators designating which elevator to use, and a car indicator designating the floors at which the car will stop. Responding cars are programmed for maximum efficiency by reducing the number of stops any passenger experiences

407.2.1.5 Signals. Call buttons shall have visible signals to indicate when each call is registered and when each call is answered.

EXCEPTIONS:
1. Destination-oriented elevators shall not be required to comply with 407.2.1.5 provided that visible and audible signals complying with 407.2.2 indicating which elevator car to enter are provided.
2. Existing elevators shall not be required to comply with 407.2.1.5.

407.2.1.6 Keypads. Where keypads are provided, keypads shall be in a standard telephone keypad arrangement and shall comply with 407.4.7.2.

407.2.2 Hall Signals. Hall signals, including in-car signals, shall comply with 407.2.2.

407.2.2.1 Visible and Audible Signals. A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call and the car's direction of travel. Where incar signals are provided, they shall be visible from the floor area adjacent to the hall call buttons.

EXCEPTIONS:
1. Visible and audible signals shall not be required at each destination-oriented elevator where a visible and audible signal complying with 407.2.2 is provided indicating the elevator car designation information.
2. In existing elevators, a signal indicating the direction of car travel shall not be required.

407.2.2.2 Visible Signals. Visible signal fixtures shall be centered at 72 inches (1830 mm) minimum above the finish floor or ground. The visible signal elements shall be 2 1/2 inches (64 mm) minimum measured along the vertical centerline of the element. Signals shall be visible from the floor area adjacent to the hall call button.

EXCEPTIONS:
1. Destination-oriented elevators shall be permitted to have signals visible from the floor area adjacent to the hoistway entrance.
2. Existing elevators shall not be required to comply with 407.2.2.2

407.2.2.3 Audible Signals . Audible signals shall sound once for the up direction and twice for the down direction, or shall have verbal annunciators that indicate the direction of elevator car travel. Audible signals shall have a frequency of 1500 Hz maximum. Verbal annunciators shall have a frequency of 300 Hz minimum and 3000 Hz maximum. The audible signal and verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the hall call button.

EXCEPTIONS:
1. Destination-oriented elevators shall not be required to comply with 407.2.2.3 provided that the audible tone and verbal announcement is the same as those given at the call button or call button keypad.
2. Existing elevators shall not be required to comply with the requirements for frequency and dB range of audible signals.

407.2.2.4 Differentiation. Each destination-oriented elevator in a bank of elevators shall have audible and visible means for differentiation.

407.2.3 Hoistway Signs. Signs at elevator hoistways shall comply with 407.2.3.

407.2.3.1 Floor Designation. Floor designations complying with 703.2 and 703.4.1 shall be provided on both jambs of elevator hoistway entrances. Floor designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum. A tactile star shall be provided on both jambs at the main entry level.

Figure 407.2.3.1 Floor Designations on Jambs of Elevator Hoistway Entrances

407.2.3.2 Car Designations. Destination-oriented elevators shall provide tactile car identification complying with 703.2 on both jambs of the hoistway immediately below the floor designation. Car designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum.

407.3 Elevator Door Requirements. Hoistway and car doors shall comply with 407.3.

407.3.1 Type. Elevator doors shall be the horizontal sliding type. Car gates shall be prohibited.

407.3.2 Operation. Elevator hoistway and car doors shall open and close automatically.

EXCEPTION: Existing manually operated hoistway swing doors shall be permitted provided that they comply with 404.2.3 and 404.2.9. Car door closing shall not be initiated until the hoistway door is closed.

407.3.3 Reopening Device . Elevator doors shall be provided with a reopening device complying with 407.3.3 that shall stop and reopen a car door and hoistway door automatically if the door becomes obstructed by an object or person.

EXCEPTION: Existing elevators with manually operated doors shall not be required to comply with 407.3.3.

407.3.3.1 Height. The device shall be activated by sensing an obstruction passing through the opening at 5 inches (125 mm) nominal and 29 inches (735 mm) nominal above the finish floor.

407.3.3.2 Contact. The device shall not require physical contact to be activated, although contact is permitted to occur before the door reverses.

407.3.3.3 Duration. Door reopening devices shall remain effective for 20 seconds minimum.

407.3.4 Door and Signal Timing. The minimum acceptable time from notification that a car is answering a call or notification of the car assigned at the means for the entry of destination information until the doors of that car start to close shall be calculated from the following equation: T = D/(1.5 ft/s) or T = D/(455 mm/s) = 5 seconds minimum where T equals the total time in seconds and D equals the distance (in feet or millimeters) from the point in the lobby or corridor 60 inches (1525 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door.

EXCEPTIONS:
1. For cars with in-car lanterns, T shall be permitted to begin when the signal is visible from the point 60 inches (1525 mm) directly in front of the farthest hall call button and the audible signal is sounded.
2. Destination-oriented elevators shall not be required to comply with 407.3.4.

407.3.5 Door Delay. Elevator doors shall remain fully open in response to a car call for 3 seconds minimum.

407.3.6 Width. The width of elevator doors shall comply with Table 407.4.1.

EXCEPTION: In existing elevators, a power-operated car door complying with 404.2.3 shall be permitted.

407.4 Elevator Car Requirements. Elevator cars shall comply with 407.4.
407.4.1 Car Dimensions. Inside dimensions of elevator cars and clear width of elevator doors shall comply with Table 407.4.1.

EXCEPTION: Existing elevator car configurations that provide a clear floor area of 16 square feet (1.5 m2) minimum and also provide an inside clear depth 54 inches (1370 mm) minimum and a clear width 36 inches (915 mm) minimum shall be permitted.

Table 407.4.1 Elevator Car Dimensions
Minimum Dimensions

1. A tolerance of minus 5/8 inch (16 mm) is permitted.
2. Other car configurations that provide a turning space complying with 304 with the door closed shall be permitted.

407.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

407.4.3 Platform to Hoistway Clearance. The clearance between the car platform sill and the edge of any hoistway landing shall be 1 1/4 inch (32 mm) maximum.

407.4.4 Leveling. Each car shall be equipped with a self-leveling feature that will automatically bring and maintain the car at floor landings within a tolerance of 1/2 inch (13 mm) under rated loading to zero loading conditions.

407.4.5 Illumination . The level of illumination at the car controls, platform, car threshold and car landing sill shall be 5 foot candles (54 lux) minimum.

407.4.6 Elevator Car Controls. Where provided, elevator car controls shall comply with 407.4.6 and 309.4.

EXCEPTION: In existing elevators, where a new car operating panel complying with 407.4.6 is provided, existing car operating panels shall not be required to comply with 407.4.6.

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in 308.

EXCEPTIONS:
1. Where the elevator panel serves more than 16 openings and a parallel approach is provided, buttons with floor designations shall be permitted to be 54 inches (1370 mm) maximum above the finish floor.
2. In existing elevators, car control buttons with floor designations shall be permitted to be located 54 inches (1370 mm) maximum above the finish floor where a parallel approach is provided.

407.4.6.2 Buttons. Car control buttons with floor designations shall comply with 407.4.6.2 and shall be raised or flush.

EXCEPTION: In existing elevators, buttons shall be permitted to be recessed.

407.4.6.2.1 Size. Buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

407.4.6.2.2 Arrangement. Buttons shall be arranged with numbers in ascending order. When two or more columns of buttons are provided they shall read from left to right.

407.4.6.3 Keypads. Car control keypads shall be in a standard telephone keypad arrangement and shall comply with 407.4.7.2.

407.4.6.4 Emergency Controls. Emergency controls shall comply with 407.4.6.4.

407.4.6.4.1 Height. Emergency control buttons shall have their centerlines 35 inches (890 mm) minimum above the finish floor.

407.4.6.4.2 Location. Emergency controls, including the emergency alarm, shall be grouped at the bottom of the panel.

407.4.7 Designations and Indicators of Car Controls. Designations and indicators of car controls shall comply with 407.4.7.

EXCEPTION: In existing elevators, where a new car operating panel complying with 407.4.7 is provided, existing car operating panels shall not be required to comply with 407.4.7.

407.4.7.1 Buttons . Car control buttons shall comply with 407.4.7.1.

407.4.7.1.1 Type. Control buttons shall be identified by tactile characters complying with 703.2.

407.4.7.1.2 Location. Raised character and braille designations shall be placed immediately to the left of the control button to which the designations apply.

EXCEPTION: Where space on an existing car operating panel precludes tactile markings to the left of the controls, markings shall be placed as near to the control as possible.

407.4.7.1.3 Symbols. The control button for the emergency stop, alarm, door open, door close, main entry floor, and phone, shall be identified with tactile symbols as shown in Table 407.4.7.1.3.

Table 407.4.7.1.3 Elevator Control Button Identification

407.4.7.1.4 Visible Indicators. Buttons with floor designations shall be provided with visible indicators to show that a call has been registered. The visible indication shall extinguish when the car arrives at the designated floor.

407.4.7.2 Keypads. Keypads shall be identified by characters complying with 703.5 and shall be centered on the corresponding keypad button. The number five key shall have a single raised dot. The dot shall be 0.118 inch (3 mm) to 0.120 inch (3.05 mm) base diameter and in other aspects comply with Table 703.3.1.

407.4.8 Car Position Indicators. Audible and visible car position indicators shall be provided in elevator cars.

407.4.8.1 Visible Indicators. Visible indicators shall comply with 407.4.8.1.

407.4.8.1.1 Size. Characters shall be 1/2 inch (13 mm) high minimum.

407.4.8.1.2 Location. Indicators shall be located above the car control panel or above the door.

407.4.8.1.3 Floor Arrival. As the car passes a floor and when a car stops at a floor served by the elevator, the corresponding character shall illuminate.

EXCEPTION: Destination-oriented elevators shall not be required to comply with 407.4.8.1.3 provided that the visible indicators extinguish when the call has been answered.

407.4.8.1.4 Destination Indicator. In destination-oriented elevators, a display shall be provided in the car with visible indicators to show car destinations.

407.4.8.2 Audible Indicators. Audible indicators shall comply with 407.4.8.2.

407.4.8.2.1 Signal Type. The signal shall be an automatic verbal annunciator which announces the floor at which the car is about to stop.

EXCEPTION: For elevators other than destination-oriented elevators that have a rated speed of 200 feet per minute (1 m/s) or less, a non-verbal audible signal with a frequency of 1500 Hz maximum which sounds as the car passes or is about to stop at a floor served by the elevator shall be permitted.

407.4.8.2.2 Signal Level. The verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the annunciator.

407.4.8.2.3 Frequency. The verbal annunciator shall have a frequency of 300 Hz minimum to 3000 Hz maximum.

407.4.9 Emergency Communication. Emergency two-way communication systems shall comply with 308. Tactile symbols and characters shall be provided adjacent to the device and shall comply with 703.2.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

601 General

601.1 Scope. The provisions of Chapter 6 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

602 Drinking Fountains

602.1 General. Drinking fountains shall comply with 307 and 602.

602.2 Clear Floor Space. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

EXCEPTION: A parallel approach complying with 305 shall be permitted at units for children's use where the spout is 30 inches (760 mm) maximum above the finish floor or ground and is 3 1/2 inches (90 mm) maximum from the front edge of the unit, including bumpers.

602.3 Operable Parts. Operable parts shall comply with 309.

602.4 Spout Height. Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.5 Spout Location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.

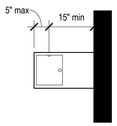


Figure 602.5 Drinking Fountain Spout Location

602.6 Water Flow. The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum

Advisory 602.6 Water Flow. The purpose of requiring the drinking fountain spout to produce a flow of water 4 inches (100 mm) high minimum is so that a cup can be inserted under the flow of water to provide a drink of water for an individual who, because of a disability, would otherwise be incapable of using the drinking fountain.

602.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.
5 mm) maximum above the finish floor or ground. Mirrors not
located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

Advisory 603.3 Mirrors. A single full-length mirror can accommodate a greater number of people, including children. In order for mirrors to be usable by people who are ambulatory and people who use wheelchairs, the top edge of mirrors should be 74 inches (1880 mm) minimum from the floor or ground.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

603 Toilet and Bathing Rooms

603.1 General. Toilet and bathing rooms shall comply with 603.

603.2 Clearances. Clearances shall comply with 603.2.

603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room. 603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

EXCEPTIONS:
1. Doors to a toilet room or bathing room for a single occupant accessed only through a private office and not for common use or public use shall be permitted to swing into the clear floor space or clearance provided the swing of the door can be reversed to comply with 603.2.3.
2. Where the toilet room or bathing room is for individual use and a clear floor space complying with 305.3 is provided within the room beyond the arc of the door swing, doors shall be permitted to swing into the clear floor space or clearance required for any fixture.

Advisory 603.2.3 Door Swing Exception 1 . At the time the door is installed, and if the door swing is reversed in the future, the door must meet all the requirements specified in 404. Additionally, the door swing cannot reduce the required width of an accessible route. Also, avoid violating other building or life safety codes when the door swing is reversed.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

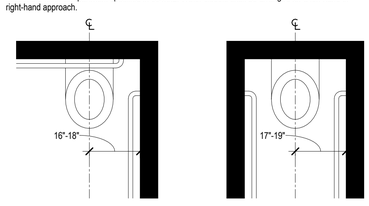
Advisory 603.3 Mirrors. A single full-length mirror can accommodate a greater number of people, including children. In order for mirrors to be usable by people who are ambulatory and people who use wheelchairs, the top edge of mirrors should be 74 inches (1880 mm) minimum from the floor or ground.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments

604.1 General. Water closets and toilet compartments shall comply with 604.2 through 604.8.
EXCEPTION: Water closets and toilet compartments for children's use shall be permitted to comply with 604.9.

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.



(a) wheelchair accessible water closets

(b) ambulatory accessible water closets

Figure 604.2 Water Closet Location

604.3 Clearance. Clearances around water closets and in toilet compartments shall comply with 604.3.

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.

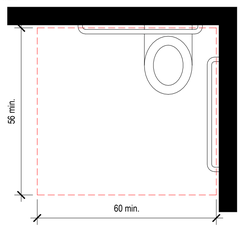


Figure 604.3.1 Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

EXCEPTION: In residential dwelling units, a lavatory complying with 606 shall be permitted on the rear wall 18 inches (455 mm) minimum from the water closet centerline where the clearance at the water closet is 66 inches (1675 mm) minimum measured perpendicular from the rear wall.

Advisory 604.3.2 Overlap. When the door to the toilet room is placed directly in front of the water closet, the water closet cannot overlap the required maneuvering clearance for the door inside the room.

Figure 604.3.2 (Exception) Overlap of Water Closet Clearance in Residential Dwelling Units

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

EXCEPTIONS:
1. A water closet in a toilet room for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 604.4.
2. In residential dwelling units, the height of water closets shall be permitted to be 15 inches (380 mm) minimum and 19 inches (485 mm) maximum above the finish floor measured to the top of the seat.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

ACCESSIBILITY STANDARDS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

G-004

31/01/2024 02:28:25 p. m.

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

EXCEPTION: Fire alarm systems in medical care facilities shall be permitted to be provided in accordance with industry practice.

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4. Advisory 703.2 Raised Characters. Signs that are designed to be read by touch should not have sharp or abrasive edges.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".

EXCEPTION: Where separate raised and visual characters with the same information are provided, raised character height shall be permitted to be 1/2 inch (13 mm) minimum.

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

TABLE 703.3.1 Braille Dimensions

Measurement Range	Minimum in Inches to Maximum in Inches
Dot base diameter	0.059 to 0.063
Distance between two dots in the same cell[1]	0.090 to 0.100
Distance between corresponding dots in adjacent cells[1]	0.241 to 0.300
Dot height	0.025 to 0.037
Distance between corresponding dots from one cell directly below[1]	0.395 to 0.400

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

EXCEPTION: Braille provided on elevator car controls shall be separated 3/16 inch (4.8 mm) minimum and shall be located either directly below or adjacent to the corresponding raised characters or symbols.

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

EXCEPTION: Tactile characters for elevator car controls shall not be required to comply with 703.4.1.

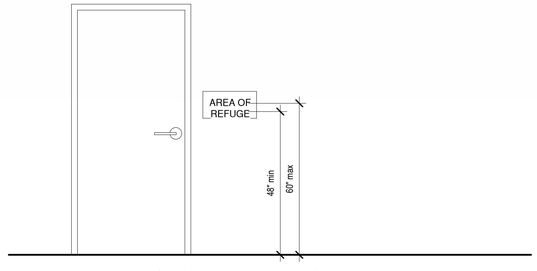

Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

EXCEPTION: Signs with tactile characters shall be permitted on the push side of doors with closers and without hold-open devices.

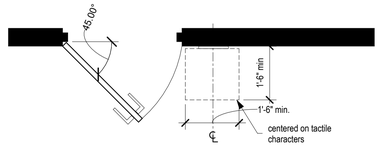

Figure 703.4.2 Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

EXCEPTION: Where visual characters comply with 703.2 and are accompanied by braille complying with 703.3, they shall not be required to comply with 703.5.2 through 703.5.9.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory 703.5.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

TABLE 703.5.5. Visual Character Height

Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
40 inches to less than or equal to 70 inches	less than 72 inches	5/8 inch
	72 inches and greater	5/8 inch, plus 1/8 inch per foot of viewing distance above 72 inches
Greater than 70 inches to less than or equal to 120 inches	less than 180 inches	2 inches
	180 inches and greater	2 inches, plus 1/8 inch per foot of viewing distance above 180 inches
greater than 120 inches	less than 21 feet	3 inches
	21 feet and greater	3 inches plus 1/8 inch per foot of viewing distance above 21 feet

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

EXCEPTION: Visual characters indicating elevator car controls shall not be required to comply with 703.5.6.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

Advisory 703.6.2 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and background colors and textures.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

Advisory 703.7.1 Finish and Contrast . Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and background colors and textures.

705 Detectable Warnings

705.1 General. Detectable warnings shall consist of a surface of truncated domes and shall comply with 705.

705.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inches (36 mm) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch (5.1 mm).

705.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-tocenter spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-tobase spacing of 0.65 inch (17 mm) minimum, measured between the most adjacent domes on a square grid.

705.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

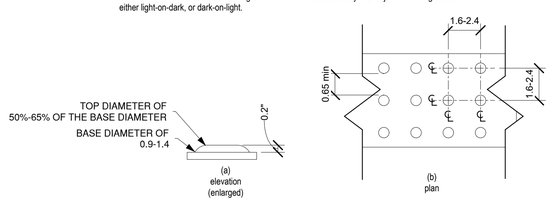

Figure 705.1 Size and Spacing of Truncated Domes

705.2 Platform Edges. Detectable warning surfaces at platform boarding edges shall be 24 inches (610 mm) wide and shall extend the full length of the public use areas of the platform.

208 Parking Spaces

208.1 General. Where parking spaces are provided, parking spaces shall be provided in accordance with 208.

EXCEPTION: Parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles, or vehicular impound shall not be required to comply with 208 provided that lots accessed by the public are provided with a passenger loading zone complying with 503.

208.2 Minimum Number. Parking spaces complying with 502 shall be provided in accordance with Table 208.2 except as required by 208.2.1, 208.2.2, and 208.2.3. Where more than one parking facility is provided on a site, the number of accessible spaces provided on the site shall be calculated according to the number of spaces required for each parking facility.

TABLE 208.2 PARKING SPACES

Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

Advisory 208.2 Minimum Number. The term "parking facility" is used Section 208.2 instead of the term "parking lot" so that it is clear that both parking lots and parking structures are required to comply with this section. The number of parking spaces required to be accessible is to be calculated separately for each parking facility; the required number is not to be based on the total number of parking spaces provided in all of the parking facilities provided on the site.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

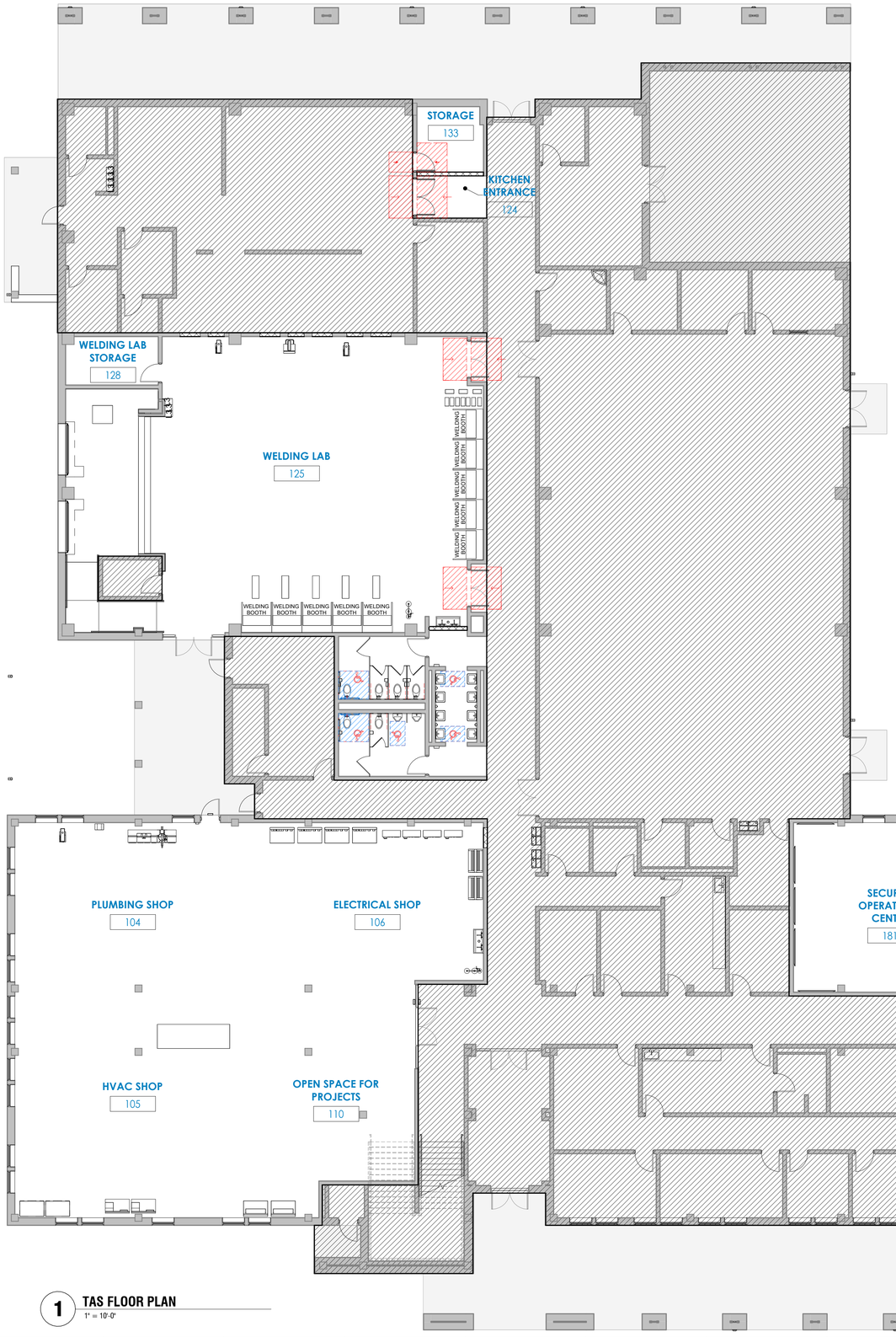
ACCESSIBILITY STANDARDS

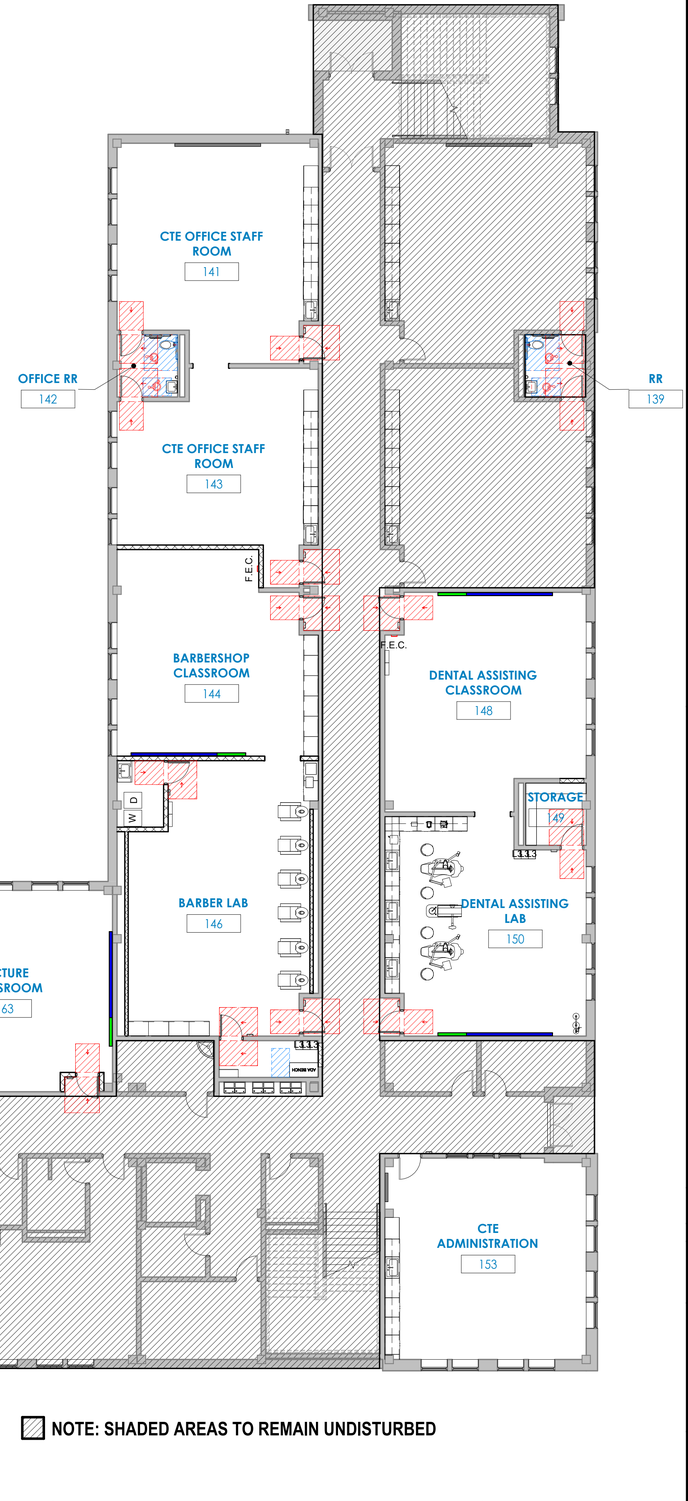
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
G-005

31/01/2024 02:28:26 p. m.





ADA CLEARANCE FOR DOORS

ADA CLEARANCE FOR PLUMBING FIXTURES

NOTE: SHADED AREAS TO REMAIN UNDISTURBED

1 TAS FLOOR PLAN
1" = 10'-0"

31/01/2024 02:30:05 p. m.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

TAS FLOOR PLAN

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

TAS-1

DEMOLITION LEGEND

- CEILING GRID & TILE TO BE DEMOLISHED
- WALLS TO BE DEMOLISHED
- EXISTING WALL TO REMAIN

Demo Portion of CMU Partition for new Door
Demo Portion of CMU Partition for New Entrance
Demo & Dispose Door
Demo & Dispose Windows
2 A-406
Demo & Dispose Doors
Demo Portion of CMU Partition for New Overhead Doors
Demo & Dispose existing VCT Flooring
Demo Storefront Window and fill Gap
Remove Drinking Fountains. Coordinate w/ owner if they are to be preserved or disposed
Demo & Dispose Restroom Fixtures & Accessories
Demo & Dispose Restroom Fixtures & Accessories
2 A-404
Demo & Dispose existing VCT Flooring
Demo & Dispose Door
Demo & Dispose Millwork & Sink
Demo CMU Partition
Demo CMU Partition
Demo & Dispose Door
Demo & Dispose Door
Demo CMU Partition
Demo & Dispose existing VCT Flooring
Demo & Dispose existing VCT Flooring
2 A-403
Demo & Dispose Door
Demo & Dispose Restroom Fixtures & Accessories
Demo Portion of CMU Partition
Demo & Dispose Millwork & Sink
Demo & Dispose Millwork & Sink
Demo Portion of CMU Partition for New Windows
Demo & Dispose Door and portion of CMU wall for new entrance
2 A-401
Demo & Dispose Restroom Fixtures & Accessories
Remove and Replace Door
Demo Portion of CMU Partition
Remove and Replace Door
Remove and Replace Door
Demo & Dispose Millwork & Sink
Demo & Dispose Restroom Fixtures & Accessories
Demo CMU Partition
Demo RR Floor Tile
Demo & Dispose Door
Demo & Dispose Millwork & Sink
Remove and Replace Door
Demo Portion of CMU Partition for new Door
Demo & Dispose Door
Demo & Dispose Restroom Fixtures & Accessories
Remove and Replace Door
Demo & Dispose Millwork & Sink
Demo & Dispose Door
Demo & Dispose Restroom Fixtures & Accessories
Demo Portion of CMU Partition
Demo & Dispose Millwork & Sink
Remove and Replace Door
Demo Portion of wall for New Windows
Remove Existing Markerboard
2 A-402
2 A-407

NOTE: SHADED AREAS TO REMAIN UNDISTURBED

1 DEMO PLAN
3/32" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

DEMOLITION PLAN

No.	DATE	DESCRIPTION

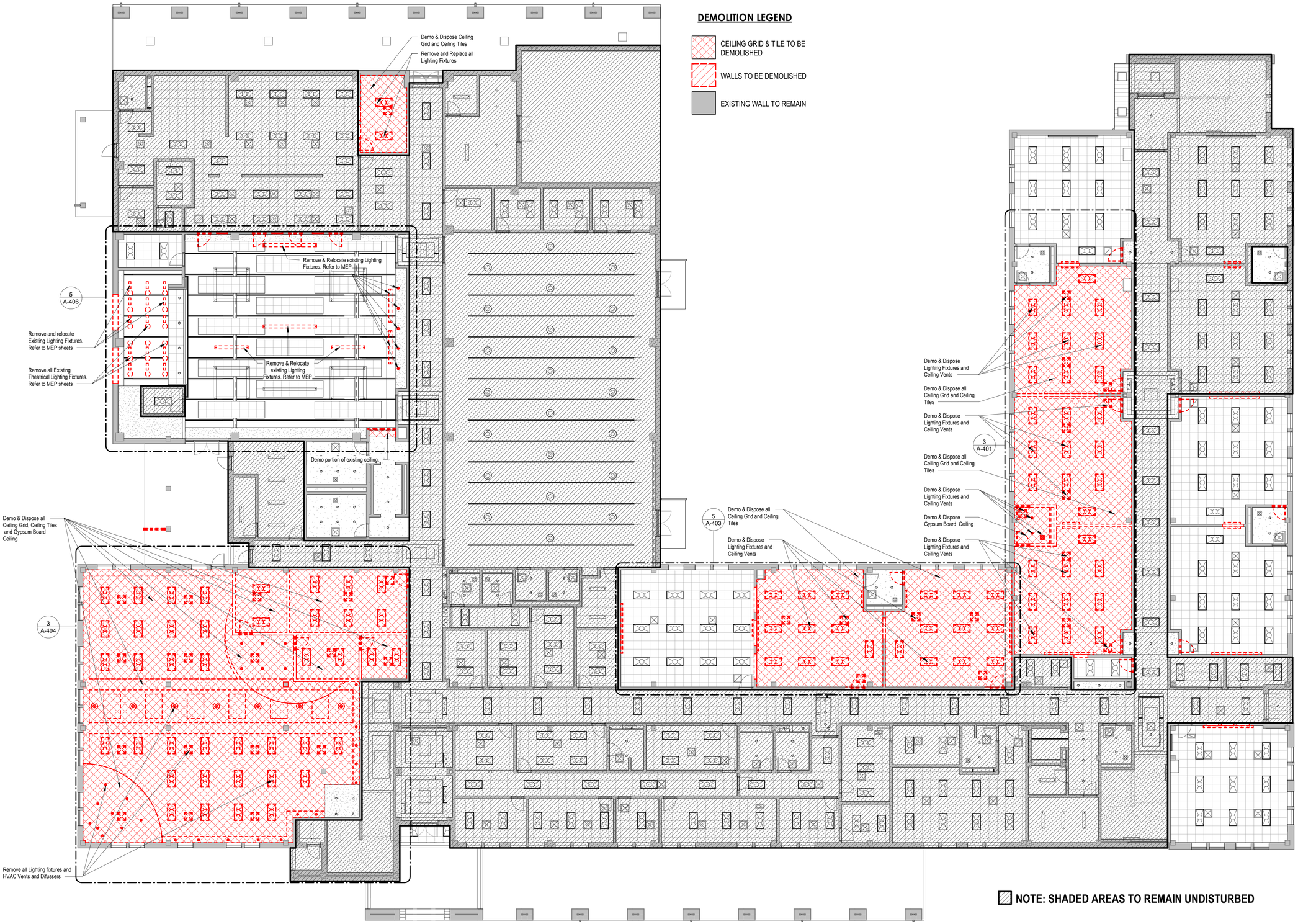
Date: 01/31/2024

Drawing No:
AD-101

31/01/2024 02:38:07 p. m.

DEMOLITION LEGEND

- CEILING GRID & TILE TO BE DEMOLISHED
- WALLS TO BE DEMOLISHED
- EXISTING WALL TO REMAIN



NOTE: SHADED AREAS TO REMAIN UNDISTURBED

1 DEMO RCP
3/32" = 1'-0"

31/01/2024 02:38:08 p. m.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

DEMOLITION REFLECTED CEILING PLAN

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

AD-120

GENERAL NOTES

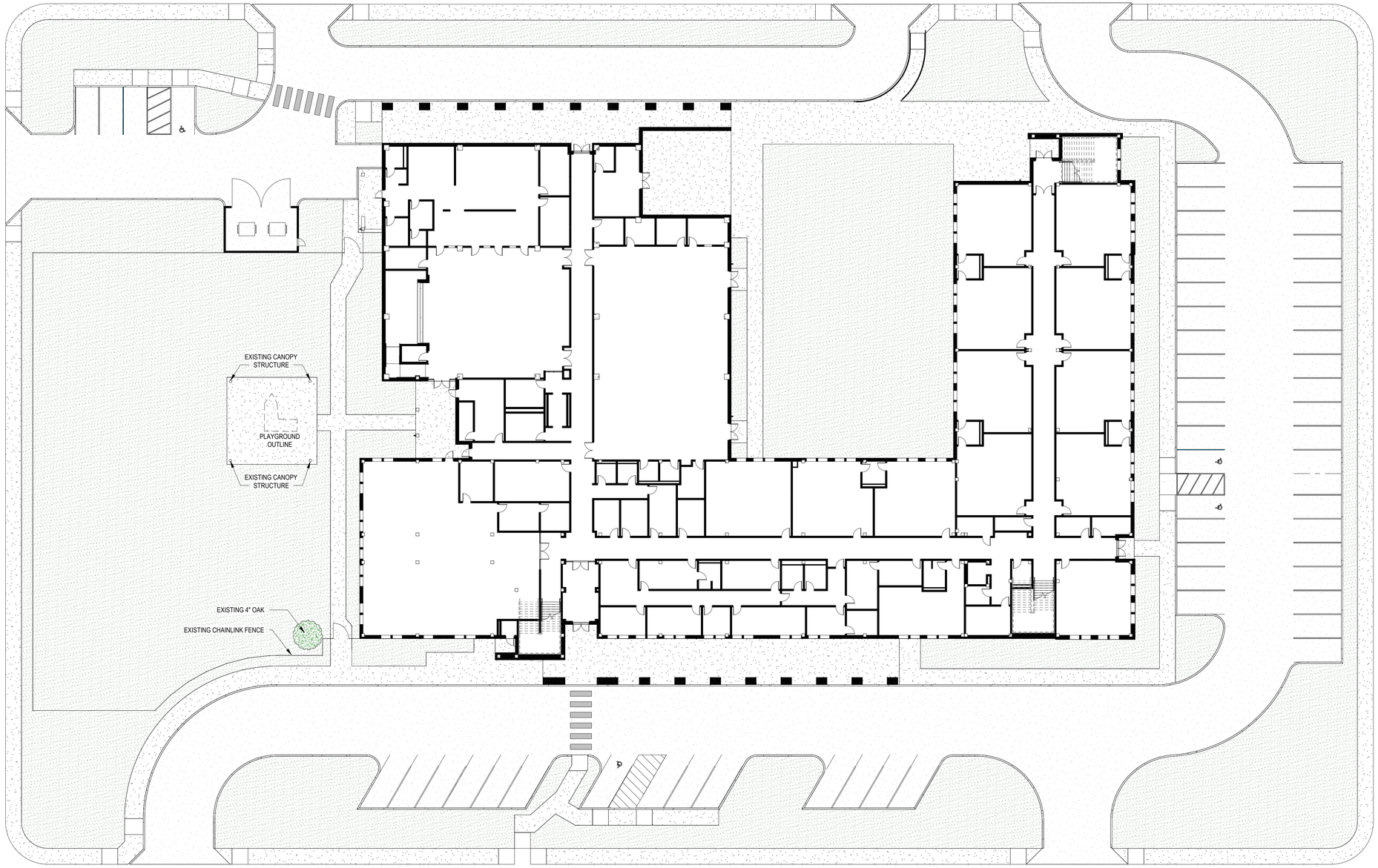
1. ALL NEW WORK TO COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE

2. EXISTING PUBLIC ANNOUCEMENT TO BE REMODELED/EXTENDED/ALTERED AS NECESSARY TO ENSURE THAT RENOVATED AREAS ARE CONNECTED TO EXISTING SYSTEM

3. CORRIDORS TO REMAIN FIRE RESISTANCE RATED

4. PORTABLE FIRE EXTINGUISHERS TO BE MINIMUM 2A:10BC AND LOCATED SUCH THAT THE MAXIMUM TRAVEL DISTANCE TO AN EXTINGUISHER DOES NOT EXCEED 75'-0"

5. PENETRATIONS OF FIRE RESITANCE RATED WALL OR HORIZONTAL ASSEMBLIES TO BE PROTECTED WITH EITHER A SHAFT, DAMPER, OR THROUGH PENETRATION FIRE STOP AS REQUIRED FOR SPECIFIC PENETRATION IN ACCORDANCE WITH IBC CHAPTER 7



1 Site Plan - Existing
1" = 20'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT
JOSE J. CALZADA
10848
STATE OF TEXAS
1-31-2024

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SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

EXISTING SITE PLAN

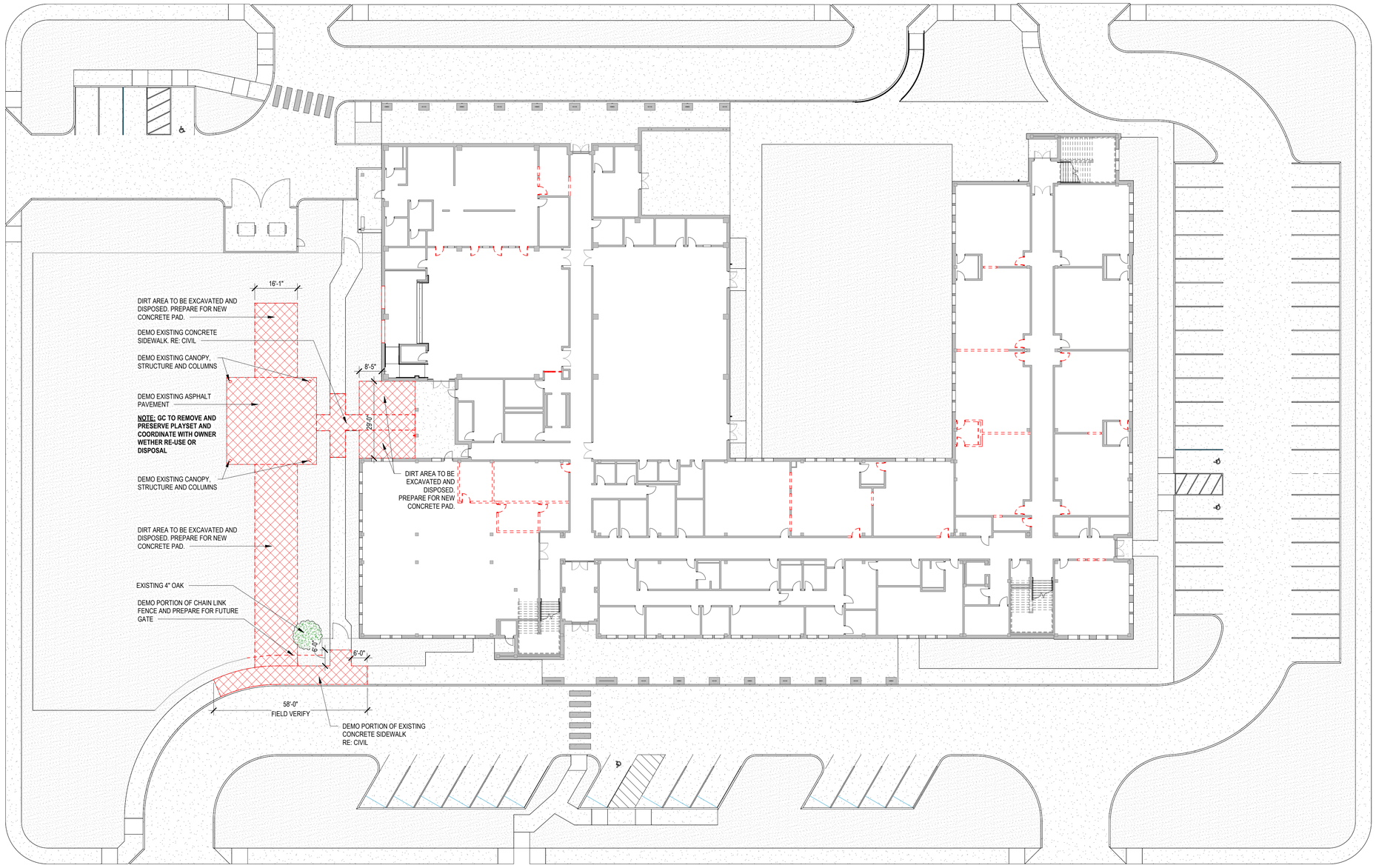
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

AS-101

23/02/2024 02:42:57 p. m.



1 **Site Plan - Demo**
1" = 20'-0"

SITE DEMOLITION LEGEND

- CONCRETE SIDEWALKS TO BE DEMOLISHED
- EXISTING WALLS TO REMAIN

N

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

DEMO SITE PLAN

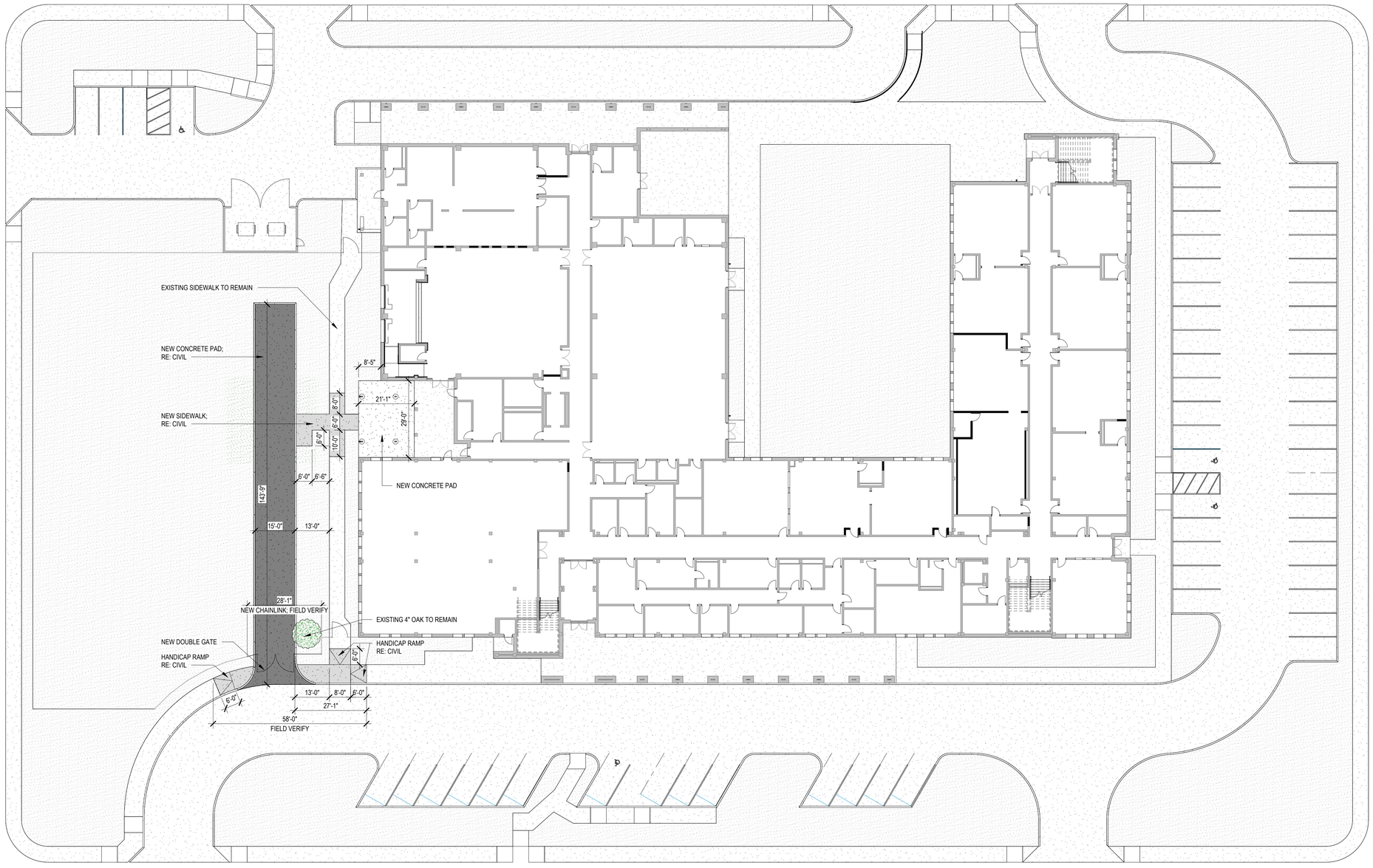
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

AS-102

23/02/2024 02:43:01 p. m.



1 Site Plan - New
1" = 20'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

REGISTERED ARCHITECT
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Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

NEW SITE PLAN

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
AS-103

23/02/2024 02:43:03 p. m.

1 EXISTING FLOOR PLAN
3/32" = 1'-0"

31/01/2024 02:44:44 p. m.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS
1-31-2024

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SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

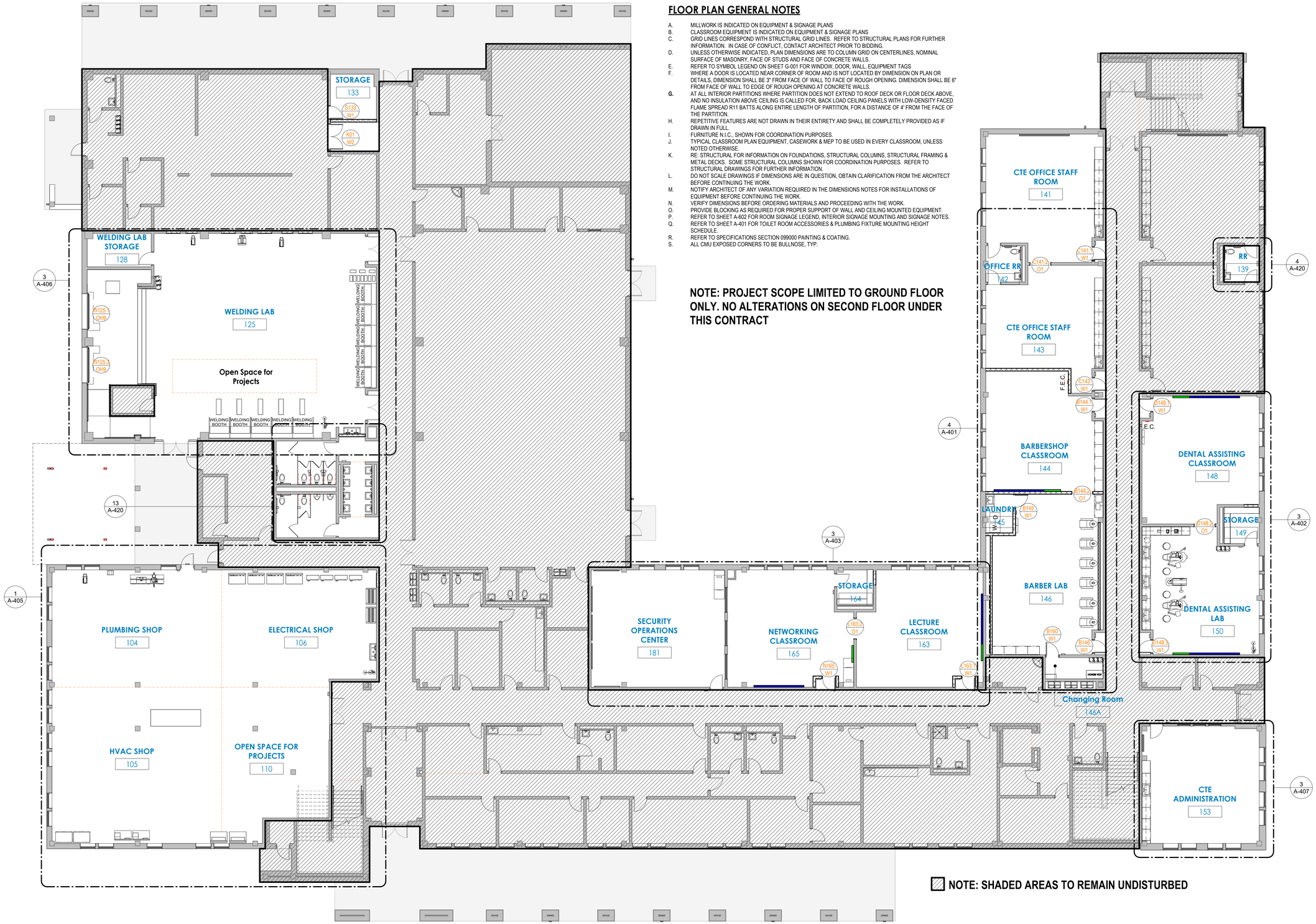
EXISTING CONDITIONS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

A-100



FLOOR PLAN GENERAL NOTES

A. MILLWORK IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
B. CLASSROOM EQUIPMENT IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
C. GRID LINES CORRESPOND WITH STRUCTURAL GRID LINES. REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. IN CASE OF CONFLICT, CONTACT ARCHITECT PRIOR TO BIDDING.
D. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
E. REFER TO SYMBOL LEGEND ON SHEET G-001 FOR WINDOW, DOOR, WALL, EQUIPMENT TAGS
F. WHERE A DOOR IS LOCATED NEAR CORNER OF ROOM AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 3" FROM FACE OF WALL TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS.
G. AT ALL INTERIOR PARTITIONS WHERE PARTITION DOES NOT EXTEND TO ROOF DECK OR FLOOR DECK ABOVE, AND NO INSULATION ABOVE CEILING IS CALLED FOR, BACK LOAD CEILING PANELS WITH LOW-DENSITY FACED FLAME SPREAD R11 BATTS ALONG ENTIRE LENGTH OF PARTITION, FOR A DISTANCE OF 4' FROM THE FACE OF THE PARTITION.
H. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
I. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES.
J. TYPICAL CLASSROOM PLAN EQUIPMENT, CASEWORK & MEP TO BE USED IN EVERY CLASSROOM, UNLESS NOTED OTHERWISE.
K. RE: STRUCTURAL FOR INFORMATION ON FOUNDATIONS, STRUCTURAL COLUMNS, STRUCTURAL FRAMING & METAL DECKS. SOME STRUCTURAL COLUMNS SHOWN FOR COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
L. DO NOT SCALE DRAWINGS IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING THE WORK.
M. NOTIFY ARCHITECT OF ANY VARIATION REQUIRED IN THE DIMENSIONS NOTES FOR INSTALLATIONS OF EQUIPMENT BEFORE CONTINUING THE WORK.
N. VERIFY DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK.
O. PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT.
P. REFER TO SHEET A-602 FOR ROOM SIGNAGE LEGEND, INTERIOR SIGNAGE MOUNTING AND SIGNAGE NOTES.
Q. REFER TO SHEET A-401 FOR TOILET ROOM ACCESSORIES & PLUMBING FIXTURE MOUNTING HEIGHT SCHEDULE.
R. REFER TO SPECIFICATIONS SECTION 099000 PAINTING & COATING.
S. ALL CMU EXPOSED CORNERS TO BE BULLNOSE, TYP.

NOTE: PROJECT SCOPE LIMITED TO GROUND FLOOR ONLY. NO ALTERATIONS ON SECOND FLOOR UNDER THIS CONTRACT

NOTE: SHADED AREAS TO REMAIN UNDISTURBED

1 PROPOSED FLOOR PLAN
3/32" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS

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Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

1st FLOOR PLAN

No.	DATE	DESCRIPTION

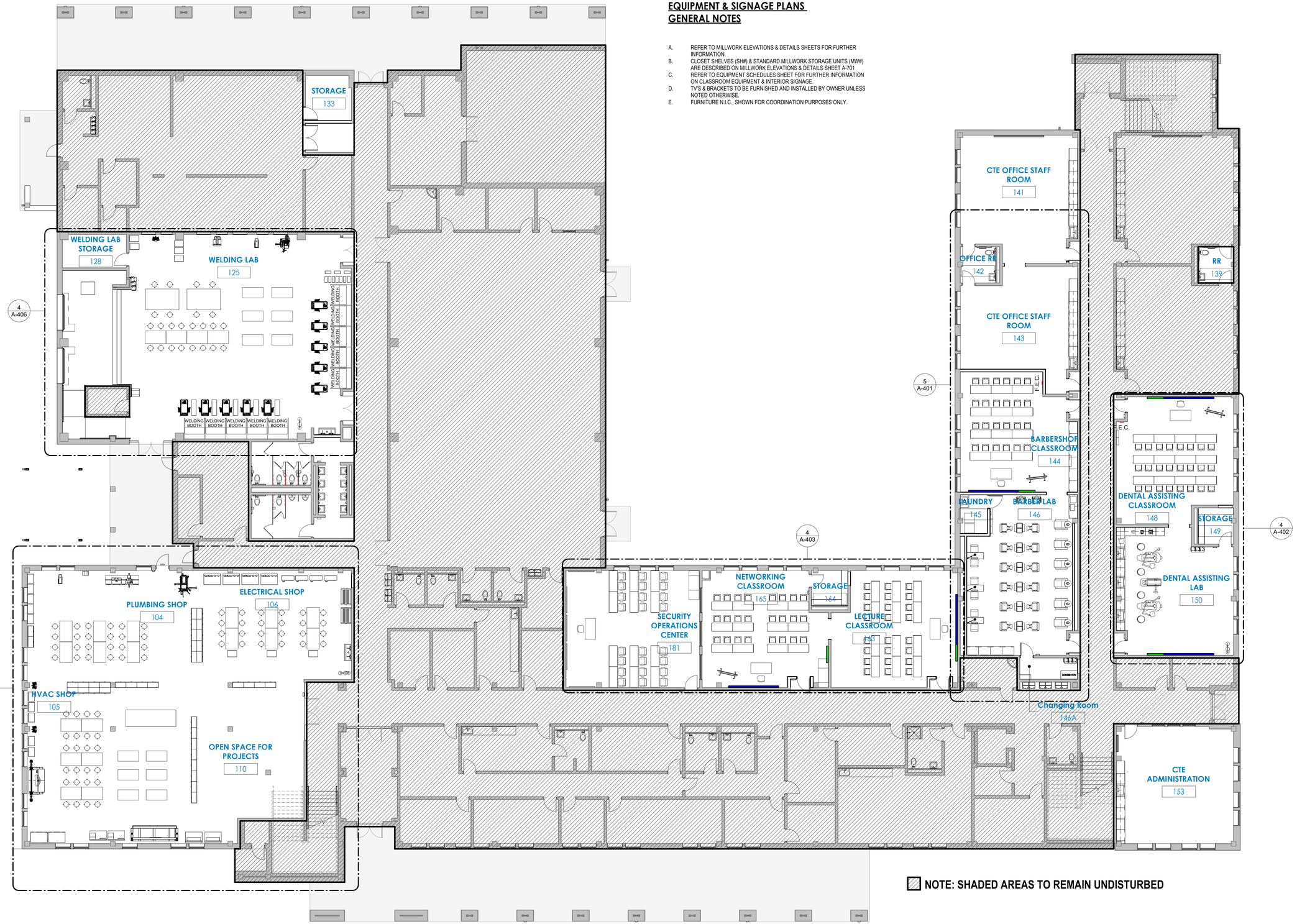
Date: 01/31/2024

Drawing No:
A-101

31/01/2024 02:44:45 p. m.

EQUIPMENT & SIGNAGE PLANS GENERAL NOTES

A. REFER TO MILLWORK ELEVATIONS & DETAILS SHEETS FOR FURTHER INFORMATION.
B. CLOSET SHELVES (SH#) & STANDARD MILLWORK STORAGE UNITS (MW#) ARE DESCRIBED ON MILLWORK ELEVATIONS & DETAILS SHEET A-701
C. REFER TO EQUIPMENT SCHEDULES SHEET FOR FURTHER INFORMATION ON CLASSROOM EQUIPMENT & INTERIOR SIGNAGE.
D. TV'S & BRACKETS TO BE FURNISHED AND INSTALLED BY OWNER UNLESS NOTED OTHERWISE.
E. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES ONLY.



NOTE: SHADED AREAS TO REMAIN UNDISTURBED

1 FURNITURE & EQUIPMENT PLAN
3/32" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS
1-31-2024

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SAN ANTONIO, TX 78221

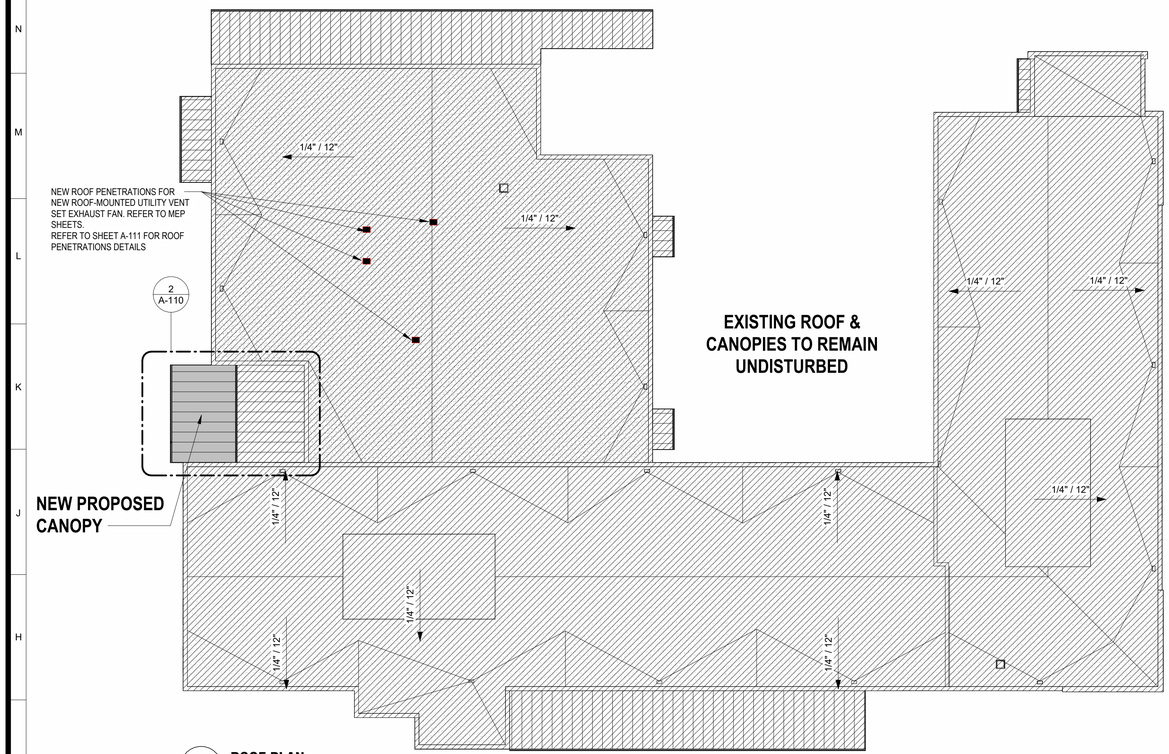
Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

FURNITURE & EQUIPMENT PLAN

No.	DATE	DESCRIPTION

Date: 01/31/2024
Drawing No:
A-102

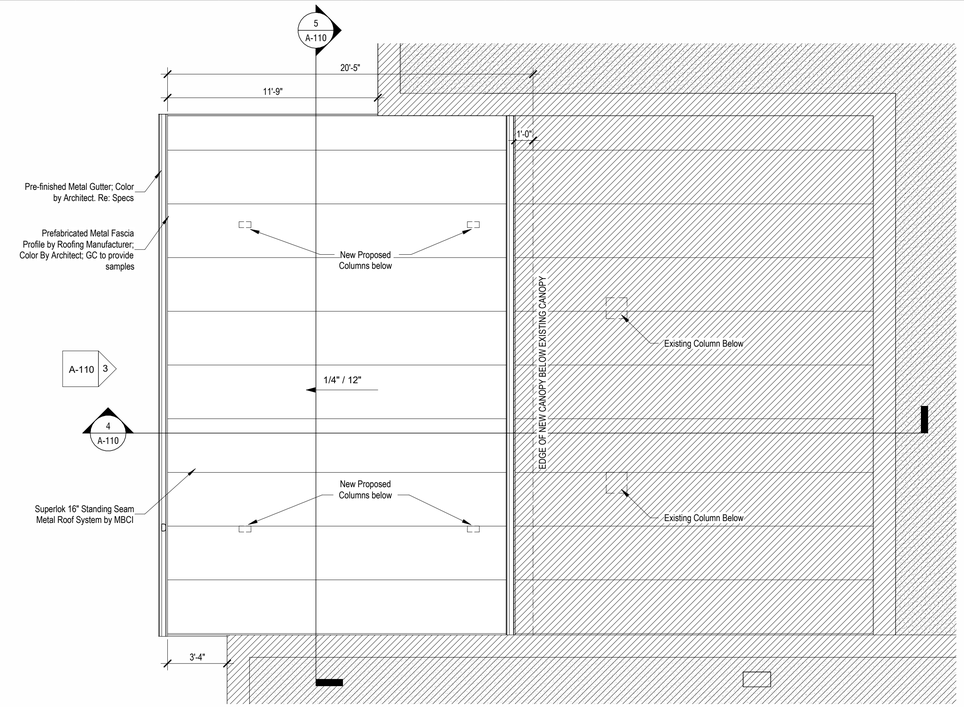
31/01/2024 02:44:58 p. m.



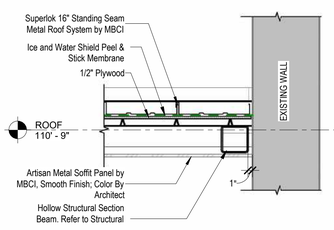
1 ROOF PLAN
3/64" = 1'-0"

ROOF GENERAL NOTES:

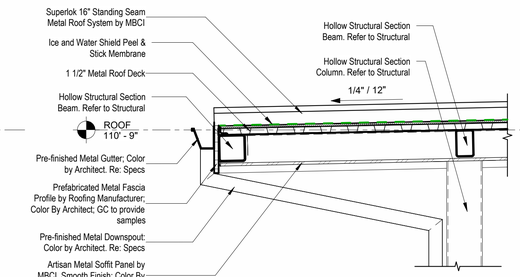
A. REFER TO MECHANICAL DRAWINGS FOR VERIFICATION OF PENETRATION, NOT ALL MAY BE SHOWN. PROVIDE ALL FLASHING, GASKETING AND SEALANTS WATER TIGHT CONDITIONS AT THESE EQUIPMENT AND PENETRATIONS PER TYPICAL DETAILS.
B. PROVIDE ALL FLASHING AND TRIM ACCESSORIES FOR WATER TIGHT ROOF CONSTRUCTION.
C. COORDINATE ALL PENETRATION LOCATIONS WITH STRUCTURAL. PROVIDE ALL MISCELLANOUS STEEL CHANNEL, ANGLE FRAMING SPANNING AND ANCHORED TO STRUCTURAL MEMBERS AS NECESSARY TO SUPPORT AND FRAME OPENING PENETRATION IN THE ROOF DECK.
D. CONTRACTOR TO COORDINATE ALL ROOF TOP MECHANICAL EQUIPMENT, EXHAUST FANS & VENTS ROOF CURB & SUPPORT WITH EQUIPMENT REQUIREMENTS.
E. PROVIDE DOWNSPOUTS WHERE INDICATED ON ELEVATIONS, WITH MTL. SPLASHSPANS AT ALL ROOFTOP DISCHARGE LOCATIONS AND SPLASHBLOCKS AT ALL GRADE LOCATIONS NOT DISCHARGING ON CONCRETE PAVING.
F. REVIEW AND COORDINATE WITH STRUCT. DRAWINGS FOR STRUCTURAL DECK SLOPES.
G. LOCATE PENETRATIONS AND CURBS TO NOT OBSTRUCT VALLEYS AND/OR FLOW FROM DOWNSPOUTS.



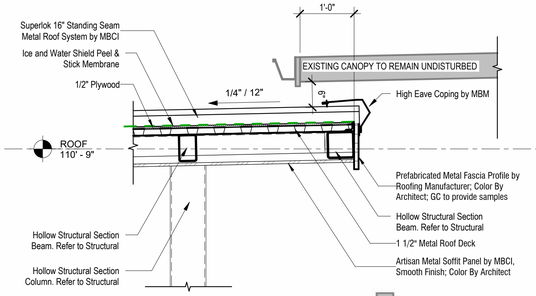
2 NEW PROPOSED CANOPY - ROOF PLAN
1/4" = 1'-0"



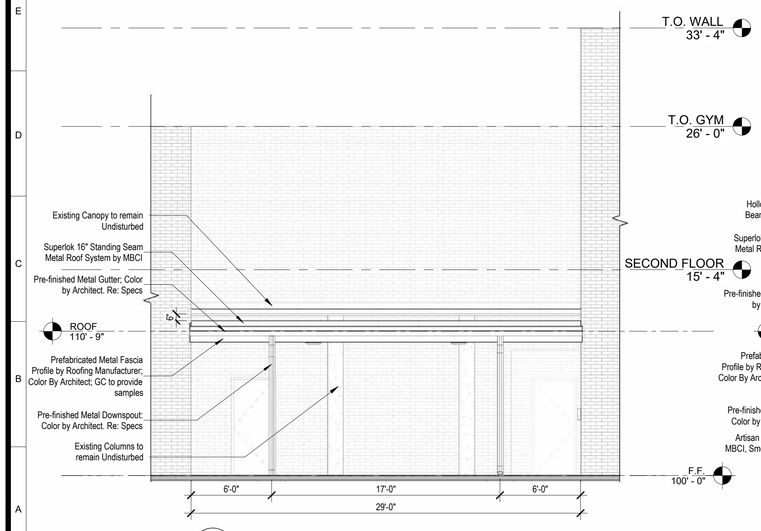
6 SECTION DETAIL
3/4" = 1'-0"



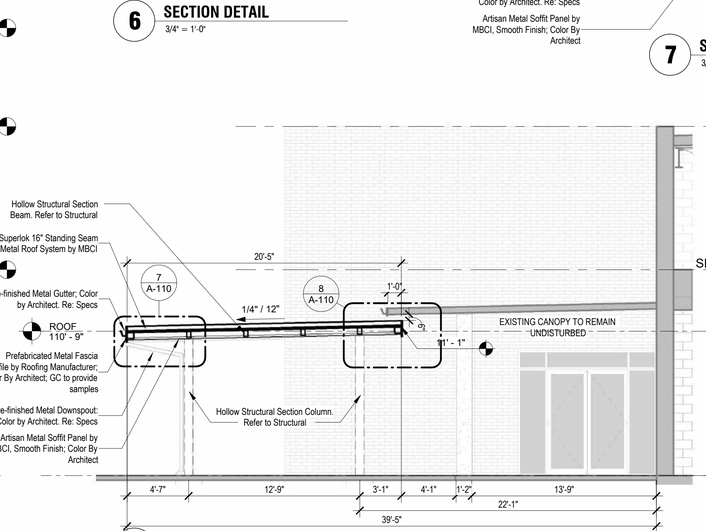
7 SECTION DETAIL
3/4" = 1'-0"



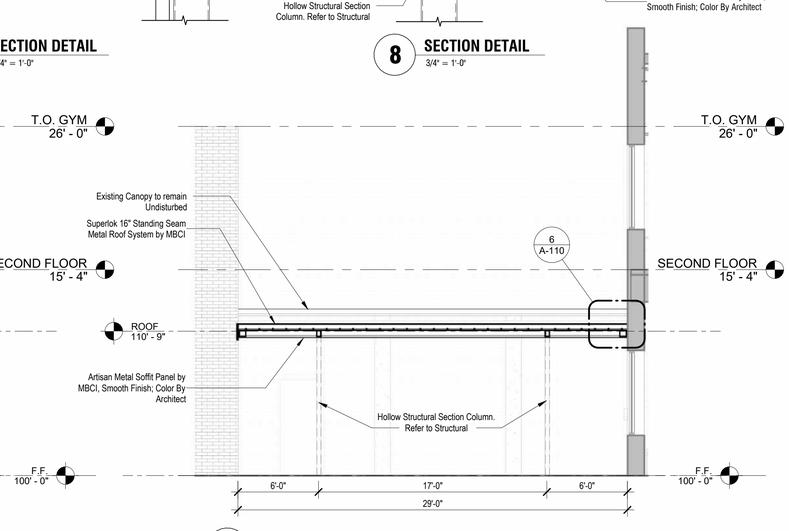
8 SECTION DETAIL
3/4" = 1'-0"



3 EXTERIOR CANOPY ELEVATION
3/16" = 1'-0"



4 CANOPY SECTION
3/16" = 1'-0"



5 CANOPY SECTION
3/16" = 1'-0"

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CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10845 STATE OF TEXAS
1-31-2024

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SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

ROOF PLAN

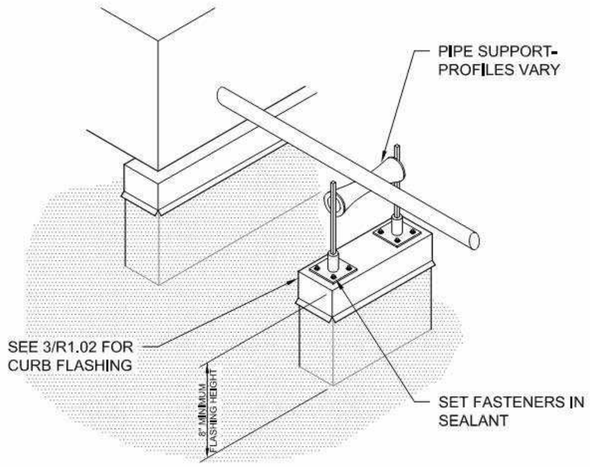
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

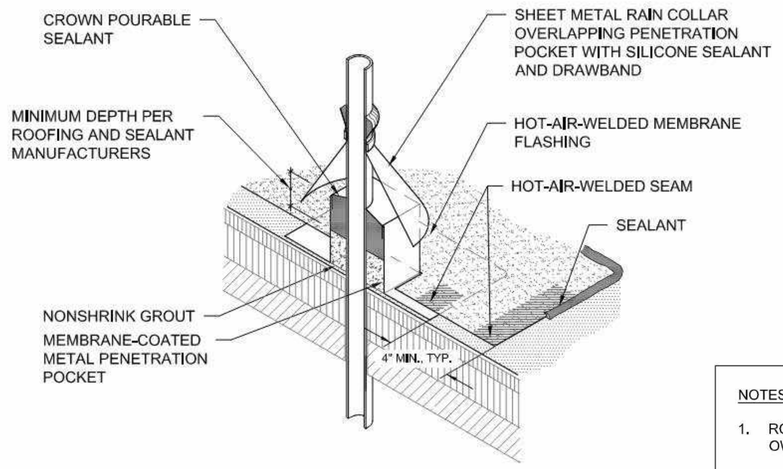
A-110

31/01/2024 02:45:05 p. m.



NOTE:
THIS DETAIL IS DESIGNED TO ELIMINATE ROOF DAMAGE DUE TO EXPANSION AND CONTRACTION OF PIPES. PIPE SUPPORT PROFILES VARY.

1 PIPE SUPPORT CURB
SCALE: NTS



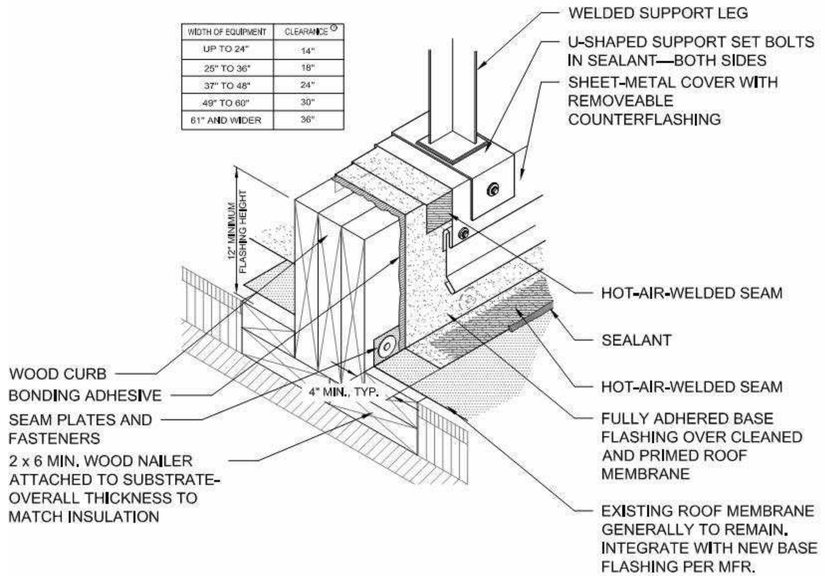
NOTE:
PENETRATION POCKETS ARE NOT THE PREFERRED FLASHING METHOD AT PENETRATIONS BECAUSE THEY MAY BE A MAINTENANCE PROBLEM. DETAIL TO BE USED ONLY WHEN A SUPPORT CURB, AS SHOWN TO LEFT AND RIGHT, IS NOT PRACTICAL OR POSSIBLE.

2 METAL PENETRATION POCKET
SCALE: NTS

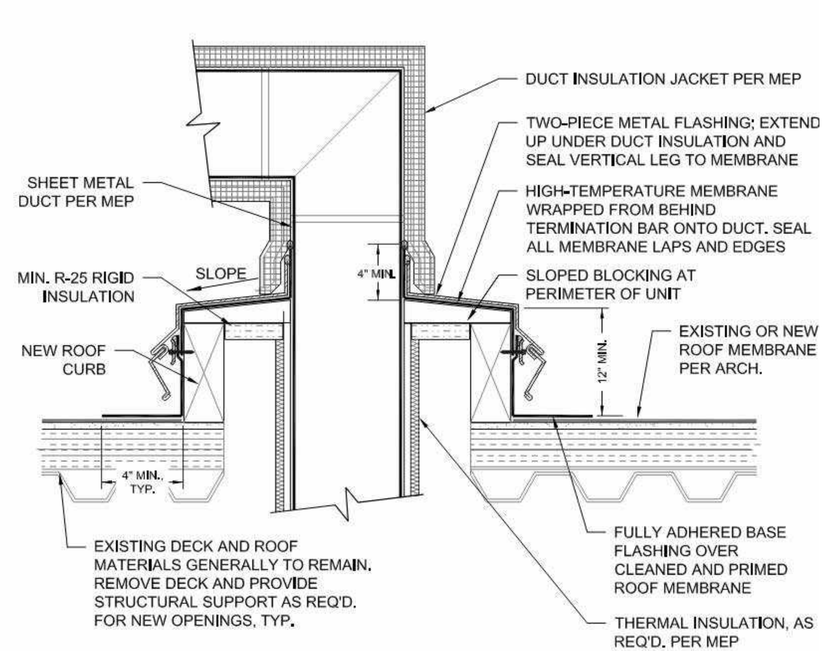
NOTES:

1. ROOFING IS UNDER AN EXISTING WARRANTY. CONTACT OWNER FOR WARRANTY INFORMATION.
2. ALL ROOFING WORK TO BE PERFORMED BY CONTRACTORS CERTIFIED BY THE MANUFACTURER HOLDING THE WARRANTY. CONTACT MANUFACTURER FOR PRE- AND POST-INSPECTIONS.
3. AFTER WORK IS COMPLETED, MANUFACTURER TO PROVIDE COMPLIANCE LETTER INDICATING WARRANTY REMAINS IN FULL FORCE AND EFFECT.
4. NOTIFY DESIGN TEAM OF MOISTURE OR DEGRADED MATERIALS ENCOUNTERED DURING ROOF WORK VIA RFI FOR FURTHER REVIEW AND DIRECTION.

WIDTH OF EQUIPMENT	CLEARANCE
UP TO 24"	14"
25" TO 36"	18"
37" TO 48"	24"
49" TO 60"	30"
61" AND WIDER	36"



3 EQUIPMENT SUPPORT CURB
SCALE: NTS



4 DUCT PENETRATION THROUGH ROOF
SCALE: NTS

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

ROOF DETAILS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
A-111

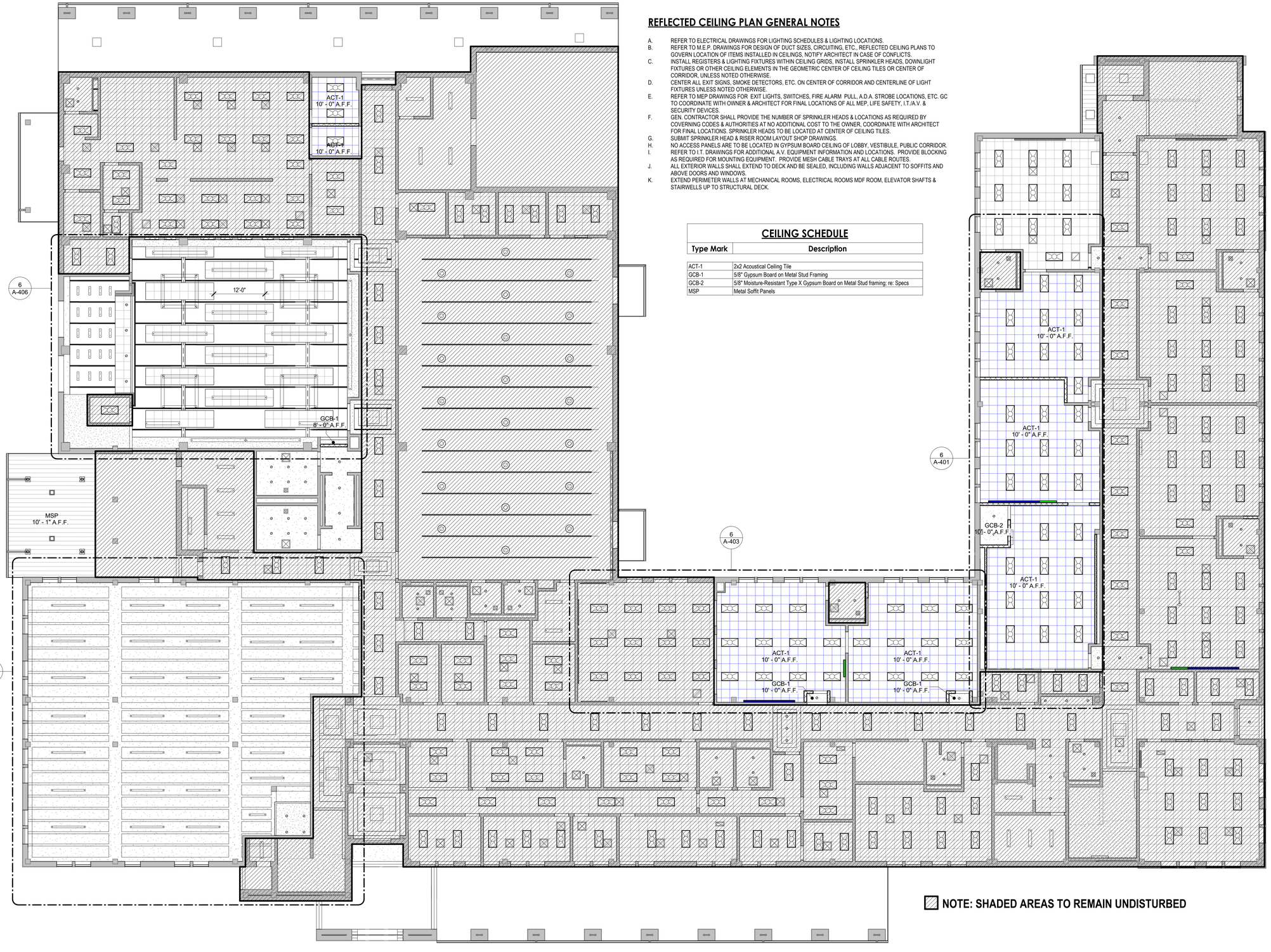
31/01/2024 02:45:05 p. m.

REFLECTED CEILING PLAN GENERAL NOTES

A. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SCHEDULES & LIGHTING LOCATIONS.
B. REFER TO M.E.P. DRAWINGS FOR DESIGN OF DUCT SIZES, CIRCUITING, ETC., REFLECTED CEILING PLANS TO GOVERN LOCATION OF ITEMS INSTALLED IN CEILINGS, NOTIFY ARCHITECT IN CASE OF CONFLICTS.
C. INSTALL REGISTERS & LIGHTING FIXTURES WITHIN CEILING GRIDS, INSTALL SPRINKLER HEADS, DOWNLIGHT FIXTURES OR OTHER CEILING ELEMENTS IN THE GEOMETRIC CENTER OF CEILING TILES OR CENTER OF CORRIDOR, UNLESS NOTED OTHERWISE.
D. CENTER ALL EXIT SIGNS, SMOKE DETECTORS, ETC. ON CENTER OF CORRIDOR AND CENTERLINE OF LIGHT FIXTURES UNLESS NOTED OTHERWISE.
E. REFER TO MEP DRAWINGS FOR EXIT LIGHTS, SWITCHES, FIRE ALARM PULL, A.D.A. STROBE LOCATIONS, ETC. GC TO COORDINATE WITH OWNER & ARCHITECT FOR FINAL LOCATIONS OF ALL MEP, LIFE SAFETY, I.T./A.V. & SECURITY DEVICES.
F. GEN. CONTRACTOR SHALL PROVIDE THE NUMBER OF SPRINKLER HEADS & LOCATIONS AS REQUIRED BY COVERNING CODES & AUTHORITIES AT NO ADDITIONAL COST TO THE OWNER, COORDINATE WITH ARCHITECT FOR FINAL LOCATIONS. SPRINKLER HEADS TO BE LOCATED AT CENTER OF CEILING TILES.
G. SUBMIT SPRINKLER HEAD & RISER ROOM LAYOUT SHOP DRAWINGS.
H. NO ACCESS PANELS ARE TO BE LOCATED IN GYPSUM BOARD CEILING OF LOBBY, VESTIBULE, PUBLIC CORRIDOR.
I. REFER TO I.T. DRAWINGS FOR ADDITIONAL A.V. EQUIPMENT INFORMATION AND LOCATIONS. PROVIDE BLOCKING AS REQUIRED FOR MOUNTING EQUIPMENT. PROVIDE MESH CABLE TRAYS AT ALL CABLE ROUTES.
J. ALL EXTERIOR WALLS SHALL EXTEND TO DECK AND BE SEALED, INCLUDING WALLS ADJACENT TO SOFFITS AND ABOVE DOORS AND WINDOWS.
K. EXTEND PERIMETER WALLS AT MECHANICAL ROOMS, ELECTRICAL ROOMS MDF ROOM, ELEVATOR SHAFTS & STAIRWELLS UP TO STRUCTURAL DECK.

CEILING SCHEDULE

Type Mark	Description
ACT-1	2x2 Acoustical Ceiling Tile
GCB-1	5/8" Gypsum Board on Metal Stud Framing
GCB-2	5/8" Moisture-Resistant Type X Gypsum Board on Metal Stud framing; re: Specs
MSP	Metal Soffit Panels



NOTE: SHADED AREAS TO REMAIN UNDISTURBED

1 **REFLECTED CEILING PLAN**
3/32" = 1'-0"

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519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

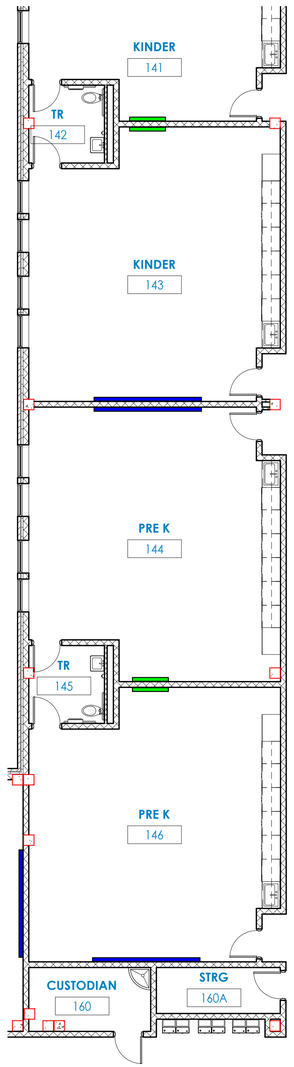
1st FLOOR RCP

No.	DATE	DESCRIPTION

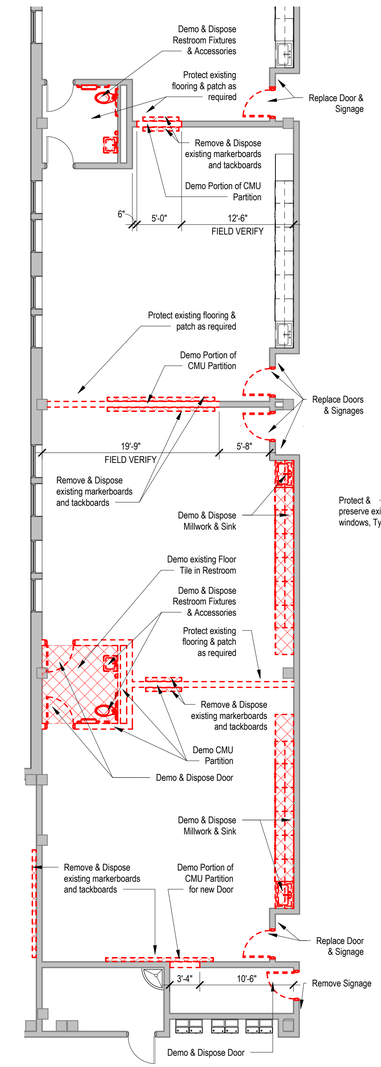
Date: 01/31/2024
Drawing No:
A-120

31/01/2024 02:45:06 p. m.

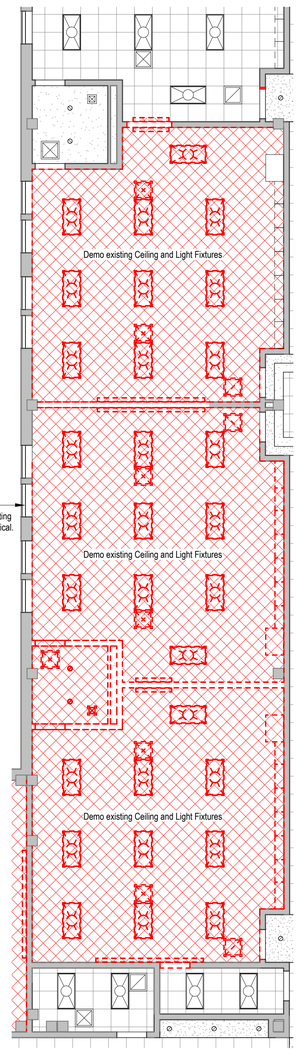
NOTE: GC TO REPAIR, PATCH, PAINT & CAULK ALL MASONRY AS REQUIRED AT ALL DOOR FRAMES BEING REMOVED, TYPICAL.



