EDINBURG CISD
PURCHASING DEPARTMENT
411 N. 8th Ave., Edinburg, TX 78541
(956) 289-2311, (956) 38-7687

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MIGUEL "MIKE" FARIAS, Member
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Dr. Mario H. Salinas, Superintendent

ADDENDUM 2
CSP 23-02
UTRGV-EDINBURG CISD COLLEGIATE HIGH SCHOOL
September 26, 2022

I. INSTRUCTIONS:

A. The following changes, omissions or alterations to the specification and drawings shall be made insofar as the specifications and drawings are inconsistent with following, this addendum shall govern.

B. Acknowledge receipt of this addendum by inserting its number and date of issue in the place provided for same in the proposal. This addendum forms a part of the Contract Documents.

C. It is imperative that this addendum be inserted INTO set of specifications.

II. SEE ADDENDUM BELOW:

1. **Please see attached modified plans/specifications.**
2. **Replace page 10 from the previous front end documents with the attached updated page 10 to include the completion of the job which is to be 15 months from the Notice to Proceed.**

Respectfully Submitted,

Amaro Tijerina

Amaro Tijerina
Director of Purchasing

_____
(Signature of authorized officer) Date

_____
Company Name

Nondiscrimination Statement
It is the policy of Edinburg CISD not to discriminate on the basis of gender, age, handicap, religion, race, color, or national origin in its educational programs.
Es poliza del Distrito Escolar de Edinburg el no discriminar por razones con base en genero, edad, religion, raza, color origen nacional, ni discapacidad dentro de sus programas educacionales.

ORIGINAL PROPOSAL FORM MUST BE SUBMITTED ALONG WITH THE PROPOSAL AND CONTRACT DOCUMENTS BOOKLET

BIDDERS BOND in the amount of $_____, (5%) of the greatest amount proposal in compliance with the INSTRUCTION TO BIDDERS.

The above Cashier's Check or Bidder's Bond is to become the property of the OWNER, in the event the construction contract (when offered by the Owner) and bonds are not executed within the time set forth.

Item No.	Item Description	Total
1.		
2.		
3.		
4.		

GRAND TOTAL PROPOSAL IMPROVEMENTS: (Items 1-4): $_____

The undersigned agrees, unless hereinafter stated otherwise to furnish all materials as shown and specified in the Plans and Specifications. Please attach supplemental spreadsheet detailing equipment, materials, demolition, labor, etc.

Bidder hereby agrees to commence work under this contract within 10 days after "NOTICE TO PROCEED" is issued, and to substantially complete work in the Contract within 15 months from the "NOTICE TO PROCEED".

The undersigned bidder acknowledges the receipt of the following addenda:

ADDENDUM NO.	DATE	BY
ADDENDUM NO. 1		
ADDENDUM NO. 2		
ADDENDUM NO. 3		
ADDENDUM NO. 4		

September 26, 2022
UTRGV/EDINBURG CISD COLLEGIATE HIGH SCHOOL



GOMEZ MENDEZ SAENZ, INC.
1150 PAREDES LINE RD.
BROWNSVILLE, TEXAS 78526
(956) 546-0110

ADDENDUM NO. 2

A. PURPOSE AND INTENT
This addendum is issued for the purpose of modifying the plans and specifications for the *UTRG/EDINBURG CISD COLLEGIATE HIGH SHCOOL*.

This addendum shall become part of the contract and all CONTRACTORS shall be bound by its content. All aspects of the specifications and drawings not covered herein shall remain the same.

The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this Addendum.

B. SCOPE

I. CLARIFICATIONS:

1. Edinburg CISD Purchasing issued an Addendum #1 on September 23, 2022, on its Purchasing site, revising the Bid Opening Date. Please visit the Purchasing Site and search under the purchasing vendor CSP/RFP/RFQ Calendar do download Addendum #1.

II. SPECIFICATIONS:

1. N/A

III. PLANS:

1. Cover
    a. Added Texas Accessibility Standard Sheets 1-2
2. G1.02
    a. Sheet G1.01 Texas Accessibility Standard included in this Addendum shall be part of the Contract Documents.

3. G1.02
    a. Sheet G1.02 Texas Accessibility Standard included in this Addendum shall be part of the Contract Documents.

4. Sheet A1.00 – Overall Dimensional Control Plan
    a. Revised curb locations/dimensions
    b. Revised parking layout (removed 1 space)
5. Sheet A1.01 – Keyed Campus Plan
    a. (Pertains to item above: a, b)
    b. Added key notes to identify drainage inlets
    c. Added key notes to identify splash blocks
    d. Added key notes to identify grease trap location
6. Sheet A1.02 – Site Plan Details
    a. (Pertains to item above: a, b) – Dimensions of parking spaces adjusted
7. Sheet A1.04 – Site Plan Details
    a. Accessible parking paint detail title revised

Civil Addendum Items: Refer to attached information (3 Pages)
Landscape Addendum Items: Refer to attached information (5 Pages)
Structural Addendum Items: Refer to attached information (2 Pages including cover sheet)
MEP Addendum Items: Refer to attached information (44 Pages including cover sheets)

End of Addendum 2

EDINBURG
CONSOLIDATED INDEPENDENT SCHOOL DISTRICT

UTRGV™

UTRGV / EDINBURG CISD
COLLEGIATE HIGH 2021 - 2022



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MELDEN & HUNT, INC.
115 W. McINTYRE EDINBURG, TX. 78541
(956) 381-0981 FAX. (956) 381-1839

LANDSCAPE
SSP LANDSCAPE DESIGN
802 EAST WASHINGTON BROWNSVILLE, TEXAS 78520
(956) 547-9788 FAX: (956) 547-9977

GOMEZ MENDEZ SAENZ, INC.
1150 PAREDES LINE ROAD
BROWNSVILLE, TEXAS 78526
(956) 546-0110 FAX: (956) 546-0196

CHANIN ENGINEERING LLC.
400 NOLANA AVE, STE - H2
McALLEN, TX 78504
PH. (956) 687-9421 FAX (956) 687-3211

ETHOS ENGINEERING
119 W. Van Buren Ave. Suite #101
Harlingen, TX 78550 78550
(956) 230-3435 FAX: (956)720-0830

No.	REVISIONS	BY
02	ADDENDUM 2: 09/26/22	GMS

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

FOR CONSTRUCTION

REGISTERED ARCHITECT
RAUL E. MONREAL
86516
STATE OF TEXAS
09/09/2022

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: September 9, 2022
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: JA, CM, CG
Job No. UTRGV/ECISD
Sheet: COVER

Sep 26, 2022 - 8:49am C:\Users\ChristopherGorza\Dropbox\Edinburg UTRGV Collegiate High\CAD\ECISD UTRGV_A0.00 Cover.dwg

4.2 SPACE ALLOWANCES AND REACH RANGES

TAS SECTIONS 4.2.1 – WHEELCHAIR PASSAGE WIDTH

A. The minimum clear width for single wheelchair passage shall be 32" at a point and 36" continuously

TAS SECTIONS 4.2.2 – WIDTH FOR WHEELCHAIR PASSING

A. The minimum clear width for two wheelchairs to pass is 60"

TAS SECTIONS 4.2.4.1 – SIZE AND APPROACH

A. Minimum clear floor space for a wheelchair and occupant shall be 30" wide x 48" long. Clear floor space shall be centered on the element it serves.

4.3 ACCESSIBLE ROUTE

TAS SECTIONS 4.3.2 – LOCATION

A. At least one accessible route shall be provided from public transportation stops, accessible parking and loading zones, and public streets or sidewalks to the accessible building entrance.

TAS SECTIONS 4.3.3 – WIDTH

A. The minimum clear width of an accessible route shall be 36" except at doors.

TAS SECTIONS 4.3.4 – PASSING SPACE

A. If an accessible route is less than 60" in width, then passing spaces of at least 60"x60" shall be provided at 200' max. spacing.

TAS SECTIONS 4.3.5 – HEAD ROOM

A. Accessible routes shall have 80" min. clear head room.

TAS SECTIONS 4.3.7 – SLOPE

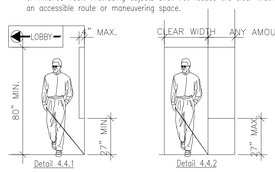
A. Running slope shall not exceed 1:20. (If slope exceeds 1:20, refer to section 4.8)

B. Cross slope shall not exceed 1:50

4.4 PROTRUDING OBJECTS (REFERENCE DETAIL 4.4.1 & 4.4.2)

TAS SECTIONS 4.4.1 – GENERAL

A. Objects projecting from walls (for example, telephones) with their leading edges between 27"–80" above the finished floor shall protrude no more than 4" into walks, halls, corridors, passageways, or aisles. Objects mounted with their leading edges at or below 27" above the finished floor may protrude any amount. Free–standing objects mounted on posts or pylons may overhang 12" maximum from 27"–80" above the ground or finished floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.



Detail 4.4.1

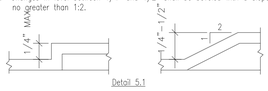
Detail 4.4.2

4.5 GROUND AND FLOOR SURFACES

TAS SECTIONS 4.5.2 – CHANGES IN LEVEL (REFERENCE DETAIL 5.1)

A. Changes in level up to 1/4" may be verticle and without edge treatment

B. Changes in level between 1/4" and 1/2" shall be beveled with a slope no greater than 1:2.



Detail 5.1

TAS SECTIONS 4.5.3 – CARPET

A. Carpet provided on a floor surface shall be securely attached; have a firm pad or backing, or no pad; and have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Maximum pile thickness shall be 1/2". Exposed edges of carpet shall be fastened to floor surfaces and have trim along the exposed edges.

TAS SECTIONS 4.5.4 – GRATINGS

A. If gratings are located in walking surfaces or along accessible routes, then they shall have spaces no greater than 1/2" wide in one direction.

B. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

4.6 PARKING AND PASSENGER LOADING ZONES

TAS SECTIONS 4.6.3 – PARKING SPACES

A. Accessible parking shall be at least 96" wide.

B. Parking access aisles shall be 60" wide.
Van accessible access aisles shal be 96" wide.

C. Surface slope shall not exceed 1:50 in all directions
(Note : no built up curb ramp may be located in an accessible parking access aisle.)

TAS SECTIONS 4.6.4 – SIGNAGE

A. Each accessible parking space must have individual vertically mounted or suspended sign. Required van accessible spaces must be designatred.

A. Characters and symbols on such signs shall be located 60" minimum above the ground.

B. Signage located within an accessible route shall be located 80" min. above the walking surface.

TAS SECTIONS 4.6.5 – VERTICAL CLEARANCE

A. Provide minimum verticle clearance of 114" at accessible passenger loading zones and along at least one vehicle access route from site entrances and exits.

TAS SECTIONS 4.6.6 – PASSENGER LOADING ZONE

A. Passenger loading zones shall provide an access aisle at least 60" wide and 20 ft long adjacent and parallel to the vehicle pull–up space. If there are curbs between the access aisle and the vehicle pull–up space, then a curb ramp complying with 4.7 shall be provided. Vehicle standing spaces and access aisles shall be level with surface slopes not exceeding 1:50 in all directions.

4.7 CURB RAMPS

TAS SECTIONS 4.7.2 – SLOPE (REFERENCE DETAIL 4.7)

A. Slopes of curb ramps shall comply with 4.8.2.

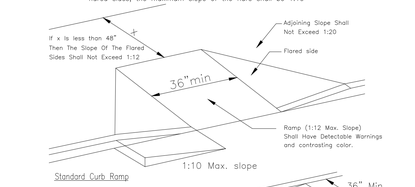
B. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.

TAS SECTIONS 4.7.3 – WIDTH (REFERENCE DETAIL 4.7)

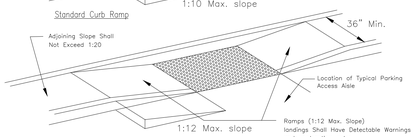
A. The minimum width of a curb ramp shall be 36", exclusive of flared sides.

TAS SECTIONS 4.7.5 – SIDES OF CURB RAMPS (REFERENCE DETAIL 4.7)

A. If a curb ramp is located where pedestrians must walk across the ramp or where it is not protected by handrails or guardrails, it shall have flared sides; the maximum slope of the flare shall be 1:10



Standard Curb Ramp



Curb Ramp Parallel to Curb

Detail 4.7

TAS SECTIONS 4.7.10 – DIAGONAL CURB RAMPS

A. If diagonal curb ramps have returned curbs or other well–defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have 48" minimum clear space. If diagonal curb ramps are provided at marked crossings, the 48" clear space shall be within the markings. If diagonal curb ramps have flared sides, they shall also have at least a 24" long segment of straight curb located on each side of the curb ramp and within the marked crossing.

TAS SECTIONS 4.7.11 – ISLANDS

A. Any raised islands in crossings shall be cut through level with the street or curb ramps at both sides and a level area at least 48" long between the curb ramps in the part of the island intersected by the crossings.

4.8 RAMPS

TAS SECTIONS 4.8.1 – GENERAL

A. Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8

TAS SECTIONS 4.8.2 – SLOPE AND RISE

A. The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30".

TAS SECTIONS 4.8.3 – CLEAR WIDTH

A. The minimum clear width of a ramp 30 ft or less in length shall be 36". Ramps more than 30 ft. in length shall have a minimum clear width of 44".

TAS SECTION 4.8.4 – LANDINGS

A. Level landings required at top and bottom of each run, with the following features:
1. Minimum Width: Equal to width of ramp
2. Length: Minumum 60" clear
3. At change of direction landing shal be 60" x 60" min.