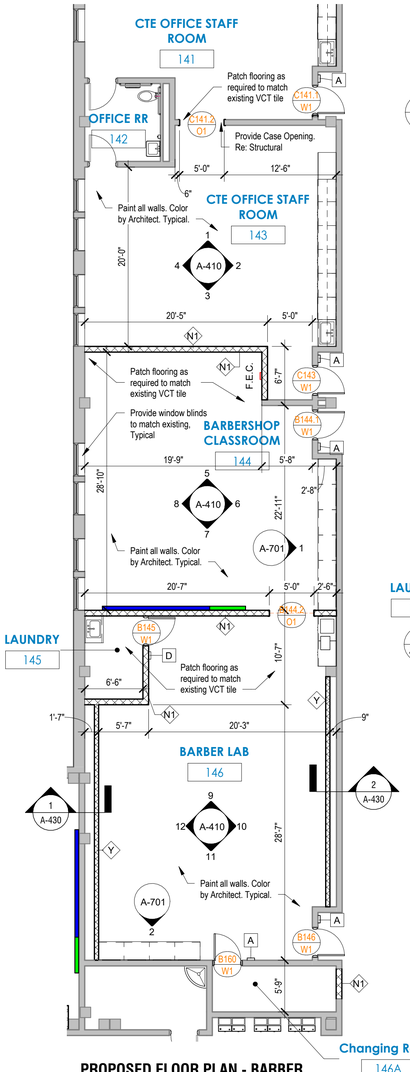
1 EXISTING FLOOR PLAN - BARBER CLASSROOM & LAB
1/8" = 1'-0"



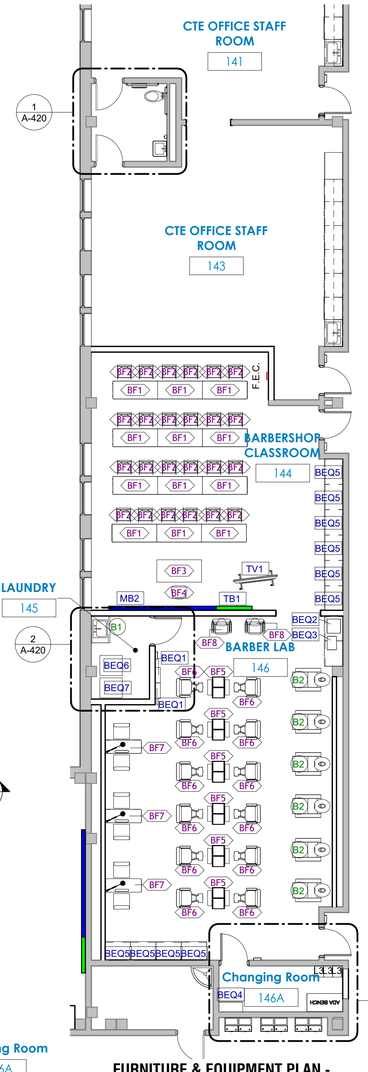
2 DEMO PLAN - BARBER CLASSROOM & LAB
1/8" = 1'-0"



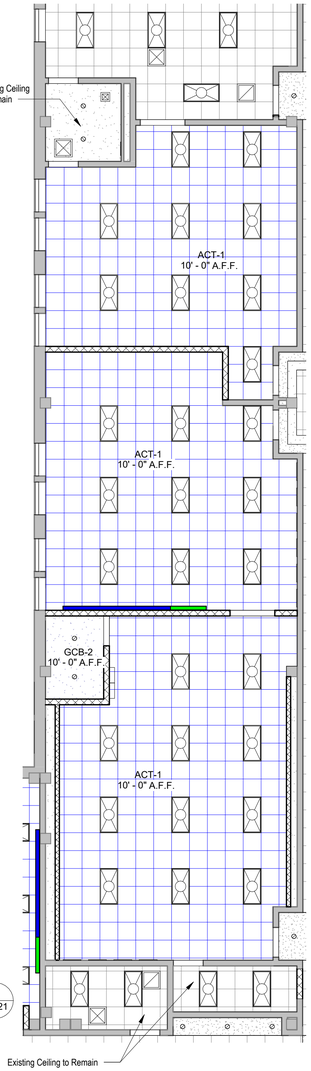
3 DEMO RCP - BARBER CLASSROOM & LAB
1/8" = 1'-0"



4 PROPOSED FLOOR PLAN - BARBER CLASSROOM & LAB
1/8" = 1'-0"



5 FURNITURE & EQUIPMENT PLAN - BARBER CLASSROOM & LAB
1/8" = 1'-0"



6 REFLECTED CEILING PLAN - BARBER CLASSROOM & LAB
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. MILLWORK IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
B. CLASSROOM EQUIPMENT IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
C. GRID LINES CORRESPOND WITH STRUCTURAL GRID LINES. REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. IN CASE OF CONFLICT, CONTACT ARCHITECT PRIOR TO BIDDING.
D. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
E. REFER TO SYMBOL LEGEND ON SHEET G-001 FOR WINDOW, DOOR, WALL, EQUIPMENT TAGS
F. WHERE A DOOR IS LOCATED NEAR CORNER OF ROOM AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 3" FROM FACE OF WALL TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS.
G. AT ALL INTERIOR PARTITIONS WHERE PARTITION DOES NOT EXTEND TO ROOF DECK OR FLOOR DECK ABOVE, AND NO INSULATION ABOVE CEILING IS CALLED FOR, BACK LOAD CEILING PANELS WITH LOW-DENSITY FACED FLAME SPREAD R11 BATTS ALONG ENTIRE LENGTH OF PARTITION, FOR A DISTANCE OF 4' FROM THE FACE OF THE PARTITION.
H. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
I. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES.
J. TYPICAL CLASSROOM PLAN EQUIPMENT, CASEWORK & MEP TO BE USED IN EVERY CLASSROOM, UNLESS NOTED OTHERWISE.
K. RE: STRUCTURAL FOR INFORMATION ON FOUNDATIONS, STRUCTURAL COLUMNS, STRUCTURAL FRAMING & METAL DECKS. SOME STRUCTURAL COLUMNS SHOWN FOR COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
L. DO NOT SCALE DRAWINGS IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING THE WORK.
M. NOTIFY ARCHITECT OF ANY VARIATION REQUIRED IN THE DIMENSIONS NOTES FOR INSTALLATIONS OF EQUIPMENT BEFORE CONTINUING THE WORK.
N. VERIFY DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK.
O. PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT.
P. REFER TO SHEET A-602 FOR ROOM SIGNAGE LEGEND, INTERIOR SIGNAGE MOUNTING AND SIGNAGE NOTES.
Q. REFER TO SHEET A-401 FOR TOILET ROOM ACCESSORIES & PLUMBING FIXTURE MOUNTING HEIGHT SCHEDULE.
R. REFER TO SPECIFICATIONS SECTION 099000 PAINTING & COATING.
S. ALL CMU EXPOSED CORNERS TO BE BULLNOSE, TYP.

NOTE: GC TO PROTECT, PRESERVE AND TO COORDINATE WITH OWNER REMOVAL OF I.T. EQUIPMENT FROM CEILING AS REQUIRED

DEMOLITION LEGEND

- CEILING GRID & TILE TO BE DEMOLISHED
- WALLS TO BE DEMOLISHED
- EXISTING WALL TO REMAIN

NOTE: GC TO VERIFY WITH OWNER PRIOR PURCHASING, FURNISHING AND INSTALLING ANY EQUIPMENT APPLIANCES MODELS, TYPICAL

BARBER LAB PLUMBING FIXTURE SCHEDULE

Type Mark	Description	ADA	Specification	Comments
B1	Sink		Laundry Sink	Re: MEP
B2	Hair Backwash	<varies>	Klyne Reclining Shampoo Backwash Unit with UPC Certified Faucet	O.P.O.I

BARBER CLASSROOM & LAB FURNITURE SCHEDULE

Type Mark	Description	Count	Responsability
BF1	CCI Active Learning Table	12	O.P.O.I.
BF2	Student Chairs	24	O.P.O.I.
BF3	Teacher's Desk	1	O.P.O.I.
BF4	Teacher's Chair	1	O.P.O.I.
BF5	Styling Booth	6	O.P.O.I.
BF6	Salon Chair	12	O.P.O.I.
BF7	Manicure Station	3	O.P.O.I.
BF8	Salon Dryer Chair	2	O.P.O.I.

BARBER CLASSROOM & LAB SPECIALTY EQUIPMENT SCHEDULE

Type Mark	Description	Count	Responsability
BEQ1	Wall Mounted Chromebook Charging Cart	2	C.P.C.I.
BEQ2	UV Sanitizer Light	1	O.P.O.I
BEQ3	Towel Steamer	1	O.P.O.I
BEQ4	Guardian 9 Wig Dryer Commercial Model	1	O.P.O.I
BEQ5	Mirror: 18" Wide x 36" High (Adult)	10	C.P.C.I.

APPLIANCES SCHEDULE

Type Mark	Description	Count	Responsibility
BEQ6	7.3 cu.ft. Rear Control Top Load Dryer with TurboSteam - LG Laundry - DLEX7900BE/DLGX7901BE	1	C.P.C.I.
BEQ7	5.5 cu.ft. Top Load Washer with TurboWash3D - LG Laundry - WT7900HBA	1	C.P.C.I.

EQUIPMENT & SIGNAGE PLANS GENERAL NOTES

A. REFER TO MILLWORK ELEVATIONS & DETAILS SHEETS FOR FURTHER INFORMATION.
B. CLOSET SHELVES (SH#) & STANDARD MILLWORK STORAGE UNITS (MW#) ARE DESCRIBED ON MILLWORK ELEVATIONS & DETAILS SHEET A-701
C. REFER TO EQUIPMENT SCHEDULES SHEET FOR FURTHER INFORMATION ON CLASSROOM EQUIPMENT & INTERIOR SIGNAGE.
D. TV'S & BRACKETS TO BE FURNISHED AND INSTALLED BY OWNER UNLESS NOTED OTHERWISE.
E. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES ONLY.

GENERAL EQUIPMENT NOTES

1. OPOI = OWNER PROVIDED/OWNER INSTALLED
2. CPCI = CONTRACTOR PROVIDED/CONTRACTOR INSTALLED
3. OPCI = OWNER PROVIDED/CONTRACTOR INSTALLED
4. G.C. TO INCLUDE ALL LABOR COSTS INCLUDING LIFT RENTAL IF NECESSARY.
5. WHEN BASIS OF DESIGN INDICATED ON SCHEDULE; "OR EQUAL" PRODUCTS WILL BE ACCEPTED BUT ARE TO BE APPROVED BY ARCHITECT DURING SUBMITTAL PROCESS. REFER TO SPECIFICATIONS SECTION TITLED "SUBMITTAL PROCEDURES" FOR FURTHER INFORMATION.

REFLECTED CEILING PLAN GENERAL NOTES

A. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SCHEDULES & LIGHTING LOCATIONS.
B. REFER TO M.E.P. DRAWINGS FOR DESIGN OF DUCT SIZES, CIRCUITING, ETC., REFLECTED CEILING PLANS TO GOVERN LOCATION OF ITEMS INSTALLED IN CEILINGS, NOTIFY ARCHITECT IN CASE OF CONFLICTS.
C. INSTALL REGISTERS & LIGHTING FIXTURES WITHIN CEILING GRIDS, INSTALL SPRINKLER HEADS, DOWNLIGHT FIXTURES OR OTHER CEILING ELEMENTS IN THE GEOMETRIC CENTER OF CEILING TILES OR CENTER OF CORRIDOR, UNLESS NOTED OTHERWISE.
D. CENTER ALL EXIT SIGNS, SMOKE DETECTORS, ETC. ON CENTER OF CORRIDOR AND CENTERLINE OF LIGHT FIXTURES UNLESS NOTED OTHERWISE.
E. REFER TO MEP DRAWINGS FOR EXIT LIGHTS, SWITCHES, FIRE ALARM PULL, A.D.A. STROBE LOCATIONS, ETC. GC TO COORDINATE WITH OWNER & ARCHITECT FOR FINAL LOCATIONS OF ALL MEP, LIFE SAFETY, I.T./A.V. & SECURITY DEVICES.
F. GEN. CONTRACTOR SHALL PROVIDE THE NUMBER OF SPRINKLER HEADS & LOCATIONS AS REQUIRED BY COVERNING CODES & AUTHORITIES AT NO ADDITIONAL COST TO THE OWNER, COORDINATE WITH ARCHITECT FOR FINAL LOCATIONS. SPRINKLER HEADS TO BE LOCATED AT CENTER OF CEILING TILES.
G. SUBMIT SPRINKLER HEAD & RISER ROOM LAYOUT SHOP DRAWINGS.
H. NO ACCESS PANELS ARE TO BE LOCATED IN GYPSUM BOARD CEILING OF LOBBY, VESTIBULE, PUBLIC CORRIDOR.
I. REFER TO I.T. DRAWINGS FOR ADDITIONAL A.V. EQUIPMENT INFORMATION AND LOCATIONS. PROVIDE BLOCKING AS REQUIRED FOR MOUNTING EQUIPMENT. PROVIDE MESH CABLE TRAYS AT ALL CABLE ROUTES.
J. ALL EXTERIOR WALLS SHALL EXTEND TO DECK AND BE SEALED, INCLUDING WALLS ADJACENT TO SOFFITS AND ABOVE DOORS AND WINDOWS.
K. EXTEND PERIMETER WALLS AT MECHANICAL ROOMS, ELECTRICAL ROOMS MDF ROOM, ELEVATOR SHAFTS & STAIRWELLS UP TO STRUCTURAL DECK.

CLASSROOM CEILING SCHEDULE

Type Mark	Description
ACT-1	2x2 Acoustical Ceiling Tile
GCB-1	5/8" Gypsum Board on Metal Stud Framing
GCB-2	5/8" Moisture-Resistant Type X Gypsum Board on Metal Stud framing; re: Specs

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10844 STATE OF TEXAS
1-31-2024

ARCHITECTURA S. A.

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HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

BARBER CLASSROOM & LAB ENLARGED PLANS

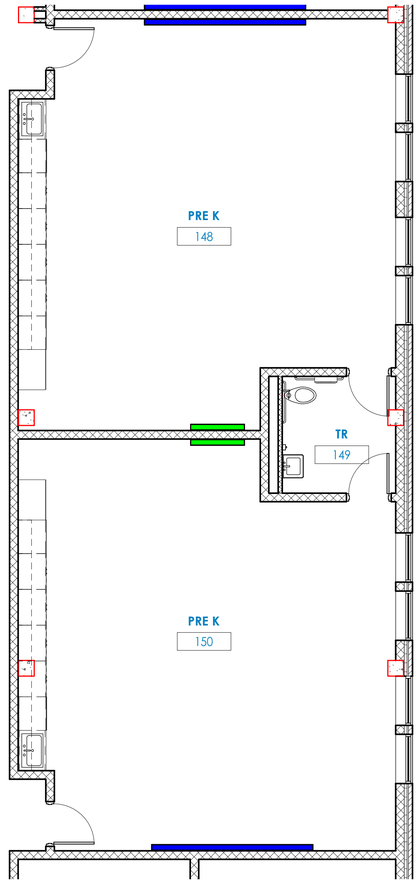
No.	DATE	DESCRIPTION

Date: 01/31/2024

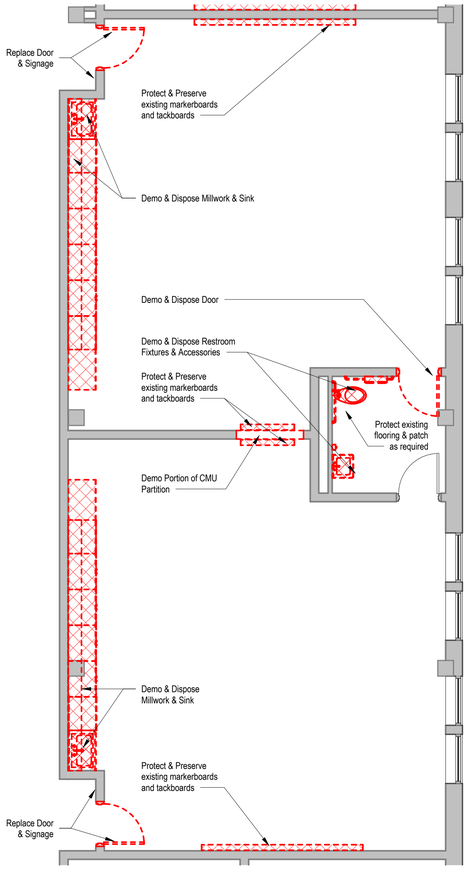
Drawing No:
A-401

31/01/2024 02:50:41 p. m.

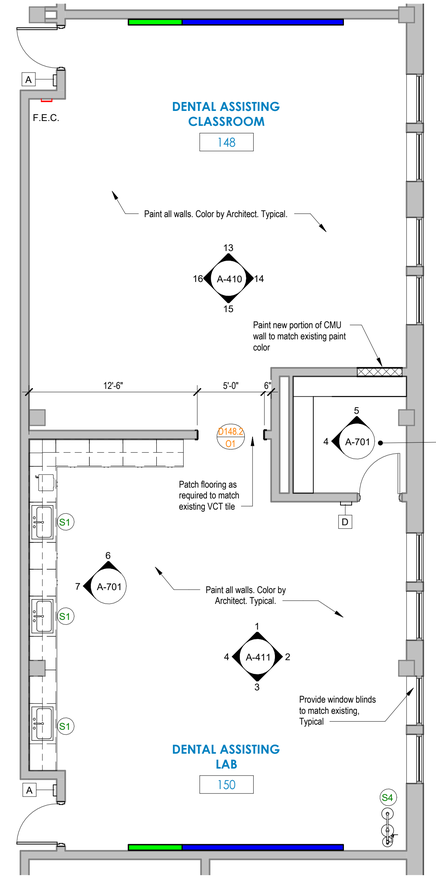
NOTE: GC TO REPAIR, PATCH, PAINT & CAULK ALL MASONRY AS REQUIRED AT ALL DOOR FRAMES BEING REMOVED, TYPICAL.



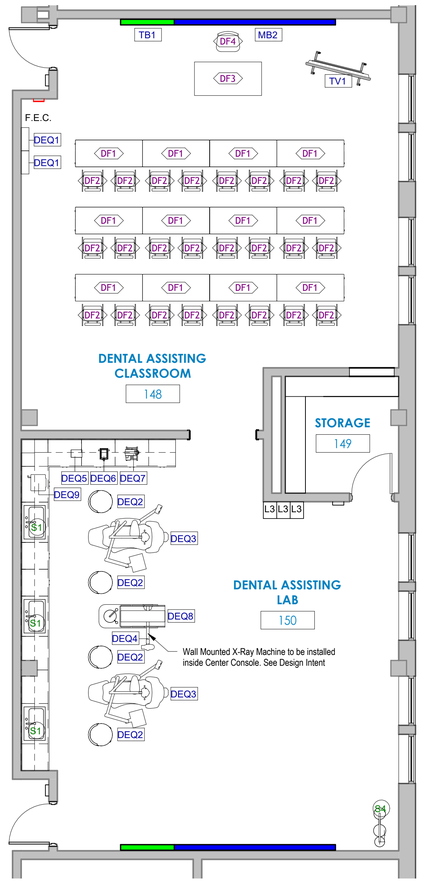
1 EXISTING FLOOR PLAN - DENTAL ASSISTING CLASSROOM & LAB
3/16" = 1'-0"



2 DEMO PLAN - DENTAL ASSISTING CLASSROOM & LAB
3/16" = 1'-0"



3 PROPOSED FLOOR PLAN - DENTAL ASSISTING CLASSROOM & LAB
3/16" = 1'-0"



4 FURNITURE & EQUIPMENT PLAN - DENTAL ASSISTING CLASSROOM & LAB
3/16" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. MILLWORK IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
B. CLASSROOM EQUIPMENT IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
C. GRID LINES CORRESPOND WITH STRUCTURAL GRID LINES. REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. IN CASE OF CONFLICT, CONTACT ARCHITECT PRIOR TO BIDDING.
D. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
E. REFER TO SYMBOL LEGEND ON SHEET G-001 FOR WINDOW, DOOR, WALL, EQUIPMENT TAGS
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H. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
I. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES.
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Q. REFER TO SHEET A-401 FOR TOILET ROOM ACCESSORIES & PLUMBING FIXTURE MOUNTING HEIGHT SCHEDULE.
R. REFER TO SPECIFICATIONS SECTION 099000 PAINTING & COATING.
S. ALL CMU EXPOSED CORNERS TO BE BULLNOSE, TYP.

DEMOLITION LEGEND

CEILING GRID & TILE TO BE DEMOLISHED

WALLS TO BE DEMOLISHED

EXISTING WALL TO REMAIN

EQUIPMENT & SIGNAGE PLANS GENERAL NOTES

A. REFER TO MILLWORK ELEVATIONS & DETAILS SHEETS FOR FURTHER INFORMATION.
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C. REFER TO EQUIPMENT SCHEDULES SHEET FOR FURTHER INFORMATION ON CLASSROOM EQUIPMENT & INTERIOR SIGNAGE.
D. TV'S & BRACKETS TO BE FURNISHED AND INSTALLED BY OWNER UNLESS NOTED OTHERWISE.
E. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES ONLY.

LAB PLUMBING FIXTURE SCHEDULE

Type Mark	Description	ADA	Specification	Comments
S1	Sink	Yes	refer to MEP Specifications	C.P.C.I.
S4	Eye Wash Station	Yes	refer to MEP Specifications	C.P.C.I.

DENTAL ASSISTING CLASSROOM & LAB FURNITURE SCHEDULE

Type Mark	Description	Count	Responsability
DF1	CCI Active Learning Table	12	O.P.O.I.
DF2	Student Chairs (18 Inch A+ Seat Height)	24	O.P.O.I.
DF3	Teacher's Desk	1	O.P.O.I.
DF4	Teacher's Chair	1	O.P.O.I.

LOCKER SCHEDULE

Locker Type Mark	# of Tiers	Width	Depth	Height
L3	3	12"	15"	60"

DENTAL ASSISTING CLASSROOM & LAB SPECIALTY EQUIPMENT SCHEDULE

Type Mark	Description	Count	Manufacturer	Model	Responsability
DEQ1	Wall Mounted Chromebook Charging Cart	2	TBD	TBD	C.P.C.I.
DEQ2	Dental assistant's operating stool	4	TBD	TBD	O.P.O.I
DEQ3	UltraTrim Chair w/ Asepsis 21 Console Mounted Delivery System	2	Midmark	153758-002	O.P.O.I
DEQ4	Wall Mounted X-Ray	1	Corix	70 PLUS-USV-WM	O.P.O.I
DEQ5	Dental molding vibrator.	1	Buffalo Dental Manufacturing Co.	84350	O.P.O.I
DEQ6	Tray Vac Vacuum Former.	1	Buffalo Dental Manufacturing Co.	80165	O.P.O.I
DEQ7	Dental Lab Model Trimmer	1	Buffalo Dental Manufacturing Co.	61792	O.P.O.I
DEQ8	Central Station with X Ray Cabinet	1	TBD	TBD	O.P.O.I
DEQ9	Ultrasonic Cleaner	1	BioSonic Twin FingerGuard	8884406 | Coltene/Whaledent - UC311	O.P.O.I

CENTER CONSOLE DESIGN INTENT

GENERAL EQUIPMENT NOTES

1. OPOI = OWNER PROVIDED/OWNER INSTALLED
2. CPCI = CONTRACTOR PROVIDED/CONTRACTOR INSTALLED
3. OPCI = OWNER PROVIDED/CONTRACTOR INSTALLED
4. G.C. TO INCLUDE ALL LABOR COSTS INCLUDING LIFT RENTAL IF NECESSARY.
5. WHEN BASIS OF DESIGN INDICATED ON SCHEDULE; "OR EQUAL" PRODUCTS WILL BE ACCEPTED BUT ARE TO BE APPROVED BY ARCHITECT DURING SUBMITTAL PROCESS. REFER TO SPECIFICATIONS SECTION TITLED "SUBMITTAL PROCEDURES" FOR FURTHER INFORMATION.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS

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519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

DENTAL ASSIST. CLASSROOM & LAB ENLARGED PLANS

No.	DATE	DESCRIPTION

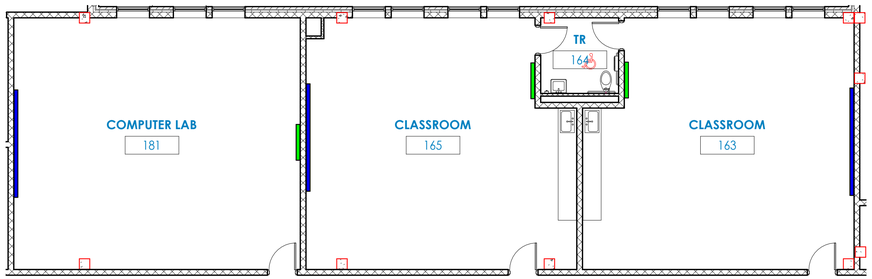
Date: 01/31/2024

Drawing No:

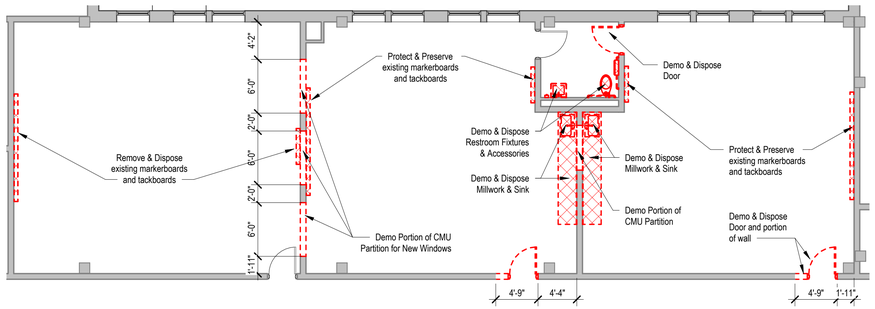
A-402

31/01/2024 02:50:43 p. m.

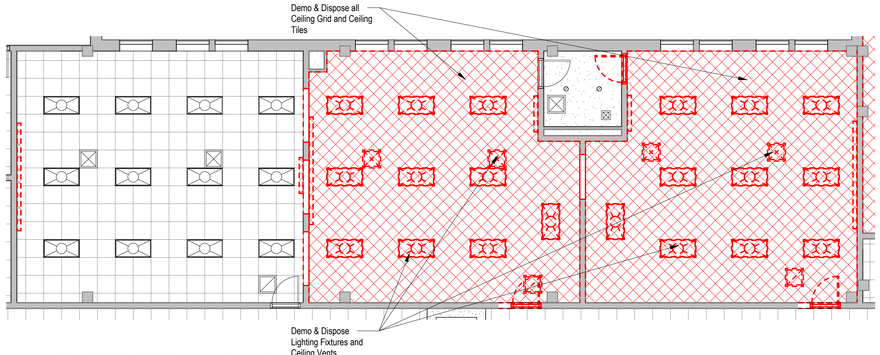
NOTE: GC TO REPAIR, PATCH, PAINT & CAULK ALL MASONRY AS REQUIRED AT ALL DOOR FRAMES BEING REMOVED, TYPICAL.



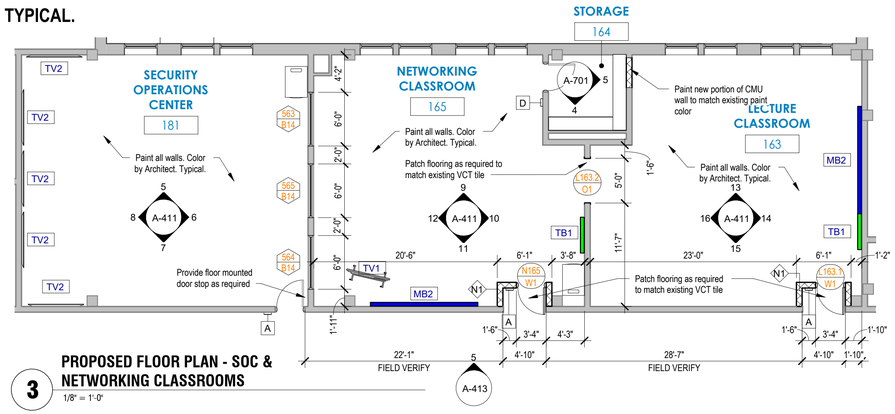
1 EXISTING FLOOR PLAN - SOC & NETWORKING CLASSROOMS
1/8" = 1'-0"



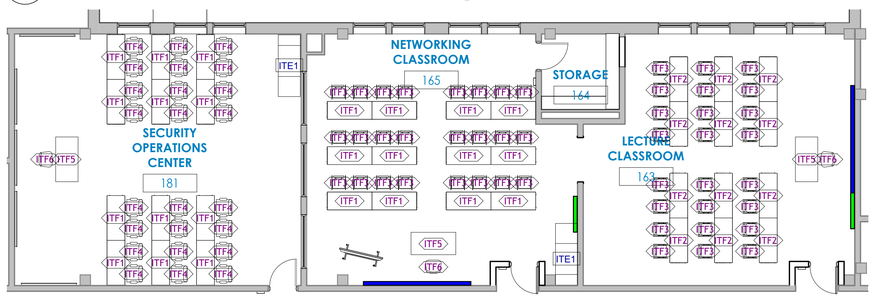
2 DEMO PLAN - SOC & NETWORKING CLASSROOMS
1/8" = 1'-0"



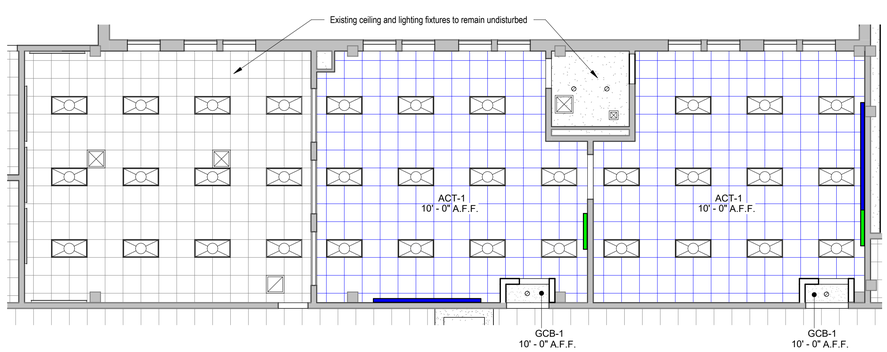
5 DEMO RCP - SOC & NETWORKING CLASSROOMS
1/8" = 1'-0"



3 PROPOSED FLOOR PLAN - SOC & NETWORKING CLASSROOMS
1/8" = 1'-0"



4 FURNITURE & EQUIPMENT PLAN - SOC & NETWORKING CLASSROOMS
1/8" = 1'-0"



6 REFLECTED CEILING PLAN - Callout 1
1/8" = 1'-0"

EQUIPMENT & SIGNAGE PLANS GENERAL NOTES

A. REFER TO MILLWORK ELEVATIONS & DETAILS SHEETS FOR FURTHER INFORMATION.
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E. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES ONLY.

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2. CPCI = CONTRACTOR PROVIDED/CONTRACTOR INSTALLED
3. OPCI = OWNER PROVIDED/CONTRACTOR INSTALLED
4. G.C. TO INCLUDE ALL LABOR COSTS INCLUDING LIFT RENTAL IF NECESSARY.
5. WHEN BASIS OF DESIGN INDICATED ON SCHEDULE; "OR EQUAL" PRODUCTS WILL BE ACCEPTED BUT ARE TO BE APPROVED BY ARCHITECT DURING SUBMITTAL PROCESS. REFER TO SPECIFICATIONS SECTION TITLED "SUBMITTAL PROCEDURES" FOR FURTHER INFORMATION.

SOC & NETWORKING CLASSROOMS FURNITURE SCHEDULE

Type Mark	Description	Count	Responsability
ITF1	CCI Hide-Away LCD Table 50 Inch	24	O.P.O.I.
ITF2	CCI Active Learning Table	12	O.P.O.I.
ITF3	Student Chairs (18 Inch A+ Seat Height)	48	O.P.O.I.
ITF4	Flash Furniture Ergonomic Mesh High-Back Office Chair	24	O.P.O.I.
ITF5	Teacher's Desk	3	O.P.O.I.
ITF6	Teacher's Chair	3	O.P.O.I.

SOC & NETWORKING CLASSROOMS SPECIALTY EQUIPMENT SCHEDULE

Type Mark	Description	Count	Responsability
ITE1	42U SmartRack Wide Standard-Depth Rack Enclosure Cabinet with Doors and Side Panels	2	O.P.O.I

TV SCHEDULE

Type Mark	Description	Comments
TV1	65" Interactive Board - ViewSonic with Mobile Trolley Cart	O.P.O.I
TV2	Samsung - 85" Class CU7000 Crystal UHD 4K Smart Tizen TV	O.P.O.I

REFLECTED CEILING PLAN GENERAL NOTES

A. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SCHEDULES & LIGHTING LOCATIONS.
B. REFER TO M.E.P. DRAWINGS FOR DESIGN OF DUCT SIZES, CIRCUITING, ETC., REFLECTED CEILING PLANS TO GOVERN LOCATION OF ITEMS INSTALLED IN CEILINGS, NOTIFY ARCHITECT IN CASE OF CONFLICTS.
C. INSTALL REGISTERS & LIGHTING FIXTURES WITHIN CEILING GRIDS, INSTALL SPRINKLER HEADS, DOWNLIGHT FIXTURES OR OTHER CEILING ELEMENTS IN THE GEOMETRIC CENTER OF CEILING TILES OR CENTER OF CORRIDOR, UNLESS NOTED OTHERWISE.
D. CENTER ALL EXIT SIGNS, SMOKE DETECTORS, ETC. ON CENTER OF CORRIDOR AND CENTERLINE OF LIGHT FIXTURES UNLESS NOTED OTHERWISE.
E. REFER TO MEP DRAWINGS FOR EXIT LIGHTS, SWITCHES, FIRE ALARM PULL, A.D.A. STROBE LOCATIONS, ETC. GC TO COORDINATE WITH OWNER & ARCHITECT FOR FINAL LOCATIONS OF ALL MEP, LIFE SAFETY, I.T./A.V. & SECURITY DEVICES.
F. GEN. CONTRACTOR SHALL PROVIDE THE NUMBER OF SPRINKLER HEADS & LOCATIONS AS REQUIRED BY COVERNING CODES & AUTHORITIES AT NO ADDITIONAL COST TO THE OWNER, COORDINATE WITH ARCHITECT FOR FINAL LOCATIONS. SPRINKLER HEADS TO BE LOCATED AT CENTER OF CEILING TILES.
G. SUBMIT SPRINKLER HEAD & RISER ROOM LAYOUT SHOP DRAWINGS.
H. NO ACCESS PANELS ARE TO BE LOCATED IN GYPSUM BOARD CEILING OF LOBBY, VESTIBULE, PUBLIC CORRIDOR.
I. REFER TO I.T. DRAWINGS FOR ADDITIONAL A.V. EQUIPMENT INFORMATION AND LOCATIONS. PROVIDE BLOCKING AS REQUIRED FOR MOUNTING EQUIPMENT. PROVIDE MESH CABLE TRAYS AT ALL CABLE ROUTES.
J. ALL EXTERIOR WALLS SHALL EXTEND TO DECK AND BE SEALED, INCLUDING WALLS ADJACENT TO SOFFITS AND ABOVE DOORS AND WINDOWS.
K. EXTEND PERIMETER WALLS AT MECHANICAL ROOMS, ELECTRICAL ROOMS MDF ROOM, ELEVATOR SHAFTS & STAIRWELLS UP TO STRUCTURAL DECK.

DEMOLITION LEGEND

- CEILING GRID & TILE TO BE DEMOLISHED
- WALLS TO BE DEMOLISHED
- EXISTING WALL TO REMAIN

NOTE: GC TO PROTECT, PRESERVE AND TO COORDINATE WITH OWNER REMOVAL OF I.T. EQUIPMENT FROM CEILING AS REQUIRED

CLASSROOM CEILING SCHEDULE

Type Mark	Description
ACT-1	2x2 Acoustical Ceiling Tile
GCB-1	5/8" Gypsum Board on Metal Stud Framing
GCB-2	5/8" Moisture-Resistant Type X Gypsum Board on Metal Stud framing; re: Specs

FLOOR PLAN GENERAL NOTES

A. MILLWORK IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
B. CLASSROOM EQUIPMENT IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
C. GRID LINES CORRESPOND WITH STRUCTURAL GRID LINES. REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. IN CASE OF CONFLICT, CONTACT ARCHITECT PRIOR TO BIDDING.
D. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
E. REFER TO SYMBOL LEGEND ON SHEET G-001 FOR WINDOW, DOOR, WALL, EQUIPMENT TAGS.
F. WHERE A DOOR IS LOCATED NEAR CORNER OF ROOM AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 3" FROM FACE OF WALL TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS.
G. AT ALL INTERIOR PARTITIONS WHERE PARTITION DOES NOT EXTEND TO ROOF DECK OR FLOOR DECK ABOVE, AND NO INSULATION ABOVE CEILING IS CALLED FOR, BACK LOAD CEILING PANELS WITH LOW-DENSITY FACED FLAME SPREAD R11 BATTS ALONG ENTIRE LENGTH OF PARTITION, FOR A DISTANCE OF 4' FROM THE FACE OF THE PARTITION.
H. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
I. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES.
J. TYPICAL CLASSROOM PLAN EQUIPMENT, CASEWORK & MEP TO BE USED IN EVERY CLASSROOM, UNLESS NOTED OTHERWISE.
K. RE: STRUCTURAL FOR INFORMATION ON FOUNDATIONS, STRUCTURAL COLUMNS, STRUCTURAL FRAMING & METAL DECKS. SOME STRUCTURAL COLUMNS SHOWN FOR COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
L. DO NOT SCALE DRAWINGS IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING THE WORK.
M. NOTIFY ARCHITECT OF ANY VARIATION REQUIRED IN THE DIMENSIONS NOTES FOR INSTALLATIONS OF EQUIPMENT BEFORE CONTINUING THE WORK.
N. VERIFY DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK.
O. PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT.
P. REFER TO SHEET A-602 FOR ROOM SIGNAGE LEGEND, INTERIOR SIGNAGE MOUNTING AND SIGNAGE NOTES.
Q. REFER TO SHEET A-401 FOR TOILET ROOM ACCESSORIES & PLUMBING FIXTURE MOUNTING HEIGHT SCHEDULE.
R. REFER TO SPECIFICATIONS SECTION 099000 PAINTING & COATING.
S. ALL CMU EXPOSED CORNERS TO BE BULLNOSE, TYP.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

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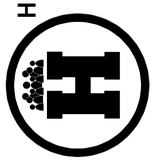


Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

SOC. & NET. CLASSROOMS ENLARGED PLANS

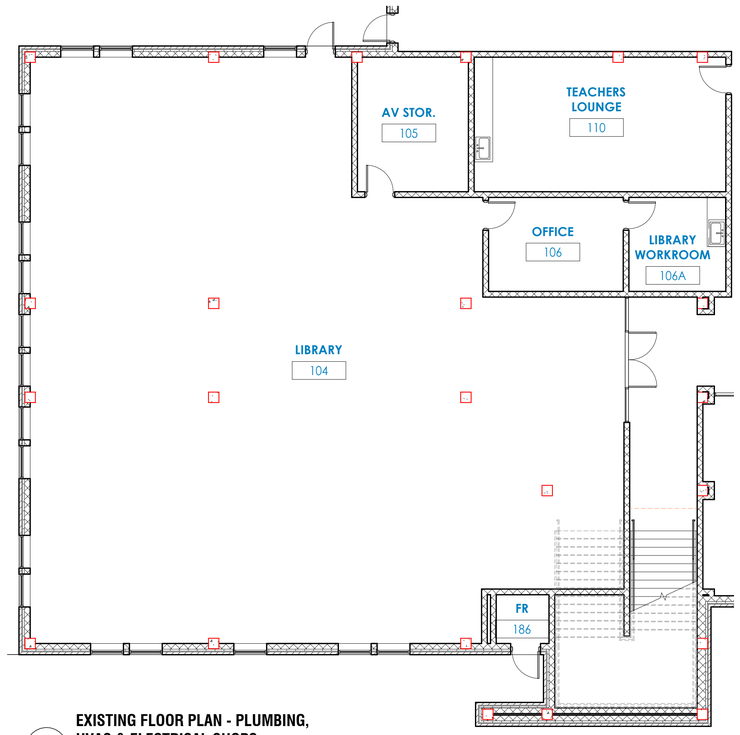
No.	DATE	DESCRIPTION

Date: 01/31/2024

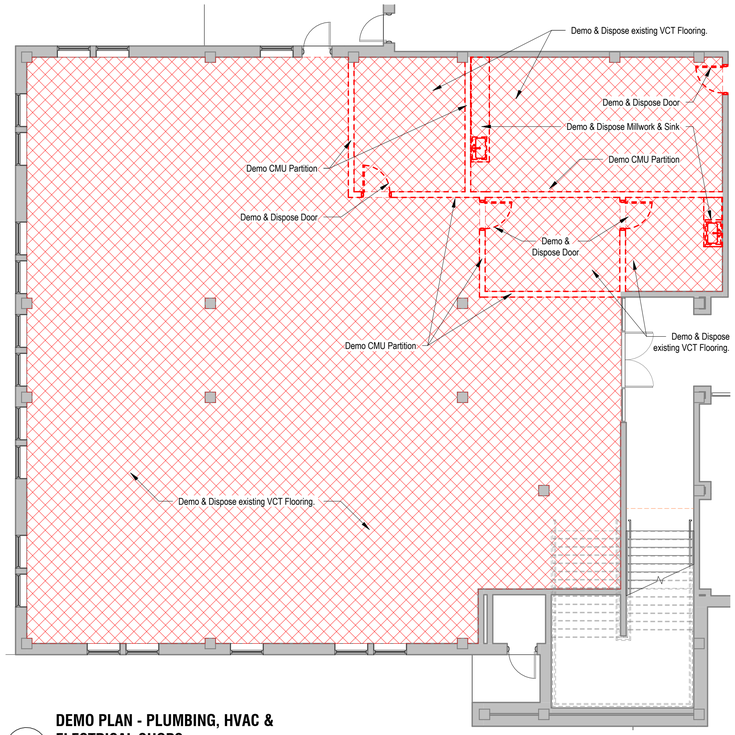
Drawing No:

A-403

31/01/2024 02:50:45 p. m.



1 **EXISTING FLOOR PLAN - PLUMBING, HVAC & ELECTRICAL SHOPS**
1/8" = 1'-0"



2 **DEMO PLAN - PLUMBING, HVAC & ELECTRICAL SHOPS**
1/8" = 1'-0"

GENERAL NOTES

1. ALL NEW WORK TO COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE

2. EXISTING PUBLIC ANNOUCEMENT TO BE REMODELED/EXTENDED/ALTERED AS NECESSARY TO ENSURE THAT RENOVATED AREAS ARE CONNECTED TO EXISTING SYSTEM

3. CORRIDORS TO REMAIN FIRE RESISTANCE RATED

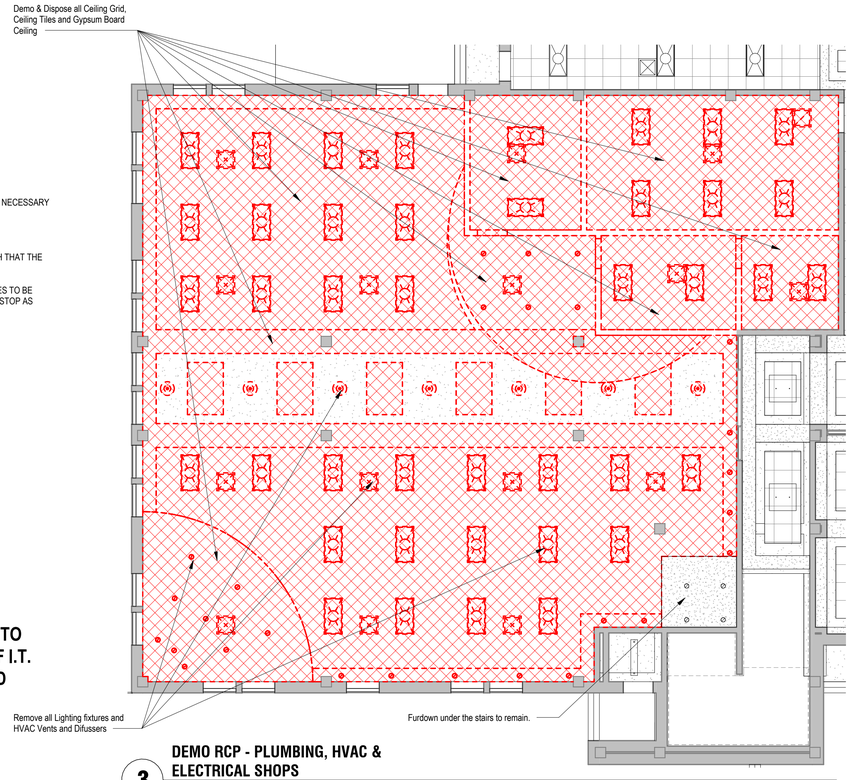
4. PORTABLE FIRE EXTINGUISHERS TO BE MINIMUM 2A:10BC AND LOCATED SUCH THAT THE MAXIMUM TRAVEL DISTANCE TO AN EXTINGUISHER DOES NOT EXCEED 75'-0"

5. PENETRATIONS OF FIRE RESITANCE RATED WALL OR HORIZONTAL ASSEMBLIES TO BE PROTECTED WITH EITHER A SHAFT, DAMPER, OR THROUGH PENETRATION FIRE STOP AS REQUIRED FOR SPECIFIC PENETRATION IN ACCORDANCE WITH IBC CHAPTER 7

DEMOLITION LEGEND

- CEILING GRID & TILE TO BE DEMOLISHED
- WALLS TO BE DEMOLISHED
- EXISTING WALL TO REMAIN

NOTE: GC TO PROTECT, PRESERVE AND TO COORDINATE WITH OWNER REMOVAL OF I.T. EQUIPMENT FROM CEILING AS REQUIRED



3 **DEMO RCP - PLUMBING, HVAC & ELECTRICAL SHOPS**
1/8" = 1'-0"

31/01/2024 02:50:46 p. m.

CONSTRUCTION DOCUMENTS
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SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

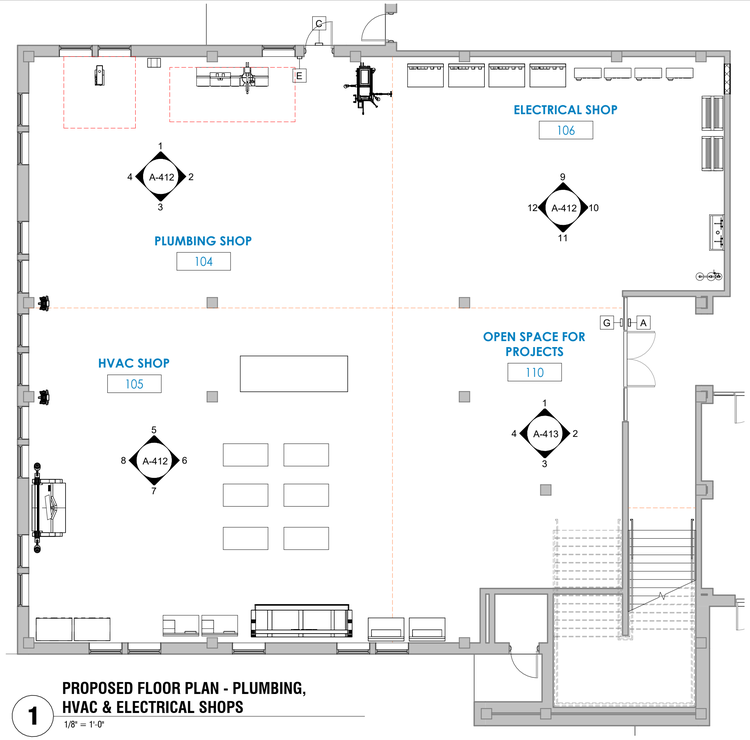
PLUMBING, HVAC & ELECT. ENLARGED PLANS

No.	DATE	DESCRIPTION

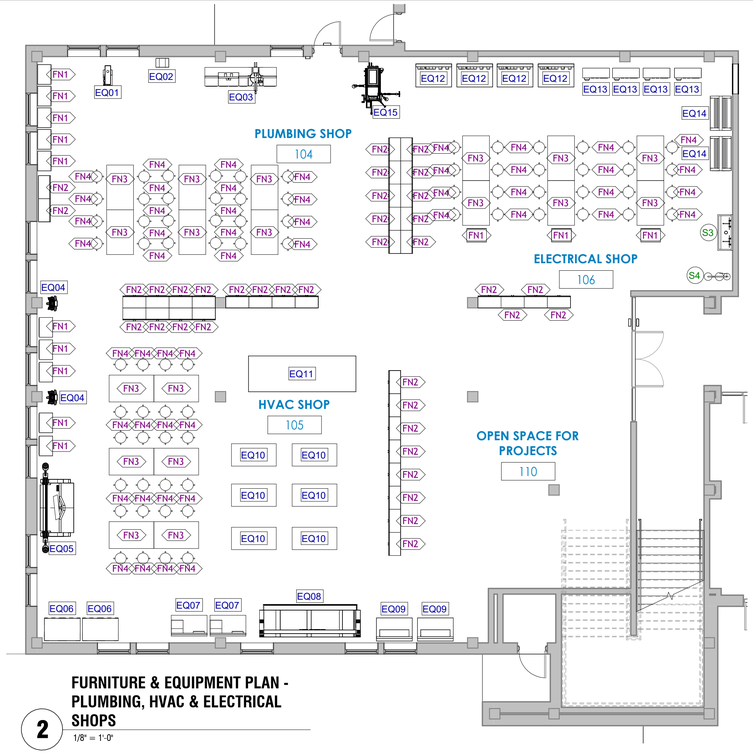
Date: 01/31/2024

Drawing No:

A-404



1 PROPOSED FLOOR PLAN - PLUMBING, HVAC & ELECTRICAL SHOPS
1/8" = 1'-0"



2 FURNITURE & EQUIPMENT PLAN - PLUMBING, HVAC & ELECTRICAL SHOPS
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. MILLWORK IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
B. CLASSROOM EQUIPMENT IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
C. GRID LINES CORRESPOND WITH STRUCTURAL GRID LINES. REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. IN CASE OF CONFLICT, CONTACT ARCHITECT PRIOR TO BIDDING.
D. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
E. REFER TO SYMBOL LEGEND ON SHEET G-001 FOR WINDOW, DOOR, WALL, EQUIPMENT TAGS
F. WHERE A DOOR IS LOCATED NEAR CORNER OF ROOM AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 3" FROM FACE OF WALL TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS.
G. AT ALL INTERIOR PARTITIONS WHERE PARTITION DOES NOT EXTEND TO ROOF DECK OR FLOOR DECK ABOVE, AND NO INSULATION ABOVE CEILING IS CALLED FOR, BACK LOAD CEILING PANELS WITH LOW-DENSITY FACED FLAME SPREAD R11 BATTS ALONG ENTIRE LENGTH OF PARTITION, FOR A DISTANCE OF 4' FROM THE FACE OF THE PARTITION.
H. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
I. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES.
J. TYPICAL CLASSROOM PLAN EQUIPMENT, CASEWORK & MEP TO BE USED IN EVERY CLASSROOM, UNLESS NOTED OTHERWISE.
K. RE: STRUCTURAL FOR INFORMATION ON FOUNDATIONS, STRUCTURAL COLUMNS, STRUCTURAL FRAMING & METAL DECKS. SOME STRUCTURAL COLUMNS SHOWN FOR COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
L. DO NOT SCALE DRAWINGS IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING THE WORK.
M. NOTIFY ARCHITECT OF ANY VARIATION REQUIRED IN THE DIMENSIONS NOTES FOR INSTALLATIONS OF EQUIPMENT BEFORE CONTINUING THE WORK.
N. VERIFY DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK.
O. PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT.
P. REFER TO SHEET A-602 FOR ROOM SIGNAGE LEGEND, INTERIOR SIGNAGE MOUNTING AND SIGNAGE NOTES.
Q. REFER TO SHEET A-401 FOR TOILET ROOM ACCESSORIES & PLUMBING FIXTURE MOUNTING HEIGHT SCHEDULE.
R. REFER TO SPECIFICATIONS SECTION 099000 PAINTING & COATING.
S. ALL CMU EXPOSED CORNERS TO BE BULLNOSE, TYP.

EQUIPMENT & SIGNAGE PLANS GENERAL NOTES

A. REFER TO MILLWORK ELEVATIONS & DETAILS SHEETS FOR FURTHER INFORMATION.
B. CLOSET SHELVES (SH#) & STANDARD MILLWORK STORAGE UNITS (MW#) ARE DESCRIBED ON MILLWORK ELEVATIONS & DETAILS SHEET A-701
C. REFER TO EQUIPMENT SCHEDULES SHEET FOR FURTHER INFORMATION ON CLASSROOM EQUIPMENT & INTERIOR SIGNAGE.
D. TV'S & BRACKETS TO BE FURNISHED AND INSTALLED BY OWNER UNLESS NOTED OTHERWISE.
E. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES ONLY.

GENERAL EQUIPMENT NOTES

1. OPOI = OWNER PROVIDED/OWNER INSTALLED
2. CPCI = CONTRACTOR PROVIDED/CONTRACTOR INSTALLED
3. OPCI = OWNER PROVIDED/CONTRACTOR INSTALLED
4. G.C. TO INCLUDE ALL LABOR COSTS INCLUDING LIFT RENTAL IF NECESSARY.
5. WHEN BASIS OF DESIGN INDICATED ON SCHEDULE; "OR EQUAL" PRODUCTS WILL BE ACCEPTED BUT ARE TO BE APPROVED BY ARCHITECT DURING SUBMITTAL PROCESS. REFER TO SPECIFICATIONS SECTION TITLED "SUBMITTAL PROCEDURES" FOR FURTHER INFORMATION.

PLUMBING, ELECTRICAL & HVAC LAB FURNITURE SCHEDULE

Type Mark	Description	Count	Responsability
FN1	Waterloo 5 Drawer Rolling Tool Box	13	O.P.O.I.
FN2	16"D x 31"W x 71"H Metal Storage Freestanding Cabinet Set with Pegboard and Wheels	36	O.P.O.I.
FN3	Steel Assembly Table without Bottom Shelf	18	O.P.O.I.
FN4	National Public Seating Heavy Duty Steel Stool, 24" Black	72	O.P.O.I.

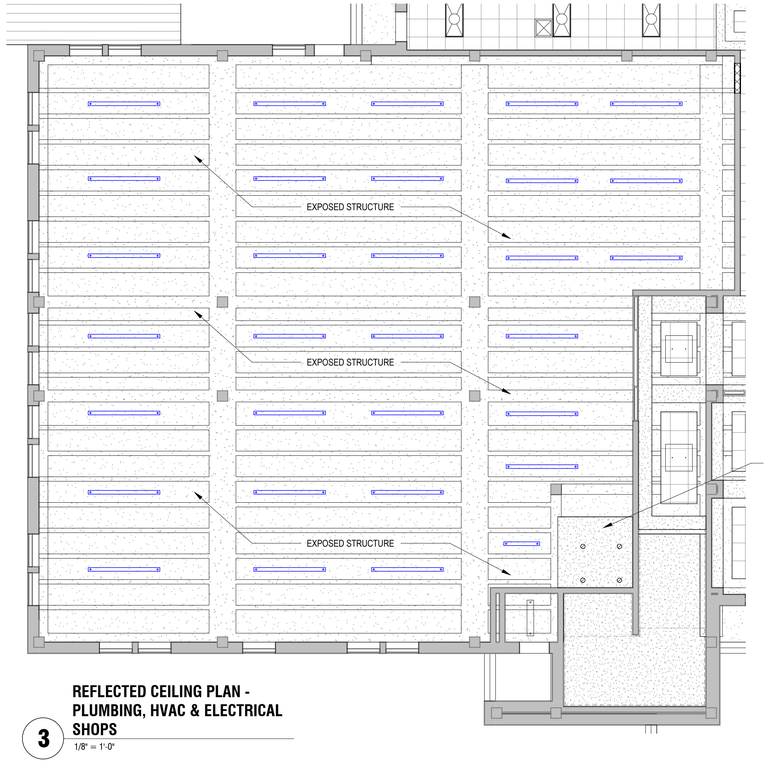
Specialty Equipment Schedule

Type Mark	Description	Count	Manufacturer	Model	Comments
EQ01	14" Heavy Duty- Floor Drill Press	1	Grizzly	G7944	O.P.O.I
EQ02	AC/DC 225/A2S Stick Welder	1	Lincoln Electric	K1297	O.P.O.I
EQ03	Miter Saw	1	DeWALT	DWS779	O.P.O.I
EQ04	Bench Grinder	2	DeWALT	DW758	O.P.O.I
EQ05	Sheet Metal Break	1	TBD	TBD	O.P.O.I
EQ06	Heat Pump Trainer	2	Hampden Engineering Corporation	H-RST-8	O.P.O.I
EQ07	Basic Refrigeration Trainer	2	Hampden Engineering Corporation	H-RST-6	O.P.O.I
EQ08	Sheet Metal Shear	1	TBD	TBD	O.P.O.I
EQ09	Mini Split-Type Heat Pump Trainer	2	Hampden Engineering Corporation	H-RST-21A	O.P.O.I
EQ10	24"W X 48"L X 34"H Stainless Steels Table W/Undershelves	6	TBD	TBD	O.P.O.I
EQ11	Air & Hydronics Gas/Electric Heating Trainer with A/C	1	Hampden Engineering Corporation	H-AHST-D3	O.P.O.I
EQ12	Wiring Service Board Trainer	4	Hampden Engineering Corporation	H-MCI-1000-WSB-1	O.P.O.I
EQ13	Residential Electricity Trainer	4	Hampden Engineering Corporation	H-RET-2A	O.P.O.I
EQ14	Lab Volt Basic Controls Trainer (A-Frame)	2	Festo	8036	O.P.O.I
EQ15	120-Volt Power Drive, Complete Heavy Duty 38 RPM Pipe Threading Machine & Oiler Set w/ Speed Chuck for 1/2 - 2 in.	1	RIDGID	15682	O.P.O.I

MEP SHOPS PLUMBING FIXTURE SCHEDULE

Type Mark	Description	ADA	Specification	Comments
S3	Elkay Stainless Steel 48" x 20" x 8" Wall Hung Multiple Station Hand Wash Sink Kit. Model EWMA48204		refer to MEP Specifications	
S4	Eye Wash Station	Yes	refer to MEP Specifications	C.P.C.I.

NOTE: GC TO VERIFY WITH OWNER PRIOR PURCHASING, FURNISHING AND INSTALLING ANY EQUIPMENT MODELS, TYPICAL



3 REFLECTED CEILING PLAN - PLUMBING, HVAC & ELECTRICAL SHOPS
1/8" = 1'-0"

CONSTRUCTION DOCUMENTS
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1-31-2024

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Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

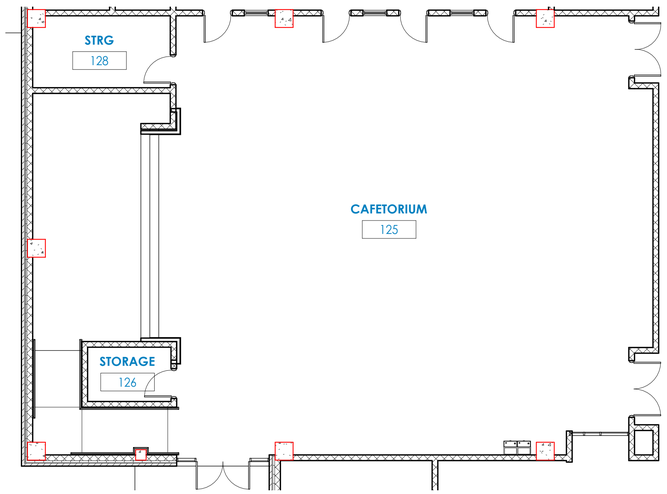
PLUMBING, HVAC & ELECT. ENLARGED PLANS

No.	DATE	DESCRIPTION

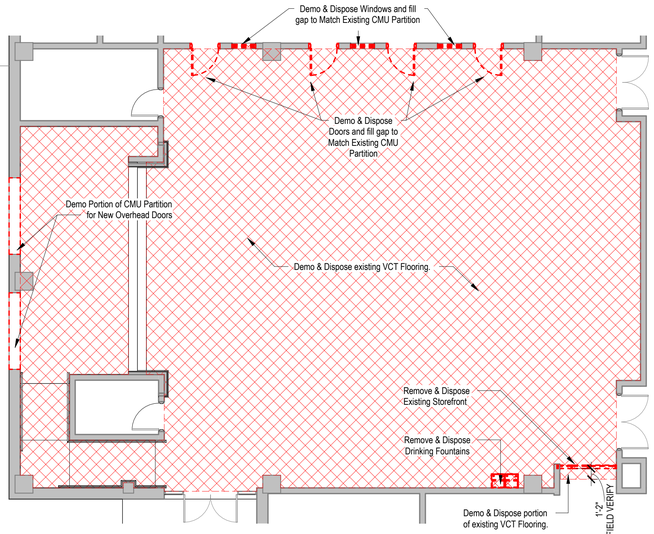
Date: 01/31/2024

Drawing No:
A-405

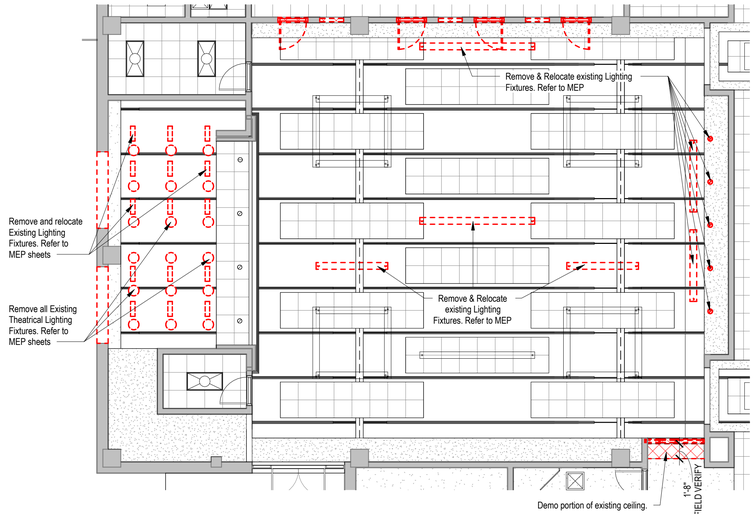
31/01/2024 02:50:47 p. m.



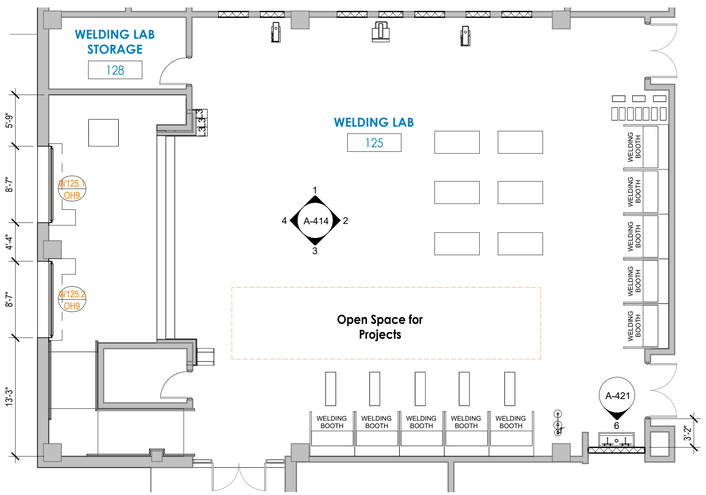
1 EXISTING FLOOR PLAN - WELDING LAB
1/8" = 1'-0"



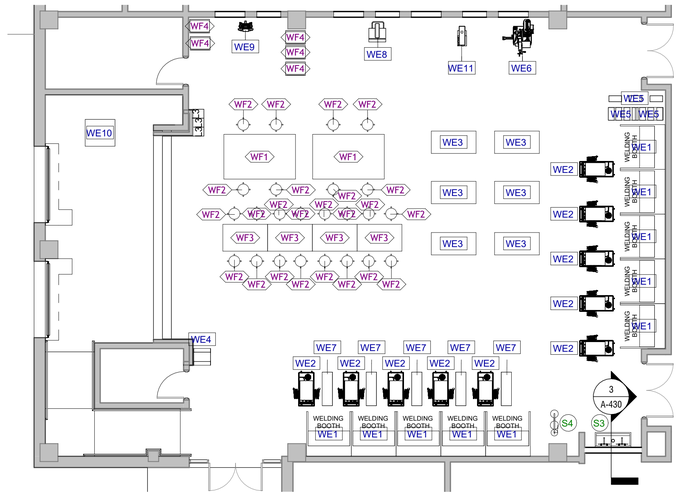
2 DEMO PLAN - WELDING LAB
1/8" = 1'-0"



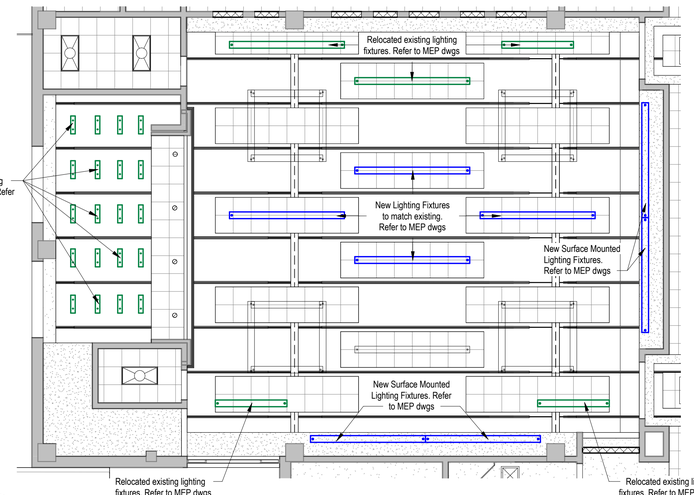
5 DEMO RCP - WELDING LAB
1/8" = 1'-0"



3 PROPOSED FLOOR PLAN - WELDING LAB
1/8" = 1'-0"



4 FURNITURE & EQUIPMENT PLAN - WELDING LAB
1/8" = 1'-0"



6 RCP - WELDING LAB
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. MILLWORK IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
B. CLASSROOM EQUIPMENT IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
C. GRID LINES CORRESPOND WITH STRUCTURAL GRID LINES. REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. IN CASE OF CONFLICT, CONTACT ARCHITECT PRIOR TO BIDDING.
D. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
E. REFER TO SYMBOL LEGEND ON SHEET G-001 FOR WINDOW, DOOR, WALL, EQUIPMENT TAGS
F. WHERE A DOOR IS LOCATED NEAR CORNER OF ROOM AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 3" FROM FACE OF WALL TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS.
G. AT ALL INTERIOR PARTITIONS WHERE PARTITION DOES NOT EXTEND TO ROOF DECK OR FLOOR DECK ABOVE, AND NO INSULATION ABOVE CEILING IS CALLED FOR, BACK LOAD CEILING PANELS WITH LOW-DENSITY FACED FLAME SPREAD R11 BATTS ALONG ENTIRE LENGTH OF PARTITION, FOR A DISTANCE OF 4' FROM THE FACE OF THE PARTITION.
H. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
I. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES.
J. TYPICAL CLASSROOM PLAN EQUIPMENT, CASEWORK & MEP TO BE USED IN EVERY CLASSROOM, UNLESS NOTED OTHERWISE.
K. RE: STRUCTURAL FOR INFORMATION ON FOUNDATIONS, STRUCTURAL COLUMNS, STRUCTURAL FRAMING & METAL DECKS. SOME STRUCTURAL COLUMNS SHOWN FOR COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
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M. NOTIFY ARCHITECT OF ANY VARIATION REQUIRED IN THE DIMENSIONS NOTES FOR INSTALLATIONS OF EQUIPMENT BEFORE CONTINUING THE WORK.
N. VERIFY DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK.
O. PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT.
P. REFER TO SHEET A-602 FOR ROOM SIGNAGE LEGEND, INTERIOR SIGNAGE MOUNTING AND SIGNAGE NOTES.
Q. REFER TO SHEET A-401 FOR TOILET ROOM ACCESSORIES & PLUMBING FIXTURE MOUNTING HEIGHT SCHEDULE.
R. REFER TO SPECIFICATIONS SECTION 099000 PAINTING & COATING.
S. ALL CMU EXPOSED CORNERS TO BE BULLNOSE, TYP.

DEMOLITION LEGEND

CEILING GRID & TILE TO BE DEMOLISHED

WALLS TO BE DEMOLISHED

EXISTING WALL TO REMAIN

GENERAL EQUIPMENT NOTES

1. OPOI = OWNER PROVIDED/OWNER INSTALLED
2. CPCI = CONTRACTOR PROVIDED/CONTRACTOR INSTALLED
3. OPCI = OWNER PROVIDED/CONTRACTOR INSTALLED
4. G.C. TO INCLUDE ALL LABOR COSTS INCLUDING LIFT RENTAL IF NECESSARY.
5. WHEN BASIS OF DESIGN INDICATED ON SCHEDULE; "OR EQUAL" PRODUCTS WILL BE ACCEPTED BUT ARE TO BE APPROVED BY ARCHITECT DURING SUBMITTAL PROCESS. REFER TO SPECIFICATIONS SECTION TITLED "SUBMITTAL PROCEDURES" FOR FURTHER INFORMATION.

WELDING LAB SPECIALTY EQUIPMENT SCHEDULE

Type Mark	Description	Count	Manufacturer	Model	Responsability
WE1	5' x 5' Welding Booth, provided by Owner	10	TBD	TBD	O.P.O.I.
WE2	POWER MIG® 256 MIG Welder	10	Lincoln Electric	K3068-2	O.P.O.I
WE3	30" x 60" Miller ArcStation Welding Table	6	Miller	951793	O.P.O.I
WE4	HydroGuard® Bench Welding Rod Oven - 115/120 V	1	American Welding Supply Co.	K2942-1	O.P.O.I
WE5	Invertec® V160-T TIG Welder	10	Lincoln Electric	K1845-1	O.P.O.I
WE6	Metal Cold Saw	1	Grizzly	G0783	O.P.O.I
WE7	Multimatic® 235 Multiprocess Welder w/ EZ-Latch™ Running Gear- 240V	5	Miller	951846 951846 951846	O.P.O.I
WE8	Band Saw	1	Grizzly	G0806	O.P.O.I
WE9	Pedestal Grinder	1	Grizzly	H7762	O.P.O.I
WE10	Ironworker	1	Edwards	IW40C-1P120	O.P.O.I
WE11	14" Heavy Duty- Floor Drill Press	1	Grizzly	G7944	O.P.O.I

WELDING LAB PLUMBING FIXTURE SCHEDULE

Type Mark	Description	ADA	Specification	Comments
S3	Elkay Stainless Steel 48" x 20" x 8" Wall Hung Multiple Station Hand Wash Sink Kit. Model EWMA48204		refer to MEP Specifications	
S4	Eye Wash Station	Yes	refer to MEP Specifications	C.P.C.I.

WELDING LAB FURNITURE SCHEDULE

Type Mark	Description	Count	Responsability
WF1	Large Welding Table (5' x 8' x 36")	2	O.P.O.I.
WF2	National Public Seating Heavy Duty Steel Stool, 24" Black	24	O.P.O.I.
WF3	Steel Assembly Table without Bottom Shelf	4	O.P.O.I.
WF4	Waterloo 5 Drawer Rolling Tool Box	5	O.P.O.I.

LOCKER SCHEDULE

Locker Type Mark	# of Tiers	Width	Depth	Height
L3	3	12"	15"	60"

ALL LOCKERS TO BE HDPE, NOT METAL

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

REGISTERED ARCHITECT JOSE J. CALZADA 10845 STATE OF TEXAS

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

WELDING LAB ENLARGED PLANS

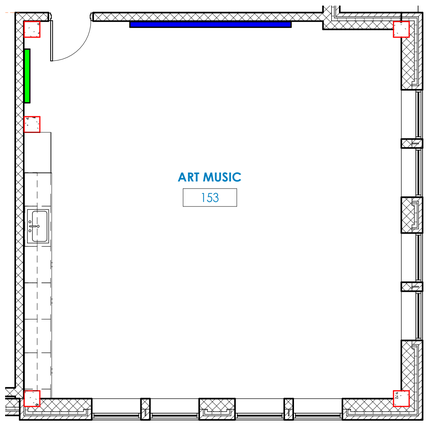
No.	DATE	DESCRIPTION

Date: 01/31/2024

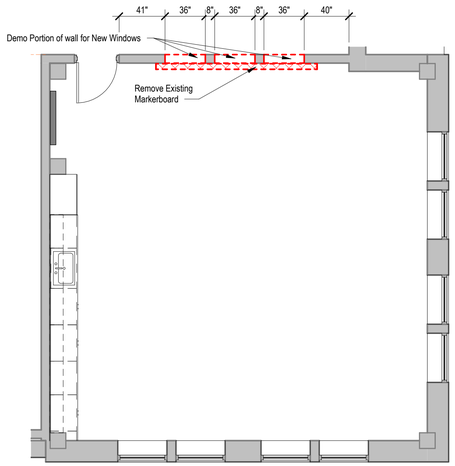
Drawing No:
A-406

31/01/2024 02:50:53 p. m.

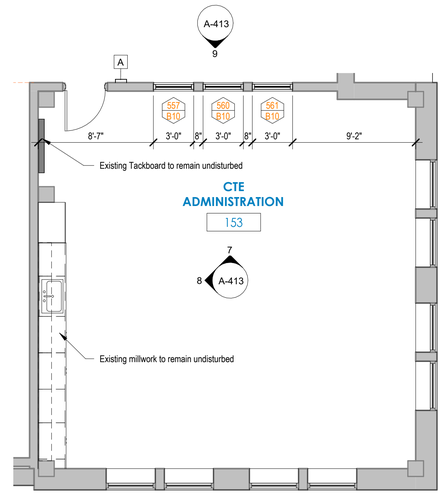
NOTE: GC TO REPAIR, PATCH, PAINT & CAULK ALL MASONRY AS REQUIRED AT ALL NEW WINDOW FRAMES, TYPICAL.



1 EXISTING FLOOR PLAN - Callout 1
3/16" = 1'-0"



2 DEMO PLAN - Callout 1
3/16" = 1'-0"



3 PROPOSED FLOOR PLAN - Callout 2
3/16" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. MILLWORK IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
B. CLASSROOM EQUIPMENT IS INDICATED ON EQUIPMENT & SIGNAGE PLANS
C. GRID LINES CORRESPOND WITH STRUCTURAL GRID LINES. REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. IN CASE OF CONFLICT, CONTACT ARCHITECT PRIOR TO BIDDING.
D. UNLESS OTHERWISE INDICATED, PLAN DIMENSIONS ARE TO COLUMN GRID ON CENTERLINES, NOMINAL SURFACE OF MASONRY, FACE OF STUDS AND FACE OF CONCRETE WALLS.
E. REFER TO SYMBOL LEGEND ON SHEET G-001 FOR WINDOW, DOOR, WALL, EQUIPMENT TAGS
F. WHERE A DOOR IS LOCATED NEAR CORNER OF ROOM AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 3" FROM FACE OF WALL TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS.
G. AT ALL INTERIOR PARTITIONS WHERE PARTITION DOES NOT EXTEND TO ROOF DECK OR FLOOR DECK ABOVE, AND NO INSULATION ABOVE CEILING IS CALLED FOR, BACK LOAD CEILING PANELS WITH LOW-DENSITY FACED FLAME SPREAD R11 BATTS ALONG ENTIRE LENGTH OF PARTITION, FOR A DISTANCE OF 4' FROM THE FACE OF THE PARTITION.
H. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
I. FURNITURE N.I.C., SHOWN FOR COORDINATION PURPOSES.
J. TYPICAL CLASSROOM PLAN EQUIPMENT, CASEWORK & MEP TO BE USED IN EVERY CLASSROOM, UNLESS NOTED OTHERWISE.
K. RE: STRUCTURAL FOR INFORMATION ON FOUNDATIONS, STRUCTURAL COLUMNS, STRUCTURAL FRAMING & METAL DECKS. SOME STRUCTURAL COLUMNS SHOWN FOR COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
L. DO NOT SCALE DRAWINGS IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING THE WORK.
M. NOTIFY ARCHITECT OF ANY VARIATION REQUIRED IN THE DIMENSIONS NOTES FOR INSTALLATIONS OF EQUIPMENT BEFORE CONTINUING THE WORK.
N. VERIFY DIMENSIONS BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK.
O. PROVIDE BLOCKING AS REQUIRED FOR PROPER SUPPORT OF WALL AND CEILING MOUNTED EQUIPMENT.
P. REFER TO SHEET A-602 FOR ROOM SIGNAGE LEGEND, INTERIOR SIGNAGE MOUNTING AND SIGNAGE NOTES.
Q. REFER TO SHEET A-401 FOR TOILET ROOM ACCESSORIES & PLUMBING FIXTURE MOUNTING HEIGHT SCHEDULE.
R. REFER TO SPECIFICATIONS SECTION 099000 PAINTING & COATING.
S. ALL CMU EXPOSED CORNERS TO BE BULLNOSE, TYP.

DEMOLITION LEGEND

- CEILING GRID & TILE TO BE DEMOLISHED
- WALLS TO BE DEMOLISHED
- EXISTING WALL TO REMAIN

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS
1-31-2024

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519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

CTE ADMINISTRATION
ENLARGED PLANS

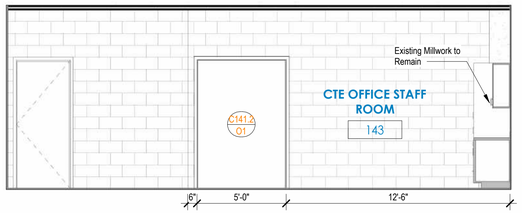
No.	DATE	DESCRIPTION

Date: 01/31/2024

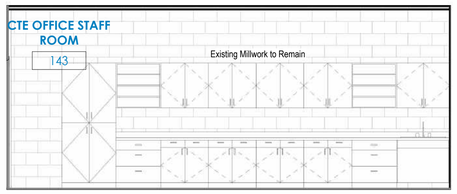
Drawing No:

A-407

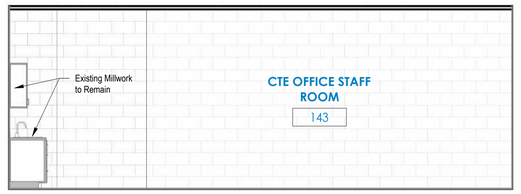
31/01/2024 02:50:56 p. m.



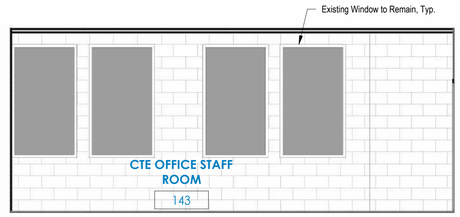
1 CTE Office - North Elevation
1/4" = 1'-0"



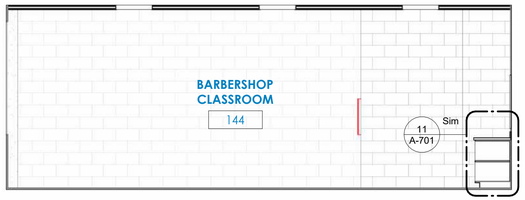
2 CTE Office - East Elevation
1/4" = 1'-0"



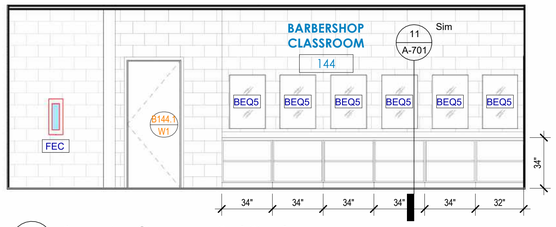
3 CTE Office - South Elevation
1/4" = 1'-0"



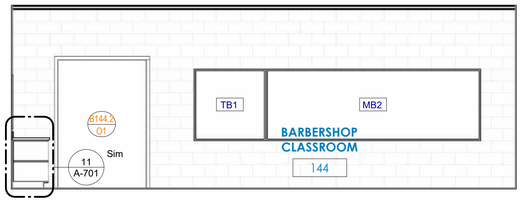
4 CTE Office - West Elevation
1/4" = 1'-0"



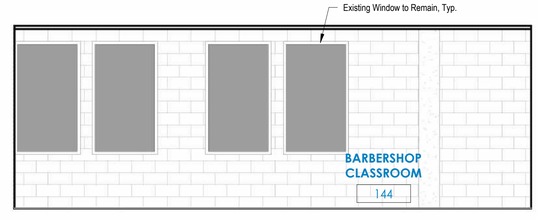
5 Barbershop Classroom - North Elevation
1/4" = 1'-0"



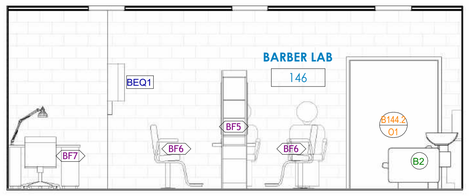
6 Barbershop Classroom - East Elevation
1/4" = 1'-0"



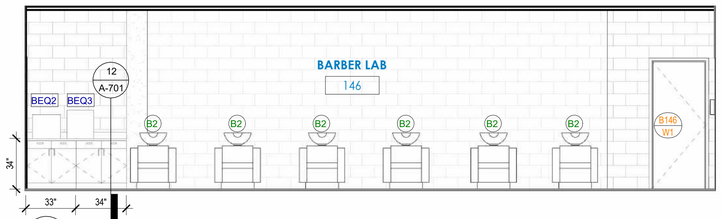
7 Barbershop Classroom - South Elevation
1/4" = 1'-0"



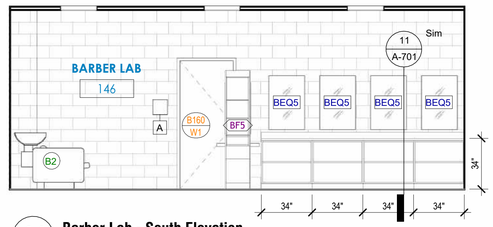
8 Barbershop Classroom - West Elevation
1/4" = 1'-0"



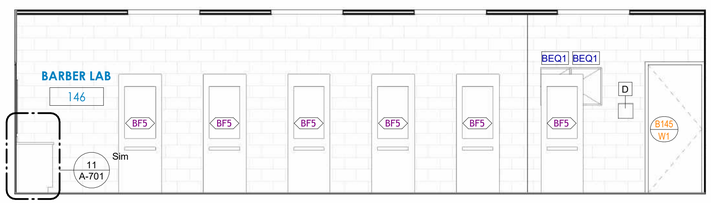
9 Barber Lab - North Elevation
1/4" = 1'-0"



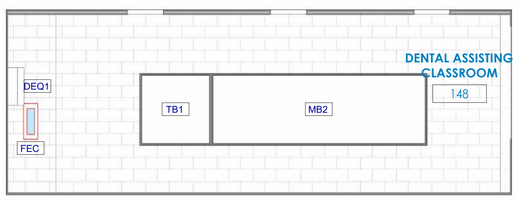
10 Barber Lab - East Elevation
1/4" = 1'-0"



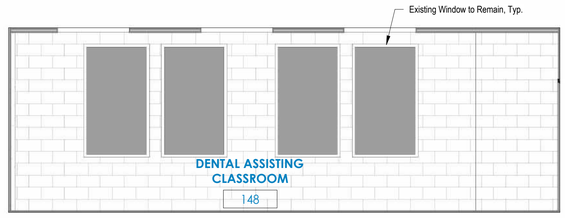
11 Barber Lab - South Elevation
1/4" = 1'-0"



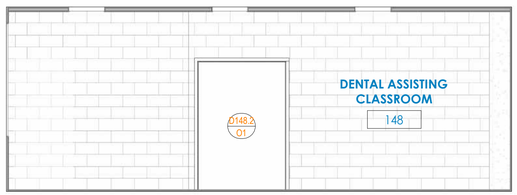
12 Barber Lab - West Elevation
1/4" = 1'-0"



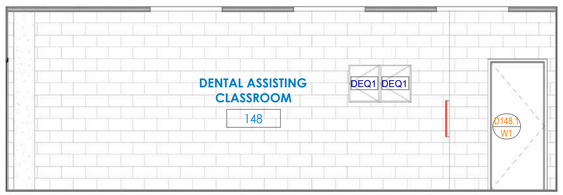
13 Dental Assisting Classroom - North Elevation
1/4" = 1'-0"



14 Dental Assisting Classroom - East Elevation
1/4" = 1'-0"



15 Dental Assisting Classroom - South Elevation
1/4" = 1'-0"



16 Dental Assisting Classroom - West Elevation
1/4" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

INTERIOR ELEVATIONS

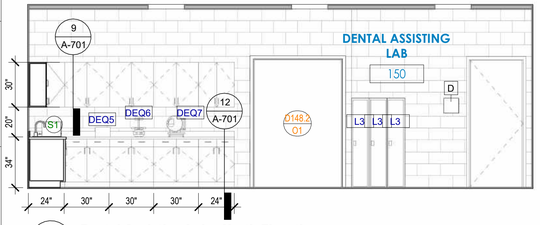
No.	DATE	DESCRIPTION

Date: 01/31/2024

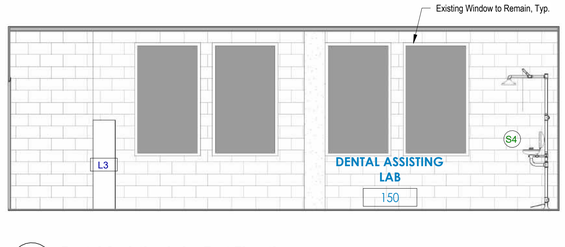
Drawing No:

A-410

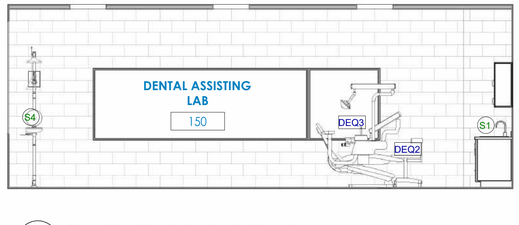
31/01/2024 02:57:45 p. m.