TAS SECTION 4.8.5 – HANDRAILS

A. Handrails are required at all ramps with > 6" rise.

B. Height: 34–38" above ramp surface

C. The clear space between the handrail and the wall shall be 1–1/2".

TAS SECTIONS 4.8.7 – EDGE PROTECTION

A. Ramps and landings with drop offs shall have curbs, walls, railings, or projecting surfaces that prevent slipping off the ramp. Curbs shall be a minimum of 2" high.

4.9 STAIRS

TAS SECTIONS 4.9.2 – TREADS AND RISERS

A. All steps on a flight of stairs shall have uniform riser heights and tread widths
1. Minimum tread depth shall be 11", measured from riser to riser (not including nosing)
2. Open risers are not permitted

TAS SECTION 4.9.4 – HANDRAILS

A. Non–continuous handrails shall extend 12" beyond the top riser and 12" plus the width of one tread beyond the bottom riser. At the top, the extension shall be parallel to the floor. At the bottom, the handrail shall continue to slope for a distance of one tread width (11"); the remaining extension shall be horizontal.

B. Height: 34" – 38", measured from the stair nosing.

4.10 ELEVATORS

TAS SECTIONS 4.10.3 – HALL CALL BUTTONS

A. Shall be centered 42" above floor

TAS SECTIONS 4.10.4 – HALL LANTERNS

A. Visible signals shall have the following features:
1. Fixtures shall be mounted with centerline at least 72" above the lobby floor
2. Visual elements shall be at least 2–1/2" in the smallest dimension

TAS SECTIONS 4.10.5 – RAISED AND BRAILLE CHARACTERS ON HOISTWAY ENTRANCES

A. All elevator hoistway entrances shall have raised and Braille floor no. designations provided on both jambs. Centerline of the characters shall be 60" above the floor. Characters shall be 2" high.

TAS SECTIONS 4.10.6 – DOOR PROTECTIVE AND REOPENING DEVICE

A. Elevator doors shall open and close automatically. They shall be provided with a reopening device that will stop and reopen a car door and hoistway door automatically if the door becomes obstructed by an object or person.

TAS SECTIONS 4.10.12 – CAR CONTROLS

A. All floor buttons shall be:
1. All control buttons shall be at least 3/4" in their smallest dim. They shall be flush or raised.
2. All control buttons shall be designated by Braille and by raised standard alphabet characters for letters, arabic characters for numerals. The call button for the main entry floor shall be designated by a raised star at the left of the floor designation.
3. Maximum 54" above floor where side approach is provided
4. Maximum 48" where forward approach is provided

B. Emergency Controls:
1. Shall have centerlines 35" minimum above floor
2. Shall be grouped at bottom of panel

C. The emergency communication system shall not require voice communication.

4.11 PLATFORM LIFTS

NOTE : REQUIRES A VARIANCE FROM THE T.D.L.R. TO USE IN LIEU OF AN ELEVATOR

TAS SECTIONS 4.11.2, 4.27.3 – OTHER REQUIREMENTS CONTROLS AND OPERATING SYSTEMS

A. Heights permitted:
Controls and operating mechanisms shall be located for either a forward or side approach from any direction of travel. They shall be located 28" min. and 48" maximum above the floor. They shall be operable with one hand. There shall be at least one handrail complying with 4.26.
Wheelstops and guardrails shall be provided where necessary.

4.13 DOORS

TAS SECTION 4.13.4 – DOUBLE – LEAF DOORWAYS

A. Doorways with two independently operated leaves shall have at least one active leaf that meets the requirements in 4.13.5 and 4.13.6.

TAS SECTION 4.13.5 – CLEAR WIDTH

A. Doorways shall provide a clear opening of 32" minimum, with the door open 90°.
1. Clear opening shall be measured between the face of the door and opposite stop.
2. Openings more than 24" in depth shall provide a clear opening of 36" minimum.
Exception: Doors not requiring full user passage, such as shallow closets, shall have a clear opening of 20" minimum.

TAS SECTION 4.13.6 – MANEUVERING CLEARANCES AT DOORS
Provide level (1:50 max. slope) and clear maueuvering area at doors as follows:

A. Front approach pull side – 60" min. width & 18" min. beside strike edge
Front approach push side – 48" min width & 0" beside strike edge (12" @ strike if door has both a closer and a latch)

B. Hinge side approach pull side – 60" min. width; 36" min. beside strike edge or – 54" min. width; 42" min. beside strike edge
Hinge side approach push side – 42" min. width & 18" min. beside hinge edge (48"min. width if door has both a closer and a latch)

C. Latch side approach pull side – 48" min. width and 24" min. beside strike edge (54"min. width if door has a closer)
Latch side approach push side – 42" min. width and 24" min. beside strike edge (48"min. width if door has a closer)

TAS SECTION 4.13.8 – THRESHOLDS AT DOORWAYS

A. Maximum threshold height: 1/2" (3/4" at exterior sliding doors). Raised thresholds and floor level changes shall be beveled with a slope no greater than 1:2.

TAS SECTION 4.13.9 – DOOR HARDWARE

A. Handles, pulls, latches, locks, and other operating devices shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate.

1. Lever–operated mechanisms, push–type mechanisms, and U–shaped handles are acceptable designs.

2. When sliding doors are fully open, operating hardware shall be exposed and usable from both sides.

3. Hardware required for accessibel door passage shall be mounted no higher than 48" above finished floor.

TAS SECTION 4.13.10 – DOOR CLOSERS

A. If a door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70°, the door will take at least 3 seconds to move to a point 3" from the latch, measured to the leading edge of the door.

TAS SECTION 4.13.11 – DOOR OPENING FORCE

A. The maximum force for pushing or pulling open a door shall be as follows:

1. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.

2. Other doors
a. Exterior hinged doors: no requirement.
b. Interior hinged doors: 5.0 lbf.
c. Sliding or folding doors: 5.0 lbf.
These forces do not apply to the force required to retract latch bolts or disengage othe devices that may hold the door in a closed position.

4.15 DRINKING FOUNTAINS

TAS SECTION 4.15.2 – SPOUT HEIGHT (REFERENCE DETAIL 4.15 for accessible unit)

A. Accessible spouts shall be no higher than 36", measured from the floor or ground surface to the spout outlet.

B. In addition to accessible unit, at least one drinking fountain shall be at standard height (may be "high/low" type if located in one location).

TAS SECTION 4.15.3 – SPOUT LOCATION

A. Spouts shall be located at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit.

1. The spout shall provide a flow of water at least 4" high.
2. If the fountain has a round or oval bowl, the spout must be positioned so the flow of water is within 3" of the front edge of the fountain.

TAS SECTION 4.15.4 – CONTROLS

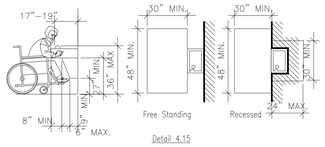
A. Unit controls shall be front mounted or side mounted near the front edge.

TAS SECTION 4.15.5 – CLEARANCES (REFERENCE DETAIL 4.15).

A. Wall and post mounted cantilever fountains shall have clear knee space as follows:

1. Minimum 27" high (from apron bottom to floor) minimum 30" wide, and 17" – 19" deep.
2. A minimum 30" by 48" clear floor space allowing a forward approach to the unit shall be provided.

B. Free standing or built–in units not having a clear knee space shall have a minimum 30" by 48" clear floor space allowing a parallel approach to the unit.



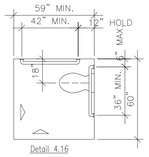
Detail 4.15

4.16 WATER CLOSETS

TAS SECTION 4.16.2 – CLEAR FLOOR SPACE

A. Clear floor space for water closets not in stalls shall be provided as follows:
Front approach – 48" min. wide x 66" min. long
Side approach – 56" min. to front of toilet x 48" min. wide
Both approach – 60" min. wide x 56" min. long (Reference Detail 4.16)

B. No doorswings are allowed in clear floor area.



Detail 4.16

TAS SECTION 4.16.3 – HEIGHT (REFERENCE DETAIL 4.16.2)

A. The height to the top of the toilet seat shall be 17" – 19" above floor.

1. Seats shall not be sprung to return to a lifted position.

TAS SECTIONS 4.16.4, 4.26 – GRAB BARS (REFERENCE DETAILS 4.16.1, 4.16.2 & 4.16.3)

A. For water closets not located in toilet stalls, the following grab bars shall be provided, 33" – 36" above the finish floor:

1. Side wall: 42" long minimum, hold 12" min. from back wall.
2. Back wall: 36" long minimum, 12" minimum each side of water closet centerline.

Refer to 4.26 Grab Bars for size and structural elements.

TAS SECTIONS 4.16.5, 4.27.4 – FLUSH CONTROLS (REFERENCE DETAIL 4.16.3)

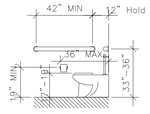
A. Controls shall be 44" maximum above the finish floor.

1. Lever controls or flush valves shall be mounted on the wide side of toilet areas.
2. Controls shall be hand operated or automatic.
3. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
4. The force required to activate controls shall be no greater than 5lbf.

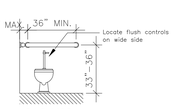
TAS SECTION 4.16.6 – DISPENSERS (REFERENCE DETAIL 4.16.2)

A. Toilet paper dispensers shall be installed on the side wall, a minimum 19" above the floor, and a maximum 36" from the rear wall.

1. Dispensers that control delivery or do not permit continuous paper flow shall not be used.



Detail 4.16.2



Detail 4.16.3

4.17 TOILET STALLS

TAS SECTION 4.22.4 – WHERE APPLICABLE

A. If toilet stalls are provided in a toilet room or bathroom, then at least one shall be a "standard" accessible toilet stall (for wheelchair users) complying with this section. (REFERENCE DETAIL 4.17.1)

B. If 6 or more toilet stalls are provided in a toilet room or bathroom in addition to the 'standard' accessible stall required; an additional 'alternate A' accessible stall 36" wide (for ambulatory persons with disabilities) complying with this section shall be provided. (REFERENCE DETAIL 4.17.2)

C. Alterations/Existing Conditions: In alteration work, where provision of a 'standard' accessible stall is technically infeasible, or where plumbing code requirements prevent combining existing stalls to provide space, either 'alternate' stall (A or B) complying with this section may be provided in lieu of the standard stall. (Note :requires a variance from T.D.L.R.)

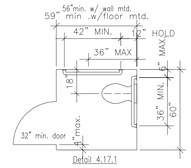
TAS SECTION 4.17.3 – SIZE AND ARRANGEMENT (REFERENCE DETAIL 4.17)

A. Toilet stalls may be arranged to provide either a left or a right handed approach. Accessible toilet stalls shall have the following dimensions:

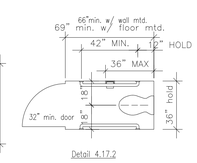
1. 'Standard' Accessible Stall
60" minimum width.
59" minimum depth, with floor mounted water closet
56" minimum depth, with wall mounted water closet
Door: outward swinging (if door swings into stall, depth shall be increased by 36". Stall doors must have 18" on pull strike jamb.

2. 'Alternate A' Accessible Stall (required when more than 6 stalls provided, permitted in lieu of standard stall only with a variance from T.D.L.R.)
36" width – hold this dim.
69" minimum depth, with floor mounted water closet.
66" minimum depth with wall mounted water closet
Door: outward swinging.

3. 'Alternate B' Accessible Stall (permitted in lieu of standard stall only with variance from T.D.L.R.)
48" minimum width.
54" minimum depth.
Door : outward swinging.



Detail 4.17.1



Detail 4.17.2

TAS SECTION 4.17.4 – TOE CLEARANCES

A. In 'Standard' accessible stalls, the front partition and at least one side partition shall provide a toe clearance of at least 9" above the floor.

B. If the depth of the stall is greater than 60", the toe clearance is not required.

TAS SECTION 4.17.5 – DOORS

A. Toilet stall doors, including hardware, shall comply with 4.13 DOORS

B. If toilet stall approach is from the latch side of the stall door, clearance between the door side of the stall and any obstruction shall be 42" minimum. (This is an exception from typical door maneuvering clearances)

TAS SECTION 4.17.6 – GRAB BARS (REFERENCE DETAILS 4.16.2, 4.16.3, 4.17.1 & 4.17.2)

A. Grab Bars shall be mounted 33" – 36" above the floor.

Refer to 4.26 Grab Bars for size and structural requirements.

4.18 URINALS

TAS SECTION 4.18.2 – HEIGHT (REFERENCE DETAIL 12.3.1)

A. Urinals shall be stall–type or wallhung with a tapered, elongated rim at 17" maximum above the finished floor.
The rim shall extend a minimum of 14" from the wall.

TAS SECTION 4.18.3 – CLEAR FLOOR SPACE (REFERENCE DETAIL 4.18.1)

A. A clear floor space 30" wide by 48" deep minimum shall be provided in front of urinal to allow forward approach.

1. This space shall adjoin or overlap an accessible route.

2. Urinal shield that do not extend beyond the front edge of the urinal rim may be provided with 29" clearence between them.

3. Urinals installed in alcoves deeper than 24" require a maneuvering area of at least 36" minimum wide, centered on fixture.

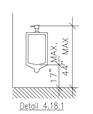
TAS SECTION 4.18.4 – FLUSH CONTROLS (REFERENCE DETAIL 4.18.2)

A. Controls shall be 44" maximum above the finished floor.

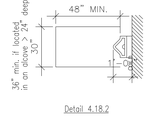
1. Controls shall be hand operated or automatic.

2. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

3. The force required to activate controls shall be no greater than 5 lfb.



Detail 4.18.1



Detail 4.18.2

4.19 LAVATORIES & MIRRORS

TAS SECTION 4.19.2 – HEIGHT & CLEARANCES (REFERENCE DETAIL 4.19.1 & 4.19.2)

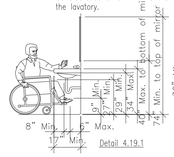
A. Lavatories shall be mounted with the rim or counter surface no higher than 34" above the finished floor.

1. Lavatories shall extend 17" minimum from the wall.

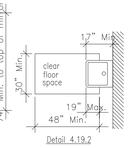
2. Clearance of 29" minimum shall be provided from the finished floor to bottom of apron.

3. Knee clearance of 27" minimum shall extend 8" minimum under the edge of the lavatory.

4. Toe clearance of 9" minimum shall be provided for the full depth of the lavatory.



Detail 4.19.1



Detail 4.19.2

No.	REVISIONS	BY
02	ADDENDUM 2: 09/26/22	GMS

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UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

FOR CONSTRUCTION



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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: September 9, 2022
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: JA, CM, CG
Job No. UTRGV/ECISD
Sheet: G1.01

TAS SECTION 4.19.4 – EXPOSED PIPES AND SURFACES

A. Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact.

B. There shall be no sharp or abrasive surfaces under lavatories.

TAS SECTIONS 4.19.5, 4.27.4 – FAUCETS

A. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

B. The force required to activate controls shall be no greater than 5 lbf.

C. Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs.

D. If self-closing valves are used the faucet shall remain open for at least 10 seconds.

TAS SECTION 4.19.6 – MIRRORS (REFERENCE DETAIL 4.19.1)

A. Mirrors shall be mounted with the bottom edge of the reflecting surface 40" maximum above the finished floor.

B. The top edge of the reflecting surface must be at least 74" AFF.

4.20 BATHTUBS

TAS SECTION 4.20.2 – FLOOR SPACE

A. Clear floor space shall be provided in front of bathtubs as follows:
30" wide x 60" long beside the bathtub for side approach
48" wide x 60" long beside the bathtub for front approach

with seat at head of tub – 30" wide x 75" long beside tub

TAS SECTION 4.20.3 – SEAT

A. An in-tub seat or a seat at the head end of the tub shall be provided. Seats shall be mounted securely and shall not slip during use.

TAS SECTIONS 4.20.4 – GRAB BARS

A. Heights permitted:

1. With in Tub Seat:
Foot Control wall: 24" long minimum, from outside wall, 33–36" above floor
Back wall: 2 bars, 24" long minimum, 12" maximum from foot wall, 24" maximum from head wall; one 33–36" above floor, one 9" above the tub
Head wall: 12" minimum, from outside wall, 33–36" above floor

2. With Seat at Head of Tub:
Control wall: 24" long minimum, from outside wall, 33–36" above floor
Back wall: 2 bars, 48" long minimum, 12" maximum from foot end, 15" maximum from head end; one 33–36" above floor, one 9" above the tub
Head wall: none

TAS SECTION 4.20.5

A. Controls must be located up front to the open side of tub

TAS SECTION 4.20.6 – SHOWER UNIT

A. A shower spray unit with a hose at least 60" long shall be provided that they can be used both as fixed and hand held.

4.21 SHOWER STALLS

TAS SECTION 4.21.2 – SIZE AND CLEARANCES

A. Shower stalls shall be either 36"x36" clear inside dimension (hold) at transfer type or 30" min. x 60" min. clear inside dimension at roll in type.

TAS SECTIONS 4.21.3 – SEAT

A. Seat is required in 36"x 36" stalls, and shall have the following features:

1. Shall be 17"–19" above bathroom floor
2. Shall extend the full depth of the stall
3. Shall be located on the wall opposite control wall
4. Maximum space between wall and seat edge shall be 1–1/2"
5. Shall project 16" maximum into stall width, except at the rear 15" maximum of the stall, where the seat may project 23"
6. Where a seat is provided in a roll in type shower it must be the fold-up type.

TAS SECTIONS 4.21.4 – GRAB BARS

A. Grab bars shall be mounted 33–36" above floor

TAS SECTIONS 4.21.5 – CONTROLS

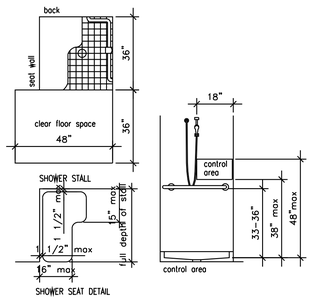
A. All shower controls shall be located 38" minimum and 48" maximum above the floor, up front on the open side.

TAS SECTION 4.21.6 – SHOWER UNIT

A. A shower spray unit with a hose at least 60" long that can be used both as a fixed shower head and as a hand held shower shall be provided. The mounting device shall comply with the requirements for Forward Reach.

TAS SECTIONS 4.21.7 – CURBS

A. If provided, curbs on transfer showers shall be no higher than 1/2" roll-in showers shall not have curbs



SHOWER SEAT DETAIL

4.22 TOILET ROOMS

TAS SECTIONS 4.22.2 – DOORS

A. All doors to accessible toilet rooms shall comply with 4.13. Doors shall not swing into clear floor space required for any fixture. Clear floor turning space may overlap door swings.

TAS SECTIONS 4.22.3 – CLEAR FLOOR SPACE

A. The accessible fixtures and controls required in 4.22.4, 4.22.5, 4.22.6 4.22.7 shall be on an accessible route. An unobstructed turning space complying with 4.2.3 shall be provided within an accessible toilet room. The clear floor space at fixtures and controls, the accessible route, and the turning space may overlap, however; the only turning space provided shall not be located within a stall.

TAS SECTIONS 4.22.4 – WATER CLOSETS

A. If toilet stalls are provided, then at least one shall be a standard toilet stall complying with 4.17; where 6 or more stalls are provided in addition to the stall complying with 4.17.3, at least one stall 36" wide with an outward swinging, self-closing door and parallel grab bars shall be provided. Water closets in such stalls shall comply with 4.16.

TAS SECTIONS 4.22.5 – URINALS

A. If urinals are provided, then at least one shall comply with 4.18.

TAS SECTIONS 4.22.6 – LAVATORIES AND MIRRORS

A. If lavatories and mirrors are provided, then at least one of each shall comply with 4.19. Accessible lavatories and mirrors shall not be located within toilet stalls unless other accessible lavatories and mirrors are provided in the toilet room.

TAS SECTIONS 4.22.7 – CONTROLS AND DISPENSERS

A. If controls, dispencers, receptacles, or other equipment are provided, then at least one of each shall be on an accessible route and shall comply with 4.27 – (Controls & Operating Mechanisms).

4.23 – BATHROOMS, BATHING FACILITIES, AND SHOWER ROOMS

TAS SECTION 4.23.8 – BATHING AND SHOWER FACILITIES

A. In addition to the requirements of 4.22. toilet rooms :
If tubs and showers are provided, then at least one accessible tub that complies with 4.20 or at least one accessible shower that complies with 4.21 shall be provided

4.24 – SINKS

TAS SECTION 4.24.2 – HEIGHT

A. Sinks shall be mounted with the rim or counter surface no higher than 34" above the finished floor.

TAS SECTIONS 4.24.3 – KNEE CLEARANCE

A. Knee clearance of 27" high minimum, 30" wide minimum, and 19" deep minimum shall be provided underneath sinks.

TAS SECTION 4.24.4 – DEPTH

A. Each sink shall be a maximum of 6–1/2" deep.

TAS SECTION 4.24.6 – EXPOSED PIPES AND SURFACES

A. Hot water and drain pipes under sinks shall be insulated or otherwise configured to protext against contact.

B. There shall be no sharp or abrasive surfaces under sinks.

TAS SECTION 4.24.7, 4.27.4 – FAUCETS

A. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

B. The force required to activate controls shall be no greater than 5 lbf.

C. Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs.

D. If self-closing valves are used the faucet shall remain open for at least 10 seconds.

4.25 – STORAGE

TAS SECTION 4.25.1 – DEPTH (REFERENCE DETAIL 4.25.1)

A. Storage areas may be 36" in depth or less. If more than 36" in depth then area must allow 60" diameter of clear floor space for turning.

TAS SECTION 4.25.2 – CLEAR FLOOR SPACE: (REFERENCE DETAIL 4.25.2)

TAS SECTION 4.25.3 – HEIGHT (REFERENCE DETAIL 14.3 AND 4.25.3 & 4.25.4)

A. Where a forward reach is required, accessible storage spaces shall be 48" maximum and 15" minimum above the floor. If the forward reach is over an obstruction (with knee space equal to or greater than reach distance) 20"–25" deep, the maximum height shall be 44"; if the obstruction is less than 20", maximum height shall be 48".

B. Where a side reach is provided, accessible storage spaces shall be 54" maximum and 9" minimum above the floor. Maximum height shall be 46" for side reach over an obstruction 34" maximum high and 24" maximum deep.

C. Clothes rods or shelves shall be a maximum 54" above floor where a side reach is required.

D. Where the distance from the wheelchair to the clothes rod or shelf exceeds 10" (as at closets with inaccessible doors) the following criteria shall be met:

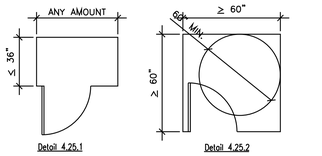
1. Shelves: Reach: 21" maximum; height: 48" maximum, 9" minimum.

2. Clothes rods: reach 21" maximum; height: 48" maximum.

TAS SECTIONS 4.25.4, 4.27.4 – HARDWARE

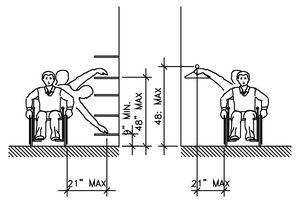
A. Hardware for accessible storage facilities shall be operable with one hand and shall not require tight grasping, pinching, or tisting of the wrist.

B. The force required to activate the hardware shall be no greater than 5 lbf



Detail 4.25.1

Detail 4.25.2



Detail 4.25.3

Detail 4.25.4

4.26 – GRAB BARS

TAS SECTION 4.26.2 – SIZE AND SPACING

A. Diameter or width of gripping surface shall be 1–1/4" to 1–1/2", or the shape shall provide an equivalent gripping surface.

1. The space between grab bars and adjacent walls shall be 1–1/2"

TAS SECTION 4.26.3 – STRUCTURAL STRENGTH

A. Grab bars and mounting devices shall meet the following requirements:

1. Bending stress induced by maximum bending moment from application of 250 lbf shall be less than allowable stress for material used.

2. Shear stress induced by application of 250 lbf shall be less than allowable shear stress for material used. If connection between grab bar and mounting bracket is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.

3. Shear force induced in a fastener or mounting device from application of 250 lbf shall be less than allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.

4. Tensile force induced in a fastener by a direct tension force of 250 lbf plus the maximum moment from the application of 250 lbf shall be less than the allowable withdrawal load between the fastener and the supporting structure.

5. Grab bars shall not rotate within their fittings.

TAS SECTION 4.26.4 – ELIMINATING HAZARDS

A. Grab bars and adjacent wall surfaces shall be free of sharp or abrasive surfaces.

B. Edges shall have a radius of 1/8" minimum.

4.27 – CONTROLS AND OPERATING MECHANISMSS

TAS SECTION 4.27.3 – HEIGHT (REFERENCE DETAIL 4.30.3)

A. Front approach – 48" max. to 15" min.
Controls located in an alcove >24" deep must have 36" clear floor width.

B. Side approach – 54" max. to 9" min., except per below.

C. Electrical & communication system receptacals shall be mounted no less than 15" above the floor.

4.28 – ALARMS

TAS SECTION 4.28.1 – GENERAL

A. When required, visual alarms shall be provided in each of the following areas, as a minimum: restrooms and any other general usage areas (e.g., meeting rooms), hallways, lobbies, and any other area for common use.

TAS SECTION 4.28.2 – AUDIBLE ALARMS

A. If provided, audible alarms shall produce a sound that exceeds the prevailing equivalent sound level in the room or space by at least 15 dba or exceeds any maximum sound level with a duration of 60 seconds by 5 dba, whichever is louder.

B. Sound levels for alarm signals shall not exceed 120 dba.

TAS SECTION 4.28.3 – VISUAL ALARMS

A. Visual alarm signal appliances shall be integrated into the building or facility alarm system. If single station audible alarms are provided then single station visual alarm signals shall be provided.

Visual Alarm appliances shall have the following features:

1. The lamp shall be a xenon strobe type or equivalent.

2. The color shall be clear or nominal white (i.e. unfiltered or clear filtered white light).

3. The maximum pulse duration shall be two-tenths of one second with a maximum duty cycle of 40%. (The pulse duration is defined as the time interval between initial and final points of 10% of max signal)

4. The intensity shall be a minimum of 75 candela.

5. The flash rate shall be a minimum of 1 Hz and a maximum of 3 Hz

6. The appliance shall be placed 80" above the highest floor level within the space or 6" below the ceiling, whichever is lower.

7. In general, no place in any room or space shall be more than 50' from the signal (measured in a horizontal plane).

a. In large rooms and spaces exceeding 100' across, without obstructions 6' above the finished floor, such as auditoriums, devices may be place around the perimeter, spaced a maximum 100' apart, in lieu of suspending appliances from the ceiling.

8. No place in common corridors or hallways shall be more than 50' from the signal.

4.30 – SIGNAGE

TAS SECTIONS 4.1.2(7), 4.1.3(16)(a) – WHERE APPLICABLE

A. Signs which designate permanent rooms and spaces shall comply with the requirements listed below for:

1. Raised and Braille Characters, and Pictograms

2. Finish and Contrast

Exception: Employee name signs are not required to comply.