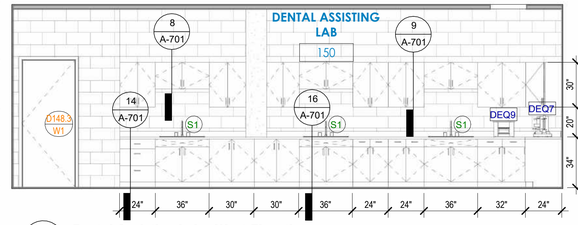
1 Dental Assisting Lab - North Elevation
1/4" = 1'-0"



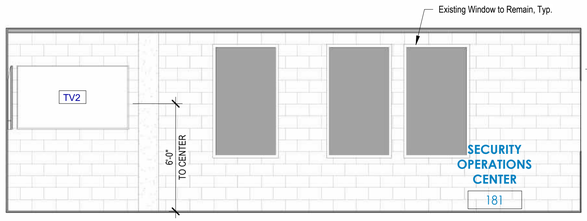
2 Dental Assisting Lab - East Elevation
1/4" = 1'-0"



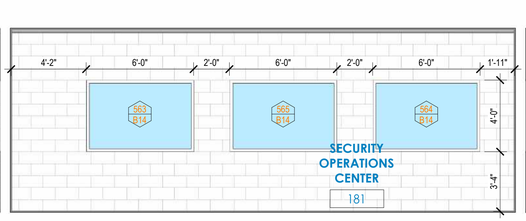
3 Dental Assisting Lab - South Elevation
1/4" = 1'-0"



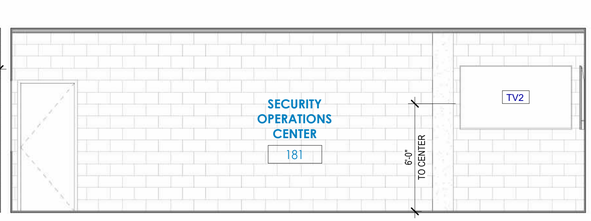
4 Dental Assisting Lab - West Elevation
1/4" = 1'-0"



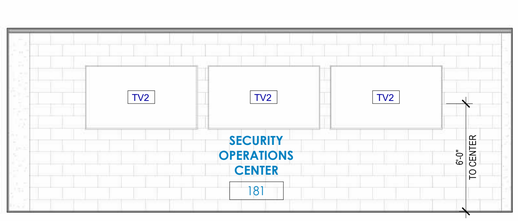
5 Security Opperations Center - North Elevation
1/4" = 1'-0"



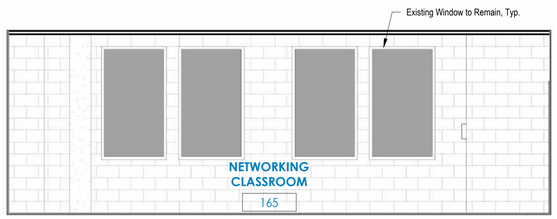
6 Security Opperations Center - East Elevation
1/4" = 1'-0"



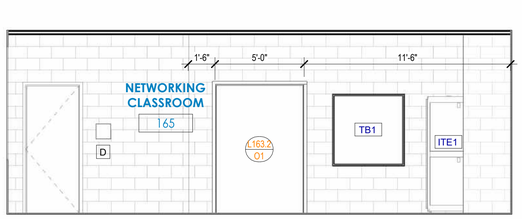
7 Security Opperations Center - South Elevation
1/4" = 1'-0"



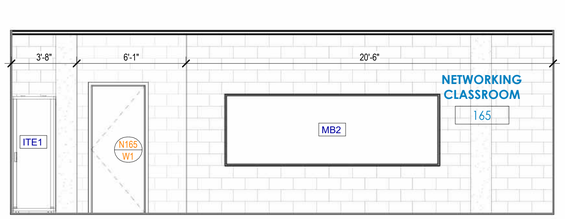
8 Security Opperations Center - West Elevation
1/4" = 1'-0"



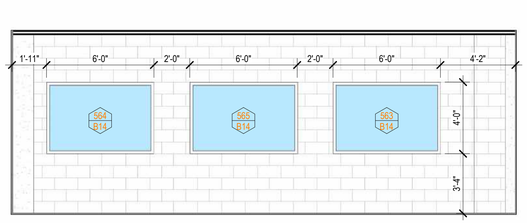
9 Networking Classroom - North Elevation
1/4" = 1'-0"



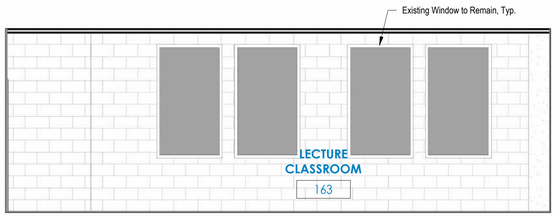
10 Networking Classroom - East Elevation
1/4" = 1'-0"



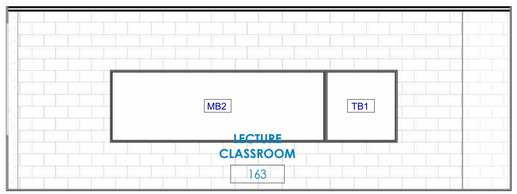
11 Networking Classroom - West Elevation
1/4" = 1'-0"



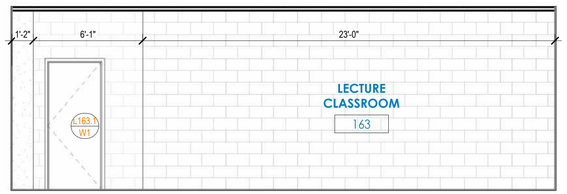
12 Networking Classroom - West Elevation
1/4" = 1'-0"



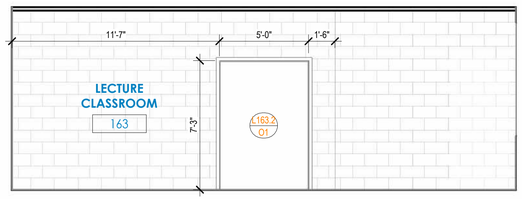
13 Lecture Classroom - North Elevation
1/4" = 1'-0"



14 Lecture Classroom - East Elevation
1/4" = 1'-0"



15 Lecture Classroom - South Elevation
1/4" = 1'-0"

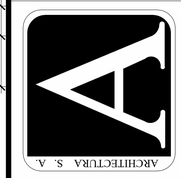


16 Lecture Classroom - West Elevation
1/4" = 1'-0"

31/01/2024 02:57:49 p. m.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024



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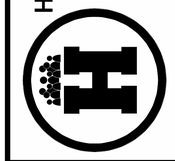
architecturasa@yahoo.com

HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221



Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

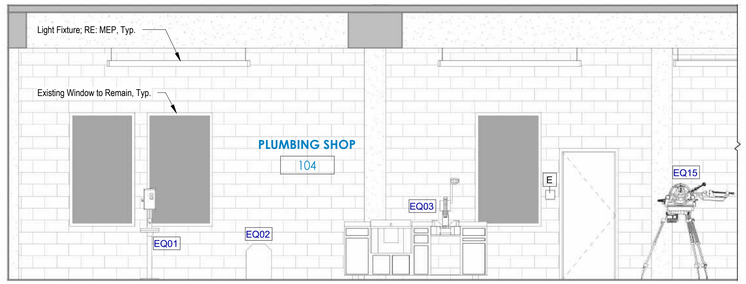
INTERIOR ELEVATIONS

No.	DATE	DESCRIPTION

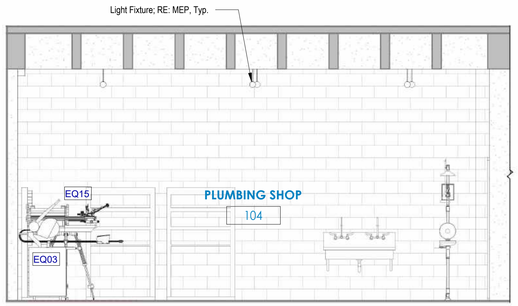
Date: 01/31/2024

Drawing No:

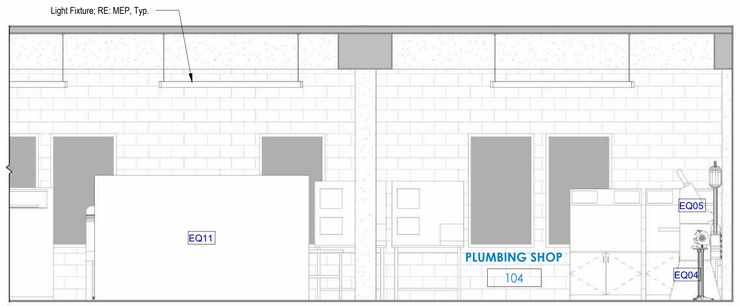
A-411



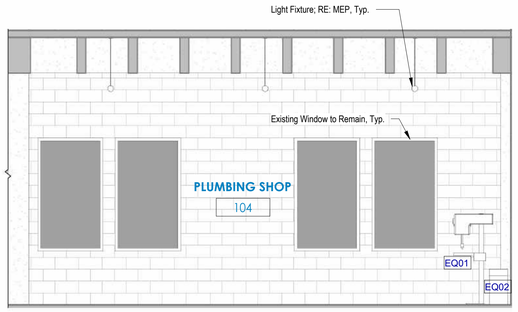
1 PLUMBING SHOP - North Elevation
1/4" = 1'-0"



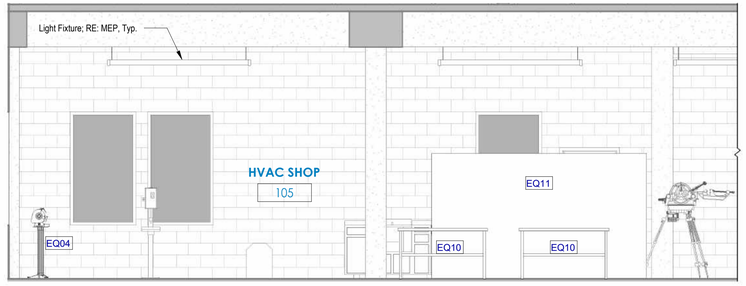
2 PLUMBING SHOP - East Elevation
1/4" = 1'-0"



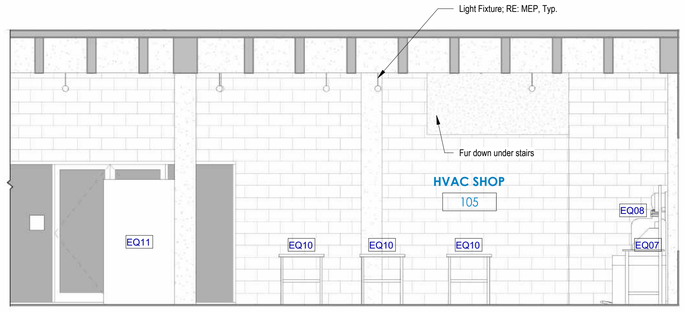
3 PLUMBING SHOP - South Elevation
1/4" = 1'-0"



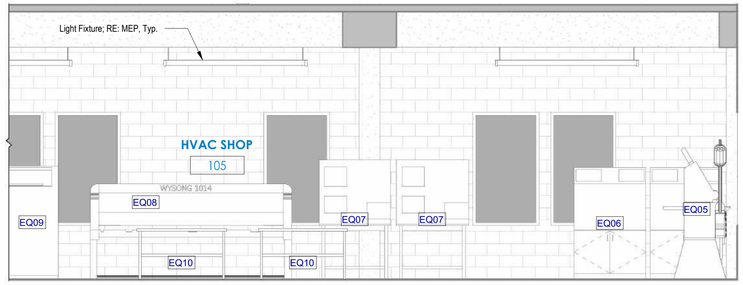
4 PLUMBING SHOP - West Elevation
1/4" = 1'-0"



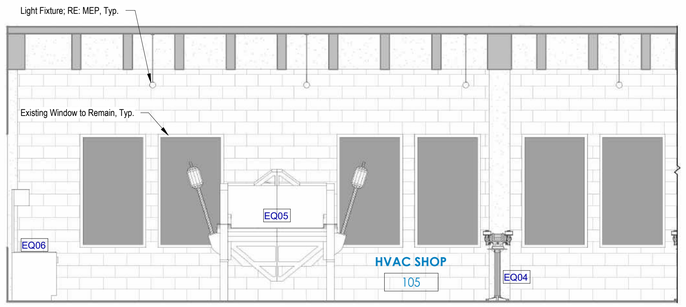
5 HVAC SHOP - North Elevation
1/4" = 1'-0"



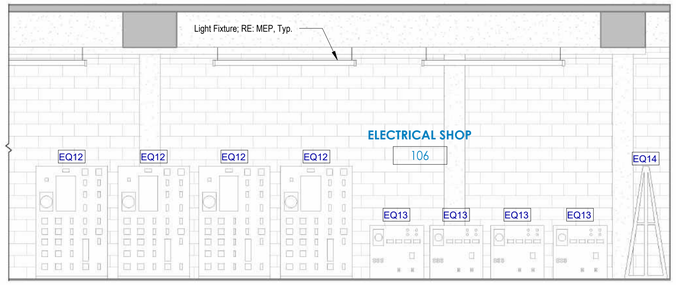
6 HVAC SHOP - East Elevation
1/4" = 1'-0"



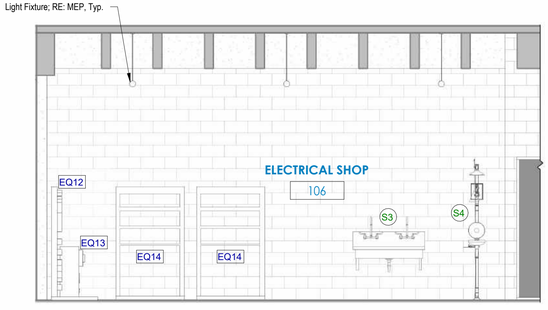
7 HVAC SHOP - South Elevation
1/4" = 1'-0"



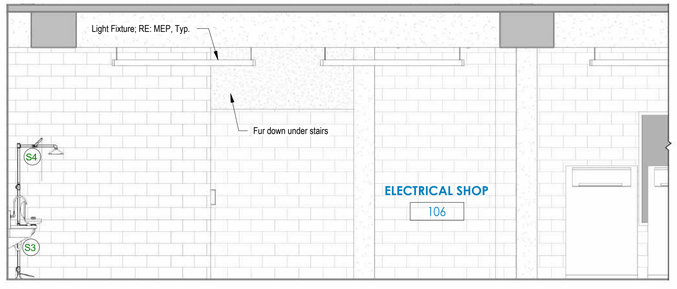
8 HVAC SHOP - West Elevation
1/4" = 1'-0"



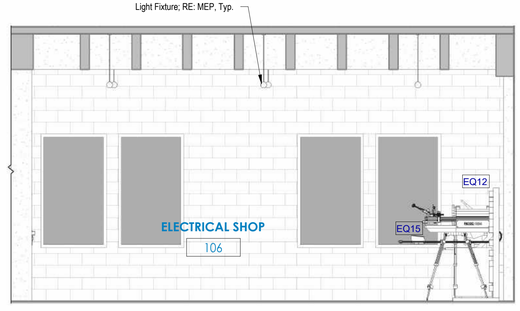
9 ELECTRICAL SHOP - North Elevation
1/4" = 1'-0"



10 ELECTRICAL SHOP - East Elevation
1/4" = 1'-0"



11 ELECTRICAL SHOP - South Elevation
1/4" = 1'-0"



12 ELECTRICAL SHOP - West Elevation
1/4" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

REGISTERED ARCHITECT JOSE J. CALZADA 10848 STATE OF TEXAS

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Job Number.:	23-09

INTERIOR ELEVATIONS

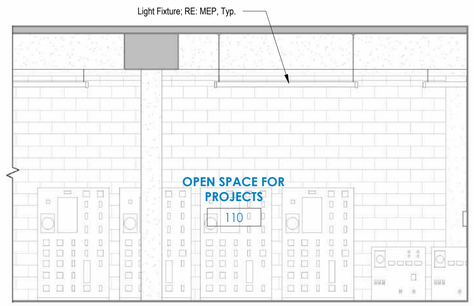
No.	DATE	DESCRIPTION

Date: 01/31/2024

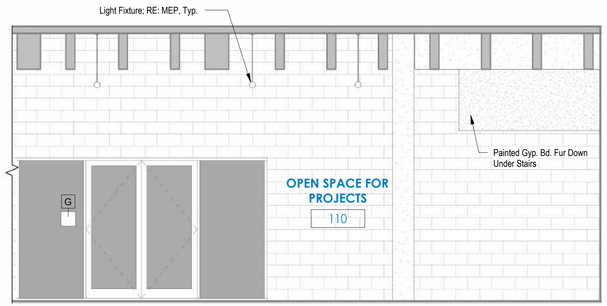
Drawing No:

A-412

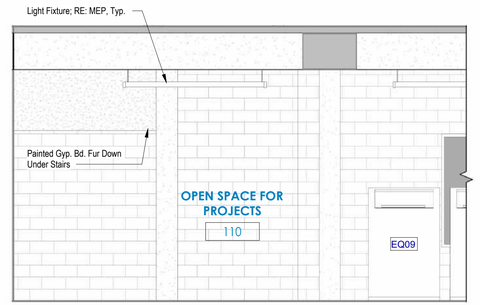
31/01/2024 02:57:54 p. m.



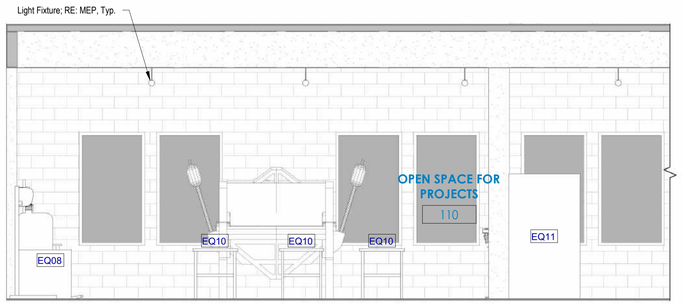
1 OPEN SPACE FOR PROYECTS - North Elevation
1/4" = 1'-0"



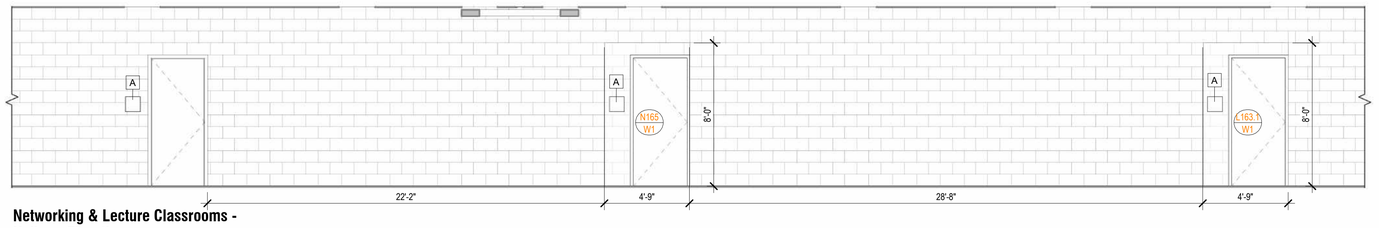
2 OPEN SPACE FOR PROYECTS - East Elevation
1/4" = 1'-0"



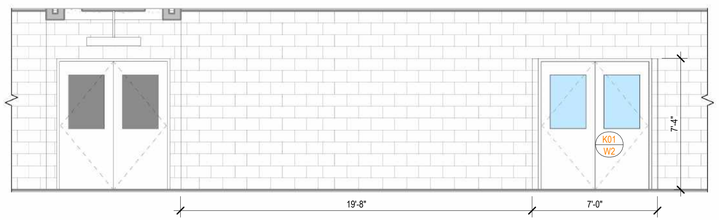
3 OPEN SPACE FOR PROYECTS - South Elevation
1/4" = 1'-0"



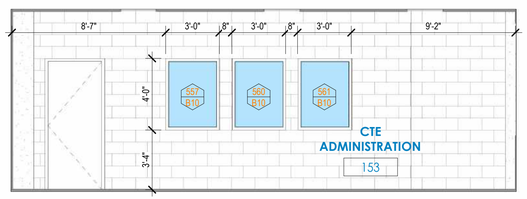
4 OPEN SPACE FOR PROYECTS - West Elevation
1/4" = 1'-0"



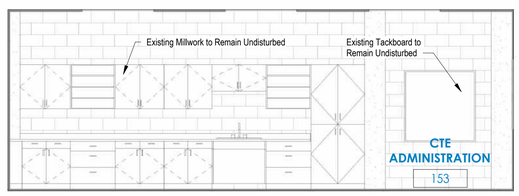
5 Networking & Lecture Classrooms - Hallway Elevation
1/4" = 1'-0"



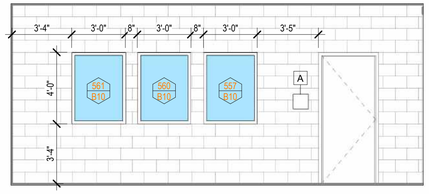
6 Kitchen Entrance - Hallway Elevation.
1/4" = 1'-0"



7 CTE ADMINISTRATION - North Elevation
1/4" = 1'-0"



8 CTE ADMINISTRATION - West Elevation
1/4" = 1'-0"



9 CTE ADMINISTRATION - Hallway Elevation
1/4" = 1'-0"

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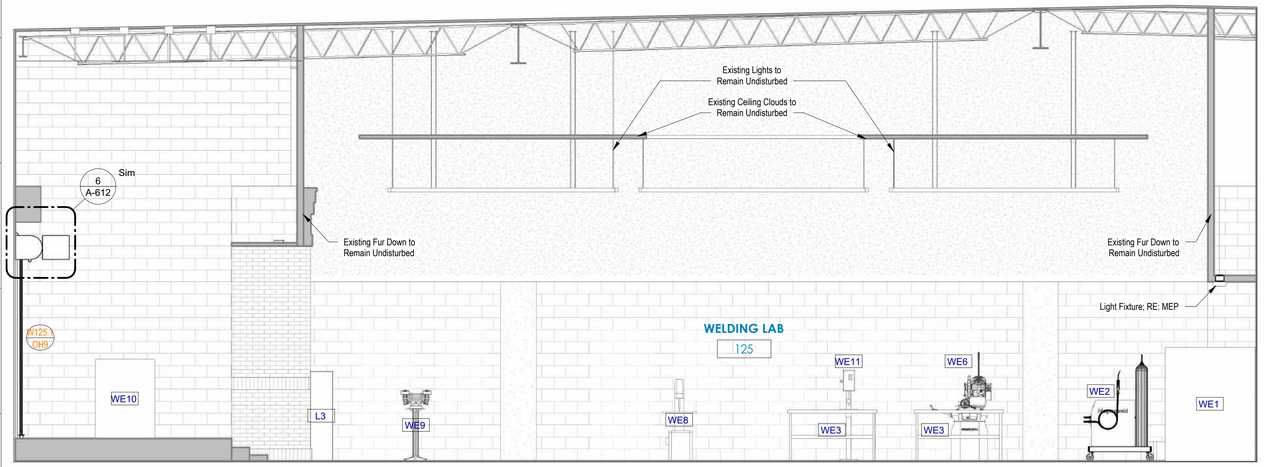
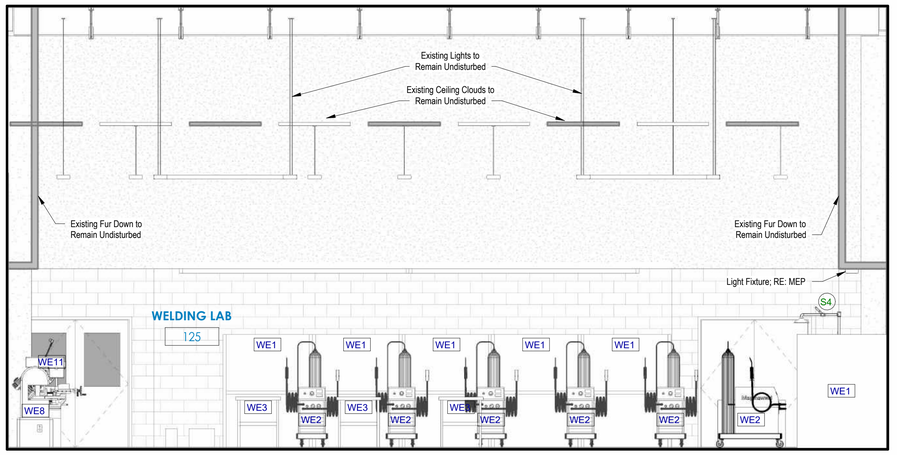
A-413

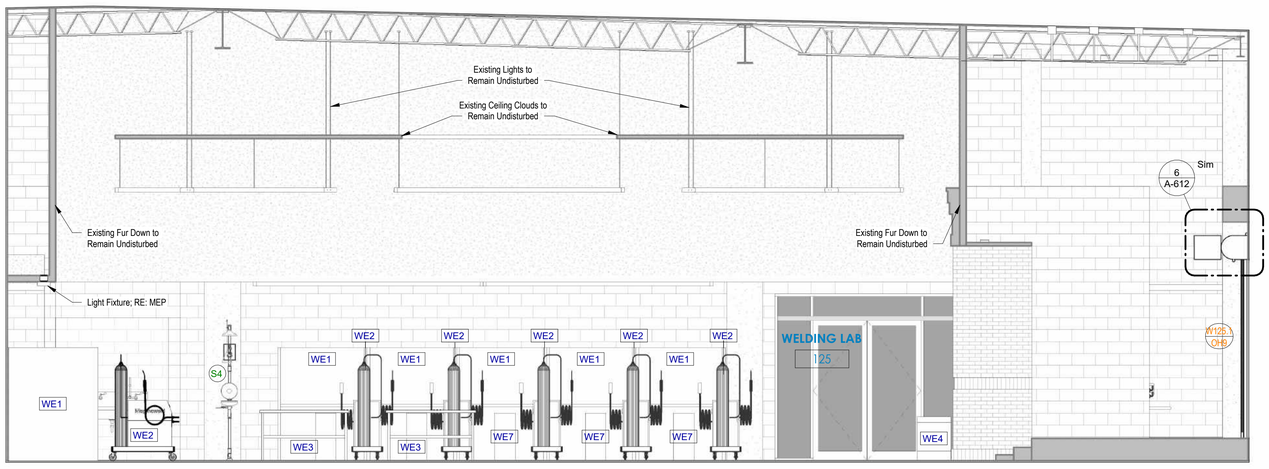
31/01/2024 02:57:58 p. m.



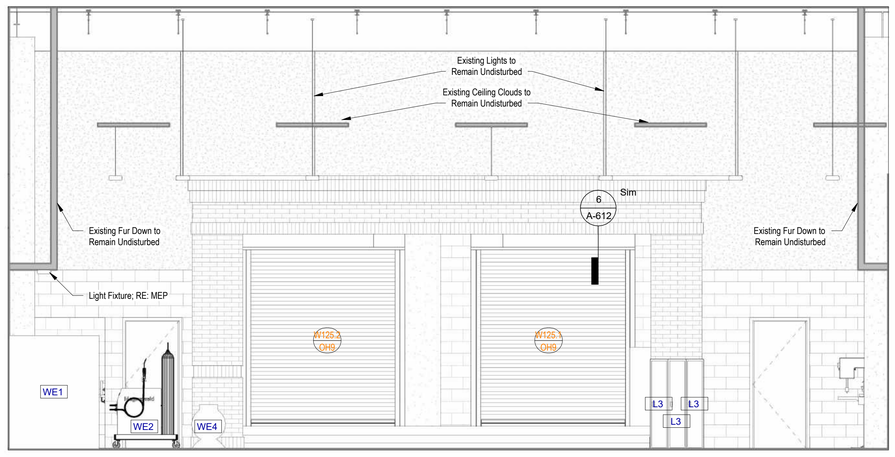
1 **Welding Lab - North Elevation**
1/4" = 1'-0"



2 **Welding Lab - East Elevation**
1/4" = 1'-0"



3 **Welding Lab - South Elevation**
1/4" = 1'-0"



4 **Welding Lab - West Elevation**
1/4" = 1'-0"

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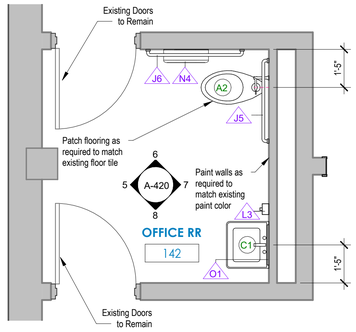
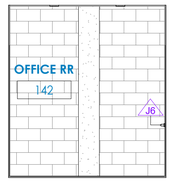
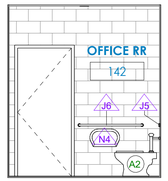


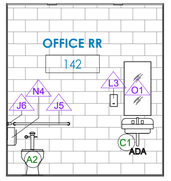
1 **OFFICE RR - ENLARGED PLAN**
3/8" = 1'-0"



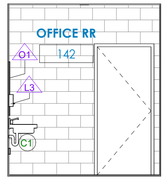
5 **Office RR - West Elev.**
1/4" = 1'-0"



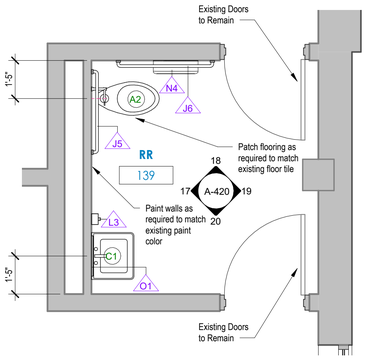
6 **Office RR - North Elev.**
1/4" = 1'-0"



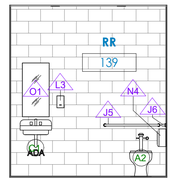
7 **Office RR - East Elev.**
1/4" = 1'-0"



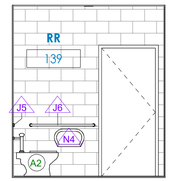
8 **Office RR - South Elev.**
1/4" = 1'-0"



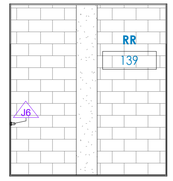
4 **CLASSROOM RR - ENLARGED PLAN**
3/8" = 1'-0"



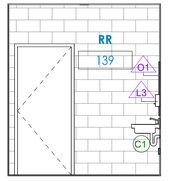
17 **Classroom RR - West Elev.**
1/4" = 1'-0"



18 **Classroom RR - North Elev.**
1/4" = 1'-0"



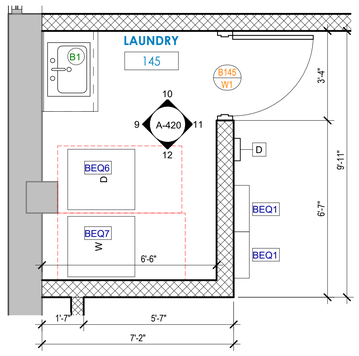
19 **Classroom RR - East Elev.**
1/4" = 1'-0"



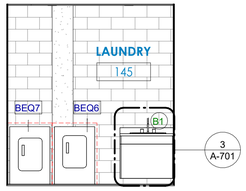
20 **Classroom RR - South Elev.**
1/4" = 1'-0"

RESTROOM GENERAL NOTES

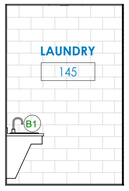
A. ALL FIXTURES AND ACCESSORIES SHALL BE MOUNTED AT HEIGHTS DESCRIBED IN MOUNTING HEIGHT LEGEND
B. PROVIDE ADEQUATE BLOCKING FOR GRAB BAR SUPPORT PROVIDE NO LESS THAN 250 POUNDS OF VERTICAL OR HORIZONTAL FORCE.
C. VARIFY LOCATIONS & MOUNTING HEIGHTS OF ACCESSORIES WITH ARCHITECT PRIOR TO INSTALLATION.
D. PROVIDE "LATACRETE WATERPROOFING UNDER ALL CERAMIC TILE AREAS.
E. G.C. TO PROVIDE ALL LOCKER ROOM BENCHES (ADA & REGULAR) AS INDICATED ON DRAWINGS.
F. 5% OF ALL LOCKERS TO BE ADA COMPLIANT.



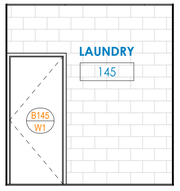
2 **LAUNDRY - ENLARGED PLAN**
3/8" = 1'-0"



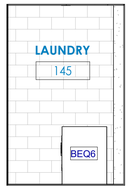
9 **Laundry - West Elev.**
1/4" = 1'-0"



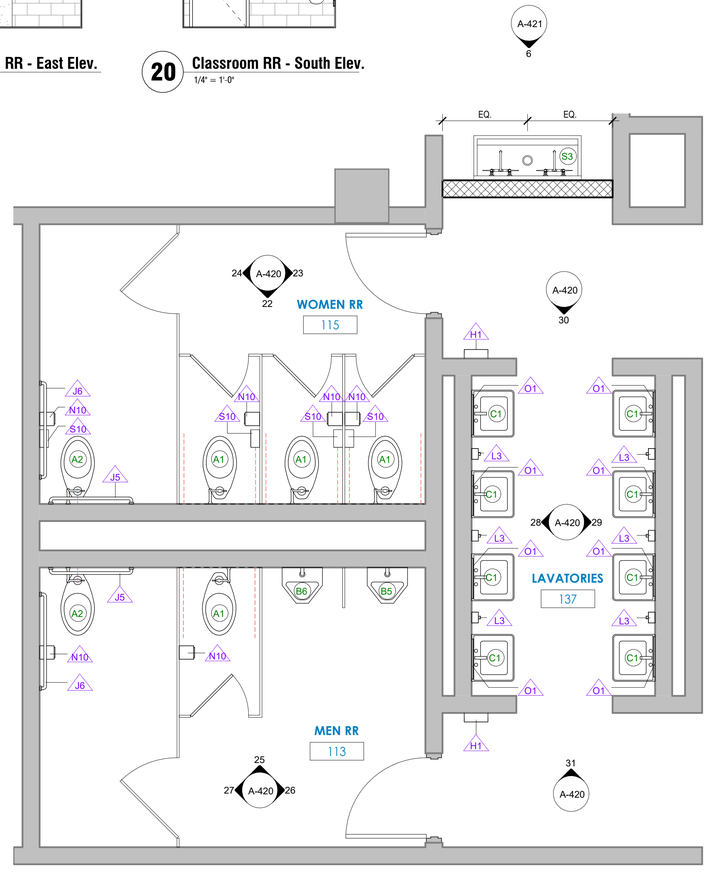
10 **Laundry - North Elev.**
1/4" = 1'-0"



11 **Laundry - East Elev.**
1/4" = 1'-0"

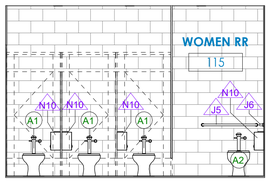


12 **Laundry - South Elev.**
1/4" = 1'-0"

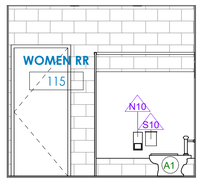


NOTE: EXISTING RR PARTITIONS TO REMAIN

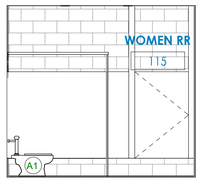
13 **MEN & WOMAN RR - ENLARGED PLANS**
3/8" = 1'-0"



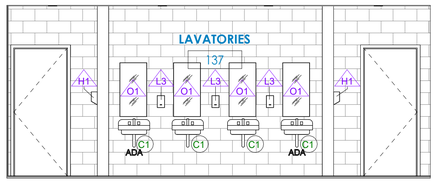
22 **Women RR - South Elev.**
1/4" = 1'-0"



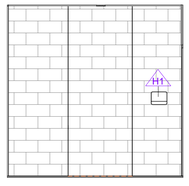
23 **Women RR - East Elev.**
1/4" = 1'-0"



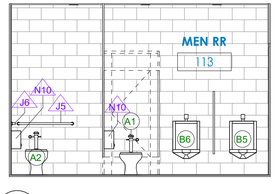
24 **Women RR - West Elev.**
1/4" = 1'-0"



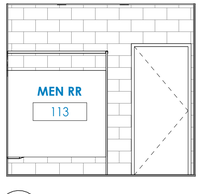
28 **Lavatories - West Elev.**
1/4" = 1'-0"



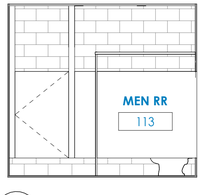
30 **Lavatories - South Elev.**
1/4" = 1'-0"



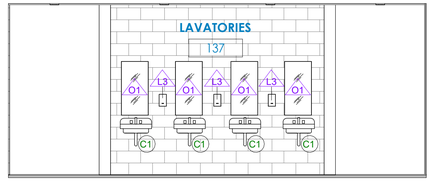
25 **Men RR - North Elev.**
1/4" = 1'-0"



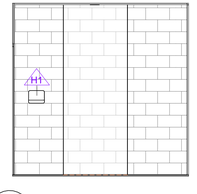
26 **Men RR - East Elev.**
1/4" = 1'-0"



27 **Men RR - West Elev.**
1/4" = 1'-0"



29 **Lavatories - East Elev.**
1/4" = 1'-0"



31 **Lavatories - North Elev.**
1/4" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

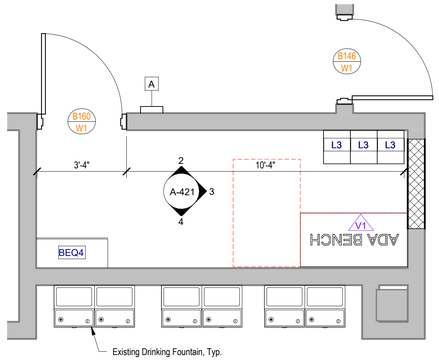
RR PLANS & ELEVATIONS

No.	DATE	DESCRIPTION

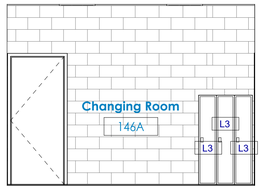
Date: 01/31/2024

Drawing No:
A-420

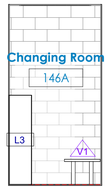
31/01/2024 02:59:31 p. m.



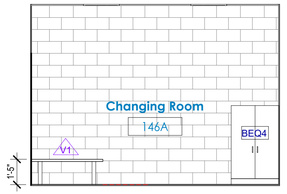
1 CHANGING ROOM - ENLARGED PLAN
3/8" = 1'-0"



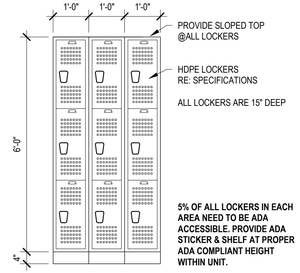
2 Changing Room - North Elev.
1/4" = 1'-0"



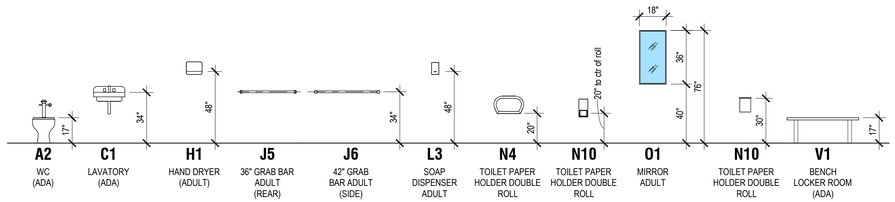
3 Changing Room - East Elev.
1/4" = 1'-0"

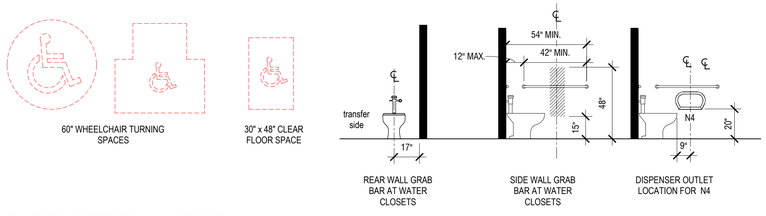


4 Changing Room - South Elev.
1/4" = 1'-0"



5 Lockers - 3 Tier
1/2" = 1'-0"





PLUMBING FIXTURE & ACCESSORY MOUNTING HEIGHTS
1/4" = 1'-0"

BARBER CLASSROOM & LAB SPECIALTY EQUIPMENT SCHEDULE

Type Mark	Description	Count	Responsability
BEQ4	Guardian 9 Wig Dryer Commercial Model	1	O.P.O.I

APPLIANCES SCHEDULE

Type Mark	Description	Count	Responsibility
BEQ6	7.3 cu.ft. Rear Control Top Load Dryer with TurboSteam - LG Laundry - DLEX7900BE/DLGX7901BE	1	C.P.C.I.
BEQ7	5.5 cu.ft. Top Load Washer with TurboWash3D - LG Laundry - WT7900HBA	1	C.P.C.I.

PLUMBING FIXTURE SCHEDULE

Type Mark	Description	ADA	Specification	Comments
A1	Water Closet - Floor Mounted - Adult	No	refer to MEP	C.P.C.I.
A2	Water Closet - Floor Mounted - Adult ADA	Yes	refer to MEP	C.P.C.I.
C1	Wall-Hung Lavatory (Adult)	<varies>	refer to MEP	C.P.C.I.
S1	Sink	Yes	refer to MEP Specifications	C.P.C.I.

LOCKER SCHEDULE

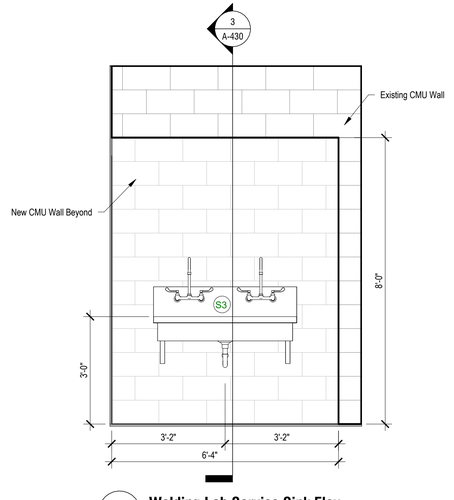
Locker Type Mark	# of Tiers	Width	Depth	Height
L3	3	12"	15"	60"

GENERAL EQUIPMENT NOTES

1. OPOI = OWNER PROVIDED/OWNER INSTALLED
2. CPCI = CONTRACTOR PROVIDED/CONTRACTOR INSTALLED
3. OPCI = OWNER PROVIDED/CONTRACTOR INSTALLED
4. G.C. TO INCLUDE ALL LABOR COSTS INCLUDING LIFT RENTAL IF NECESSARY.
5. WHEN BASIS OF DESIGN INDICATED ON SCHEDULE; "OR EQUAL" PRODUCTS WILL BE ACCEPTED BUT ARE TO BE APPROVED BY ARCHITECT DURING SUBMITTAL PROCESS. REFER TO SPECIFICATIONS SECTION TITLED "SUBMITTAL PROCEDURES" FOR FURTHER INFORMATION.

RESTROOM ACCESSORY SCHEDULE

Type	Description	Basis of Design: Manufacturer	Basis of Design: Model	Responsibility
H1	Surface Mounted Hand Dryer (Adult)	American Specialties, Inc.	0199-3-93 Turbo-Pro High Speed ADA Hand Dryer	C.P.C.I.
J5	36" Grab Bar	American Specialties, Inc.	10-3801-36	C.P.C.I.
J6	42" Grab Bar	American Specialties, Inc.	10-3801-42	C.P.C.I.
L3	Soap Dispenser (Adult)	American Specialties, Inc.	0347 Vertical Soap Dispenser	C.P.C.I.
N4	Bobrick B-2892 Classic Series Surface Mounted Twin Jumbo-Roll Toilet Tissue Dispenser	Bobrick Washroom Equipment, Inc.	B-2892	C.P.C.I.
N10	Surface Mounted Multi-Roll Toilet Tissue Dispenser	American Specialties, Inc.	9030 Profile Toilet Tissue Dispenser, Twin Roll - Surface Mounted	C.P.C.I.
O1	Mirror: 18" Wide x 36" High (Adult)	American Specialties, Inc.	0600-B1836 Stainless Steel Inter-lok Angle Frame Mirror	C.P.C.I.
S10	Sanitary Napkin Disposal	American Specialties, Inc.	20852 Surface Mounted Sanitary Napkin Disposal	C.P.C.I.
V1	ADA Locker Bench 4'L x 2'W x 17"H	WB Manufacturing	LBSBKT24048	C.P.C.I.



6 Welding Lab Service Sink Elev.
1/2" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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519 W HARDING BLVD.
SAN ANTONIO, TX 78221

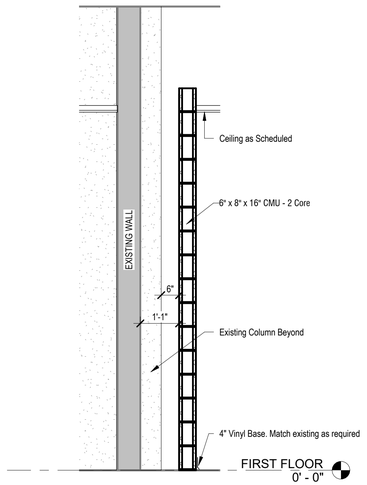
Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

RR PLANS & ELEVATIONS

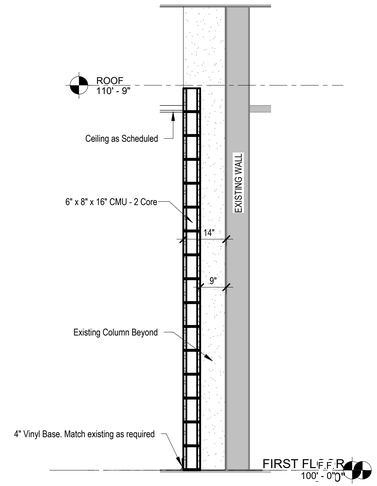
No.	DATE	DESCRIPTION

Date: 01/31/2024
Drawing No:
A-421

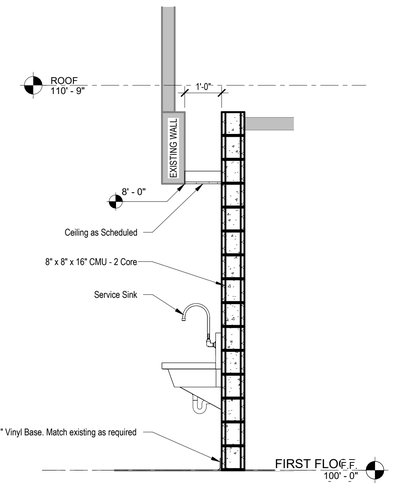
31/01/2024 02:59:32 p. m.



1 Section 12
1/2" = 1'-0"

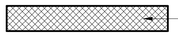
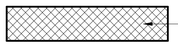


2 Section 13
1/2" = 1'-0"



3 Section 15
1/2" = 1'-0"

INTERIOR WALL TYPES

Y	INTERIOR - 6" CMU		6" CONCRETE MASONRY UNIT, RE: STRUCTURAL FOR REINFORCING INFO.
N1	INTERIOR - 8" CMU		8" CONCRETE MASONRY UNIT, RE: STRUCTURAL FOR REINFORCING INFO.

WALL LEGEND
3/4" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

1-31-2024

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519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: VMC
Checked By: SAV
Job Number.: 23-09

WALL SECTIONS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
A-430

31/01/2024 03:02:20 p. m.

DOOR SCHEDULE

Door No.	Type	Description	DOOR Width	DOOR Height	DOOR Thickness	DOOR Material	DOOR Finish	Glazing	FRAME Construction	FRAME Gage	FRAME Finish	DETAILS Head	DETAILS Jamb	Fire Rating	Type Comments
B144.1	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
B144.2	O1	Cased Opening	5' - 0"	7' - 2"	0"				HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
B145	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
B146	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
B160	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
C141.1	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
C141.2	O1	Cased Opening	5' - 0"	7' - 2"	0"				HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
C143	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
D148.1	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
D148.2	O1	Cased Opening	5' - 0"	7' - 2"	0"				HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
D148.3	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
K01	W2	Double Door	6' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing	G-4	HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612	45 min.	
L163.1	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
L163.2	O1	Cased Opening	5' - 0"	7' - 2"	0"				HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
N165	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		
S133	W1	Single Door	3' - 0"	7' - 2"	1 3/4"	Solid Core Wood	Stained Wood. Match Existing		HM Welded/Seamless	16 Gage	Painted; Color By Architect	1/A-612	2/A-612		

DOOR SCHEDULE - OVERHEAD DOORS

Door No.	Type	Door Dimensions Width	Door Dimensions Height	Opening Dimensions Width	Opening Dimensions Height	Door Finish	Manufacturer	Model	Description	Type Comments	Head	Jamb	Fire Rating
W125.1	OH9	9' - 1 1/2"	11' - 5 11/32"	8' - 0"	10' - 0"	24 ga. galvanized, primed, and finish painted	Cornell Iron Works	ESD10	Rolling Service Door		6/A-612	7/A-612	
W125.2	OH9	9' - 1 1/2"	11' - 5 11/32"	8' - 0"	10' - 0"	24 ga. galvanized, primed, and finish painted	Cornell Iron Works	ESD10	Rolling Service Door		6/A-612	7/A-612	

WINDOW SCHEDULE

Mark	Type Mark	Height	Width	Head Height	Sill Height	Frame Depth	Frame Thickness	Frame Material	Window Frame Finish	Glazing Type	Manufacturer	Model	Comments
557	B10	4' - 0"	3' - 0"	7' - 4"	3' - 4"	0' - 4 1/2"	0' - 1 3/4"	Extruded Aluminum	Arch. Class I (.7 mils min.) (#29 Black)	G-2	Kawneer	Trifab VG450 (Non-Thermal)	
560	B10	4' - 0"	3' - 0"	7' - 4"	3' - 4"	0' - 4 1/2"	0' - 1 3/4"	Extruded Aluminum	Arch. Class I (.7 mils min.) (#29 Black)	G-2	Kawneer	Trifab VG450 (Non-Thermal)	
561	B10	4' - 0"	3' - 0"	7' - 4"	3' - 4"	0' - 4 1/2"	0' - 1 3/4"	Extruded Aluminum	Arch. Class I (.7 mils min.) (#29 Black)	G-2	Kawneer	Trifab VG450 (Non-Thermal)	
563	B14	4' - 0"	6' - 0"	7' - 4"	3' - 4"	0' - 4 1/2"	0' - 1 3/4"	Extruded Aluminum	Arch. Class I (.7 mils min.) (#29 Black)	G-2	Kawneer	Trifab VG450 (Non-Thermal)	
564	B14	4' - 0"	6' - 0"	7' - 4"	3' - 4"	0' - 4 1/2"	0' - 1 3/4"	Extruded Aluminum	Arch. Class I (.7 mils min.) (#29 Black)	G-2	Kawneer	Trifab VG450 (Non-Thermal)	
565	B14	4' - 0"	6' - 0"	7' - 4"	3' - 4"	0' - 4 1/2"	0' - 1 3/4"	Extruded Aluminum	Arch. Class I (.7 mils min.) (#29 Black)	G-2	Kawneer	Trifab VG450 (Non-Thermal)	

ROOM FINISH SCHEDULE

#	ROOM NAME	FLOOR	BASE	WALLS	CEILING	COMMENTS
FIRST FLOOR						
104	PLUMBING SHOP	Exposed Concrete	RB-1	PA-1	Exposed Structure	
105	HVAC SHOP	Exposed Concrete	RB-1	PA-1	Exposed Structure	
106	ELECTRICAL SHOP	Exposed Concrete	RB-1	PA-1	Exposed Structure	
110	OPEN SPACE FOR PROJECTS	Exposed Concrete	RB-1	PA-1	Exposed Structure	
113	MEN RR	Existing Floor Finish to Remain, Patch as required to match existing T-1, T-2	Existing Base to Remain, Repair as Required CB-1	PA-1	Existing Ceiling to Remain	
115	WOMEN RR	Existing Floor Finish to Remain, Patch as required to match existing T-1, T-2	Existing Base to Remain, Repair as Required CB-1	PA-1	Existing Ceiling to Remain	
124	KITCHEN ENTRANCE	VCT-1	RB-1	PA-1	ACT-1	
125	WELDING LAB	Exposed Concrete	RB-1	PA-1	Existing Ceiling to Remain	
128	WELDING LAB STORAGE	Existing Floor Finish to Remain	Existing Base to Remain	PA-1	Existing Ceiling to Remain	
133	STORAGE	Existing Floor Finish to Remain, Repair as required	RB-1	PA-1	ACT-1	
137	LAVATORIES	Existing Floor Finish to Remain	Existing Base to Remain, Repair as Required RB-1	PA-1	Existing Ceiling to Remain	
139	RR	Existing Floor Finish to Remain, Patch as required to match existing T-1, T-4	Existing Base to Remain, Repair as Required CB-1	PA-1	Existing Ceiling to Remain	
141	CTE OFFICE STAFF ROOM	Existing Floor Finish to Remain	Existing Base to Remain	PA-1	Existing Ceiling to Remain	
142	OFFICE RR	Existing Floor Finish to Remain, Patch as required to match existing T-1, T-4	Existing Base to Remain, Repair as Required CB-1	PA-1	Existing Ceiling to Remain	
143	CTE OFFICE STAFF ROOM	VCT-1	RB-1	PA-1	ACT-1	
144	BARBERSHOP CLASSROOM	VCT-1	RB-1	PA-1	ACT-1	
145	LAUNDRY	VCT-1	RB-1	PA-1	GCB-2	
146	BARBER LAB	VCT-1	RB-1	PA-1	ACT-1	
148	DENTAL ASSISTING CLASSROOM	Existing Floor Finish to Remain	Existing Base to Remain, Repair as Required RB-1	PA-1	Existing Ceiling to Remain	
149	STORAGE	Existing Floor Finish to Remain, Patch as required to match existing T-1, T-4	Existing Base to Remain, Repair as Required CB-1	PA-1	Existing Ceiling to Remain	
150	DENTAL ASSISTING LAB	Existing Floor Finish to Remain	Existing Base to Remain, Repair as Required RB-1	PA-1	Existing Ceiling to Remain	
153	CTE ADMINISTRATION	Existing Floor Finish to Remain	Existing Base to Remain	PA-1	Existing Ceiling to Remain	
163	LECTURE CLASSROOM	Existing Floor Finish to Remain, Patch as required to match existing, VCT-1	Existing Base to Remain, Repair as Required RB-1	PA-1	ACT-1, GCB-1	
164	STORAGE	Existing Floor Finish to Remain, Patch as required to match existing T-1, T-3	Existing Base to Remain, Repair as Required CB-1	PA-1	Existing Ceiling to Remain	
165	NETWORKING CLASSROOM	Existing Floor Finish to Remain, Patch as required to match existing, VCT-1	Existing Base to Remain, Repair as Required RB-1	PA-1	ACT-1, GCB-1	
181	SECURITY OPERATIONS CENTER	Existing Floor Finish to Remain	Existing Base to Remain	PA-1	Existing Ceiling to Remain	

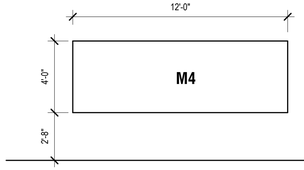
MARKERBOARD SCHEDULE

Type Mark	Width	Height	Responsibility
MB2	12' - 0"	4' - 0"	CFCI

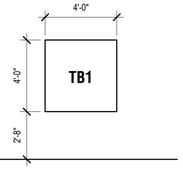
TACKBOARD SCHEDULE

Type Mark	Width	Height	Responsibility
TB1	4' - 0"	4' - 0"	CFCI

MARKERBOARDS



TACKBOARDS



MARKERBOARD & TACKBOARD ELEVATIONS
1/4" = 1'-0"

GLAZING SCHEDULE

TYPE	DESCRIPTION
G-2	Monolithic Interior Vision Glazing
G-3	Monolithic Interior Safety Glazing
G-4	Interior Safety Glazing (Fire Rated)

Refer to Specification Section 08 80 00 Glazing for further information

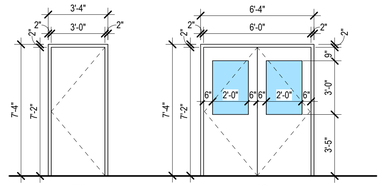
FINISHES DESCRIPTIONS

Finish Mark	Basis of Design/Description
ACT-1	2' x 2' Suspended Acoustical Ceiling Tile System; Re: Specs
CB-1	Crossville; Argent 6"x12" Cove Base, Winter Garden A1401
GCB-1	5/8" Gypsum Board on Metal Stud framing; Re: Specs
GCB-2	5/8" Moisture-Resistant Type X Gypsum Board on Metal Stud framing; Re: Specs
PA-1	Paint - SW7527 Nantucket Dune
RB-1	Resilient Base; Roppe 4" Vinyl Wall Base - 114 Lunar Dust
T-1	Crossville; Argent 12"x12" - Winter Garden A1401
T-2	Crossville; Argent 12"x12" - Memphis Blues A1415
T-3	Crossville; Argent 12"x12" - Chicago Fire A1412
T-4	Crossville; Argent 12"x12" - Lemon Drop A1409
VCT-1	Mannington; Progressions, Almond Buff 55507

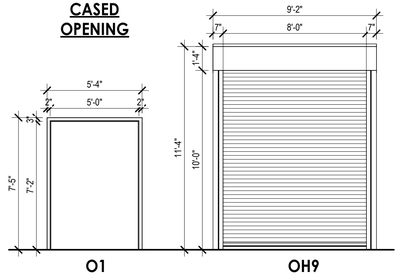
DOOR GENERAL NOTES

1. DOORS WITH SUFFIX "F" INDICATE FIRE-RATED DOOR. RE: DOOR SCHEDULE FOR FIRE RATINGS (i.e. 45 min, 90 min)
2. RE: DOOR SCHEDULE FOR FURTHER INFORMATION ON EACH DOOR TYPE.
3. GLAZING TYPES PER DOOR INDICATED ON DOOR SCHEDULE. RE: GLAZING SCHEDULE FOR GLAZING TYPES.
4. GENERAL CONTRACTOR TO PROVIDE FULL SET OF SHOP DRAWINGS FOR ALL DOOR TYPES PRIOR TO FABRICATION.
5. RE: DOOR SCHEDULE AND SPECIFICATIONS FOR ALUMINUM DOOR MAKE AND MODEL.
6. RE: DOOR SCHEDULE AND SPECIFICATIONS FOR OVERHEAD DOOR MAKE AND MODEL.

WOOD DOORS



OVERHEAD DOOR

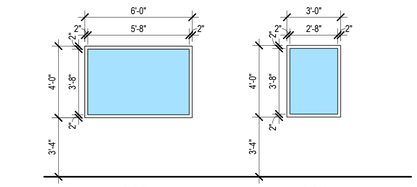


DOOR ELEVATIONS
1/4" = 1'-0"

WINDOW NOTES:

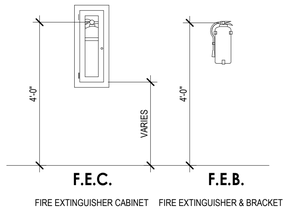
A. ALUMINUM WINDOW BASIS OF DESIGN: KAWNEER TRIFAB VERSAGLAZE 450 OR ARCHITECT APPROVED EQUAL (RE: SPECS). COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER FULL RANGE.
B. PROVIDE SWF CONTRACT S3000 1" MINI BLINDS, OR AN ARCHITECT-APPROVED EQUAL, AT ALL WINDOWS & STOREFRONTS. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.

WINDOW ELEVATIONS



WINDOW ELEVATIONS
1/4" = 1'-0"

MOUNTING HEIGHT N.T.S.

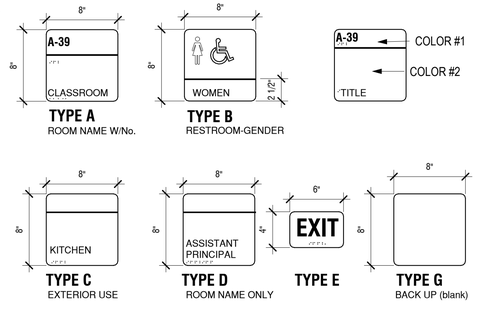


FIRE EXTINGUISHER CABINET FIRE EXTINGUISHER & BRACKET

***NOTE:** ALL FIRE EXTINGUISHERS TO BE IN SEMI-RECESSED CABINETS OR ON SURFACE MOUNTED BRACKETS AS PER SPECS*

1 Fire Extinguisher Drawings
1/2" = 1'-0"

ROOM SIGNAGE SCHEDULE



INTERIOR SIGNAGE LEGEND
1 1/2" = 1'-0"

INTERIOR SIGNAGE SPECIFICATIONS

1. SIGNAGE SHALL BE SIMILAR TO OR EQUAL TO: NATIONAL SIGNAGE AFFILIATES CCSW ARCHITECTURAL GRAPHICS STANDARD SIGN TYPES, ACCENT SERIES WITH VISITOUCH ADA FONTS.
2. FOR EXTERIOR ROOM SIGNAGE PROVIDE A .080 ALUMINUM SIGN PAINTED WITH MATTHEWS ACRYLIC POLYURETHANE PAINT AND FINISHED WITH A CLEAR COAT FINISH.
3. PROVIDE A BLANK BACK UP WITH COLOR MATCHING FACE COLOR FOR GLASS MOUNTING.
4. SIGNAGE SUPPLIER TO PROVIDE SHOP DRAWING AND SAMPLE SUBMITTALS FOR APPROVAL.

COLOR SCHEME:

1. BACKGROUND COLORS: *TBD*
2. TEXT COLOR: *TBD*
3. LINE COLOR: COLOR TO MATCH TEXT COLOR SELECTION.
4. EDGE COLOR: PAINTED TO MATCH FACE LAMINATE COLOR.
5. FONT: *HELVETICA 721.*
6. RADIUS: *1/2".*
7. MOUNTING: *3M VHB FOAM TAPE/SILICONE.*

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT JOSE J. CALZADA 10845 STATE OF TEXAS
1-31-2024

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

SCHEDULES & DETAILS

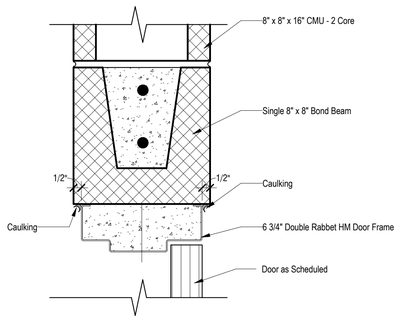
No.	DATE	DESCRIPTION

Date: 01/31/2024

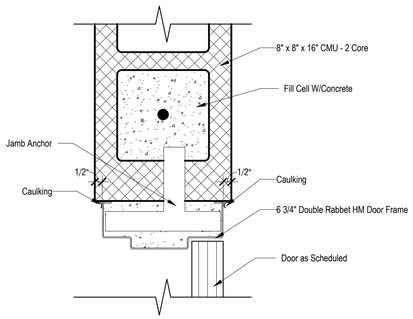
Drawing No:

A-611

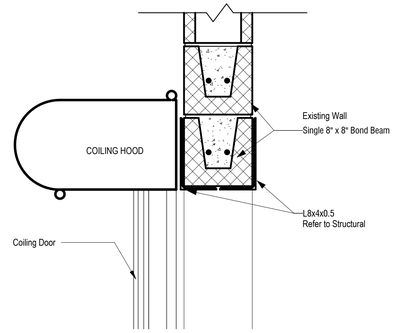
31/01/2024 04:18:08 p. m.



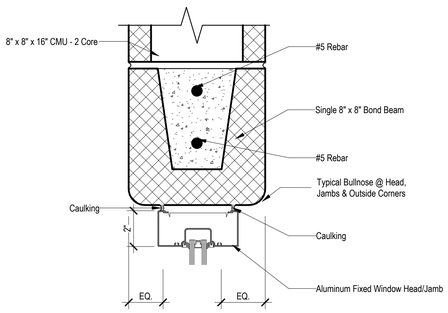
1 Door Head - Interior - 8" CMU
3" = 1'-0"



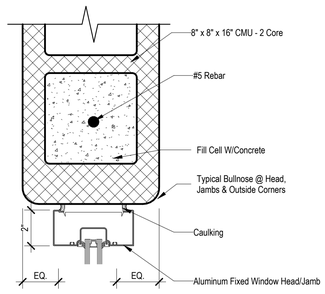
2 Door Jamb - Interior - 8" CMU
3" = 1'-0"



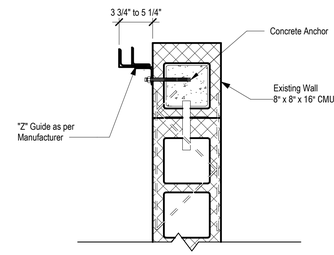
6 Door Head - Coiling Door at 8" CMU Wall
1 1/2" = 1'-0"



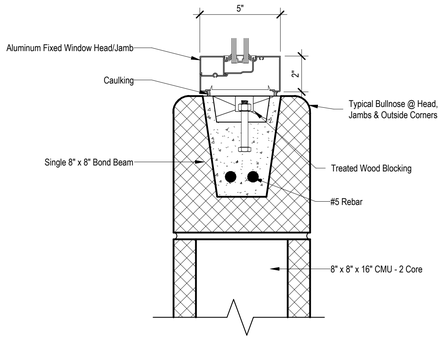
3 Window Head - Interior - 8" CMU
3" = 1'-0"



5 Window Jamb - Interior - 8" CMU
3" = 1'-0"



7 Door Jamb - Coiling Door at 8" CMU
1 1/2" = 1'-0"



4 Window Sill - Interior - 8" CMU
3" = 1'-0"

31/01/2024 03:02:21 p. m.

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT
JOSE J. CALZADA
10845
STATE OF TEXAS
1-31-2024

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HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

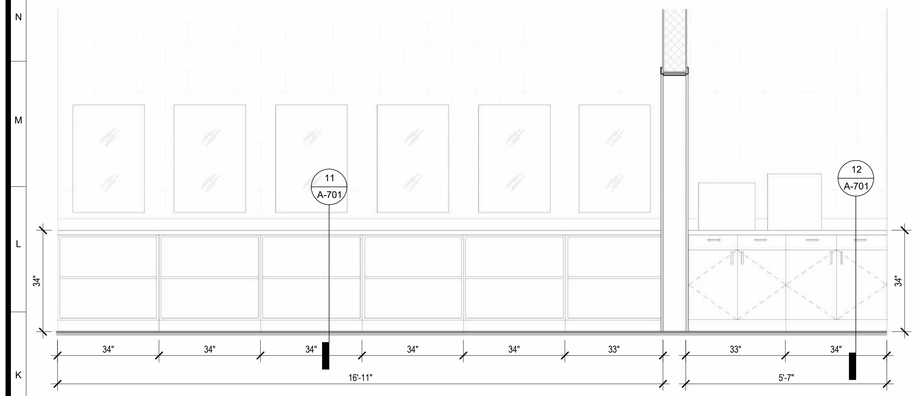
DOOR & WINDOW DETAILS

No.	DATE	DESCRIPTION

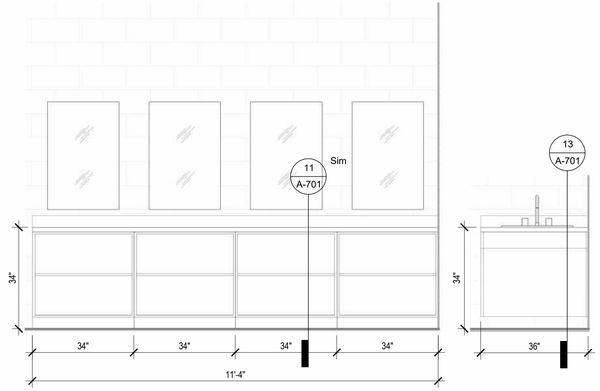
Date: 01/31/2024

Drawing No:

A-612

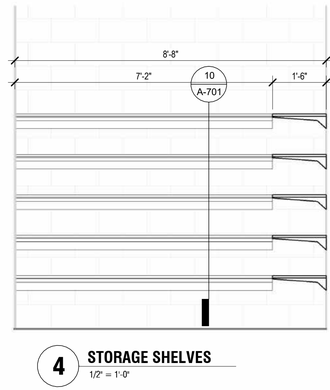


1 BARBER CLASSROOM MILLWORK
1/2" = 1'-0"

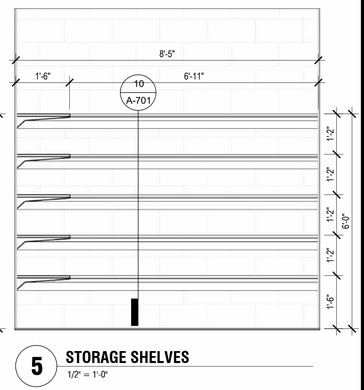


2 BARBER LAB MILLWORK
1/2" = 1'-0"

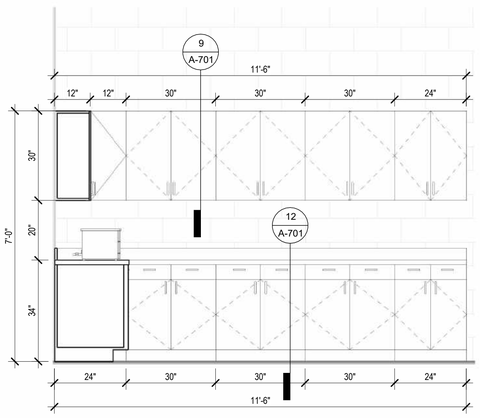
3 LAUNDRY SINK
1/2" = 1'-0"



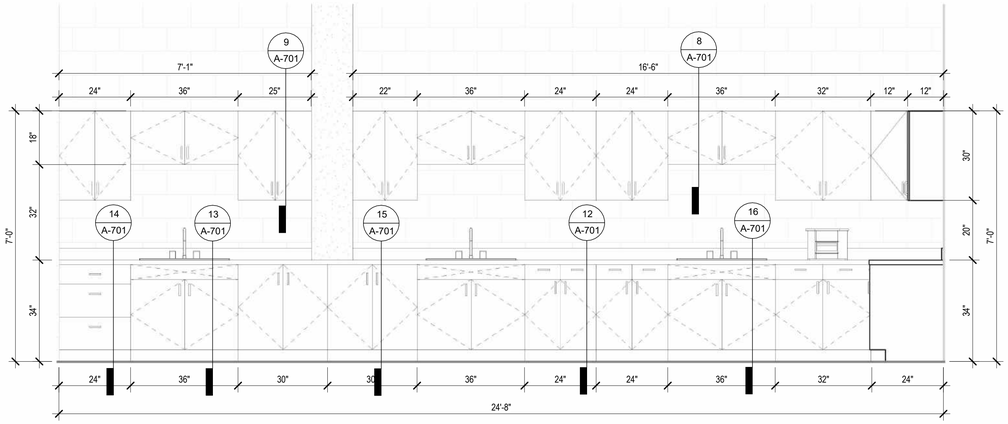
4 STORAGE SHELVES
1/2" = 1'-0"



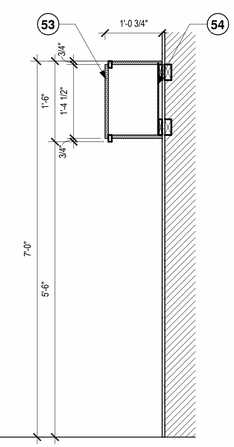
5 STORAGE SHELVES
1/2" = 1'-0"



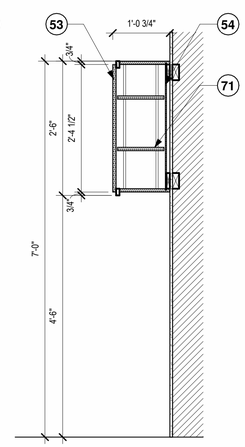
6 DENTAL ASSISTING LAB MILLWORK
1/2" = 1'-0"



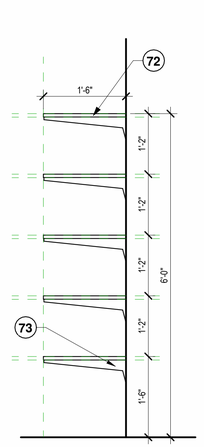
7 DENTAL ASSISTING LAB MILLWORK
1/2" = 1'-0"



8 ADULT - Cabinet Upper - 18"
3/4" = 1'-0"



9 ADULT - Cabinet Upper - 30"
3/4" = 1'-0"



10 CLOSET SECTION
3/4" = 1'-0"

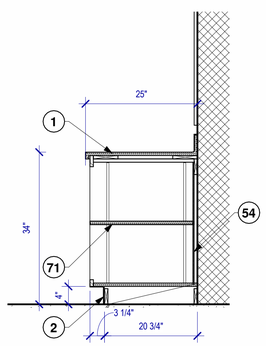
MILLWORK NOTES

A. PROVIDE PLASTIC LAMINATE AT ALL EXPOSED EDGES OF CABINETS, DRAWERS, SUPPORTS, AND EDGES.
B. REFER TO SPECS FOR MATERIALS REQUIRED AT ALL CABINET COMPONENTS (I.E., SUB-TOPS, FRONTS, SHELVES,ETC.).
C. ALL SHELVING TO BE GRADE A/C 3/4" PLYWOOD SHELVING, PLASTIC LAMINATE ON ALL EXPOSED EDGES, WITH 1/4" HARDBOARD BACKING VERTICALS TO BE EITHER 1 3/4" WITH EDGING PLYWOOD OR 2 3/4" PLYWOOD SHEETS, BACK TO BACK WITH A 1"x2" TRIM DEPENDING ON THE CONSTRUCTION METHOD PROPOSED. ALL ADJUSTABLE SHELVING STANDARDS SHALL BE RECESSED WITH STANDARDS THAT ARE BACK TO BACK ON ONE PLYWOOD SHEET TO BE ALTERNATELY LAPPED BY 1": SHELF STANDARDS ARE KV 255 & 256
D. ALL FIXED SHELVES SHALL BE A/C3/4" PLYWOOD WITH HARDWOOD EDGES, PLAM CLAD, WITH ALL HORIZONTAL AND VERTICAL SURFACES MEETING IN CLEAN WELL CRAFTED DADO JOINTS. GLUE AND/OR INVISIBLE TOE NAIL AT ALL SPLICES. RE: SPECS.
E. AT THE TOE SPACE OF ALL BASE CABINET UNITS, AS WELL AS FULL HEIGHT SHELVING UNITS. PROVIDE A FULL 4" TO ALLOW A 4" VINYL (RUBBER) BASE TO BE APPLIED. (A CONTINUOUS 1/2" PLYWOOD STRIP IN ADDITION TO THE 3 1/2" OF THE 2"x4" SHOULD SUFFICE).
F. REFER TO MILLWORK SPECS FOR DETAILED SPECIFICATIONS.
G. G.C. TO PROVIDE SHOP DRAWINGS FOR ARCHITECT'S APPROVAL.

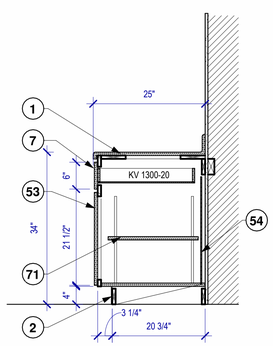
CABINET HARDWARE (FINISH)
CATCHES: MAGNETIC TYPE STANLEY SP46 US28 FINISH, 1 PER DOOR.
HINGES: 2 PER 3'-0" HGT. OF OPENING STANLEY 1592-1.
PULLS: HEAVY DUTY TYPE STANLEY #4484 US28 FINISH, 1 PER DOOR OR DRAWER.

KEYNOTES - MILLWORK

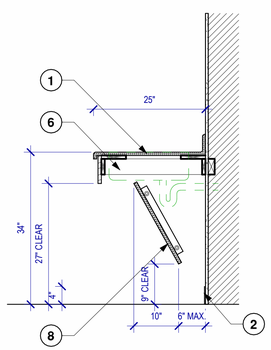
Number	Description
1	PLASTIC LAMINATE PREFORMED TOP W/SPLASH-RETURN
2	4" HIGH BASE - MATCH BASE IN ROOM
6	6" DEEP SINK; PLYWOOD SUBTOPS REQ'D AT SINK AREAS
7	3/4" STAIN GRADE DRAWER FACE
8	STAIN GRADE REMOVABLE ACCESS PANEL
53	3/4" STAIN GRADE DOOR
54	1/4" PLYWOOD BACKING
71	3/4" PLYWOOD SHELVES W/KV 255 & 256 STANDARDS & RECESSED BRACKETS
72	3/4" PLYWOOD SHELVES W/ 60" KV 80/180 STL STANDARD
73	Bottom 18" Wide Shelf To Be Fixed @ 12" A.F.F. Side Shelves To Stay Adjustable. (The Fixed Shelf Is To Prevent Possible Full Entry Into Closet)



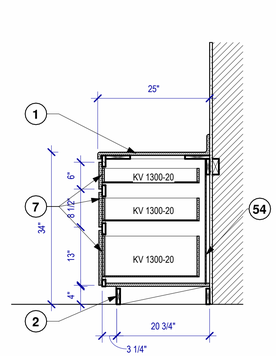
11 ADULT - 34"H - Base - Open Shelves
3/4" = 1'-0"



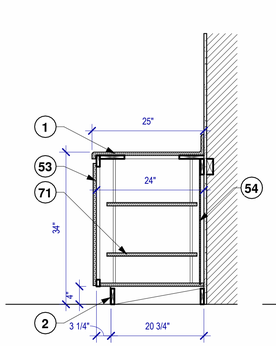
12 ADULT - 34"H - Base - Doors w/Drawer 24"D
3/4" = 1'-0"



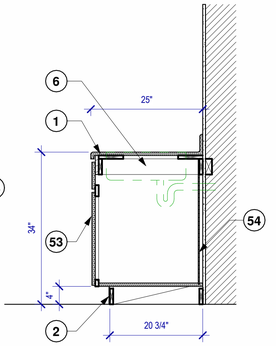
13 ADULT - 34"H - Base - Sink with ADA K/S
3/4" = 1'-0"



14 ADULT - 34"H - Base - 3 Drawers
3/4" = 1'-0"



15 ADULT - 34"H - Base - Doors
3/4" = 1'-0"



16 ADULT - 34"H - Base - Sink
3/4" = 1'-0"

CONSTRUCTION DOCUMENTS
EXP.9/30/24

REGISTERED ARCHITECT
JOSE J. CALZADA
10848
STATE OF TEXAS
1-31-2024

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	VMC
Checked By:	SAV
Job Number.:	23-09

MILLWORK ELEVS & DETAILS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

A-701

31/01/2024 03:02:25 p. m.

STRUCTURAL NOTES

GENERAL:

1. BUILDING CODE: IBC 2021 EDITION WITH CITY OF SAN ANTONIO AMENDMENT.

2. THE DETAILS DESIGNATED AS "TYPICAL DETAILS", APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN DETAILS.

3. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE REQUIREMENTS OF OTHER TRADES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC.) WITH THE STRUCTURAL DOCUMENTS PRIOR TO FABRICATION OR INSTALLATION OF ANY STRUCTURAL MEMBERS.

4. THE CONTRACTOR AND FABRICATOR SHALL VERIFY ALL QUANTITIES, DIMENSIONS AND CONDITIONS THOROUGHLY WITH THE CONTRACT DOCUMENTS AND THEN NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE SUBMITTING SHOP DRAWINGS AND PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS FOR DIMENSIONS.

5. COMPLETED SHOP DRAWINGS SHALL BE PROVIDED, AS SPECIFIED, FOR ALL FABRICATED ITEMS AND SHALL BE REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO FABRICATION. STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS. USE OF STRUCTURAL DRAWINGS WITHOUT PERMISSION IS GROUNDS FOR REJECTION OF SHOP DRAWINGS. THE STRUCTURAL ENGINEER WILL REVIEW SHOP DRAWINGS FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. THEREFORE, ALL CLOUDED DIMENSIONS, INDICATED ON ANY SHOP DRAWINGS, THAT ARE RELATIVE TO EXISTING STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR AND FABRICATOR. AS A MINIMUM, THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED **AS WELL AS SHOP DRAWINGS LISTED IN THE DEFERRED SUBMITTAL SECTION OF THESE NOTES**:

   A. CONCRETE MIX DESIGN FOR EACH TYPE OF CONCRETE TO BE USED.
   B. CONCRETE REINFORCING STEEL SHOP DRAWINGS INCLUDING PLACEMENT DRAWINGS AND CUT SHEETS.
   C. STRUCTURAL STEEL SHOP DRAWINGS.
   D. METAL DECK DRAWINGS.
   E. REBAR AND STRUCTURAL STEEL MILL CERTIFICAITONS

6. SHOP DRAWINGS NOT PREVIOUSLY REVIEWED BY THE GENERAL CONTRACTOR SHALL BE RETURNED WITHOUT REVIEW BY STRUCTURAL ENGINEER. STRUCTURAL ENGINEER DOES NOT BEAR ANY RESPONSIBILITY TO THE STRUCTURAL MEMBERS BUILT WITHOUT APPROVED SHOP DRAWINGS.

7. GENERAL CONTRACTOR SHALL INSPECT JOB FOR COMPLETION BEFORE SCHEDULING ANY OBSERVATION BY THE ENGINEER.

8. SEE ARCH'L. AND MEP DRAWINGS FOR LOCATIONS AND SIZES OF SLAB OPENINGS, SLEEVES, INSERTS, ANCHORS AND BOLTS REQUIRED BY VARIOUS TRADES.

9. ALL PLUMBING CONDUITS AT FOUNDATION SHOULD HAVE FLEXIBLE CONNECTIONS TO SUSTAIN A MAXIMUM DIFFERENTIAL MOVEMENT OF 1 INCH.

10. THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. CONTRACTOR SHALL CONSIDER ALL CONSTRUCTION LOADS APPLIED TO THE PARTIALLY COMPLETED STRUCTURE UNTIL ALL PERMANENT CONNECTIONS ARE MADE, AND ENCLOSED PERMANENTLY AS PER CONSTRUCTION DOCUMENTS. TEMPORARY BRACING SHALL BE PROVIDED BY THE CONTRACTOR IN ALL DIRECTIONS. WHEN REQUIRED, BY THE CONSTRUCTION DOCUMENTS OR THE STRUCTURAL ENGINEER, CONTRACTOR SHALL PROVIDE CALCULATIONS SEALED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF TEXAS WHICH VERIFY THE MEANS OF STRUCTURALLY MAINTAINING THE INTEGRITY OF THE COMPLETED PORTION OF THE STRUCTURE.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ALL CONSTRUCTION LOADS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR CONSTRUCTION ACTIVITIES.

12. ALL EXPOSED STEEL AND LINTEL ANGLES SHALL BE CLEANED AND GALVANIZED UNLESS SPECIFIED OTHERWISE ON ARCH. DRAWINGS. APPLY ZINC COATING BY THE HOT-DIP PROCESS AND ACCORDING TO A.S.T.M. A123. WHEN APPLICABLE FIELD WELDS, BOLTED CONNECTIONS AND ABRADED AREAS SHALL BE CLEANED AND "TOUCHED UP" WITH GALVANIZING REPAIR PAINT IN ACCORDANCE WITH A.S.T.M. A780. THE GALVANIZING REPAIR PAINT SHALL HAVE A HIGH ZINC-DUST CONTENT WITH DRY FILM CONTAINING NO LESS THAN 95% ZINC-DUST BY WEIGHT, AND COMPLYING WITH THE DOD-P-21035A OR SSPC-PAINT 20.

13. CONTRACTOR TO INCLUDE A $10,000 ALLOWANCE FOR POUNDS OF MISC. STEEL (STRUCTURAL STEEL, REINFORCING STEEL, LIGHT GAGE STEEL, AND MISC. STEEL) IN HIS BID PRICE FOR INSTALLATION PER DESIGN TEAM MEMBERS. THIS ALLOWANCE SHOULD INCLUDE LABOR DURING ANYTIME OF CONSTRUCTION.

14. THE ENGINEER SHALL NOT HAVE CONTROL OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

15. PERIODIC SITE OBSERVATIONS BY FIELD REPRESENTATIVES OF ALPHA CONSULTING ENGINEERS, INC. ARE SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THESE LIMITED SITE OBSERVATIONS ARE NOT INTENDED TO BE A CHECK OF THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO INFORM THE OWNER OF DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

16. ASSUMPTIONS HAVE BEEN MADE BY THIS OFFICE REGARDING EXISTING CONDITIONS. ACTUAL CONDITIONS MAY VARY FROM THOSE ASSUMED. FIELD VERIFICATION OF EXISTING CONDITIONS MAY BE REQUIRED TO PROVIDE ADEQUATE SHOP DRAWINGS. THE CONTRACTOR IS TO COORDINATE EFFORTS AS REQUIRED AND IS TO REPORT ANY DISCREPANCIES REGARDING THE EXISTING CONDITIONS TO THE ENGINEER FOR POSSIBLE MODIFICATIONS NEEDED TO THE CONTRACT DRAWINGS.

17. NEW CANOPY ROOF ELEVATION SHALL MATCH ARCHITECTURAL PLANS. CONTRACTOR SHOULD VERIFY EXACT HEIGHT OF EXISTING ROOF BEFORE STEEL SHOP DRAWINGS ARE ACCEPTED.

18. THE GENERAL CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN TEXAS, TO VERIFY THAT THE EXISTING STRUCTURAL FRAMING IS CAPABLE OF SUPPORTING NEW MECHANICAL EQUIPMENT PRIOR TO INSTALLATION. THE GENERAL CONTRACTOR SHALL ALSO PROVIDE NECESSARY FRAMING AS REQUIRED TO SUPPORT THE NEW MECHANICAL EQUIPMENT BETWEEN EXISTING STRUCTURAL FRAMING AND TO REINFORCE EXISTING STRUCTURAL FRAMING IF REQUIRED BY THE ENGINEER OF RECORD.

19. PROTECT ALL REMAINING EXISTING STRUCTURES. ANY DAMAGE TO AN EXISTING STRUCTURE SHALL BE REPAIRED TO EQUIVALENT OR BETTER CONDITION.

20. PROVIDE CONTROL JOINTS AT 15'-0" ON CENTER MAXIMUM FOR ALL BRITTLE FINISHES, UNLESS NOTED OTHERWISE BY ARCHITECT.

21. IF CONFLICT EXISTS BETWEEN DRAWINGS, NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS SHALL GOVERN.

CONCRETE AND CONCRETE REINFORCEMENT:

1. STRUCTURAL CONCRETE SHALL BE IN ACCORDANCE WITH THE CODE APPLICABLE EDITION OF "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)", THE AMERICAN CONCRETE INSTITUTE.

2. STRUCTURAL CONCRETE SHALL BE PLACED PER ACE 301 "SPECIFICATIONS FOR CONCRETE CONSTRUCTION". THE CONTRACTOR TO FOLLOW RECOMMENDATIONS IN THIS ACI STANDARD UNLESS NOTED OTHERWISE ON CONSTRUCTION DOCUMENTS.

3. CONCRETE REINFORCEMENT SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL, CONFORMING TO ASTM A 615, GRADE 60, EXCEPT WELDABLE REBARS ASTM A706, GR. 60, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, GRADE 70.

4. DETAIL REINFORCING BARS AND PROVIDE BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH ACI 315 AND CRSI (PLACING REINFROCING BARS) PRIOR TO PLACING CONCRETE.

5. PLACEMENT OF ALL REINFORCING STEEL SHALL BE OBSERVED BY THE ENGINEER'S REPRESENTATIVE AND/OR SPECIAL INSPECTOR PRIOR TO CONCRETE PLACEMENT UNLESS APPROVED OTHERWISE.

6. ALL CONCRETE SHALL BE NORMAL WEIGHT STONE AGGREGATE CONCRETE UNLESS NOTED OTHERWISE. AGGREGATE SHALL MEET ASTM C33 REQUIREMENTS, AND SHALL BE 3/4" TO 1 1/2" NOMINAL AGGREGATE SIZE. PROVIDE ADMIXTURES AS REQUIRED TO IMPROVE WORKABILITY. THE GENERAL CONTRACTOR SHALL COORDINATE SLUMP REQUIREMENTS UNLESS NOTED OTHERWISE IN STRUCTURAL DOCUMENTS. ALL CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS USING MOIST CURING PROCEDURES, OR CURING COMPOUNDS WHICH WILL NOT INTERFERE WITH THE BONDING OF FINISH TILE FLOORS. NO FLY ASH SHALL BE USED AT ARCHITECTURALLY EXPOSED CONCRETE WITHOUT PRIOR APPROVAL FROM ARCHITECT. THE FLYASH CONTENT SHALL NOT EXCEED THE PERCENTAGE OF CEMENTITIOUS MATERIALS SHOWN BELOW. IN ADDITION TO ABOVE THE CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS:

DESCRIPTION OF USE	f'c	MAX W/C	FLYASH CONTENT	SLUMP
DRILLED PIERS	3,000 PSI	0.55	50% MAX	6" +/- 1"

7. PLASTIC CONCRETE TEMPERATURE SHALL NOT EXCEED 88 DEGREES AT THE TIME OF PLACEMENT. INTERNAL CONCRETE TEMPERATURES SHALL NOT EXCEED 155 DEGREES AT ANY TIME WITH THE MAXIMUM DIFFERENTAL TEMPERTARURE BETWEEN THE SURFACE AND THE CORE BEING 35 DEGREES AT ANY TIME DURING THE FIRST 7 DAYS.

8. PROVIDE A SET OF CYLINDERS IN ACCORDANCE WITH ASTM C 31 TO BE TAKEN BY AN INDEPENDENT TESTING LAB AT THE FREQUENCY SPECIFIED IN ACI 318 AND THE GOVERNING BUILDING CODE WITH LOCAL AMENDMENTS. COMPRESSION TEST RESULTS SHALL BE REPORTED TO THE ENGINEER WITHIN 24 HOURS.

9. NO SUBSEQUENT CONSTRUCTION WILL BE ALLOWED UNTIL CONCRETE HAS REACHED 75% OF DESIGN STRENGTH.

10. PORTLAND CEMENT SHALL CONFORM TO ASTM - C150, TYPE I/II.

11. NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE STRUCTURAL ENGINEER.

12. CONCRETE COVER SHOULD BE AS FOLLOWS:

    A. PIER AND OTHER PRINCIPAL STRUCTURAL MEMBERS IN WHICH CONCRETE IS CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH - 3 INCHES.

    B. WHERE CONCRETE SURFACES, AFTER REMOVAL OF FORMS, ARE EXPOSED TO WEATHER OR EARTH:

    o BARS 3/4" AND LARGER IN DIAMETER..............................2 INCHES
    o BARS SMALLER THAN 5/8" IN DIAMETER...................1 1/2 INCHES

DEMOLITION / SHORING:

1. THE INFORMATION AND DATA INDICATED IN THE DRAWINGS RELATED TO THE EXISTING BUILDING, IS THE BEST AVAILABLE FOR ASSISTING THE GENERAL CONTRACTOR IN THE PREPARATION AND UNDERSTANDING OF THE SCOPE OF WORK RELATING TO THE DEMOLITION WORK, AND IS NOT INTENDED AS THE ONLY MEANS OF DETERMINING THE TOTAL SCOPE OF WORK INVOLVED.

2. THE INFORMATION AND DATA CONTAINED IN THE DRAWINGS IS ONLY PARTIAL AND SCHEMATIC IN CONTEXT AND IN NO WAY SHALL IT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR VISITING THE SITE TO VERIFY EXISTING CONDITIONS, LIMITATIONS AND DIFFICULTY INVOLVED. (SEE ALSO GENERAL NOTE 4).

3. LOCATION OF JOISTS, BEAMS AND OTHER STRUCTURAL MEMBERS, MAY VARY FROM THAT SHOWN ON THE DRAWINGS. GENERAL CONTRACTOR IS TO VERIFY ACTUAL LOCATION OF MEMBERS AND REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER BEFORE SUBMITTING SHOP DRAWINGS.

4. ALL PORTIONS OF THE STRUCTURE MUST BE ADEQUATELY SHORED PRIOR TO ANY SAW CUTTING OR DEMOLITION PROCESS. THE STRUCTURE MUST BE LEFT IN A STABLE AND SECURED POSITION ALL THE TIME.

5. ALL EXISTING CONCRETE, CMU, OR WOOD INCLUDING SLABS, STAIRS, JOISTS, ETC. SHALL BE REMOVED BY SAW CUTTING. THE SAW KERF CAN NOT OVERCUT OR EXTEND BEYOND THE DIMENSIONED OPENING.

6. FOR INFILLING OF EXISTING PIPE SLEEVES AND FLOOR DRAIN OPENINGS WITH A MAXIMUM DIMENSIONS LESS THAN 8", THE CONTRACTOR IS TO INCLUDE IN HIS BID A LUMP SUM AMOUNT TO COVER THE COST OF FILLING OUT THESE HOLES. THESE EXISTING OPENINGS ARE TO BE FILLED-IN USING A NON-SHRINK GROUT. EXISTING CONCRETE SURFACES SHALL BE SOUND, AND FREE OF ALL LOOSE MATERIAL AND FOREIGN MATTER. GROUT IS TO BE MIXED AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS; THIS SHOULD INCLUDE THE USE OF A BONDING ADMIXTURE TO INSURE PROPER ADHESION OF GROUT TO SURROUNDING CONCRETE. THIS LUMP SUM IS HEREBY NOT INCLUDED IN THE ALLOWANCE PART OF GENERAL NOTE 13.

SCHEDULE OF FIELD VISITS BY ENGINEER:

1. THE STRUCTURAL ENGINEER OR THEIR REPRESENTATIVE SHALL HAVE THE OPPERTUNITY TO VIEW STRUCTURAL ELEMENTS OF THE BUILDING DURING THE CONSTRUCTION PHASE, SO THAT A FINAL LETTER OF COMPLIANCE CAN BE PROVIDED TO THE OWNER AND/OR BUILDING AUTHORITY.

2. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE STRUCTURAL ENGINEER TO SET UP A SCHEDULE FOR THE FOLLOWING OBSERVATIONS, NOT TO EXCEED THE SPECIFIED NUMBER OF VISITS:

   A. CONCRETE: FOR EACH CONCRETE POUR UNLESS NOTED OTHERWISE BY THE ENGINEER. SEE NOTE 5 OF CONCRETE AND CONCRETE REINFORCEMENT - ONE VISIT.

   B. STRUCTURAL STEEL: BEFORE CONNECTIONS AND STRUCTURAL MEMBERS ARE HIDDEN BY INSTALLATION OF ARCHITECTURAL FINISHES - ONE VISIT.

   C. STRUCTURAL ROOF DECK: BEFORE WELDING AND/OR SCREWS ARE HIDDEN BY INSTALLATION OF FLOORING AND/OR ROOFING MATERIAL - COMBINED WITH ITEM "B".