TAS SECTIONS 4.1.2(7), 4.1.3(16)(b) – WHERE APPLICABLE

A. Signs which provide direction to, or information about, functional spaces of the building shall comply with the requirements listed below for:

1. Character Proportion

2. Character Height

3. Finish and Contrast

Exception: Building directories, menus, and all other signs which are temporary are not required to comply.

TAS SECTION 4.1.2(7) – WHERE APPLICABLE (REFERANCE DETAIL 4.30.1)

A. Element and spaces of accessible facilities which shall be identified by the International Symbol of Accessibility are:

1. Parking spaces designated as reserved for persons with disabilities.

2. Accessible passenger loading zones.

3. Accessible entrances when not all are accessible (inaccessible entrances shall have directional signage to indicate route to nearest accessible entrance).

4. Accessible toilet and bathing facilities when not all are accessible.

TAS SECTION 4.30.2 – CHARACTER PROPORTION (REFERENCE DETAIL 4.30.2)

A. Letters and numbers on signs shall have a width-to-height ratio between 3:5 and 1:1, and a stroke-width-to-height ratio between 1:5 and 1:10.

TAS SECTION 4.30.3 – OVERHEAD SIGNS

A. Characters and numbers on overhead signs shall be sized according to the viewing distance from which they are to be read.

1. For signs higher than 80" above the finished floor, character size shall be 3" minimum.

2. The minimum height is measured using an upper case X.

3. Lower case letters are permitted.

TAS SECTION 4.30.4 – RAISED AND BRAILLE CHARCTERS AND PICTOGRAMS

A. Letter and numerals shall be raised 1/32", upper case, sans serif and shall be accompanied by grade 2 Braille.

1. Raised character height: 5/8" minimum, 2" high maximum

2. Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram.

3. The border dimension of the pictogram shall be 6" minimum

TAS SECTION 4.30.5 – FINISH AND CONTRAST

A. The character and background of the signs shall be eggshell, matte, or other non-glare finish. Charcters and symbols shall contrast with their bachground (either light characters on a dark background or dark characters on a light background).

TAS SECTION 4.30.6 – MOUNTING LOCATION AND HEIGHT (REFERENCE DETAIL 4.30.3)

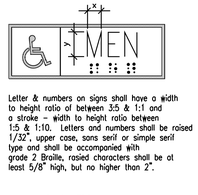
A. Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door.

B. Where there is no wall space to the latch side of the door, including at double-leaf doors, signs shall be placed on the nearest adjacent wall.

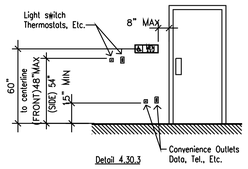
C. Mounting height shall be 60" above the finished floor to the centerline of the sign.

D. Mounting location for such signage shall be so that a person may approach within 3" of signage without encountering protruding objects or standing within the swing of a door.


International Symbol of Accessibility
Detail 4.30.1



Letter & numbers on signs shall have a width to height ratio of between 3:5 & 1:1 and a stroke – width to height ratio between 1:5 & 1:10. Letters and numbers shall be raised 1/32", upper case, sans serif or simple serif type and shall be accompanied with grade 2 Braille, raised characters shall be at least 5/8" high, but no higher than 2".
Detail 4.30.2



Detail 4.30.3

4.31 – PUBLIC TELEPHONES

TAS SECTION 4.1.3(17)(a) – WHERE APPLICABLE

A. If public pay telephones, public closed circuit telephones, or other public telephones is provided, then they shall comply with this section in the quantities below:

1. If one or more single unit of a type of public telephone is provided on a floor, then at least one of those phones shall comply with this section.

2. If one bank (defined as two or more adjacent public telephones, often installed as a unit) of a type of telephone is provided on a floor, then at least one of the telephones at the bank shall comply with this section.

3. If two or more banks of a type of public telephone are provided on a floor, then at least one telephone per bank shall comply with this section. The accessible unit may be installed as a single unit in proximity (either visible or with signage) to the bank. At least one public telephone per floor shall meet the requirements for a forward reach telephone.

Additional public telephones may be installed at any height.

Unless otherwise specified, accessible telephones may be either forward or side reach telephones.

TAS SECTION 4.1.3(17)(b) – WHERE APPLICABLE

A. All telephones required to be accessible shall be equipped with a volume control.

B. In addition, 25%, but never less than one, of all other public telephones provided shall be equipped with a volume control and shall be dispersed all type of telephones, including closed ciruit telephones, throughout the building or facility.

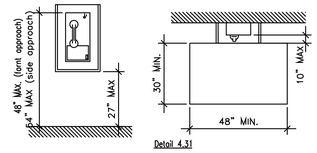
C. Signage displaying the International Symbol of Access for Hearing Loss shall be provided at each telephone equipped with a volume control.

TAS SECTION 51.3 – MOUNTING HEIGHT (REFERENCE DETAIL 4.31)

A. The highest operable part of the telephone shall be 48" maximum above the floor where a forward reach is required, and 54" maximum where a side reach is required.

B. If the forward reach is over an obstruction (with knee space equal to or greater than reach distance) 20"–25" deep the maximum height shall be 44"; if the obstruction is less than 20", maximum height shall be 48"

C. Maximum height shall be 46" for side reach over an obstruction 34" maximum high and 24" maximum deep.



Detail 4.31

4.32 – SEATING AND TABLES

TAS SECTION 4.32.2 – SEATING

A. If seating spaces for people in wheelchairs are provided at fixed tables or counters, clear floor space of 30" x 48" shall be provided. Floor space shall not overlap required knee space by more than 19"

TAS SECTION 4.32.3 – KNEE SPACE

B. If seating for people in wheelchairs is provided at fixed tables or counters, knee space at least 27" high, 30" wide and 19" deep shall be provided.

TAS SECTION 4.32.4 – HEIGHT OF TABLES OR COUNTER

C. The tops of accessible tables and counters shall be 28" minimum, and 34" maximum, above the finished floor.

4.34 – AUTOMATIC TELLER MACHINES

TAS SECTIONS 4.34.2 – CLEAR FLOOR SPACE

A. Floor space shall comply with 4.2.4 to allow a forward, parallel approach or both.

TAS SECTIONS 4.34.3 – REACH RANGES

A. Forward approach only: controls within forward approach specified in 4.2.5.

B. Parallel approach: controls within unobstructed reach range from clear floor space at protrusion of teller machine surround per table as follows:

Reach Depth	Maximum Height	Reach Depth	Maximum Height	Reach Depth	Maximum Height
in inches	in inches	in inches	in inches	in inches	in inches
10 or less	54	15	51	20	48 1/2
11	53 1/2	16	50 1/2	21	47 1/2
12	53	17	50	22	47
13	52 1/2	18	49 1/2	23	46 1/2
14	51 1/2	19	49	24	46

Note : above does not apply to drive up machines.

4.35 DRESSING AND FITTING ROOMS

TAS SECTIONS 4.35.2

A. Clear floor area with a 60" dia. wheelchair turnaround is required. The turnaround area must be clear of door swings.

TAS SECTIONS 4.35.4 – BENCH

A. Every accessible dressing room shall have a 24"x 48" bench fixed to the wall along the larger dimension. The bench shall be mounted 17" to 19" above the finish floor.

TAS SECTIONS 4.35.5 – MIRROR

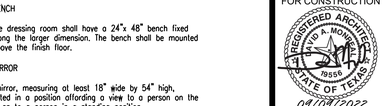
A. A full-length mirror, measuring at least 18" wide by 54" high, shall be mounted in a position affording a view to a person on the bench as well as to a person in a standing position.

No.	REVISIONS	BY
02	ADDENDUM 2: 09/26/22	GMS

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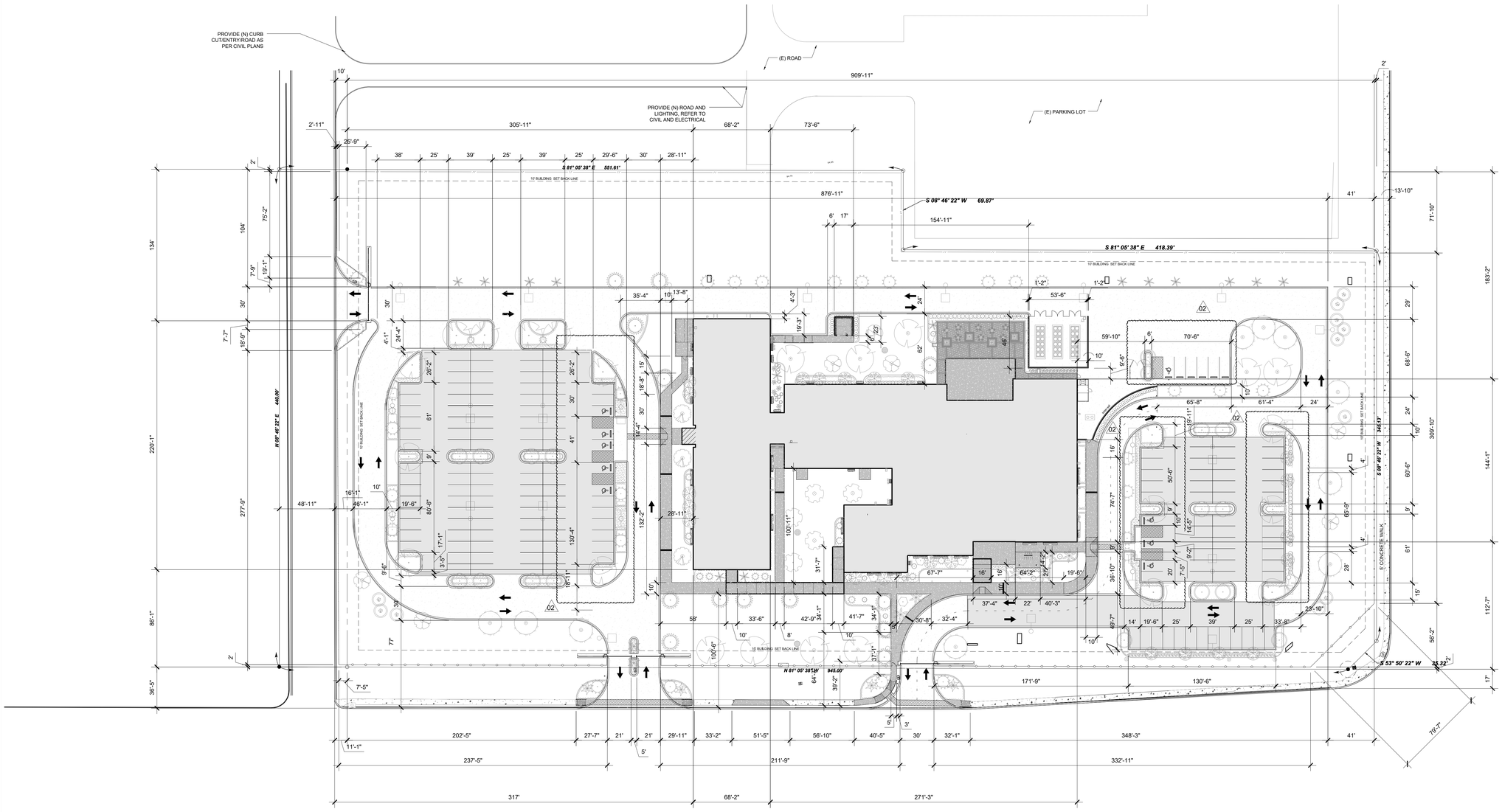
FOR CONSTRUCTION



09/09/2022

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Architects-Planners
Interior Designers

Date: September 9, 2022
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: JA, CM, CG
Job No. UTRGV/ECISD
Sheet: G1.02



SCALE: 1" = 40'-0"

01 OVERALL DIMENSIONAL CONTROL PLAN

TRUE NORTH PLAN NORTH

SCALE: 1" = 40'-0"

GENERAL NOTES:

1.) THIS PLAN IS INTENDED TO SHOW BUILDING CORNERS & OVERALL BUILDINGS FOOTPRINTS REFER TO SHEETS A1.01 THROUGH A1.04 FOR DIMENSIONAL SITE PLANS

2.) REFER TO SHEETS A1.01 THROUGH A1.02 FOR ALL SITE IMPROVEMENTS AND FIXTURE NOTATIONS

3.) FINISH GRADE TO BE 6" BELOW FINISH FLOOR ELEVATION SLOPE AWAY FROM ALL IMPROVEMENTS AT A RATE OF 1/4" PER FOOT FOR THE FIRST 10'-0", THEN AT A RATE OF 1/8" PER FOOT FOR THE NEXT 20'-0"

4.) SIDE WALK SLOPE IS NOT TO EXCEED 1:20 WITH A CROSS SLOPE OF 1:50 AT ANY INSTANCE.

5.) REFER TO CIVIL, LANDSCAPE AND MECHANICAL DRAWINGS FOR ADDITIONAL WORK TO BE PERFORMED UNDER THIS CONTRACT.