   D. MASONRY UNIT WALL: AFTER INSTALLING TWO COURSES OF UNITS AND VERTICAL DOWELS AND STEEL ARE CLEARLY VISUAL - ONE VISIT.

   E. NOTIFY ARCHITECT AT LEAST 48 HOURS BEFORE EACH SITE OBSERVATION IS REQUIRED TO ALLOW TIME FOR ARRANGEMENTS TO BE MADE WITH ENGINEER FOR SITE OBSERVATION.

3. THESE VISITS ARE THE REQUIREMENTS OF THE STRUCTURAL ENGINEER AND DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE SPECIAL INSPECTIONS REQUIRED BY CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTION SHALL BE PERFORMED BY THE SPECIAL INSPECTOR WHO SHALL BE HIRED BY OWNER TO MEET CHAPTER 17 OF IBC.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AISC 360, "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".

2. WELDING: CODE APPLICABLE EDITION OF THE STRUCTURAL WELDING CODE - STEEL, AMERICAN WELDING SOCIETY (AWS D1.1 AND AWS D1.3).

3. STEEL SHALL MEET THE FOLLOWING REQUIREMENTS:

ELEMENT	ASTM	COMMENT
WIDE FLANGES	A992	Fy=50 KSI
W TEES	A992	Fy=50 KSI
ANGLES	A572	Fy=50 KSI
CHANNELS	A992	Fy=50 KSI
PLATES/FLAT BAR	A572	Fy=50 KSI
PIPE	A53	Fy=35 KSI
HSS SQ / RECTANGLE	A500 Gr. C	Fy=50 KSI
HSS ROUND	A500 Gr. C	Fy=50 KSI
BOLTS	F3125	UNO
ANCHOR BOLTS	F1554 Gr. 55	UNO

4. STEEL SHALL BE CLEANED PER SSPC-SP2. STEEL SHALL BE PAINTED WITH ONE SHOP COAT OF RED OXIDE PRIMER, MINIMUM OF 1.5 MILS (DRY FILM THICKNESS). DO NOT PAINT STRUCTURAL STEEL AND ANCHOR RODS THAT ARE TO BE EMBEDDED IN CONCRETE OR TO RECEIVE FIREPROOFING.

5. WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES, IN ACCORDANCE WITH SECTION 4 OF THE AWSD1.1 "STRUCTURAL WELDING CODE-STEEL", AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELDS AS SHOWN ON THE DRAWINGS. ALL WELDS SHALL BE PERFORMED USING E70XX SERIES LOW HYDROGEN RODS. ALL WELDS SHALL BE VISUALLY INSPECTED IN ACCORDANCE WITH SECTIONS 6.5 AND 6.9 OF THE AWSD1.1 "STRUCTURAL WELDING CODE-STEEL". VISUAL INSPECTIONS OF WELDS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY. UNLESS NOTED OTHERWISE ON THE PLANS, ALL SHOP FABRICATED OR FIELD ASSEMBLED ADJOINING STEEL MEMBERS SHALL BE CONNECTED USING CONTINUOUS, ALL AROUND/BOTH SIDES OF MEMBER FILLET WELDS IN ACCORDANCE WITH THE MINIMUM SIZE FILLET WELD SHOWN ON THE TABLE BELOW. UNLESS NOTED OTHERWISE ON THE PLANS, THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION.

MINIMUM SIZE OF FILLET WELDS

MATERIAL THICKNESS OF THINNER PART JOINED, IN.	MINIMUM SIZE OF FILLET WELD, IN.
TO 1/4 INCLUSIVE	3/16
OVER 1/4 TO 1/2	1/4
OVER 1/2 TO 3/4	5/16
OVER 3/4	3/8
LEG DIMENSION OF FILLET WELDS. SINGLE PASS WELDS MUST BE USED.	

6. BEAM CONNECTIONS SHALL BE SIMPLE FRAMED SHEAR CONNECTIONS USING F1852 OR F2280 TWIST OFF BOLTS AND SHALL BE IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS." SHALL BE INSTALLED AND VISUALLY INSPECTED PER SECTIONS 8.1 AND 9.1 RESPECTIVELY OF THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS." VISUAL INSPECTION OF BOLTED CONNECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY. UNLESS NOTED OTHERWISE IN THE CONSTRUCTION DOCUMENTS THE CONNECTIONS MUST BE DESIGNED TO SUPPORT 55% THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE "MAXIMUM UNIFORM LOAD TABLES", SHOWN IN PART 3 OF THE AISC MANUAL OF STEEL CONSTRUCTION.

7. THE STEEL FABRICATOR SHALL PROVIDE CONNECTION DESIGN CALCULATIONS SEALED AND SIGNED BY A REGISTERED ENGINEER LICENSED IN THE STATE OF TEXAS FOR ALL CONNECTIONS NOT SPECIFICALLY DETAILED ON THESE STRUCTURAL DRAWINGS.

8. THE CONTRACTOR SHALL REVIEW SHOP AND FIELD WELD REQUIREMENTS FOR COMPATIBILITY WITH THE CONSTRUCTION SEQUENCE. PROPOSED REVISIONS FROM SHOP TO FIELD WELDS OR FROM FIELD TO SHOP WELDS SHALL BE IDENTIFIED BY THE CONTRACTOR ON THE SHOP DRAWINGS.

9. GROUT SHALL BE A MIN. OF 5,000 PSI NON-SHRINK, NON-METALLIC GROUT OR EQUIVALENT. INSTALL GROUT UNDER BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL GROUT UNDER BASE PLATES AFTER COLUMN HAS BEEN PLUMBED BUT PRIOR TO FLOOR OR ROOF INSTALLATION.

10. NO MECHANICAL UNITS (SUCH AS A/C UNITS, HEATER UNITS, ETC.) ARE TO BE HUNG FROM STRUCTURE WITHOUT THE ENGINEER'S APPROVAL, UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

11. ROLLED MEMBER SIZES / THICKNESSES INDICATED ON THE STRUCTURAL DRAWINGS ARE REQUIRED MINIMUMS TO MEET STRENGTH AND DEFLECTION REQUIREMENTS. MEMBER THICKNESSES CAN BE INCREASED AS REQUIRED TO ACCOMMODATE ROLLING FABRICATION REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER OR DESIGN TEAM MEMBERS.

12. COORDINATE ALL EXPOSED BOLTED AND WELDED CONNECTIONS WITH DETAILS SHOWN ON ARCHITECTURAL AND STRUCUTRAL CONTRACT DOCUMENTS. ALL WELDS EXPOSED TO VIEW SHALL BE CLEANED AND GROUND SMOOTH.

13. FOR CONCRETE PLACEMENT, STEEL BEAMS ARE DESIGNED FOR AN UNSHORED CONDITION, UNLESS NOTED OTHERWISE ON CONTRACT DOCUEMENTS. AFTER CONCRETE PLACEMENT, TEMPORARY BRACING/SHORING MAY BE REQUIRED.

14. GENERAL CONTRACTOR SHALL NOTIFY STRUCTURAL ENGINEER IN WRITING OF FABRICATION OR ERECTION ERRORS AND RECEIVE WRITTEN APPROVAL BEFORE TAKING CORRECTIVE ACTION INVOLVING MODIFICATIONS TO STRUCTURAL MEMBERS OR FRAMING.

15. ALL HSS TUBE MEMBERS SHALL BE HAVE A CAP PLATE AT OPEN ENDS.

16. MILL / TESTING REPORTS SHOWING THAT STEEL MEETS THE REQUIREMENTS OF THE ASTM MENTIONS NEED TO BE SUBMITTED FOR DESIGN TO REVIEW/COMMENT.

POST-INSTALLED CONCRETE/MASONRY ANCHORS:

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. IF ADHESIVE / MECHANICAL ANCHOR IS GENERICALLY CALLED OUT ON THE CONSTRUCTION DOCUMENTS, ANY ANCHOR MENTIONED BELOW IS ACCEPTABLE. IF SPECIFIC ANCHOR IS CALLED FOR, SUBSTITUTION MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD FOR EACH CASE.

2. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE ANCHOR MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

3. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE ANCHOR MANUFACTURER'S RECOMMENDATIONS. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY FERROSCAN, GPR, X-RAY OR OTHER MEANS ACCEPTABLE TO THE STRUCTURAL ENGINEER-OF-RECORD.

4. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. SUBSTITUTIONS WILL ALSO BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

5. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.

6. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER–OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.

7. MECHANICAL ANCHORS FOR CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193 FOR CRACKED CONCRETE RECOGNITION.

8. PRE-APPROVED MECHANICAL ANCHORS FOR CONCRETE INCLUDE:
   A) SIMPSON STRONG-TIE "TITEN-HD" AND "TITEN-HD ROD HANGER"
   B) SIMPSON STRONG-TIE "STRONG-BOLT" AND "STRONG-BOLT 2"
   C) SIMPSON STRONG-TIE "TORQ-CUT"
   D) HILTI "KWIK HUS-EZ" OR "KWIK HUS-EZ-1" SCREW ANCHORS
   E) HILTI "KWIK BOLT TZ" EXPANSION ANCHOR
   F) HILTI "HDA" UNDERCUT ANCHOR
   G) HILTI "HSL-3" EXPANSION ANCHOR
   H) DEWALT "POWER BOLT"
   I) DEWALT "POWER-STUD +SD1"
   J) DEWALT "SCREW BOLT"

9. ADHESIVE ANCHORS FOR CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE RECOGNITION.

10. PRE-APPROVED ADHESIVE ANCHORS FOR CONCRETE INCLUDE:
    A) SIMPSON STRONG-TIE "SET-XP" AND AT-XP"
    B) HILTI "HIT-RE 500-SD" ADHESIVE
    C) HILTI "HIT-HY 200" SAFE SET SYSTEM WITH HILTI "HIT-Z" ROD.
    a. NO CLEANING IS REQUIRED FOR HIT-Z ANCHORS FOR TEMPERATURES ABOVE 41°F.
    b. FOR TEMPERATURE BELOW 41°F FOR HIT-Z ANCHOR INSTALLATIONS, USE HILTI TE-CD OR TE-YD HOLLOW DRILL BITS WITH VC 20/40 VACUUM SYSTEM
    c. FOR ALL TEMPERATURES FOR REBAR INSTALLATIONS, USE HILTI TE-CD OR TE-YD HOLLOW DRILL BITS WITH VC 20/40 VACUUM SYSTEM
    D) HILTI "HIT-HY 200" SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT SYSTEM
    E) DEWALT PURE 110+ ADHESIVE
    F) DEWALT AC200+ ADHESIVE
    G) DEWALT PURE 110+ DUST X SYSTEM

11. MECHANICAL ANCHORS FOR SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106.

12. PRE-APPROVED MECHANICAL ANCHORS FOR SOLID-GROUTED CONCRETE MASONRY INCLUDE:
    A) SIMPSON STRONG-TIE "STRONG-BOLT 2", "WEDGE-ALL" AND TITEN HD"
    B) HILTI "KWIK HUS EZ" SCREW ANCHOR
    C) HILTI "KWIK BOLT 3" EXPANSION ANCHOR
    D) DEWALT "POWER-STUD +SD1"
    E) DEWALT "SCREW BOLT"

13. ADHESIVE ANCHORS FOR SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58.

14. PRE-APPROVED ADHESIVE ANCHORS FOR SOLID-GROUTED CONCRETE MASONRY INCLUDE:
    A) SIMPSON STRONG-TIE "SET" AND "SET-XP"
    B) HILTI "HIT-HY 210" MASONRY ADHESIVE ANCHORING SYSTEM (UNGROUTED CMU CELLS ONLY)
    C) DEWALT AC100+ ADHESIVE ANCHORING SYSTEM

15. ADHESIVE ANCHORS FOR HOLLOW CONCRETE MASONRY/UNREINFORCED CLAY BRICK MASONRY WITH SCREEN TUBES SHALL BE TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC58 OR AC60, AS APPROPRIATE. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER.

16. PRE-APPROVED ADHESIVE ANCHORS WITH SCREEN TUBES INCLUDE:
    A) SIMPSON STRONG-TIE "SET"
    B) HILTI "HIT-HY 70" MASONRY ADHESIVE ANCHORING SYSTEM
    C) DEWALT AC100+ ADHESIVE ACHORING SYSTEM

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STRUCTURAL NOTES

No.	DATE	DESCRIPTION

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STRUCTURAL NOTES

DESIGN LOADS:

1. FOR NEW STRUCTURAL STEEL CANOPY: DEAD LOADS INCLUDE THE WEIGHT OF CONSTRUCTION MATERIALS INCORPORATED INTO THE BUILDING, INCLUDING BUT NOT LIMITED TO WALLS, FLOORS, ROOFS, CEILINGS, STAIRWAYS, BUILT-IN PARTITIONS, FINISHES, CLADDING AND OTHER SIMILARLY INCORPORATED ARCHITECTURAL AND STRUCTURAL ITEMS, AND FIXED SERVICE EQUIPMENT. ALL DEAD LOADS ARE CONSIDERED PERMANENT LOADS. MINIMUM ROOF DEAD LOAD IS 15 PSF OR ACTUAL LOAD WHICHEVER IS LARGER.

2. UNIFORM DESIGN LIVE LOADING IS AS FOLLOWS:
   - o NEW CANOPY .....20 PSF
   - o REFERENCE STRUCTURAL PLANS FOR EXISTING BUILDING AREAS

3. NEW CANOPY ROOF LIVE LOADS MAY BE REDUCED.

4. SNOW LOAD:
   - o GROUND SNOW LOAD, Pg.....5 PSF

5. RAIN INTENSITY.....4.25 IN/HR

6. WIND LOADS:
   - o RISK CATEGORY.....III
   - o ULTIMATE DESIGN WIND SPEED, Vult.....116 MPH
   - o ALLOWABLE DESIGN WIND SPEED, Vasd.....90 MPH
   - o EXPOSURE CATEGORY.....*B"
   - o INTERNAL PRESSURE COEFFICIENT..... +/- 0.18 , 0.55, 0.00
   - o FOR COMPONENTS AND CLADDING GROSS WIND PRESSURE, SEE DL-10.

7. EARTHQUAKE DESIGN DATA:
   - o SEISMIC IMPORTANCE FACTOR Ie.....1.0
   - o RISK CATEGORY.....III
   - o MAPPED SPECTRAL RESPONSE ACCELERATIONS:

   Ss.....0.051g
   S1.....0.021g
   - o SITE CLASS "D"
   - o SPECTRAL RESPONSE COEFFICIENTS

   Sds.....0.055g
   Sd1.....0.034g
   - o SEISMIC DESIGN CATEGORY "A"
   - o BASIC SEISMIC FORCE RESISTING SYSTEM - STRUCTURAL STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
   - o DESIGN BASE SHEAR, V = N/A
   - o SEISMIC RESPONSE COEFFICIENT, Cs = N/A
   - o RESPONSE MODIFICATION COEFFICIENT, R = N/A
   - o ANALYSIS PROCEDURE - N/A

8. UNLESS SPECIFICALLY NOTED, THERE ARE NO PROVISIONS FOR FUTURE FLOORS, ROOFS OR OTHER LOADS.

9. COMPONENTS AND CLADDING PRESSURES:

ROOF PRESSURES (NEW CANOPY)

	TRIBUTARY AREA (PSF)	
ZONE	10 SQ. FT.	100 SQ. FT.
1	+16, -26	+16, -25
2	+16, -40	+16, -28
3	+16, -56	+16, -28

WALL PRESSURES (NEW WALL OPENING)

	TRIBUTARY AREA (PSF)	
ZONE	10 SQ. FT.	500 SQ. FT.
4	+24, -26	+20, -21
5	+24, -30	+20, -21

NOTE:
1. REFER TO ASCE 7-16 FOR DEFINITION OF "a" DIMENSION.

METAL DECK:

1. ALL GALVANIZED (G60 EXCEPT WHERE EXPOSED TO WEATHER, USE G90) METAL ROOF DECK SHALL BE FURNISHED WITH A MINIMUM TWO SPAN CONDITION, UNLESS NOTED OR DETAILED OTHERWISE, ROOF DECK SIZE IS NOTED ON THE PLANS AND SHALL CONFORM TO THE FOLLOWING MINIMUM, SECTION PROPERTIES:

   A. ALL ROOF DECK EXCEPT AS NOTED (SUPPORTS SPACED NOT MORE THAN 6'-0 o.c.) 1 1/2", TYPE "B", 22 GAGE,

   - o I = 0.169 IN 4/FT.
   - o Sp = 0.186 IN 3/FT.
   - o Sn = 0.192 IN 3/FT.
   - o Fy = 33,000 PSI

2. ROOF DECK COMPLYING WITH THE CODE APPLICABLE EDITION OF THE STEEL DECK INSTITUTE SHALL BE ATTACHED TO SUPPORTING MEMBERS TO RESIST A DIAPHRAGM SHEAR FORCE OF THE FOLLOWING:

   A. (TYP. ROOF DECK ATTACHMENT U.N.O.) - TYP. 1.5B DECK SHALL BE ATTACHED TO ALL SUPPORTING MEMBERS WITH 5/8" DIA. PUDDLE WELDS IN A 36/5 PATTERN. PROVIDE MINIMUM 4 - #10 TEK SCREW SIDE LAP FASTENERS PER SPAN.

   B. (TYP. ROOF DECK ATTACHMENT AT BLDG. END, WITHIN "a" ZONE) - 1.5B DECK SHALL BE ATTACHED TO ALL SUPPORTING MEMBERS WITH 5/8" DIA. PUDDLE WELDS IN A 36/7 PATTERN. (EVERY FLUTE). PROVIDE MINIMUM 7 #10 TEK SCREWS SIDELAP FASTENERS PER SPAN.

3. ALL FIELD WELDING OF DECK SHALL BE IN STRICT ACCORDANCE WITH ANSI/AWS D1.3 STRUCTURAL WELDING CODE - SHEET STEEL. EACH WELDER MUST DEMONSTRATE AN ABILITY TO PRODUCE SATISFACTORY WELDS USING A PROCEDURE SUCH AS SHOWN IN THE STEEL DECK INSTITUTE MANUAL OF CONSTRUCTION WITH STEEL DECK OR AS DESCRIBED IN ANSI/AWS D1.3.

4. DECK MANUFACTURER SHALL FURNISH SHEET METAL CLOSURES BETWEEN FLOOR UNITS AND BEAMS, GIRDERS OR COLUMNS AS REQUIRED. THESE ACCESSORIES SHALL BE OF THE TYPE REQUIRED BY THE STEEL DECK INSTITUTE.

5. DECK MANUFACTURER SHALL FURNISH RIDGE, VALLEY PLATES, AND FLAT PLATES AT CHANGE OF DECK DIRECTION TO PROVIDE A FINISHED SURFACE FOR THE APPLICATION OF ROOF INSULATION AND ROOF COVERING.

6. PRIOR TO START OF FABRICATION, STEEL FABRICATOR SHALL PROVIDE COMPLETE ERECTION AND FABRICATION DRAWINGS SHOWING LAYOUT AND TYPES OF DECK PANELS, ANCHORAGE DETAILS, SUPPLEMENTARY FRAMING AND ALL ACCESSORIES.

ABBREVIATIONS

&	- AND	I.D.	- INSIDE DIAMETER
@	- AT	IN.	- INCH
CL	- CENTERLINE	INV.	- INVERTED
X°	- DEGREE	INT.	- INTERIOR
Ø	- DIAMETER	JST.	- JOIST
#	- NUMBER/POUND	JT.	- JOINT
A.B.	- ANCHOR BOLT	K	- KIP (THOUSAND POUNDS)
AESS	- ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	L	- ANGLE
		LBS.	- POUNDS
APPROX.	- APPROXIMATE	L.D.H.	- LONG DIMENSION HORIZONTAL
ARCH.	- ARCHITECT/ARCHITECTURAL	LF	- LINEAR FOOT
ADH.	- ADHESIVE	LLH	- LONG LEG HORIZONTAL
ALT.	- ALTERNATE	LG.	- LONG
B.P.	- BASE PLATE	LLV	- LONG LEG VERTICAL
B.L.	- BUILDING LINE	MAX.	- MAXIMUM
B.U.R.	- BUILT-UP ROOF	MECH.	- MECHANICAL
BM	- BEAM	MEZZ.	- MEZZANINE
B.W.	- BOTH WAYS	MFR.	- MANUFACTURER
BOT.	- BOTTOM	MID.	- MIDDLE
BLDG.	- BUILDING	MIN.	- MINIMUM
BSMT.	- BASEMENT	MISC.	- MISCELLANEOUS
BRG.	- BEARING	MAS.	- MASONRY
BTWN.	- BETWEEN	NS	- NEAR SIDE
CANT.	- CANTILEVER	NOM.	- NOMINAL
C.I.P.	- CAST-IN-PLACE	N.T.S.	- NOT TO SCALE
CLG.	- CEILING	O.C.	- ON CENTER
CLR.	- CLEAR	O.D.	- OUTSIDE DIAMETER
CMU	- CONCRETE MASONRY UNITS	O.H.	- OPPOSITE HAND
COL.	- COLUMN	OPNG.	- OPENING
CONC.	- CONCRETE	OPP.	- OPPOSITE
CONTR.	- CONTRACTOR	P/C	- PRECAST
C.J.	- CONSTRUCTION JOINT	PREFAB.	- PREFABRICATED
CONN.	- CONNECTION	PSF	- POUND PER SQUARE FOOT
CONST.	- CONSTRUCTION	PSI	- POUND PER SQUARE INCH
CONT.	- CONTINUOUS	PL.	- PLATE
D.E.	- DECK EDGE	R	- RISER
DEMO.	- DEMOLITION	RAD.	- RADIUS
DIA.	- DIAMETER	R.D.	- ROOF DRAIN
DIAG.	- DIAGONAL	REF.	- REFERENCE
DIM.	- DIMENSION	REINF.	- REINFORCING/REINFORCED
D.L.	- DEAD LOAD	REQ'D.	- REQUIRED
DBL.	- DOUBLE	SPA.	- SPACES/SPACING
DN.	- DOWN	SCHED.	- SCHEDULE
DWL.	- DOWEL	SECT.	- SECTION
DWG.	- DRAWING	SHT.	- SHEET/SHEATHING
EA.	- EACH	SIM.	- SIMILAR
E.F.	- EACH FACE	SPEC.	- SPECIFICATION
E.H.	- EAVE HEIGHT	SL.	- SLOPE
E.J.	- EXPANSION JOINT	SSS	- STANDARD STRUCTURAL STEEL
EL.	- ELEVATION	STIFF.	- STIFFENERS
ELEV.	- ELEVATOR	STIR.	- STIRRUPS
EQ.	- EQUAL	SQ.	- SQUARE
EQUIP.	- EQUIPMENT	STD.	- STANDARD
E.W.	- EACH WAY	STL.	- STEEL
EXT.	- EXISTING	STR.	- STAIR
EXP.	- EXPANSION	STRUCT.	- STRUCTURE/STRUCTURAL
EXT.	- EXTERIOR	SYM.	- SYMMETRICAL
FDN.	- FOUNDATION	T.	- TREAD
F.D.	- FLOOR DRAIN	T&B.	- TOP AND BOTTOM
F.S.	- FAR SIDE	THK.	- THICK/THICKNESS
FIN.	- FINISH	T.O.C.	- TOP OF CONCRETE
FLD	- FIELD	T.O.J.	- TOP OF JOIST
FLR.	- FLOOR	T.O.S.	- TOP OF STEEL
FT.	- FOOT OR FEET	T.O.W.	- TOP OF WALL
FTG.	- FOOTING	TYP.	- TYPICAL
F.V.	- FIELD VERIFY	U.N.O.	- UNLESS NOTED OTHERWISE
GA.	- GAGE	VERT.	- VERTICAL
GALV.	- GALVANIZED	W/	- WITH
GR.	- GRADE	W.P.	- WORK POINT
HK.	- HOOK	W.W.F.	- WELDED WIRE FABRIC
HORIZ.	- HORIZONTAL		
HCA	- HEADED CONCRETE ANCHOR		
H.S.	- HIGH STRENGTH		

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CONSTRUCTION DOCUMENTS

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Checked By:	J.Z.
Job Number.:	23-09

STRUCTURAL NOTES

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

S-102

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SPECIAL INSPECTIONS

STRUCTURAL SPECIAL INSPECTIONS NOTES:

1. SPECIAL INSPECTION WORK IS NOT INCLUDED IN THE STRUCTURAL ENGINEER'S SCOPE OF SERVICES. THE OWNER WILL ENGAGE A TESTING AGENCY TO CONDUCT SPECIAL TESTS AND INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION AS THE RESPONSIBILITY OF THE OWNER. ALL INSPECTION REPORTS SHALL BE COPIED TO THE STRUCTURAL ENGINEER, AND A FINAL LETTER OF COMPLIANCE SHALL BE PROVIDED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (TYPICALLY ARCHITECT) TO THE OWNER OR BUILDING AUTHORITY.

   SPECIAL INSPECTION SHALL INCLUDE:

   - o SITE PREPARATION
   - o PIER FOUNDATION
   - o CONCRETE
   - o WOOD (NOT REQUIRED)
   - o OPEN WEB STEEL JOISTS AND JOISTS GIRDERS (NOT REQUIRED)
   - o WELDING OF STRUCTURAL STEEL
   - o STEEL ELEMENTS OF COMPOSITE CONSTRUCTION (NOT REQUIRED)
   - o BOLTING OF STRUCTURAL STEEL
   - o STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL
   - o MASONRY I (NOT REQUIRED)
   - o MASONRY II (NOT REQUIRED)

2. INSPECTOR QUALIFICATIONS: QUALIFICATIONS LISTED IN THE TESTING & INSPECTION REQUIREMENTS TABLES ARE RECOMMENDATIONS OF THE LOCAL MEMBERS OF THE TEXAS COUNCIL OF ENGINEERING LABORATORIES. IT IS ALSO RECOMMENDED THAT THE SPECIAL INSPECTORS SHOULD BE EMPLOYED BY AN AGENCY ACCREDITED BY ANY NATIONALLY RECOGNIZED ACCREDITING BODY SUCH AS AASHTO, A2LA, NVLAP, ICC ETC.

3. DEFINITIONS:
   ACI - AMERICAN CONCRETE INSTITUTE
   ADSC-IAFD - ADSC: THE INTERNATIONAL ASSOCIATION OF FOUNDATION DRILLING
   AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION
   ASNT - AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING
   ASTM - AMERICAN SOCIETY FOR TESTING MATERIALS
   AWS - AMERICAN WELDING SOCIETY
   CWI - CERTIFIED WELDING INSPECTOR
   CRSI - CONCRETE REINFORCING STEEL INSTITUTE
   IBC - INTERNATIONAL BUILDING CODE
   PCI - PRECAST/PRESTRESSED CONCRETE INSTITUTE
   PTI - POST-TENSIONING INSTITUTE

4. THE SPECIAL INSPECTOR CANNOT BE AN EMPLOYEE OF THE CONTRACTOR.

5. WHERE STRUCTURAL MEMBERS AND ASSEMBLIES ARE SHOP FABRICATED, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO THE CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS, UNLESS THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. EXCEPTION: SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE WORK IS PERFORMED ON THE PREMISES OF A FABRICATOR THAT IS ENROLLED IN A NATIONALLY ACCEPTED INSPECTIONS PROGRAM ACCEPTABLE TO THE REGISTERED DESIGN PROFESSIONAL IN CHARGE. AT THE COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL UPON REQUEST AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

TESTING AND INSPECTION REQUIREMENTS FOR SITE PREPARATION FOR SOIL SUPPORTED FOUNDATIONS (IBC 1705)

Required Verification and Inspection	Frequency of Verification and Inspection	Inspector Qualifications
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Periodic	As required by building official
2. Verify excavations are extended to proper depth and have reached proper material.	Periodic	As required by building official
3. Perform classification and testing of compacted fill materials.	Periodic	As required by building official
4. During fill placement, verify use of proper materials and procedures in accordance with the provisions of the approved geotechnical report. Verify densities and lift thickness during placement and compaction of compacted fill.	Continuous	As required by building official
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	Periodic	As required by building official
6. Chemical Injection: Quality controlled testing and evaluation prior and subsequent to injection shall be performed by the Geotechnical Engineer to determine the effectiveness of the chemical injection process. The Geotechnical Engineer or his representative shall monitor the injection process to verify area coverage, injection depth and to review and monitor the swell test results.	Periodic	As required by building official

TESTING AND INSPECTION REQUIREMENTS FOR CAST-IN-PLACE DEEP FOUNDATION ELEMENTS (IBC 1705)

Required Verification and Inspection	Frequency of Verification and Inspection	Inspector Qualifications
PIER FOUNDATION CONSTRUCTION		
1. Inspect drilling operations and maintain complete and accurate records for each element.	Continuous	As required by building official
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.	Continuous	As required by building official
3. For concrete elements, perform additional inspections in accordance with Concrete Construction Special Inspection Section of IBC	---	As required by building official

TESTING AND INSPECTION REQUIREMENTS FOR CONCRETE CONSTRUCTION (IBC 1705)

Required Verification and Inspection	Frequency of Verification and Inspection	Inspector Qualifications
CONCRETE CONSTRUCTION		
1. Inspect reinforcing steel, including prestressing tendons and placement.	Periodic	As required by building official
2. Reinforcing bar welding:		As required by building official
a. Verify weldability of reinforcing bars other an ASTM A 706	Periodic	
b. Inspect single-pass welds, maximum 5/16"	Periodic	
c. Inspect all other welds	Continuous	
3. Inspect anchors cast in concrete	Periodic	As required by building official
4. Inspection anchors post-installed in hardened concrete members.		As required by building official
a. Adhesive anchors installed in horizontal or upward inclined orientations to resist sustained tension loads.	Continuous	
b. Mechanical anchors and adhesives anchors not defined in part 4a	Periodic	
5. Verifying use of required design mix.	Periodic	As required by building official
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete.	Continuous	As required by building official
7. Inspection of concrete and shotcrete placement for proper application techniques.	Continuous	As required by building official
8. Verify maintenance of specified curing temperature and techniques.	Periodic	As required by building official
9. Inspection of prestressed concrete:		As required by building official
a. Application of prestressing forces.	Continuous	
b. Grouting of bonded prestressing tendons	Continuous	
10. Inspect erection of precast concrete members.	Periodic	As required by building official
11. Verify in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	Periodic	As required by building official
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	Periodic	As required by building official

VERIFICATION AND SPECIAL INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL (IBC 1705)

Required Verification and Inspection	Frequency of Verification and Inspection	Inspector Qualifications
1. Material verification of cold-formed steel deck:		As required by building official
a. Identification markings to conform to ASTM standards specified in the approved construction documents	Periodic	
b. Manufacturer's certified test reports	Periodic	
2. Inspection of welding other than structural steel:		As required by building official
a. Cold-formed steel deck:		
1) Floor and roof deck welds	Periodic	
b. Reinforcing steel:		
1) Verification of weldability of reinforcing steel other than ASTM A706	Periodic	
3. Trusses over 60'-0", inspector shall verify the following:		As required by building official
a. Temporary installation restraint/bracing per approved truss submittal.	Periodic	
b. Permanent individual truss member restraint/bracing are installed per approved truss submittal.	Periodic	
4. Site built assemblies	Periodic	As required by building official

VERIFICATION AND SPECIAL INSPECTION TASKS FOR WELDING OF STRUCTURAL STEEL[1] (AISC 360-10)

Required Verification and Inspection	Frequency of Verification and Inspection	Inspector Qualifications
WELDING OF STRUCTURAL STEEL		
1. Inspection tasks prior to welding:		As required by building official
a. Welding procedure specifications (WPSs) available.	Continuous	
b. Manufacturer certifications for welding consumables available.	Continuous	
c. Material identification (type/grade)[2]	Periodic	
d. Welder identification system[2,4]	Periodic	
e. Fit-up of groove weld (including joint geometry)[2] 1) Joint preparation. 2) Dimensions (alignment, root opening, root face, bevel) 3) Cleanliness (condition of steel surfaces) 4) Tacking (tack weld quality and location) 5) Backing type and fit (if applicable)	Continuous	
f. Configuration and finish of access holes[2]	Periodic	
g. Fit-up of fillet welds[2] 1) Dimensions (alignment, gaps at root) 2) Cleanliness (condition of steel surfaces) 3) Tacking (tack weld quality and location)	Periodic	
h. Welder qualifications records and continuity records.	Periodic	
2. Inspection tasks during welding:		As required by building official
a. Placement and installation of steel headed stud anchors.	Continuous	
b. Control and handling of welding consumables[2] 1) Packaging 2) Exposure control	Periodic	
c. No welding over cracked tack welds[2]	Periodic	
d. Environmental conditions 1) Wind speed within limits 2) Precipitation and temperature	Periodic	
e. WPS followed[2] 1) Settings on weld equipment 2) Travel speed 3) Selected welding materials 4) Shielding gas type/flow rate 5) Preheat applied 6) Interpass temperature maintained (min./max.) 7) Proper position (F, V, H, OH)	Periodic	
f. Welding Techniques[2] 1) Interpass and final cleaning 2) Each pass within profile limitations 3) Each pass meets quality requirements.	Periodic	
3. Inspection tasks after welding:		As required by building official
a. Welds cleaned	Periodic	
b. Size, length and location of welds	Continuous	
c. Welds meet visual acceptance criteria 1) Crack Prohibition 2) Weld/base-metal fusion 3) Crater cross section 4) Weld profiles 5) Weld size 6) Undercut 7) Porosity	Continuous	
d. Arc strikes	Continuous	
e. k-area[3]	Continuous	
f. Weld access holes in rolled heavy shapes and built-up heavy shapes[b]	Continuous	
g. Backing removed and weld tabs removed (if required)	Continuous	
h. Repair activities	Continuous	
i. Document acceptance or rejection of welded joint or member[4]	Continuous	
j. No prohibited welds have been added without the approval of the engineer of record	Periodic	

1. Inspection tasks noted in this table are the responsibility of the Special Inspector or Quality Assurance Inspector (QAI). The fabricator and erector are responsible for all inspection tasks indicated in AISC 360-10 Section N5 and assigned to the Quality Control Inspector (QCI)

2. Inspection tasks may be coordinated with the fabricator or erector's Quality Control Inspector (QCI) where indicated with this footnote. All other tasks shall be performed by the Special Inspector.

3. When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75 mm) of the weld.

4. The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Die stamping of members subjected to fatigue shall be prohibited unless approved by the engineer of record.

VERIFICATION AND SPECIAL INSPECTION TASKS FOR BOLTING STRUCTURAL STEEL[1] (AISC 360-10)

Required Verification and Inspection	Frequency of Verification and Inspection	Inspector Qualifications
1. Inspection tasks prior to bolting:		As required by building official
a. Manufacturer's certifications available for fastener materials	Continuous	
b. Fasteners marked in accordance with ASTM requirements	Periodic	
c. Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	Periodic	
d. Correct bolting procedure selected for joint detail[2]	Periodic	
e. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements.	Periodic	
f. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	Continuous	
g. Protected storage provided for bolts, nuts, washers and other fastener components	Periodic	
2. Inspection tasks during bolting:		As required by building official
a. Fastener assemblies placed in all holes, washers, and nuts are positioned as required[2]	Periodic	
b. Joint brought to the snug-tight condition prior to the pretensioning operation[2]	Periodic	
c. Fastener component not turned by the wrench prevented from rotating.[2]	Periodic	
d. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges	Periodic	
3. Inspection tasks after bolting:		As required by building official
a. Document acceptance or rejection of bolted connections	Continuous	

1. Inspection tasks noted in this table are the responsibility of the Special Inspector or Quality Assurance Inspector (QAI). The fabricator and erector are responsible for all inspection tasks indicated in AISC 360-10 Section N5 and assigned to the Quality Control Inspector (QCI)

2. Inspection tasks may be coordinated with the fabricator or erector's Quality Control Inspector (QCI) where indicated with this footnote. All other tasks shall be performed by the Special Inspector.

CONSTRUCTION DOCUMENTS

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Drawn By: A.G.
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Job Number.: 23-09

SPECIAL INSPECTIONS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

S-103

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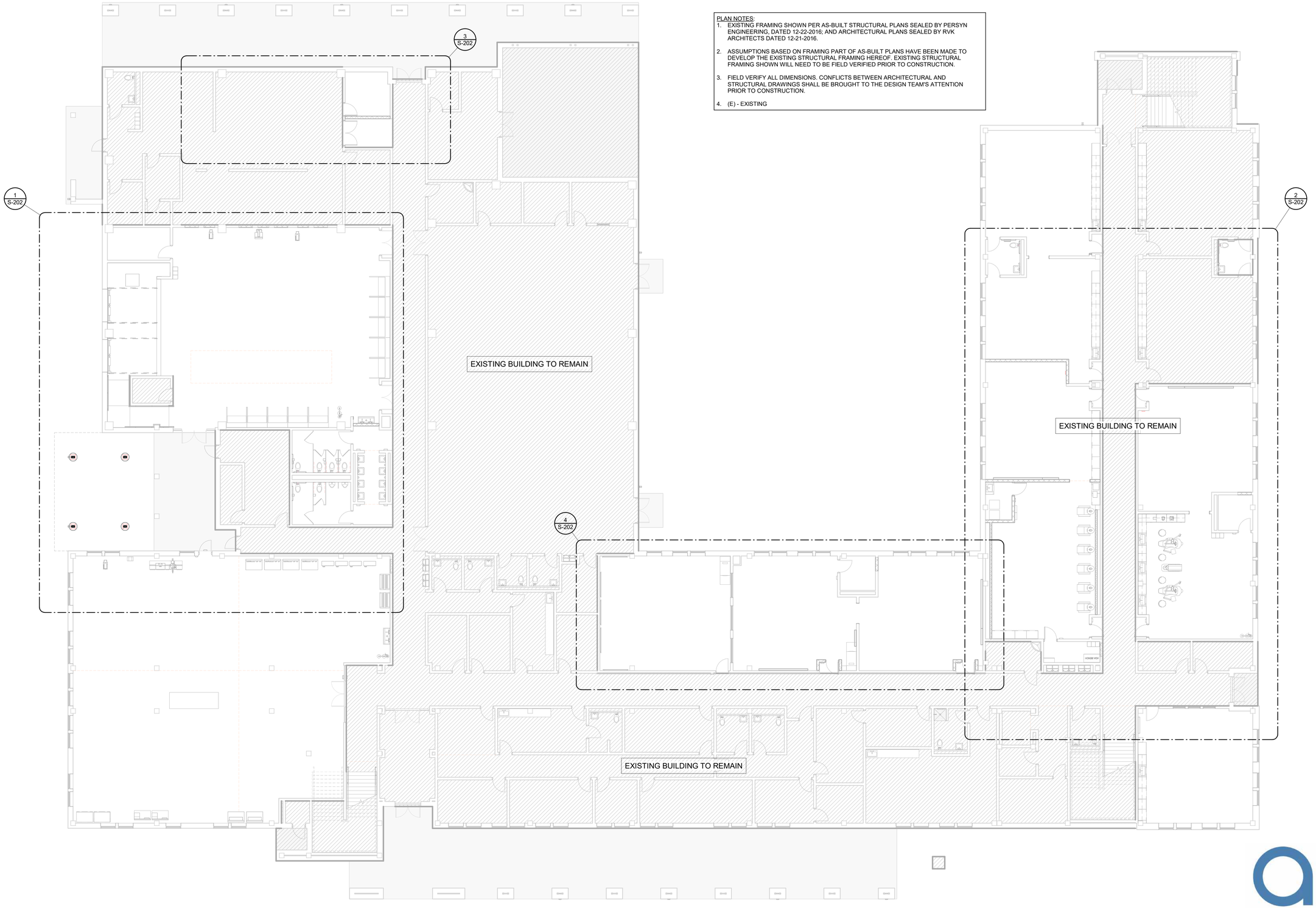
1/31/2024 10:03:35 AM

PLAN NOTES:
1. EXISTING FRAMING SHOWN PER AS-BUILT STRUCTURAL PLANS SEALED BY PERSYN ENGINEERING, DATED 12-22-2016; AND ARCHITECTURAL PLANS SEALED BY RVK ARCHITECTS DATED 12-21-2016.
2. ASSUMPTIONS BASED ON FRAMING PART OF AS-BUILT PLANS HAVE BEEN MADE TO DEVELOP THE EXISTING STRUCTURAL FRAMING HEREOF. EXISTING STRUCTURAL FRAMING SHOWN WILL NEED TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
3. FIELD VERIFY ALL DIMENSIONS. CONFLICTS BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE DESIGN TEAM'S ATTENTION PRIOR TO CONSTRUCTION.
4. (E) - EXISTING



1 FOUNDATION FRAMING PLAN
SCALE : 3/32" = 1'-0"

CONSTRUCTION DOCUMENTS

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
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519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	A.G.
Checked By:	J.Z.
Job Number.:	23-09

COMPOSITE PLAN

No.	DATE	DESCRIPTION

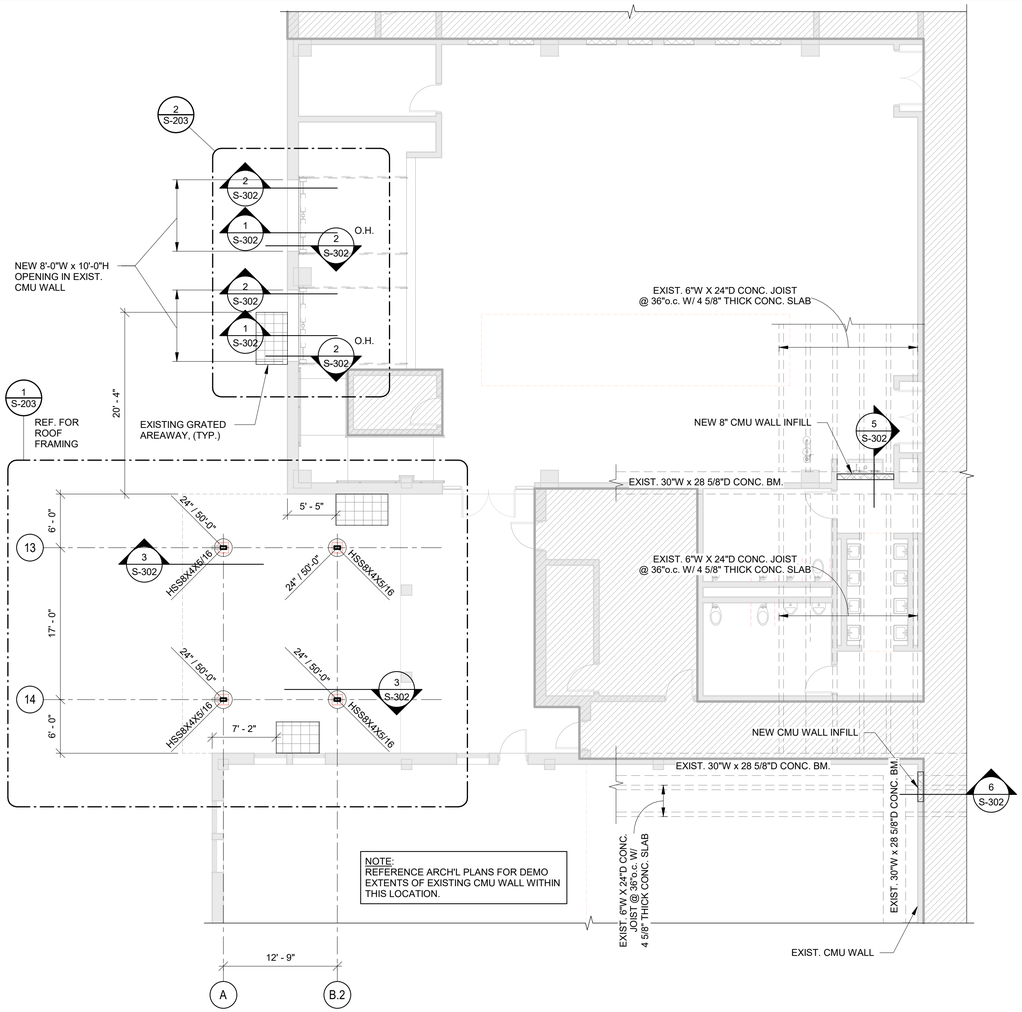
Date: 01/31/2024

Drawing No:

S-201

Alpha Consulting Engineers
8023 Vantage Drive
Suite 1101, San Antonio, TX 78230
O 210.227.3647
Alpha Project No.523076
F-1010

1/31/2024 10:03:36 AM



1 PARTIAL EXISTING FOUNDATION FRAMING PLAN

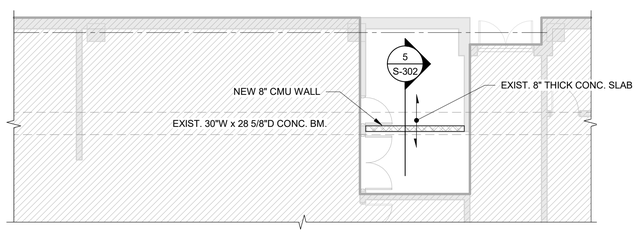
SCALE : 1/8" = 1'-0"

FOUNDATION PLAN NOTES:

1. EXISTING FRAMING SHOWN PER AS-BUILT STRUCTURAL PLANS SEALED BY PERSYN ENGINEERING, DATED 12-22-2016; AND ARCHITECTURAL PLANS SEALED BY RVK ARCHITECTS DATED 12-21-2016.
2. ASSUMPTIONS BASED ON FRAMING PART OF AS-BUILT PLANS HAVE BEEN MADE TO DEVELOP THE EXISTING STRUCTURAL FRAMING HEREOF. EXISTING STRUCTURAL FRAMING SHOWN WILL NEED TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. CONFLICTS BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE DESIGN TEAM'S ATTENTION PRIOR TO CONSTRUCTION.
4. REF DETAIL 4 / S-302 FOR TYPICAL DRILLED PIER DETAIL.
5. NO EQUIPMENT SHALL BE PLACED ON ANY OF THE EXISTING FLOORS WITHOUT THE APPROVAL OF THE ENGINEER-OF-RECORD.

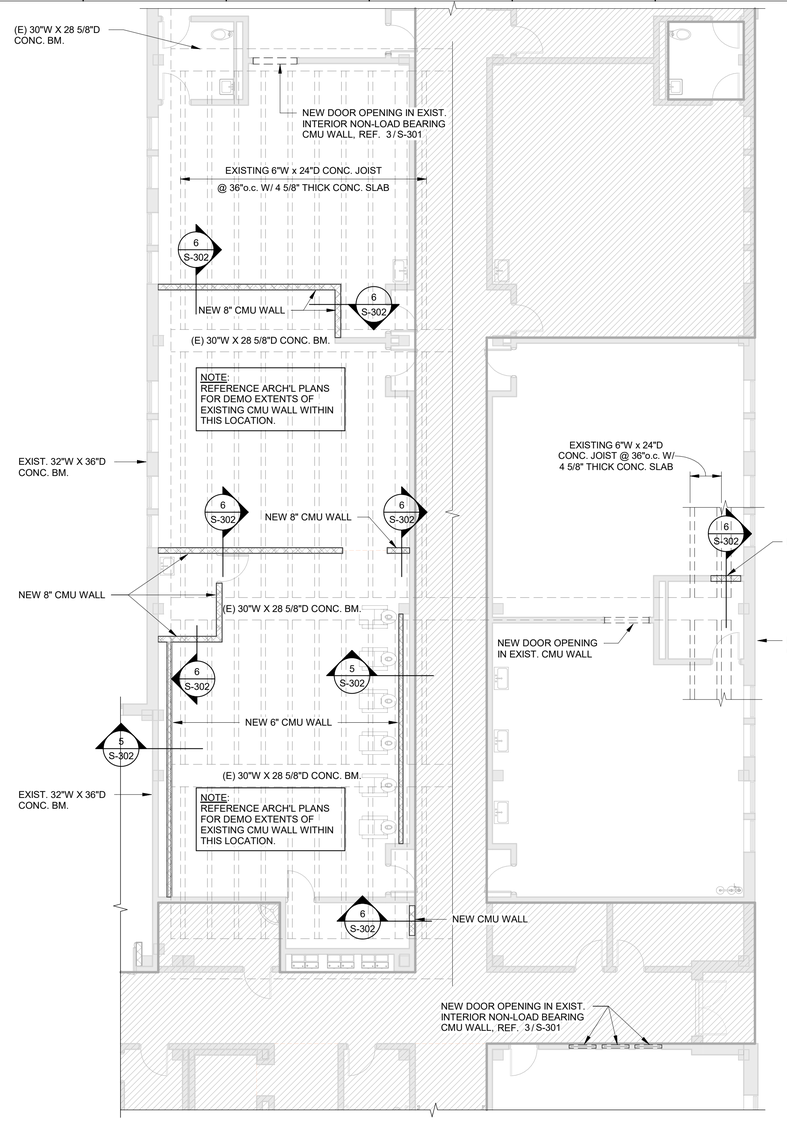
PLAN LEGEND:

SCHEDULED SHAFT DIA., SEE SHT. 4 / S-302 — XX' / XX" — PIER DEPTH



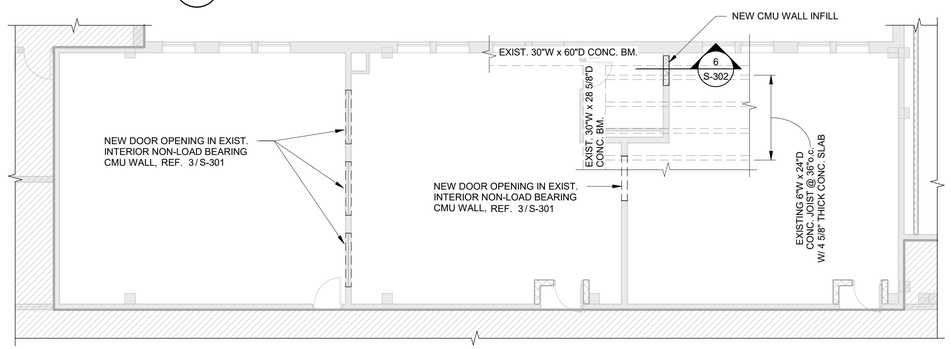
3 PARTIAL EXISTING FOUNDATION FRAMING PLAN

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



2 PARTIAL EXISTING FOUNDATION FRAMING PLAN

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



4 PARTIAL EXISTING FOUNDATION FRAMING PLAN

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

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F-1010

CONSTRUCTION DOCUMENTS

Alpha Consulting Engineers F-1010
STATE OF TEXAS
JESUS H. ZAPATA
140522
LICENSED PROFESSIONAL ENGINEER
01/31/2024

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Job Number.:	23-09

ENLARGED FRAMING PLANS

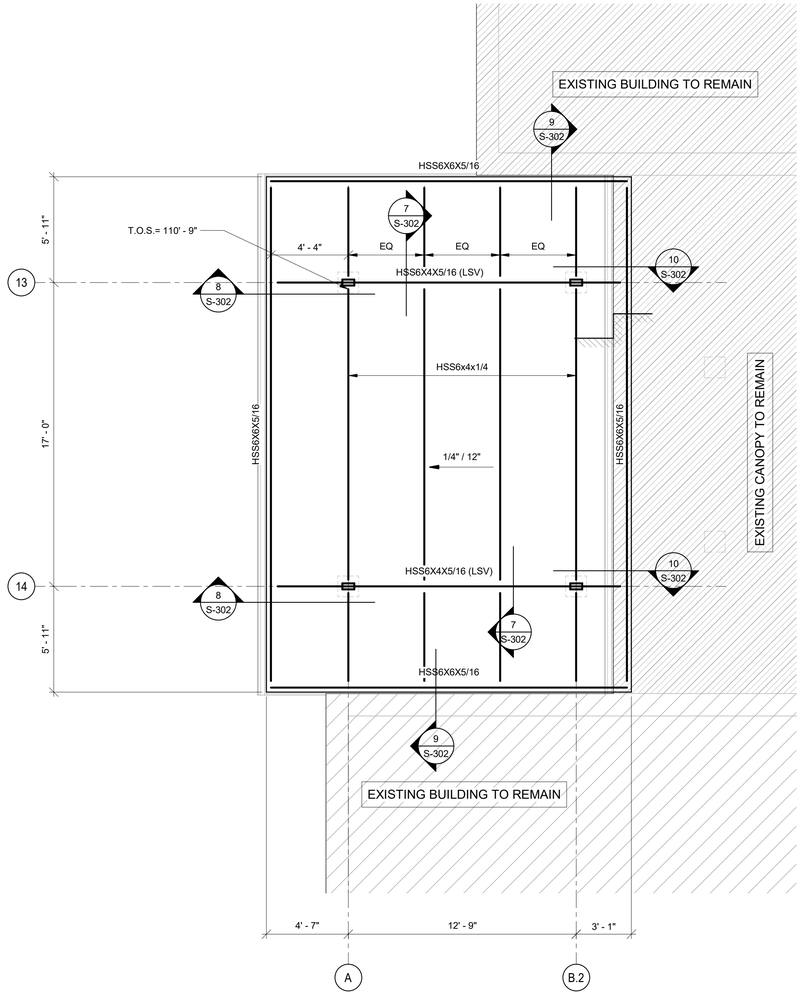
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

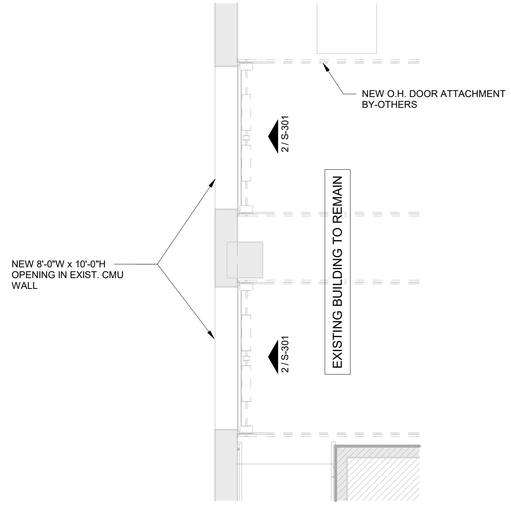
S-202

1/31/2024 10:03:38 AM



1 ENLARGED ROOF FRAMING PLAN

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



2 ENLARGED FRAMING PLAN

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

ROOF PLAN NOTES:

1. T.O.S. - DENOTES METAL DECK BEARING ELEVATION. HIGH AND LOW T.O.S. ELEVATIONS ARE NOTED ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE T.O.S. ELEVATIONS REQUIRED AT INTERMEDIATE LOCATIONS BETWEEN THE NOTED HIGH AND LOW T.O.S. ELEVATIONS.

CONSTRUCTION DOCUMENTS

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Drawn By: A.G.
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Job Number.: 23-09

ENLARGED FRAMING PLANS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

S-203

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8023 Vantage Drive
Suite 1101, San Antonio, TX 78230
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F-1010

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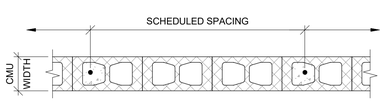
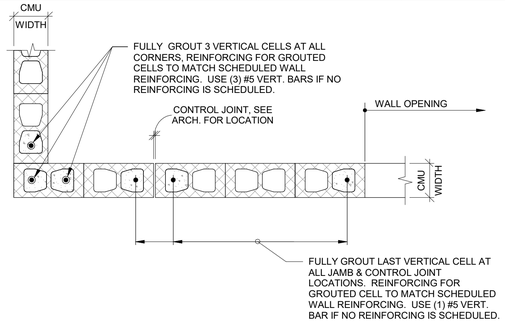


TYPICAL CMU WALL REINFORCING DETAIL

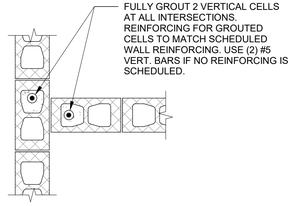
CMU WALL REINFORCING SCHEDULE		
PLAN AREA	CMU BLOCK WIDTH	MIN. REINFORCING
INTERIOR WALLS	4" AND 6" NON-LOAD BEARING WALLS	#5 BARS AT ENDS AND AT 48"o.c. BTWN
INTERIOR WALLS BRACED < 16'-0" HIGH	8" NON-LOAD BEARING WALL	NOT REQUIRED

NOTES:

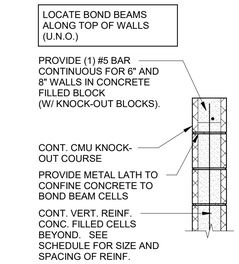
1. DEFLECTION LIMIT = L/600.
2. ALL 4" AND 6" CMU WALLS AT TOILET ROOMS SHALL BE LAID USING A RUNNING BOND PATTERN AND INTERLOCKED WITH INTERSECTING 8" CMU INTERIOR CLASSROOM WALLS.
3. REFER TO SECTIONS AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS THAT MAYBE REQUIRED AT TYPICAL CONDITIONS.



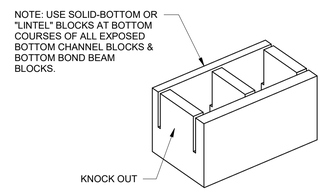
TYPICAL CMU WALL REINF. AT CONTROL JOINT, CORNER, DOOR OR WINDOW JAMB



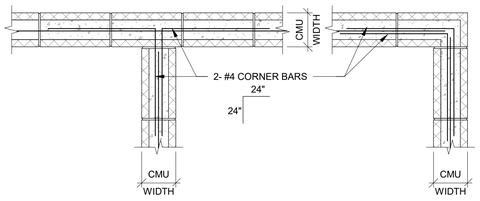
TYPICAL CMU WALL REINF. AT INTERSECTING WALLS



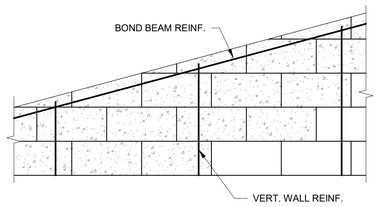
TYP. CONT. CMU KNOCK-OUT COURSE AT TOP OF WALL AND BOTTOM OF OPENINGS



TYPICAL CMU KNOCK-OUT BLOCK AT ALL BOND BEAMS

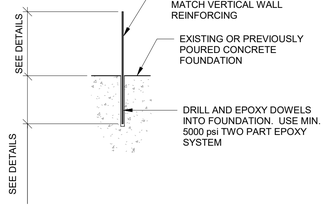


TYP. 8" BOND BEAM CORNER BARS



TYP. BOND BEAM AT GABLE END (MIN. 16" DEEP)

NOTE: DETAIL DOES NOT APPLY WHERE DOWELS ARE DETAILED TO HAVE ACI 90 DEGREE BENDS. AT THESE LOCATIONS DOWELS SHALL BE CAST IN THE FOUNDATION POUR.

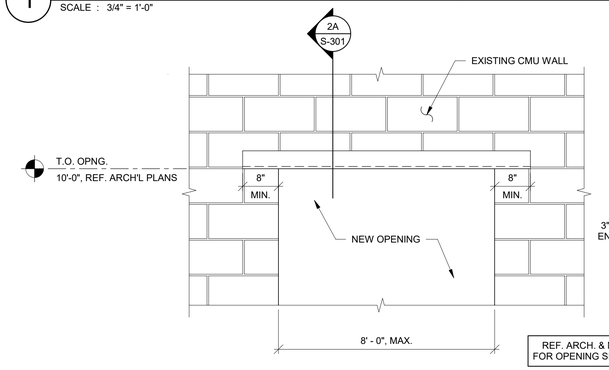


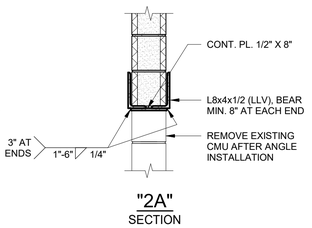
CONTRACTORS OPTION TO DRILL & SET CMU WALL DOWELS

REBAR LAP IN MASONRY		
REBAR SIZE	LAP SPLICE LENGTH	
	INTERIOR WALL	EXTERIOR WALL
3	15"	27"
4	20"	36"
5	25"	45"
6	30"	54"
7	35"	63"

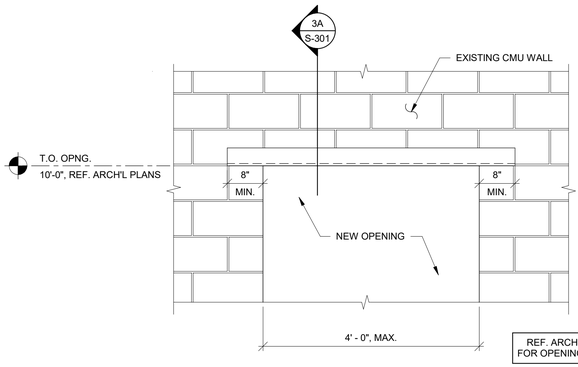
1 TYPICAL CONCRETE MASONRY UNIT DETAILS, SCHEDULES AND NOTES

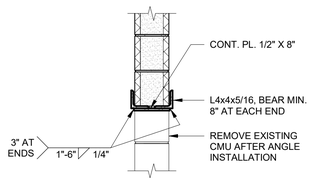
SCALE : 3/4" = 1'-0"





"2A" SECTION



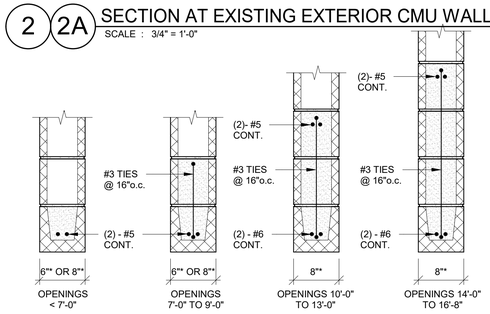


CMU WALL NOTES:

1. REINFORCED CONCRETE MASONRY WALLS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE CODE APPLICABLE EDITIONS OF THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS OF MASONRY STRUCTURES" (TMS 402), THE "SPECIFICATION FOR MASONRY STRUCTURES" (TMS 602) AND ASSOCIATED COMMENTARIES FOR THE ABOVE.
2. UNLESS NOTED OTHERWISE, ALL CONCRETE MASONRY UNITS (CMU) SHALL HAVE A SPECIFIED MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI WITH A MAXIMUM LINEAR SHRINKAGE OF 0.06% CONFORMING TO ASTM C90 TYPE I, WEIGHING NOT MORE THAN 105 PCF DRY.
3. ALL MORTAR SHALL BE ASTM C-270 TYPE "N" MORTAR MIXED BY PROPORTION METHOD.
4. ALL CMU WALLS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS, AND ALL WEBS.
5. MASONRY UNITS SHALL BE DRY WHEN LAID EACH UNIT SHALL BE ADJUSTED TO FINAL POSITION IN THE WALL WHILE MORTAR IS STILL SOFT AND PLASTIC. ANY UNIT DISTURBED AFTER MORTAR HAS STIFFENED SHALL BE REMOVED AND RELAYED WITH FRESH MORTAR. VERTICAL CELLS TO BE REINFORCED AND/OR FILLED WITH GROUT SHALL BE ALIGNED TO PROVIDE A CONTINUOUS UNOBSTRUCTED OPENING OF THE FULL CELL DIMENSIONS. CHASES SHALL BE BUILT IN AND NOT CUT IN. CHASES SHALL BE PLUMB AND SHALL BE MINIMUM, ONE UNIT LENGTH FROM JAMBS OF OPENINGS. ANCHORS, WALL PLUGS, ACCESSORIES AND OTHER ITEMS TO BE BUILT IN SHALL BE INSTALLED AS THE MASONRY WORK PROGRESSES. ALL CUTTING AND FITTING OF MASONRY, INCLUDING THAT REQUIRED TO ACCOMMODATE WORK OF OTHER SECTIONS SHALL BE DONE BY MASONRY MECHANICS WITH MASONRY SAWS.
6. GROUT FOR FILLED CELLS, LINTELS AND BOND BEAM SHALL BE A MIXTURE OF CEMENT, SAND, AND PEA GRAVEL PROPORTION AND GROUT SHALL CONFORM TO ASTM C-476. (2,000 PSI MIN.)
7. REINFORCE ALL CONCRETE MASONRY UNITS WITH TRUSS TYPE HOT DIP GALVANIZED COLD-DRAWN STEEL CONFORMING TO ANS1/ASTM A82, 3/16 INCH SIDE RODS WITH 3/16 INCH CROSS TIES SPACED AT 16" o.c. OVERLAP 6" @ SPLICE.
8. ALL VERTICAL STEEL SHALL BE POSITIONED IN WALL USING "REBAR POSITIONERS" BY AA WIRE PRODUCTS CO. OR REVIEWED EQUAL.
9. PROVIDE CLEANOUTS AT BOTTOM OF EACH REINFORCED CELL IN ACCORDANCE WITH THE SPECIFICATIONS.
10. ALL MASONRY REINFORCEMENT SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL, CONFORMING TO ASTM A615, GRADE 60, EXCEPT WELDABLE REBARS ASTM A706, GR 60. REFER TO THE ADJACENT TABLE FOR REBAR LAP IN MASONRY.

2 2A SECTION AT EXISTING EXTERIOR CMU WALL

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

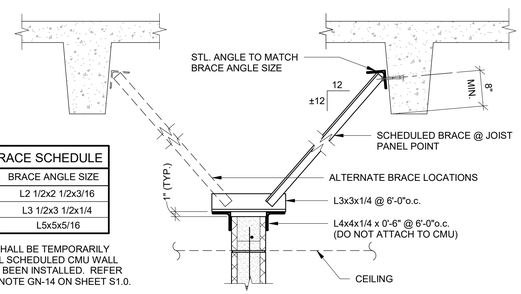


NOTES:

1. FOR ALL OPENINGS IN INTERIOR BLOCK PARTITIONS AND FOR OPENINGS IN EXTERIOR BLOCK WALLS WITH NO SCHEDULED LINTELS, SEE ARCHITECT'S DRAWING FOR SIZE AND LOCATION OF OPENINGS. PROVIDE A MINIMUM OF 8" BEARING EACH END. REF. -/---FOR LINTEL BEARING REQUIREMENTS AT "T" WALL INTERSECTIONS.
2. * NOMINAL WALL THICKNESS, (TYP.)

3 SECTION AT EXISTING INTERIOR NON-LOAD BEARING

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



CMU WALL BRACE SCHEDULE	
BRACE LENGTH	BRACE ANGLE SIZE
0 TO 8'-0"	L2 1/2x2 1/2x3/16
8'-0" TO 11'-0"	L3 1/2x3 1/2x1/4
11'-0" TO 16'-0"	L5x5x5/16

1. CMU WALLS SHALL BE TEMPORARILY BRACED UNTIL SCHEDULED CMU WALL BRACING HAS BEEN INSTALLED. REFER TO GENERAL NOTE GN-14 ON SHEET S1.0.
2. INSTALL SCHEDULED CMU WALL BRACING AFTER INSTALLING ALL ROOF DEAD LOADS.

4 REINFORCED BLOCK LINTELS

SCALE : 1" = 1'-0"

5 TYPICAL CMU WALL BRACING DETAIL

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

CONSTRUCTION DOCUMENTS

Alpha Consulting Engineers F-1010

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TYPICAL CMU DETAILS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

S-301

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Alpha Project No.S23076
F-1010

1/31/2024 10:03:39 AM

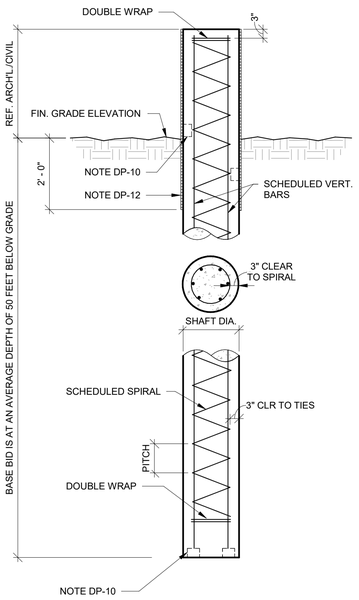
DRILLED PIER NOTES

1. ALL PIERS SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER TO BE HIRED BY THE OWNER PRIOR TO PLACING REINFORCING STEEL AND CONCRETE IN ORDER TO ASSURE THAT THE BEARING SURFACES ARE CONSISTENT WITH DESIGN RECOMMENDATIONS. **ALPHA CONSULTING ENGINEERS IS NOT RESPONSIBLE FOR THE HIRING AND SERVICE COSTS ASSOCIATED THEREIN.**
2. PROVIDE INSPECTING ENGINEER WITH AN ELECTRIC LIGHT AND PLUMB-BOB TO OBSERVE ALL PIER EXCAVATIONS.
3. ALL PIER EXCAVATIONS SHALL BE FREE OF WATER PRIOR TO PLACING CONCRETE.
4. PIER HOLES SHALL NOT BE LEFT OPEN OVERNIGHT (NO EXCEPTIONS). PIERS SHALL BE POURED THE SAME DAY THEY ARE DRILLED.
5. PROVIDE STEEL CASING AS REQUIRED, TO PREVENT EXCAVATION SLOUGHING AND/ OR SUBSURFACE WATER SEEPAGE. STEEL CASING MAY BE REMOVED DURING CONCRETE PLACEMENT SEQUENCE PROVIDING THERE IS ENOUGH CONCRETE HEAD TO PREVENT SLOUGHING SOIL FROM PENETRATING INTO THE PIER AREA.
6. ANY CONSTRUCTION JOINT IN THE PIER SHAFT MUST OCCUR AT LEAST 6 INCHES ABOVE GRADE ELEVATION.
7. CONCRETE PLACEMENT SHALL BE MADE WITH A TREMIE WITH AT LEAST A 6 FOOT HOSE OR METAL SNOUT.
8. CENTER CAGE IN HOLE WITH 3" CONC. SPACER BLOCKS EVERY 8 FT. OR 3" SPACER WHEELS. SUPPORT CAGE ON 3 CONC. SEAT BLOCKS OR 3" PLASTIC BOOTS. DO NOT RAISE CAGE OFF DRILLED PIER BOTTOM.
9. MACHINE CLEAN BOTTOM OF REAM.
10. EXTEND PIER SHAFTS USING SONOTUBE ABOVE WORKING GRADE. USE SONOTUBE TO AN ELEVATION 2'-0" BELOW WORKING GRADE AT TIME OF DRILLING. REFER TO SPECS. FOR CONDITIONS REQUIRING ADDITIONAL SONOTUBE AND FOR CONSTRUCTION JOINT.
11. PROVIDE UNIT PRICING FOR PIERS REQUIRING TEMPORARY STEEL CASING. REFER TO PROJECT SPECIFICATIONS FOR UNIT PRICING AND CASING PROCEDURE.
12. HIGH TORQUE, HIGH POWER DRILLING EQUIPMENT AND ROCK AUGERS WILL BE REQUIRED.
13. THE FOLLOWING VALUES WERE ASSUMED FOR DESIGN AND WILL NEED TO BE CONFIRMED BY A GEOTECHNICAL ENGINEER:

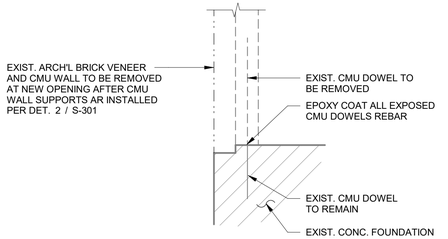
    ALLOWABLE BEARING PRESSURE = 800 PSF
    SKIN FRICTION = 500 PSF
    UPLIFT RESISTANCE = 600 PSF

    THE TOP 17 FT WERE NEGLECTED IN DESIGN TO ALLOW FOR AN ACTIVE ZONE. AN UPLIFT FORCE EQUIVALENT TO 65*D (WHERE D IS IN FT) WAS APPLIED TO THE DESIGN.

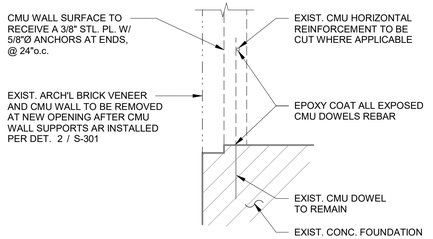
DRILLED PIER SCHEDULE		
DIAM.	VERT. BARS	SPIRAL
24"	8 -# 6	3/8 @ 12" PITCH



4 TYP. DRILLED PIER DETAIL & NOTES
SCALE : 1/2" = 1'-0"



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



2 SECTION
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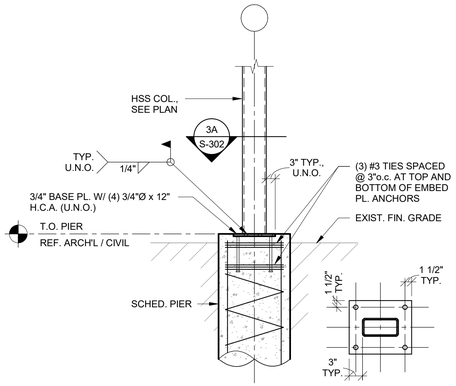
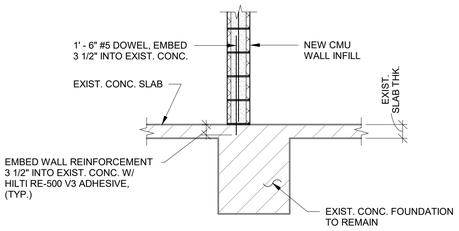


"3A"

3 3A SECTION
SCALE : 1/2" = 1'-0"



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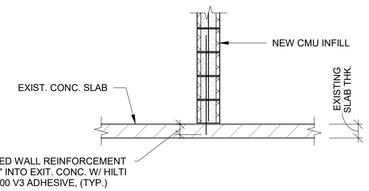
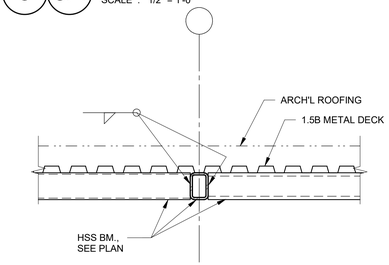
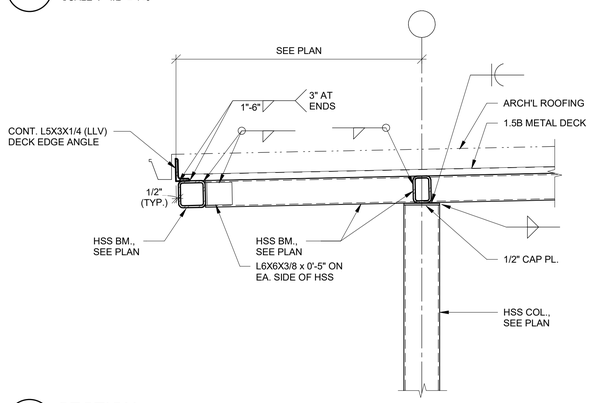
SCALE : 1/2" = 1'-0"



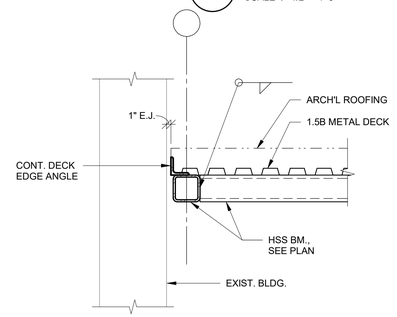
6 SECTION
SCALE : 1/2" = 1'-0"



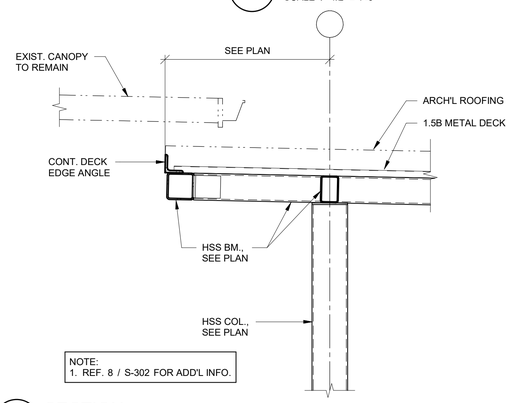
7 SECTION
SCALE : 3/4" = 1'-0"



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



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



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

CONSTRUCTION DOCUMENTS

Alpha Consulting Engineers F-1010
STATE OF TEXAS
JESUS H. ZAPATA
140522
LICENSED PROFESSIONAL ENGINEER
01/31/2024

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
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SAN ANTONIO, TX 78221

Drawn By:	A.G.
Checked By:	J.Z.
Job Number.:	23-09

SECTIONS AND DETAILS

No.	DATE	DESCRIPTION

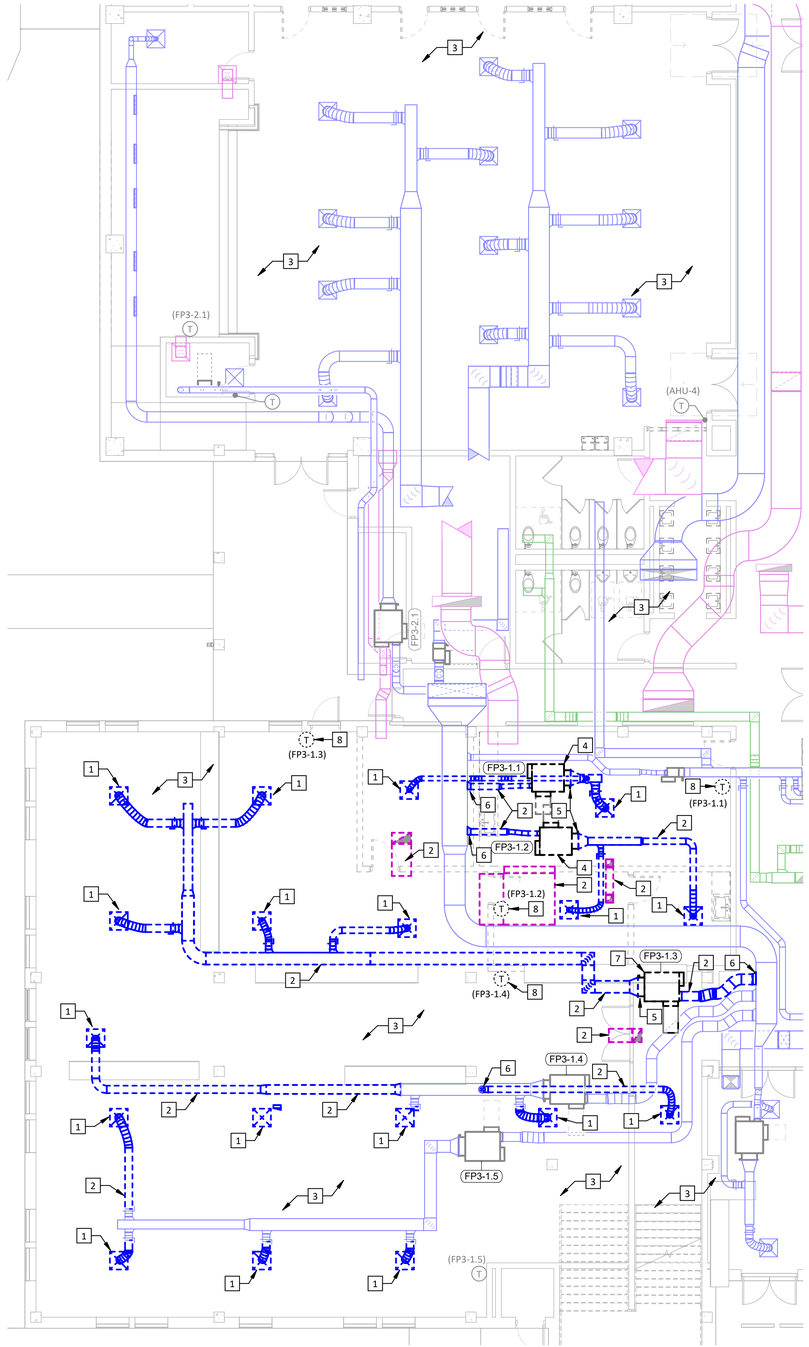
Date: 01/31/2024

Drawing No:

S-302

Alpha Consulting Engineers
8023 Vantage Drive
Suite 1101, San Antonio, TX 78230
O 210.227.3647
Alpha Project No.S23076
F-1010

1/31/2024 10:03:39 AM



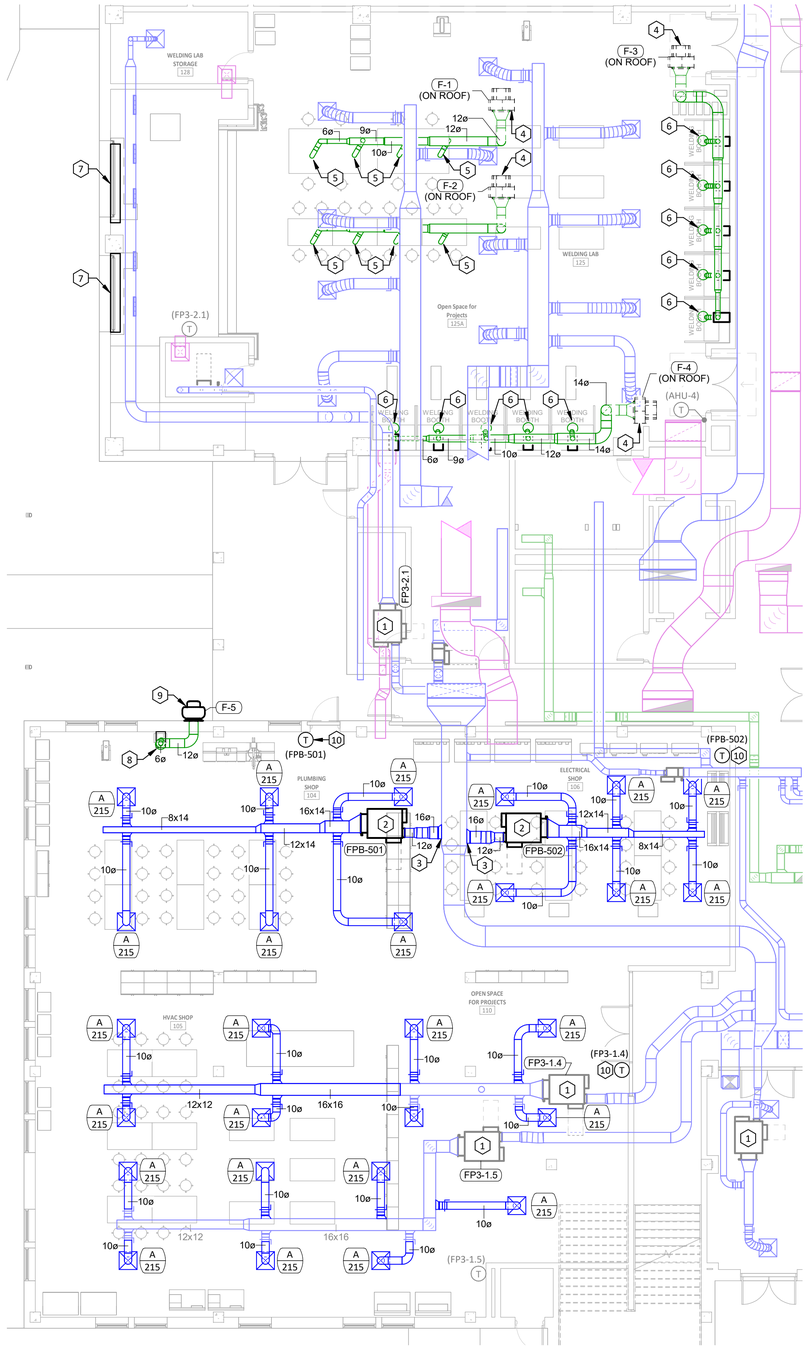
MECHANICAL DEMOLITION KEYED NOTES

1. REMOVE EXISTING GRILLES, ASSOCIATED FLEX DUCT, AND ASSOCIATED HANGERS AND SUPPORTS.
2. REMOVE EXISTING INDICATED DUCTWORK AND ASSOCIATED HANGERS AND SUPPORTS.
3. FACILITIES NOT SHOWN TO BE REMOVED OR NOT SHOWN SHALL REMAIN IN SERVICE.
4. REMOVE EXISTING FAN POWERED BOX, ASSOCIATED HANGERS, ELECTRICAL, AND HOT WATER PIPING.
5. REMOVE EXISTING HOW WATER PIPING BACK TO MAIN AND CAP. RESTORE INTEGRITY OF HOT WATER PIPING.
6. REMOVE EXISTING DUCT TAP, PATCH AND REPAIR SUPPLY AIR MAIN DUCT TO MATCH SURROUNDING CONDITIONS. RESTORE INTEGRITY OF DUCT INSULATION AND VAPOR BARRIER.
7. REMOVE AND RELOCATE EXISTING FAN POWERED BOX. DISCONNECT FROM EXISTING ELECTRICAL, HOT WATER PIPING, AND CONTROLS.
8. REMOVE EXISTING TEMPERATURE SENSOR.

NORTH

1 MECHANICAL DEMOLITION - MEP & WELDING

Mechanical — 1/8" = 1'-0"



MECHANICAL NEW WORK KEYED NOTES

1. EXISTING FAN POWERED BOX.
2. PROVIDE NEW FAN POWERED BOX.
3. CONNECT NEW SUPPLY DUCT TO EXISTING DUCTWORK OVERHEAD IN THIS VICINITY, RESTORE INTEGRITY OF DUCT INSULATION AND VAPOR BARRIER.
4. NEW ROOF-MOUNTED UTILITY VENT SET EXHAUST FAN. REFER TO DETAIL 2, SHEET M-2.2 FOR CURB AND DISCONNECT INSTALLATION.
5. FURNISH AND INSTALL NEW 14 FOOT LONG, 6 INCH DIAMETER SOURCE CAPTURE ARM. REFER TO DETAIL 1 & 4, SHEET M-2.2 FOR INSTALLATION.
6. FURNISH AND INSTALL NEW 6-INCH DIAMETER WALL-MOUNTED SOURCE CAPTURE ARM. REFER TO DETAIL 6, SHEET M-2.2 FOR INSTALLATION DETAILS.
7. DDC CONTRACTOR SHALL INSTALL ROLL-UP DOOR CONTACT CLOSURE SWITCH AND MODIFY CONTROL SEQUENCE FOR AHU-4 TO CLOSE CHILLED WATER CONTROL VALVE WHEN ROLL-UP DOOR IS OPENED FOR MORE THAN 10 MINUTES (ADJUSTABLE).
8. FURNISH AND INSTALL NEW 6-INCH DIAMETER WALL-MOUNTED SOURCE CAPTURE ARM. REFER TO DETAIL 5, SHEET M-2.2 FOR INSTALLATION DETAILS.
9. FURNISH AND INSTALL NEW WALL-MOUNTED EXHAUST FAN.
10. MOUNT NEW TEMPERATURE SENSOR ON WALL IN THIS VICINITY.