6.) AT ALL ENTRIES OF NEW BUILDINGS WARP CONCRETE SIDEWALKS SO AS TO PROVIDE A FLAT SURFACE WITH FINISHED FLOOR

FENCING LEGEND:

PVC COATED CHAINLINK FENCING	NORTH AND WEST OF PROPERTY
ORNAMENTAL FENCING	SOUTH & EAST OF PROPERTY

No.	REVISIONS	BY
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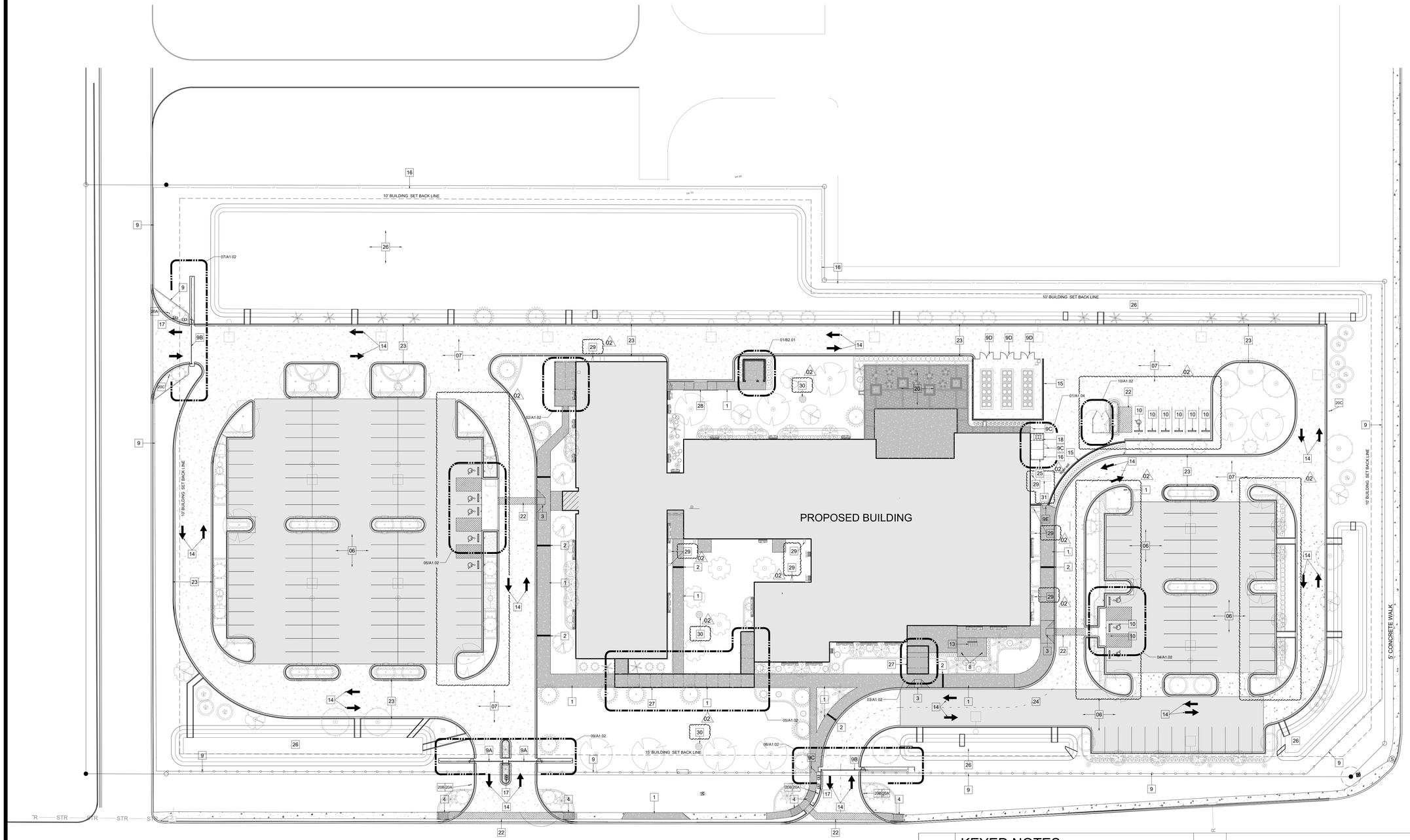
FOR CONSTRUCTION

REGISTERED ARCHITECT DAVID A. MONREAL 79559 STATE OF TEXAS

09/09/2022

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Interior Designers

Date:	September 9, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	JA, CM, CG
Job No.	UTRGV/ECISD
Sheet:	A1.00





01 KEYED CAMPUS PLAN

SCALE : 1:30

TRUE NORTH PLAN NORTH

SITE NOTES:

1. FINISH GRADE TO BE 6" BELOW FINISH FLOOR ELEVATION SLOPE AWAY FROM ALL IMPROVEMENTS AT A RATE OF 1/4" PER FOOT FOR THE FIRST 10'-0"; THEN AT A RATE OF 1/8" PER FOOT FOR THE NEXT 20'-0"
2. SIDE WALK SLOPE IS NOT TO EXCEED 1:20 WITH A CROSS SLOPE OF 1:50 AT ANY INSTANCE.
3. REFER TO CIVIL, LANDSCAPE AND MECHANICAL DRAWINGS FOR ADDITIONAL WORK TO BE PERFORMED UNDER THIS CONTRACT.
4. AT ALL ENTRIES OF NEW BUILDINGS WARP CONCRETE SIDEWALKS SO AS TO PROVIDE A FLAT SURFACE WITH FINISHED FLOOR
5. PROVIDE EXPANSION JNT MATERIAL AT ALL SIDEWALK AND FOUNDATION TRANSITIONS

KEYED NOTES

DETAIL		
01,02/A1.03 04,05/A1.03	1	CONCRETE WALK REFER TO DTL'S
03/A1.03	2	METAL TRENCH COVERS. REFER TO DTL. (1'-0" WIDE)
09A/A1.03	3	ACCESSIBLE CURB RAMP AT 1:12
09B/A1.03	4	ACCESSIBLE CURB RAMP AT 1:12
10/A1.04	5	ACCESSIBLE PARKING SPACE WITH POLE MOUNTED SIGN SHOWING INTERNATIONAL SYMBOL OF ACCESSIBILITY. REFER TO 10/A1.03.
REF CIVIL	6	ASPHALT PAVING WITH CONCRETE CURB AND GUTTER. REFER TO CIVIL FOR ADDITIONAL INFORMATION.
REF CIVIL	7	CONCRETE PAVING WITH CONCRETE CURB AND GUTTER. REFER TO CIVIL FOR ADDITIONAL INFORMATION.
07/A1.03	8	30'-0" FLAGPOLE AS SPECIFIED.
01,02,03, 04, 06, 07/A1.04	9	6' HIGH ALUMINUM ORNAMENTAL PICKET FENCE
	9A	26' MOTORIZED ORNAMENTAL SLIDING GATE
	9B	35' MOTORIZED ORNAMENTAL SLIDING GATE
	9C	3'-0" WIDE GATE WITH LOCKING MECHANISM AND FOOT BOLTS AS SHOWN
	9D	(DBL) 5'-0" WIDE GATE WITH LOCKING MECHANISM AND FOOT BOLTS AS SHOWN
	9E	PEDESTRIAN GATE W/ MANUAL LOCKING MECHANISM AND FOOT BOLTS WIDTH AS SHOWN
06/A1.03	10	CONCRETE TIRE STOP
11/A1.03	11	6'-0" TALL CEDAR FENCING WITH DOUBLE SWINGING GATE.
06/A1.03	12	3'-0" TALL PIPE BOLLARD
14/A1.03	13	11 STALL BIKE RACK 36" HIGH
	14	PAINTED TRAFFIC ARROWS
15/A1.03	15	BRICK OVER CMU SCREEN WALL WITH CAST PRECAST STONE CAP

DETAIL		
12,13/A1.03	16	6' HIGH PVC COATED CHAINLINK FENCING, (REF. TO DETAIL 13/A1.03 FOR PRIVACY SCREEN LOCATION)
	17	PEDESTAL MOUNTED KEYPAD CONTROL AND CALL SWITCH AS SPECIFIED. PROVIDE CONCRETE CURB WITH 4 PIPE BOLLARDS AT PEDESTAL
01/A1.02	18	CAN WASH AREA WITH METAL CANOPY. PROVIDE CONC. CATCH BASIN GRATE COVER SET ONTO R-6670-D SERIES SQ. NEENAH FOUNDRY CO. REFER TO MEP FOR PLUMBING REQUIREMENTS
	19	PROVIDE ALL CURBS TO BE PAINTED RED INDICATING FIRE LANE STRIPPING.
10/A1.03	20A 20B 20C	PROVIDE POLE MOUNTED SIGNS "EXIT ONLY" "STOP" "SERVICE ENTRY ONLY"
	20	COURTYARD, REFER TO LANDSCAPE PLANS
10/A1.02, 11/A1.03	21	DUMPSTER
05/A1.04 (SIM.)	22	PAINT STRIPING TRAFFIC FOR PEDESTRIAN CROSSWALKS, LOADING ZONE AND TRAFFIC CONTROL AS SHOWN. COLOR YELLOW
	23	FIRE LANE STRIPING - PAINT ALL CURBS - COORDINATE STENCILING WITH FIRE MARSHALL BEFORE PROCEEDING
	24	DASHED PAINTED TRAFFIC STRIPING
16/A1.03, 17/A1.03	25	METAL CANOPY WITH PREFINISHED METAL PANELS AND TRIM REFER TO STRUCTURAL FOR FRAMING AND FOUNDAITON REQUIREMENTS
	26	DETENTION POND, REFER TO CIVIL PLANS
	27	PRE-ENGINEERED ALUMINUM CANOPY SYSTEM AS SPEC'D WITH SELF DRAINING DECK AND INTERNAL DOWNSPOUTS. REFER TO STRUCTURAL FOR FOUNDATION REQUIREMENTS
09C/A1.03	28	ACCESSIBLE CURB RAMP AT 1:12
06/A2.13	29	SPLASH BLOCKS, REFER TO PLUMBING PLANS FOR LOCATION
	30	INLETS, REFER TO CIVIL PLANS
	31	APPROXIMATE LOCATION OF GREASE INTERCEPTOR, REFER TO TAS, CIVIL AND PLUMBING PLANS FOR REQUIREMENTS

02

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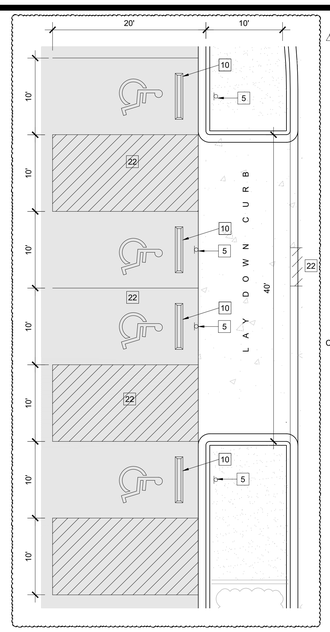
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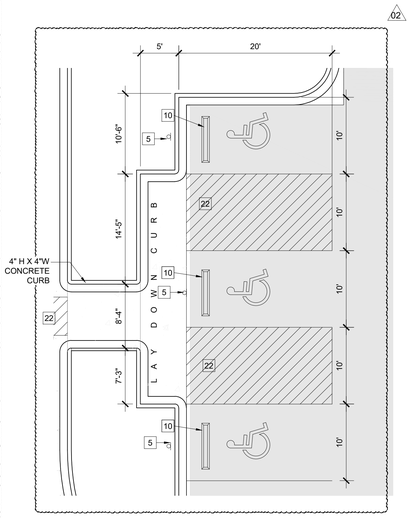
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DETAIL		
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07/A1.03	8	30'-0" FLAGPOLE AS SPECIFIED.
01,02,03, 04, 06, 07/A1.04	9 9A 9B 9C 9D 9E	6' HIGH ALUMINUM ORNAMENTAL PICKET FENCE 26' MOTORIZED ORNAMENTAL SLIDING GATE 35' MOTORIZED ORNAMENTAL SLIDING GATE 3'-0" WIDE GATE WITH LOCKING MECHANISM AND FOOT BOLTS AS SHOWN (DBL) 5'-0" WIDE GATE WITH LOCKING MECHANISM AND FOOT BOLTS AS SHOWN PEDESTRIAN GATE W/ MANUAL LOCKING MECHANISM AND FOOT BOLTS WIDTH AS SHOWN
06/A1.03	10	CONCRETE TIRE STOP
11/A1.03	11	6'-0" TALL CEDAR FENCING WITH DOUBLE SWINGING GATE.
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14/A1.03	13	11 STALL BIKE RACK 36" HIGH

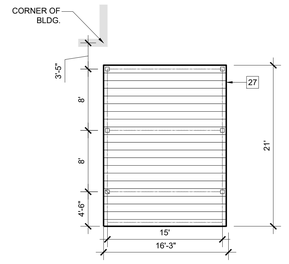
DETAIL		
	14	PAINTED TRAFFIC ARROWS
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12,13/A1.03	16	6' HIGH PVC COATED CHAINLINK FENCING, (REF. TO DETAIL 13/A1.03 FOR PRIVACY SCREEN LOCATION)
	17	PEDESTAL MOUNTED KEYPAD CONTROL AND CALL SWITCH AS SPECIFIED. PROVIDE CONCRETE CURB WITH 4 PIPE BOLLARDS AT PEDESTAL
01/A1.02	18	CAN WASH AREA WITH METAL CANOPY. PROVIDE CONC. CATCH BASIN GRATE COVER SET ONTO R-6670-D SERIES SQ. NEENAH FOUNDRY CO. REFER TO MEP FOR PLUMBING REQUIREMENTS
	19	PROVIDE ALL CURBS TO BE PAINTED RED INDICATING FIRE LANE STRIPPING.
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	24	DASHED PAINTED TRAFFIC STRIPING
16/A1.03, 17/A1.03	25	METAL CANOPY WITH PREFINISHED METAL PANELS AND TRIM REFER TO STRUCTURAL FOR FRAMING AND FOUNDAITON REQUIREMENTS
	26	DETENTION POND, REFER TO CIVIL PLANS
	27	PRE-ENGINEERED ALUMINUM CANOPY SYSTEM AS SPEC'D WITH SELF DRAINING DECK AND INTERNAL DOWNSPOUTS. REFER TO STRUCTURAL FOR FOUNDATION REQUIREMENTS
09C/A1.03	28	ACCESSIBLE CURB RAMP AT 1:12



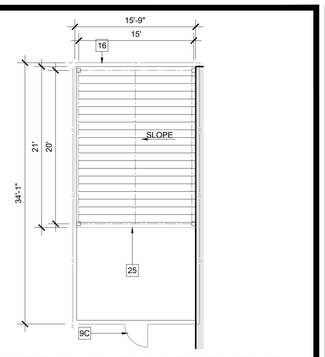
05 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0"



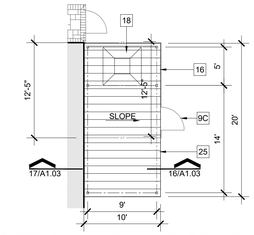
04 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0"



03 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0" ALUMINUM CANOPY

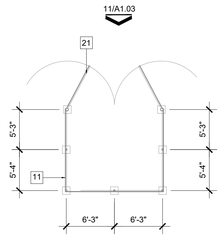


02 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0" METAL CANOPY REF STRUCTURAL

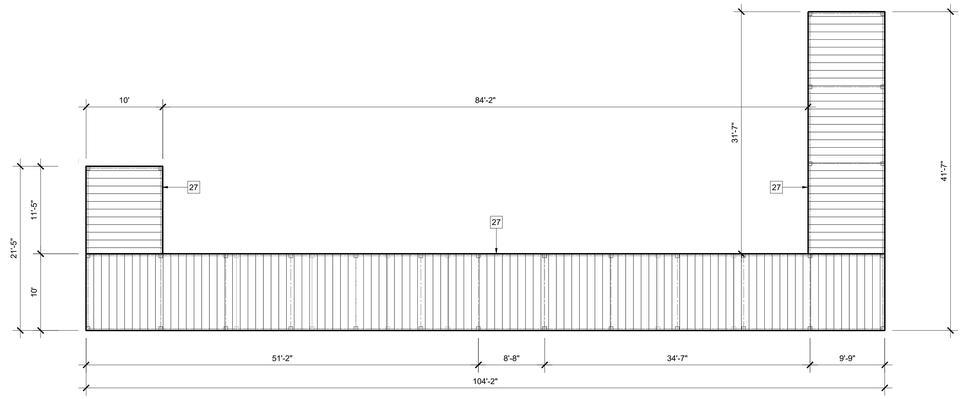


01 SITE PLAN ENLARGEMENT
SCALE : 1/16"=1'-0" METAL CANOPY REF 16/A1.03

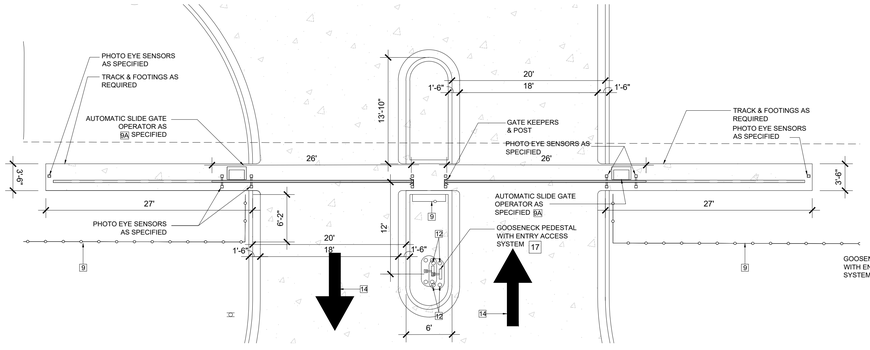
NOTE: REFER TO PLUMBING PLANS FOR LOCATION OF HOSE BIB



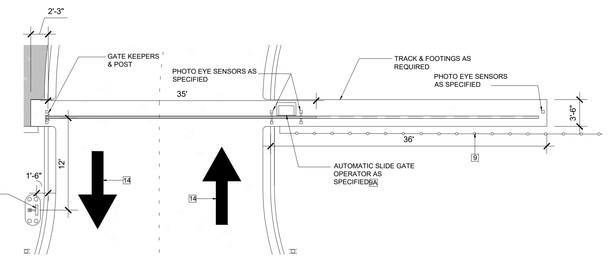
10 DUMPSTER ENLARGEMENT
SCALE : 1/8"=1'-0" METAL CANOPY REF 16/A1.03



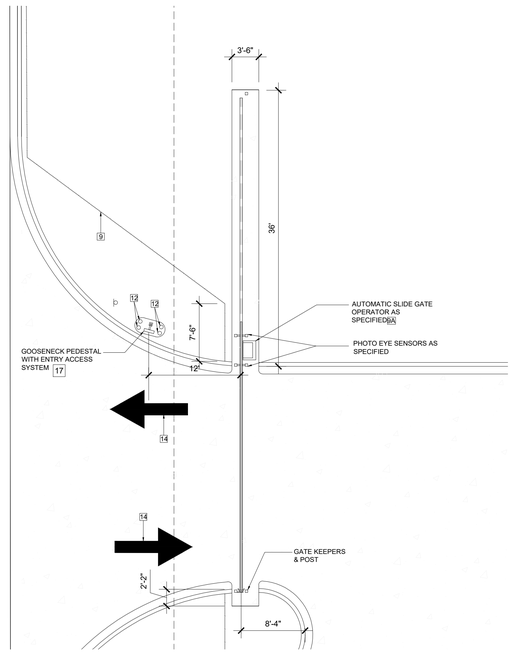
06 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0" ALUMINUM CANOPY



09 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0" ALUMINUM CANOPY



08 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0" ALUMINUM CANOPY



07 SITE PLAN ENLARGEMENT
SCALE : 1/8"=1'-0" ALUMINUM CANOPY

No.	REVISIONS	BY
.02	ADDENDUM 2: 09/26/22	GMS

GMS ARCHITECTS

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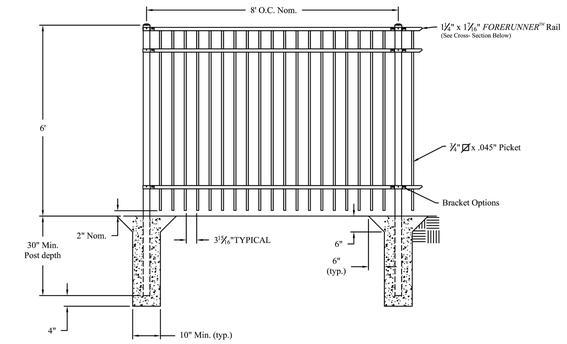
UTRGV/ EDINBURG CISD COLLEGIATE HIGH SCHOOL

FOR CONSTRUCTION

REGISTERED ARCHITECT
EDUARDO A. MONREAL
79555
STATE OF TEXAS
09/09/2022

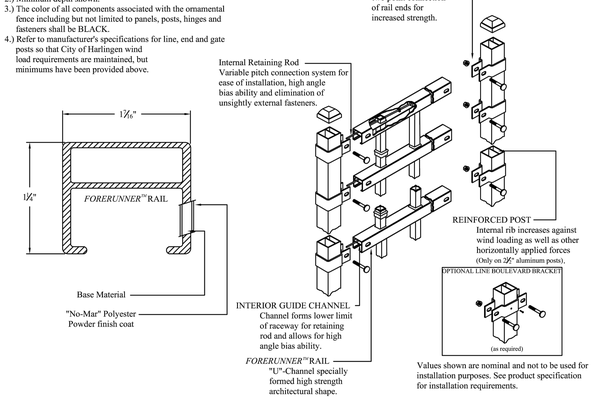
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Architects-Planners
Interior Designers

Date: September 9, 2022
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: JA, CM, CG
Job No. UTRGV/ECISD
Sheet: A1.02



NOTES:

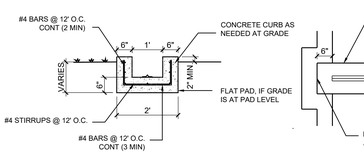
1.) Post size depends on fence height and wind loads.
2.) Minimum depth shown.
3.) The color of all components associated with the ornamental fence including but not limited to panels, posts, hinges and fasteners shall be BLACK.
4.) Refer to manufacturer's specifications for line, end and gate posts so that City of Harlingen wind load requirements are maintained, but minimums have been provided above.



Values shown are nominal and not to be used for installation purposes. See product specification for installation requirements.

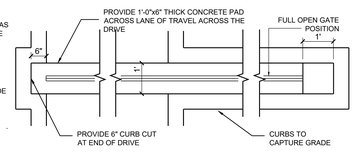
01 TYPICAL ALUM. PICKET FENCE

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



06 ROLLING GATE SECTION

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

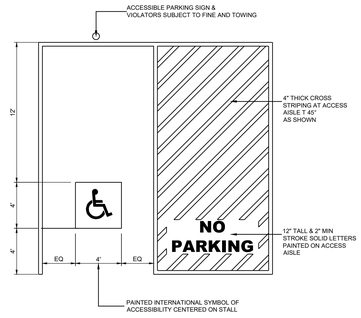


07 ROLLING GATE PAD

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



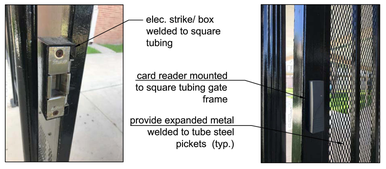




05 ACCESSIBLE PARKING PAINT

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

/02

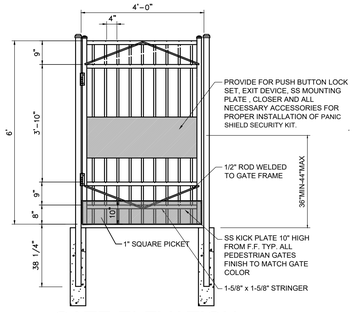


Typical configuration of pedestrian gates with panic hardware.

04 TYP. GATE HARDWARE

SCALE: NTS

PROVIDE ELECTRIC STRIKES, WIRING/DATA AS REQUIRED, WELDING AND OTHER MECHANICAL FASTENERS AS MAY BE REQUIRED FOR FUNCTIONAL INSTALLATION COMPARABLE IN APPEARANCE TO WHAT DISTRICT PERSONNEL HAVE ALREADY CREATED ON SITES. LOW VOLTAGE WIRING AND DATA SHALL RUN THROUGH SQUARE TUBING (TYP.).

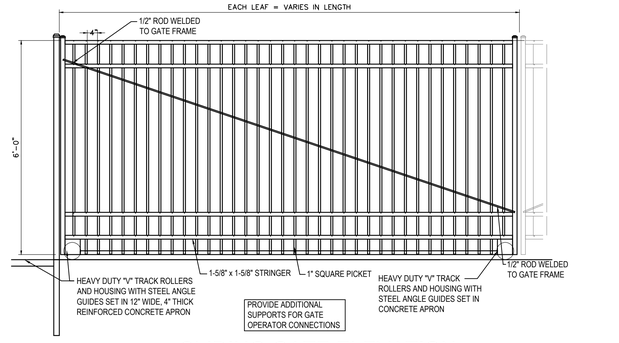


03 GATE ELEVATION

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

NOTE: PROVIDE ALL NECCESSARY ACCESORIES FOR PROPER GATE INSTALLATION OF ALL GATE HARDWARE AND PLATES

1. PROVIDE AT ALL PEDESTRIAN SWING GATES SAMSON-2 LOCINOX HYDRAULIC GATE CLOSER
2. ALL CLOSERS TO HAVE A TWO (2) YEAR WARRANTY.
3. ALL EXIT DEVICES TO HAVE A TWO (2) YEAR WARRANTY.
4. ALL LOCKSETS TO HAVE A TWO (2) YEAR WARRANTY.



02 SLIDING GATE ELEVATION

SCALE: NTS

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.