FAN POWERED BOXES (AHU-3)		
FP-####	MAX. CFM (PRIMARY AIR)	MIN. CFM (PRIMARY AIR)
FPB-501	1290	1290
FPB-502	1290	1290

NORTH

2 MECHANICAL NEW WORK - MEP & WELDING

Mechanical — 1/8" = 1'-0"

KEY PLAN

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State of Texas Firm Registration No. F-19468

CONSTRUCTION DOCUMENTS

STATE OF TEXAS — CHESTER PAUL ALLEN — 52026 — REGISTERED PROFESSIONAL ENGINEER
31 JAN. 2024

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Drawn By:	JPD
Checked By:	CPA
Job Number.:	2023.113

MECHANICAL MEP & WELDING SHOP - DEMO AND NEW WORK

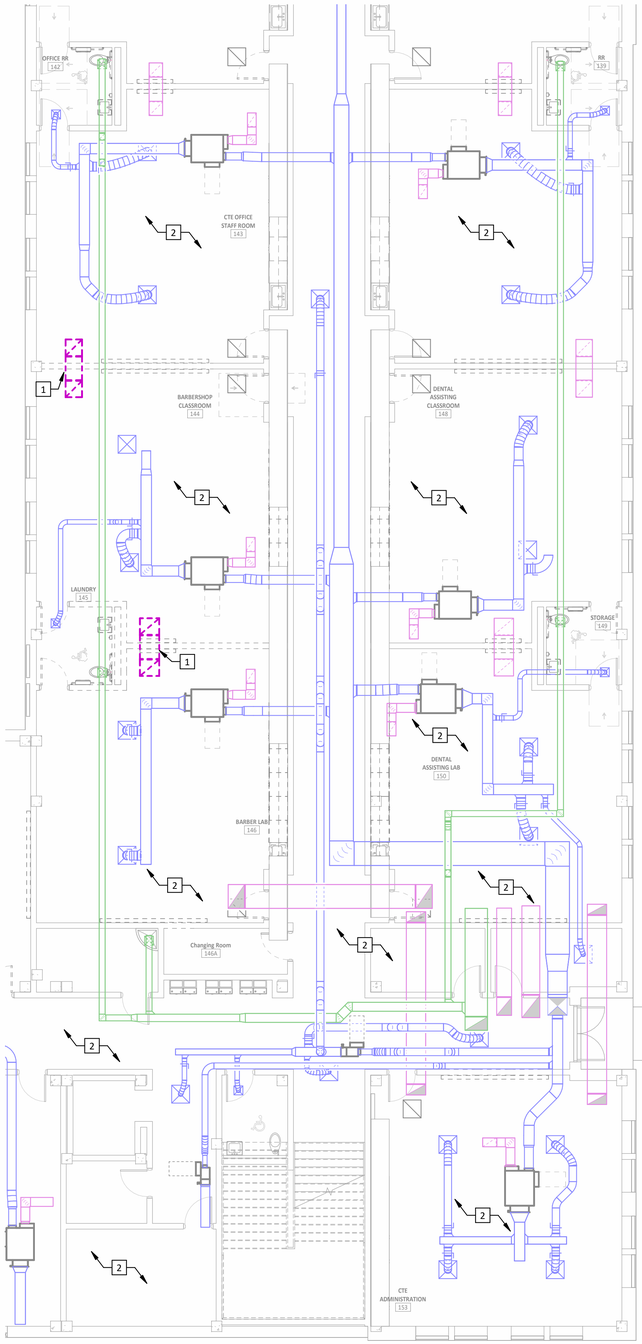
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

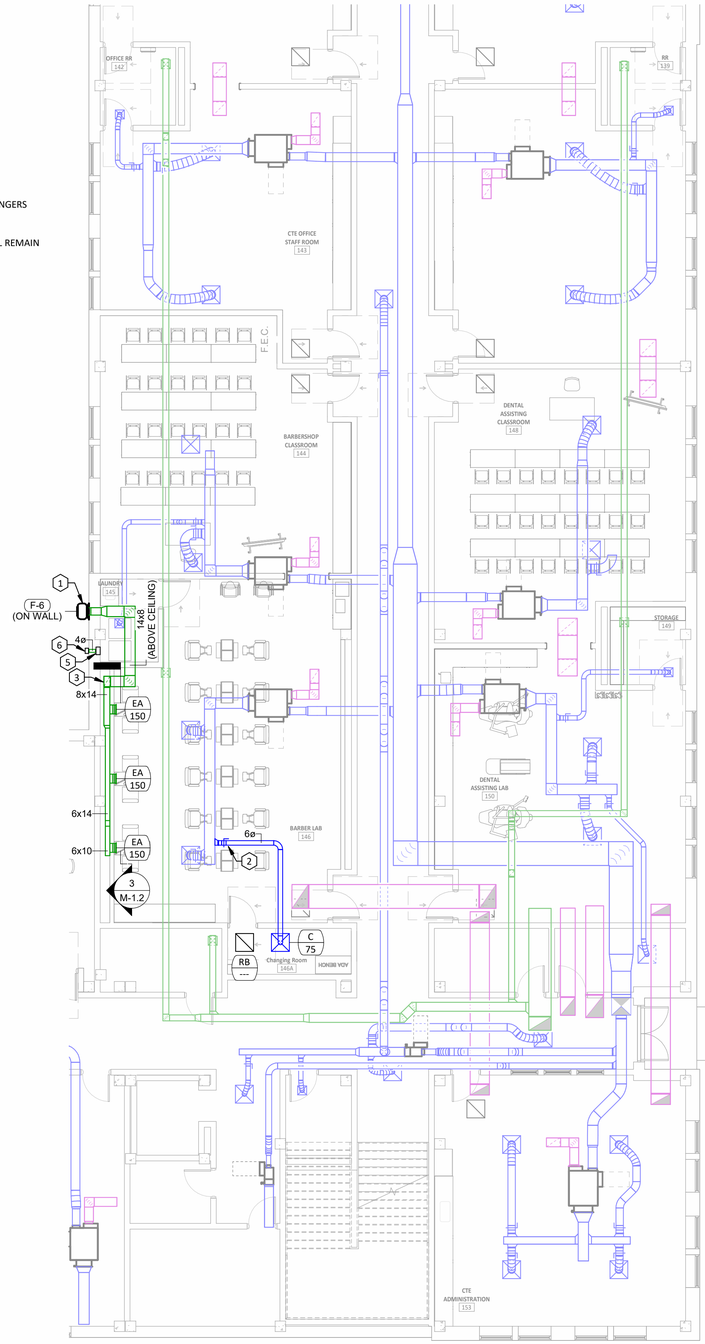
M-1.1

1/31/2024 12:07:20 PM



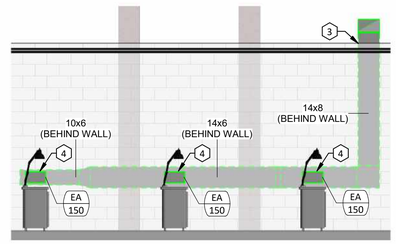
MECHANICAL DEMOLITION KEYED NOTES:

1. REMOVE EXISTING INDICATED DUCTWORK AND ASSOCIATED HANGERS AND SUPPORTS.
2. FACILITIES NOT SHOWN TO BE REMOVED OR NOT SHOWN SHALL REMAIN IN SERVICE.



MECHANICAL NEW WORK KEYED NOTES

1. NEW WALL-MOUNTED EXHAUST FAN.
2. CONNECT NEW SUPPLY DUCT TO EXISTING DUCTWORK OVERHEAD IN THIS VICINITY, RESTORE INTEGRITY OF DUCT INSULATION AND VAPOR BARRIER.
3. ROUTE EXHAUST DUCT DOWN THRU CHASE.
4. COORDINATE GRILLE MOUNTING HEIGHT, GRILLE COLOR AND FINISH WITH ARCHITECT.
5. PROVIDE DRYER VENTING BOX EQUAL TO "DVBOX" 17.4 x 11.5 x 4.5. REFER TO DETAIL 6, M-2.1.
6. PROVIDE 4-INCH DIAMETER DRYER VENT. TERMINATE DRYER VENT WITH A HOODED WALL CAP.



EXHAUST SYSTEM AT MANICURE STATIONS

3 Coordination 1/4" = 1'-0"

NORTH

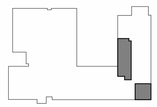
1 MECHANICAL DEMOLITION - ADMIN & BARBER

Mechanical 1/8" = 1'-0"

NORTH

2 MECHANICAL NEW WORK - ADMIN & BARBER

Mechanical 1/8" = 1'-0"



KEY PLAN

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San Antonio, Texas 78217
State of Texas Firm Registration No. F-19468

CONSTRUCTION DOCUMENTS

STATE OF TEXAS
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REGISTERED PROFESSIONAL ENGINEER
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Drawn By:	JPD
Checked By:	CPA
Job Number.:	2023.113

MECHANICAL ADMIN & BARBER - DEMO AND NEW WORK

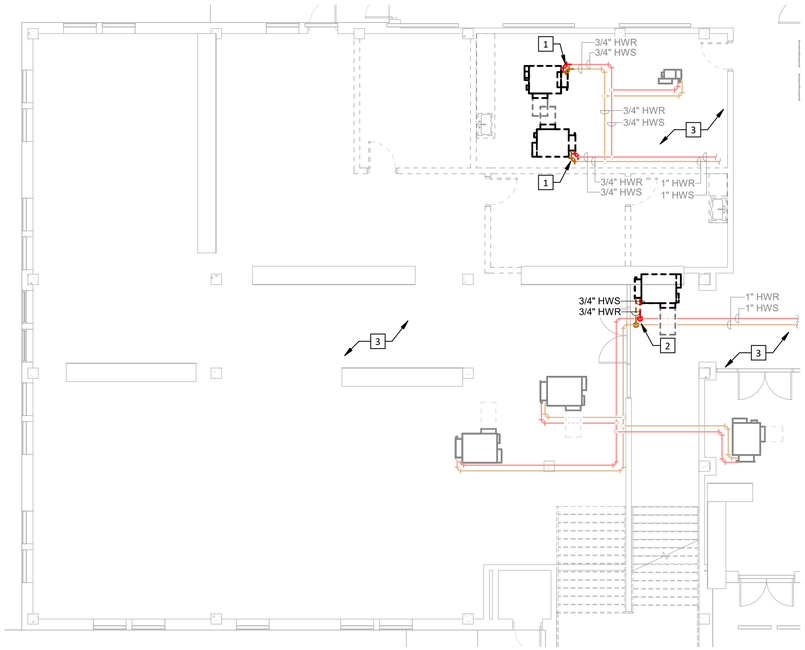
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

M-1.2

1/31/2024 12:07:29 PM



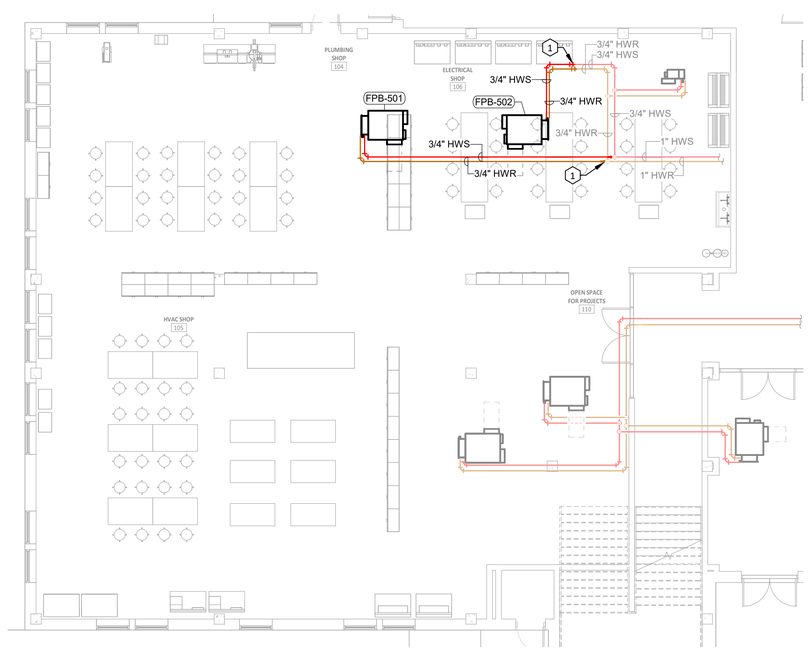
NORTH

1 HYDRONIC DEMOLITION-MEP SHOP

Mechanical 1/8" = 1'-0"

MECHANICAL HYDRONIC DEMOLITION KEYED NOTES:

1. REMOVE INDICATED EXISTING HOT WATER PIPING AND ASSOCIATED HANGERS AND SUPPORTS AS SHOWN. COORDINATE WITH NEW WORK.
2. REMOVE INDICATED EXISTING HOT WATER PIPING AND ASSOCIATED HANGERS AND SUPPORTS AS SHOWN. CAP PIPING AT MAIN BRANCH, REPAIR INSULATION TO MATCH SURROUNDING CONDITIONS.
3. FACILITIES NOT SHOWN OR NOT SHOWN TO BE REMOVED SHALL REMAIN IN SERVICE



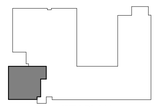
NORTH

2 HYDRONIC NEW WORK - MEP SHOP

Mechanical 1/8" = 1'-0"

MECHANICAL HYDRONIC NEW WORK KEYED NOTES:

1. CONNECT NEW PIPING TO EXISTING, ROUTE NEW HOT WATER PIPING AS INDICATED. SUPPORT PIPING FROM THE STRUCTURE ABOVE.



KEY PLAN

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State of Texas Firm Registration No. F-19468

CONSTRUCTION DOCUMENTS

STATE OF TEXAS
CHESTER PAUL ALLEN
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31 JAN. 2024

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Drawn By:	JPD
Checked By:	CPA
Job Number.:	2023.113

HYDRONIC MEP SHOP - DEMO AND NEW WORK

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

M-1.3

1/31/2024 12:07:32 PM

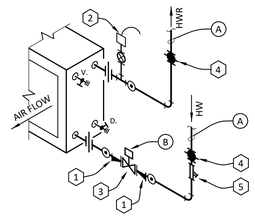
SIZE SCHEDULE			
HW GPM	(A)	(B)	
0-2	1/2	1/2	
2-4	3/4	1/2	
4-7	1	3/4	
7-15	1-1/4	1	
15-22	1-1/2	1-1/4	
22-40	2	1-1/2	
40-56	2-1/2	2	

GENERAL NOTES:

- COIL CONNECTIONS TO BE FULL SIZE.
- PIPE ALL COIL FOR COUNTER FLOW WATER TO AIR HEAT EXCHANGER.

SPECIAL NOTES:

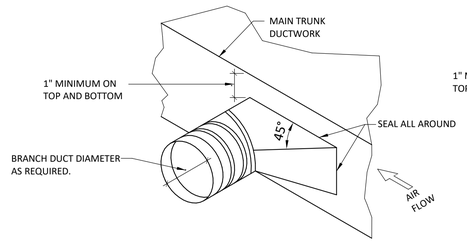
1. REDUCER WHEN APPLICABLE.
2. PROVIDE AUTO AIR VENT AT HIGH POINT WHEN MAIN PIPING IS BELOW COIL. PIPE DISCHARGE TO F.D. OR COND. DRAIN PAN.
3. FLANGE OR UNION CONNECTIONS AT CONTROL VALVE.
4. SHUT-OFF VALVE, BUTTERFLY OR BALL DEPENDING ON SIZE.
5. STRAINER.

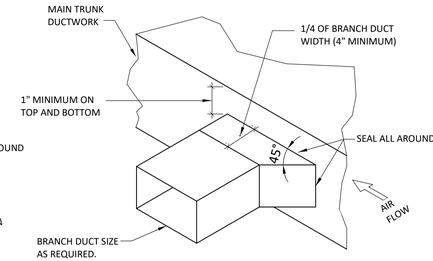


HW COIL
(THROTTLING VALVE)

1 HOT WATER COIL PIPING DETAIL

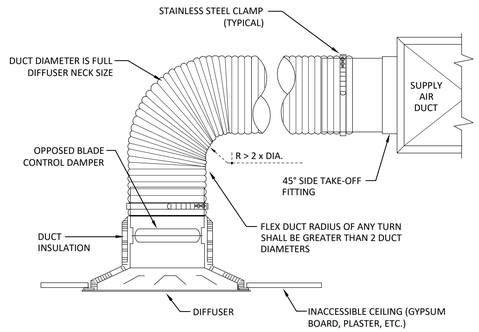
MECHANICAL — NOT TO SCALE



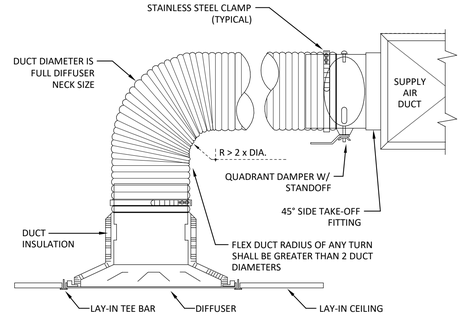


3 AIR DEVICE BRANCH TAKE-OFF DETAIL

MECHANICAL — NOT TO SCALE



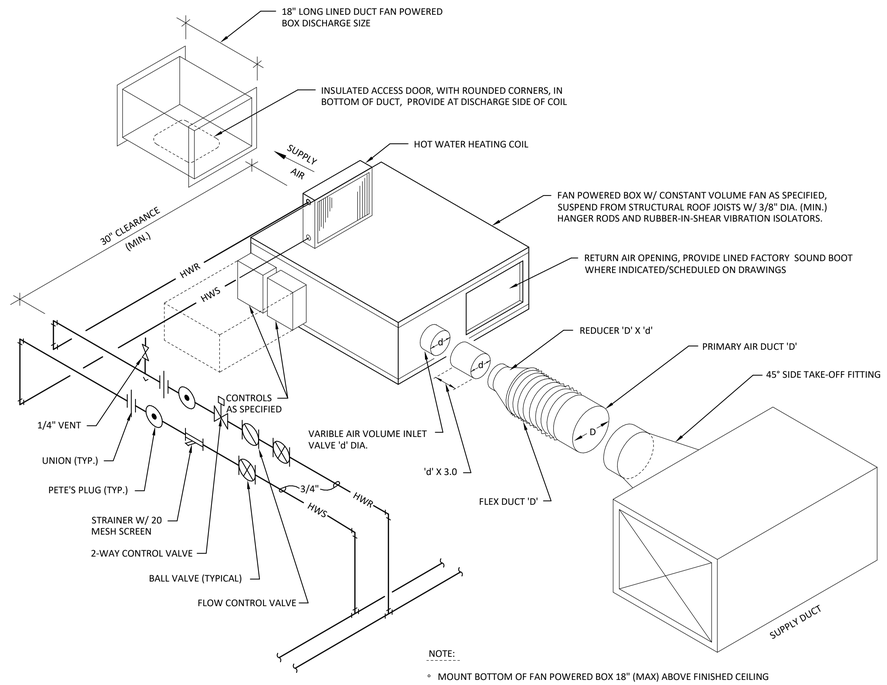
CASE I
INACCESSIBLE CEILING



CASE II
LAY-IN CEILING

4 TYPICAL DIFFUSER INSTALLATION

MECHANICAL — NOT TO SCALE

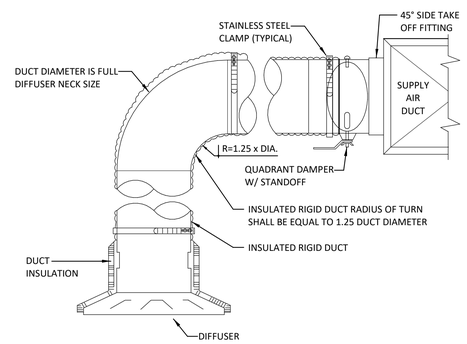


NOTE:

- MOUNT BOTTOM OF FAN POWERED BOX 18" (MAX) ABOVE FINISHED CEILING
- DO NOT ROUTE ANY PIPING OR CONDUITS BELOW FAN POWERED BOX.
- MOUNT FAN POWERED BOX WITH 24" (MIN.) CLEAR WORKING SPACE FOR CONTROLS.

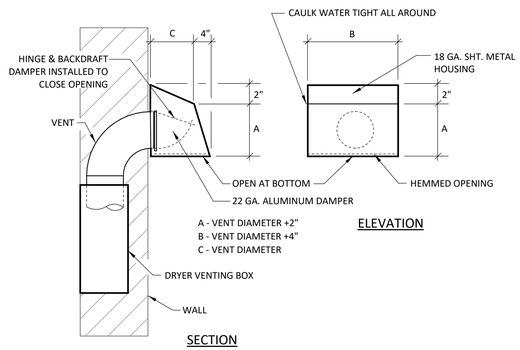
2 TYPICAL VAV/FAN POWERED BOX

MECHANICAL — NOT TO SCALE



5 MEP SHOP - DIFFUSER INSTALLATION

MECHANICAL — NOT TO SCALE



ELEVATION

SECTION

6 DRYER/HOOD EXHAUST CAP

MECHANICAL — NO SCALE

ENGINEERING & SKYE MEP COMMISSIONING
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State of Texas Firm Registration No. F-19468

CONSTRUCTION DOCUMENTS

STATE OF TEXAS — CHESTER PAUL ALLEN — 52026 — REGISTERED PROFESSIONAL ENGINEER
31 JAN. 2024

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SAN ANTONIO, TX 78221

Drawn By:	JPD
Checked By:	CPA
Job Number.:	2023.113

MECHANICAL DETAILS

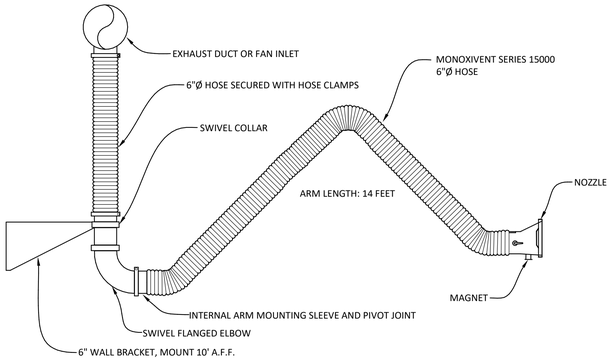
No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

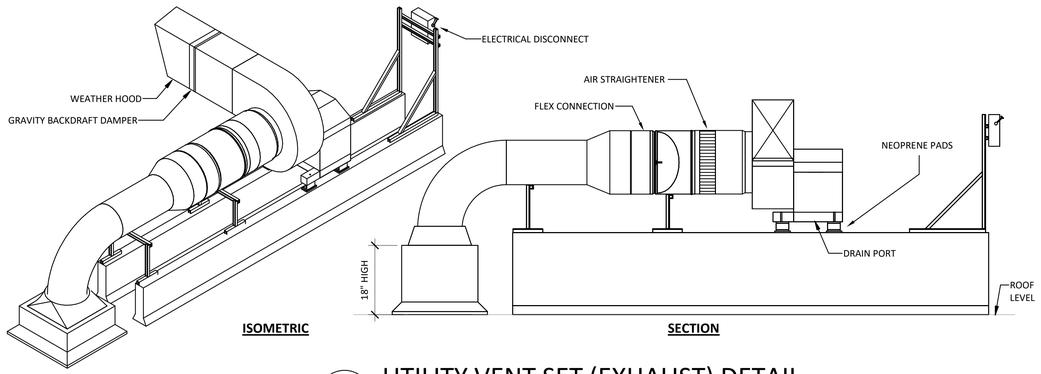
M-2.1

1/31/2024 12:07:36 PM



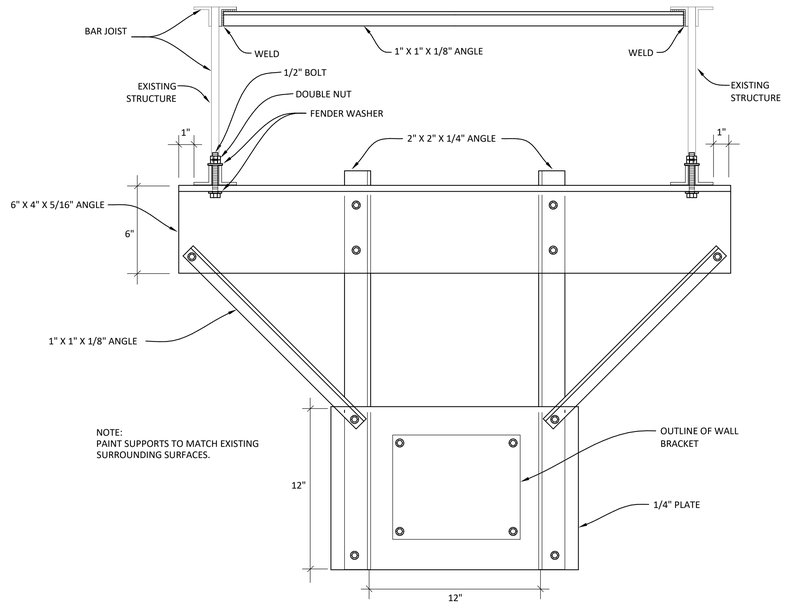
1 WELDING SYSTEM EXHAUST DETAIL

MECHANICAL NOT TO SCALE



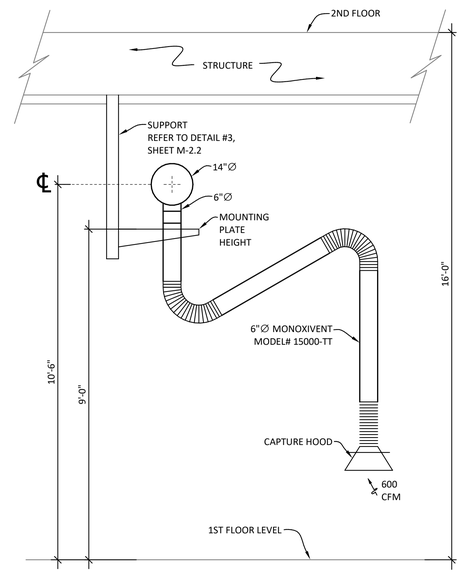
2 UTILITY VENT SET (EXHAUST) DETAIL

MECHANICAL NOT TO SCALE



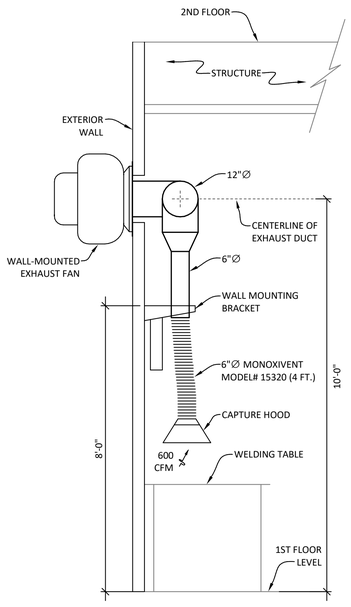
3 WELDING EXHAUST WALL BRACKET SUPPORT

MECHANICAL NOT TO SCALE



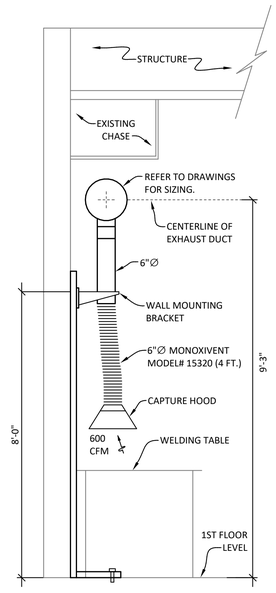
4 EXHAUST VENT NOZZLE MOUNTING HEIGHTS

MECHANICAL NOT TO SCALE



5 WALL EXHAUST NOZZLE EXHAUST FAN

MECHANICAL NOT TO SCALE



6 WALL EXHAUST NOZZLE CENTRAL EXHAUST DUCT

MECHANICAL NOT TO SCALE

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CONSTRUCTION DOCUMENTS

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31 JAN. 2024

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Drawn By:	JPD
Checked By:	CPA
Job Number.:	2023.113

MECHANICAL DETAILS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

M-2.2

1/31/2024 12:07:39 PM

FAN SCHEDULE

MARK	DESCRIPTION	CFM	S.P.	FAN		MAX. SONES (dBA)	MOTOR	ARRANGEMENT	DRIVE	MFGR.	MODEL	WEIGHT (LBS)	CONTROLS	NOTES
			IN H20	RPM	TYPE									
F-1	WELDING EXHAUST	2,400	4.0	2205	CENT.	(74)	3 HP / 460 V / 3 PH	UTILITY VENT SET	DIRECT	COOK	165 CPS	475	NOTE 5	1, 4
F-2	WELDING EXHAUST	2,400	4.0	2205	CENT.	(74)	3 HP / 460 V / 3 PH	UTILITY VENT SET	DIRECT	COOK	165 CPS	475	NOTE 5	1, 4
F-3	WELDING EXHAUST	3,000	4.0	2064	CENT.	(78)	5 HP / 460 V / 3 PH	UTILITY VENT SET	DIRECT	COOK	180 CPS	550	NOTE 5	1, 4
F-4	WELDING EXHAUST	3,000	4.0	2064	CENT.	(78)	5 HP / 460 V / 3 PH	UTILITY VENT SET	DIRECT	COOK	180 CPS	550	NOTE 5	1, 4
F-5	WELDING EXHAUST	600	2.25	2446	CENT.	24	1 HP / 208 V / 1 PH	WALL-MOUNTED	DIRECT	COOK	120 ACWD (VF)	75	NOTE 5	1, 2, 3
F-6	MANICURE STATION EXHAUST	450	0.75	1600	CENT.	10	1/2 HP / 115 V / 1 PH	WALL-MOUNTED	DIRECT	COOK	101 ACWD (VF)	70	NOTE 5	1, 2, 3

FAN SCHEDULE NOTES:

1. UNIT TO BE PROVIDED WITH FACTORY "PREWIRED" APPROVED MOTOR DISCONNECT DEVICE, MOTOR OVERLOAD PROTECTION, AND SHAFT GROUNDING RING. DISCONNECT SHALL NOT BE INSTALLED ON MOTOR.
2. PROVIDE UNIT COMPLETE WITH BIRD SCREEN, FACTORY WALL FLANGE, COLLAR, AND ANY COMPONENTS NECESSARY FOR A WALL-MOUNTED INSTALLATION. PROVIDE WITH REMOTE WALL-MOUNTED COMBINATION STARTER/DISCONNECT.
3. PROVIDE UNIT WITH GRAVITY BACK DRAFT DAMPER.
4. MOUNT UTILITY VENT FAN SET ON PAIR OF THYCURB EQUIPMENT RAILS. REFER TO DETAIL #2, SHEET M-2.2.
5. PROVIDE UNIT WITH LOCAL CONTROLLER.

FAN POWERED BOX SCHEDULE

MARK		**FPB-5XX** (5)					
TYPE		SERIES					
TOTAL AIR CFM		1000 - 1400					
APPROX. EXT. RESIST. H20		0.3					
FAN MOTOR MIN.		1/3HP /277V/ 1PH					
NC MAX RADIATED Δ Ps 1.0"		29 (6)					
NC MAX DISCHARGE Δ Ps 1.0"		22 (8)					
INLET SIZE		12" DIA.					
HEATING COIL	**TYPE**	HW					
	AIR TO COIL CFM	1290					
	ENTERING AIR °F	70					
	OUTPUT MBH (MIN.)	22.1					
	HOT WATER GPM 140°F	2					
	MAX. WATER P.D. (FT.)	1.4					
	ROWS	1					
REFERENCE		TITUS					
MODEL NO.		DTFS-F-D					
NOTES		(1) (2) (3) (4) (7) (9) (10)					

FAN POWERED BOX SCHEDULE NOTES:

(1) REFER TO FAN POWERED BOX DETAIL FOR TYPICAL INSTALLATION.
(2) NC- LEVEL SHOWN FOR MAX. SCHEDULED CFM VALUE.
(3) NC LEVELS BASED UPON FACTORS IN AHRI STANDARD 880-2008.
(4) REFER TO PLANS FOR PRIMARY AIR MIN/MAX SETTINGS.
(5) XX-REPRESENTS THE INDIVIDUAL BOX I.D. NUMBER.
(6) MAX. RADIATED SOUND WITH FANTOM IQ QUITE PACKAGE.
(7) PROVIDE FAN POWERED BOXES WITH CONTROL PANEL MOUNTED ON THE LEFT-HAND SIDE UNLESS OTHERWISE NOTED ON THE PLANS.
(8) MAX. DISCHARGE SOUND WITH FANTOM IQ QUITE PACKAGE.
(9) PROVIDE UNIT WITH FILTER FRAME AND THREE SETS OF FILTERS.
(10) PROVIDE UNIT WITH FACTORY MOUNTED HANGER BRACKETS.

AIR DEVICE SCHEDULE (1,2,3,4)

MARK	CFM (MIN-MAX)	SIZE	TYPE	REMARKS
A	210 - 325	24" X 24" X 10"ø	OMNI-AA	(5) (9)
B	125 - 210	24" X 24" X 8"ø	OMNI-AA	(5) (9)
C	75 - 125	24" X 24" X 6"ø	OMNI-AA	(5) (9)
RA	-	24" X 24"	50FB	(9) (12)
RB	-	12" X 12"	50FB	(9) (12)
EA	-	12" X 6"	50FB	(10) (11)

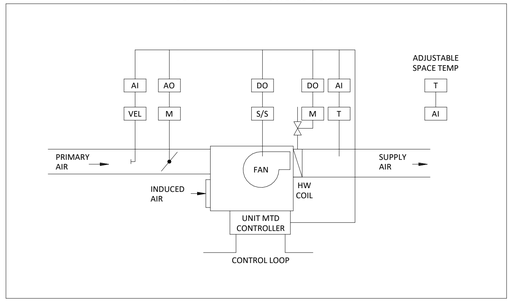
AIR DEVICE SCHEDULE NOTES:

(1) UNLESS OTHERWISE NOTED, ALL AIR DEVICES IN THIS SCHEDULE HAVE BEEN TAKEN FROM TITUS CATALOG FOR CONTRACTOR'S REFERENCE AS TO STYLE, TYPE, DEFLECTION, DESIGN, THROW, NOISE COEFFICIENT, AND QUALITY REQUIRED.
(2) CONTRACTOR SHALL COORDINATE COLOR SELECTION OF AIR DEVICES WITH ARCHITECT.
(3) CONTRACTOR SHALL PROVIDE APPROPRIATE TYPE OF AIR DEVICE FOR THE CEILING SYSTEM PROVIDED.
(4) FLEXIBLE DUCTWORK INDICATED ON THE FLOOR PLANS SHALL BE FULL SIZE OF THE SCHEDULED AIR DEVICE NECK OR AS INDICATED.
(5) FOUR WAY DEFLECTION.
(6) THREE WAY DEFLECTION.
(7) TWO WAY DEFLECTION.
(8) ONE WAY DEFLECTION.
(9) PROVIDE DEVICE WITH LAY-IN BORDER.
(10) PROVIDE DEVICE WITH SURFACE MOUNT BORDER.
(11) PROVIDE DEVICE WITH OPPOSED BLADE DAMPER.
(12) PANEL FACE SIZE SHALL BE SUITABLE FOR INSTALLATION IN 24"x24" LAY-IN CEILING GRID.

FPB CONTROL TYPE

FAN POWERED BOX

SCHEMATIC - FAN POWERED BOX



SEQUENCE - FAN POWERED BOXES:

A. PROVIDE FOR EACH FAN POWERED BOX ON PROJECT. FAN POWERED BOX CONTROLLER SHALL BE PROVIDED FOR FACTORY INSTALLATION BY BOX MANUFACTURER. PROVIDE 3-WAY CONTROL VALVE AT END-OF-LOOP UNITS, AND AS INDICATED ON THE DRAWINGS.

B. OPERATIONAL SEQUENCE:
1. OPERATIONAL CONDITIONS: THE UNIT SHALL OPERATE ON A USER DEFINED SCHEDULE:
   a. OCCUPIED MODE: *75F DEGREES COOLING SETPOINT; *70F DEGREES HEATING SETPOINT
   b. UNOCCUPIED MODE: *95F DEGREES COOLING SETPOINT; *55F DEGREES HEATING SETPOINT
   c. A MINIMUM OF 75% OF ZONE SPACES ABOVE COOLING SETPOINT OR BELOW HEATING SETPOINT SHALL BE REQUIRED TO ENABLE ALL BOXES SERVED BY ASSOCIATED AIR HANDLING UNIT.
2. UNIT OPERATION:
   a. FAN SHALL ENERGIZE ALONG WITH ALL BOXES SERVED BY ASSOCIATED AIR HANDLING UNIT:
      1) IF SPACE CALLS FOR NO HEATING OR COOLING:
         a) HOT WATER VALVE SHALL FULL CLOSE.
         b) DAMPER SHALL MAINTAIN MINIMUM POSITION TO THE AIR HANDLING UNIT.
      2) IF SPACE CALLS FOR HEATING:
         a) SIGNAL CENTRAL PLANT FOR HEATING THRU ASSOCIATED AIR HANDLING UNIT.
         b) TWO-POSITION HOT WATER VALVE SHALL CYCLE AS REQUIRED TO SATISFY SPACE.
         c) DAMPER SHALL MAINTAIN MINIMUM POSITION TO THE AIR HANDLING UNIT.
      3) IF SPACE CALLS FOR COOLING:
         a) HOT WATER VALVE SHALL FULL CLOSE.
         b) SUPPLY DAMPER SHALL MODULATE AS REQUIRED TO SATISFY THE SPACE.
   b. AT SHUTDOWN:
      1) FAN SHALL DE-ENERGIZE.
      2) HOT WATER VALVE SHALL FULL CLOSE.
      3) DAMPER SHALL MAINTAIN MINIMUM POSITION TO THE AIR HANDLING UNIT.
3. FREEZE PROTECTION:
   a. ANYTIME:
      1) SPACE OR SUPPLY AIR TEMPERATURE FALL BELOW *45F DEGREES:
         a) FAN SHALL ENERGIZE.
         b) HOT WATER VALVE SHALL FULL OPEN.
      2) SPACE OR SUPPLY AIR TEMPERATURE BELOW *36F DEGREES:
         a) FAN SHALL DE-ENERGIZE
         b) HOT WATER VALVE SHALL FULL OPEN.
         c) TEMPERATURE SHALL ALARM.

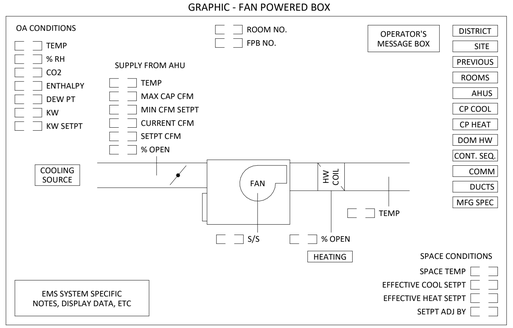
C. DDC POINT SCHEDULE:

SPACE TEMPERATURE	1 EACH AI	VELOCITY SENSOR	1 EACH AI
HOT WATER VALVE	1 EACH DO	FAN START/STOP	1 EACH DO
DAMPER	1 EACH AO (1)	DISCHARGE AIR TEMP	1 EACH AI

1. MAY BE ACCOMPLISHED WITH ONE ANALOG OUTPUT OR 2 DIGITAL OUTPUTS WITH FLOATING MOTOR WITH MINIMUM 110 SECOND STROKE TIME AND LIMIT SWITCHES.

* ITEMS ARE TO BE FIELD ADJUSTABLE

GRAPHIC - FAN POWERED BOX



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CONSTRUCTION DOCUMENTS

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31 JAN. 2024

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Drawn By:	JPD
Checked By:	CPA
Job Number.:	2023.113

MECHANICAL SCHEDULES

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

M-3.1

1/31/2024 12:07:13 PM

ABBREVIATIONS

A - AMPERE(S)
AIC - AMPERAGE INTERRUPTING CAPACITY
A/V - AUDIO VISUAL
AFF - ABOVE FINISH FLOOR
AFG - ABOVE FINISH GRADE
AHU - AIR HANDLING UNIT
ATS - AUTOMATIC TRANSFER SWITCH

BLDG - BUILDING

C - CONDUIT
CB - ENCLOSED CIRCUIT BREAKER
CKT - CIRCUIT

EDF - ELECTRIC DRINKING FOUNTAIN
EPO - EMERGENCY POWER OFF

FLA - FULL LOAD AMPS
FSD - FIRE SMOKE DAMPER

GFCI - GROUND-FAULT CIRCUIT INTERRUPTER
GND - GROUND

HOA - HAND-OFF-AUTOMATIC
HP - HORSEPOWER

IG - ISOLATED GROUND

J-BOX - JUNCTION BOX

KVA - KILOVOLT AMPERE
KW - KILOWATT

MCB - MAIN CIRCUIT BREAKER
MCC - MOTOR CONTROL CENTER
MLO - MAIN LUGS ONLY
MTD - MOUNTED

N/A - NOT APPLICABLE
NC - NORMALLY CLOSED
NO - NORMALLY OPEN
NF - NON FUSED
N.I.C. - NOT IN CONTRACT
NL - NIGHT LIGHT (UNSWITCHED)
NTS - NOT TO SCALE

OFCI - OWNER FURNISHED CONTRACTOR INSTALLED
OH - OVERHEAD

PB - PUSHBUTTON
PH, ∅ - PHASE

RCPT - RECEPTACLE

SPD - SURGE PROTECTION DEVICE
SWBD - SWITCHBOARD

TC - TIMECLOCK
TV - TELEVISION
TYP. - TYPICAL

UG - UNDERGROUND

V - VOLTAGE

W.G. - WIREGUARD
W.P. - WEATHERPROOF

XFMR - TRANSFORMER

1P - ONE POLE
2P - TWO POLE
3P - THREE POLE

ELECTRICAL SYMBOLS LEGEND

MARK	ITEM
◯ A	LIGHT FIXTURE, LETTER(S) IDENTIFIES FIXTURE IN SCHEDULE
H◯B ◯B	LIGHTING FIXTURE. BRACKET "1" INDICATES WALL MOUNTED. LETTER(S) IDENTIFIES FIXTURE IN SCHEDULE
H⊗ ⊗	EXIT LIGHT FIXTURE (1)
(N)	LIGHT FIXTURE CONNECTED TO UNSWITCHED PORTION OF CIRCUIT FOR NIGHT LIGHTING
	LIGHT FIXTURE CONNECTED TO EMERGENCY CIRCUIT
S	SINGLE-POLE DECORA ROCKER LIGHT SWITCH, MODEL #ILC-SWX-843-12H-X OR EQUAL
S_K	SWITCH, KEYED OPERATED
S_3	SWITCH, THREE-WAY (K=KEYED OPERATED)
S_D	SWITCH DIMMER, nPODMDX (ON,OFF AND RAISE/LOWER)
S_{2P}	SWITCH DIMMER, nPODM2PDX (TWO POLE SWITCH WITH ON,OFF AND RAISE/LOWER EACH)
S_{LV}	LOW VOLTAGE "ON-OFF" SWITCH
S_O	SWITCH, DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR,
(OS)	DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR, ACUITY NCMPDT10
A	RECEPTACLE, DUPLEX (A=ABOVE COUNTER)
T	RECEPTACLE, TAMPER RESISTANT DUPLEX
C	RECEPTACLE, DUPLEX CORRIDOR SEE SPECIFICATIONS SERVE WITH #10 CONDUCTORS MIN.
A	RECEPTACLE, G.F.C.I. DUPLEX (A=ABOVE COUNTER)
W.P.	RECEPTACLE, WEATHERPROOF
A	RECEPTACLE, QUADRUPLEX (A=ABOVE COUNTER)
A	RECEPTACLE, G.F.C.I. QUADRUPLEX (A=ABOVE COUNTER)
	SIMPLEX RECEPTACLE
	RECEPTACLE DUPLEX MOUNTED IN OUTLET BOX IN BASE OF PROJECTOR CEILING TRAY
	SPECIAL PURPOSE OUTLET
G	GROUND BAR AS NOTED ON DRAWING AND SPECIFICATIONS
PB	PANELBOARD, 120/208 VOLT (LETTERS IDENTIFY PANEL)
HB	PANELBOARD, 277/480 VOLT (LETTERS IDENTIFY PANEL)
T-LA	DRY TYPE TRANSFORMER. REFER TO TRANSFORMER SCHEDULE.
	DISCONNECT SWITCH
J	JUNCTION BOX
M	MOTOR CONNECTION. REFER TO ELECTRICAL CONNECTION SCHEDULE
SPD	SURGE PROTECTIVE DEVICE. REFER TO SPECIFICATIONS.
A	TECHNOLOGY ROUGH-IN. REFER TO TECHNOLOGY DRAWINGS FOR EXACT LOCATION OF RACEWAY, OUTLET BOXES, ETC. (A=ABOVE COUNTER)
	OUTLETS GROUPED AS INDICATED SHALL BE LOCATED AT HEIGHT INDICATED ON THE TECHNOLOGY DRAWINGS AND SHALL BE LOCATED IMMEDIATELY ADJACENT TO EACH OTHER.
H D	CLOCK, D = DOUBLE FACE
	BELL/BUZZER
H S S	FIRE ALARM SYSTEM SPEAKER, FLUSH CEILING OR WALL MOUNTED.
P	PROGRAM HORN, WEATHERPROOF. HEIGHT AS DIRECTED
H S S	SCHOOL INTERCOM SPEAKER, FLUSH CEILING OR WALL MOUNTED.
S_C	SCHOOL INTERCOM CALL BACK SWITCH
S_V	SCHOOL INTERCOM SPEAKER VOLUME CONTROL
A	SCHOOL INTERCOM SYSTEM ADMINISTRATIVE TELEPHONE
M C	MICROPHONE OUTLET (C=CAFETERIA)
M G	MICROPHONE OUTLET (G=GYMNASIUM)
H S G S C	SOUND SYSTEM SPEAKER (C=CAFETERIA, G=GYMNASIUM)
FACP	FIRE ALARM CONTROL PANEL
F	FIRE ALARM MANUAL PULL STATION
L	FIRE ALARM, WALL MOUNTED, STROBE LIGHT ONLY
L	FIRE ALARM, CEILING MOUNTED, STROBE LIGHT ONLY
	FIRE ALARM SPEAKER AND STROBE LIGHT
F	FIRE ALARM HORN, WEATHERPROOF. HEIGHT AS DIRECTED
S	SMOKE DETECTOR, CEILING MOUNTED
S D	DUCT SMOKE DETECTOR. INSTALL AT AHU'S & SMOKE/FIRE DAMPERS.
H	HEAT DETECTOR
CO	CARBON MONOXIDE DETECTOR, CEILING MOUNTED
	FIRE ALARM HORN AND STROBE LIGHT

ELECTRICAL SYMBOL NOTES:

(1) SHADED PORTION & ARROW INDICATES SIDE ON WHICH LETTERING APPEARS & DIRECTION WHERE APPLICABLE. EXACT HEIGHT AND LOCATION OF ALL EXIT SIGNS SHALL BE DETERMINED BY ARCHITECT & BLDG. OFFICIAL ON THE SITE.

GENERAL DEMOLITION NOTES: (APPLICABLE TO ALL DEMOLITION SHEETS)

1. PRIOR TO BIDDING, THE CONTRACTOR SHALL VISIT THE SITE TO EXAMINE AND FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS, AND TO VERIFY EXACT LOCATIONS, SIZES AND QUANTITIES OF ITEMS WHICH ARE TO BE REMOVED, RELOCATED, OR ADDED. SUBMITTAL OF A BID SHALL SIGNIFY WILLINGNESS TO COMPLY WITH THE OWNER'S REQUIREMENTS; THE DESIGN AND SPECIFICATIONS; AND ACCEPTANCE OF ON-SITE CONDITIONS AS THEY EXIST.

2. THE CONTRACTOR SHALL PROVIDE TEMPORARY OR NEW SERVICES TO EXISTING FACILITIES AS REQUIRED TO MAINTAIN THEIR PROPER OPERATION WHEN NORMAL SERVICES ARE DISRUPTED AS A RESULT OF THE WORK BEING ACCOMPLISHED UNDER THIS PROJECT.

3. WHERE EXISTING CONSTRUCTION IS REMOVED TO PROVIDE WORKING AND EXTENSION ACCESS TO EXISTING UTILITIES, THE CONTRACTOR SHALL REMOVE DOORS, PIPING, CONDUIT, OUTLET BOXES, WIRING LIGHT FIXTURES, AIR CONDITIONING DUCTWORK, AND EQUIPMENT, ETC. TO PROVIDE ACCESS AND SHALL REINSTALL SAME UPON COMPLETION OF WORK.

4. WHERE PARTITIONS, WALLS, FLOORS, OR CEILINGS OF EXISTING CONSTRUCTION ARE INDICATED TO BE REMOVED, THE CONTRACTOR SHALL REMOVE AND REINSTALL IN LOCATIONS ACCEPTABLE TO THE OWNER'S REPRESENTATIVE, ALL DEVICES REQUIRED FOR THE OPERATION OF THE ELECTRICAL SYSTEMS INSTALLED IN THE EXISTING REMAINING CONSTRUCTION. THIS IS TO INCLUDE BUT IS NOT LIMITED TO TEMPERATURE CONTROL SYSTEM DEVICES, ELECTRICAL SWITCHES, RELAYS, FIXTURES, PIPING, CONDUIT, SECURITY, ETC.

5. THE CONTRACTOR SHALL MODIFY, REMOVE, AND RELOCATE ALL MATERIALS AND ITEMS SO INDICATED ON THE DRAWINGS OR REQUIRED BY THE INSTALLATION OF NEW FACILITIES. ALL REMOVALS TO BE RELOCATED SHALL BE CONDUCTED IN A MANNER AS TO NOT DAMAGE. MATERIALS AND ITEMS SCHEDULED FOR RELOCATION AND WHICH ARE DAMAGED DURING DISMANTLING OR REASSEMBLY OPERATIONS SHALL BE REPAIRED AND RESTORED TO THE ACCEPTANCE OF THE OWNER. THE CONTRACTOR MAY SUBSTITUTE NEW MATERIALS AND ITEMS OF LIKE DESIGN AND QUALITY IN LIEU OF MATERIALS AND ITEMS TO BE RELOCATED, IF ACCEPTABLE TO THE OWNER.

6. ALL ITEMS WHICH ARE TO BE RELOCATED SHALL BE CAREFULLY REMOVED IN REVERSE TO ORIGINAL ASSEMBLY OR PLACEMENT AND PROTECTED UNTIL RELOCATED. THE CONTRACTOR SHALL CLEAN, REPAIR AND PROVIDE ALL NEW MATERIALS, FITTINGS, AND APPURTENANCES REQUIRED TO COMPLETE THE RELOCATION AND TO RESTORE THE ITEMS TO GOOD OPERATIVE ORDER.

7. FEEDERS AND WIRING TO ITEMS TO BE REMOVED, SALVAGED, OR RELOCATED SHALL BE REMOVED TO POINTS INDICATED ON THE DRAWINGS, SPECIFIED, OR ACCEPTABLE TO THE OWNER. FEEDERS AND WIRING NOT SCHEDULED FOR REUSE SHALL BE REMOVED TO THE POINTS AT WHICH REUSE IS TO BE CONTINUED OR SERVICE IS TO REMAIN. SUCH SERVICES SHALL BE SEALED, CAPPED, OR OTHERWISE TIED OFF OR CONNECTED INTO THE EXISTING FACILITIES IN SUCH A MANNER AS TO RESULT IN MINIMUM INTERRUPTION OF SERVICES TO ADJACENT OCCUPIED AREAS. SERVICES TO EXISTING AREAS OR FACILITIES WHICH MUST REMAIN IN OPERATION DURING THE CONSTRUCTION PERIOD SHALL NOT BE INTERRUPTED WITHOUT PRIOR SPECIFIC WRITTEN APPROVAL OF THE OWNER.

8. SOME ITEMS AND MATERIALS BEING REMOVED MAY REMAIN THE PROPERTY OF THE OWNER AND AS PART OF THIS CONTRACT, THE CONTRACTOR SHALL DELIVER ITEMS THE OWNER WISHES TO KEEP TO A DESTINATION ON THE CAMPUS AS DIRECTED BY THE OWNER. ALL OTHER ITEMS NOT REQUESTED BY THE OWNER SHALL BE DISPOSED OF WITH PRIOR VERIFICATION OF THE OWNER.

9. WHERE EXTENSION OF AN EXISTING CIRCUIT IS REQUIRED, CONDUIT SHALL BE ROUTED CONCEALED SO AS NOT TO INTERFERE WITH THE USE, OR MAR THE ESTHETICS OF THE AREA.

10. ITEMS OF EQUIPMENT, RECEPTACLES, LIGHT FIXTURES, MOTORS, ETC., INDICATED OR REQUIRED TO BE REMOVED SHALL HAVE ASSOCIATED CIRCUITRY REMOVED BACK TO THE PROTECTIVE DEVICE IN THE PANEL, SWITCHBOARD, ETC., EXCEPT AS OTHERWISE MENTIONED BY NOTE 11.

   A. ASSOCIATED CIRCUITRY SHALL BE DEFINED TO INCLUDE ALL CONDUIT, CONDUCTORS, BOXES, WIRING DEVICES, COVER PLATES, LAMPS, FIXTURES, WIREWAYS, SWITCHES, STARTERS, ETC., WHICH ARE ASSOCIATED WITH THE ITEM INDICATED TO BE REMOVED.

   B. THE PROTECTIVE DEVICE SHALL REMAIN AS AN INTEGRAL PART OF THE EXISTING PANEL, SWITCHBOARD, ETC., AND SHALL BE LABELED AS A SPARE OR BE USED FOR NEW CIRCUITRY AS INDICATED OR REQUIRED.

   C. WHERE CONDUIT, ASSOCIATED WITH AN ITEM INDICATED TO BE REMOVED, IS IN AN INACCESSIBLE AREA, SUCH AS ENCASED IN CONCRETE, THIS INACCESSIBLE CONDUIT ONLY SHALL BE ABANDONED IN PLACE. ALL CONDUCTORS SHALL BE REMOVED, THE CONDUIT SHALL BE SEALED, CAPPED OR OTHERWISE TERMINATED IN A SAFE MANNER ACCEPTABLE TO THE OWNER, OR AS OTHERWISE STATED IN ITEM 12D BELOW.

   D. WHERE INACCESSIBLE CONDUIT ENDS OR MUST BE TERMINATED IN A FINISHED SPACE, THE CONDUIT OR J-BOX SHALL BE REMOVED TO BELOW THE SURFACE OF FINISHED SURFACE OF WALL, CEILING OR FLOOR, THE VOID SHALL BE FILLED WITH NON-SHRINKING GROUT THEN RESURFACED AND REFINISHED TO MATCH SURROUNDING SURFACES. CONDUIT BELOW GRADE SHALL BE TERMINATED 12" BELOW FINISH GRADE AND ABANDONED IN PLACE.

   E.

11. WHERE ONLY A PORTION OF A CIRCUIT'S LOAD IS INDICATED TO BE REMOVED, ONLY THAT PORTION ASSOCIATED WITH THE REMOVED DEVICE SHALL BE REMOVED TO A POINT WHERE THE REMAINING LOAD IS ACTIVE AND IN OPERATING CONDITION.

12. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, FACILITIES NOT INDICATED OR NOT INDICATED TO BE REMOVED SHALL REMAIN IN SERVICE EXCEPT:

   A. FACILITIES IN WALLS AND PARTITIONS BEING REMOVED SHALL BE REMOVED.

   B. FACILITIES WHICH INTERFERE WITH THE INSTALLATION OF NEW PARTITIONS SHALL BE RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW PARTITIONING.

   C. OUTLETS AND CIRCUITRY SERVING FACILITIES OR EQUIPMENT TO BE REMOVED SHALL BE REMOVED OR ABANDONED.

   D. WHERE WIRING SERVING FACILITIES TO REMAIN PASSES THRU REMOVED OUTLETS, REUSE OUTLET IN PLACE AS A JUNCTION BOX OR RELOCATE WIRING AS REQUIRED. ROUTE ALL CONDUIT AND CONDUCTORS CONCEALED IN BUILDING CONSTRUCTION, WHERE POSSIBLE.

   E. REMOVE ASSOCIATED ELECTRICAL FACILITIES INCLUDING CONDUIT AND CONDUCTORS SERVING EQUIPMENT BEING REMOVED.

13. WHERE PARTITION REMOVAL EXPOSES FACILITIES TO REMAIN OR SERVICE TO FACILITIES WHICH REMAIN, RELOCATE OR RE-ROUTE FACILITIES OR SERVICES AS ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.

14. PROVIDE NEW PANELBOARD DIRECTORIES FOR ALL EXISTING PANELBOARDS WITHIN THIS SCOPE OF WORK, WHETHER INDICATED ON THE DRAWINGS OR NOT, NEW DIRECTORIES SHALL REFLECT ALL THE NEW CIRCUITRY AND ROOM NAMES AND NUMBERS PER THIS PROJECT.

15. WHERE CONDUIT AND CONDUCTORS ARE INDICATED TO BE REMOVED, CONDUIT SHALL BE REMOVED TO POINT OF CONCEALMENT AND WIRING REMOVED ENTIRELY. PROVIDE BLANK COVERPLATES WHERE REQUIRED.

16. UNLESS OTHERWISE INDICATED, VERIFY ALL EXISTING PIPE SIZES BEFORE REMOVAL AND PROVIDE REPLACEMENT PIPE SAME SIZE AS PIPE REMOVED.

17. ALL PIPING FACILITIES ARE NOT SHOWN FOR CLARITY. PIPING FACILITIES NOT SHOWN SHALL REMAIN IN SERVICE.

18. EXISTING PIPING AND EQUIPMENT LOCATIONS ARE TAKEN FROM BEST AVAILABLE INFORMATION AND ARE NOT INTENDED TO SHOW EXACT EXISTING CONDITIONS. CONTRACTOR SHALL VERIFY ALL PIPING AND EQUIPMENT BEFORE BEGINNING CONSTRUCTION.

19. ALL CIRCUIT BREAKERS SHALL BE PROVIDED AT AN AIC RATING THAT MEETS OR EXCEEDS THE EXISTING AND/OR NEW EQUIPMENT TO BE INSTALLED. CONTRACTOR SHALL FIELD VERIFY EQUIPMENT AS REQUIRED.

20. CONTRACTOR SHALL PROVIDE PROPERLY SIZED CIRCUIT BREAKERS FOR DESIGNATED PANELS WITH AVAILABLE SPACES FOR NEW FEEDS AS INDICATED.

21. ALL CIRCUIT FEEDS REMOVED FROM EQUIPMENT BACK TO THE SOURCE PANEL SHALL LABEL THE CIRCUIT BREAKER AS SPARE AND UPDATE THE CIRCUIT DIRECTORY INDEX.

22. CONTRACTOR SHALL RELOCATE AND/OR REROUTE ELECTRICAL CONDUITS, J-BOXES, ETC. AS REQUIRED IN ORDER TO INSTALL NEW EQUIPMENT & DUCTWORK.

23. CONTRACTOR SHALL RECOVER REFRIGERANTS FROM ALL DX COOLING SYSTEMS BEING REMOVED AND/OR REPLACED AND DISPOSE OF THE REFRIGERANTS IN ACCORDANCE WITH THE AUTHORITIES HAVING JURISDICTION.

24. THE FIRE ALARM CONTRACTOR SHALL NOTIFY THE AHJ (FIRE MARSHALL), IN WRITING, OF ANY AND ALL SHUT-DOWNS OR INTERRUPTIONS TO THE EXISTING FIRE ALARM SYSTEM PRIOR TO ANY SHUT-DOWN OR INTERRUPTION.

25. ALL ELECTRICAL EQUIPMENT AND DEVICES ARE COLOR CODED. NEW EQUIPMENT IS BOLD AND EXISTING EQUIPMENT IS SCREENED.

GENERAL NOTES: (APPLICABLE TO ALL ELECTRICAL SHEETS)

1. PROVIDE ALL RECEPTACLES, CONNECTIONS, OUTLET BOXES, FLOOR BOXES, PULL BOXES, JUNCTION BOXES, CONDUIT, CONDUCTORS, BRANCH CIRCUITS, CABLE MANAGEMENT SYSTEM, ETC. AS REQUIRED FOR THE TECHNOLOGY AND SECURITY SYSTEMS SPECIFIED AND INDICATED ON THE TECHNOLOGY, AUDIO VISUAL AND SECURITY DRAWINGS. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE DIVISION 26 SECTIONS.

2. COORDINATE THE LOCATION AND ORIENTATION OF ALL POWER RECEPTACLES AND ASSOCIATED TECHNOLOGY OUTLETS TO BE SIDE BY SIDE AND TO BE ACCEPTABLE TO THE ARCHITECT PRIOR TO ROUGHING-IN. REFER TO ELEVATIONS.

3. PROVIDE RECEPTACLES, CONNECTIONS, OUTLET BOXES, PULL BOXES, JUNCTION BOXES, BRANCH CIRCUITS, ETC. AS REQUIRED FOR THE AUDIO VISUAL SYSTEMS SPECIFIED AND AS INDICATED ON THE AUDIO VISUAL (AV SHEETS). ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE DIVISION 26 AND 27 SECTIONS. ALL BRANCH CIRCUITS REQUIRED SHALL BE OBTAINED FROM 120/208V PANELBOARD.

4. FOR DEVICES INDICATED TO BE LOCATED ON COLUMNS, ROUGH-IN BOX AND ASSOCIATED CONDUIT SHALL BE CAST IN CONCRETE FOR INSTALLATION WITH CONCEALED BOX AND CONDUIT.

5. PROVIDE CONDUIT STUBS THROUGH WALLS FOR SIZE, QUANTITY, AND LOCATION AS INDICATED ON TECHNOLOGY DRAWINGS.

6. COORDINATE LOCATION OF ALL ELECTRICAL DEVICES (SWITCHES, CALL-BACK SWITCHES, CLOCKS, RECEPTACLES, T.V. OUTLETS, ETC.) WITH ARCHITECTURAL FEATURES PRIOR TO ROUGH-IN.

7. LOCATION OF ELECTRICAL DEVICES IN ROOMS WITH SIMILAR ARCHITECTURAL FEATURES SHALL BE TYPICAL WITH RESPECT TO THE ARCHITECTURAL ITEMS (TACKBOARDS, CHALKBOARDS, TEACHER'S CLOSETS, TRIMS, ETC.).

8. FROM EACH RECESSED PANELBOARD PROVIDE FIVE-3/4" CONDUITS TO ABOVE CEILING FOR FUTURE USE. IN ADDITION, FOR EACH 3-POLE SPARE OR SPACE, PROVIDE ONE CONDUIT TO ABOVE CEILING SIZED TO ACCOMMODATE THE MAXIMUM SIZE BREAKER THAT COULD BE UTILIZED. CAP ALL CONDUITS.

9. COORDINATE ROUGH-IN OF DEVICES WITH ARCHITECTURAL ELEVATIONS, SECTIONS AND DETAILS. INSTALL DEVICE BOXES FLUSH WITH FINISHED SURFACE. COORDINATE ROUGH-IN OF ELECTRICAL SERVICES TO EQUIPMENT NOT SPECIFIED IN DIVISION 26 WITH THE RESPECTIVE SUPPLIER OF THE EQUIPMENT.

10. REFER TO RESPECTIVE ELECTRICAL CONNECTION SCHEDULE ON ELECTRICAL PLANS.

11. REFER TO ELECTRICAL DETAILS SHEET E-4.0.

12. PROVIDE A DEDICATED NEUTRAL FOR EACH 277V OR 120V SINGLE PHASE CIRCUIT.

13. ALL ABOVE-CEILING LOW VOLTAGE CABLING SHALL EITHER BE PLENUM-RATED OR INSTALLED IN LISTED CONDUIT, IN ACCORDANCE WITH THE CURRENT ADOPTED VERSION OF THE NEC ARTICLE 300.22 (C) (1). CABLING THAT IS NOT INSTALLING IN CONDUIT SHALL BE SUPPORTED BY J-HOOKS SPACED NOT MORE THAN 5 FT ON CENTER.

14. PROVIDE U.L. LISTED FIRE STOP SYSTEMS AT ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED PARTITIONS. SEAL AROUND CONDUIT PENETRATIONS THROUGH NON-RATED PARTITIONS WITH JOINT COMPOUND OR GROUT. REFER TO ARCHITECTURAL SHEETS FOR FIRE-RATED PARTITIONS.

15. COORDINATE THE INSTALLATION OF ELECTRICAL WORK ABOVE THE CEILING TO PROVIDE THE GREATEST POSSIBLE CLEARANCE FOR PLUMBING AND MECHANICAL EQUIPMENT. CONDUITS SHALL BE KEPT TIGHT TO STRUCTURE OR ROUTED THROUGH STRUCTURAL TRUSSES WHEREVER POSSIBLE.

16. PROVIDE CEILING ACCESS DOORS TO GAIN ACCESS TO EQUIPMENT ABOVE HARD CEILINGS. OBTAIN APPROVAL FOR CEILING ACCESS DOORS FROM THE ARCHITECT, PRIOR TO ROUGH-IN OF EQUIPMENT OR BRANCH CIRCUIT.

17. ALL CONDUIT AND LOW VOLTAGE WIRING IN AREAS WITH EXPOSED STRUCTURE, OR CEILING PANELS, SHALL BE RUN AS TIGHT AS POSSIBLE TO THE STRUCTURE ABOVE, CONCEALED FROM VIEW.

18. REFER TO ROOFING CONSULTANT'S DRAWINGS FOR ROOF PENETRATION AND EQUIPMENT RACK DETAILS.

19. INSTALL RECEPTACLES AND DATA DROPS NO MORE THAN 6" APART WHERE SUCH DROPS ARE LOCATED ON THE POWER, SPECIAL SYSTEMS OR TECHNOLOGY SHEETS IN CLOSE PROXIMITY. COORDINATE WITH THE DIV. 27 CONTRACTOR AS REQUIRED, PRIOR TO ROUGHING IN.

20. ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH ADJACENT SURFACE. REFER TO ARCHITECTURAL SHEETS FOR FURTHER INFORMATION.

21. PROVIDE TAMPER-RESISTANT RECEPTACLES THROUGHOUT PROJECT AREA FOR ALL 15- AND 20-AMPERE RECEPTACLES. RECEPTACLES HIGHER THAN 66" ARE NOT REQUIRED TO BE TAMPER-PROOF. REPLACE ALL EXISTING-TO-REMAIN RECEPTACLES IN THE PROJECT AREA WITH NEW TAMPER-RESISTANT RECEPTACLES.

22. PROVIDE NEW TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND EXISTING ELECTRICAL PANELS, WHERE CIRCUITS ARE ADDED, REMOVED OR MODIFIED. INDICATE THE EQUIPMENT NAME, TYPE AND LOCATION FOR EACH CIRCUIT, IN ACCORDANCE WITH THE CURRENT ADOPTED VERSION OF THE NEC, ARTICLE 408.4. SECURELY AFFIX CIRCUIT DIRECTORIES TO THE INSIDE SURFACE OF THE PANEL DOOR, AS SPECIFIED.

23. ALL CONDUIT PENETRATIONS OF THERMAL BARRIERS, SUCH AS COOLERS, FREEZERS, AIR HANDLING UNITS, ETC. SHALL BE FILLED WITH A LISTED SEALANT TO PREVENT MOISTURE ACCUMULATION, IN ACCORDANCE WITH THE CURRENT ADOPTED VERSION OF THE NEC, ARTICLE 300.7.

24. REFER TO THE ARCHITECTURAL DRAWINGS FOR PHASING OF THE PROJECT.

25. PROVIDE ENGRAVED LABEL FOR ALL ELECTRICAL EQUIPMENT, REFER TO SPECIFICATION 26 05 53. DISCONNECT SWITCH SERVING EQUIPMENT IN THE MEP TRADES AND WELDING LAB SHALL HAVE AN ADDITIONAL LABEL WITH VOLTAGE AND PHASE (BLACK LETTERS, ORANGE BACKGROUND. 1-1/2"TALL MIN.)

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Drawn By:	JM
Checked By:	ECM
Job Number.:	2023.113

ELECTRICAL LEGEND

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

E-0.1

1/31/2024 11:55:45 AM

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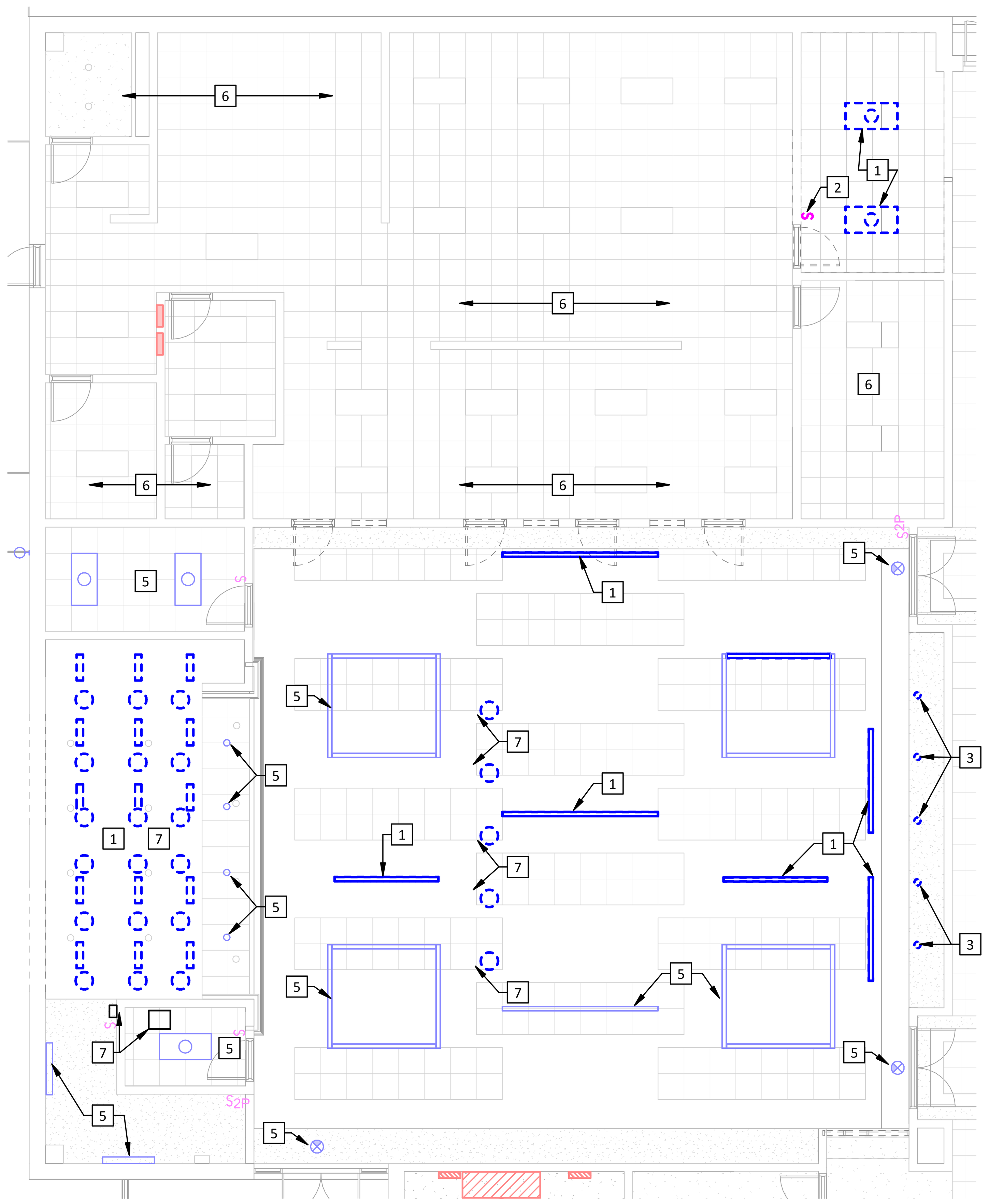
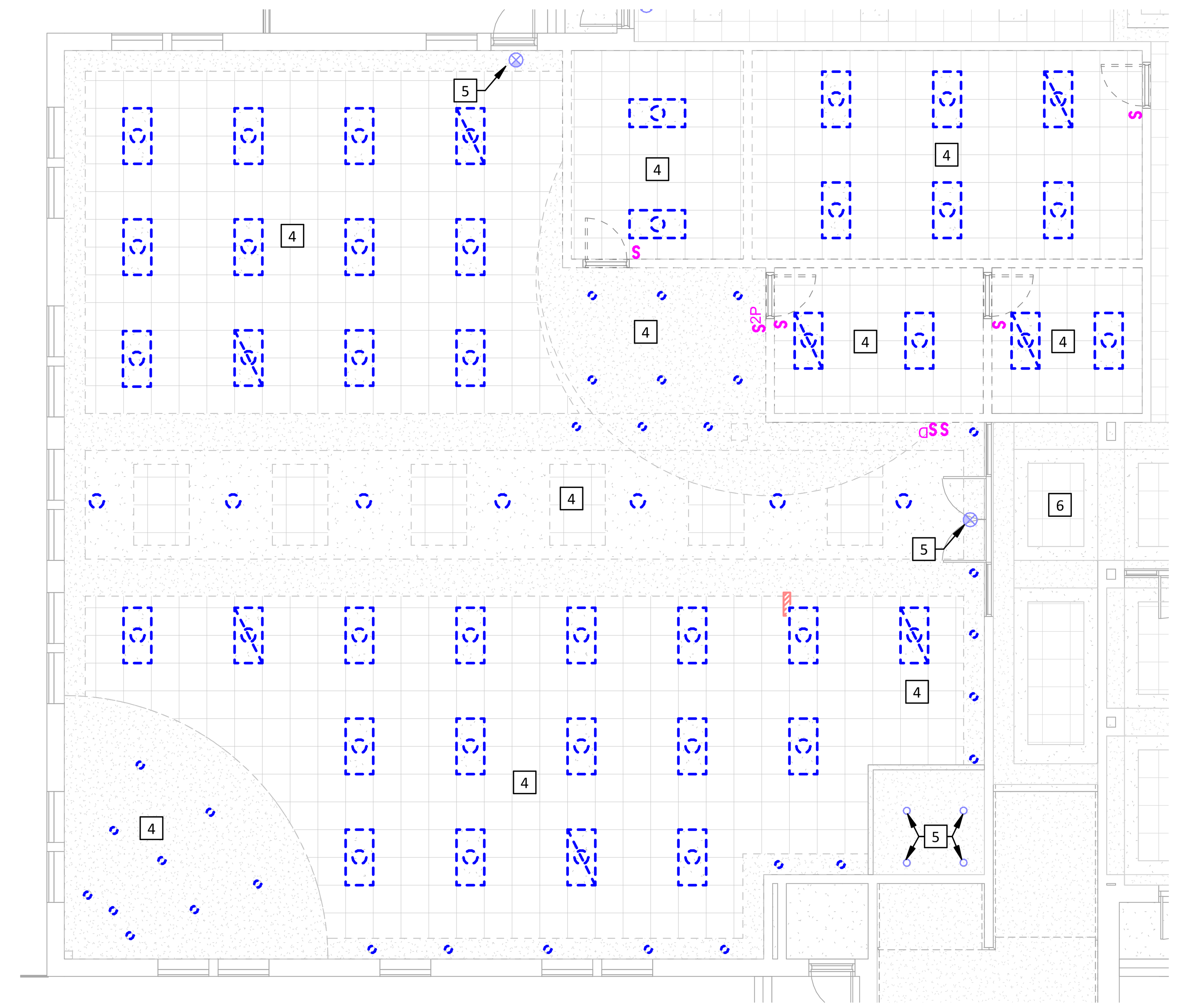


LIGHTING DEMOLITION PLAN - CAFETORIUM

NORTH
1
Electrical — 1/8" = 1'-0"



LIGHTING DEMOLITION PLAN - LIBRARY

NORTH
2
Electrical — 1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. ALL EXISTING LIGHT FIXTURES, LIGHTING SWITCHES AND ASSOCIATED DEVICES, INDICATED DASHED, SHALL BE REMOVED. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW.
2. REFER TO SHEET E-0.1 FOR GENERAL NOTES.

ELECTRICAL DEMOLITION KEYED NOTES, SHEET ED-1.1:

1. REMOVE AND RELOCATE EXISTING LIGHT FIXTURE. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW, MODIFY AS REQUIRED. REFER TO NEW WORK.
2. REMOVE AND RELOCATE EXISTING LIGHTING CONTROL SWITCH. REFER TO NEW WORK.
3. REMOVE EXISTING LIGHT FIXTURE. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW, MODIFY AS REQUIRED. REFER TO NEW WORK.
4. REMOVE ALL EXISTING LIGHT FIXTURES, EMERGENCY LIGHT FIXTURES, ASSOCIATED LIGHTING CONTROL SENSORS, CONTROL SWITCHES. REMOVE BRANCH CIRCUIT BACK TO NEXT DEVICE NOT SCHEDULED FOR DEMOLITION. EXISTING CEILING MOUNTED OCCUPANCY SENSORS, POWER PACKS AND CONTROL SWITCHES TO BE REUSED IN NEW WORK.
5. EXISTING TO REMAIN.
6. NO WORK IN THIS AREA.
7. REMOVE ALL EXISTING THEATRICAL LIGHTING FIXTURES, ASSOCAITED CONTROLS, AND EQUIPMENT RACK. RETURN TO OWNER.

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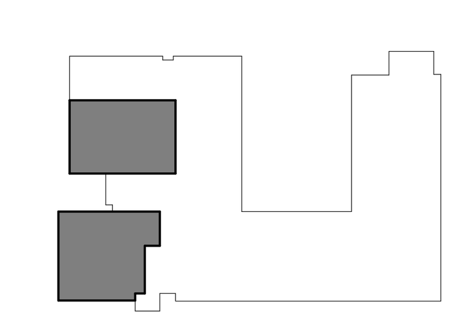

KEY PLAN

Drawn By:	JM
Checked By:	ECM
Job Number.:	2023.113

LIGHTING DEMOLITION PLANS

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

ED-1.1

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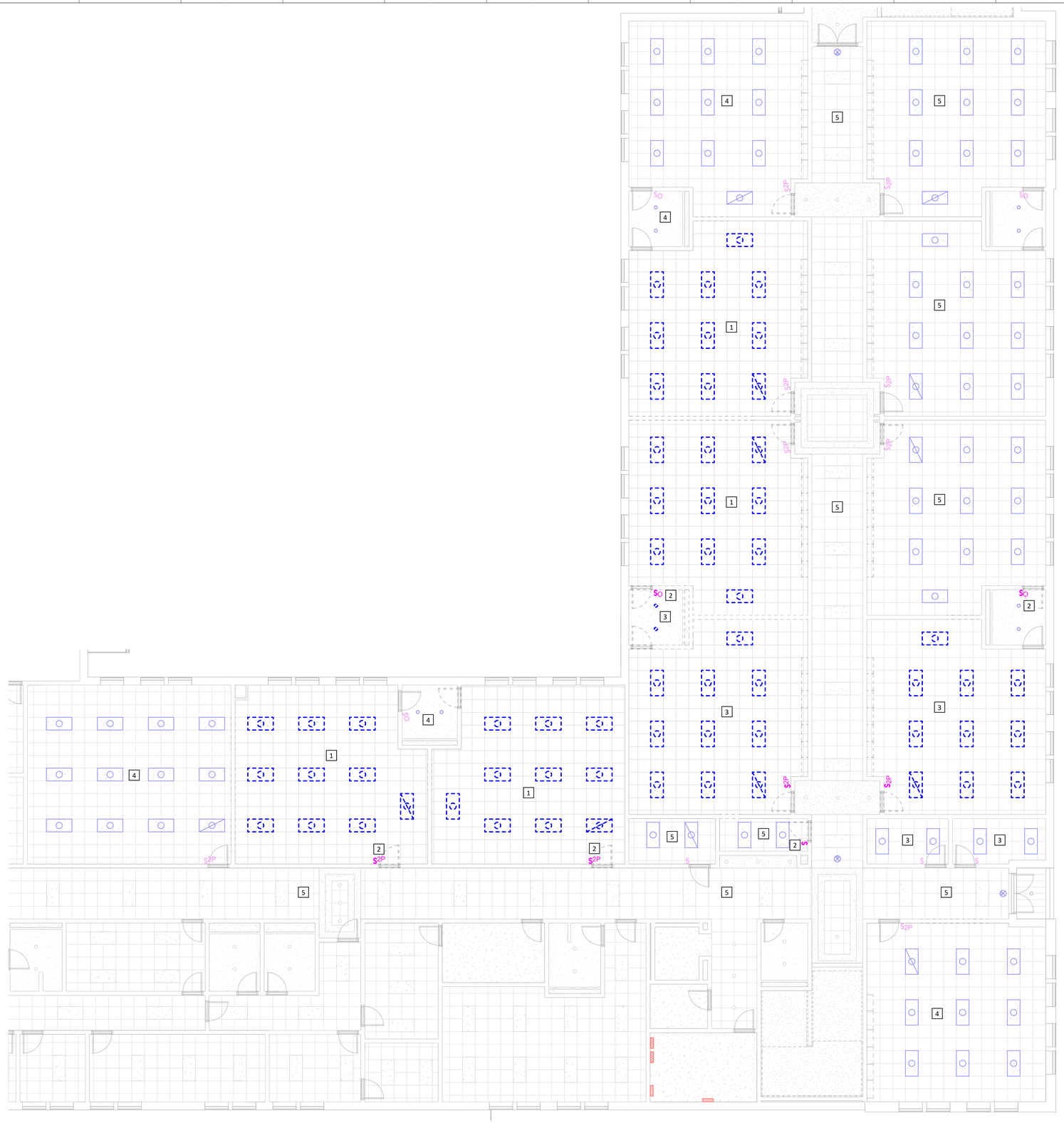

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ELECTRICAL GENERAL NOTES:

1. ALL EXISTING LIGHT FIXTURES, LIGHTING SWITCHES AND ASSOCIATED DEVICES, INDICATED DASHED, SHALL BE REMOVED. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW.
2. REFER TO SHEET E-0.1 FOR GENERAL NOTES.

ELECTRICAL DEMOLITION KEYED NOTES, SHEET ED-1.2:

1. REMOVE AND RELOCATE EXISTING LIGHT FIXTURE. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW, MODIFY AS REQUIRED. REFER TO NEW WORK. EXISTING CEILING MOUNTED OCCUPANCY SENSORS, POWER PACKS AND CONTROL SWITCHES TO BE REUSED IN NEW WORK.
2. REMOVE AND RELOCATE EXISTING LIGHTING CONTROL SWITCH. REFER TO NEW WORK.
3. REMOVE EXISTING LIGHT FIXTURE. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW, MODIFY AS REQUIRED. REFER TO NEW WORK. EXISTING CEILING MOUNTED OCCUPANCY SENSORS, POWER PACKS AND CONTROL SWITCHES TO BE REUSED IN NEW WORK.
4. EXISTING TO REMAIN.
5. NO WORK IN THIS AREA.

NORTH

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

KEY PLAN

CONSTRUCTION DOCUMENTS

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Checked By:	ECM
Job Number.:	2023.113

LIGHTING DEMOLITION PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

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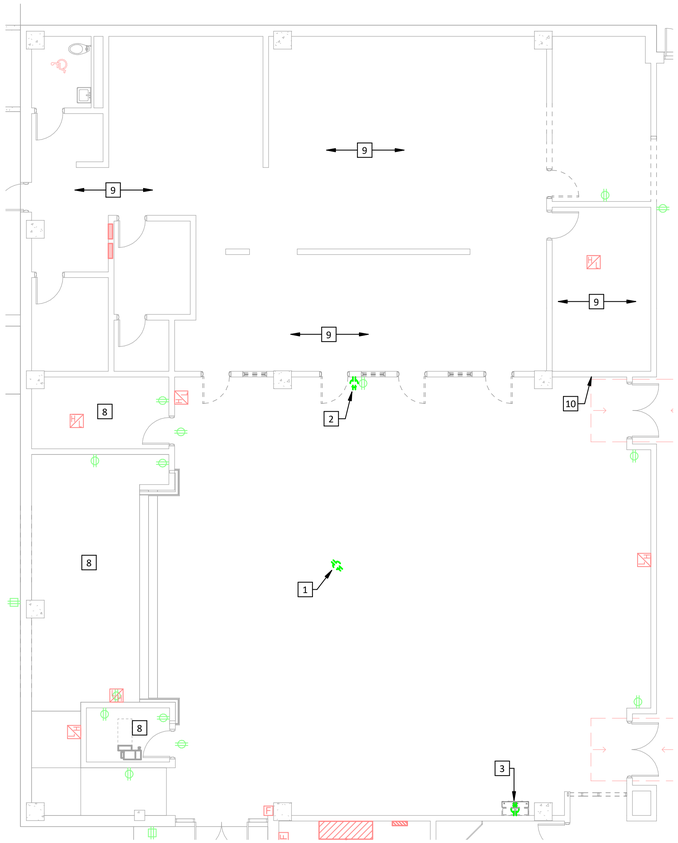
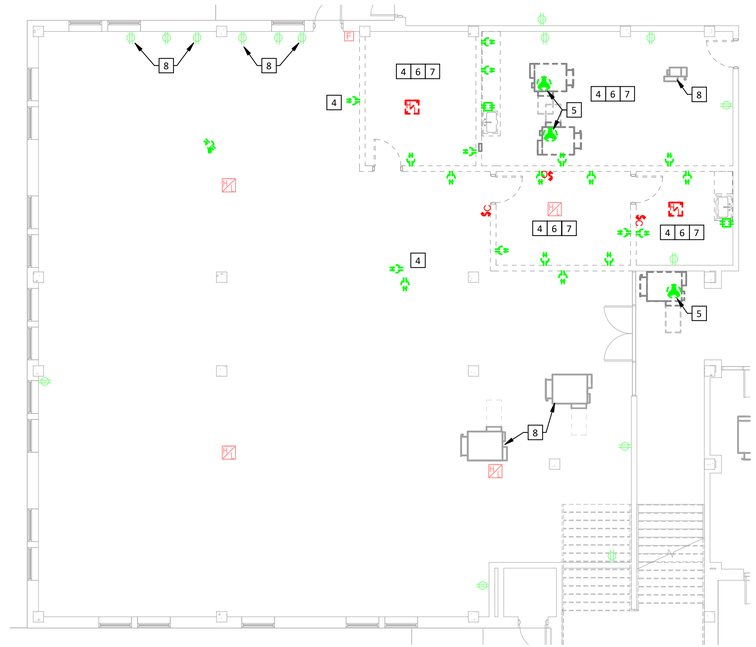


POWER DEMOLITION PLAN - CAFETORIUM

NORTH 1 Electrical 1/8" = 1'-0"



POWER DEMOLITION PLAN - LIBRARY

NORTH 2 Electrical 1/8" = 1'-0"

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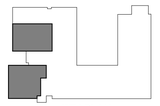
ELECTRICAL GENERAL NOTES:

1. ALL EXISTING RECEPTACLE OUTLETS INDICATED DASHED SHALL BE REMOVED BACK TO PANEL IF NOT SERVING OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. EXISTING RECEPTACLE OUTLETS SHOWN SCREEN AND ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO BRANCH CIRCUIT.
2. REFER TO GENERAL ELECTRICAL AND DEMOLITION NOTES ON SHEET E-0.1.
3. ALL EXISTING FIRE ALARM DEVICES INDICATED DASHED SHALL BE REMOVED BACK TO OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. EXISTING FIRE ALARM DEVICES SHOWN SCREEN AND ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO FIRE ALARM SYSTEM.
4. ALL EXISTING PUBLIC ADDRESS SOUND SYSTEM DEVICES INDICATED DASHED SHALL BE REMOVED BACK TO OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. EXISTING PUBLIC ADDRESS SOUND SYSTEM DEVICES SHOWN SCREEN AND ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO PUBLIC ADDRESS SOUND SYSTEM.

ELECTRICAL DEMOLITION KEYED NOTES, SHEET ED-2.1:

1. REMOVE EXISTING CEILING MOUNTED RECEPTACLE SERVING PROJECTOR. REMOVE BRANCH CIRCUIT BACK TO PANEL.
2. REMOVE EXISTING RECEPTACLE OUTLET. REMOVE BRANCH CIRCUIT BACK TO PANEL IF NOT SERVING OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO BRANCH CIRCUIT.
3. REMOVE EXISTING RECEPTACLE SERVING DRINKING FOUNTAIN BEING REMOVED. REMOVE BRANCH CIRCUIT BACK TO PANEL.
4. REMOVE ALL EXISTING RECEPTACLE OUTLETS, CONNECTIONS, OUTLET BOXES, PULL BOXES, JUNCTION BOXES, ASSOCIATED COMPONENTS FROM WALL BEING DEMOLISHED. REMOVE PORTION OF BRANCH CIRCUITS, CONDUIT AND WIRING. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW. ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO BRANCH CIRCUIT.
5. REMOVE EXISTING ELECTRICAL CONNECTION TO MECHANICAL EQUIPMENT BEING RELOCATED. RELOCATE EXISTING DISCONNECT SWITCH. MODIFY EXISTING BRANCH CIRCUIT AS REQUIRED.
6. REMOVE EXISTING PUBLIC ADDRESS SOUND SYSTEM SPEAKER, CABLING AND ASSOCIATED CALL-BACK SWITCH BACK TO NEXT DEVICE REMAINING IN SERVICE.
7. REMOVE EXISTING FIRE ALARM DEVICES. REMOVE CABLING BACK TO NEXT DEVICE REMAINING IN SERVICE.
8. EXISTING TO REMAIN.
9. NO WORK IN THIS AREA.
10. REMOVE COILING DOOR AND ALL ASSOCIATED COMPONENTS. REMOVE BRANCH CIRCUIT BACK TO PANEL AND ANY CONTROL WIRING BACK TO SOURCE.


KEY PLAN

CONSTRUCTION DOCUMENTS

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Checked By:	ECM
Job Number.:	2023.113

ELECTRICAL DEMOLITION PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

ED-2.1

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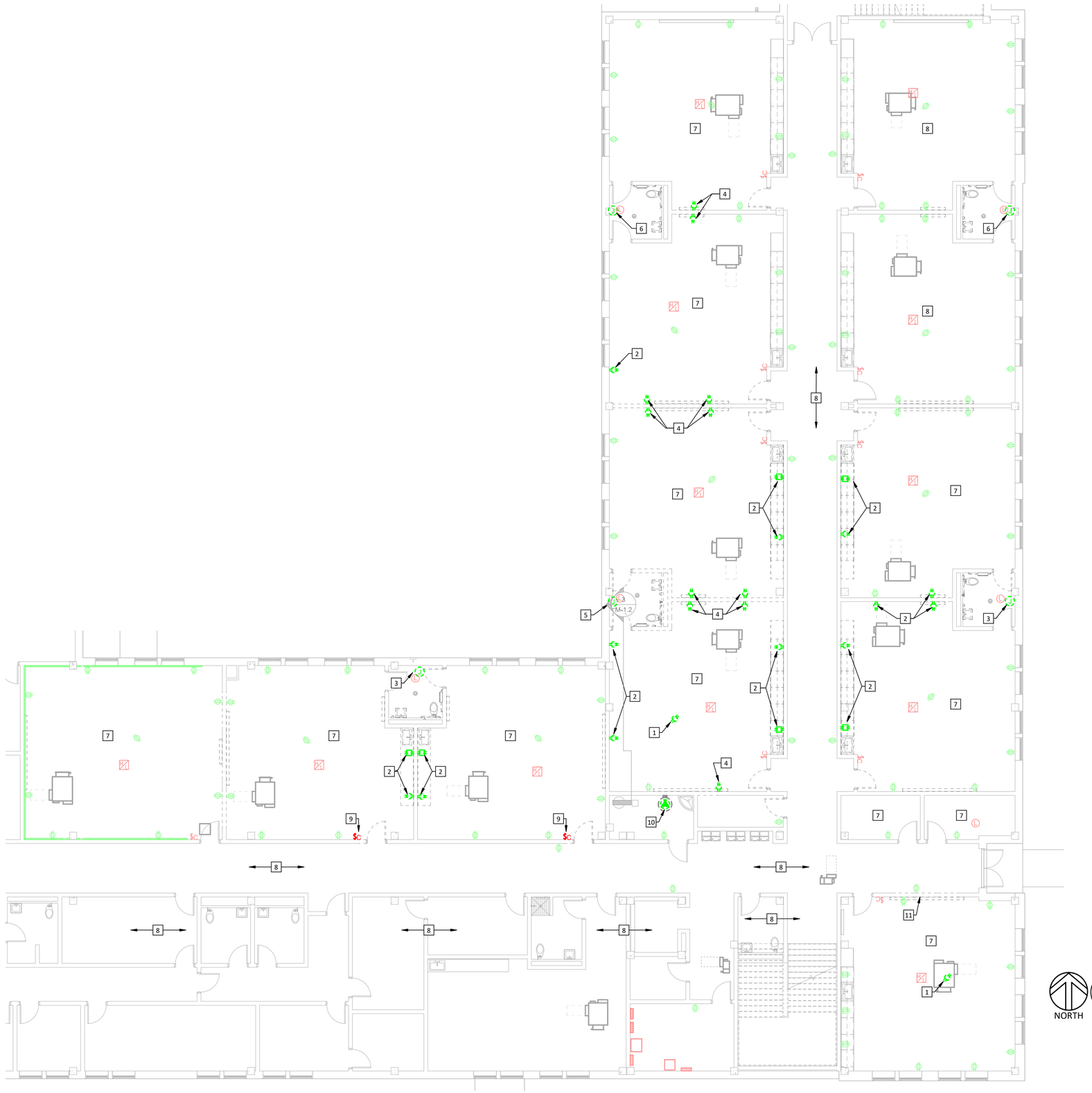

ELECTRICAL GENERAL NOTES:

1. ALL EXISTING RECEPTACLE OUTLETS INDICATED DASHED SHALL BE REMOVED BACK TO PANEL IF NOT SERVING OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. EXISTING RECEPTACLE OUTLETS SHOWN SCREEN AND ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO BRANCH CIRCUIT.
2. REFER TO GENERAL ELECTRICAL AND DEMOLITION NOTES ON SHEET E-0.1.
3. ALL EXISTING FIRE ALARM DEVICES INDICATED DASHED SHALL BE REMOVED BACK TO OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. EXISTING FIRE ALARM DEVICES SHOWN SCREEN AND ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO FIRE ALARM SYSTEM. PROTECT DURING CONSTRUCTION.
4. ALL EXISTING PUBLIC ADDRESS SOUND SYSTEM DEVICES INDICATED DASHED SHALL BE REMOVED BACK TO OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. EXISTING PUBLIC ADDRESS SOUND SYSTEM DEVICES SHOWN SCREEN AND ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO PUBLIC ADDRESS SOUND SYSTEM. PROTECT DURING CONSTRUCTION.