No.	REVISIONS	BY
1 /02	ADDENDUM 2: 09/26/22	GMS

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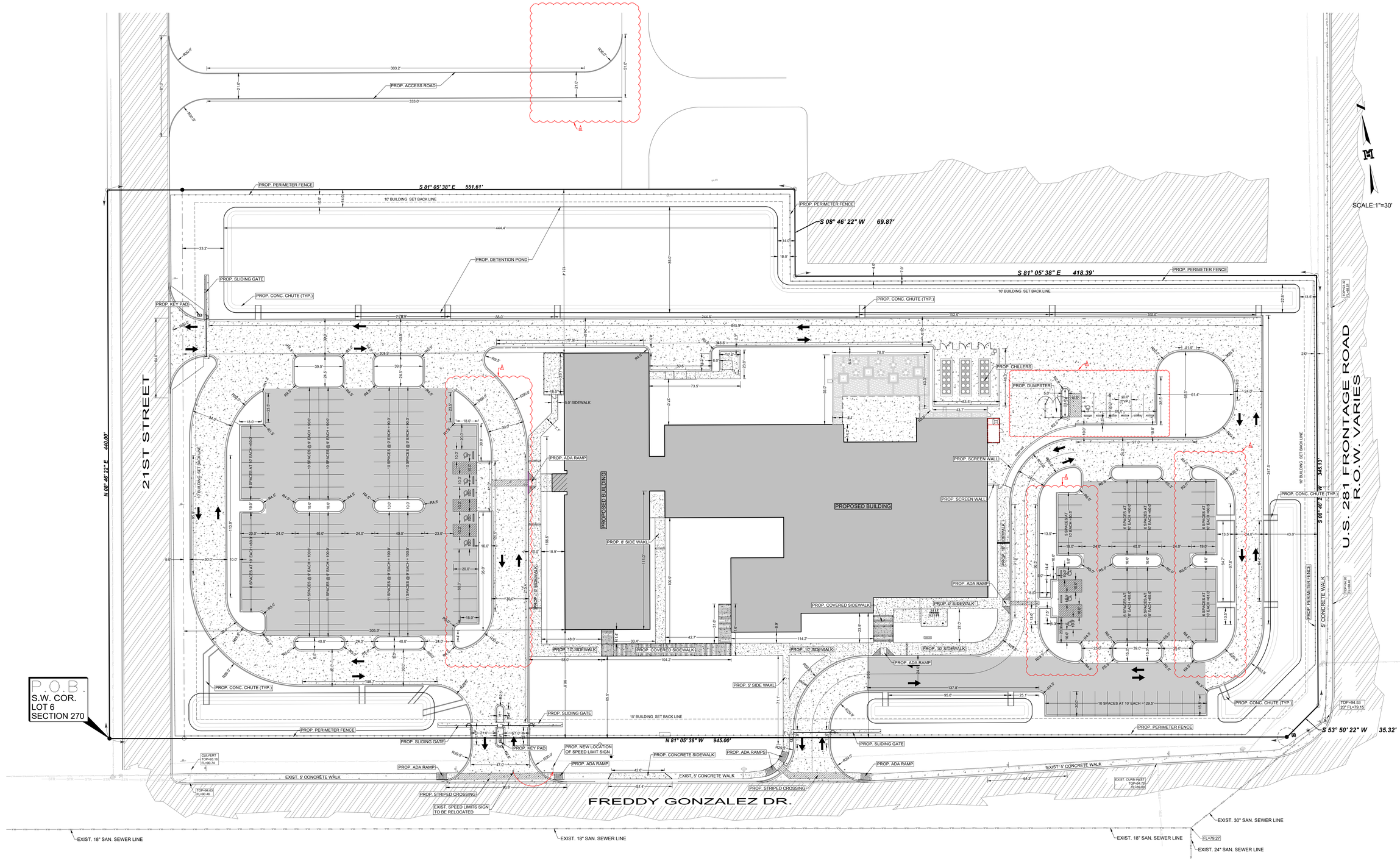
UTRGV/ EDINBURG CISD COLLEGIATE HIGH SCHOOL

FOR CONSTRUCTION

REGISTERED ARCHITECT
EDUARDO A. MONREAL SAENZ
19555
STATE OF TEXAS
04/08/2022

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Interior Designers

Date:	September 9, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	JA, CM, CG
Job No.	UTRGV/ECISD
Sheet:	A1.04



GENERAL NOTES:
ZONING - COMMERCIAL GENERAL (LANDSCAPE RATIO)
MIN. LSR 0.15 (FLOOR AREA RATIO)
MAX. FAR 0.388
BUILDING TO LINE - 15'
SIDE - 10'
REAR - 10'
FRONT (FREDDY GONZALEZ) - 15' (CLASS B BUFFER YARD)
MAX. BUILDING HEIGHT - 45'

PARKING REQUIRED:
HIGH SCHOOL - 1 SPACE/ 4 PEOPLE

No.	REVISIONS	BY
1	ADDENDUM #2	CP

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EDINBURG, TX. 78541
P.O. BOX 1749
FAX (956) 381-1839
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TBPELS No.: 10009500

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TEXAS REGISTRATION F-1435

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Kelley A. Heller-Vela
09/26/2022

UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

SITE PLAN
100% SET

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Architects-Planners
Interior Designers

Date: SEPTEMBER 08, 2022
Scale: As Noted
Project Engineer: KELLEY HELLER-VELA
Drawn By: CP
Job No. UTRGV/ECISD
Sheet: C2

EXIST. 12" WATER LINE

EXIST. 12" WATER LINE

21ST STREET

10' BUILDING SET BACK LINE

10' BUILDING SET BACKLINE

10' BUILDING SET BACK LINE

EXIST. 12" WATER LINE

PROP. SAN. SEWER MH #5
TOP: 97.20
FL: 93.20

EXIST. 8" x 307 L.F. SAN. SEWER LINE
AT 0.335% SLOPE

PROP. SAN. SEWER MH #4
TOP:97.02
FL: 92.17

PROP. 3" SERVICE LINE

PROP. 4" SERVICE LINE

PROP. 1" x 82' WATERLINE

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

SEE MEP PLANS FOR BUILDING CONNECTION

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

PROPOSED BUILDING

PROP. 4" SERVICE LINE

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

PROP. FIRE LINE TO BE SIZED BY FIRE DEPARTMENT (285 L.F.)

EXIST. 8" x 262 L.F. SAN. SEWER LINE
AT 0.335% SLOPE

PROP. 4" SERVICE LINE

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

PROP. 4" SERVICE LINE

SEE MEP PLANS FOR BUILDING CONNECTION (SEWER)

PROP. 2" SERVICE LINE

PROP. 4" SERVICE LINE

PROP. 3" SERVICE LINE

PROP. 3" x 270' DOMESTIC WATERLINE)

PROP. SAN. SEWER MH #2
TOP:
FL: 91.29

EXIST. 12" WATER LINE

EXIST. 12" WATER LINE

EXIST. 12" WATER LINE

PROP. SAN. SEWER MH #3
TOP:
FL: 92.21

EXIST. 8" x 276 L.F. SAN. SEWER LINE
AT 0.335% SLOPE

EXIST. 8" x 134 L.F. SAN. SEWER LINE
AT 0.335% SLOPE

PROP. 1" TAP FOR IRRIGATION

PROP. 3" TAP FOR DOMESTIC WITH BACK FLOW PREVENTOR AS REQUIRED BY CITY

15' BUILDING SET BACK LINE

TOP=94.53
20' FL=79.15

CULVERT
TOP=93.16
FL=90.74

EXIST. 5' CONCRETE WALK

EXIST. 5' CONCRETE WALK

EXIST. 5' CONCRETE WALK

TOP=94.63
FL=90.46

EXIST. 12" WATER LINE

EXIST. 12" WATER LINE

FREDDY GONZALEZ DR.

PROP. DROP SAN. SEWER MH#1
TOP: 94.00
FL(N): 90.84
FL(E&W): 79.49

PROP. CUT & RESTORE ROADWAY (550 S.F.)

EXIST. CURB INLET
TOP=94.70'
FL=89.80'

EXIST. 30" SAN. SEWER LINE

EXIST. 18" SAN. SEWER LINE

EXIST. 18" SAN. SEWER LINE

FL=79.27

EXIST. 24" SAN. SEWER LINE

EXIST. 18" SAN. SEWER LINE

10.0'

U.S. 281 FRONTAGE ROAD
R.O.W. VARIES

TOP=94.25
FL=89.85

5' CONCRETE WALK

EXIST. 12" WATER LINE

EXIST. 12" WATER LINE

TOP=94.25
FL=89.85

N

SCALE:1"=30'

No.	REVISIONS	BY
1	ADDENDUM #2	CP

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TEXAS REGISTRATION F-1435

KELLEY A. HELLER-VELA
97421
LICENSED PROFESSIONAL ENGINEER
NATIONAL

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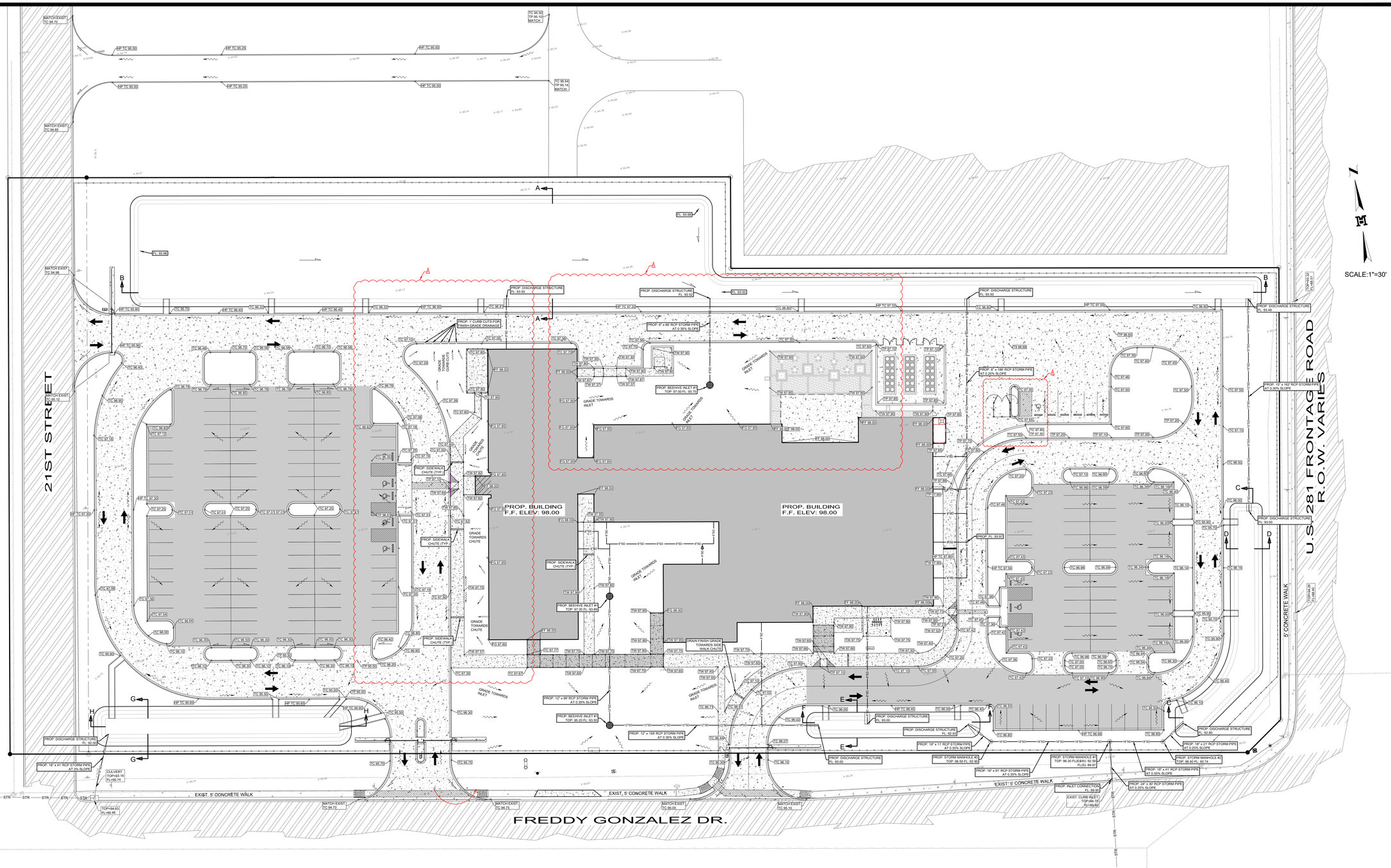
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COLLEGIATE HIGH SCHOOL

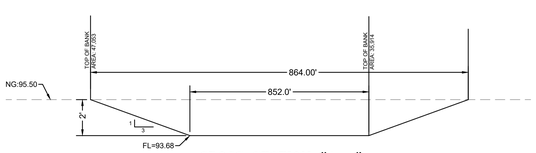
UTILITY LAYOUT

100% SET

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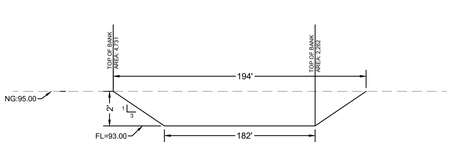
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Project Engineer: KELLEY HELLER-VELA
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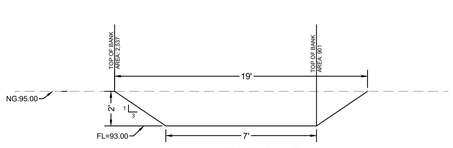
CROSS SECTION "A-A"
N.T.S.

(A1) 47,053 S.F. + (A2) 35,914= 82,967 S.F./2=41,483.5 x 2 FEET = 82,967 C.F.



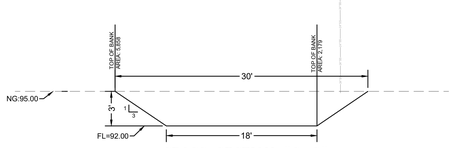
CROSS SECTION "C-C"
N.T.S.

(A1) 4,731 S.F. + (A2) 2,262= 6,993 S.F./2=3,496.5 x 2 FEET = 6,993 C.F.



CROSS SECTION "E-E"
N.T.S.

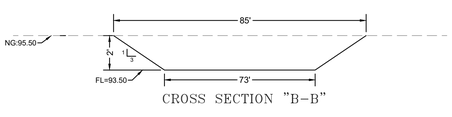
(A1) 2,537 S.F. + (A2) 901= 3,438 S.F./2=1,719 x 2 FEET = 3,438 C.F.



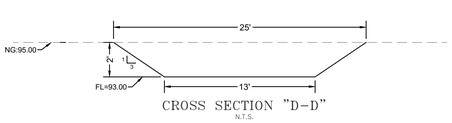
CROSS SECTION "G-G"
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(A1) 5,858 S.F. + (A2) 2,179= 8,037 S.F./2=4,185.5 x 6 FEET = 12,055 C.F.

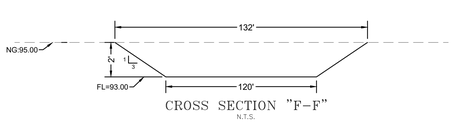
DETENTION PROVIDED: 105,453 C.F.



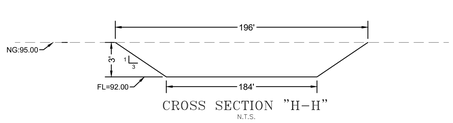
CROSS SECTION "B-B"
N.T.S.