ELECTRICAL DEMOLITION KEYED NOTES, SHEET ED-2.2:

1. REMOVE EXISTING CEILING MOUNTED RECEPTACLE SERVING PROJECTOR. REMOVE BRANCH CIRCUIT BACK TO PANEL.
2. REMOVE EXISTING RECEPTACLE OUTLET. REMOVE BRANCH CIRCUIT BACK TO PANEL IF NOT SERVING OTHER WIRING DEVICES NOT SCHEDULED FOR DEMOLITION. ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO BRANCH CIRCUIT.
3. REMOVE EXISTING CONNECTION SERVING HAND DRYER. REMOVE BRANCH CIRCUIT BACK TO PANEL.
4. REMOVE ALL EXISTING RECEPTACLE OUTLETS, CONNECTIONS, OUTLET BOXES, PULL BOXES, JUNCTION BOXES, ASSOCIATED COMPONENTS FROM WALL BEING DEMOLISHED. REMOVE PORTION OF BRANCH CIRCUITS, CONDUIT AND WIRING. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW. ANY OUTLETS NOT SHOWN TO BE REMOVED SHALL REMAIN CONNECTED TO BRANCH CIRCUIT.
5. REMOVE EXISTING CONNECTION SERVING HAND DRYER. EXISTING BRANCH CIRCUIT TO REMAIN TO SERVE NEW. MODIFY AS REQUIRED.
6. REMOVE AND RELOCATE EXISTING CONNECTION SERVING HAND DRYER. MODIFY EXISTING BRANCH CIRCUIT AS REQUIRED.
7. EXISTING TO REMAIN EXCEPT WHERE INDICATED OTHERWISE.
8. NO WORK IN THIS AREA.
9. REMOVE EXISTING CALL-BACK SWITCH AND REINSTALL IN NEW WALL. REFER TO NEW WORK.
10. REMOVE CONNECTION TO WATER HEATER. REMOVE DISCONNECT SWITCH. REMOVE BRANCH CIRCUIT BACK TO PANEL.
11. VERIFY EXISTING CONDUIT ROUTING TO THESE OUTLETS. RE-ROUTE CONDUITS IF/AS NECESSARY TO AVOID PARTIAL WALL DEMOLITION FOR NEW GLASS AREA OPENINGS.

NORTH

1 ELECTRICAL DEMOLITION PLAN

Electrical

1/8" = 1'-0"

KEY PLAN

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Checked By:	ECM
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ELECTRICAL DEMOLITION PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

ED-2.2

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NORTH

1 ELECTRICAL OVERALL PLAN

Electrical 3/32" = 1'-0"

ELECTRICAL NEW WORK KEYED NOTES, SHEET E-1.0:

1. FINAL LOCATION OF ALL EQUIPMENT IN THIS ROOM SHALL BE IN ACCORDANCE WITH SCALED SHOP DRAWINGS SUBMITTED FOR REVIEW. MAINTAIN REQUIRED NEC CLEARANCES FOR EQUIPMENT IN THIS ROOM. SUBMIT SCALED SHOP DRAWINGS FOR REVIEW PRIOR TO ANY ROUGH-IN.
2. PROVIDE 3"CONCRETE HOUSEKEEPING PAD FOR NEW TRANFORMER.
3. MOUNT NEW TRANSFORMER ABOVE EXISTING TRANSFORMER. PROVIDE SUPPORT STAND AS INDICATED ON DETAIL 4, SHEET E-4.0.

KEY PLAN

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Checked By:	ECM
Job Number.:	2023.113

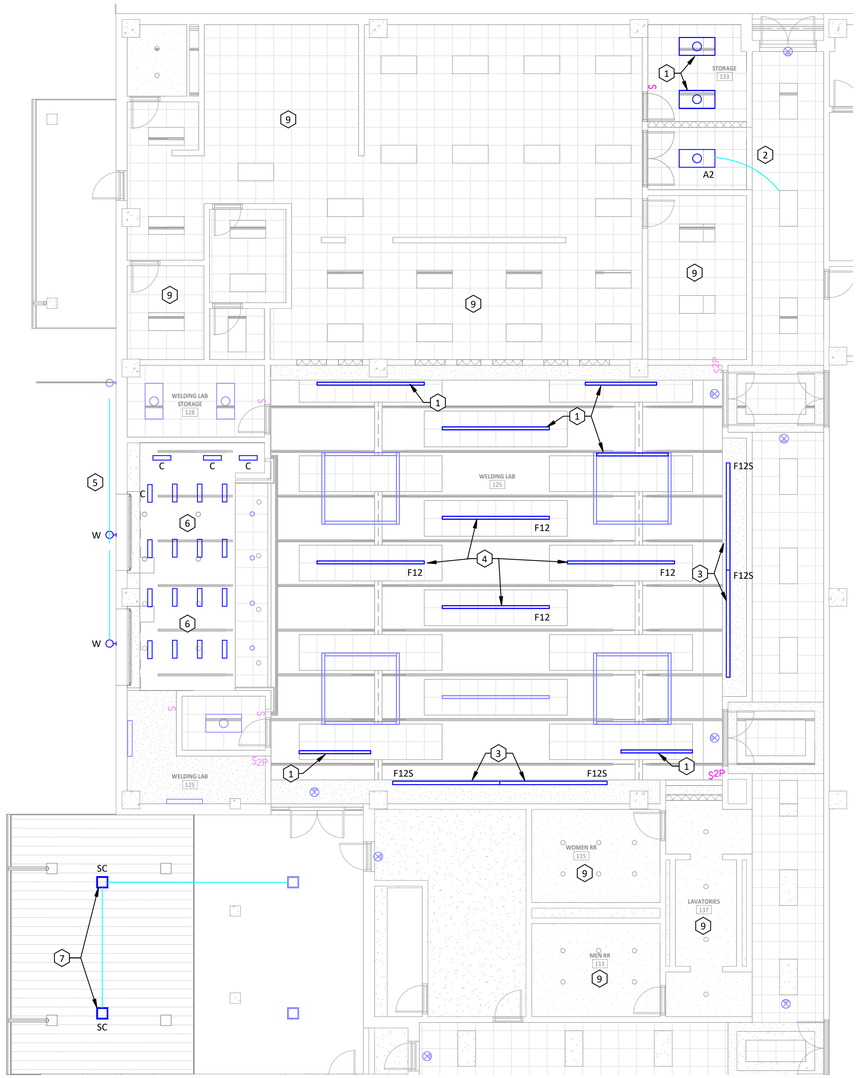
ELECTRICAL OVERALL PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

E-1.0



1 LIGHTING PLAN - WELDING LAB

Electrical 1/8" = 1'-0"

2 LIGHTING PLAN - MEP SHOPS

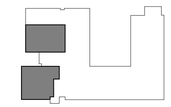
Electrical 1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL SHEETS FOR WALL MOUNTED EXTERIOR LIGHT FIXTURE LOCATIONS AND ELEVATIONS.
2. AT ALL WALL MOUNTED EXTERIOR LIGHT FIXTURES, PROVIDE WEATHER-TIGHT INSTALLATION BETWEEN JUNCTION BOX AND LIGHT FIXTURE.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN (RCP) FOR EXACT LOCATIONS/ELEVATIONS OF LIGHT FIXTURES. FURNISH FIXTURES WITH TRIM COMPATIBLE WITH THE TYPE OF CEILING AS INDICATED ON THE ARCHITECTURAL RCP.
4. COORDINATE THE INSTALLATION OF ELECTRICAL WORK ABOVE THE CEILING TO PROVIDE THE GREATEST POSSIBLE CLEARANCE FOR PLUMBING AND MECHANICAL EQUIPMENT. CONDUITS SHALL BE KEPT TIGHT TO STRUCTURE OR ROUTED THROUGH STRUCTURAL TRUSSES WHEREVER POSSIBLE.
5. COORDINATE PLACEMENT OF LIGHT FIXTURES WITH ACTUAL INSTALLATION OF ALL OTHER TRADES, PRIOR TO ROUGH-IN OF SUCH TRADES.
6. COORDINATE ROUGH-IN OF LIGHTING DEVICES WITH ARCHITECTURAL ELEVATIONS, SECTIONS AND DETAILS. INSTALL DEVICE BOXES FLUSH WITH FINISHED SURFACE.
7. FURNISH DEDICATED NEUTRAL CONDUCTOR FOR ALL SINGLE PHASE CIRCUITS.
8. MINIMUM PHASE, NEUTRAL AND GROUND CONDUCTOR SIZES FOR LIGHTING CIRCUITS SHALL BE #10 CU.
9. ALL ABOVE-CEILING LOW VOLTAGE CABLING SHALL EITHER BE PLENUM-RATED OR INSTALLED IN LISTED CONDUIT, IN ACCORDANCE WITH 2017 NEC ARTICLE 300.22 (C) (1). CABLING THAT IS NOT INSTALLED IN CONDUIT SHALL BE SUPPORTED BY J-HOOKS SPACED NOT MORE THAN 5 FT ON CENTER.
10. LOW VOLTAGE CABLING ABOVE INACCESSIBLE CEILINGS SHALL BE INSTALLED IN CONDUIT.
11. REFER TO SHEET E-3.0 FOR LIGHT FIXTURE SCHEDULE.
12. PROVIDE U.L. LISTED FIRE STOP SYSTEMS AT ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED PARTITIONS. SEAL AROUND CONDUIT PENETRATIONS THROUGH NON-RATED PARTITIONS WITH JOINT COMPOUND OR GROUT. REFER TO ARCHITECTURAL SHEETS FOR FIRE-RATED PARTITIONS.
13. FOR LOW VOLTAGE 0-10V LIGHTING CONTROL CABLING, PROVIDE TWISTED, SHIELDED PAIR, WITH SHIELD SOLIDLY GROUNDED AT THE SOURCE.
14. ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH STRUCTURE. REFER TO ARCHITECTURAL SHEETS FOR FURTHER INFORMATION.
15. DO NOT INSTALL JUNCTION BOXES OR LIGHTING CONTROL MODULES, POWER PACKS, ETC. ABOVE INACCESSIBLE CEILINGS.
16. MAINTAIN MINIMUM 24" SEPARATION BETWEEN ALL LOW VOLTAGE CABLE PATHWAYS AND ELECTRICAL FEEDERS/BRANCH CIRCUITS, WHEREVER THEY ARE PARALLEL. FEEDERS/BRANCH CIRCUITS MAY CROSS PERPENDICULAR TO CABLE PATHWAY WITH MINIMUM 4" SEPARATION.
17. REFER TO ELECTRICAL SYMBOLS LEGEND ON SHEET E-0.1.
18. REFER TO ELECTRICAL DETAILS SHEET E-4.0.

ELECTRICAL NEW WORK KEYED NOTES, SHEET E1.1:

1. NEW LOCATION OF EXISTING LIGHT FIXTURES. MODIFY EXISTING BRANCH CIRCUIT AS REQUIRED.
2. CONNECT TO EXISTING BRANCH CIRCUIT.
3. CONNECT TO EXISTING BRANCH CIRCUIT. MOUNT FIXTURE TO DRYWALL SOFFIT.
4. MOUNT NEW FIXTURES TO MATCH EXISTING LIGHT FIXTURE ELEVATION.
5. CONNECT TO EXISTING EXTERIOR LIGHTING BRANCH CIRCUIT. THROUGH EXISTING EXTERIOR LIGHTING CONTROLS. VERIFY EXISTING CIRCUIT NUMBER, AS REQUIRED. MODIFY BRANCH CIRCUIT AS REQUIRED.
6. EXISTING LIGHT FIXTURES TO BE LOWERED AND SUSPENDED APPROXIMATELY 14'-0" A.F.F. TO BOTTOM OF FIXTURE. PROVIDE ALL NECESSARY MOUNTING ACCESSORIES. COORDINATE LOCATION OF LIGHT FIXTURES WITH OVERHEAD DOOR, STRUCTURE, ETC.
7. MOUNT LIGHT FIXTURES TO UNDERSIDE OF CANOPY. COORDINATE FINAL LOCATION WITH CANOPY FEATURES. PROVIDE ALL NECESSARY MOUNTING ACCESSORIES. INSTALL AND MOUNT FIXTURES AND CONDUIT IN A MANNER APPROVED BY THE CANOPY SYSTEM MANUFACTURER. COORDINATE WITH THE CANOPY INSTALLER, AS REQUIRED. ROUTE CONDUIT CONCEALED ABOVE CANOPY SOFFIT. PAINT ALL EXPOSED CONDUIT TO MATCH THE CANOPY.
8. SUSPEND LIGHT FIXTURES APPROXIMATELY 11'-0" A.F.F. TO BOTTOM OF FIXTURE. PROVIDE ALL NECESSARY MOUNTING ACCESSORIES. COORDINATE LOCATION OF LIGHT FIXTURES WITH MECHANICAL DUCTWORK, STRUCTURE, ETC. PRIOR TO ANY ROUGH-IN.
9. NO WORK IN THIS AREA.



KEY PLAN

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CONSTRUCTION DOCUMENTS

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
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Drawn By:	JM
Checked By:	ECM
Job Number::	2023.113

LIGHTING PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

E-1.1

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State of Texas Firm Registration No. F-19468

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL SHEETS FOR WALL MOUNTED EXTERIOR LIGHT FIXTURE LOCATIONS AND ELEVATIONS.
2. AT ALL WALL MOUNTED EXTERIOR LIGHT FIXTURES, PROVIDE WEATHER-TIGHT INSTALLATION BETWEEN JUNCTION BOX AND LIGHT FIXTURE.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN (RCP) FOR EXACT LOCATIONS/ELEVATIONS OF LIGHT FIXTURES. FURNISH FIXTURES WITH TRIM COMPATIBLE WITH THE TYPE OF CEILING AS INDICATED ON THE ARCHITECTURAL RCP.
4. COORDINATE THE INSTALLATION OF ELECTRICAL WORK ABOVE THE CEILING TO PROVIDE THE GREATEST POSSIBLE CLEARANCE FOR PLUMBING AND MECHANICAL EQUIPMENT. CONDUITS SHALL BE KEPT TIGHT TO STRUCTURE OR ROUTED THROUGH STRUCTURAL TRUSSES WHEREVER POSSIBLE.
5. COORDINATE PLACEMENT OF LIGHT FIXTURES WITH ACTUAL INSTALLATION OF ALL OTHER TRADES, PRIOR TO ROUGH-IN OF SUCH TRADES.
6. COORDINATE ROUGH-IN OF LIGHTING DEVICES WITH ARCHITECTURAL ELEVATIONS, SECTIONS AND DETAILS. INSTALL DEVICE BOXES FLUSH WITH FINISHED SURFACE.
7. FURNISH DEDICATED NEUTRAL CONDUCTOR FOR ALL SINGLE PHASE CIRCUITS.
8. MINIMUM PHASE, NEUTRAL AND GROUND CONDUCTOR SIZES FOR LIGHTING CIRCUITS SHALL BE #10 CU.
9. ALL ABOVE-CEILING LOW VOLTAGE CABLING SHALL EITHER BE PLENUM-RATED OR INSTALLED IN LISTED CONDUIT, IN ACCORDANCE WITH 2017 NEC ARTICLE 300.22 (C) (1). CABLING THAT IS NOT INSTALLED IN CONDUIT SHALL BE SUPPORTED BY J-HOOKS SPACED NOT MORE THAN 5 FT ON CENTER.
10. LOW VOLTAGE CABLING ABOVE INACCESSIBLE CEILINGS SHALL BE INSTALLED IN CONDUIT.
11. REFER TO SHEET E-3.0 FOR LIGHT FIXTURE SCHEDULE.
12. PROVIDE U.L. LISTED FIRE STOP SYSTEMS AT ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED PARTITIONS. SEAL AROUND CONDUIT PENETRATIONS THROUGH NON-RATED PARTITIONS WITH JOINT COMPOUND OR GROUT. REFER TO ARCHITECTURAL SHEETS FOR FIRE-RATED PARTITIONS.
13. FOR LOW VOLTAGE 0-10V LIGHTING CONTROL CABLING, PROVIDE TWISTED, SHIELDED PAIR, WITH SHIELD SOLIDLY GROUNDED AT THE SOURCE.
14. ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH STRUCTURE. REFER TO ARCHITECTURAL SHEETS FOR FURTHER INFORMATION.
15. DO NOT INSTALL JUNCTION BOXES OR LIGHTING CONTROL MODULES, POWER PACKS, ETC. ABOVE INACCESSIBLE CEILINGS.
16. MAINTAIN MINIMUM 24" SEPARATION BETWEEN ALL LOW VOLTAGE CABLE PATHWAYS AND ELECTRICAL FEEDERS/BRANCH CIRCUITS, WHEREVER THEY ARE PARALLEL. FEEDERS/BRANCH CIRCUITS MAY CROSS PERPENDICULAR TO CABLE PATHWAY WITH MINIMUM 4" SEPARATION.
17. REFER TO ELECTRICAL SYMBOLS LEGEND ON SHEET E-0.1.
18. REFER TO ELECTRICAL DETAILS SHEET E-4.0.

ELECTRICAL NEW WORK KEYED NOTES, SHEET E1.2:

1. NEW LOCATION OF EXISTING LIGHT FIXTURES. MODIFY EXISTING BRANCH CIRCUIT AS REQUIRED.
2. CONNECT TO EXISTING BRANCH CIRCUIT.
3. MOUNT FIXTURE CENTERED ABOVE MIRROR. COORDIANTE EXACT LOCATION WITH ARCHTECT.
4. NEW LOCATION OF EXISTING LIGHT SWITCH. MODIFY BRANCH CIRCUIT/CONTROL WIRING AS REQUIRED.
5. EXISTING TO REMAIN.
6. NO WORK IN THIS AREA.
7. MODIFY EXISTING CONTROL WIRING. ONE POLE TO CONTROL LIGHT FIXTURES CLOSE TO TV, THE OTHER POLE TO CONTROL THE REST OF THE LIGHT FIXTURES IN THE SPACE.
8. FIXTURES TO BE CONTROLLED THRU EXISTING CEILING MOUNTED OCCUPANCY SENSOR.

NORTH

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

KEY PLAN

CONSTRUCTION DOCUMENTS

STATE OF TEXAS
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Drawn By:	JM
Checked By:	ECM
Job Number.:	2023.113

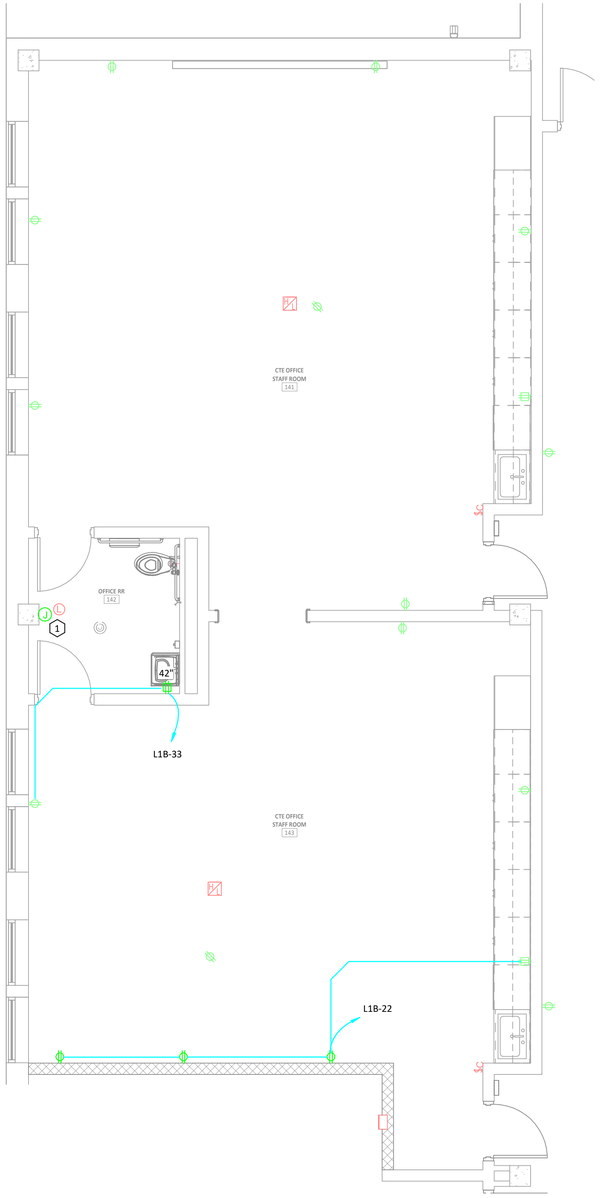
LIGHTING PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:
E-1.2

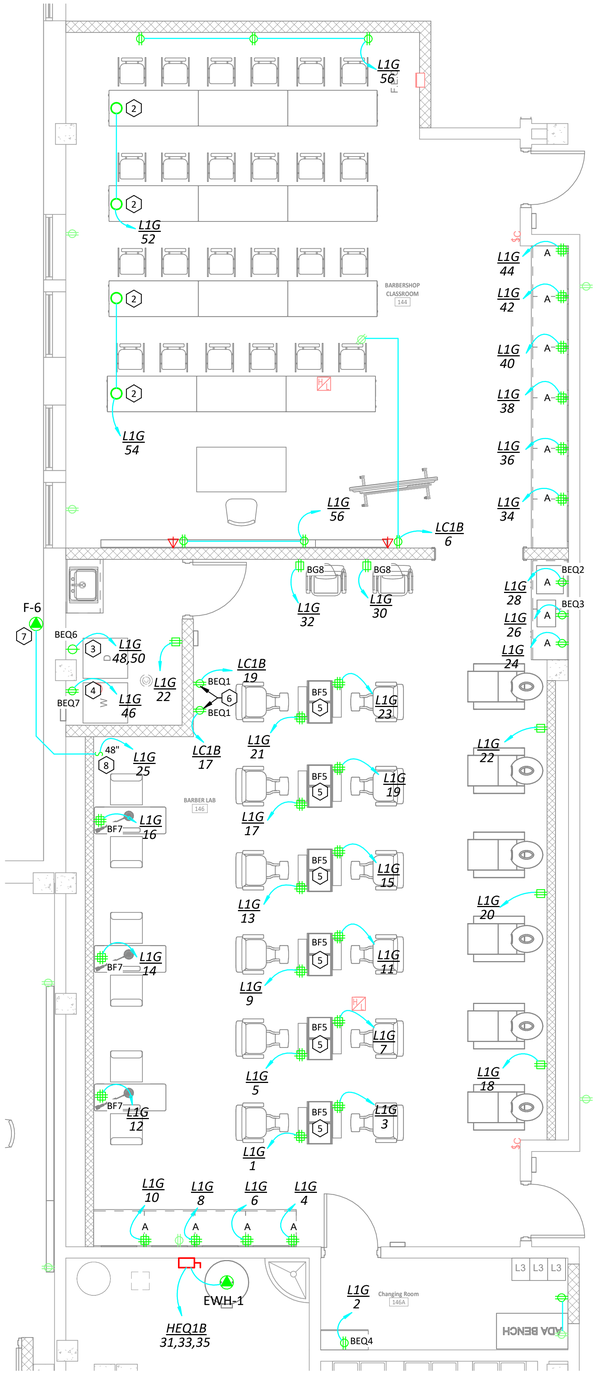
1/31/2024 11:55:48 AM



1 ENLARGED CTE OFFICES

Electrical 1/4" = 1'-0"

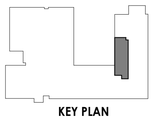
NORTH



2 ENLARGED BARBERSHOP LAB

Electrical 1/4" = 1'-0"

NORTH



KEY PLAN

ELECTRICAL GENERAL NOTES:

1. REFER TO GENERAL ELECTRICAL NOTES ON SHEET E-0.1.
2. REFER TO OVERALL FLOOR PLAN, SHEET E-1.0 FOR PANEL LOCATIONS.

ELECTRICAL NEW WORK KEYED NOTES, SHEET E-2.1:

1. NEW LOCATION OF EXISTING HAND DRYER. MODIFY EXISTING BRANCH CIRCUIT AS REQUIRED. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
2. PROVIDE 6" DIAMETER POKE THRU DEVICE FOR POWER, LEGRAND EVOLUTION 6AT, WITH ONE 20A DUPLEX RECEPTACLE CENTER MOUNT. COVER PLATE SHALL BE FLUSH WITH FINISHED FLOOR. COORDINATE FINISH WITH ARCHITECT. ROUTE BRANCH CIRCUIT IN 3/4"CONDUIT BELOW FLOOR TO PANEL.
3. PROVIDE OUTLET AS REQUIRED FOR CLOTHES DRYER, 30A, 208V, 1 PH. LOCATE 48" A.F.F. VERIFY RECEPTACLE ELEVATION AND NEMA CONFIGURATION WITH DRYER BEING PROVIDED AND PROVIDE PROPER RECEPTACLE.
4. PROVIDE OUTLET AS REQUIRED FOR CLOTHES WASHER, 20A, 120V. LOCATE 48" A.F.F. CONNECT TO EXISTING CIRCUIT SERVING HAND DRYER REMOVED.
5. CONNECT RECEPTACLES PROVIDED WITH ISLAND. ROUTE WITH CONCEALED RACEWAY. MOUNTED FLUSH WITH MILLWORK. VERIFY EXACT LOCATION AND ALL INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS. ROUTE CONDUIT FROM BELOW SLAB/UNDERFLOOR INTO MILLWORK AS REQUIRED.
6. PROVIDE OUTLET FOR CHARGING STATION. 120V. COORDINATE MOUNTING HEIGHT WITH ARCHITECT OR OWNER'S REPRESENTATIVE.
7. PROVIDE OUTLET AND CONNECTION AS REQUIRED FOR WALL MOUNTED FAN. SEE MECHANICAL PLANS FOR ACTUAL LOCATION OF UNIT. REFER TO ELECTRICAL CONNECTION SCHEDULE ON SHEET E-3.1.
8. PROVIDE INDUSTRIAL GRADE LIGHTED TOGGLE SWITCH FOR F-6. PROVIDE ENGRAVED LABEL "MANICURE EXHAUST FAN"

ELECTRICAL CONNECTION SCHEDULE

MARK	EQUIPMENT SERVED	LOAD	VOLTS/PHASE	BRANCH CIRCUIT	NOTES
BF5	STYLING BOOTH	1800 VA	120/1	30.2	
BF7	MANICURE STATION	360 VA	120/1	30.2	
BF8	SALON DRYER CHAIR	8 A	120/1	30.2	
BEQ1	WALL MTD.CHARGING STATION	1260 VA	120/1	20.2	
BEQ2	UV SANITIZER LIGHT	10 A	120/1	20.2	
BEQ3	TOWEL STEAMER	700W	120/1	20.2	
BEQ4	WIG DRYER	13 A	120/1	30.2	
BEQ6	ELECTRIC DRYER	30 A	208/1	30.2	1, 2
BEQ7	FRONT LOAD WASHER	15 A	120/1	20.2	1

GENERAL NOTES:

A. LOAD INDICATED IS NOMINAL. PROVIDE CONDUIT, CONDUCTORS, CIRCUIT BREAKERS, SWITCHES, FUSES, STARTERS, ETC. AS REQUIRED BY ACTUAL EQUIPMENT FURNISHED. COORDINATE WITH OTHER TRADES, AS REQUIRED.

B. ALL EQUIPMENT ROUGH-INS INDICATED ARE BASED ON DESIGNED EQUIPMENT. VERIFY ALL LOCATIONS AND RECEPTACLE TYPES WITH ACTUAL EQUIPMENT SUPPLIED. VERIFY ALL NAMEPLATE DATA FOR COMPLIANCE.

C. WHERE REQUIRED, FOR FINAL CONNECTION TO ELECTRICAL SUPPLY, PROVIDE AND INSTALL CORD AND CAP TO ACCOMMODATE EQUIPMENT SERVED.

ELECTRICAL CONNECTION NOTES:

1. PROVIDE CORD, PLUG AND RECEPTACLE OF NEMA CONFIGURATION TO MATCH EQUIPMENT REQUIREMENTS.
2. PROVIDE NEMA L5-30R RECEPTACLE IN RECESSED BOX.

BRANCH CIRCUIT SCHEDULE:

20.2 2-#12, 1-#12 GROUND IN 1/2" CONDUIT.

30.2 2-#10, 1-#10 GROUND IN 1/2" CONDUIT.

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Drawn By: JM
Checked By: ECM
Job Number.: 2023.113

ENLARGED ELECTRICAL PLANS

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

E-2.1

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ELECTRICAL CONNECTION SCHEDULE

MARK	EQUIPMENT SERVED	LOAD	VOLTS/PHASE	BRANCH CIRCUIT	NOTES
DEQ1	WALL MTD.CHARGING STATION	1260 VA	120/1	20.2	
DEQ3	DENTAL CHAIR	5 A	120/1	30.2	1
DEQ4	X-RAY MACHINE	8 A	120/1	30.2	
DEQ5	DENTAL VIBRATOR	120 W	120/1	20.2	
DEQ6	VACUUM FORMER	7 A	120/1	20.2	
DEQ7	DENTAL TRIMMER	900 W	120/1	20.2	
DEQ8	UTRASONIC CLEANER	900 W	120/1	20.2	

GENERAL NOTES:

A. LOAD INDICATED IS NOMINAL. PROVIDE CONDUIT, CONDUCTORS, CIRCUIT BREAKERS, SWITCHES, FUSES, STARTERS, ETC. AS REQUIRED BY ACTUAL EQUIPMENT FURNISHED. COORDINATE WITH OTHER TRADES, AS REQUIRED.

B. ALL EQUIPMENT ROUGH-INS INDICATED ARE BASED ON DESIGNED EQUIPMENT. VERIFY ALL LOCATIONS AND RECEPTACLE TYPES WITH ACTUAL EQUIPMENT SUPPLIED. VERIFY ALL NAMEPLATE DATA FOR COMPLIANCE.

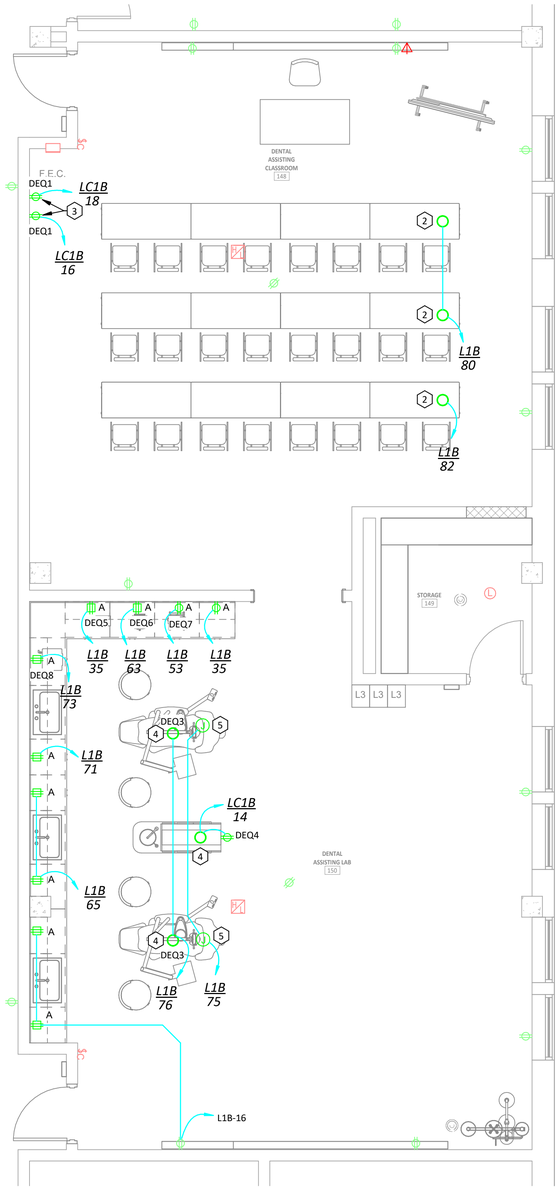
C. WHERE REQUIRED, FOR FINAL CONNECTION TO ELECTRICAL SUPPLY, PROVIDE AND INSTALL CORD AND CAP TO ACCOMMODATE EQUIPMENT SERVED.

ELECTRICAL CONNECTION NOTES:

1. PROVIDE CORD, PLUG AND RECEPTACLE OF NEMA CONFIGURATION TO MATCH EQUIPMENT REQUIREMENTS.

BRANCH CIRCUIT SCHEDULE:

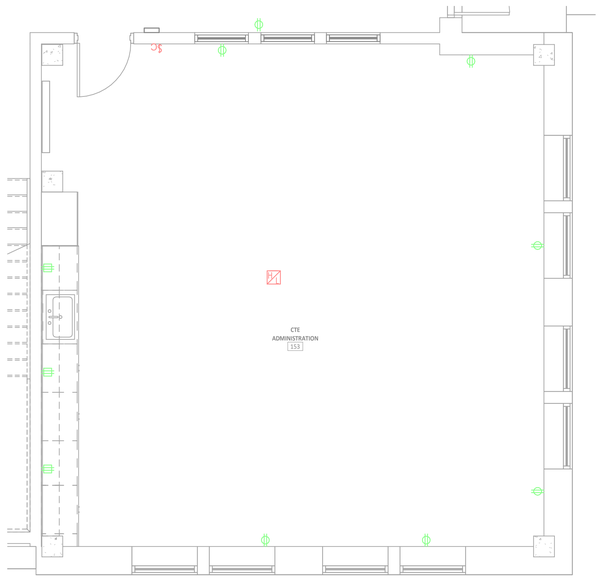
20.2 2-#12, 1-#12 GROUND IN 1/2" CONDUIT.
30.2 2-#10, 1-#10 GROUND IN 1/2" CONDUIT.



ENLARGED DENTAL ASSISTING LAB

1 Electrical 1/4" = 1'-0"

NORTH



ENLARGED ADMINISTRATION

2 Electrical 1/4" = 1'-0"

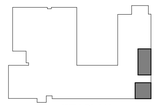
NORTH

ELECTRICAL GENERAL NOTES:

1. REFER TO GENERAL ELECTRICAL NOTES ON SHEET E-0.1.
2. REFER TO OVERALL FLOOR PLAN, SHEET E-1.0 FOR PANEL LOCATIONS.

ELECTRICAL NEW WORK KEYED NOTES, SHEET E-2.2:

1. NEW LOCATION OF EXISTING HAND DRYER. MODIFY EXISTING BRANCH CIRCUIT AS REQUIRED. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
2. PROVIDE 6" DIAMETER POKE THRU DEVICE FOR POWER, LEGRAND EVOLUTION 6AT, WITH ONE 20A DUPLEX RECEPTACLE CENTER MOUNT. COVER PLATE SHALL BE FLUSH WITH FINISHED FLOOR. COORDINATE FINISH WITH ARCHITECT. ROUTE BRANCH CIRCUIT IN 3/4"CONDUIT BELOW FLOOR TO PANEL.
3. PROVIDE OUTLET FOR CHARGING STATION. 120V. COORDINATE MOUNTING HEIGHT WITH ARCHITECT OR OWNER'S REPRESENTATIVE.
4. PROVIDE 6" DIAMETER POKE THRU DEVICE FOR POWER TO EQUIPMENT, LEGRAND EVOLUTION 6AT. COVER PLATE SHALL BE FLUSH WITH FINISHED FLOOR. COORDINATE FINISH WITH ARCHITECT. COORDINATE EXACT LOCATION AND CONNECTIONS WITH EQUIPMENT PROVIDED. ROUTE BRANCH CIRCUIT IN 3/4"CONDUIT BELOW FLOOR TO PANEL.
5. PROVIDE J-BOX WITH BLANK COVER IN CEILING FOR FUTURE CEILING MOUNTED EQUIPMENT AND/OR CEILING MOUNTED LIGHT. PROVIDE J-BOX ABOVE CEILING, SECURE TO STRUCTURE AND FLEXIBLE CONDUIT CONNECTION TO OUTLET. PROVIDE LABEL.



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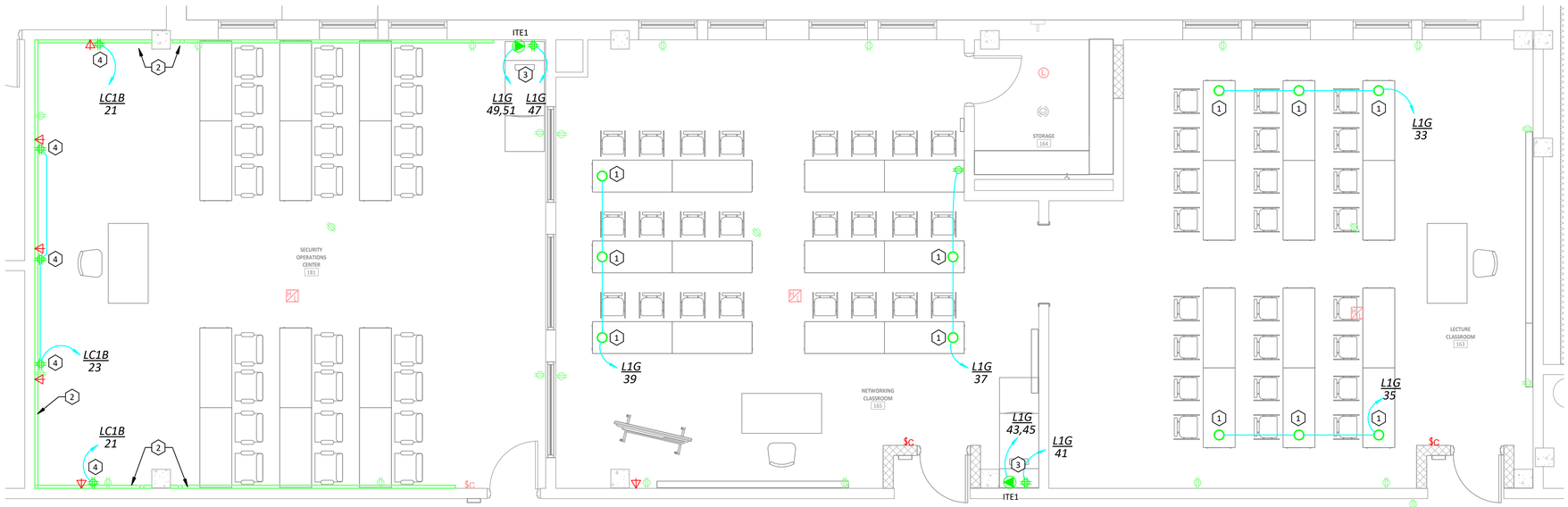
Drawn By: JM
Checked By: ECM
Job Number.: 2023.113

ENLARGED ELECTRICAL PLANS

No.	DATE	DESCRIPTION

Date: 04/24/23
Drawing No:
E-2.2

1/31/2024 11:55:51 AM



NORTH

1 ENLARGED SOC & NETWORKING LAB

Electrical

1/4" = 1'-0"

ELECTRICAL CONNECTION SCHEDULE

MARK	EQUIPMENT SERVED	LOAD	VOLTS/PHASE	BRANCH CIRCUIT	NOTES
ITE1	42U SMARTRACK CABINET	5KW	208/1	30.2	1, 2

GENERAL NOTES:

A. LOAD INDICATED IS NOMINAL. PROVIDE CONDUIT, CONDUCTORS, CIRCUIT BREAKERS, SWITCHES, FUSES, STARTERS, ETC. AS REQUIRED BY ACTUAL EQUIPMENT FURNISHED. COORDINATE WITH OTHER TRADES, AS REQUIRED.

B. ALL EQUIPMENT ROUGH-INS INDICATED ARE BASED ON DESIGNED EQUIPMENT. VERIFY ALL LOCATIONS AND RECEPTACLE TYPES WITH ACTUAL EQUIPMENT SUPPLIED. VERIFY ALL NAMEPLATE DATA FOR COMPLIANCE.

C. WHERE REQUIRED, FOR FINAL CONNECTION TO ELECTRICAL SUPPLY, PROVIDE AND INSTALL CORD AND CAP TO ACCOMMODATE EQUIPMENT SERVED.

ELECTRICAL CONNECTION NOTES:

1. PROVIDE CORD, PLUG AND RECEPTACLE OF NEMA CONFIGURATION TO MATCH EQUIPMENT REQUIREMENTS.

2. CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED NON-FUSED NEC DISCONNECT, IN SIGHT OF AND NOT MORE THAN 40 FT. FROM EQUIPMENT SERVED. PROVIDE NEMA L5-30R RECEPTACLE.

BRANCH CIRCUIT SCHEDULE:

30.2 2-#10, 1-#10 GROUND IN 1/2" CONDUIT.

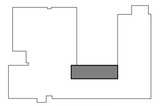
ELECTRICAL GENERAL NOTES:

1. REFER TO GENERAL ELECTRICAL NOTES ON SHEET E-0.1.

2. REFER TO OVERALL FLOOR PLAN, SHEET E-1.0 FOR PANEL LOCATIONS.

ELECTRICAL NEW WORK KEYED NOTES, SHEET E-2.3:

1. PROVIDE 6" DIAMETER POKE THRU DEVICE FOR POWER, LEGRAND EVOLUTION 6AT, WITH ONE 20A DUPLEX RECEPTACLE CENTER MOUNT. COVER PLATE SHALL BE FLUSH WITH FINISHED FLOOR. COORDINATE FINISH WITH ARCHITECT. ROUTE BRANCH CIRCUIT IN 3/4"CONDUIT BELOW FLOOR TO PANEL.
2. EXISTING WIREMOLD RACEWAY TO REMAIN.
3. PROVIDE ONE QUAD NEMA 5-20R, ONE L6-30R RECEPTACLE FOR COMMUNICATION EQUIPMENT RACK. CONNECT TO CIRCUIT INDICATED. MOUNT RECEPTACLES 12" ABOVE LADDER RACK ON THE REAR SIDE OF THE RELAY RACK. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.
4. PROVIDE FLUSH MOUNTED TV BOX ASSEMBLY HUBBELL NSAV62M OR EQUAL. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.



KEY PLAN

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Job Number.:	2023.113

ENLARGED SOC & NETWORKING LAB

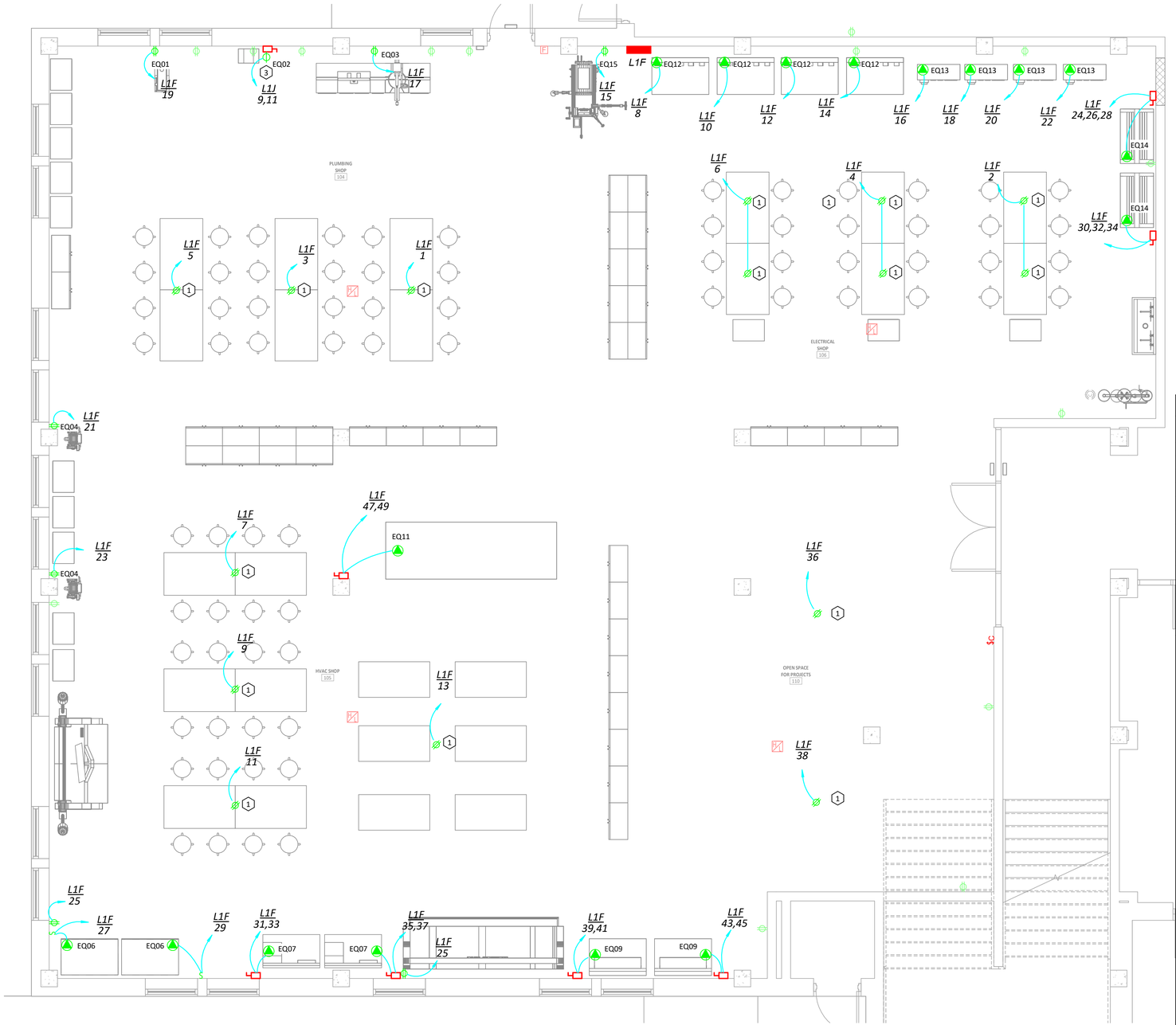
No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

E-2.3

1/31/2024 11:55:43 AM



ELECTRICAL CONNECTION SCHEDULE

MARK	EQUIPMENT SERVED	LOAD	VOLTS/PHASE	BRANCH CIRCUIT	NOTES
EQ01	DRILL PRESS	7.5 A	120/1	20.2	1
EQ02	STICK WELDER	50 A	240/1	50.2	4
EQ03	MITER SAW	15 FLA	120/1	30.2	2
EQ04	BENCH GRINDER	6.3 A	120/1	20.2	1
EQ06	HEAT PUMP TRAINER	10 A	120/1	20.2	1
EQ07	BASIC REFRIGERATION TRAINER	30 A	208/1	30.2	3
EQ09	MINI SPLIT TRAINER	20 A	208/1	20.2	3
EQ11	AIR & HYDRONIC TRAINER	30 A	208/1	30.2	3
EQ12	WIRING SERVICE TRAINER	20 A	120/1	20.2	2
EQ13	RESIDENTIAL TRAINER	15 A	120/1	20.2	2
EQ14	BASIC CONTROL TRAINER	20 A	208/3	20.4	3
EQ15	THREADING MACHINE	1/2 HP	120/1	30.2	2

GENERAL NOTES:

A. LOAD INDICATED IS NOMINAL. PROVIDE CONDUIT, CONDUCTORS, CIRCUIT BREAKERS, SWITCHES, FUSES, STARTERS, ETC. AS REQUIRED BY ACTUAL EQUIPMENT FURNISHED. COORDINATE WITH OTHER TRADES, AS REQUIRED.

B. ALL EQUIPMENT ROUGH-INS INDICATED ARE BASED ON DESIGNED EQUIPMENT. VERIFY ALL LOCATIONS AND RECEPTACLE TYPES WITH ACTUAL EQUIPMENT SUPPLIED. VERIFY ALL NAMEPLATE DATA FOR COMPLIANCE.

C. WHERE REQUIRED, FOR FINAL CONNECTION TO ELECTRICAL SUPPLY, PROVIDE AND INSTALL CORD AND CAP TO ACCOMMODATE EQUIPMENT SERVED.

ELECTRICAL CONNECTION NOTES:

1. CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED MOTOR RATED TOGGLE DISCONNECT SWITCH, MOUNTED TO WALL OR STRUCTURE, NO MORE THAN 24" FROM EQUIPMENT SERVED.
2. CIRCUIT BREAKER IN ADJACENT ELECTRICAL PANEL TO SERVE AS SAFETY DISCONNECTING MEANS.
3. CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED NON-FUSED NEC DISCONNECT, IN SIGHT OF AND NOT MORE THAN 40 FT. FROM EQUIPMENT SERVED.
4. REFER TO KEYED NOTE ON ELECTRICAL PLAN.

BRANCH CIRCUIT SCHEDULE:

20.2 2-#12, 1-#12 GROUND IN 1/2" CONDUIT.
20.3 3-#12, 1-#12 GROUND IN 1/2" CONDUIT.
20.4 4-#12, 1-#12 GROUND IN 1/2" CONDUIT.
30.2 2-#10, 1-#10 GROUND IN 1/2" CONDUIT.
50.2 2-#8, 1-#10 GROUND IN 3/4" CONDUIT.

NORTH

1 ENLARGED MEP SHOPS
Electrical 1/4" = 1'-0"

KEY PLAN

ELECTRICAL GENERAL NOTES:

1. REFER TO GENERAL ELECTRICAL NOTES ON SHEET E-0.1.
2. REFER TO OVERALL FLOOR PLAN, SHEET E-1.0 FOR PANEL LOCATIONS.

ELECTRICAL NEW WORK KEYED NOTES, SHEET E-2.4

1. PROVIDE RECEPTACLE OUTLET IN CEILING FOR CORD REEL. COORDINATE LOCATION WITH ARCHITECT. PROVIDE J-BOX ABOVE CEILING, SECURE TO STRUCTURE AND FLEXIBLE CONDUIT CONNECTION TO OUTLET. PROVIDE POWER CORD REEL HUBBELL #HBLI35123R220M1 OR EQUAL. PROVIDE PIVOT BASE, MOUNTING BRACKET, BALL STOP AND ALL REQUIRED ACCESSORIES REQUIRED. SET CORD LENGTH TO TABLE HEIGHT OR AS DIRECTED BY OWNER'S REPRESENTATIVE
2. PROVIDE 60A,FUSED DISCONNECT SWITCH FUSED AT 50 AMPS AND 50A TWIST-LOCK RECEPTACLE HUBBELL #CS8269 WITH CAST ALUMINUM COVER HUBBELL #HBL7770 FOR WELDER. COORDINATE FINAL WELDER SELECTION AND EXACT LOCATION WITH THE OWNER PRIOR TO ROUGH-IN. REFER TO ELECTRICAL CONNECTION SCHEDULE

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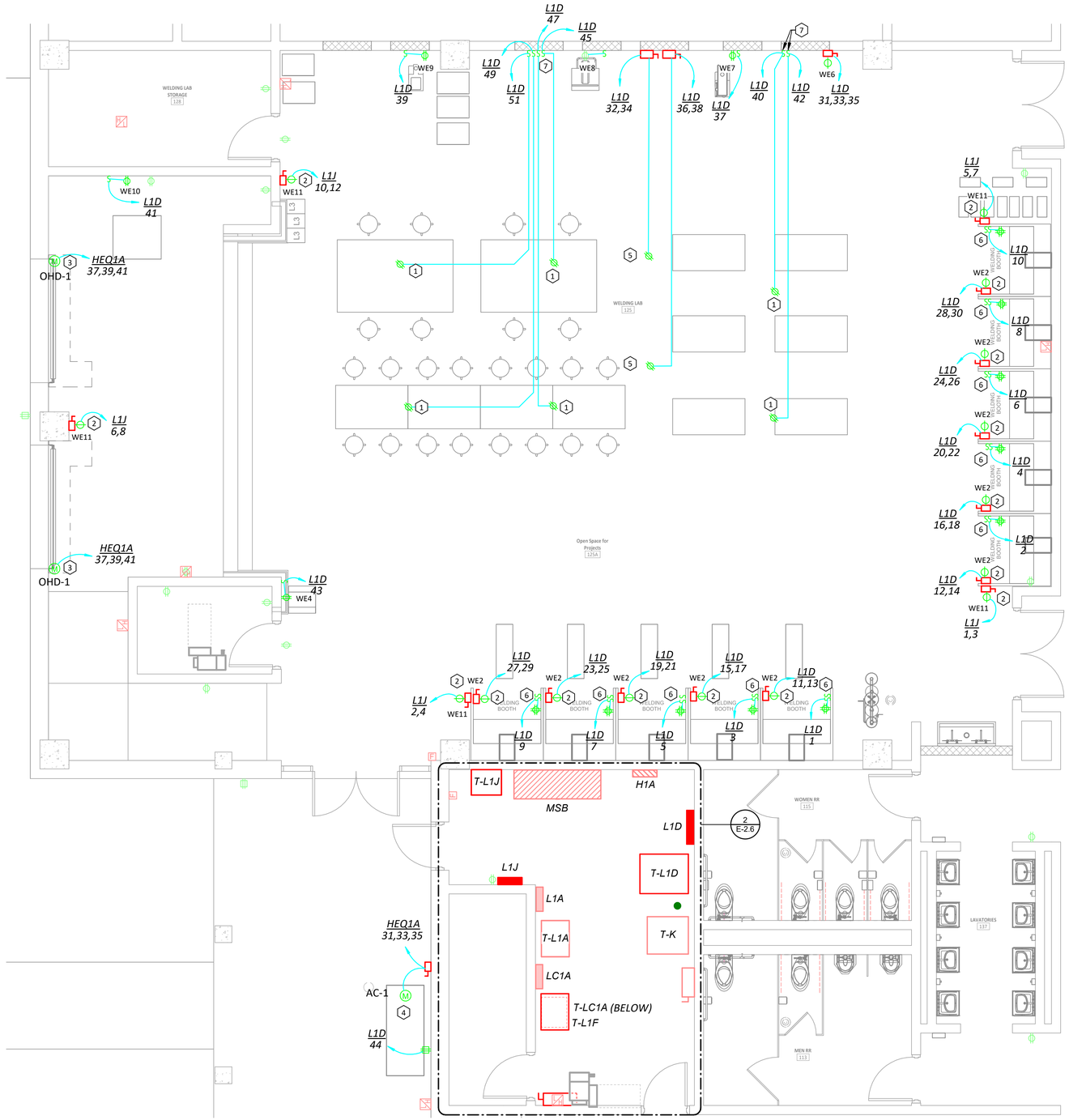
Drawn By: JM
Checked By: ECM
Job Number.: 2023.113

ENLARGED MEP SHOPS

No.	DATE	DESCRIPTION

Date: 04/24/23
Drawing No:
E-2.4

1/31/2024 11:55:53 AM



ELECTRICAL GENERAL NOTES:

1. REFER TO GENERAL ELECTRICAL NOTES ON SHEET E-0.1.
2. REFER TO OVERALL FLOOR PLAN, SHEET E-1.0 FOR PANEL LOCATIONS.

ELECTRICAL NEW WORK KEYED NOTES, SHEET E-2.5

1. PROVIDE RECEPTACLE OUTLET IN CEILING FOR CORD REEL. COORDINATE LOCATION WITH ARCHITECT. PROVIDE J-BOX ABOVE CEILING, SECURE TO STRUCTURE AND FLEXIBLE CONDUIT CONNECTION TO OUTLET. PROVIDE POWER CORD REEL HUBBELL #HBLI35123R220M1 OR EQUAL. PROVIDE PIVOT BASE, MOUNTING BRACKET, BALL STOP AND ALL REQUIRED ACCESSORIES REQUIRED. SET CORD LENGTH TO TABLE HEIGHT OR AS DIRECTED BY OWNER'S REPRESENTATIVE
2. PROVIDE 60A, FUSED DISCONNECT SWITCH FUSED AT 50 AMPS AND 50A TWIST-LOCK RECEPTACLE HUBBELL #CS8269 WITH CAST ALUMINUM COVER HUBBELL #HBL7770 FOR WELDER. COORDINATE FINAL WELDER SELECTION AND EXACT LOCATION WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN. REFER TO ELECTRICAL CONNECTION SCHEDULE.
3. PROVIDE CONNECTION TO MOTORIZED DOOR OPERATOR 480V/3PH. PROVIDE EMPTY CONDUITS WITH PULL CORDS FOR CONTROLS. PROVIDE NEC COMBINATION MOTOR STARTER AND DISCONNECT SWITCH WITH THERMAL OVERLOAD PROTECTION AND ROUGH-IN FOR SAFETY DEVICES. 3 #10,#10GND IN 3/4"C TO CIRCUIT INDICATED. PROVIDE ALL OTHER ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION. CONNECT PER MANUFACTURER REQUIREMENTS. ELECTRICAL CONTRACTOR TO PROVIDE LOW VOLTAGE WIRING. FINAL CONNECTIONS OF THE LOW VOLTAGE WIRING TO BE PROVIDED BY THE OVERHEAD DOOR SUBCONTRACTOR. COORDINATE LOCATION WITH OWNER'S REPRESENTATIVE. REFER TO DETAIL 3 SHEET E-4.0.
4. PROVIDE OUTLET AND CONNECTION TO AIR COMPRESSOR. COORDINATE EXACT LOCATION WITH THE OWNER;S REPRESENTATIVE PRIOR TO ROUGH-IN. REFER TO ELECTRICAL CONNECTION SCHEDULE.
5. PROVIDE RECEPTACLE OUTLET IN CEILING FOR CORD REEL. COORDINATE LOCATION WITH ARCHITECT. PROVIDE J-BOX ABOVE CEILING, SECURE TO STRUCTURE AND FLEXIBLE CONDUIT CONNECTION TO OUTLET. PROVIDE POWER CORD REEL HUBBELL #HBLI35103 OR EQUAL. PROVIDE PIVOT BASE, MOUNTING BRACKET, BALL STOP AND ALL REQUIRED ACCESSORIES REQUIRED. SET CORD LENGTH TO TABLE HEIGHT OR AS DIRECTED BY OWNER'S REPRESENTATIVE. PROVIDE TWIST-LOCK RECEPTACLE HUBBELL #CS8264C
6. PROVIDE INDUSTRIAL GRADE LIGHTED TOGGLE SWITCHES. CONNECT ONE TO THE LIGHT PROVIDED WITH THE WELDING BOOTH AND THE OTHER TO THE RECEPTACLE OUTLET. PROVIDE LABEL.
7. PROVIDE INDUSTRIAL GRADE LIGHTED TOGGLE SWITCH FOR EACH 120V CORD REEL. PROVIDE LABEL.

ELECTRICAL CONNECTION SCHEDULE

MARK	EQUIPMENT SERVED	LOAD	VOLTS/PHASE	BRANCH CIRCUIT	NOTES
WE2	MIG WELDER 256	60 A	208/1	60.2	3
WE4	ROD OVEN	1000 W	120/1	30.2	1
WE5	WELDER	20 A	120/1	30.2	3
WE6	METAL COLD SAW	10 A	208/3	20.3	2
WE7	DRILL PRESS	7.5 A	120/1	20.2	1
WE8	BAND SAW	14 A	120/1	30.2	1
WE9	GRINDER	1/2 HP	120/1	20.2	1
WE10	40T IRONWORKER	17 FLA	120/1	30.2	1
WE11	WELDER MULTIMATIC 235	31 A	240/1	50.2	3

GENERAL NOTES:

A. LOAD INDICATED IS NOMINAL. PROVIDE CONDUIT, CONDUCTORS, CIRCUIT BREAKERS, SWITCHES, FUSES, STARTERS, ETC. AS REQUIRED BY ACTUAL EQUIPMENT FURNISHED. COORDINATE WITH OTHER TRADES, AS REQUIRED.

B. ALL EQUIPMENT ROUGH-INS INDICATED ARE BASED ON DESIGNED EQUIPMENT. VERIFY ALL LOCATIONS AND RECEPTACLE TYPES WITH ACTUAL EQUIPMENT SUPPLIED. VERIFY ALL NAMEPLATE DATA FOR COMPLIANCE.

C. WHERE REQUIRED, FOR FINAL CONNECTION TO ELECTRICAL SUPPLY, PROVIDE AND INSTALL CORD AND CAP TO ACCOMMODATE EQUIPMENT SERVED.

ELECTRICAL CONNECTION NOTES:

1. CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED MOTOR RATED TOGGLE DISCONNECT SWITCH, MOUNTED TO WALL OR STRUCTURE, NO MORE THAN 24" FROM EQUIPMENT SERVED.
2. CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED NON-FUSED NEC DISCONNECT, IN SIGHT OF AND NOT MORE THAN 40 FT. FROM EQUIPMENT SERVED.
3. REFER TO KEYED NOTE ON ELECTRICAL PLAN.

BRANCH CIRCUIT SCHEDULE:

20.2 2-#12, 1-#12 GROUND IN 1/2" CONDUIT.
20.3 3-#12, 1-#12 GROUND IN 1/2" CONDUIT.
20.4 4-#12, 1-#12 GROUND IN 1/2" CONDUIT.
30.2 2-#10, 1-#10 GROUND IN 1/2" CONDUIT.
50.2 2-#8, 1-#10 GROUND IN 3/4" CONDUIT.
60.2 2-#6, 1-#10 GROUND IN 3/4" CONDUIT

NORTH

1 ENLARGED WELDING LAB
Electrical 1/4" = 1'-0"

KEY PLAN

1/31/2024 11:55:55 AM

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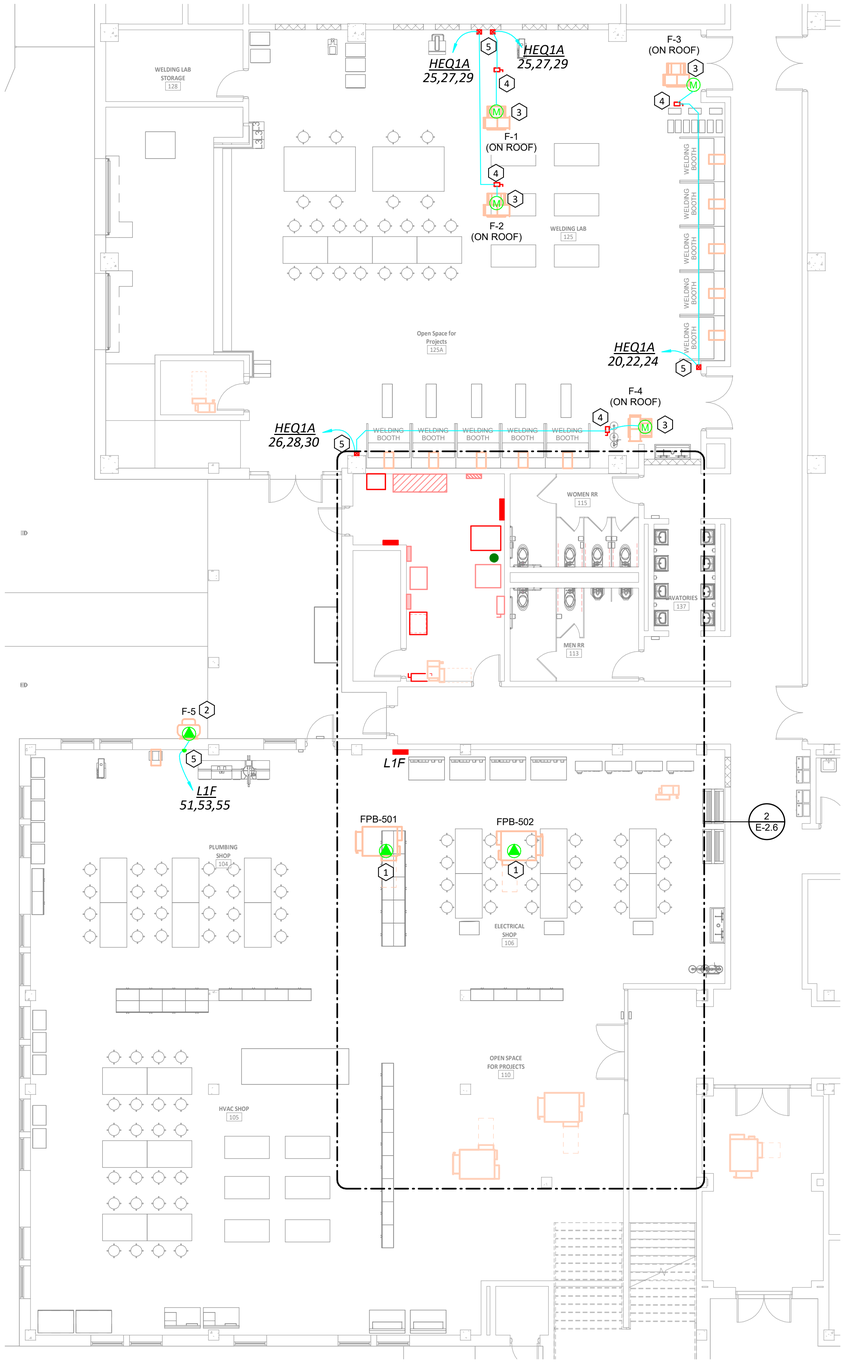
Drawn By: JM
Checked By: ECM
Job Number.: 2023.113

ENLARGED WELDING LAB

No.	DATE	DESCRIPTION

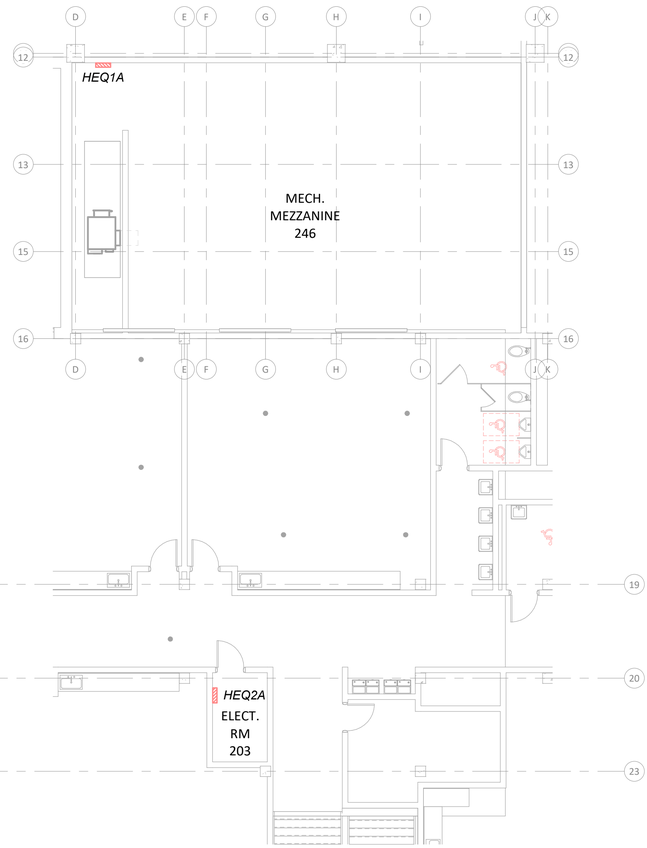
Date: 04/24/23
Drawing No:
E-2.5



NORTH

1 HVAC POWER PLAN

Electrical 1/8" = 1'-0"



NORTH

2 PARTIAL SECOND FLOOR - ELECTRICAL

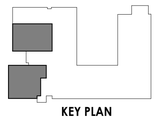
Electrical 1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. REFER TO GENERAL ELECTRICAL NOTES ON SHEET E-0.1.
2. REFER TO ELECTRICAL CONNECTION SCHEDULE ON SHEET E3.1

ELECTRICAL NEW WORK KEYED NOTES, SHEET E-2.6

1. NEW LOCATION OF EXISTING FAN POWERED BOX ABOVE THE CEILING. EXTEND BRANCH CIRCUIT AS REQUIRED. SEE MECHANICAL PLANS FOR ACTUAL LOCATION OF FAN COIL UNIT. COORDINATE LOCATION OF DISCONNECT WITH DIVISION 23 FOR EASE OF ACCESS AND MAINTENANCE. REFER TO ELECTRICAL CONNECTION SCHEDULE ON SHEET E-3.1
2. PROVIDE OUTLET AND CONNECTION AS REQUIRED FOR WALL MOUNTED FAN. SEE MECHANICAL PLANS FOR ACTUAL LOCATION OF UNIT. REFER TO ELECTRICAL CONNECTION SCHEDULE ON SHEET E-3.1
3. PROVIDE OUTLET AND CONNECTION AS REQUIRED FOR ROOFTOP FAN. SEE MECHANICAL PLANS FOR ACTUAL LOCATION OF UNIT. COORDINATE LOCATION OF DISCONNECT WITH DIVISION 23 FOR EASE OF ACCESS AND MAINTENANCE. REFER TO ELECTRICAL CONNECTION SCHEDULE ON SHEET E-3.1.
4. PROVIDE DISCONNECT SWITCH,NON-FUSED, NEMA 3R. LOCATE ON THE ROOF. MOUNT TO FREESTANDING SUPPORT RACK. REFER TO ROOFING DETAILS.
5. PROVIDE A TWO BUTTON START/STOP PUSH BUTTON MANUAL NEMA 1 STARTER WITH INDICATOR FOR LOCAL CONTROL. PROVIDE ENGRAVED LABEL "WELDING EXHAUST FAN"



KEY PLAN

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Drawn By:	JM
Checked By:	ECM
Job Number.:	2023.113

HVAC POWER PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

E-2.6

1/31/2024 11:55:44 AM

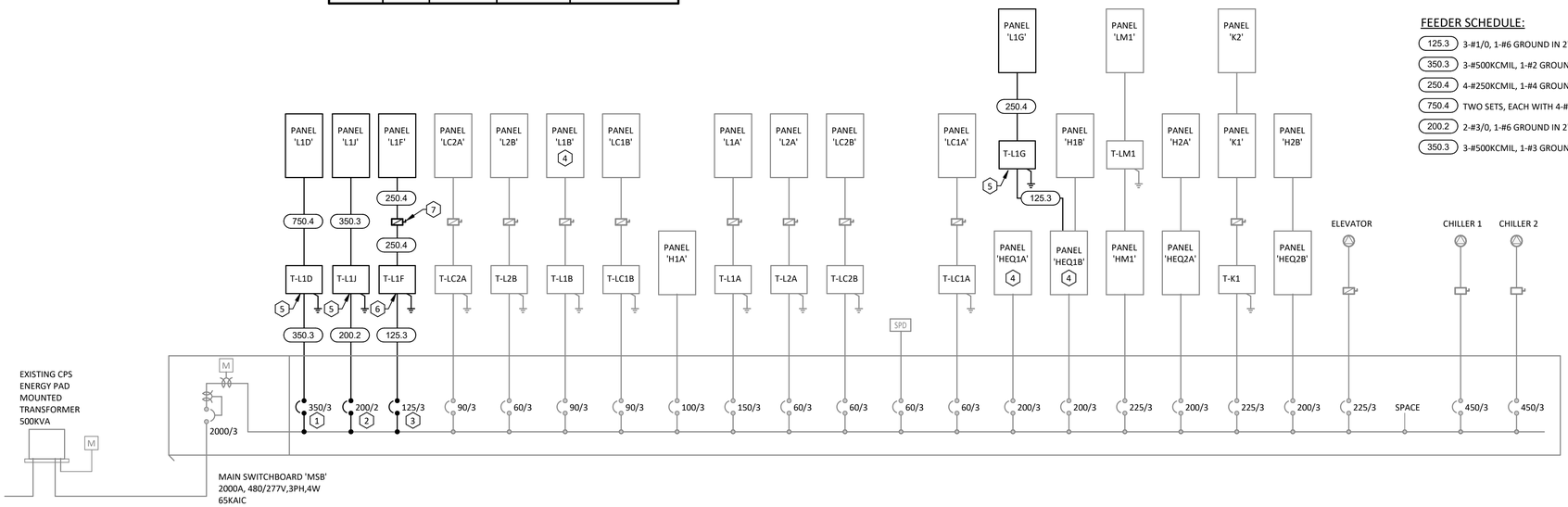
TRANSFORMER SCHEDULE

MARK	KVA	PRIMARY	SECONDARY	NOTES
T-L1D	225 KVA	480V DELTA	120/208V WYE	115° TEMP. RISE
T-L1F	75 KVA	480V DELTA	120/208V WYE	115° TEMP. RISE
T-L1G	75 KVA	480V DELTA	120/208V WYE	115° TEMP. RISE
T-L1J	75 KVA	480V 1PH	120/240V 1PH	115° TEMP. RISE

LOAD ANALYSIS

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Existing Load	564249 VA	125.00%	705311 VA		
Electric Clothes Dryer	5000 VA	100.00%	5000 VA	**Total Conn. Load:**	938287 VA
Equipment	73388 VA	100.00%	73388 VA	**Total Est. Demand:**	994507 VA
Motor	38638 VA	107.53%	41547 VA	**Total Conn.:**	1129 A
Receptacle	19460 VA	75.69%	14730 VA	**Total Est. Demand:**	1196 A
Water Heater	30000 VA	100.00%	30000 VA		
Welder	207552 VA	60.00%	124531 VA		

NOTE:
1. EXISTING LOAD IS THE HIGHEST PEAK DEMAND (06/23) RECORDED BY CPS ENERGY.
2. CONTRACTOR TO NOTIFY CPS OF THE INCREASE IN LOAD AND BE PREPARED TO SUBMIT AN APPLICATION TO CHANGE OUT THE TRANSFORMER.



1 ELECTRICAL DISTRIBUTION DIAGRAM
Electrical NO SCALE

ELECTRICAL NOTES, SHEET E-3.0:

1. PROVIDE NEW EATON BREAKER HKD3350 WITH NEW COVER PLATE AND CONNECTOR KIT. PROVIDE ENGRAVED LABEL.
2. PROVIDE NEW EATON BREAKER #HFD2200. PROVIDE ENGRAVED LABEL.
3. PROVIDE NEW EATON BREAKER #HFD3125. PROVIDE ENGRAVED LABEL.
4. PROVIDE NEW BREAKERS. REFER TO PANELBOARD SCHEDULE. PROVIDE NEW PANELBOARD DIRECTORY.
5. PROVIDE HOUSEKEEPING PAD WITH 1/2" CHAMFERED EDGES.
6. LOCATE TRANSFORMER ABOVE EXISTING TRANSFORMER. PROVIDE SUPPORT AS INDICATED ON DETAIL 4, SHEET E-4.0.
7. PROVIDE 400A FUSED DISCONNECT SWITCH, NEMA 1. PROVIDE WITH 250A FUSES.

FEEDER SCHEDULE:

- 125.3 3-#1/0, 1-#6 GROUND IN 2"CONDUIT.
- 350.3 3-#500KCMIL, 1-#2 GROUND IN 3"CONDUIT.
- 250.4 4-#250KCMIL, 1-#4 GROUND IN 3"CONDUIT.
- 750.4 TWO SETS, EACH WITH 4-#500KCMIL, 1-#1/0 IN GROUND 4"CONDUIT.
- 200.2 2-#3/0, 1-#6 GROUND IN 2"CONDUIT.
- 350.3 3-#500KCMIL, 1-#3 GROUND IN 3"CONDUIT.

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Drawn By:	JM
Checked By:	ECM
Job Number.:	2023.113

ELECTRICAL DISTRIBUTION DIAGRAM

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:
E-3.0

1/31/2024 11:55:56 AM

ELECTRICAL CONNECTION SCHEDULE

MARK	EQUIPMENT SERVED	LOAD	VOLTS/PHASE	BRANCH CIRCUIT	NOTES
FP3XX	FAN POWERED BOX	1/3 HP	277/1	20.2	2
F-1	EXHAUST FAN	3 HP	480/3	20.3	8
F-2	EXHAUST FAN	3 HP	480/3	20.3	8
F-3	EXHAUST FAN	5 HP	480/3	20.3	8
F-4	EXHAUST FAN	5 HP	480/3	20.3	8
F-5	EXHAUST FAN	1 HP	208/1	20.2	8
F-6	EXHAUST FAN	1/2 HP	120/1	20.2	3
OHD-1	OVERHEAD DOOR	2 HP	480/3	20.3	7
AC-1	AIR COMPRESSOR	10 HP	480/3	30.3	6
AD-1	AIR COMPRESSOR DRYER	20 A	120/1	20.2	3
EWH-1	ELECTRIC WATER HEATER	30 KW	480/3	50.3	2

GENERAL NOTES:

- LOAD INDICATED IS NOMINAL. PROVIDE CONDUIT, CONDUCTORS, CIRCUIT BREAKERS, SWITCHES, FUSES, STARTERS, ETC. AS REQUIRED BY ACTUAL EQUIPMENT FURNISHED. COORDINATE WITH OTHER TRADES, AS REQUIRED.

ELECTRICAL CONNECTION NOTES:

1 CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED FUSED NEC DISCONNECT, IN SIGHT OF AND NOT MORE THAN 40 FT. FROM EQUIPMENT SERVED. DISCONNECT ENCLOSURE SHALL BE SUITABLE FOR THE ENVIRONMENT. (NEMA 3R FOR ROOF)

2 CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED NON-FUSED NEC DISCONNECT, MOUNTED TO WALL OR STRUCTURE, NO MORE THAN 24" FROM EQUIPMENT SERVED. DISCONNECT ENCLOSURE SHALL BE SUITABLE FOR THE ENVIRONMENT. (NEMA 3R FOR ROOF)

3 CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED MOTOR RATED TOGGLE DISCONNECT SWITCH, MOUNTED TO WALL OR STRUCTURE, NO MORE THAN 24" FROM EQUIPMENT SERVED. DISCONNECT ENCLOSURE SHALL BE SUITABLE FOR THE ENVIRONMENT.

4 CONNECT TO CIRCUIT INDICATED ON PLAN THRU FACTORY DISCONNECT MEANS PROVIDED WITH FAN.

5 REFER TO ROOFING DETAILS FOR ROOF PENETRATIONS AND DISCONNECT MOUNTING METHOD.

6 CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED NON-FUSED NEC COMBINATION MOTOR STARTER AND DISCONNECT SWITCH, IN SIGHT OF AND NOT MORE THAN 40FT FROM EQUIPMENT SERVED. DISCONNECT ENCLOSURE SHALL BE SUITABLE FOR THE ENVIRONMENT. (NEMA 3R FOR ROOF)

7 REFER TO KEYED NOTE ON ELECTRICAL PLAN.

8 CONNECT TO CIRCUIT INDICATED THRU PROPERLY SIZED NON-FUSED NEC DISCONNECT NEMA 3R, MOUNTED ON THE ROOF, AND THRU PROPERLY SIZED MOTOR STARTER AND SWITCH WITH INDICATOR FOR LOCAL CONTROL.

BRANCH CIRCUIT SCHEDULE:

20.2 2-#12, 1-#12 GROUND IN 1/2" CONDUIT.
20.3 2-#12, 1-#12 GROUND IN 1/2" CONDUIT.
30.2 2-#10, 1-#10 GROUND IN 1/2" CONDUIT.
30.3 3-#10, 1-#10 GROUND IN 3/4" CONDUIT.
50.3 3-#8, 1-#10 GROUND IN 3/4" CONDUIT.

LIGHTING FIXTURE SCHEDULE

TYPE MARK	MANUFACTURER	MODEL NO.	DESCRIPTION	MOUNTING	VOLTAGE	WATTAGE	Notes
A1	LITHONIA	2BLT4 85L SDSM EZ1 LP835	2X4 LED TROFFER	RECESSED	277 V	67 VA	1
A1E	LITHONIA	2BLT4 85L SDSM EZ1 LP835 EL14L	2X4 LED TROFFER W/BATTERY PACK	RECESSED	277 V	67 VA	1,6
A2	LITHONIA	2BLT4 40L SDSM EZ1 LP835	2X4 LED TROFFER	RECESSED	277 V	34 VA	1
C	LITHONIA	ZL1D L24 3500LM FST MVOLT 35K 80CRI WH	24" STRIPLIGHT	PENDANT	277 V	17 VA	3
D	LITHONIA	CLX L96 14000LM SEF FDL MVOLT 35K 80CR	8FT STRIPLIGHT	PENDANT	277 V	93 VA	3
DE	LITHONIA	CLX L96 14000LM SEF FDL MVOLT 35K 80CRI E10WLCP	8FT STRIPLIGHT W/BATTERY PACK	PENDANT	277 V	93 VA	3,6
F	LITHONIA	CLX L48 5000LM SEF FDL MVOLT 35K 80CRI	4FT STRIPLIGHT	PENDANT	277 V	32 VA	3
F12	FINELITE	HP4-ID-TG-F-12-H-H-835-96-277--SC-FA200-FE-SW-C1	12FT DIRECT/INDIRECT LINEAR	PENDANT	277 V	168 VA	3
F12S	FINELITE	HP4-SM-D-12-B-835-F-96LG-277-SC-FC-10-C4-FE-SW	12FT DIRECT LINEAR	SURFACE	277 V	56 VA	3
G	LITHONIA	FMVCCLS-24IN-MVOLT-90CRI-X	LED VANITY	SURFACE	277 V	27 VA	4
SC	VISIONAIRE LIGHTING	PGA-1-T5-32LC-5-4K-UNV-CM-SL	CANOPY LIGHT	SURFACE	277 V	80 VA	5
W	LITHONIA	WST LED P3 40K VW MVOLT PIRH DNAXD	WALL PACK	SURFACE	277 V	50 VA	5

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

- REFER TO ARCHITECTURAL ELEVATIONS FOR FIXTURE LOCATIONS.

LIGHTING FIXTURE SCHEDULE NOTES:

1. RECESSED LIGHT FIXTURES SHALL BE SUITABLE FOR INSTALLATION IN THE CEILING OR SOFFIT SYSTEM BEING PROVIDED. RECESSED LIGHT FIXTURES SHALL BE PROVIDED WITH APPROVED HANGING DEVICES, TRIM, PLASTER FRAMES, ETC. AS REQUIRED FOR PROPER INSTALLATION IN THE CEILING SYSTEM BEING PROVIDED, REGARDLESS OF CATALOG NUMBER INDICATED. FIXTURES RECESSED IN HARD CEILINGS SHALL BE PROVIDED WITH A LAY-IN FIXTURE FRAME FOR INSTALLATION OF FIXTURE IN LIEU OF PROVIDING FIXTURE WITH OVERLAP FLANGE TRIM.
2. COMPLETE WITH FACES AND ARROWS AS INDICATED AND AS REQUIRED BY THE LOCATION OF THE FIXTURE. PROVIDE WALL MOUNTED UNITS WHENEVER POSSIBLE. CONNECT TO UNSWITCHED PORTION OF CIRCUIT SERVING LIGHTING IN SAME AREA OR CORRIDOR. VERIFY CIRCUIT.
3. CONTRACTOR SHALL PROVIDE ALL NECESSARY MOUNTING ACCESSORIES FOR MOUNTING FIXTURE.
4. EXACT LOCATION AND MOUNTING HEIGHT SHALL BE AS DIRECTED BY THE ARCHITECT. VERIFY PRIOR TO ANY ROUGH-IN. REFER TO ARCHITECTURAL ELEVATIONS.
5. CONTRACTOR SHALL PROVIDE ALL NECESSARY MOUNTING ACCESSORIES FOR SURFACE MOUNTING ON EXTERIOR WALLS AND CANOPIES. PROVIDE WEATHERTIGHT INSTALLATION BETWEEN JUNCTION BOX AND LIGHT FIXTURE.
6. PROVIDE AN EXTRA UN-SWITCHED PHASE CONDUCTOR FROM LIGHTING CIRCUIT . BRING HOT LEG FROM AT POINT UPSTREAM OF LIGHTING CONTROL.

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Drawn By: JM
Checked By: ECM
Job Number.: 2023.113

ELECTRICAL SCHEDULES

No.	DATE	DESCRIPTION

Date: 04/24/23
Drawing No:
E-3.1

1/31/2024 11:55:55 AM

Panelboard: HEQ1A (EXISTING - EATON)

Location: MECH.MEZZANINE 246 | **Volts:** 480/277 Wye | **A.I.C. Rating:** 42,000
Supply From: MSB | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: Type 1 | **MCB Rating:**

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	EXISTING FAN POWERED BOX	20 A	1	0 0			1	20 A	EXISTING FAN POWERED BOX	2
3	EXISTING FAN POWERED BOX	20 A	1		0 0		1	20 A	EXISTING FAN POWERED BOX	4
5	EXISTING FAN POWERED BOX	20 A	1			0 0	1	20 A	EXISTING FAN POWERED BOX	6
7	EXISTING FAN POWERED BOX	20 A	1	0 0						8
9	EXISTING FAN POWERED BOX	20 A	1		0 0		3	25 A	EXISTING AHU-3	10
11	EXISTING FAN POWERED BOX	20 A	1			0 0				12
13				0 0						14
15	EXISTING AHU-4	25 A	3		0 0		3	25 A	EXISTING AHU-5	16
17						0 0				18
19				0 2105						20
21	EXISTING AHU-6	15 A	3		0 2105		3	15 A (1)	NEW F-3	22
23						0 2105				24
25				2659 2105						26
27	NEW F-1 & F-2 (1)	20 A	3		2659 2105		3	15 A (1)	NEW F-4	28
29						2659 2105				30
31				3878 --						32
33	NEW AIR COMPRESSOR AC-1 (1)	35 A	3		3878 --		3	--	SPACE	34
35						3878 --				36
37				1163 --						38
39	NEW OVERHEAD DOORS (1)	20 A	3		1163 --		3	--	SPACE	40
41						1163 --				42
				Total Load:	11911 VA	11911 VA				
				Total Amps:	43 A	43 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	35734 VA	108.14%	38643 VA		
				Total Conn. Load:	35734 VA
				Total Est. Demand:	38643 VA
				Total Conn.:	43 A
				Total Est. Demand:	46 A

NOTE: EXISTING LOAD FOR THIS PANEL IS NOT SHOWN ON THE SCHEDULE. ITS REFLECTED IN THE EXISTING LOAD SHOWN ON THE LOAD ANALYSIS.

Panelboard: L1J

Location: ELECTRICAL ROOM 112 | **Volts:** 120/240 Single | **A.I.C. Rating:** 10,000
Supply From: T-L1J | **Phases:** 1 | **Mains Type:** MCB
Mounting: Recessed | **Wires:** 3 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:** 350 A

CKT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	Welder (2)	45 A	2	3744 3744		2	45 A	(2) Welder	2
3					3744 3744				4
5	Welder (2)	45 A	2	3744 3744		2	45 A	(2) Welder	6
7					3744 3744				8
9	Welder MEP TRADES (2)	50 A	2	4800 3744		2	45 A	(2) Welder	10
11					4800 3744				12
13	SPACE	--	2	-- --		2	--	SPACE	14
15					-- --				16
17	SPACE	--	2	-- --		2	--	SPACE	18
19					-- --				20
21	SPACE	--	2	-- --		2	--	SPACE	22
23					-- --				24
				Total Load:	23520 VA	23520 VA			
				Total Amps:	196 A	196 A			

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Welder	47040 VA	60.00%	28224 VA		
				Total Conn. Load:	47040 VA
				Total Est. Demand:	28224 VA
				Total Conn.:	196 A
				Total Est. Demand:	118 A

ELECTRICAL NOTES, SHEET E-3.2:

1. PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE. MATCH SHORT CIRCUIT CURRENT RATING OF EXISTING EQUIPMENT. PROVIDE NEW TYPED PANEBOARD DIRECTORY .
2. PROVIDE CIRCUIT BREAKER WITH TIME-CURRENT CURVES COMPARABLES TO RK5 FUSES.
3. PROVIDE GFCI TYPE CIRCUIT BREAKER.

Panelboard: L1D

Location: ELECTRICAL ROOM 112 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 22,000
Supply From: T-L1D | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 800 A
Enclosure: Type 1 | **MCB Rating:** 750 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Receptacle WELDING BOOTH	20 A	1	1920 1920			1	20 A	Receptacle WELDING BOOTH	2
3	Receptacle WELDING BOOTH	20 A	1		1920 1920		1	20 A	Receptacle WELDING BOOTH	4
5	Receptacle WELDING BOOTH	20 A	1			1920 1920	1	20 A	Receptacle WELDING BOOTH	6
7	Receptacle WELDING BOOTH	20 A	1	1920 1920			1	20 A	Receptacle WELDING BOOTH	8
9	Receptacle WELDING BOOTH	20 A	1		1920 1920		1	20 A	Receptacle WELDING BOOTH	10
11	Welder (2)	60 A	2			5408 5408	2	60 A	(2) Welder	12
13				5408 5408						14
15	Welder (2)	60 A	2		5408 5408		2	60 A	(2) Welder	16
17						5408 5408				18
19	Welder (2)	60 A	2	5408 5408			2	60 A	(2) Welder	20
21					5408 5408					22
23	Welder (2)	60 A	2			5408 5408	2	60 A	(2) Welder	24
25				5408 5408						26
27	Welder (2)	60 A	2		5408 5408		2	60 A	(2) Welder	28
29						5408 5408				30
31				693 10816			2	60 A	(2) CORD REEL	32
33	METAL COLD SAW	20 A	3		693 0					34
35						693 10816				36
37	DRILL PRESS	20 A	1	900 0			1	20 A	CORD REEL	38
39	GRINDER	20 A	1		11769 1920		1	20 A	CORD REEL	40
41	40T IRONWORKER	20 A	1			2040 1920	1	20 A	(3) CORD REEL	42
43	ROD OVEN	20 A	1	1000 180			1	20 A	Receptacle Exterior	44
45	CORD REEL	20 A	1		1920 0		1	20 A	SPARE	46
47	CORD REEL (3)	20 A	1			1920 0	1	20 A	SPARE	48
49	CORD REEL	20 A	1	1920 0			1	20 A	SPARE	50
51	CORD REEL	20 A	1		1920 0		1	20 A	SPARE	52
53	SPARE	20 A	1			0 0	1	20 A	SPARE	54
55	SPARE	20 A	1	0 0			1	20 A	SPARE	56
57	SPARE	20 A	1		0 0		1	20 A	SPARE	58
59	SPARE	20 A	1			0 0	1	20 A	SPARE	60
				Total Load:	55637 VA	58350 VA	64493 VA			
				Total Amps:	464 A	490 A	541 A			

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Equipment	17968 VA	100.00%	17968 VA		
Welder	160512 VA	60.00%	96307 VA		
				Total Conn. Load:	178480 VA
				Total Est. Demand:	114275 VA
				Total Conn.:	495 A
				Total Est. Demand:	317 A

Panelboard: L1F

Location: ELECTRICAL SHOP 106 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: T-L1F | **Phases:** 3 | **Mains Type:** MCB
Mounting: Floor | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:** 250 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	CORD REEL PLUMBING (3)	20 A	1	180 360			1	20 A	(3) CORD REEL ELECTRICAL	2
3	CORD REEL PLUMBING	20 A	1		180 360		1	20 A	(3) CORD REEL ELECTRICAL	4
5	CORD REEL PLUMBING	20 A	1			180 360	1	20 A	(3) CORD REEL ELECTRICAL	6
7	Receptacle HVAC	20 A	1	180 1440			1	20 A	RESIDENTIAL TRAINER	8
9	Receptacle HVAC	20 A	1		180 1440		1	20 A	RESIDENTIAL TRAINER	10
11	Receptacle HVAC	20 A	1			180 1440	1	20 A	RESIDENTIAL TRAINER	12
13	Receptacle HVAC	20 A	1	180 1440			1	20 A	RESIDENTIAL TRAINER	14
15	POWER DRIVE	20 A	1		1440 1440		1	20 A	SERVICE BOARD TRAINER	16
17	MITER SAW	20 A	1			1800 1440	1	20 A	SERVICE BOARD TRAINER	18
19	DRILL PRESS	20 A	1	900 1440			1	20 A	SERVICE BOARD TRAINER	20
21	BENCH GRINDER	20 A	1		756 1440		1	20 A	SERVICE BOARD TRAINER	22
23	BENCH GRINDER	20 A	1			756 1109				24
25	Receptacle HVAC	20 A	1	360 1109			3	20 A	BASIC CONTROL TRAINER	26
27	HEAT PUMP TRAINER	20 A	1		1200 1109					28
29	HEAT PUMP TRAINER	20 A	1			1200 1109				30
31	BASIC REFRIGERATION TRAINER	30 A	2	2496 1109			3	20 A	BASIC CONTROL TRAINER	32
33					2496 1109					34
35	BASIC REFRIGERATION TRAINER	30 A	2			2496 180	1	20 A	(3) CORD REEL OPEN SPACE	36
37				2496 180			1	20 A	(3) CORD REEL OPEN SPACE	38
39	MINI-SPLIT TRAINER	20 A	2		1664 0		1	20 A	SPARE	40
41						1664 0	1	20 A	SPARE	42
43	MINI-SPLIT TRAINER	20 A	2	1664 0			1	20 A	SPARE	44
45					1664 0		1	20 A	SPARE	46
47	AIR & HYDRONIC TRAINER	30 A	2			2496 0	2	30 A	SPARE	48
49				2496 0						50
51					576 0		2	20 A	SPARE	52
53	F-5	15 A	3			576 0				54
55				576 0						56
57	SPARE	20 A	1		0 0		3	20 A	SPARE	58
59	SPARE	20 A	1			0 0				60
				Total Load:	18607 VA	17055 VA	16987 VA			
				Total Amps:	155 A	142 A	142 A			

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Equipment	47860 VA	100.00%	47860 VA		
Motor	1728 VA	125.00%	2160 VA		
Receptacle	3060 VA	100.00%	3060 VA		
				Total Conn. Load:	52648 VA
				Total Est. Demand:	53080 VA
				Total Conn.:	146 A
				Total Est. Demand:	147 A

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CONSTRUCTION DOCUMENTS

STATE OF TEXAS — EDWARD C. MONACO — 57786 — REGISTERED PROFESSIONAL ENGINEER — 01.12.2024

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Drawn By:	JM
Checked By:	ECM
Job Number.:	2023.113

ELECTRICAL SCHEDULES

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

E-3.2

1/31/2024 11:55:57 AM

Panelboard: HEQ1B (EXISTING - EATON)

Location: ELECTRICAL RM 157 | **Volts:** 480/277 Wye | **A.I.C. Rating:** 14,000
Supply From: MSB | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: Type 1 | **MCB Rating:**

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	2
3	EXISTING LOAD	20 A	1			0	0			1	20 A	EXISTING LOAD	4
5	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	6
7	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	8
9	EXISTING LOAD	20 A	1			0	0						10
11	SPARE	20 A	1					0	0	3	100 A	PANEL H1B	12
13	EXISTING LOAD	20 A	1	0	0								14
15	SPARE	20 A	1			0	0			1	20 A	SPARE	16
17	EXISTING LOAD	20 A	1					0	0	1	20 A	SPARE	18
19	SPARE	20 A	1	0	0					1	20 A	SPARE	20
21	SPARE	20 A	1			0	0			1	20 A	SPARE	22
23	SPARE	20 A	1					0	0	1	20 A	SPARE	24
25	SPARE	20 A	1	0	0					1	20 A	SPARE	26
27	SPARE	20 A	1			0	0			1	20 A	SPARE	28
29	SPARE	20 A	1					0	0	1	20 A	SPARE	30
31				10000	13136								32
33	NEW EWH-1 (1)	50 A	3			10000	8680			3	125 A	(1) NEW T-L1G	34
35								10000	8320				36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
		Total Load:		23136 VA		18680 VA		18320 VA					
		Total Amps:		84 A		68 A		66 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Electric Clothes Dryer	5000 VA	100.00%	5000 VA		
Equipment	7560 VA	100.00%	7560 VA	**Total Conn. Load:**	60136 VA
Motor	1176 VA	125.00%	1470 VA	**Total Est. Demand:**	57230 VA
Receptacle	16400 VA	80.49%	13200 VA	**Total Conn.:**	72 A
Water Heater	30000 VA	100.00%	30000 VA	**Total Est. Demand:**	69 A

NOTE: EXISTING LOAD FOR THIS PANEL IS NOT SHOWN ON THE SCHEDULE. ITS REFLECTED IN THE EXISTING LOAD SHOWN ON THE LOAD ANALYSIS.

Panelboard: LC1B (EXISTING - EATON)

Location: ELECTRICAL RM 157 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: Type 1 | **MCB Rating:** 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	2
3	EXISTING LOAD	20 A	1			0	0			1	20 A	EXISTING LOAD	4
5	EXISTING LOAD	20 A	1					0	360	1	20 A	Receptacle	6
7	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	8
9	EXISTING LOAD	20 A	1			0	--			1	--	SPACE	10
11	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	12
13	EXISTING LOAD	20 A	1	0	1650					1	20 A	X-RAY MACHINE DENTAL	14
15	EXISTING LOAD	20 A	1			0	180			1	20 A	CHARGING STATION DENTAL CLASSROOM	16
17	CHARGING STATION BARBER	20 A	1					180	180	1	20 A	CHARGING STATION DENTAL CLASSROOM	18
19	CHARGING STATION BARBER	20 A	1	180	0					1	20 A	SPARE	20
21	Receptacle TV SECURITY OPERATIONS	20 A	1			720	0			1	20 A	SPARE	22
23	Receptacle TV SECURITY OPERATIONS	20 A	1					1080	0	1	20 A	SPARE	24
25	SPACE	--	1	--	0					1	20 A	SPARE	26
27	SPACE	--	1			--	0			1	20 A	SPARE	28
29	SPACE	--	1					--	0	1	20 A	SPARE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SPACE	--	1	--	--					1	--	SPACE	38
39	SPACE	--	1			--	--			1	--	SPACE	40
41	SPACE	--	1					--	--	1	--	SPACE	42
		Total Load:		1830 VA		900 VA		1800 VA					
		Total Amps:		16 A		8 A		16 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Equipment	1650 VA	100.00%	1650 VA		
Receptacle	2880 VA	100.00%	2880 VA	**Total Conn. Load:**	4530 VA
				Total Est. Demand:	4530 VA
				Total Conn.:	13 A
				Total Est. Demand:	13 A

NOTE: EXISTING LOAD FOR THIS PANEL IS NOT SHOWN ON THE SCHEDULE. ITS REFLECTED IN THE EXISTING LOAD SHOWN ON THE LOAD ANALYSIS.

Panelboard: L1B (EXISTING - EATON)

Location: ELECTRICAL RM 157 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 150 A
Enclosure: Type 1 | **MCB Rating:** 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	2
3	EXISTING LOAD	20 A	1			0	0			1	20 A	EXISTING LOAD	4
5	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	6
7	EXISTING LOAD	20 A	1	0	--					1	--	SPACE	8
9	EXISTING LOAD	20 A	1			0	0			1	20 A	EXISTING LOAD	10
11	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	12
13	EXISTING LOAD	20 A	1	0	--					1	--	SPACE	14
15	EXISTING LOAD	20 A	1			0	540			1	20 A	Receptacle DENTAL	16
17	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	18
19	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	20
21	EXISTING LOAD	20 A	1			0	900			1	20 A	Receptacle CTE OFFICE	22
23	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	24
25	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	26
27	EXISTING LOAD	20 A	1			0	0			1	20 A	EXISTING LOAD	28
29	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	30
31	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	32
33	Receptacle CTE OFFICE	20 A	1			540	0			1	20 A	EXISTING LOAD	34
35	Receptacle ABOVE COUNTER DENTAL	20 A	1					360	0	1	20 A	EXISTING LOAD	36
37	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	38
39	EXISTING LOAD	20 A	1			0	0			1	20 A	EXISTING LOAD	40
41	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	42
43	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	44
45	EXISTING LOAD	20 A	1			0	0			1	20 A	EXISTING LOAD	46
47	EXISTING LOAD	20 A	1					0	0	1	20 A	EXISTING LOAD	48
49	EXISTING LOAD	20 A	1	0	0								50
51	EXISTING LOAD	20 A	1			0	0			3	25 A	EXISTING LOAD	52
53	DENTAL TRIMMER	20 A	1					1176	0				54
55				0	0					1	20 A	EXISTING LOAD	56
57	SPARE	25 A	3			0	0			1	20 A	EXISTING LOAD	58
59								0	0	1	20 A	EXISTING LOAD	60
61	EXISTING LOAD	20 A	1	0	0					1	20 A	EXISTING LOAD	62
63	DENTAL VACUUM	20 A	1			720	0			1	20 A	EXISTING LOAD	64
65	Receptacle ABOVE COUNTER DENTAL	20 A	1					360	0	1	20 A	EXISTING LOAD	66
67	EXISTING LOAD	15 A	1	0	0					1	15 A	EXISTING LOAD	68
69	EXISTING LOAD	20 A	1			0	0			1	15 A	EXISTING LOAD	70
71	Receptacle ABOVE COUNTER DENTAL	**20 A**	1					180	0	2	50 A	EXISTING LOAD	72
73	ULTRASONIC CLEANER (1)	**20 A**	1	180	0								74
75	J-BOX CEILING FOR FUTURE LIGHTS	**20 A**	1			720	1200			1	**20 A**	DENTAL CHAIRS	76
77	SPACE	--	1					--	0	1	**20 A** (1)	SPARE	78
79	SPACE	--	1	--	360					1	**20 A**	FLOOR BOXES DENTAL CLASSROOM	80
81	SPACE	--	1			--	180			1	**20 A**	FLOOR BOXES DENTAL CLASSROOM	82
83	SPACE	--	1					--	--	1	--	SPACE	84
		Total Load:		540 VA		4800 VA		2076 VA					
		Total Amps:		5 A		42 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Equipment	3096 VA	100.00%	3096 VA		
Receptacle	3600 VA	100.00%	3600 VA	**Total Conn. Load:**	7416 VA
Power	720 VA	100.00%	720 VA	**Total Est. Demand:**	7416 VA
				Total Conn.:	21 A
				Total Est. Demand:	21 A

NOTE: EXISTING LOAD FOR THIS PANEL IS NOT SHOWN ON THE SCHEDULE. ITS REFLECTED IN THE EXISTING LOAD SHOWN ON THE LOAD ANALYSIS.

Panelboard: L1G

Location: ELECTRICAL RM 157 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: T-L1G | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:** 250 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle BARBER STATION	20 A	1	360	1560					1	20 A	WIG DRYER	2
3	Receptacle BARBER STATION	20 A	1			360	360			1	20 A	Receptacle ABOVE COUNTER	4
5	Receptacle BARBER STATION	20 A	1					360	360	1	20 A	Receptacle ABOVE COUNTER	6
7	Receptacle BARBER STATION	20 A	1	360	360					1	20 A	Receptacle ABOVE COUNTER	8
9	Receptacle BARBER STATION	20 A	1			360	360			1	20 A	Receptacle ABOVE COUNTER	10
11	Receptacle BARBER STATION	20 A	1					360	360	1	20 A	Receptacle MANICURE STATION	12
13	Receptacle BARBER STATION	20 A	1	360	360					1	20 A	Receptacle MANICURE STATION	14
15	Receptacle BARBER STATION	20 A	1			360	360			1	20 A	Receptacle MANICURE STATION	16
17	Receptacle BARBER STATION	20 A	1					360	180	1	20 A	Receptacle SHAMPOO CHAIR	18
19	Receptacle BARBER STATION	20 A	1	360	180					1	20 A	Receptacle SHAMPOO CHAIR	20
21	Receptacle BARBER STATION	20 A	1			360	360			1	20 A	Receptacle SHAMPOO CHAIR	22
23	Receptacle BARBER STATION	20 A	1					360	180	1	20 A	Receptacle ABOVE COUNTER	24
25	F-6	20 A	1	1176	1440					1	20 A	UV SANITIZER LIGHT	26
27	SPARE	20 A	1			0	720			1	20 A	HOT TOWEL STEAMER	28
29	SPARE	20 A	1					0	960	1	20 A	DRYER CHAIR	30
31	SPARE	20 A	1	0	960					1	20 A	DRYER CHAIR	32
33	FLOOR BOXES NETWORKING	20 A	1			540	360			1	20 A	Receptacle ABOVE COUNTER	34
35	FLOOR BOXES NETWORKING	20 A	1					540	360	1	20 A	Receptacle ABOVE COUNTER	36
37	FLOOR BOXES NETWORKING	20 A	1	540	360					1	20 A	Receptacle ABOVE COUNTER	38
39	FLOOR BOXES NETWORKING	20 A	1			540	360			1	20 A	Receptacle ABOVE COUNTER	40
41	QUAD IT RACK NETWORKING	20 A	1					360	360	1	20 A	Receptacle ABOVE COUNTER	42
43	IT RACK NETWORKING	30 A	2	500	360					1	20 A	Receptacle ABOVE COUNTER	44
45						500	1920			1	20 A	WASHER	46
47	QUAD IT RACK NETWORKING	20 A	1					360	2500	2	30 A	DRYER	48
49	IT RACK NETWORKING	30 A	2	500	2500								50
51						500	360			1	20 A	FLOOR BOXES BARBER CLASSROOM	52
53	SPARE	20 A	1					0	360	1	20 A	FLOOR BOXES BARBER CLASSROOM	54
55	SPARE	20 A	1	0	900					1	20 A	Receptacle BARBER CLASSROOM	56
57	SPARE	20 A	1			0	0			1	20 A	SPARE	58
59	SPARE	20 A	1					0	0	1	20 A	SPARE	60
		Total Load:		13136 VA		8680 VA		8320 VA					
		Total Amps:		110 A		73 A		69 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Electric Clothes Dryer	5000 VA	100.00%	5000 VA		
Equipment	7560 VA	100.00%	7560 VA	**Total Conn. Load:**	30136 VA
Motor	1176 VA	125.00%	1470 VA	**Total Est. Demand:**	27230 VA
Receptacle	16400 VA	80.49%	13200 VA	**Total Conn.:**	84 A
				Total Est. Demand:	76 A

ELECTRICAL NOTES, SHEET E-3.3:

(1) PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE. MATCH SHORT CIRCUIT CURRENT RATING OF EXISTING EQUIPMENT. PROVIDE NEW TYPED PANEBOARD DIRECTORY .

(2) PROVIDE GFCI TYPE CIRCUIT BREAKER.

KEY PLAN

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SKYE MEP
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State of Texas Firm Registration No. F-19468

CONSTRUCTION DOCUMENTS

STATE OF TEXAS · EDWARD C. MONACO · 57786 · REGISTERED PROFESSIONAL ENGINEER · 01.24.2024

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Drawn By: JM
Checked By: ECM
Job Number.: 2023.113

ELECTRICAL SCHEDULES

No.	DATE	DESCRIPTION

Date: 04/24/23
Drawing No: E-3.3

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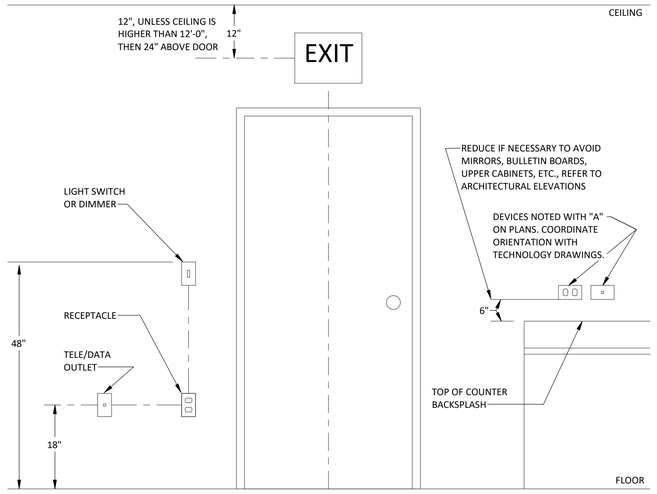
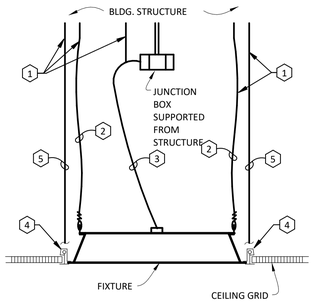


1 DEVICE & LUMINAIRE MOUNTING HEIGHTS

Electrical — NO SCALE

RECESSED LIGHTING FIXTURE NOTES:

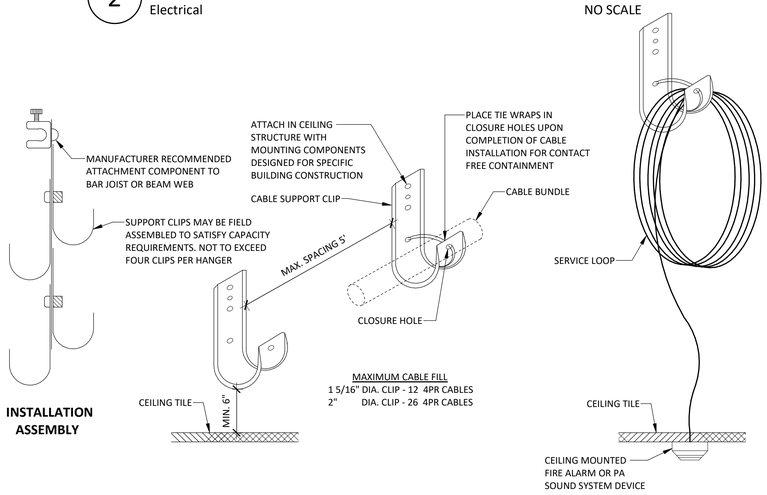
1. SUPPORT FROM STRUCTURE. INSERTS OR ANCHOR AS REQUIRED.
2. SAFETY WIRES TO BE PROVIDED & INSTALLED BY ELECTRICAL TRADES. PROVIDE SAFETY WIRES TO ALL FOUR CORNERS. WIRES TO BE MINIMUM 12 GAUGE SAME AS SPECIFIED FOR ACOUSTICAL CEILING GRID HANGER WIRES.
3. FLEXIBLE CONDUIT WITH GROUND OR TYPE "MC" METAL CLAD CABLE WITH GROUND (6FT MAX. LENGTH)
4. CADDY (OR EQUAL) UL LISTED MODEL 515A LAY-IN TROFFER LIGHT FIXTURE SUPPORT CLIPS (4 PER FIXTURE) OR CEILING CLIPS INTEGRAL WITH LIGHT FIXTURE TO SECURE FIXTURE TO CEILING GRID.
5. CEILING GRID HANGAR WIRE. REFER TO SPECIFICATION DIVISION 9 - SUSPENDED ACOUSTICAL CEILINGS FOR MATERIALS AND SPACING FOR FIXTURE LOADS.



NOTE:
SAFETY WIRES ARE NOT REQUIRED TO BE "TAUT".

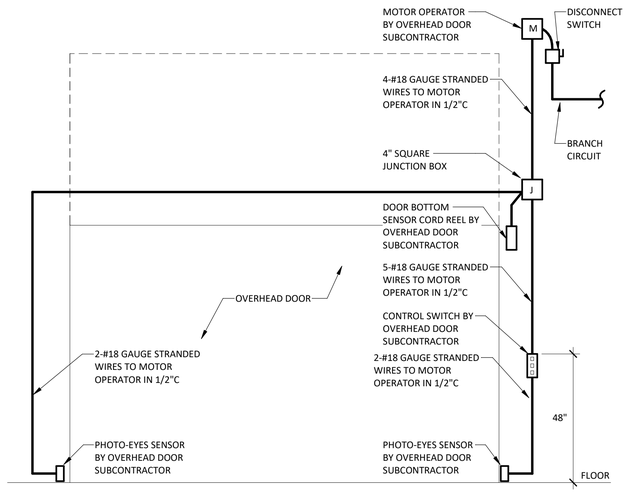
2 LIGHT FIXTURE INSTALLATION DETAIL

Electrical — NO SCALE



3 OVERHEAD DOOR INSTALLATION DETAIL

Electrical — NOT TO SCALE



GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO PROVIDE CONNECTION TO MOTOR OPERATOR, DISCONNECT SWITCH, JUNCTION BOXES, CONDUIT, CONDUCTORS, BRANCH CIRCUITS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE DIVISION 26 SECTION.
2. OVERHEAD DOOR SUBCONTRACTOR TO PROVIDE FINAL CONNECTIONS FOR CONTROL AND SAFETY DEVICES AS REQUIRED.
3. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAM FOR FINAL CONDUCTOR SIZES AND ARRANGEMENT.
4. ELECTRICAL SUBCONTRACTOR TO FURNISH AND INSTALL THE CONDUIT, BOXES AND 18 GA. STRANDED WIRE FOR THE OVERHEAD DOOR CONTROLS. FINAL CONNECTIONS OF CONTROL WIRING TO BE PROVIDED BY THE OVERHEAD DOOR SUBCONTRACTOR.

DRY-TYPE TRANSFORMER SCHEDULE

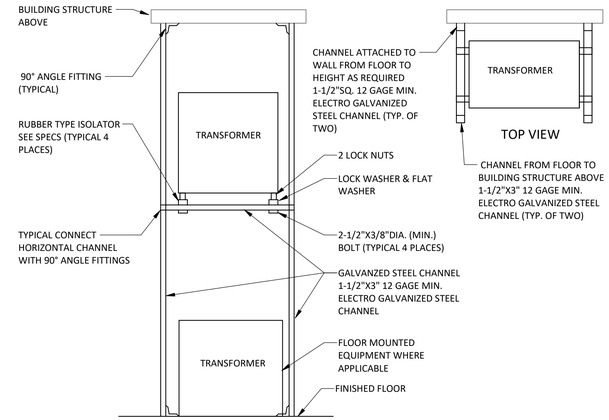
MK	DESCRIPTION									
	KVA (1)	9	15	30	45	75	112.5	150	225	300
A	PRIMARY VOLTS	480	480	480	480	480	480	480	480	480
B	SECONDARY VOLTS	208	208	208	208	208	208	208	208	208
C	PHASE	3	3	3	3	3	3	3	3	3
D	PRIMARY FUSE / CB	15/3	25/3	45/3	70/3	125/3	175/3	225/3	350/3	450/3
E	PRIMARY FEEDER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
F	SECONDARY FUSE / CB	30/3	50/3	100/3	150/3	250/3	400/3	500/3	750/3	1000/3
G	SECONDARY FEEDER	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
H	EQUIP. GR. (PRI)	#12	#10	#10	#8	#6	#6	#4	#2	#2
J	EQUIP. GR. (SEC)	#10	#10	#8	#6	#2	#2	#2	#1/0	#2/0
K	BONDING JUMPER	#8	#8	#8	#6	#2	#1/0	#1/0	#2/0	#4/0
L	MAIN BONDING JUMPER	#8	#8	#8	#6	#2	#1/0	#1/0	#2/0	#4/0
M	GR. ELECTRODE COND.	#8	#8	#8	#6	#2	#1/0	#1/0	#2/0	#3/0
N	GR. ELECTRODE	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

FEEDER SCHEDULE: (1)

1. 3#12 & 1#12 GR IN 3/4" CONDUIT
2. 3#10 & 1#10 GR IN 3/4" CONDUIT
3. 3#6 & 1#10 GR IN 3/4" CONDUIT
4. 3#4 & 1#8 GR IN 1" CONDUIT
5. 3#1/0 & 1#6 GR IN 2" CONDUIT
6. 3#2/0 & 1#6 GR IN 2" CONDUIT
7. 3#4/0 & 1#4 GR IN 2" CONDUIT
8. 3-500MCM & 1#2 GR IN 3" CONDUIT
9. TWO SETS, 3-250MCM & 1#2 GR IN 3" CONDUIT
10. 4#10 & 1#10 GR IN 3/4" CONDUIT
11. 4#6 & 1#10 GR IN 1" CONDUIT
12. 4#2 & 1#8 GR IN 1 1/2" CONDUIT
13. 4#1/0 & 1#6 GR IN 2" CONDUIT
14. 4-250 KCMIL & 1#4 GR IN 3" CONDUIT
15. 4-600MCM & 1#2 GR IN 4" CONDUIT
16. TWO SETS, 4-250MCM & 1#2 GR IN 2-3" CONDUIT
17. TWO SETS, 4-500MCM & 1#1/0 GR IN 2-4" CONDUIT
18. THREE SETS, 4-500MCM & 1#2/0 GR IN 3-4" CONDUIT

TRANSFORMER SCHEDULE NOTES:

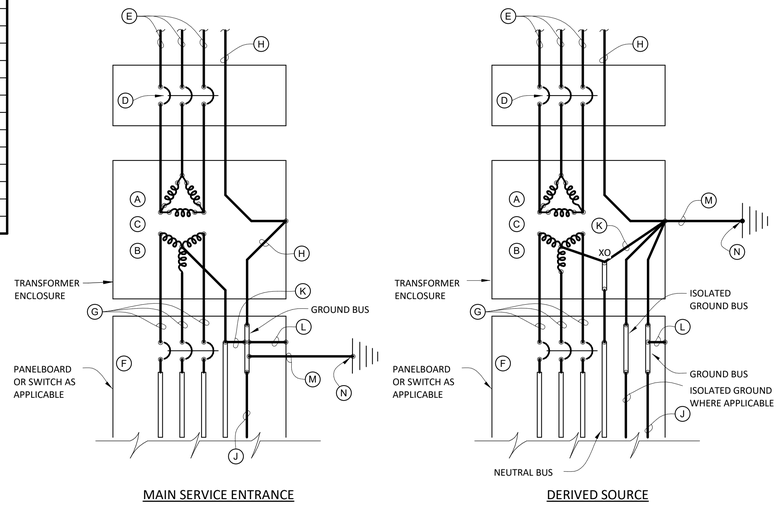
1. CONDUCTOR & GROUND INSULATION SHALL BE THHN IN DRY LOCATIONS & THWN IN WET LOCATIONS.
2. STEEL FRAME OF BUILDING & INTERIOR COPPER DOMESTIC COLD WATER PIPING.



FRONT VIEW

4 TRANSFORMER RACK MTG. DETAIL

Electrical — NO SCALE



5 J-HANGER SUPPORT DETAIL

Electrical — NO SCALE

6 DRY-TYPE TRANSFORMER DETAIL

Electrical — NO SCALE

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CONSTRUCTION DOCUMENTS

STATE OF TEXAS — EDWARD C. MONACO — 57786 — REGISTERED PROFESSIONAL ENGINEER — 01.24.2024

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Drawn By: JM
Checked By: ECM
Job Number.: 2023.113

ELECTRICAL DETAILS

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

E-4.0

1/31/2024 11:56:00 AM

ENGINEERING &
SKYE MEP
COMMISSIONING
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San Antonio, Texas 78217
State of Texas Firm Registration No. F-19468

GENERAL PLUMBING NOTES:

1. ALL PLUMBING INSTALLATIONS AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH ALL CURRENT LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS AND AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.

2. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS AND MOUNTING HEIGHTS. INSTALLATION SHALL BE IN COMPLIANCE WITH THE LATEST ADOPTED ADA/TAS ACCESSIBILITY REQUIREMENTS.

3. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.

4. THE CONTRACTOR MUST FOLLOW ALL OWNER STANDARDS RELATED TO MATERIALS, EQUIPMENT, FIXTURES, AND INSTALLATION.

5. ALL DIMENSIONS AND ACTUAL CONSTRUCTION CONDITIONS MUST BE VERIFIED AT THE JOB SITE.

6. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING OR ANY ADDITIONAL OFFSETS AND FITTINGS REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES.

7. COORDINATE ALL PIPE ROUTING WITH ALL OTHER TRADES PRIOR TO INSTALLATION AND ADJUST AS REQUIRED. ROUTE ALL PIPING TO AVOID DUCTWORK, PIPING, AND BUILDING STRUCTURE.

8. SLEEVE AND FIRE STOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, ETC. THE CONTRACTOR SHALL COORDINATE PENETRATIONS THROUGH EXISTING STRUCTURAL WALLS WITH THE STRUCTURAL ENGINEER AND OWNER PRIOR TO ANY CORE DRILLING.

9. DO NOT INSTALL WATER LINES OR VENT LINES ABOVE ELECTRICAL PANELBOARDS. COORDINATE PANELBOARD LOCATIONS WITH THE ELECTRICAL CONTRACTOR.

10. INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY ALL ELEVATIONS BEFORE BEGINNING WORK.

11. VERIFY EXISTING UNDERGROUND PIPE SIZES, INVERT ELEVATIONS, AND LOCATION PRIOR TO BEGINNING ANY WORK.

12. ALL FIXTURES SHALL BE PROPERLY VENTED TO THE ATMOSPHERE.

13. ALL SANITARY AND VENT PIPING NOT SHOWN SHALL BE ROUTED AND REVENTED OVERHEAD, IN ACCORDANCE WITH THE LATEST ADOPTED INTERNATIONAL PLUMBING CODE AND TERMINATED THROUGH THE ROOF.

14. ALL POTABLE COLD WATER, HOT WATER, AND TEMPERED WATER PIPING SHALL BE COPPER.

15. ALL ABOVE GRADE POTABLE COLD WATER, HOT WATER, AND TEMPERED WATER PIPING SHALL BE TYPE "L" HARD COPPER.

16. DOMESTIC WATER PIPING BELOW FLOOR SHALL BE TYPE 'K' SOFT COPPER COMPLYING WITH ASTM B-88, FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR UNLESS NOTED OTHERWISE.

17. PROVIDE DIELECTRIC FITTINGS FOR CONNECTING DISSIMILAR PIPING MATERIAL.

18. WASTE AND VENT LINES SHALL BE CAST IRON.

19. COPPER LINES IN CONCRETE TO BE PROTECTED WITH PLASTIC JACKET.

20. INSULATE ALL HOT WATER, HOT WATER RETURN LINES AND CONDENSATE LINES (INCLUDING LINES RUN ABOVE CEILING) WITH 1" OWENS-CORNING FIBERGLASS ASJ /SSL-11 OR EQUIVALENT FOR PIPE SIZES 1-1/2" AND SMALLER; PROVIDE 1-1/2" THICK INSULATION FOR PIPE SIZES LARGER THAN 1-1/2".

21. ALL BELOW FLOOR DOMESTIC WATER PIPING LOCATED INSIDE BUILDINGS WITH SLAB ON GRADE FOUNDATIONS SHALL NOT HAVE JOINTS BELOW THE FLOOR.

22. ALL SANITARY SEWER WASTE LINES SHALL SLOPE AT 1/4" PER FOOT.

23. FURNISH AND INSTALL PLATED SHEET METAL SADDLES BETWEEN PIPE HANGERS AND INSULATION. SECURE SADDLES WITH TWO PLENUM RATED STRAPS.

24. FURNISH AND INSTALL HOT DIP GALVANIZED SHEET METAL SADDLES BETWEEN PIPE HANGERS AND INSULATION FOR OUTDOOR APPLICATIONS. SECURE SADDLES WITH TWO PLENUM RATED STRAPS.

25. FURNISH AND INSTALL GALVANIZED CLEVIS HANGERS WITH GALVANIZED RODS FOR ALL SANITARY AND VENT PIPING ABOVE GROUND.

26. PROVIDE GALVANIZED TRAPEZE HANGERS OR COPPER-PLATED CLEVIS HANGERS WITH GALVANIZED THREADED RODS TO SUPPORT ALL COPPER PIPES ABOVE GRADE.

27. FURNISH AND INSTALL ACCESS PANELS TO ALL VALVES LOCATED WITHIN CHASES OR ABOVE NON-ACCESSIBLE CEILINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR CEILING TYPES.

28. THE FOLLOWING TYPES OF JOINTS AND CONNECTIONS SHALL BE PROHIBITED: CEMENT OR CONCRETE JOINTS, JOINTS MADE WITH FITTINGS NOT APPROVED FOR THE SPECIFIED INSTALLATION, SOLVENT-CEMENT JOINTS BETWEEN DIFFERENT TYPES OF PLASTIC PIPE, AND SADDLE-TYPE FITTINGS.

29. COMPRESSED AIR PIPING SHALL BE TYPE 'L' COPPER.

30. COMPRESSED AIR POINT OF USE EQUIPMENT CONNECTIONS SHALL BE PROVIDED W/ NIBCO BRONZE BALL VALVE W/ SAFETY VENT FEATURE (MODEL T-585-70-SV OR EQUAL).

PLUMBING LEGEND

NOT ALL ITEMS APPLY TO THIS PROJECT

MARK	DESCRIPTION	MARK	DESCRIPTION
AV	ACID VENT PIPING		PRESSURE REDUCING VALVE
AW	ACID WASTE PIPING	WH	WALL HYDRANT
CA	COMPRESSED AIR PIPING		WATER HAMMER ARRESTOR (PISTON TYPE)
	COLD WATER, DOMESTIC PIPING	(AX)	INDICATES ASSUMED EXISTING
	HOT WATER, DOMESTIC PIPING (120° F.)	(EX)	INDICATES EXISTING
	HOT WATER RETURN, DOMESTIC PIPING (110° F.)	AC	ABOVE CEILING
SS	SANITARY SEWER PIPING	AD	ACCESS DOOR
	VENT PIPING	AFF	ABOVE FINISH FLOOR
	EXISTING COLD WATER, DOMESTIC PIPING	AP	ACCESS PANEL
	EXISTING HOT WATER, DOMESTIC PIPING (120° F.)	BFF	BELOW FINISH FLOOR
	EXISTING HOT WATER RETURN, DOMESTIC PIPING (110° F.)	BFP	BACKFLOW PREVENTOR
SS	EXISTING SANITARY SEWER PIPING	CFH	CUBIC FEET PER HOUR
	EXISTING VENT PIPING	CO	CLEANOUT
	CAP ON END OF PIPE	CW	COLD WATER
FCO	FLOOR CLEANOUT	CD	CONDENSATE DRAIN
WCO	WALL CLEANOUT	DCO	DOUBLE YARD CLEANOUT
YCO	YARD CLEANOUT	EDF	ELECTRIC DRINKING FOUNTAIN
	DIRECTION OF FLOW	EWH	ELECTRIC WATER HEATER
FD	FLOOR DRAIN	ELEV	ELEVATION
HD	HUB DRAIN	FCO	FLOOR CLEANOUT
RD	ROOF DRAIN	FD	FLOOR DRAIN
OD	OVERFLOW DRAIN	GPM	GALLONS PER MINUTE
	ELBOW	GPH	GALLONS PER HOUR
	ELBOW UP	HB	HOSE BIB
	ELBOW DOWN	HW	HOT WATER (DOMESTIC)
P-XX	EQUIPMENT TAG/MARK	HWR	HOT WATER RETURN (DOMESTIC)
FS	FLOOR SINK	I.E.	INVERT ELEVATION (INV. EL)
	FLANGED JOINT	IWH	INSTANTANEOUS WATER HEATER
HB	HOSE BIBB	KW	KILOWATT
XX	NEW WORK KEYED NOTES	NB	NICKEL BRONZE
XX	DEMOLITION KEYED NOTES	N.O.	NORMALLY OPEN
XX	DETAIL KEYED NOTES	N.C.	NORMALLY CLOSED
	PUMP	OH	OVERHEAD
POC	POINT OF CONNECTION	RPM	REVOLUTIONS PER MINUTE
	TEE DOWN	SS	SANITARY SEWER
	TEE IN PLAN	TMV	THERMOSTATIC MIXING VALVE
	TEE UP	TDCO	TRAFFIC DUTY CLEANOUT
	SANITARY TEE IN PLAN	TWCO	TWO WAY CLEAN OUT
	PIPE SIZE TRANSITION	TSP	TRAP SEAL PRIMER
	TRAP PRIMER TUBING	UG	UNDERGROUND
	THERMOMETER TEST OR CONTROL BULB WELL	VTR	VENT THRU ROOF
	UNION	V	VENT OR VALVE
	BALL VALVE	WC	WATER CLOSET
	CHECK VALVE	WCO	WALL CLEAN OUT
	GATE VALVE	YCO	YARD CLEANOUT
	PLUG VALVE OR (AGA GAS VALVE)		

CONSTRUCTION DOCUMENTS

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EXP. 3-31-24

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Drawn By:	BRM
Checked By:	DRG
Job Number.:	2023.113

PLUMBING LEGEND AND NOTES

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

P-0.1

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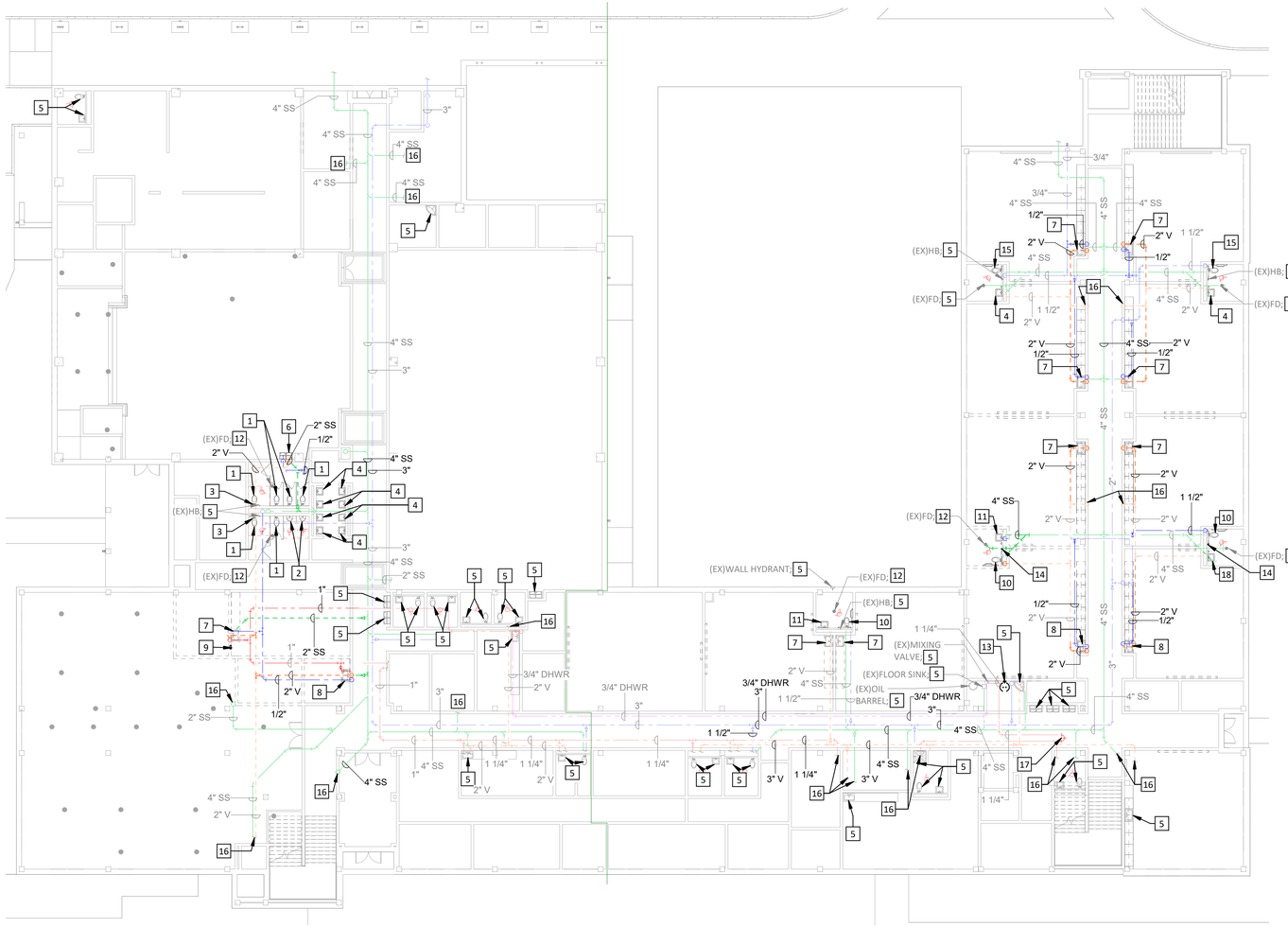

1 PLUMBING DEMOLITION - FIRST FLOOR

Plumbing

1/16" = 1'-0"

PLUMBING DEMOLITION KEYED NOTES, PLAN 101:

1. EXISTING WALL-MOUNTED FLUSH VALVE WATER CLOSET AND SEAT SHALL BE REMOVED AND RETAINED FOR REUSE. EXISTING SEWER WALL STUB-OUT SHALL BE REMOVED AND REWORKED FOR RECONNECTION. EXISTING CW STUB-OUT SHALL BE REMOVED AND REWORKED FOR RECONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL REMAIN FOR REUSE. EXISTING IN-WALL FIXTURE CARRIER SHALL BE EVALUATED FOR REUSE TO INCREASE THE EXISTING FIXTURE SEAT HEIGHT.
2. EXISTING WALL-MOUNTED FLUSH VALVE URINAL SHALL BE REMOVED AND RETAINED FOR REUSE. EXISTING SEWER WALL STUB-OUT SHALL BE REMOVED AND REWORKED FOR RECONNECTION. EXISTING CW STUB-OUT SHALL BE REMOVED AND REWORKED FOR RECONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL REMAIN FOR REUSE. EXISTING IN-WALL FIXTURE CARRIER SHALL BE EVALUATED FOR REUSE TO INCREASE THE EXISTING FIXTURE RIM HEIGHT.
3. EXISTING FLUSH VALVE IS EQUIPPED WITH TRAP PRIMER SUPPLY ACCESSORY THAT SHALL BE REMOVED AND RETAINED FOR REUSE; ENSURE TRAP PRIMER SUPPLY PIPING IS CAREFULLY DISCONNECTED AND RETAINED FOR RECONNECTION.
4. EXISTING WALL-MOUNTED LAVATORY, FAUCET, SUPPLIES, RISERS, P-TRAP, AND TAILPIECE SHALL BE REMOVED AND RETAINED FOR REUSE. EXISTING SEWER STUB-OUT SHALL REMAIN FOR RECONNECTION. EXISTING WATER STUB-OUT SHALL REMAIN FOR RECONNECTION. EXISTING IN-WALL FIXTURE CARRIER SHALL BE EVALUATED FOR REUSE TO INCREASE THE FIXTURE RIM HEIGHT.
5. EXISTING FIXTURE SHALL REMAIN; ENSURE EXISTING UTILITY CONNECTIONS AND FIXTURE REMAIN ACTIVE AFTER RENOVATION IS COMPLETE.
6. EXISTING BI-LEVEL ELECTRIC DRINKING FOUNTAIN, STOP, SUPPLY, TAILPIECE, AND P-TRAP SHALL BE REMOVED. EXISTING UTILITIES SHALL BE REMOVED BACK TO NEAREST BRANCH CONNECTION AT NEAREST MAIN AND CAPPED. REMOVE EXISTING 2"SS WASTE BACK TO EXISTING 4" BRANCH AT MAIN IN CRAWLSPACE AND MAKE READY FOR EXTENSION AS PART OF NEW WORK. RETAIN 2"V BRANCH ABOVE CEILING FOR REUSE.
7. EXISTING COUNTER-MOUNTED ONE-COMPARTMENT STAINLESS STEEL SINK, FAUCET, SUPPLIES, RISERS, P-TRAP, AND TAILPIECE SHALL BE REMOVED. EXISTING SEWER STUB-OUT IN WALL SHALL BE REMOVED TO NEAREST BRANCH CONNECTION AT MAIN AND CAPPED. EXISTING VENT, CW, AND HW STUB-OUTS SHALL BE REMOVED TO NEAREST BRANCH CONNECTIONS AT MAIN AND CAPPED.
8. EXISTING COUNTER-MOUNTED ONE-COMPARTMENT STAINLESS STEEL SINK, FAUCET, SUPPLIES, RISERS, P-TRAP, AND TAILPIECE SHALL BE REMOVED. EXISTING SEWER STUB-OUT IN WALL SHALL REMAIN FOR REUSE AND EXTENSION. EXISTING CW AND HW STUB-OUTS SHALL REMAIN FOR REUSE AND EXTENSION.
9. EXISTING WALL-MOUNTED ICEMAKER WALL BOX SHALL BE REMOVED. EXISTING CW STUB-OUT SHALL BE REMOVED TO NEAREST BRANCH CONNECTION AT MAIN AND CAPPED.
10. EXISTING FLOOR-MOUNTED FLUSH VALVE WATER CLOSET AND SEAT SHALL BE REMOVED. EXISTING SEWER STUB-OUT SHALL BE REMOVED BACK TO NEAREST BRANCH CONNECTION FROM MAIN AND CAPPED. EXISTING CW STUB-OUT SHALL BE REMOVED BACK TO NEAREST BRANCH CONNECTION FROM MAIN AND CAPPED. EXISTING VENT PIPING UTILITY CONNECTION SHALL BE REMOVED BACK TO NEAREST BRANCH CONNECTION FROM MAIN AND CAPPED. EXISTING TRAP PRIMER ACCESSORY SHALL BE REMOVED. PATCH ALL WALL PENETRATIONS TO MATCH EXISTING.
11. EXISTING WALL-MOUNTED LAVATORY, FAUCET, SUPPLIES, RISERS, P-TRAP, AND TAILPIECE SHALL BE REMOVED. EXISTING SEWER STUB-OUT IN WALL SHALL BE REMOVED TO NEAREST BRANCH CONNECTION AT MAIN AND CAPPED. EXISTING VENT, CW, AND HW STUB-OUTS SHALL BE REMOVED TO NEAREST BRANCH CONNECTIONS AT MAIN AND CAPPED.
12. CLEAN EXISTING FLOOR DRAIN GRATE WITH WIRE BRUSH AND ENSURE ITEM IS IN GOOD WORKING ORDER. VERIFY SOURCE OF TRAP PRIMER AND ENSURE SERVICE REMAINS ACTIVE AFTER RENOVATION IS COMPLETE. PROVIDE PRO-SET TRAP GUARD IF EXISTING FLOOR DRAIN HAS NO FUNCTIONING TRAP PRIMER MEANS.
13. EXISTING 50-GALLON A.O. SMITH ELECTRIC (6kW, 208V) WATER HEATER ON HOUSEKEEPING PAD SHALL BE REMOVED AND REPLACED; EXISTING EXPANSION TANK SHALL BE REMOVED AND REPLACED; EXISTING COLD WATER, HOT WATER, HOT WATER RETURN AND DRAINAGE UTILITIES SHALL REMAIN IN PLACE FOR RECONNECTION. ENSURE HW SERVICE REMAINS ACTIVE FOR UPDATED FIXTURES REMAINING ON SYSTEM AFTER RENOVATION IS COMPLETE. REMOVE EXISTING HOUSEKEEPING PAD FOR NEW HOUSEKEWEPING PAD TO BE INSTALLED IN IT'S PLACE.
14. EXISTING WALL-MOUNTED HOSE BIBB SHALL BE REMOVED. EXISTING CW STUB-OUT SHALL BE REMOVED TO NEAREST BRANCH CONNECTIONS AT MAIN ABOVE CEILING AND CAPPED.
15. EXISTING FLOOR-MOUNTED FLUSH VALVE WATER CLOSET AND SEAT SHALL BE REMOVED. EXISTING SEWER STUB-OUT SHALL BE REMOVED AND REWORKED FOR RECONNECTION. EXISTING CW STUB-OUT SHALL BE REMOVED AND REWORKED FOR RECONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL REMAIN FOR REUSE.
16. ENSURE EXISTING BRANCH CONNECTIONS FROM MAIN REMAIN ACTIVE AFTER RENOVATION IS COMPLETE.
17. SITE LOCATE EXISTING 1-1/4"HW LOOP, INTERCEPT AND REMOVE FITTINGS NEEDED TO EXTEND 1-1/4"HW LOOP SHOWN ON NEW WORK PLANS.
18. EXISTING WALL-MOUNTED LAVATORY, FAUCET, SUPPLIES, RISERS, P-TRAP, AND TAILPIECE SHALL BE REMOVED. EXISTING SEWER STUB-OUT IN WALL SHALL BE REMOVED AND CAPPED IN WALL. EXISTING VENT, CW, AND HW STUB-OUTS SHALL BE REMOVED AND CAPPED IN WALL. REPAIR WALL TO MATCH EXISTING.

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Drawn By:	Author
Checked By:	Checker
Job Number.:	2023.113

PLUMBING DEMOLITION PLAN

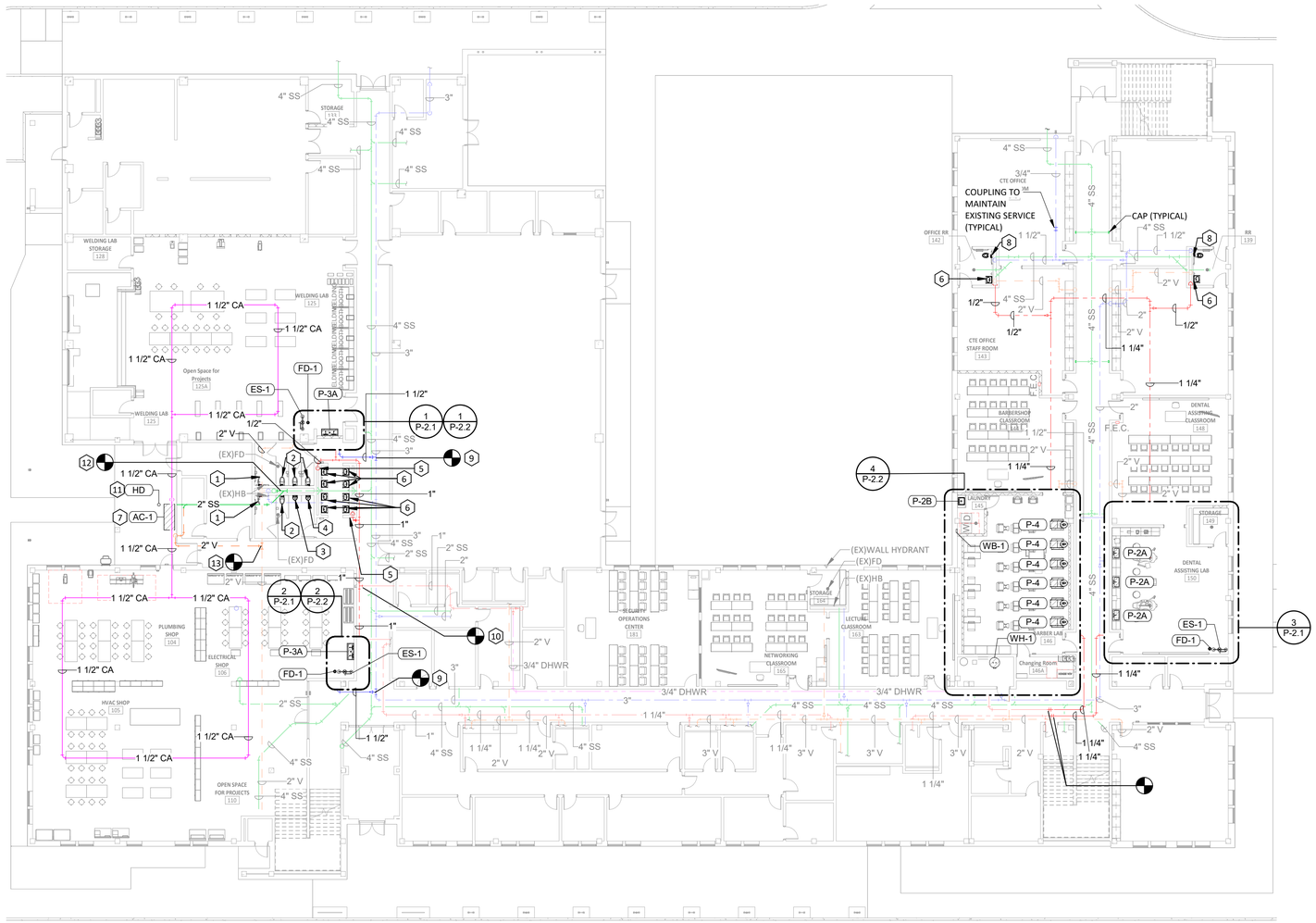
No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

PD-1.1

1/31/2024 12:27:27 PM



NORTH

1 PLUMBING PLAN - FIRST FLOOR

Plumbing

1/16" = 1'-0"

PLUMBING NEW WORK KEYED NOTES, SHEET P-1.1:

1. RETAINED WALL-MOUNTED FLUSH VALVE WATER CLOSET AND SEAT SHALL BE REINSTALLED ON EXISTING CARRIER INCREASED TO PROVIDE ADA/TAS SEAT HEIGHT OF 17" ABOVE FINISHED FLOOR. EXISTING SEWER WALL STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW SEAT HEIGHT- PROVIDE 4"SS CONNECTION. EXISTING CW STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW SEAT HEIGHT - PROVIDE 1"CW CONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL BE RECONNECTED - PROVIDE 2"V CONNECTION. IF EXISTING CARRIER CANNOT BE ADJUSTED TO INCREASE SEAT HEIGHT; NOTIFY ENGINEER. EXISTING FLUSH VALVE IS EQUIPPED WITH TRAP PRIMER SUPPLY ACCESSORY THAT SHALL BE REINSTALLED TO EXISTING TRAP PRIMER SUPPLY PIPING
2. RETAINED WALL-MOUNTED FLUSH VALVE WATER CLOSET AND SEAT SHALL BE REINSTALLED ON EXISTING CARRIER INCREASED TO PROVIDE SEAT HEIGHT OF 15" ABOVE FINISHED FLOOR. EXISTING SEWER WALL STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW SEAT HEIGHT- PROVIDE 4"SS CONNECTION. EXISTING CW STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW SEAT HEIGHT - PROVIDE 1"CW CONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL BE RECONNECTED - PROVIDE 2"V CONNECTION. IF EXISTING CARRIER CANNOT BE ADJUSTED TO INCREASE SEAT HEIGHT; NOTIFY ENGINEER.
3. RETAINED WALL-MOUNTED FLUSH VALVE URINAL SHALL BE REINSTALLED ON EXISTING CARRIER INCREASED TO PROVIDE ADA/TAS RIM HEIGHT. EXISTING SEWER WALL STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW RIM HEIGHT- PROVIDE 2"SS CONNECTION. EXISTING CW STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW RIM HEIGHT - PROVIDE 3/4"CW CONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL BE RECONNECTED - PROVIDE 2"V CONNECTION. IF EXISTING CARRIER CANNOT BE ADJUSTED TO INCREASE RIM HEIGHT; NOTIFY ENGINEER.
4. RETAINED WALL-MOUNTED FLUSH VALVE URINAL SHALL BE REINSTALLED ON EXISTING CARRIER INCREASED TO PROVIDE RIM HEIGHT OF XX" ABOVE FINISHED FLOOR. EXISTING SEWER WALL STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW RIM HEIGHT- PROVIDE 2"SS CONNECTION. EXISTING CW STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW RIM HEIGHT - PROVIDE 3/4"CW CONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL BE RECONNECTED - PROVIDE 2"V CONNECTION. IF EXISTING CARRIER CANNOT BE ADJUSTED TO INCREASE RIM HEIGHT; NOTIFY ENGINEER.
5. EXTEND 1/2"HW FROM NEW HW SERVICE EXTENDED ABOVE CEILING TO SERVE REINSTALLED LAVATORIES. PROVIDE SUPPLIES AND STOPS BELOW FIXTURES.
6. EXISTING WALL-MOUNTED LAVATORY, FAUCET, SUPPLIES, RISERS, P-TRAP, AND TAILPIECE SHALL BE REINSTALLED ON EXISTING CARRIER INCREASED TO PROVIDE ADA/TAS RIM HEIGHT. RECONNECT TO EXISTING SEWER STUB-OUT, EXISTING WATER STUB-OUT, AND EXISTING VENT. IF EXISTING CARRIER CANNOT BE ADJUSTED TO INCREASE RIM HEIGHT; NOTIFY ENGINEER. PROVIDE 1/2"HW UTILITY CONNECTION FROM NEW HW EXTENDED OVERHEAD.
7. PROVIDE AC-1 10HP AIR COMPRESSOR W/ DRYER. INSTALL ON CONCRETE HOUSEKEEPING PAD W/ CHAMFERED EDGES. ROUTE 1-1/4"CA PIPING UP ALONG WALL AND INTO BUILDING. ROUTE ALL DRAIN LINES TO HUB DRAIN AND TERMINATE W/ AIR GAP.
8. INSTALL FLOOR-MOUNTED P-1A WATER CLOSET AND SEAT. EXISTING SEWER WALL STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW CENTERLINE DISTANCE OF 18" FROM ADJACENT WALL; PROVIDE 4"SS CONNECTION. EXISTING CW STUB-OUT SHALL BE REWORKED FOR RECONNECTION TO ACCOMODATE NEW CENTERLINE DISTANCE - PROVIDE 1"CW CONNECTION. EXISTING VENT PIPING UTILITY CONNECTION SHALL BE RECONNECTED - PROVIDE 2"V CONNECTION. EXISTING FLUSH VALVE IS EQUIPPED WITH TRAP PRIMER SUPPLY ACCESSORY THAT SHALL BE REINSTALLED TO EXISTING TRAP PRIMER SUPPLY PIPING.
9. PROVIDE 1-1/2"CW CONNECTION TO EXISTING 3"CW LOCATED IN CRAWLSPACE BELOW.
10. PROVIDE 1"HW TEE TO EXISTING 1"HW ABOVE CORRIDOR CEILING.
11. PROVIDE OPEN HUB DRAIN FOR CONDENSATE DRAINAGE FROM AC-1 EQUIPMENT; TERMINATE ALL DRAIN LINES W/ AIR GAP.
12. INTERCEPT EXISTING 4"SS IN CRAWLSPACE BELOW AND EXTEND 2"SS TO NEW HUB DRAIN SERVING AC-1 EQPT.
13. INTERCEPT EXISTING VENT PIPING ABOVE CEILING AND PROVIDE 2"V EXTENSION TO SERVE HUB DRAIN.

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Drawn By:	BRM
Checked By:	DRG
Job Number.:	2023.113

PLUMBING PLAN

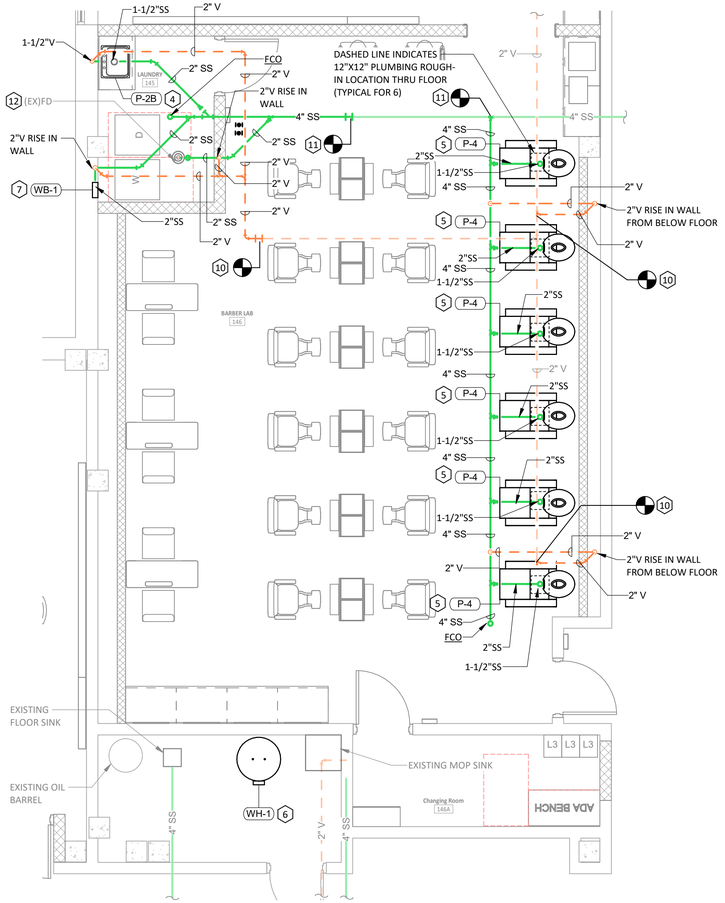
No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

P-1.1

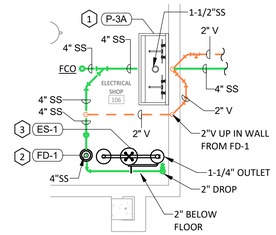
1/31/2024 12:26:59 PM



NORTH

4 ENLARGED WASTE & VENT PLAN - BARBER LAB 146

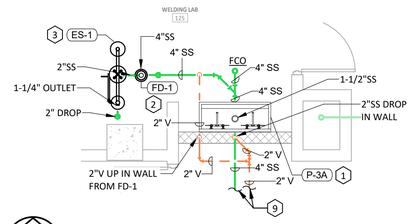
Plumbing 1/4" = 1'-0"



NORTH

2 ENLARGED WASTE & VENT PLAN - ELECTRICAL SHOP 106

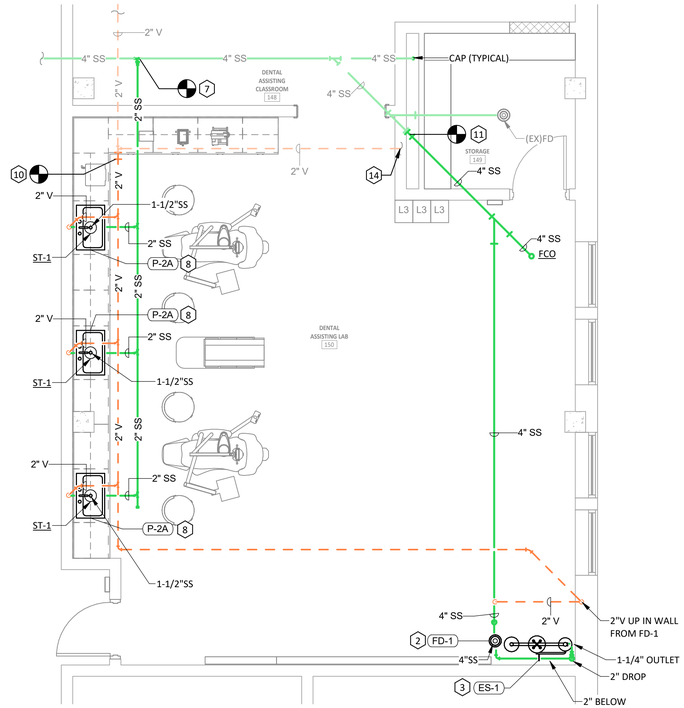
Plumbing 1/4" = 1'-0"



NORTH

1 ENLARGED WASTE & VENT PLAN - WELDING LAB 125

Plumbing 1/4" = 1'-0"



NORTH

3 ENLARGED WASTE & VENT PLAN - DENTAL LAB 150

Plumbing 1/4" = 1'-0"

PLUMBING NEW WORK KEYED NOTES, SHEET P-2.1:

1. PROVIDE P-3A HAND WASH TROUGH SINK; COORDINATE RIM HEIGHT W/ ARCHITECT. PROVIDE 1-1/2"SS DRAIN CONNECTION TO 2"SS DROP IN WALL WITH 2"V RISER ROUTED IN WALL. PROVIDE 1/2"CW AND 1/2"HW TO EACH FAUCET FROM NEW UTILITY DROPS IN WALL. PROVIDE WASTE TRAP PRIMER CONNECTION AND ROUTE TO FD-1 TRAP PRIMER CONNECTION.
2. PROVIDE FD-1 FLOOR DRAIN. PROVIDE 4"SS UTILITY CONNECTION W/ FULL-SIZE TRAP AND 1/2" TRAP PRIMER CONNECTION FROM P-3A WASTE TRAP PRIMER CONNECTION.
3. PROVIDE ES-1 EMERGENCY EYEWASH/SHOWER. PROVIDE 1-1/4" TEMPERED WATER INLET AND 1-1/4" NPT FEMALE DRAIN OUTLET. ROUTE 1-1/4" DRAIN TO TIE-IN TO 4" TAILPIECE OF FD-1; SEE 2/P-4.1 FOR EMERGENCY SHOWER/EYEWASH DETAIL.
4. PROVIDE P-2B SINK AND FAUCET FIXTURE IN NEW COUNTERTOP; PROVIDE 1/2"CW, 1/2"HW, 1-1/2"SS, AND 1-1/2"V UTILITY CONNECTIONS.
5. PROVIDE P-4 SHAMPOO BOWL; PROVIDE 1/2"CW, 1/2"HW, 1-1/2"SS, AND 1-1/2"V UTILITY CONNECTIONS.
6. PROVIDE WH-1 ELEC. WATER HEATER ON EXISTING CONCRETE HOUSEKEEPING PAD; PROVIDE 3/4"CW AND 3/4"HW UTILITY CONNECTIONS TO EXISTING UTILITIES ALONG WALL; PROVIDE FULL-SIZE DISCHARGE TO T&P RELIEF DISCHARGE AND DRAIN LINE DOWN TO ABOVE RIM OF EXISTING FLOOR SINK.
7. PROVIDE WB-1 WASHING MACHINE WALL BOX; PROVIDE 1/2"CW, 1/2"HW, 2"SS, AND 2"V CONNECTIONS; SEE DETAIL 8/P4.1 FOR INSTALLATION DETAIL.
8. PROVIDE P-2A SINK AND FAUCET FIXTURE IN NEW COUNTERTOP; PROVIDE 1/2"CW, 1/2"HW, 1-1/2"SS, AND 1-1/2"V UTILITY CONNECTIONS. CONTRACTOR SHALL PROVIDE ST-1 SOLIDS TRAP AT WASTE OUTLET OF P-2A SINK FOR SOLIDS RECOVERY; PIPE TO 1-1/2"SS STUB-OUT IN WALL WITH 2"V RISING IN WALL.
9. EXTEND 4"SS TO EXISTING 4"SS LOCATED IN CRAWLSPACE BELOW RESTROOMS AND PROVIDE CONNECTION; EXTEND 2"V PIPING ABOVE CEILING TO TIE-IN TO EXISTING 2"V PIPING ROUTED TO EXISTING 4"VTR AND PROVIDE CONNECTION.
10. PROVIDE 2"V CONNECTION TO EXISTING 2"V PIPING ABOVE CEILING.
11. PROVIDE 4"SS TO EXISTING 4"SS PIPING IN CRAWL SPACE.
12. PROVIDE 2"SS CONNECTION W/ 2"VENT PIPNG RISING IN NEW WALL FOR EXISTING FLOOR DRAIN.
13. PROVIDE 2"SS TO EXISTING 4"SS PIPING IN CRAWL SPACE.
14. ENSURE EXISING VENT PIPING SERVING EXISTING FLOOR DRAIN REMAINS ACTIVE; EXISTING VENT PIPING IS NOT SHOWN IN IT'S ENTIRETY.

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Drawn By:	BRM
Checked By:	DRG
Job Number.:	2023.113

ENLARGED WASTE & VENT PLANS

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

P-2.1

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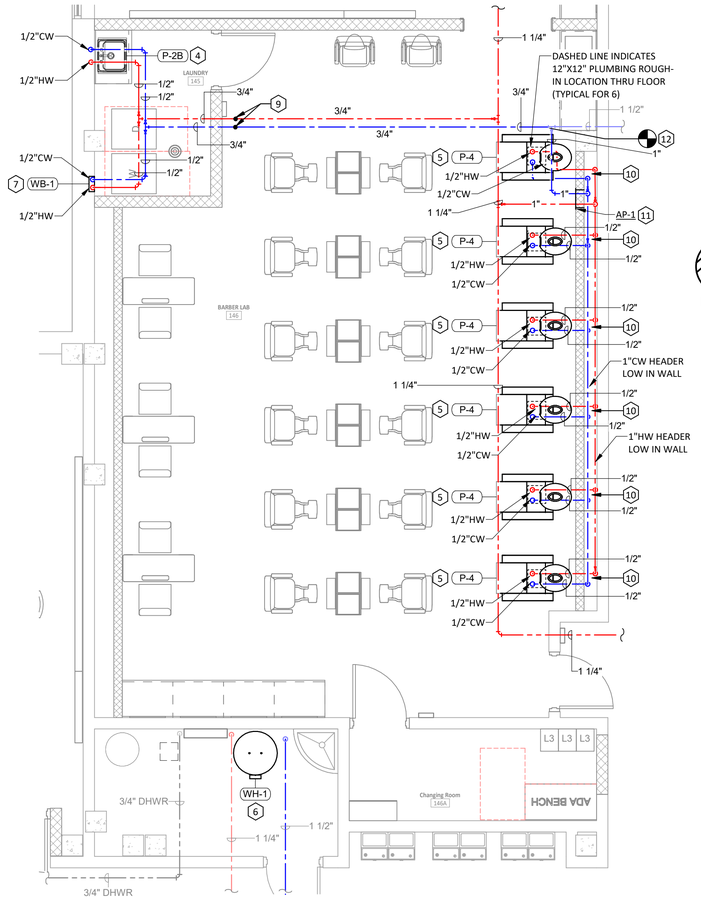
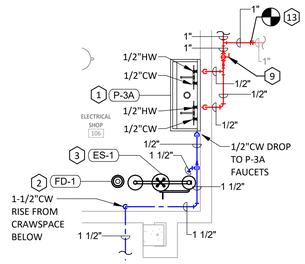


NORTH

4

ENLARGED DOMESTIC WATER PLAN - BARBER LAB 146

Plumbing 1/4" = 1'-0"

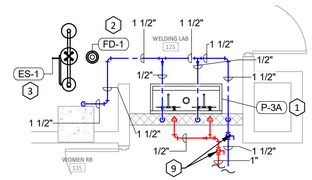


NORTH

2

ENLARGED DOMESTIC WATER PLAN - ELECTRICAL SHOP 106

Plumbing 1/4" = 1'-0"

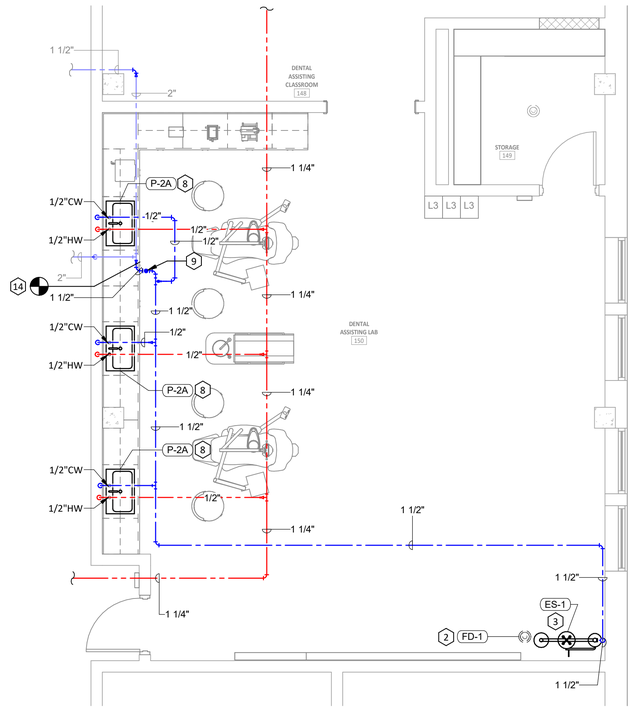


NORTH

1

ENLARGED DOMESTIC WATER PLAN - WELDING LAB 125

Plumbing 1/4" = 1'-0"



NORTH

3

ENLARGED DOMESTIC WATER PLAN - DENTAL LAB 150

Plumbing 1/4" = 1'-0"

PLUMBING NEW WORK KEYED NOTES, SHEET P-2.2:

1. PROVIDE P-3A HAND WASH TROUGH SINK; COORDINATE RIM HEIGHT W/ ARCHITECT. PROVIDE 1/2"CW AND 1/2"HW TO EACH FAUCET.
2. PROVIDE FD-1 FLOOR DRAIN. PROVIDE 1/2" TRAP PRIMER CONNECTION FROM ES-1 WASTE TRAP PRIMER CONNECTION.
3. PROVIDE ES-1 EMERGENCY EYEWASH/SHOWER. PROVIDE 1-1/2" WATER INLET.
4. PROVIDE P-2B SINK AND FAUCET FIXTURE IN NEW COUNTERTOP; PROVIDE 1/2"CW AND 1/2"HW UTILITY CONNECTIONS.
5. PROVIDE P-4 SHAMPOO BOWL; PROVIDE 1/2"CW AND 1/2"HW UTILITY CONNECTIONS.
6. PROVIDE WH-1 ELEC. WATER HEATER IN PLACE OF DEMOLISHED ELEC. WATER HEATER. CONTRACTOR SHALL PROVIDE NEW CONCRETE HOUSEKEEPING PAD; PROVIDE 1-1/4"CW AND 1-1/4"HW UTILITY CONNECTIONS TO EXISTING UTILITIES ALONG WALL; PROVIDE FULL-SIZE DISCHARGE TO T&P RELIEF DISCHARGE AND DRAIN LINE DOWN TO ABOVE RIM OF MOP SINK. WALL MOUNT EXPANSION TANK. ADJUST AND BALANCE EXISTING RECIRCULATION SYSTEM AND BALANCING VALVES.
7. PROVIDE WB-1 WASHING MACHINE WALL BOX; PROVIDE 1/2"CW AND 1/2"HW CONNECTIONS; SEE DETAIL 8/P4.1 FOR INSTALLATION DETAIL.
8. PROVIDE P-2A SINK AND FAUCET FIXTURE IN NEW COUNTERTOP; PROVIDE 1/2"CW AND 1/2"HW UTILITY CONNECTIONS.
9. PROVIDE LINE-SIZE FULL PORT, QUARTER TURN BALL VALVES ON WATER PIPING; ENSURE ACCESSIBILITY ABOVE CEILING AND TAG PER SPECIFICATIONS.
10. 1/2"CW AND 1/2"HW DROPS THRU FLOOR FROM HEADERS AND TURN TO RISE UP IN 12" X 12" ROUGH-IN LOCATION; INSULATE ALL PIPING AND FITTINGS EXPOSED IN CRAWLSPACE.
11. INSTALL AP-1 FOR ACCESS TO SHUT-OFF VALVES TO ISOLATE 1"CW AND 1"HW HEADERS IN WALL; COORDINATE HEIGHT W/ ARCHITECT.
12. INTERCEPT EXISTING 1-1/2"CW LINE ABOVE CEILING AND PROVIDE 3/4"CW TO LAUNDRY 145 AND 1"CW TO HEADERS IN WALL BEHIND SHAMPOO BOWL FIXTURES.
13. PROVIDE 1"HW EXTENSION TO EXISTING 1"HW ABOVE CORRIDOR CEILING.
14. PROVIDE 1-1/2"CW CONNECTION TO EXISTING 2"CW ABOVE CEILING.

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Drawn By:	BRM
Checked By:	DRG
Job Number.:	2023.113

ENLARGED DOMESTIC WATER

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

P-2.2

1/31/2024 12:27:13 PM

PLUMBING FIXTURE SCHEDULE

MARK	GENERAL DESCRIPTION	MINIMUM ROUGH-IN SIZES				MANUFACTURER	MODEL	DESCRIPTION
		WASTE	VENT	C.W.	H.W.			
P-2A	SINGLE COMPARTMENT DROP-IN SINK DENTAL LAB	2"	1-1/2"	1/2"	1/2"	ELKAY T&S BRASS McGUIRE SYMMONS LEONARD	#LRAD312265, #LK-35B #B-0892-01-CR2 #LFBV2-02 #LL-71B #170-LF-BP-BKT	SINGLE COMPARTMENT SINK: ELKAY "LUSTERTONE" #LRAD312265, 31" X 22" X 6.5"D, 18 GA. STAINLESS STEEL, SELF-RIMMING; 4" CENTERS, TWO-HOLE DRILLING. FITTING: T&S #B-0892-01-CR, DECK MOUNTED FAUCET WITH CERAMIC CARTRIDGES, 10-5/16" SPOUT, 4" WRIST BLADE HANDLES AND 1.5 GPM AERATOR. PROVIDE WITH: ELKAY MODEL #LK-35B STAINLESS STEEL BASKET STRAINER AND BODY, WITH 1½" OFFSET TAILPIECE. MCGUIRE ½" NPT X 3/8" COMPRESSION ¼ TURN BALL VALVE STOPS, CHROME PLATED BRASS ESCUTCHEONS AND BRAIDED STAINLESS STEEL FLEXIBLE SUPPLY RISERS WITH SYMMONS #LL-71B SCREEN AND CHECK VALVE ASSEMBLIES. THERMOSTATIC MIXING VALVE: LEONARD #170-LF-BP-BKT; LEAD FREE, 0.25 MIN. FLOW, 90-140F ADJUSTMENT, WITH COLD WATER BYPASS, MOUNTING BRACKET, INTEGRAL CHECK VALVES, LOCKING ADJUSTMENT CAP. MEETING ASSE 1070.
P-2B	SINGLE COMPARTMENT DROP-IN SINK LAUNDRY ROOM	2"	1-1/2"	1/2"	1/2"	ELKAY T&S BRASS McGUIRE SYMMONS LEONARD	#LRADQ221965, #LK-35B #B-0892-01-CR '#8912CF, #1000WC, 2 - #LFBV2-02 #LL-71B #170-LF-BP-BKT	SINGLE COMPARTMENT SINK: ELKAY "LUSTERTONE" #LRADQ221965, 22" X 19-1/2" X 6.5"D, 18 GA. STAINLESS STEEL, SELF-RIMMING; 4" CENTERS, TWO-HOLE DRILLING. FITTING: T&S #B-0892-01-CR, DECK MOUNTED FAUCET WITH CERAMIC CARTRIDGES, 10-5/16" SPOUT, 4" WRIST BLADE HANDLES AND 1.5 GPM AERATOR. PROVIDE WITH: ELKAY MODEL #LK-35B STAINLESS STEEL BASKET STRAINER AND BODY, WITH 1½" OFFSET TAILPIECE MCGUIRE ½" NPT X 3/8" COMPRESSION ¼ TURN BALL VALVE STOPS, CHROME PLATED BRASS ESCUTCHEONS AND BRAIDED STAINLESS STEEL FLEXIBLE SUPPLY RISERS WITH SYMMONS #LL-71B SCREEN AND CHECK VALVE ASSEMBLIES. THERMOSTATIC MIXING VALVE: LEONARD #170-LF-BP-BKT; LEAD FREE, 0.25 MIN. FLOW, 90-140F ADJUSTMENT, WITH COLD WATER BYPASS, MOUNTING BRACKET, INTEGRAL CHECK VALVES, LOCKING ADJUSTMENT CAP. MEETING ASSE 1070.
P-3A	HAND WASH TROUGH SINK	1-1/2"	1-1/2"	1/2"	1/2"	ELKAY LEONARD	#EWMA4820C #LK-18B 2 - #LK940GN05T4H #170-LF-BP-BKT	ELKAY #EWMA4820C 14 GAUGE 304-STAINLESS STEEL, WALL HUNG SINK; 48" X 20" X 18" WITH 45" X 16-1/2" X 8" DEEP BASIN; BUFFED SATIN FINISH. #LK-18B STAINLESS STEEL BASKET STRAINER AND 1-1/2" TAILPIECE. 2 - #LK940GN05T4H BACKSPLASH MOUNTED DUAL TEMPERATURE SINK FITTING WITH LEVER HANDLES AND 5-1/8" SWIVEL GOOSNECK SPOUT WITH 2.2 GPM FLOW STREAM REGULATOR. THERMOSTATIC MIXING VALVE: LEONARD #170-LF-BP-BKT; LEAD FREE, 0.25 MIN. FLOW, 90-140F ADJUSTMENT, WITH COLD WATER BYPASS, MOUNTING BRACKET, INTEGRAL CHECK VALVES, LOCKING ADJUSTMENT CAP. MEETING ASSE 1070.
P-4	SHAMPOO BOWL	2"	1-1/2"	1/2"	1/2"	McGUIRE SYMMONS	#8912CF, #1000WC, 2 - #LFBV2-02 #LL-71B	MCGUIRE ½" NPT X 3/8" COMPRESSION ¼ TURN BALL VALVE STOPS, CHROME PLATED BRASS ESCUTCHEONS AND BRAIDED STAINLESS STEEL FLEXIBLE SUPPLY RISERS WITH SYMMONS #LL-71B SCREEN AND CHECK VALVE ASSEMBLIES.
WB-1	WASHING MACHINE CONNECTION	2"	1-1/2"	1/2"	1/2"	GUY GRAY - IPS	#SSWB3	GUY GRAY #SSWB3: STAINLESS STEEL WASHING MACHINE OUTLET BOX WITH LEAD-FREE VALVES, WATER HAMMER ARRESTERS AND 2" DRAIN CONNECTION. PRODUCT CODE #82327.
ES-1	EMERGENCY SHOWER/FACE WASH (ADULT)	1-1/4"	---	1-1/4"	---	GUARDIAN	#GBF1909	'GUARDIAN #GBF1909 BARIER-FREE SAFETY STATION WITH WIDE AREA EYE/FACE WASH, 10" ORANGE ABS SHOWER HEAD WITH20 GPM FLOW CONTROL, STAINLESS STEEL EYE/FACE BOWL, SCHEDULE 40 GALVANIZED STEEL PIPE CONSTRUCTION WITH ORANGE POLYETHLENE COVERS, 4 SPRAY HEADS WITH FLIP TOP COVERS.
FD-1	FLOOR DRAIN FD-1	4"	2"	---	---	ZURN	#ZN415B-8" STRAINER	ZURN #ZN415B-NL, TYPE 'B' NICKEL BRONZE STRAINER, 8" ROUND TOP, DURO-COATED CAST IRON BODY, MEDIUM DUTY DRAIN, WITH SEDIMENT BUCKET AND NEO-LOC OUTLET.
HR-1	COMPRESSED AIR HOSE REEL	---	---	---	---	HANNAY	#N716-19-20-10.5J	'HOSE REEL WITH 50', 3/8" HOSE, AND MILTON NO. 718 (PARKER B23E) (GRAINGER STOCK NO. 30N266), AIR HOSE COUPLER AND ADJUSTABLE HOSE STOP. 95 LBS.
ST-1	SOLIDS TRAP	1-1/2"	---	---	---	GLECO	#GT-19/64	PROVIDE WITH FLEXIBLE CONNECTOR BETWEEN INLET PIPE AND INLET SWIVEL JOINT.
FCO	FLOOR CLEANOUT	SEE PLANS	SEE PLANS	---	---	ZURN	#ZN1400	ZURN #ZN1400 ADJUSTABLE DURA COATED CAST IRON W/ POLISHED NICKEL BRONZE LIGHT-DUTY TOP.

NOTE: PLUMBING FIXTURES AND FITTINGS EQUAL TO THE LISTED PRODUCT OF OTHERS WILL BE CONSIDERED.

DOMESTIC WATER HEATER SCHEDULE

MARK	EWH-1
DESCRIPTION	ELEC. WATER HEATER
GPH RECOVERY @ 100 F RISE	123
SAFETY/RELIEF VALVE	FACTORY INSTALLED
ASME WORKING PRESSURE	150 PSI
DESIGN OPERATING PRESSURE	80 PSI
MOTOR	-
ELEMENT (KW/AMP/V/PH)	30KW/36.1A/480V/3 PH
SHIPPING WEIGHT (LBS.)	390
STORAGE CAPACITY (GALS.)	119
NOTES	1, 2, 3, 4
REFERENCE	A.O. SMITH
MODEL NO.	DVE-120-30

DWH SCHEDULE NOTES:
1 6-YEAR TANK WARRANTY.
2 MODIFY EXISTING CONCRETE HOUSEKEEPING PAD TO ACCOMMODATE LARGER WATER HEATER.
3 WITH INCOLOY LOW DENSITY ELEMENTS.
4 PROVIDE WATTS #DETA-30 EXPANSION TANK (10 GALLON, 125 PSI) W/ BRACKET FOR WALL INSTALLATION

COMPRESSED AIR EQUIPMENT

DESCRIPTION	MANUFACTURER MODEL NO.	ELECTRICAL	FURNISHED BY/ INSTALLED BY
COMPRESSOR : 7.5 HP, 36.69 ACFM @ 125 PSI, ENCLOSED TANKMOUNT WITH DRYER/FILTER; 120 GALLON TANK MTD., OUTDOOR MODIFIED ENCLOSURE, HIGH DUST INLET FILTER, AUTOMATIC DRAIN VALVE, POWER OUTAGE RESTART OPTION, HIGH AMBIENT RATING AND START-UP KIT	INGERSOLL RAND R7.5i-A125	460V/3PH	CONTRACTOR
DRYER: 41F DEWPOINT, CYCLING DRYER, ELEC. NO LOSS DRAIN	INGERSOLL RAND DA127ECA10N	115V/1PH	CONTRACTOR
PRE-FILTER: GENERAL PURPOSE FILTER W/ AUTO-DRAIN & 1" NPT INLET/OUTLET; FLOW RATING: 88SCFM	INGERSOLL RAND FA150IG	...	CONTRACTOR
POST-FILTER:HIGH EFFCIENCY FILTER W/ AUTO-DRAIN & 1" NPT INLET/OUTLET; FLOW RATING: 88SCFM	INGERSOLL RAND FA150IH	...	CONTRACTOR
OIL-WATER SEPARATOR: 175SCFM MAX CAPACITY	INGERSOLL RAND POLYSEP PSG-15	...	CONTRACTOR

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SAN ANTONIO, TX 78221

Drawn By: BRM
Checked By: DRG
Job Number.: 2023.113

PLUMBING SCHEDULES

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:
P-3.1

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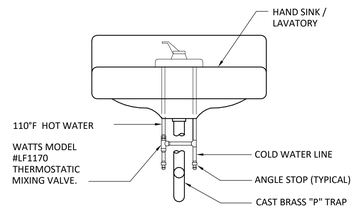
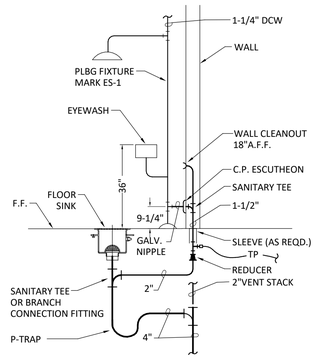


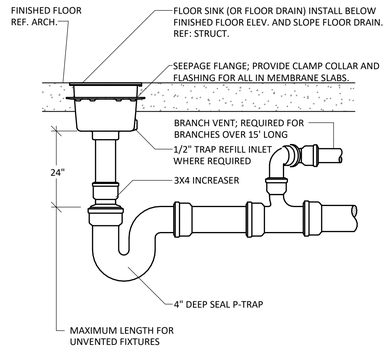
1 LAV. MIXING VALVE DETAIL

PLUMBING — NO SCALE



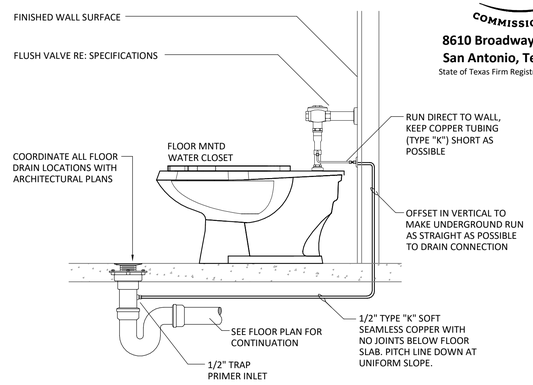
2 EMERGENCY SHOWER / EYEWASH DETAIL

PLUMBING — NO SCALE



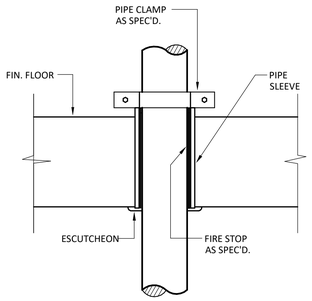
3 FLOOR DRAIN DETAIL

PLUMBING — NO SCALE



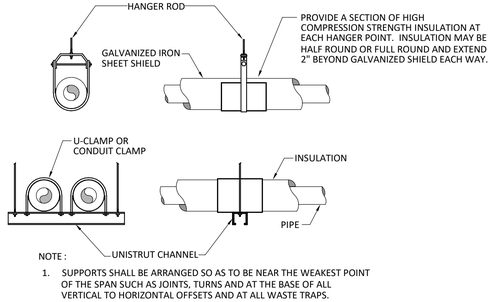
4 FLUSH VALVE TRAP PRIMER DETAIL

PLUMBING — NO SCALE



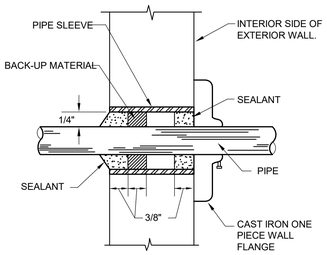
5 PIPE THRU FLOOR DETAIL

PLUMBING — NO SCALE



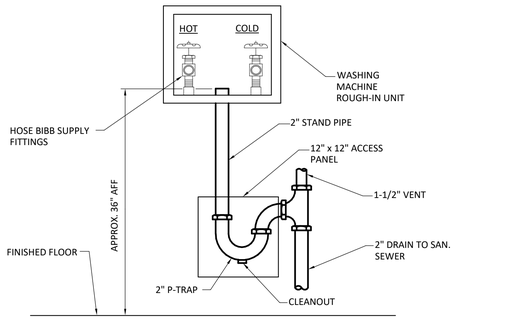
6 PIPE SUPPORT HANGER DETAIL

PLUMBING — NO SCALE



7 PIPE THRU WALL DETAIL

MECHANICAL — NO SCALE



8 WASHING MACHINE HOOK-UP DETAIL

PLUMBING — NO SCALE

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CONSTRUCTION DOCUMENTS

STATE OF TEXAS — DAVID R. GONZALES — 97449 — LICENSED PROFESSIONAL ENGINEER — EXP.3-31-24

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SAN ANTONIO, TX 78221

Drawn By:	BRM
Checked By:	DRG
Job Number.:	2023.113

PLUMBING DETAILS

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

P-4.1

NORTH

1 FIRE PROTECTION DEMOLITION PLAN - FIRST FLOOR

Plumbing

1/16" = 1'-0"

0 8' 16' 32'

FIRE PROTECTION GENERAL NOTES:

1. FULL CONSIDERATION SHALL BE GIVEN TO ARCHITECTURAL AESTHETICS OF THE FACILITY. HEADS SHALL BE LOCATED IN CEILINGS, TRIM, OR OTHER ARCHITECTURAL FEATURES TO MINIMIZE ADVERSE APPEARANCES OR CONFLICTS. HEADS SHALL BE SYMMETRICALLY LOCATED WHERE FEASIBLE. FINISHED HEADS SHALL BE INSTALLED IN ALL FINISHED AREAS. HEADS SHALL BE CENTERED IN CEILING TILES.
2. GUARDS SHALL BE INSTALLED ON ALL HEADS SUBJECT TO PHYSICAL DAMAGE.
3. SYSTEM SHALL BE IN COMPLETE COMPLIANCE WITH NFPA 13 AND ALL STATE/LOCAL REQUIREMENTS. PLANS MUST CONFORM TO THE LOCALLY ADOPTED FIRE CODE, APPLICABLE NFPA CODES, AND LOCAL CITY AMENDMENTS. SPRINKLER CONTRACTOR SHALL REFER TO OTHER DISCIPLINES SUCH AS ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR OTHER REQUIREMENTS, RESTRICTIONS, CONFLICTS, ETC. THE FOLLOWING SPRINKLER PLANS ARE CONCEPTUAL IN NATURE AND ARE NOT INTENDED TO REPRESENT THE DETAILED SCOPE OF SPRINKLER WORK REQUIRED. ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO COORDINATE WITH OTHER TRADES WILL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER OR A/E. INSTALLATION SHALL COVER ALL PORTIONS OF THE FACILITY.
4. THE DESIGN OF THE FIRE SPRINKLER SYSTEM FOR THE BUILDING IS BY OTHERS. THIS FIRE SPRINKLER PLAN IS TO AID THE FIRE SPRINKLER CONTRACTOR/FIRE SPRINKLER SYSTEM DESIGNER IN THE DESIGN OF THE FIRE SPRINKLER SYSTEM.
5. CONTRACTOR SHALL CONDUCT FIRE FLOW TEST TO VERIFY FLOW BEFORE BEGINNING FINAL DESIGN.
6. PLASTIC PIPING IS NOT ACCEPTABLE.
7. ALL SPRINKLER PIPING SHALL BE HIDDEN IN FINISHED AREAS.
8. ARCHITECT RESERVES THE RIGHT TO ADJUST HEAD LOCATIONS AND, IF NECESSARY, HEAD QUANTITIES DURING THE SUBMITTAL PHASE.
9. CONTRACTOR SHALL VISIT THE SITE AND SHALL BECOME FAMILIAR WITH THE EXISTING SITE CONDITIONS AND PROJECT SCOPE BEFORE SUBMITTING BID.
10. ARRANGE WITH AUTHORITIES FOR CITY PERMITTING SUBMITTALS, PERMITS, AND FEES. PAY ALL CHARGES, INCLUDING INSPECTIONS.
11. FIRE SEAL ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES AS REQUIRED. FIRE-CAULK ANY PENETRATIONS MADE TO DEMISING WALLS AND NEW WALLS.
12. PROVIDE FIRE SPRINKLER COVERAGE THROUGHOUT THE BUILDING PER NFPA 13 HAZARD OCCUPANCIES.
13. CEILING HEIGHTS VARY THROUGHOUT THE BUILDING. SOME AREAS HAVE DECORATIVE CEILINGS, LAY-IN CEILINGS, AND OTHER AREAS HAVE GYPBOARD CEILINGS.
14. INSTALL FIRE SPRINKLER PIPING AS HIGH AS POSSIBLE TO AVOID CONFLICTS WITH DUCTWORK, PIPING, CONDUITS, ETC.
15. SPRINKLER LAYOUT IN EXPOSED AREAS IS CRITICAL TO MINIMIZE VISIBILITY OF SPRINKLER SYSTEM. ANY CHANGES IN LAYOUT DUE TO CONFLICTS/SPRINKLER SYSTEM DESIGN REQUIREMENT SHALL BE COORDINATED WITH ARCHITECT DURING SPRINKLER SYSTEM DESIGN PHASE.
16. EXPOSED SPRINKLER PIPING SHALL BE PAINTED AS DIRECTED BY ARCHITECT.
17. ALL SPRINKLER HEADS IN PUBLIC AREAS WITHOUT CEILINGS SHALL BE EXPOSED TYPE UPRIGHT AUTOMATIC SPRINKLER HEADS. COORDINATE FINISH WITH ARCHITECT.
18. ALL PENDANT SPRINKLER HEADS IN FINISHED AREAS WITH LAY-IN, GYPBOARD, AND HARD CEILINGS SHALL BE WHITE CONCEALED TYPE AUTOMATIC SPRINKLER HEADS WITH WHITE COVERS. PROVIDE UPRIGHT HEADS WITH BRASS FINISH FOR NON-PUBLIC AREAS WITHOUT CEILINGS.
19. RELOCATE EXISTING SPRINKLER HEADS AND ADD/DELETE HEADS AS REQUIRED TO PROVIDE COMPLETE COVERAGE FOR THE NEW FLOOR PLAN. SPRINKLER BRANCH PIPING SHALL BE MODIFIED AND UPGRADED AS REQUIRED TO ACCOMMODATE THE NEW SPRINKLER HEAD ARRANGEMENT. ANY SECTION OF EXISTING SPRINKLER PIPING THAT SHOWS SIGNS OF DETERIORATION SHALL BE REPLACED AS REQUIRED TO MATCH EXISTING. ANY SPRINKILER HEADS REMOVED SHALL BE REPLACED WITH NEW.

FIRE PROTECTION DEMOLITION KEYED NOTES, PLAN FPD-1.0:

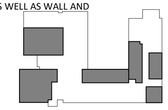
1 EXISTING FIRE SPRINKLER HEADS TO REMAIN IN THIS ROOM.

2 FIELD VERIFY EXACT SPRINKLER HEAD LOCATION IN THIS ROOM.

3 EXISTING SPRINKLER HEAD LOCATION.

4 EXISTING SPRINKLER HEAD LOCATION ABOVE CEILING CLOUDS IN THIS ROOM.

5 ADD/DELETE/RELOCATE EXISTING SPRINKLER HEADS THROUGHOUT SCOPE OF WORK AS REQUIRED TO ACCOMODATE CEILING/LIGHTING/MECHANICAL MODIFICATIONS AS WELL AS WALL AND CEILING MODIFICATIONS.



KEY PLAN

ENGINEERING & COMMISSIONING
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State of Texas Firm Registration No. F-19468

CONSTRUCTION DOCUMENTS

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SAN ANTONIO, TX 78221

Drawn By:	BRM
Checked By:	DRG
Job Number.:	2023.113

OVERALL FIRE PROTECTION DEMOLITION PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

FPD-1.0

1/31/2024 12:26:52 PM

FIRE PROTECTION KEYED NOTES, PLAN FP-1.1:

1. EXISTING FIRE SPRINKLER HEAD LOCATION SUPERIMPOSED ONTO NEW WORK PLAN. ADD/DELETE/RELOCATE EXISTING SPRINKLER HEADS THROUGHOUT SCOPE OF WORK AS REQUIRED TO ACCOMODATE CEILING/LIGHTING/MECHANICAL MODIFICATIONS AS WELL AS WALL AND CEILING MODIFICATIONS.

NORTH

1 FIRST FLOOR FIRE PROTECTION PLAN

Coordination

1/16" = 1'-0"

0 8' 16' 32'

KEY PLAN

ENGINEERING & COMMISSIONING
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EXP.3-31-24

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Drawn By:	BRM
Checked By:	DRG
Job Number.:	2023.113

OVERALL FIRE PROTECTION PLAN

No.	DATE	DESCRIPTION

Date: 04/24/23

Drawing No:

FP-1.1

1/31/2024 12:26:47 PM

HARLANDALE I.S.D.

CAREER TECHNOLOGY EDUCATION

CIVIL CONSTRUCTION PLANS

BEXAR COUNTY, SAN ANTONIO, TEXAS

ENGINEER:

CDS MUERY
ATTN: STEPHEN LIN, P.E.
100 NE LOOP 410, STE. 300
SAN ANTONIO, TEXAS 78216
TEL: (210) 581-1111
FAX: (210) 581-5555

OWNER:

HARLANDALE I.S.D.
102 GENEVIEVE DRIVE
SAN ANTONIO, TEXAS 78214

SITE INFORMATION:

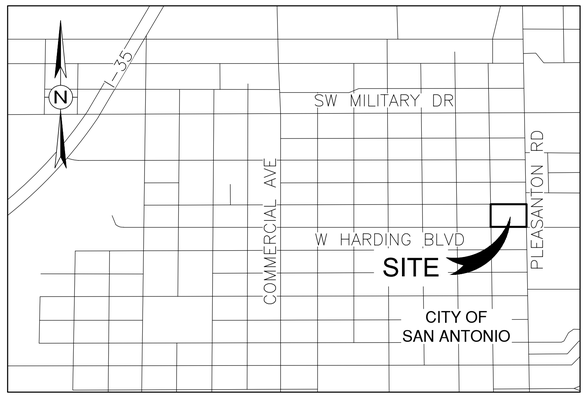
ADDRESS:	519 W HARDING BLVD, SAN ANTONIO, TEXAS 78214
LEGAL DESCRIPTION:	LOT 21, BLOCK 75, NCB 9357 CARROLL BELL ELEM SCHL SUBD VOLUME 9549, PAGE 84, DPR
ZONING:	R-6 (RESIDENTIAL/SINGLE-FAMILY)
FLOOD ZONE:	ZONE X, MINIMAL FLOOD HAZARD AREA (PANEL No. 48029C0560F, SEPTEMBER 28, 2010)

SURVEY CONTROL:

HORIZONTAL DATUM:	NAD83(2011), EPOCH:2010, TEXAS STATE PLANE COORDINATE SYSTEM, ZONE 4204 (US SURVEY FT)
VERTICAL DATUM:	NAVD88 VRS GEOID12A
SURFACE ADJUSTMENT:	SURFACE ADJUSTMENT FACTOR OF 1.00017 SURFACE = GRID x 1.00017

PROJECT COORDINATES DATA IS BASED ON CONTROL POINT #101.

CONTROL POINT #101: 1/2" IRON ROD WITH RED CAP
N. 13,678,158.45
E. 2,126,403.34
ELEV: 625.63'



PROJECT LOCATION MAP
NOT-TO-SCALE

CIVIL INDEX SHEET	
SHEET NO.	SHEET TITLE
C0.0	COVER SHEET
C0.1	SUBDIVISION PLAT
C1.0	EXISTING CONDITIONS AND DEMOLITION PLAN
C2.0	SITE DIMENSIONAL CONTROL & KEYNOTE PLAN
C2.1	SITE DETAILS
C3.0	SITE GRADING AND DRAINAGE

FEBRUARY 2024

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

CONTRACTOR SHALL CALL "811" FOR UTILITY LOCATES AT THE START OF CONSTRUCTION.

Texas 811

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

90% PROGRESS SET
CDS Muery F-1733

STATE OF TEXAS
STEPHEN S. LIN
108721
LICENSED
PROFESSIONAL ENGINEER

ARCHITECTURA S. A.

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519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	CDSm
Checked By:	SL
Job Number.:	23-09

COVER SHEET

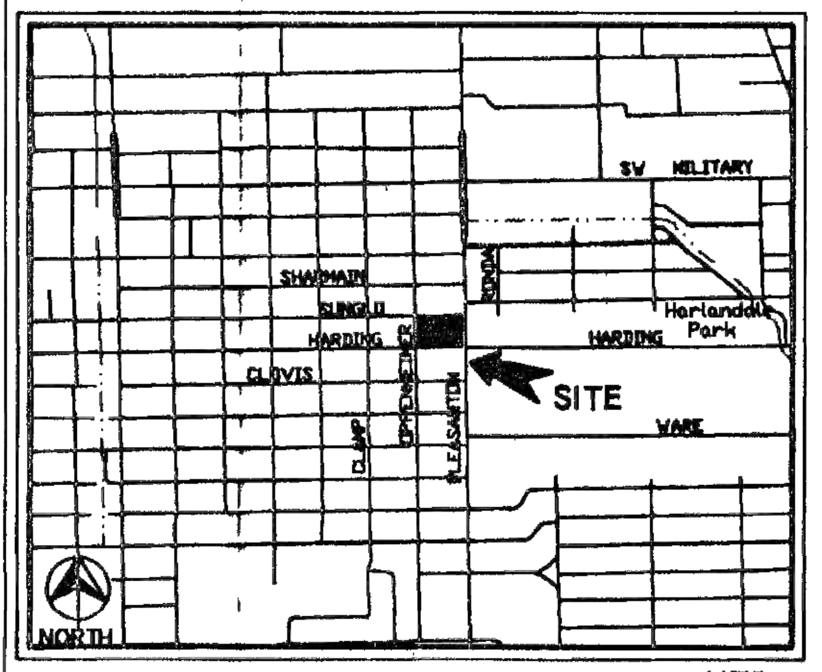
No.	DATE	DESCRIPTION

Date: 01/31/2024

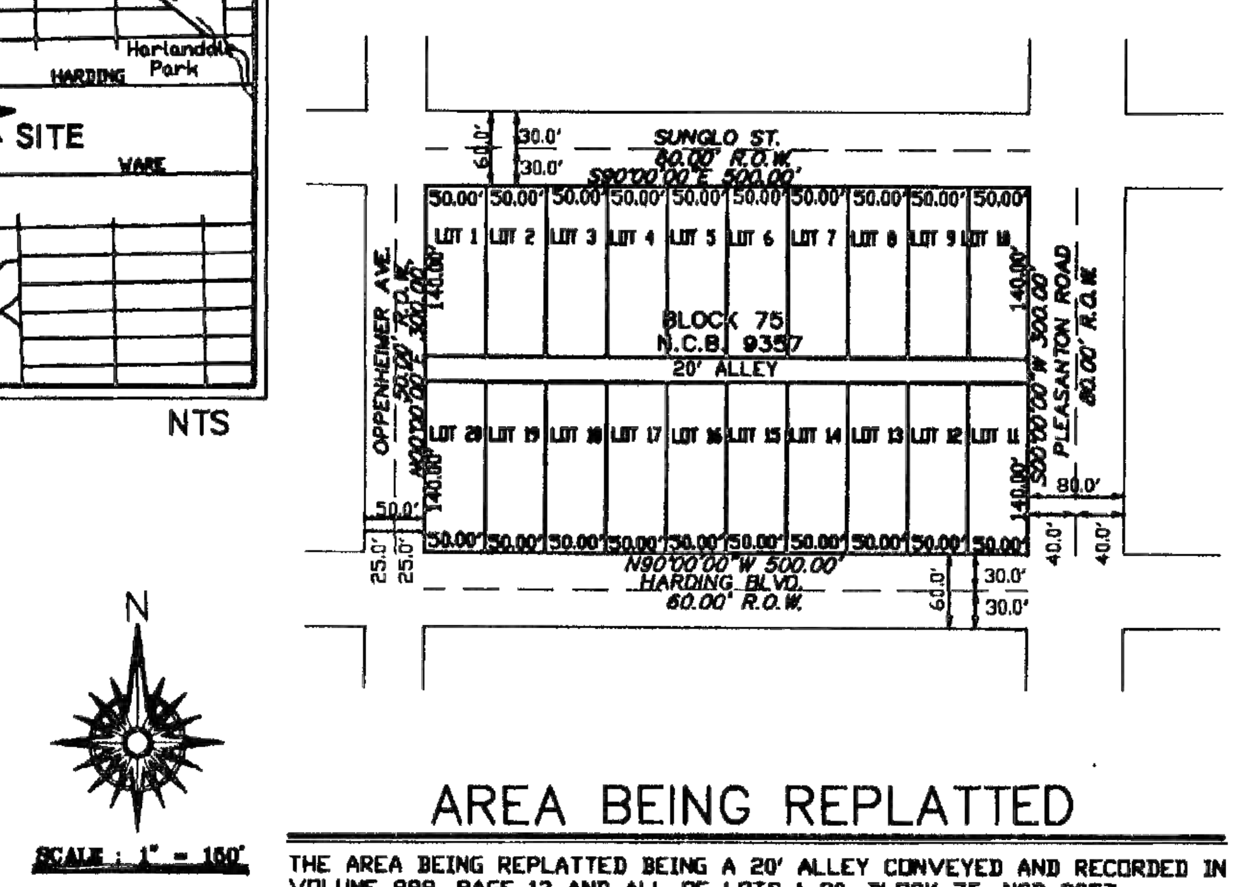
Drawing No:
C0.0

PLOT DATE:2/20/2024 3:45:10
P:\JOBS\2024\124030 HISD CARROLL BELL ES\CIVIL 3D\DWG\ENGINEER\124030-COVR.DWG

PLAT I.D. # 000387

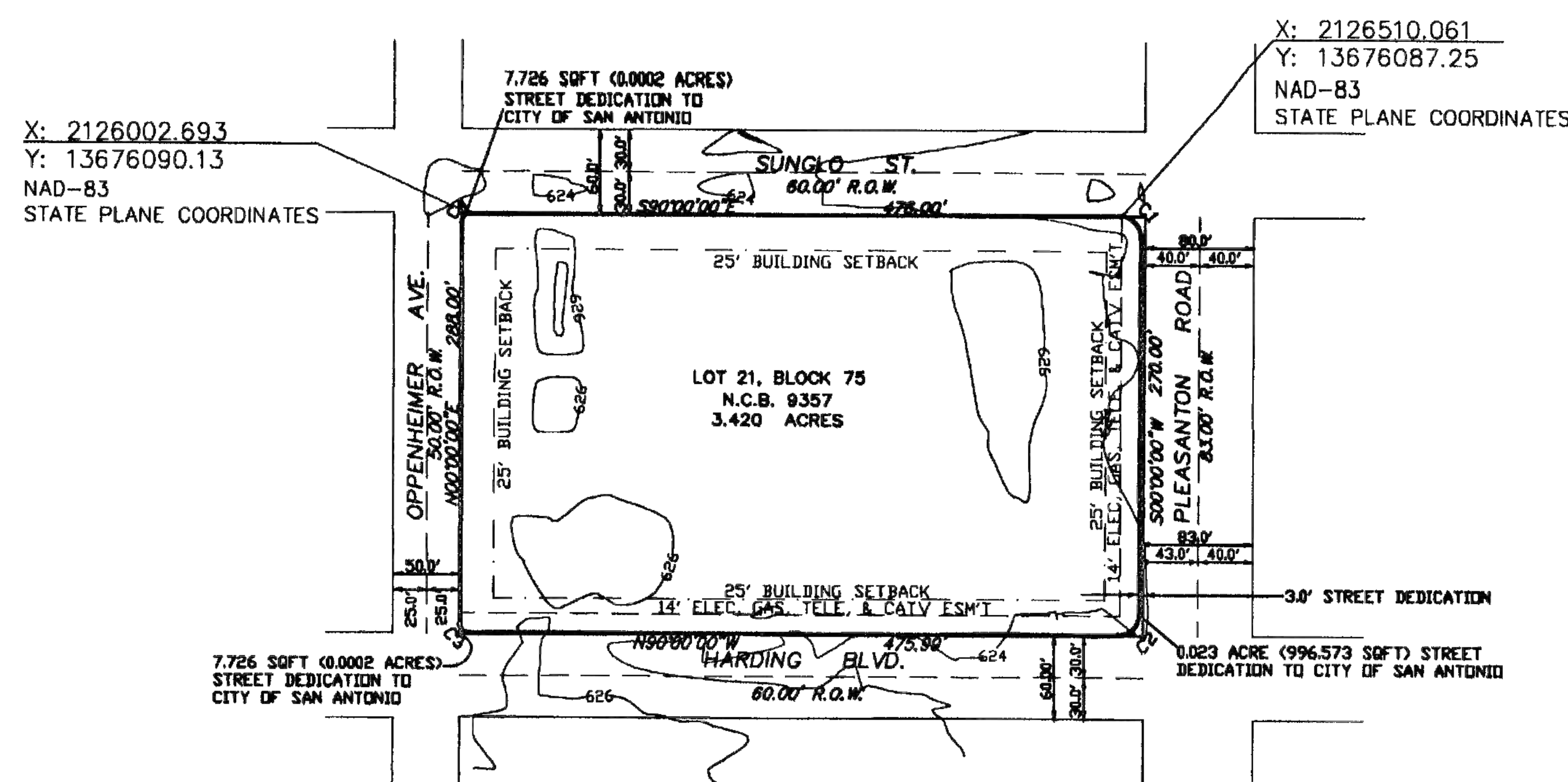


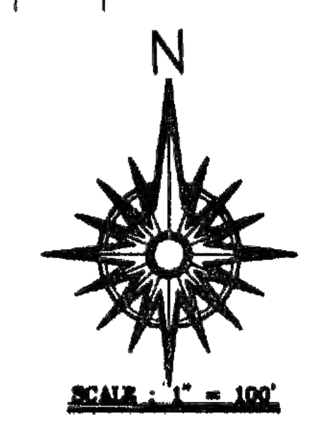
SITE LOCATION NTS



AREA BEING REPLATTED

THE AREA BEING REPLATTED BEING A 20' ALLEY CONVEYED AND RECORDED IN VOLUME 899, PAGE 13 AND ALL OF LOTS 1-20, BLOCK 75, NCB 9357, RECORDED JULY 1913 IN VOLUME 368, PAGE 97-102, OF THE PLAT RECORDS OF BEXAR COUNTY, TEXAS.





NUMBER	Ic	CD	T '	R '	L '	LC '
C1	89°59'59"	S 45°03'13" E	15.00	15.00	23.56	21.21
C2	90°02'23"	S 44°57'58" W	15.01	15.00	23.57	21.22
C3	90°00'00"	N 45°03'14" W	6.00	6.00	9.42	8.49
C4	90°00'01"	N 44°56'47" E	6.00	6.00	9.42	8.49

NOTES:

IRON PINS FOUND OR SET AT ALL CORNERS.

WASTEWATER EDU NOTE: THE NUMBER OF WASTEWATER EQUIVALENT DWELLING UNITS (EDU'S) PAID FOR THIS SUBDIVISION PLAT ARE KEPT ON FILE AT THE SAN ANTONIO WATER SYSTEM UNDER THE PLAT I.D. NUMBER ISSUED BY THE CITY OF SAN ANTONIO PLANNING DEPARTMENT.

THE CITY OF SAN ANTONIO AS A PART OF ITS ELECTRIC AND GAS SYSTEM (CITY PUBLIC SERVICE BOARD) IS HEREBY DEDICATED THE EASEMENTS AND RIGHT-OF-WAY FOR ELECTRIC AND GAS DISTRIBUTION AND SERVICE FACILITIES IN THE AREAS DESIGNATED ON THIS PLAT AS "ELECTRIC EASEMENT", "GAS EASEMENT", "ANCHOR EASEMENT", "SERVICE EASEMENT", "OVERHANG EASEMENT", "UTILITY EASEMENT", AND "TRANSFORMER EASEMENT" FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, MAINTAINING, REMOVING, INSPECTING, PATROLLING, AND ERECTING POLES, HANGING OR BURYING WIRES, CABLES, CONDUITS, PIPELINES, OR TRANSFORMERS, EACH WITH ITS NECESSARY APPURTENANCES TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS OVER GRANTORS ADJACENT LAND THE RIGHT TO RELOCATE SAID FACILITIES WITHIN SAID EASEMENTS AND RIGHT-OF-WAY AREAS AND THE RIGHT TO REMOVE SAID LANDS ALL TREES AND PART THEREOF OR OTHER OBSTRUCTIONS WHICH ENDANGER OR MAY INTERFERE WITH THE EFFICIENCY OF SAID LINES OR APPURTENANCES THERETO IT IS AGREED AND UNDERSTOOD THAT NO BUILDINGS, CONCRETE SLABS, OR WALLS WILL BE PLACED WITHIN SAID EASEMENTS AREAS, ANY CPS MONETARY LOSS RESULTING FROM MODIFICATIONS REQUIRED OF CPS EQUIPMENT, LOCATED WITHIN SAID EASEMENT, DUE TO GRADE CHANGE OR GROUND ELEVATION ALTERATION SHALL BE CHARGED TO THE PERSON OR PERSONS DEEMED RESPONSIBLE FOR SAID GRADE CHANGES OR GROUND ELEVATION ALTERATION.

THIS PLAT DOES NOT AMEND, ALTER, RELEASE OR OTHERWISE AFFECT ANY EXISTING ELECTRIC, GAS, WATER, SEWER, DRAINAGE, TELEPHONE, CABLE EASEMENTS OR ANY OTHER EASEMENTS FOR UTILITIES UNLESS THE CHANGES TO SUCH EASEMENTS ARE DESCRIBED BELLOW:

STATE OF TEXAS
COUNTY OF BEXAR

THE OWNER OF THE LAND SHOWN ON THIS PLAT IN PERSON OR THROUGH A DULY AUTHORIZED AGENT DEDICATES TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATER COURSES, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

Harlandale I.S.D.
OWNER

[illegible]
DULY AUTHORIZED AGENT

STATE OF TEXAS
COUNTY OF BEXAR

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED [illegible] KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 10th DAY OF October A. D. 2000.

[illegible]
NOTARY PUBLIC
BEXAR COUNTY, TEXAS

CLAUDIA SUE LEWALLEN
MY COMMISSION EXPIRES
January 25, 2003

Filed for Record in:
BEXAR COUNTY, TX
GERRY RICKHOFF, COUNTY CLERK
On Nov 17 2000
At 3:37pm
Receipt #: 387155
Recording: 25.00
Doc/Mgmt: 6.00
Doc/Num: 2000- 0196776
Deputy -RUBIANA REYNA

2000- 0196776 P 09549 00084

STATE OF TEXAS
COUNTY OF BEXAR

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS AND DRAINAGE LAYOUT; AND TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE SUBDIVISION ORDINANCE, EXCEPT FOR THOSE VARIANCES GRANTED BY THE PLANNING COMMISSION OF THE CITY.

Neil F. Fisher
NEIL F. FISHER, P.E. 47002

STATE OF TEXAS
NEIL F. FISHER
47002
REGISTERED
PROFESSIONAL ENGINEER

SWORN TO AND SUBSCRIBED BEFORE ME THIS THE 10th DAY OF October A. D. 2000.

Virginia S. Graygor
NOTARY PUBLIC
BEXAR COUNTY, TEXAS

VIRGINIA S. GRAYGOR
NOTARY PUBLIC
STATE OF TEXAS
EXPIRES
4-27-2002

STATE OF TEXAS
COUNTY OF BEXAR

I HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECT AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY UNDER MY SUPERVISION ON THE GROUND.

Neil F. Fisher
NEIL F. FISHER, RPLS 3942

STATE OF TEXAS
REGISTERED
NEIL F. FISHER
3942
PROFESSIONAL
LAND SURVEYOR

SWORN TO AND SUBSCRIBED BEFORE ME THIS THE 10th DAY OF October A. D. 2000.

Virginia S. Graygor
NOTARY PUBLIC
BEXAR COUNTY, TEXAS

VIRGINIA S. GRAYGOR
NOTARY PUBLIC
STATE OF TEXAS
EXPIRES
4-27-2002

FEI
FISHER
ENGINEERING, INC.
11825 RADIUM DR.
SAN ANTONIO, TEXAS 78216
(210) 308-9991

SUBDIVISION PLAT ESTABLISHING

CARROLL BELL ELEMENTARY SCHOOL SUBDIVISION

A CERTAIN 3.420 ACRES OF LAND, BEING A 20' ALLEY CONVEYED AND RECORDED IN VOLUME 899, PAGE 13 AND ALL OF LOTS 1-20, BLOCK 75, NCB 9357, RECORDED JULY 1913 IN VOLUME 368, PAGE 97-102, OF THE PLAT RECORDS OF BEXAR COUNTY, TEXAS, AND TO BE KNOWN AS LOT 21, BLOCK 75, NCB 7819, CARROLL BELL ELEMENTARY SCHOOL SUBDIVISION, SAN ANTONIO, BEXAR COUNTY TEXAS.

THIS PLAT OF CARROLL BELL ELEMENTARY SCHOOL SUBDIVISION HAS BEEN SUBMITTED TO THE CITY OF SAN ANTONIO , TEXAS, AND IS HEREBY APPROVED BY THE DIRECTOR OF PLANNING IN ACCORDANCE WITH V.T.C.A., LOCAL GOVERNMENT CODE SECTION 212.0065.

DATED THIS 24th DAY OF October, 2000

BY: [illegible]
DIRECTOR

STATE OF TEXAS
COUNTY OF BEXAR

I, Gerry Rickhoff , COUNTY CLERK OF SAID COUNTY, DO HEREBY CERTIFY THAT THIS PLAT WAS FILED FOR RECORD IN MY OFFICE, ON THE 17 DAY OF November A. D. 2000 AT 3:37 P.M. AND DULY RECORDED THE 20 DAY OF November A. D. 2000 AT 1:31 P.M. IN THE RECORDS OF Deeds Plats OF SAID COUNTY, IN BOOK VOLUME 9549 ON PAGE 84 IN TESTIMONY WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE, THIS 20 DAY OF November 2000.

BY: Juana B. Piña DEPUTY
COUNTY CLERK, BEXAR COUNTY, TEXAS

COUNTY CLERK
BEXAR COUNTY, TEXAS

DATE: 10/09/00 PROJECT NO. 00-043

Bexar County Plat Book 9549 Page 84

FOR REFERENCE ONLY, NOT FOR RECORDATION

CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

90% PROGRESS SET
CDS Muery F-1733

STATE OF TEXAS
STEPHEN S. LIN
108721
LICENSED
PROFESSIONAL ENGINEER
02/20/2024

ARCHITECTURA S. A.

ARCHITECTURA S.A., INC.
ARCHITECTURE INTERIOR DESIGN PLANNING
17038 REDLAND RD., SUITE 101, SAN ANTONIO, TEXAS 78247
t. 210.384.8200 f. 210.319.3555
architecturasa@yahoo.com

HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	CDSm
Checked By:	SL
Job Number.:	23-09

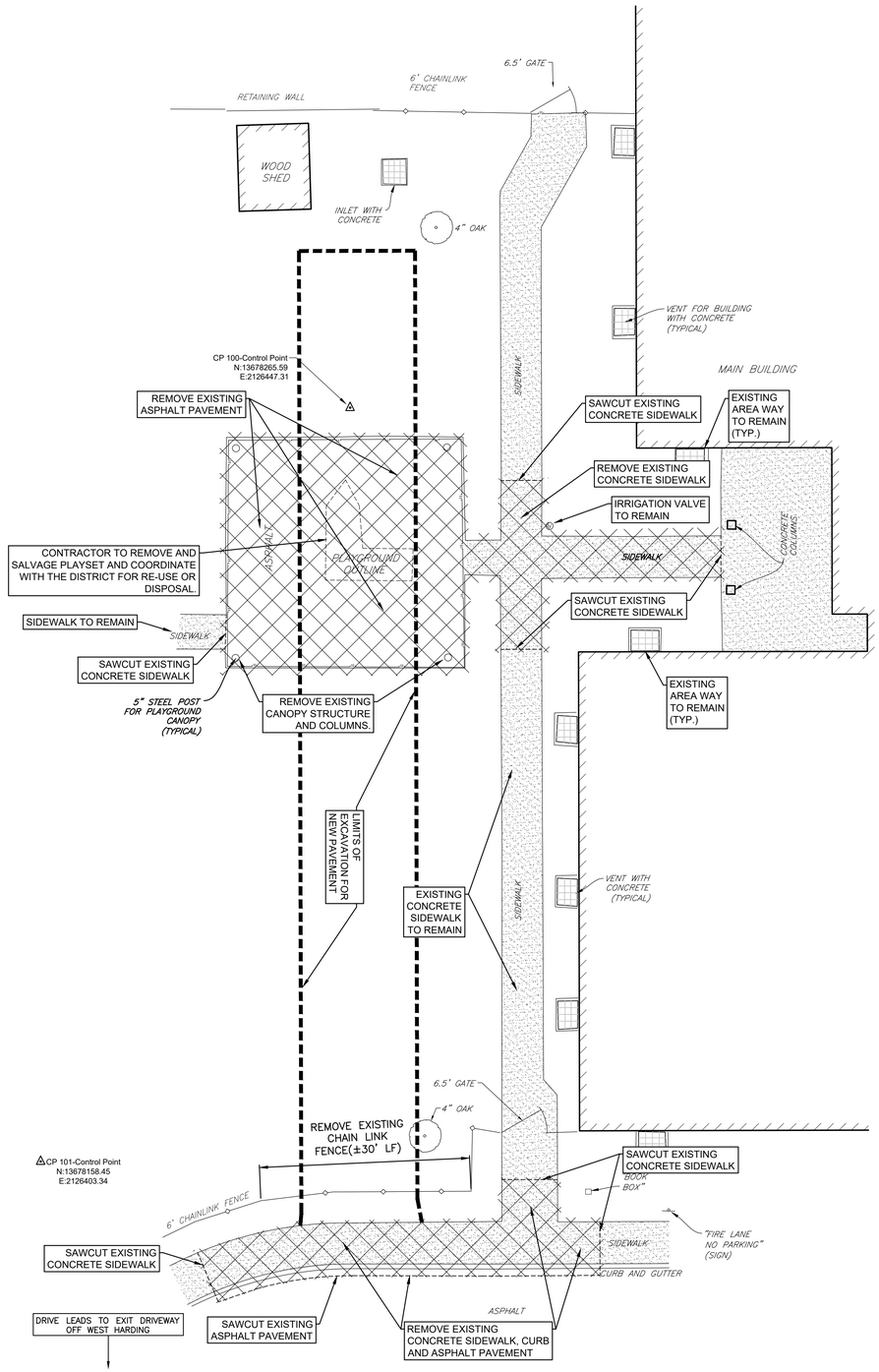
SUBDIVISION PLAT

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
C0.1

PLOT DATE:2/20/2024 3:37:14 PM
P:\JOBS\2024\124030 HISD CARROLL BELL ES\CIVIL 3D\DWG\ENGINEER\124030-COVR.DWG

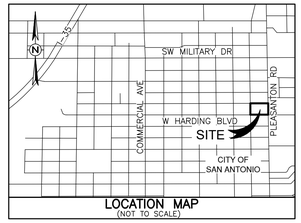


GENERAL NOTES

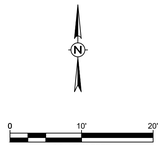
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
2. CONTRACTOR WILL BE PROVIDED WITH GROUND CONTROL POINTS ESTABLISHING LAYOUT "CONTROL LINES" AS SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL OTHER LAYOUT AND GRADE CONTROL SURVEYING FOR CONSTRUCTION OF THE PROJECT.
3. EXISTING UNDERGROUND UTILITIES ARE SHOWN FROM AVAILABLE UTILITY RECORDS AND OBSERVABLE SURFACE FEATURES. ACTUAL LOCATIONS MAY VERY AND UTILITIES NOT SHOWN ON THESE PLANS MAY EXIST. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES AND OWNER PERSONNEL FOR ASSISTANCE IN LOCATING ALL UNDERGROUND FACILITIES IN THE PROJECT AREA PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND GRADE OF UNDERGROUND FACILITIES WELL AHEAD OF CONSTRUCTION OPERATIONS AND SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND REPLACEMENT OF ALL DAMAGED UTILITIES AND FOR DAMAGES CAUSED TO OWNER OR OTHER PARTIES ARISING FROM SERVICE INTERRUPTION OR LOSS OF USE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PERMANENT SERVICE TERMINATION ASSOCIATED WITH UTILITY LINES TO BE REMOVED OR ABANDONED.
5. THE UTILITY GRADES AND ELEVATIONS ARE CRITICAL AT ALL UTILITY CROSSINGS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL VERIFY EXISTING UTILITY GRADES AND CONFIRM ADEQUATE CLEARANCE AT ALL CROSSINGS. THIS CONFIRMATION SHALL BE PRESENTED FOR REVIEW AND DISCUSSION PRIOR TO START OF UTILITY WORK.
6. WHERE NECESSARY, CONTRACTOR SHALL PROVIDE FOR BARRICADES AND TRAFFIC CONTROL DEVICES AS PER THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
7. AS APPLICABLE, TREES ON SITE ARE TO REMAIN IN UNDAMAGED CONDITION UNLESS REMOVAL OR TRIMMING IS IDENTIFIED ON THE PLANS OR IS NECESSARY FOR CONSTRUCTION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF ARCHITECT/LANDSCAPE ARCHITECT IF UNIDENTIFIED REMOVAL OR TRIMMING BECOMES NECESSARY. RESPONSE TO SUCH NOTIFICATION IS REQUIRED BEFORE TREE REMOVAL OR TRIMMING MAY PROCEED.
8. UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT OR IN THE LANDSCAPE PLANS/SPECIFICATIONS THE FOLLOWING STATEMENT SHALL APPLY TO TOPSOIL SALVAGE, PLACEMENT AND SUPPLY: TOPSOIL SHALL BE STRIPPED AND STOCKPILED SEPARATELY FROM ALL OTHER MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS. STOCKPILED TOPSOIL MATERIAL SHALL BE SPREAD AND COMPACTED TO A DEPTH OF 6" TO ESTABLISH FINISHED GRADE IN ALL AREAS THAT ARE NOT TO BE PAVED. SHOULD STOCKPILED TOPSOIL FAIL TO COVER ALL AREAS TO A COMPACTED DEPTH OF 6", CONTRACTOR SHALL SUPPLY ADDITIONAL TOPSOIL FROM APPROVED OFF SITE SOURCES TO ESTABLISH FINISHED GRADE WITHOUT ADDITIONAL COMPENSATION.
9. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ROCK AND ALL OTHER MATERIALS ENCOUNTERED REGARDLESS OF THEIR NATURE OR THE MANNER IN WHICH THEY ARE REMOVED.
10. ALL HANDICAP CURBS RAMPS, ACCESSIBLE ROUTE RAMPS, SIGNAGE, AND SYMBOLS SHALL CONFORM TO THE LATEST EDITION OF THE TEXAS ACCESSIBILITY STANDARDS REQUIRED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION.
11. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO PREVENT PONDING OR BLOCKAGE OF SURFACE DRAINAGE.
12. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT DAMAGE TO ADJACENT PROPERTIES AND TO CONFORM TO LOCAL JURISDICTIONAL AUTHORITY REQUIREMENTS.
13. WHERE FINISHED CONTOURS ARE SHOWN TO MATCH EXISTING CONTOURS ON THE GRADING PLANS, NO GRADE SEPARATION IS ALLOWABLE. CONTRACTOR SHALL ADJUST FINISHED CONTOURS AS NECESSARY TO ACCOMPLISH THIS REQUIREMENT.
14. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/ EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITY OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
15. CONTRACTOR SHALL FURNISH THE ARCHITECT/ENGINEER WITH AN AS-BUILT PLAN INDICATING THE ACTUAL MEASUREMENT AND LOCATION OF UTILITY LINES AND SITE IMPROVEMENTS INSTALLED.
16. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON COMPLETION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).

DEMOLITION NOTES

1. CONTRACTOR TO LOCATE, MAINTAIN, AND SUPPORT ALL EXISTING AND PROPOSED UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.
2. CONTRACTOR SHALL TERMINATE ALL UTILITIES THAT ARE DESIGNATED TO BE REMOVED. TERMINATION SHALL BE IN ACCORDANCE WITH APPLICABLE CODES.
3. CONTRACTOR SHALL REMOVE TREES DESIGNATED TO BE REMOVED. CONTRACTOR TO PROTECT AND MAINTAIN TREES DESIGNATED TO REMAIN IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT REQUIREMENTS AND LOCAL JURISDICTION FOR THE DURATION OF THE PROJECT.
4. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION.
5. CONTRACTOR SHALL USE NECESSARY MEANS TO PREVENT SPREAD OF DUST FOR THE DURATION OF THE PROJECT CONSTRUCTION.
6. SEE SEDIMENTATION AND EROSION PLAN FOR PLACEMENT OF SWPPP MEASURES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE SITE ALL ITEMS SHOWN TO BE DEMOLISHED UNLESS OTHERWISE INDICATED. ALL MATERIALS SHALL BE DEMOLISHED AND REMOVED FROM SITE IN ACCORDANCE WITH ALL APPLICABLE, FEDERAL, STATE AND LOCAL REGULATIONS.
8. ALL EXISTING ITEMS NOT SPECIFICALLY NOTED TO BE DEMOLISHED SHALL REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING ITEMS REMOVED DURING DEMOLITION THAT WERE TO REMAIN.
9. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING SERVICES, POWER POLES TO BE REMOVED, VERIFYING UTILITIES ARE SHUT OFF OR DISCONNECTED, AND THAT ALL POSSIBLE SAFETY PRECAUTIONS HAVE BEEN ENACTED TO ENSURE THE SAFEST ENVIRONMENT FOR ALL PERSONNEL.
10. ALL NECESSARY EROSION CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO CONSTRUCTION. EROSION CONTROL MEASURES ARE TO BE MAINTAINED AND IN WORKING CONDITION AT ALL TIMES.
11. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS AND SIDEWALKS AT NEW PAVEMENT, CURB AND SIDEWALK JUNCTURES, NO JAGGED OR IRREGULAR CUTS WILL BE ACCEPTED.
12. THE CONTRACTOR SHALL PROTECT ALL PROPERTY PINS, BENCH MARKS, CONSTRUCTION STAKES, HUBS, OR OTHER KEY CONTROL POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO RE-ESTABLISH ANY SUCH POINTS AT THEIR OWN EXPENSE.
13. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.
14. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A CLEAN AND ORDERLY MANNER.



LOCATION MAP
(NOT TO SCALE)



SCALE IN FEET
1"=10'

LEGEND

	PROPERTY LINE
	EASEMENT LINE
	SETBACK LINE
	EDGE OF PAVEMENT
	SIGN
IV	IRRIGATION VALVE
	TREE
	BENCHMARK
	CONTROL SYMBOL
881	CONTOURS
880.90	SPOT ELEVATIONS

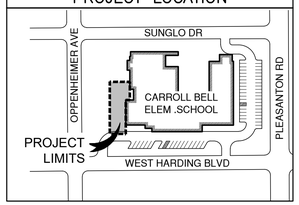
HORIZONTAL CONTROL			
POINT NO.	NORTHING	EASTING	DESCRIPTION
100	13,678,265.59	2,126,447.31	CP SET 1/2IRWRC
101	13,678,158.45	2,126,403.34	CP SET 1/2IRWRC

GRID NORTH, TEXAS STATE PLANE COORDINATE SYSTEM,
HORIZONTAL DATUM= NAD83(2011)EPOCH:201`0, TEXAS SOUTH CENTRAL ZONE (4204) (US SURVEY FT)

VERTICAL DATUM = NAVD88 VRS GEOID12A
SURFACE ADJUSTMENT FACTOR=1.00017
SURFACE = GRID X 1.00017

PROJECT COORDINATES DATA IS BASED ON CONTROL POINT #101
N. 13,678,158.45, E. 2,126,403.34 (SURFACE)
JOB #124030, FB #9387, PGS. 5-10

PROJECT LOCATION



CDS muery
ENGINEERS | SURVEYORS
100 NE Loop 410, Ste. 300 | San Antonio, Texas 78216
(210) 581-1111 | TBPE No. F-1733 | TBPLS No. 100495-00

90% PROGRESS SET
CDS Muery F-1733

STATE OF TEXAS
STEPHEN S. LIN
108721
LICENSED
PROFESSIONAL ENGINEER
01/31/2024

ARCHITECTURA S. A.

ARCHITECTURA S.A., INC.
ARCHITECTURE INTERIOR DESIGN PLANNING
17038 REDLAND RD., SUITE 101, SAN ANTONIO, TEXAS 78247
t. 210.384.8200 f. 210.319.3555
architecturasa@yahoo.com

HISD CAREER TECHNOLOGY EDUCATION (CTE)

HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: CDSm
Checked By: SL
Job Number.: 23-09

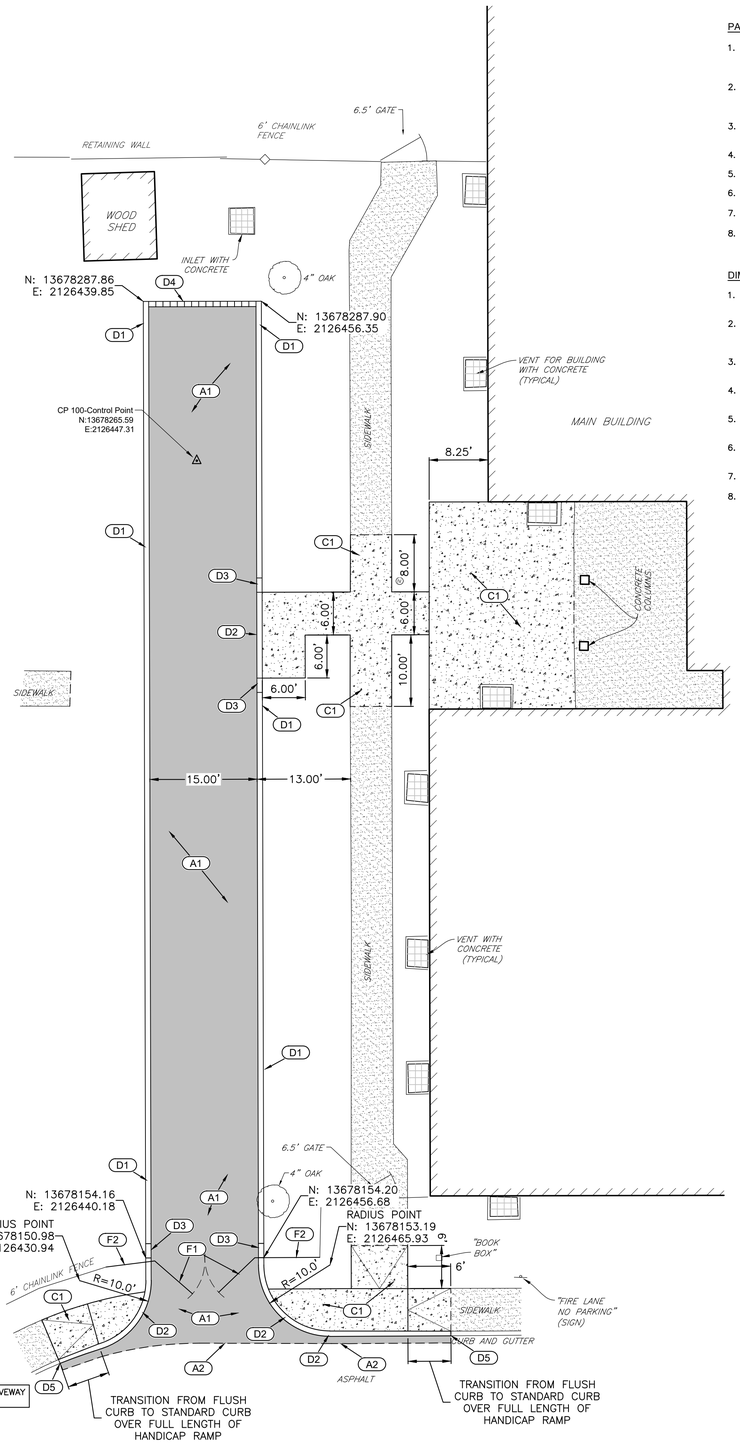
EXISTING CONDITIONS AND DEMOLITION PLAN

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
C1.0

PLOT DATE:2/20/2024 3:37:29
P:\JOBS\2024\124030 HISD CARROLL BELL ES\CIVIL 3D\DWG\ENGINEER\124030-DEMO.DWG

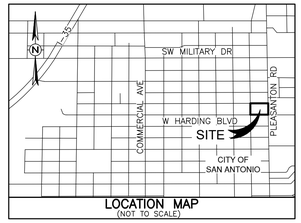


PAVEMENT NOTES

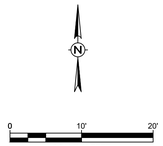
1. ALL WORK WITHIN STATE, COUNTY, AND/OR CITY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH EACH ENTITY'S GOVERNING RULES AND STANDARDS. CONTRACTOR SHALL MAINTAIN A COPY OF ALL NECESSARY PERMITS ON THE JOBSITE WHEN WORKING IN PUBLIC RIGHT-OF-WAYS.
2. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY OR TXDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
3. ALL PAINT SHALL BE 4" WIDE REFLECTIVE PAINT: WHITE ON ASPHALT PAVING AND YELLOW ON CONCRETE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
4. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF PAINT.
5. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.
6. ALL SIGNS SHALL CONFORM TO MUTCD, LATEST EDITION.
7. ALL CURBS SHALL BE 6" HIGH UNLESS OTHERWISE NOTED.
8. ALL STANDARD PERPENDICULAR PARKING STALLS ARE 9' X 18' AND COMPACT PARKING STALLS ARE 8' X 16' UNLESS DIMENSIONED OTHERWISE.

DIMENSIONAL CONTROL NOTES

1. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MY ARISE CONCERNING THE INTENT, PLACEMENT OR LIMITS OF DIMENSIONS NECESSARY FOR CONSTRUCTION OF THE PROJECT.
2. THE CONTRACTOR SHALL PRESERVE ALL CONTROL POINTS, PROPERTY PINS, BENCH MARKS, HUBS OR OTHER KEY CONTROL POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO RE-ESTABLISH ANY SUCH POINTS AT THEIR OWN EXPENSE IN THE EVENT THEY ARE REMOVED.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL HORIZONTAL AND VERTICAL CONTROL PER THE CONSTRUCTION DRAWINGS.
5. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL USE THE PROPERTY PINS FOR HORIZONTAL CONTROL POINTS. BENCHMARKS ARE NOT TO BE USED FOR HORIZONTAL CONTROL.
6. ALL DIMENSIONAL CONTROL POINTS OR DIMENSIONS ARE TO THE FACE OF CURB, FACE OF RETAINING WALL, AND CENTER OF PAINT STRIPING. ALL DIMENSIONS ARE PERPENDICULAR TO THE POINT OF REFERENCE.
7. REFER TO THE ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONAL CONTROL INFORMATION.
8. CURB RADII ARE 3' UNLESS OTHERWISE NOTED ON THE DRAWINGS.



LOCATION MAP
(NOT TO SCALE)



SCALE IN FEET
1"=10'

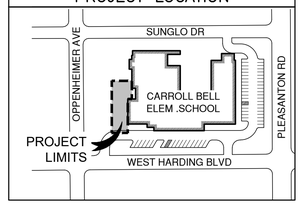
LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		SETBACK LINE
—OHE—	—OHE—	OVERHEAD UTILITY
		EDGE OF PAVEMENT
		SIGN
Ⓥ		IRRIGATION VALVE
		TREE
		BENCHMARK
		CONTROL SYMBOL
		PROPOSED CONCRETE WALK/FLATWORK
		PROPOSED ASPHALT PVMT (MEDIUM DUTY)

KEYNOTES

- (A1) ASPHALT PVMT: MEDIUM DUTY(SEE SHT. C2.1)
- (A2) PAVEMENT JUNCTURE(SEE SHT. C2.1)
- (C1) CONCRETE SIDEWALK/FLATWORK(SEE SHT. C2.1)
- (D1) CURB: STANDARD STAND-UP CURB(6" HIGH) (SEE SHT. C2.1
- (D2) CURB: STANDARD FLUSH CURB(SEE SHT. C2.1)
- (D3) TRANSITION CURB(SEE SHT. C2.1)
- (D4) SAWTOOTH CONCRETE CURB(SEE SHT. C2.1)
- (D5) CONCRETE CURB TO EX. CONCRETE CURB
- (F1) CHAINLINK FENCE GATES: 6' HIGH x 7' WIDE(SEE SHT. C2.1)

PROJECT LOCATION



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90% PROGRESS SET
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STATE OF TEXAS
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108721
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PROFESSIONAL ENGINEER

ARCHITECTURA S.A., INC.
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HISD CAREER TECHNOLOGY EDUCATION (CTE)

HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By:	CDSm
Checked By:	SL
Job Number.:	23-09

SITE DIMENSIONAL CONTROL AND KEYNOTE PLAN

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:

C2.0

PLOT DATE:2/20/2024 3:37:45
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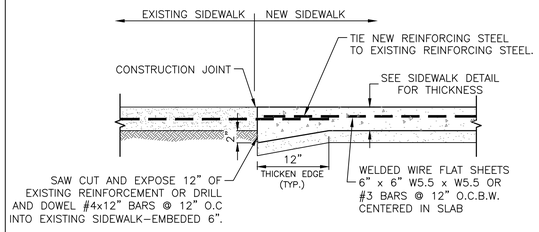

SIDEWALK JUNCTURE
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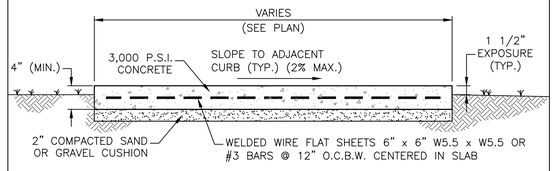
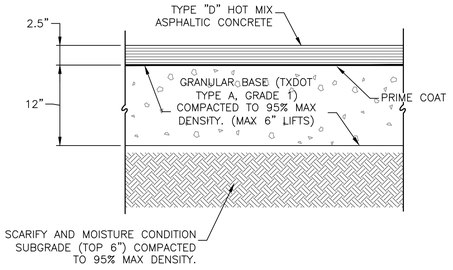
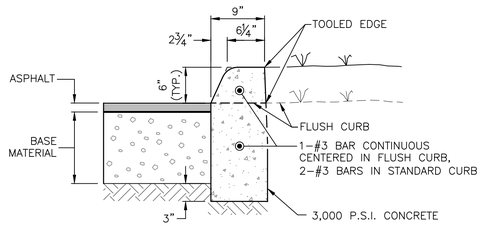


CONCRETE SIDEWALK / FLATWORK
N.T.S.



FLEXIBLE ASPHALT PAVEMENT
N.T.S.



STANDARD STAND-UP / FLUSH CURB SECTION
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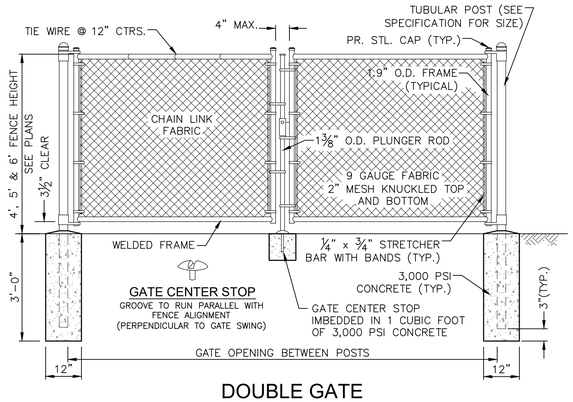
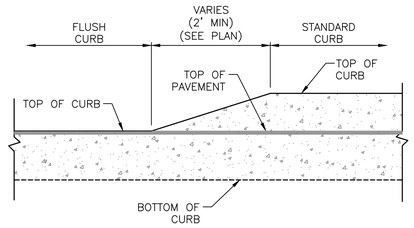


DOUBLE GATE
4', 5' & 6' HIGH CHAIN LINK GATE DETAIL
N.T.S.



CURB TRANSITION
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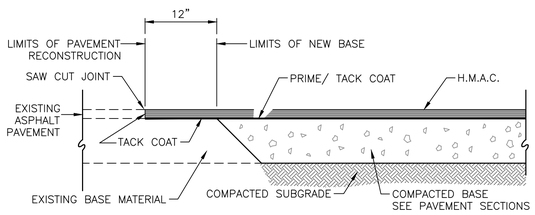

PAVEMENT JUNCTION DETAIL
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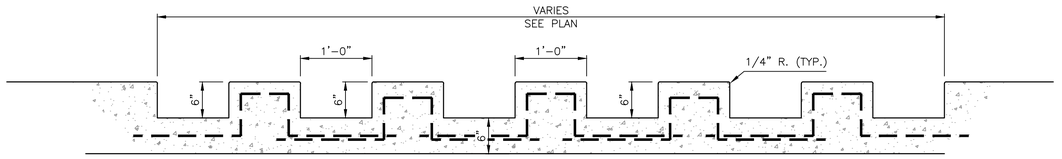

SAW TOOTH CURB SECTION
N.T.S.

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SAN ANTONIO, TX 78221

Drawn By:	CDSm
Checked By:	SL
Job Number.:	23-09

SITE DETAILS

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
C2.1

PLOT DATE:2/20/2024 3:37:59
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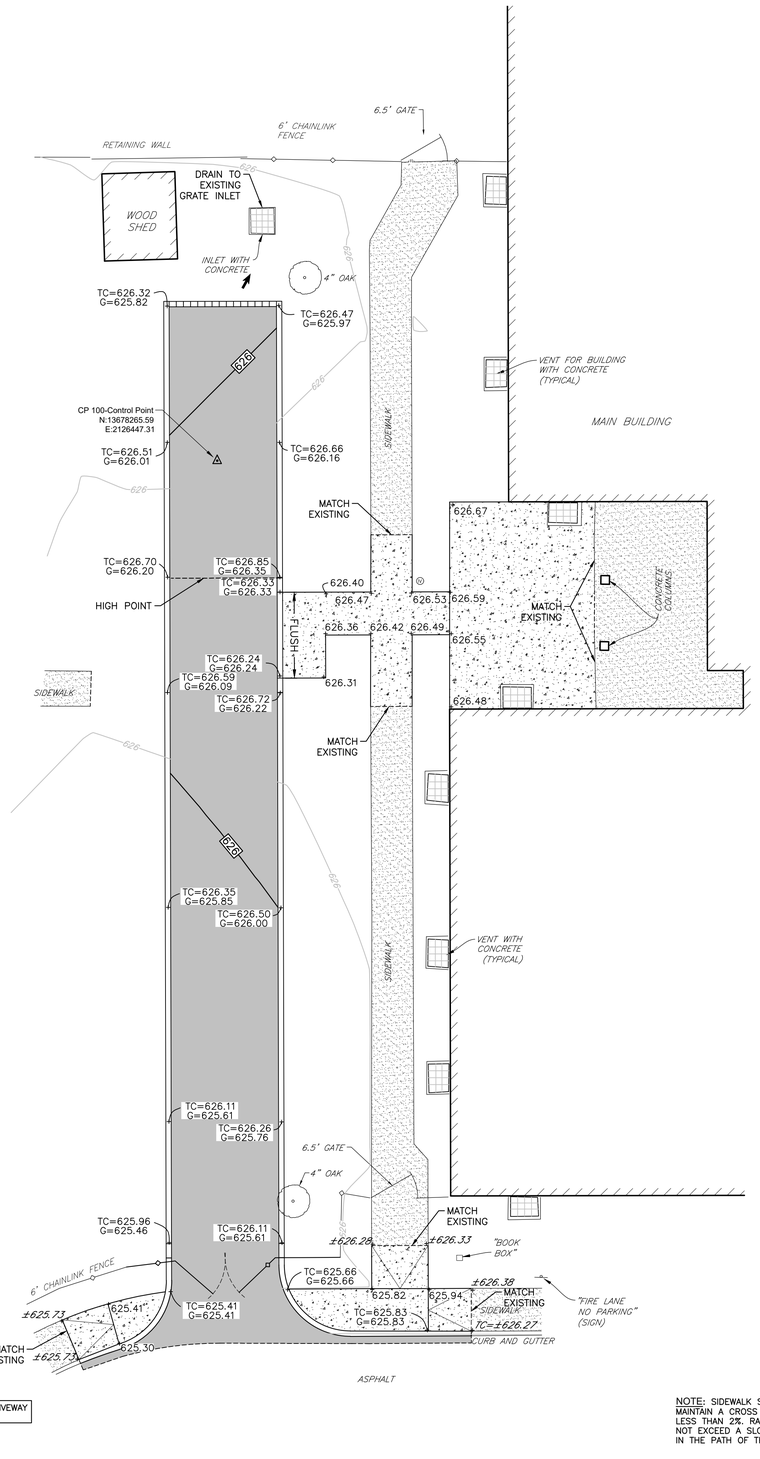
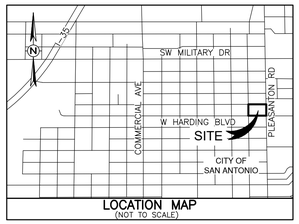


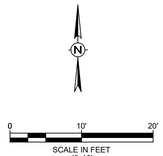
NOTE: SIDEWALK SHALL MAINTAIN A CROSS SLOPE OF LESS THAN 2%. RAMPS SHALL NOT EXCEED A SLOPE OF 12:1 IN THE PATH OF TRAVEL.

GRADING NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY AND TXDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
2. SITE PREPARATION, GRADING, EXCAVATION AND FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.
3. ALL SELECT FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING.
4. ALL ELEVATIONS AND PROPOSED CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVING, BASE, GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
6. THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
8. THE CONTRACTOR SHALL REMOVE TOP SOIL, GRASS, ROOTS, DEBRIS, ETC. AND DISPOSE OFF SITE THOSE MATERIALS NOT SUITABLE FOR EMBANKMENT AND TOPSOIL. CLEAN STRIPPINGS AND TOPSOIL MAY BE STOCKPILED ON SITE FOR REUSE IN A LOCATION SPECIFIED BY THE OWNER.
9. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE STABILIZATION. ALL DISTURBED AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND TPDES/SWPPP REQUIREMENTS. REFERENCE THE LANDSCAPE ARCHITECT'S PLAN, IF APPLICABLE.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (USE OF SILT FENCES, ETC.) TO KEEP DRAINAGE AND SILT FROM WASHING ONTO ADJACENT PROPERTY, STREETS, OR DRAINAGE WAYS. CONTRACTOR SHALL IMMEDIATELY REMOVE SILT/DEBRIS WHICH WASHES OFFSITE OR INTO EXISTING STORM DRAIN SYSTEMS. (SEE SWPPP PLANS & TPDES BOOK).
11. THE CONTRACTOR SHALL OBTAIN GRADES SHOWN HEREON WITHIN +/-ONE-TENTH (0.10) FOOT.
12. IN PROPOSED PAVING AREAS, IT IS INTENDED THAT THE MINIMUM GRADE IS 1%. ALL EARTHEN SLOPES SHALL BE A MAXIMUM OF 3:1 AND A MINIMUM OF 1.0% UNLESS OTHERWISE SHOWN.
13. THE CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING SITE AND PROPOSED IMPROVEMENTS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).
15. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN WORKING NEAR UTILITIES, GAS LINES, SEWER, OR EXISTING APPURTENANCES. PRIOR TO PERFORMING ANY EXCAVATION, CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND ASSURE HIMSELF THAT ALL UTILITIES HAVE BEEN ADEQUATELY LOCATED AND IDENTIFIED. THE ENGINEER SHALL BE NOTIFIED IF ANY UTILITY CONFLICTS ARE DISCOVERED.
16. POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE SCOPE OF THE PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
17. FOR FILL PLACEMENT ON HILL SIDES OR STEEP SLOPE AREAS, THE CONTRACTOR SHALL REFERENCE THE PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT FOR SPECIAL INSTRUCTIONS REGARDING BENCHING.
18. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.

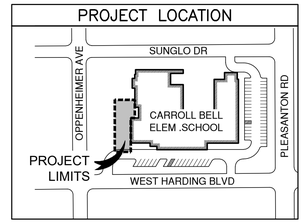


LOCATION MAP
(NOT TO SCALE)



LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		SETBACK LINE
		EDGE OF PAVEMENT
		FIRE HYDRANT
W	W	WATER METER, VALVE
S	S	SANITARY SEWER MANHOLE
		CLEAN OUT
	UP R	UTILITY/POWER POLE
		GUY WIRE
		LIGHT POLE
G	G	GAS VALVE, GAS METER
		SIGN
IV		IRRIGATION VALVE
		TREE
		FLOW ARROW
881	882	CONTOURS
× 880.90	+881.50	SPOT ELEVATIONS
	TC	TOP OF CURB ELEV.
	G	GUTTER ELEV.



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Drawn By:	CDSm
Checked By:	SL
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SITE GRADING AND DRAINAGE

No.	DATE	DESCRIPTION

Date: 01/31/2024

Drawing No:
C3.0

PLOT DATE:2/20/2024 3:45:28
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Applicable Codes

1. 2021 International Existing Building Code
2. 2021 International Building Code
3. 2021 International Fire Code
4. 2021 International Mechanical Code
5. 2021 International Plumbing Code
6. 2020 National Electrical Code
7. 2021 International Fuel Gas Code
8. 2021 International Energy Conservation Code
9. 2019 NFPA 13
10. 2019 NFPA 72
11. COSA Amendments

Basic Building Information

The project is a renovation of an existing elementary school, soon to become a vocational school. Proposed changes include turning the 1st floor cafeteria, library, and some classrooms into shops (welding, plumbing, electrical, HVAC, barber and dental assisting) as noted on the project documents. Renovations are limited to the 1st floor only. There will not be any additions constructed as part of this scope of work.

1. **Building:**
   a. Type of Construction: Type IIB
   b. Height in Stories: 2
   c. Height in Feet: > 30-ft
   d. Area: 66,046 sf
      i. 1st: 39,926 sf
      ii. 2nd: 26,120 sf
   e. Primary Occupancy: E
   f. Automatic Sprinkler System: NFPA 13 sprinkler system
   g. Fire Alarm: Emergency Voice Alarm Communication System
   h. Calculated Occupant Load: 1,642 occupants
      i. 1st floor:
         1. Previous permit documents: 1,104 occupants
         2. Reduction per renovations: -318 occupants
            a. Total new 1st floor occupant load: 786 occupants
      ii. 2nd floor: 856 occupants (existing unchanged)
   i. # of Exits/exit accesses and exit capacity:
      i. 1st: 9; 3,840 occupants
      ii. 2nd: 3; 900 occupants
   j. Noted Labs: Smoke resistant (IBC 509)

Site Fire Department Access

1. No change to existing fire department access.

Height and Area

Building

1. No change to building area.

Interior Wall and Ceiling Finishes

1. **Group E Interior Wall/Ceiling Finishes:**
   b. Rooms: Minimum Class C
   c. Corridors: Minimum Class C
   d. Exits: Minimum Class B
   e. Attachment: To comply with IBC Section 803.11
2. Decorative materials and trim must comply with IBC 806.
3. Interior Floor Finishes: To comply with IBC Section 804

Fire Protection Systems

1. **Supervisory service:** Automatic sprinkler and fire alarm systems must be monitored by an approved supervising agency.
2. **Automatic Sprinkler System:** Building to be equipped throughout with an automatic sprinkler system in accordance with NFPA 13 and IBC 903.
3. **Commercial Cooking Equipment:** If commercial cooking equipment is installed, it will be required to be equipped with a Type I hood and suppression system as required by the IFC.
4. **Portable Fire Extinguishers:**
   a. Portable fire extinguishers are required in accordance with IBC Section 906, NFPA 10 and as follows:
      i. Class K extinguishers must be provided within 30-ft of commercial cooking equipment
      ii. Within special hazard rooms
   b. **Type:** Portable fire extinguishers must be minimum 2A-10BC and an individual extinguisher cannot serve an area larger than 3,000 ft^2.
   c. **Number and Location:** Final number and location shall be as required by the local fire code official. Maximum travel distance to an extinguisher shall not exceed 75-ft.
   d. **Conspicuous location.** Portable fire extinguishers shall be located in conspicuous locations where they will have ready access and be immediately available for use. These locations shall be along normal paths of travel, unless the fire code official determines that the hazard posed indicates the need for placement away from normal paths of travel.
   e. **Unobstructed and unobscured.** Portable fire extinguishers shall not be obstructed or obscured from view. In rooms or areas in which visual obstruction cannot be completely avoided, means shall be provided to indicate the locations of extinguishers.
   f. **Hangers and brackets.** Hand-held portable fire extinguishers, not housed in cabinets, shall be installed on the hangers or brackets supplied. Hangers or brackets shall be securely anchored to the mounting surface in accordance with the manufacturer's installation instructions.
   g. **Cabinets.** Cabinets used to house portable fire extinguishers shall not be locked. **Exceptions:** 1. Where portable fire extinguishers subject to malicious use or damage are provided with a means of ready access. 2. In Group I-3 occupancies and in mental health areas in Group I-2 occupancies, access to portable fire extinguishers shall be permitted to be locked or to be located in staff locations provided that the staff has keys.
   h. **Extinguisher installation.** The installation of portable fire extinguishers shall be in accordance with the following:
      i. **Extinguishers weighing 40 pounds or less.** Portable fire extinguishers having a gross weight not exceeding 40 pounds (18 kg) shall be installed so that their tops are not more than 5 feet (1524 mm) above the floor.
      ii. **Extinguishers weighing more than 40 pounds.** Hand-held portable fire extinguishers having a gross weight exceeding 40 pounds (18 kg) shall be installed so that their tops are not more than 3.5 feet (1067 mm) above the floor.
   i. **Floor clearance.** The clearance between the floor and the bottom of installed hand-held portable fire extinguishers shall be not less than 4 inches (102 mm).
   j. **Wheeled units.** Wheeled fire extinguishers shall be conspicuously located in a designated location.
5. **Fire Alarm Systems:**
   a. The building is to be equipped throughout with an emergency voice alarm communication system in accordance with IBC 907 and NFPA 72.
   b. Manual pull stations are not required, except a single pull station in an approved location, where the building is equipped throughout with an automatic sprinkler system and occupant notification appliances will activate upon sprinkler water flow.
6. **Emergency Responder Safety Features:**
   a. Vertical shafts must be identified in accordance with IBC 914
   b. Fire protection equipment rooms must be identified in an approved manner.
7. **Emergency Responder Radio Coverage:** Must be provided in accordance with IFC Section 510 and COSA Amendments

Chapter 10 – Means of Egress

The following is applicable to the renovated areas.

1. **Minimum Ceiling Heights**
   a. Means of egress must have a ceiling height of at least 7-ft, 6-inches unless meeting an exception of IBC 1003.
2. **Protruding objects**
   a. Provide minimum 80-inches for any walking surface
   b. Not more than 50% of the means of egress can be reduced in height by a protruding object
   c. Freestanding object mounted on a post cannot overhang the post by more than 4-inches where the lowest point of the leading edge is more than 27-inches and less than 80-inches above the walking surface.
   d. Structural elements, fixtures, or furnishings cannot project horizontally from either side more than 4-inches over any walking surface between the heights of 27-inches and 80-inches above the walking surface.
3. **Occupant Loads**
   a. Occupant loads must be calculated in accordance with IBC 1004 based on the use of any given space.
      i. Unconcentrated assembly: 1 occupant / 15 ft^2
      ii. Kitchen: 1 occupant / 200 ft^2
      iii. Business: 1 occupant / 150 ft^2
      iv. Classroom: 1 occupant / 20 ft^2
      v. Labs: 1 occupant / 50 ft^2
4. **Means of Egress (MOE) Sizing**
   a. Stairways must be at least 44-inches wide, but not less than 0.2-inches per occupant served.
   b. Other egress components must provide not less than 0.15-inches of clear width per occupant served.
5. **MOE Distribution**
   a. Where more than one exit or access to an exit is required, the MOE must be sized such that the loss of any one exit, or access to any one exit, does not reduce the available capacity to less than 50% of the required capacity.
6. **Encroachment**
   a. Doors, when fully opened, cannot reduce the required width by more than 7-inches.
   b. Doors in any position cannot reduce the required width by more than one-half.
7. **MOE Illumination**
   a. **Means of egress illumination.** Illumination shall be provided in the means of egress in accordance with Section. Under emergency power, means of egress illumination shall comply with Section 1008.3.
   b. **Illumination required.** The means of egress serving a room or space shall be illuminated at all times that the room or space is occupied. **Exceptions:** 1. Occupancies in Group U. 2. Aisle accessways in Group A. 3. Dwelling units and sleeping units in Groups R-1, R-2 and R-3. 4. Sleeping units of Group I occupancies.
   c. **Illumination level under normal power.** The means of egress illumination level shall be not less than 1 footcandle (11 lux) at the walking surface. Along exit access stairways, exit stairways and at their required landings, the illumination level shall not be less than 10 footcandles (108 lux) at the walking surface when the stairway is in use. **Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances by one of the following methods provided that the required illumination is automatically restored upon activation of a premises' fire alarm system: 1. Externally illuminated walking surfaces shall be permitted to be illuminated to not less than 0.2 footcandle (2.15 lux). 2. Steps, landings and the sides of ramps shall be permitted to be marked with self-luminous materials in accordance with Sections 1025.2.1, 1025.2.2 and 1025.2.4 by systems listed in accordance with UL 1994.
   d. **Group I-2.** In Group I-2 occupancies where two or more exits are required, on the exterior landings required by Section 1010.1.5, means of egress illumination levels for the exit discharge shall be provided such that failure of a single lamp in a luminaire shall not reduce the illumination level on that landing to less than 1 footcandle (11 lux).
   e. **Exit discharge.** Illumination shall be provided along the path of travel for the exit discharge from each exit to the public way. Exception: Illumination shall not be required where the path of the exit discharge meets both of the following requirements: 1. The path of exit discharge is illuminated from the exit to a safe dispersal area complying with Section 1028.5. 2. A dispersal area shall be illuminated to a level not less than 1 footcandle (11 lux) at the walking surface.
   f. **Emergency power for illumination.** The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.
   g. **General.** In the event of power supply failure in rooms and spaces that require two or more exits or access to exits, an emergency electrical system shall automatically illuminate all of the following areas: 1. Aisles. 2. Corridors. 3. Exit access stairways and ramps.
   h. **Buildings.** In the event of power supply failure in buildings that require two or more exits or access to exits, an emergency electrical system shall automatically illuminate all of the following areas: 1. Interior exit access stairways and ramps. 2. Interior and exterior exit stairways and ramps. 3. Exit passageways. 4. Vestibules and areas on the level of discharge used for exit discharge in accordance with Section 1028.2. 5. Exterior landings as required by Section 1010.1.5 for exit doorways that lead directly to the exit discharge.
   i. **Rooms and spaces.** In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas: 1. Electrical equipment rooms. 2. Fire command centers. 3. Fire pump rooms. 4. Generator rooms. 5. Public restrooms with an area greater than 300 square feet (27.87 m 2). Student occupancy rooms without windows.
   j. **Duration.** The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.
   k. **Illumination level under emergency power.** Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 footcandle (11 lux) and a minimum at any point of 0.1 footcandle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 footcandle (6 lux) average and a minimum at any point of 0.06 footcandle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-mini-mum illumination uniformity ratio of 40 to 1 shall not be exceeded.
8. **Accessible MOE**
   a. All buildings or portions of buildings must comply with the accessibility standards adopted by the State. Projects shall be submitted to the Texas Department of Licensing and Regulation (TDLR) for review, inspection and approval in accordance with state law.
9. **Doors**
   a. Doors must provide a minimum clear width of 32-inches.
   b. MOE doors must be side hinged swinging unless a specific exception of IBC Section 1010.1.2 is met.
   c. The force for pushing or pulling open an interior MOE door, other than a fire door, cannot exceed 5 pounds. Other swinging doors, sliding doors, and folding doors, the door must release when subjected to 15-pounds of force. The door must be set in motion when subjected to a 30-pound force. The door must swing to a full open position when subjected to a 15-pound force.
   d. **Landings**
      i. A landing must be provided on each side of a door.
      ii. The landing must have a width not less than the stairway or door whichever is greater.
      iii. Doors in the fully open position cannot reduce the required landing dimensions by more than 7-inches.
      iv. Doors in any position cannot reduce the required landing width by more than one-half.
      v. Landings must have a length, measured in the direction of travel, of not less than 44-inches.
   e. **Door Arrangement**

100% CD SET

13-31-2024

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HISD CAREER TECHNOLOGY EDUCATION (CTE)
HARLANDALE INDEPENDENT SCHOOL DISTRICT
519 W HARDING BLVD.
SAN ANTONIO, TX 78221

Drawn By: Author
Checked By: Checker
Job Number.: 23-09

LIFE SAFETY NOTES

No.	DATE	DESCRIPTION

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Drawing No:

LS-1.0

i. The space between two doors in a series must be at least 48-inches, plus the width of a door swinging into the space. Two doors in a series must always swing in the same direction.

f. **Door Operations**
   i. Must comply with IBC 1010.1.9
   ii. Panic hardware or fire exit hardware required on all doors serving a Group H Occupancy, electrical rooms with equipment over 1,200 amps and 6-ft, and a Group A occupancy space with a calculated occupant load exceeding 49.

10. **Stairways**
   a. Stair materials can be of any material permitted by the building type of construction.
   b. **Width**
      i. 44-inches
      ii. Not less than 0.2-inches per occupant of clear width measured at the walking surface
   c. **Headroom**
      i. Minimum 80-inches
   d. **Treads and Risers**
      i. Riser heights must be 4-inch minimum and 7-inch maximum.
      ii. Tread depths must be 11-inches minimum.
      iii. Stair treads and risers must be uniform.
      iv. Risers must be solid except in Group I-3, F, H, or S occupancies in areas that are not accessible to the public.
   e. **Landings**
      i. A landing is required at the top and bottom of each stairway.
      ii. The width of landing cannot be less than the width of the stairway it serves.
      iii. The landing must have a minimum dimension, measured in the direction of travel, equal to the width of the stair.
      iv. Doors opening onto a landing cannot reduce the landing to less than one-half the required width.
      v. Doors, when fully opened, cannot project more than 7-inches into a landing.
   f. **Enclosures Under Interior Stairways**
      i. The walls and soffits of enclosed usable spaces under enclosed and unenclosed stairways must be protected by 1-hour fire resistance rated construction or the fire resistance rating of the stair enclosure, whichever is greater.
   g. **Vertical Rise**
      i. Cannot exceed 12-ft between floor levels or landings
   h. **Handrails**
      i. Required on both sides of the stairway
      ii. Must comply with IBC 1014
   i. **Guards**
      i. Are required when portions of a ramp are located more than 30-inches above the floor or grade below and must comply with IBC 1015

11. **Ramps**
   a. Must be of construction consistent with the type of building construction
   b. Ramps cannot have a running slope exceeding 8%.
   c. Ramps cannot have a cross slope exceeding 2%.
   d. The maximum vertical rise for any ramp run cannot exceed 30-inches.
   e. The minimum width of the ramp must comply with the minimum corridor width requirements of IBC 1020, but a clear width of at least 36-inches measured between the handrails must be provided.
   f. **Landings**
      i. Required at the top and bottom of each ramp
      ii. Must be at least as wide as the ramp
      iii. Must be at least 48-inches measured in the direction of travel
      iv. Where a change of direction occurs at landings between ramp runs, the landing must be at least 60-inches x 60-inches.
   g. Handrails are required on both sides of the ramp in accordance with IBC 1014.
   h. **Edge Protection**
      i. A curb, rail, wall or barrier must be provided as edge protection.
      ii. Must be at least 4-inches in height
      iii. Must not allow the passage of a 4-inch diameter sphere where any portion of the sphere is within 4 inches of the floor or ground surface.
   i. **Guards**
      i. Are required when portions of a ramp are located more than 30-inches above the floor or grade below.

12. **Exit Signage**
   a. Exits and exit access doors must be marked by an approved exit sign that is readily visible from any direction of travel.
   b. The path of travel to exits and within exits must be marked by a readily visible exit sign to indicate the direction of travel where the location of the exit or the path of travel is not immediately visible to occupants.
   c. Intervening MOE doors within exits must be marked by an exit sign.
   d. Exit signage must be located within corridors such that the maximum spacing does not exceed 100-ft or the listed viewing distance of the sign, whichever is less.
   e. Exit signs are not required in rooms that require only one exit or exit access.
   f. Exit signs are not required for main exterior exit doors that are obviously and clearly identifiable as exits where approved by the building code official.
   g. Exit signs must be internally or externally illuminated in accordance with IBC 1013

13. **Handrails**
   a. Required on both sides of the stairway or ramp
   b. Located between 34-inches and 38-inches above the tread
   c. Grasp-ability to comply with IBC 1014
   d. **Continuity**
      i. Must be continuous without interruption
      ii. Must return to the wall, guard, or walking surface or be continuous to the handrail of an adjacent stair flight or ramp run.
      iii. Where not continuous between flights, handrails must extend at least 12-inches horizontally beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.
      iv. At ramps where handrails are not continuous between runs, the handrails must extend at least 12-inches horizontally beyond the top and bottom of ramp runs.
   e. **Clearance**
      i. Minimum 1.5-inch clear space between handrail and wall
   f. **Projections**
      i. Ramps must have a minimum clear width of 36-inches measured between the handrails.
      ii. Projections into the required width of stairways cannot exceed 4.5-inches at or below the handrail height.
      iii. Projections due to intermediate handrails are not considered a reduction in egress width.

14. **Guards**
   a. Minimum 42-inch high guards are required along open sided walking surfaces, including mezzanines, equipment platforms, stairs, ramps and landings that are located more than 30-inches measure vertically above any floor or grade below.
   b. Unless an exception of IBC 1015 is met, guards cannot have openings that allow the passage of a sphere 4-inches in diameter from the walking surface to the guard height.
   c. Guards are required at roofs and other elevated locations where equipment is located within 10-ft of the edge.

15. **Exit Access**
   a. **Intervening Rooms:**
      i. Egress is permitted through intervening rooms where the intervening room and the area served are accessory to one another, the door into and out of the intervening room is not capable of being locked, and the intervening room is not a storage room, kitchen or of a similar type use.
   b. **Common Path of Travel (CPT):**
      i. Group B: 100-ft
      ii. Group E and A: 75-ft
   c. **Exits and Exit Access Doorways:**
      i. More than 49 occupants: 2-exits or exit access doorways required for Group A, B, E, F, and M occupancies
      ii. More than 29 occupants: 2-exits or exit access doorways required for Group S occupancies
      iii. 2-exits required where the maximum common path of travel is exceeded
      iv. 2-exits required from boiler, incinerator, and furnace rooms that are over 500 ft^2, and have any fuel-fired equipment exceeds 400,000 Btu input capacity.
   d. **Travel Distance:** Group E – 250-ft; Group B – 300-ft
   e. **Corridors**
      i. **Fire Resistance Rating:** None
      ii. **Width:** Minimum 72-inches (Serving more than 100 Group E occupants) but not less than 0.15-inches x the occupant load served for other occupancies.
      iii. **Dead Ends:**
         1. Max. 20-ft: Group A
         2. Max. 50-ft: Group B and E

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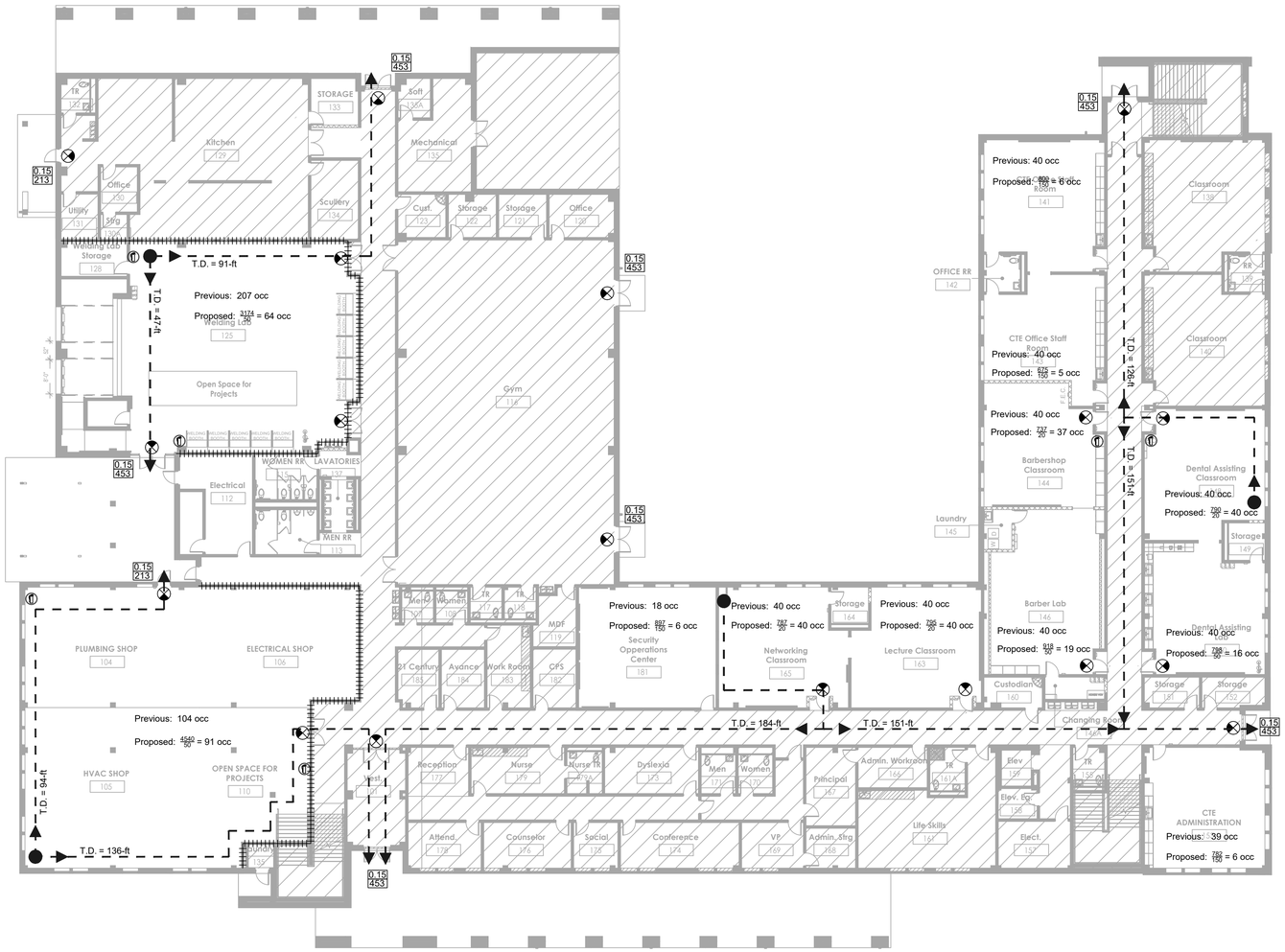

1 LIFE SAFETY PLAN - LEVEL 1

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

SYMBOLS & ABBREVIATIONS

0.2 / 160	EGRESS FACTOR / EGRESS CAPACITY (# OCCUPANTS)
●- - - →	TRAVEL DISTANCE (T.D.)
⊢⊢⊢⊢⊢	SMOKE RESISTANT (IBC 509)
⊗	EXIT SIGNAGE (Primary exit access doors and exits identified only. See electrical plans/specifications for final #, location, type, & directional indicators)
(f)	PORTABLE FIRE EXTINGUISHER (Proposed locations. Coordinate final required # & location with fire code official)

RATED WALL STENCILING

Marking and identification. Where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with signs or stenciling in the concealed space. Such identification shall:

a. Be located within 15-ft of the end of each wall and at intervals not exceeding 30-ft measured horizontally along the wall or partition.

b. Include lettering not less than 3-in in height with a minimum 3/8-in stroke in a contrasting color incorporating the suggested wording, “FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS,” or other wording.

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