CROSS SECTION "D-D"
N.T.S.



CROSS SECTION "F-F"
N.T.S.



CROSS SECTION "H-H"
N.T.S.

LEGEND:

- TW = TOP OF SIDEWALK
- TC = TOP OF CURB
- FL = FLOW LINE
- FF = FINISH FLOOR
- TP = TOP OF PAVEMENT

No.	REVISIONS	BY
1	ADDENDUM #2	CP

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09/26/2022

UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

GRADING & DRAINAGE LAYOUT

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Date: SEPTEMBER 08, 2022
Scale: As Noted
Project Engineer: KELLEY HELLER-VELA
Drawn By: CP
Job No. UTRGV/ECISD
Sheet: C6

DETENTION AREA

MATCHLINE

MATCHLINE

SOUTH 21ST AVENUE

DETENTION AREA

EAST FREDDY GONZALEZ DRIVE

MATCHLINE

INSTITUTE

IRRIGATION PLAN

IRRIGATION LEGEND

- RV — RAINBIRD R-VAN SERIES ROTARY NOZZLE
- RAINBIRD 1404 BUBBLER HEAD
- RAINBIRD 5000 PC - ROTORS
- RAINBIRD 5000 FC - ROTORS
- RAINBIRD QUICK COUPLER VALVE (33-DLRC) QUICK COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE ZONE THAT ACTIVATES MASTER VALVE AND ACTIVATES THE QUICK COUPLERS, LABEL ON COLORED ZONING DIAGRAM - LOCATED ALONG MAINLINE 200' SPACING
- RAINBIRD PEB-IVM SERIES SMART VALVE
- CONTROLLER - ESP-LXIVM PRO TWO WIRE WITH (IQ NCC-3G: CELLULAR CARTRIDGE) AND FIELD DEVICES (MODEL # LXIVMSOL, LXIVMOUT, LXIVMSD) AND WIRELESS RAIN/FREEZE SENSOR (WR2RFC-48) CONTRACTOR TO SET UP IQ SOFTWARE WITH OWNER TO INCLUDE TESTING AND TRAINING
- WATER METER (AS SIZED)
- BACKFLOW PREVENTER (AS SIZED)
- CLASS 200 PVC LATERAL PIPING
- CLASS 200 PVC MAINLINE
- SCH. 40 PVC SLEEVING (AS SIZED)
- VALVE SIZE GPM
- DRIPLINE (PLANTING BED)

RAINBIRD DRIPLINE XFS -
(18" LATERAL SPACING, 12" EMITER SPACING)
XF SERIES TIE DOWN STAKES (TDS-050) @ 36" O.C.
& TWO ON EACH TEE/ELBOW
PVC LATERAL PIPING SIZED AS REQUIRED

RAINBIRD DRIP CONTROL ZONE KIT
XCZ-100-PRB-COM (EACH DRIP ZONE) 1" BALL VALVE
WITH REGULATED PRESSURE AND 200 MESH FILTRATION
(1) DRIP SYSTEM OPERATION INDICATOR (OPERIND)
PER IRRIGATION ZONE INSTALL ALL EQUIPMENT
ACCORDING TO MANUFACTURERS SPECIFICATIONS
ALL VALVE BOXES SHALL BE RAINBIRD VB-STD OR
APPROVED EQUAL ALL VALVE BOXES SHALL HAVE
FILTER FABRIC AND 4" OF GRAVEL AT BASE

No.	REVISIONS	BY
1	Addendum # 2 (9/26/22)	

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

STATE OF TEXAS
JOHN W. SCHOFIELD
103
LICENSED LANDSCAPE ARCHITECT
9/8/22

Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	September 8, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	
Job No.	UTRGV/ECISD
Sheet:	L1.01

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
799 E. WASHINGTON ST.
BROWNSVILLE, TX 78575
TEL (956) 547-9788
FAX (956) 547-9977
www.sspdesign.com

DETENTION AREA

MATCHLINE

OUTDOOR COVERED AREA

UTRGV/ECISD CLASSROOM BUILDING

CONTROLLER - ESP-LXIVM PRO TWO WIRE WITH (IQ NCC-3G: CELLULAR CARTRIDGE) AND FIELD DEVICES (MODEL # LXIVMSOL, LXIVMOUT, LXIVMSD) AND WIRELESS RAIN/FREEZE SENSOR (WR2RFC-48)

DETENTION AREA

EAST FREDDY GONZALEZ DRIVE

U.S. 281 FRONTAGE ROAD

5' CONCRETE WALK

DETENTION AREA

2" WATER METER (IRRIGATION ONLY) BY L.I.C.
VERIFY SIZE AND LOCATION
2" BACKFLOW PREVENTER PER CITY CODE BY L.I.C.
2" BALL VALVE
2" Y STRAINER
2" MASTER VALVE

IRRIGATION PLAN

IRRIGATION LEGEND

- RV — RAINBIRD R-VAN SERIES ROTARY NOZZLE
- RAINBIRD 1404 BUBBLER HEAD
- RAINBIRD 5000 PC - ROTORS
- RAINBIRD 5000 FC - ROTORS
- RAINBIRD QUICK COUPLER VALVE (33-DLRC) QUICK COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE ZONE THAT ACTIVATES MASTER VALVE AND ACTIVATES THE QUICK COUPLERS, LABEL ON COLORED ZONING DIAGRAM - LOCATED ALONG MAINLINE 200' SPACING
- RAINBIRD PEB-IVM SERIES SMART VALVE
- CONTROLLER - ESP-LXIVM PRO TWO WIRE WITH (IQ NCC-3G: CELLULAR CARTRIDGE) AND FIELD DEVICES (MODEL # LXIVMSOL, LXIVMOUT, LXIVMSD) AND WIRELESS RAIN/FREEZE SENSOR (WR2RFC-48) CONTRACTOR TO SET UP IQ SOFTWARE WITH OWNER TO INCLUDE TESTING AND TRAINING
- WATER METER (AS SIZED)
- BACKFLOW PREVENTER (AS SIZED)
- CLASS 200 PVC LATERAL PIPING
- CLASS 200 PVC MAINLINE
- SCH. 40 PVC SLEEVING (AS SIZED)
- VALVE SIZE / GPM
- DRIPLINE (PLANTING BED)

RAINBIRD DRIPLINE XFS -
(18" LATERAL SPACING, 12" EMITER SPACING)
XF SERIES TIE DOWN STAKES (TDS-050) @ 36" O.C.
& TWO ON EACH TEE/ELBOW
PVC LATERAL PIPING SIZED AS REQUIRED

RAINBIRD DRIP CONTROL ZONE KIT
XCZ-100-PRB-COM (EACH DRIP ZONE) 1" BALL VALVE
WITH REGULATED PRESSURE AND 200 MESH FILTRATION
(1) DRIP SYSTEM OPERATION INDICATOR (OPERIND)
PER IRRIGATION ZONE INSTALL ALL EQUIPMENT
ACCORDING TO MANUFACTURERS SPECIFICATIONS
ALL VALVE BOXES SHALL BE RAINBIRD VB-STD OR
APPROVED EQUAL ALL VALVE BOXES SHALL HAVE
FILTER FABRIC AND 4" OF GRAVEL AT BASE

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Project Architect: David Monreal, AIA
Drawn By:
Job No. UTRGV/ECISD
Sheet: L1.02

DETENTION AREA

MATCHLINE

70-LANT

2-SABL

HYDRO* (TYP. SYM.)

2-CHIN

2-CHIN

2-WILD

3-SABL

MATCHLINE

3-SABL

69-LANT

SOD (TYP. SYM.)

CONCRETE EDGE (TYP. SYM.)

1-WILD

170-LANT

71-LIRI

MATCHLINE

130-JASM

3-DURA

1-LIVE

2-LIVE

2-LIVE

435-JASM

ALUMINUM EDGE (TYP. SYM.)

1-LIVE

DECO (TYP. SYM.)

1-MED

1-MED

435-JASM

238-CORL

176-CORL

1-LIVE

CONCRETE EDGE (TYP. SYM.)

1-LIVE

1-LIVE

2-ASH

102-WEDL

2-MYRT

1-CHIN*

1-SABL

9-FLAX

18-HAWT

290-JASM

3-MYRT

290-JASM

7-IRIS

2-MYRT

18-HAWT

1-WILD

205-JASM

2-ORCH

406-JASM

238-CORL

351-JASM

2-SABL

2-CEDR

DECO (TYP. SYM.)

60-FROG

72-JASM

1-CHIN

1-CHIN

1-LIVE

2-MED

387-JASM

SOUTH 21ST AVENUE

SOD (TYP. SYM.)

ALUMINUM EDGE (TYP. SYM.)

128-FROG

2-CEDR

2-SABL

128-FROG

DECO (TYP. SYM.)

2-VI*

249-

153-WEDL

52-FLAX

1-TABB

CONCRETE CURB (TYP. SYM.)

3-MYRT

2-VITX

372-JASM

2-SABL

41-FLAX

1-LIVE

DECO (TYP. SYM.)

1-ORCH

1-MED

1-BIRD

1-ASH

153-WEDL

2-CHIN*

204-BLUE

2-JATR

2-LAUR

2-MED

2-MYRT

2-CEDR

183-CORL

1-LIVE

4-TABB

3-OLIV

207-BLUE

534-BLUE

SOD (TYP. SYM.)

128-WEDL

2-CEDR

178-CORL

1-ASH

3-SYCA

TREE RINGS (TYP. SYM.)

1-MED

47-WEDL

3-JATR

2-WASH

2-WILD

4-WILD

3-WILD

3-LIVE

1-LIVE

DETENTION AREA

1-SABL

1-WASH

50-WEDL

1-SABL

1-WASH

127-LANT

CONCRETE EDGE (TYP. SYM.)

1-SABL

1-WASH

303-WEDL

MATCHLINE

EAST FREDDY GONZALEZ DRIVE

LANDSCAPE PLAN

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

W E

No.	REVISIONS	BY
1	Addendum # 2 (9/26/22)	

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Sheet: L2.01

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LANDSCAPE PLAN
SCALE:1/16" = 1'-0"

HLINE
MATCHLINE
DETENTION AREA
U.S. 281 FRONTAGE ROAD
5' CONCRETE WALK
OUTDOOR COVERED AREA
SEE ENLARGEMENT SHEET L3.01
UTRGV/ECISD CLASSROOM BUILDING
EAST FREDDY GONZALEZ DRIVE
SOD LIMITS
SOD (TYP. SYM.)
CONCRETE CURB (TYP. SYM.)
CONCRETE EDGE (TYP. SYM.)
ALUMINUM EDGE (TYP. SYM.)
screen wall

3-SABL
71-LIRI
130-JASM
9-DURA
1-LIVE
2-ASH
18-HAWT
7-IRIS
406-JASM
290-JASM
3-MYRT
2-MYRT
HYDRO* (TYP. SYM.)
3-CHIN
3-SYCA
82-WEDL
2-CEDR
2-LIVE
5-OLIV
137-JASM
23-VIBR
1-SYCA
1-OLIV
1-ASH
84-JASM
128-WEDL
84-CORL
32-SAGE
230-CORL
2-SABL
DECO (TYP. SYM.)
61-FROG
128-FROG
144-JASM
166-CORL
113-JASM
186-CORL
367-WEDL
288-JASM
2-LAUR
3-LAUR
20-IRIS
72-JASM
1-CHIN
2-VITX
249-JASM
1-TABB
52-FLAX
41-FLAX
4-TABB
618-BLUE
1-BIRD
2-MED
1-MED
2-JATR
372-JASM
534-BLUE
299-CORL
3-COCO
21-HAWT
657-BLUE
4-COCO
3-BIRD
3-JATR
3-WILD
1-WASH
303-WEDL
344-WEDL
5-MYRT
455-JASM
35-SAGE

PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
	PALMS					
CHIN*	LIVISTONA CHINENSIS	CHINESE FAN PALM	B/B	8-10' TRUNK	AS.	8
CHIN	LIVISTONA CHINENSIS	CHINESE FAN PALM	B/B	4-6' TRUNK	AS.	12
COCO	SYAGRUS ROMANZ.	COCOS PALM	B/B	8-10' TRUNK	AS.	7
MED	CHAMAEROPS HUMILIS	MED. FAN PALM (TRIPLE)	B/B	12' TRUNK	AS.	12
SABL	SABAL TEXANA	TEXAS SABAL PALM	B/B	6-8' TRUNK	AS.	29
WASH	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	B/B	18-20' TRUNK	AS.	6
WILD	PHOENIX SYLVESTRIS	WILD DATE PALM	B/B	8-10' TRUNK	AS.	14
	TREE					
ASH	FRAXINUS B. 'FAN TEX'	'FAN TEX' ASH	45 GAL	3" CAL. 10'H x 6'W	AS.	6
CEDR	ULMUS CRASSIFOLIA	CEDAR ELM (CONT. GROWN)	36" BOX	3-4" CAL. 14'H x 11'W	AS.	18
LAUR	SOPHORA SEGUNDIFLORA	MOUNTAIN LAUREL (CONT. GRN)	24" BOX	6' HT (MULTI)	AS.	9
LIVE	QUERCUS VIRGINIANA	LIVE OAK (CONT. GROWN)	36" BOX	4-6" CAL. 18'H x 8'W	AS.	28
MYRT	LAGERSTROEMIA x ' NATCHEZ'	NATCHEZ' CRAPE MYRTLE	45 GAL	MULTI' 12' HT. x 6' W	AS.	22
OLIV	CORDIA BOISSIERI	WILD OLIVE	B/B	2-3" CAL.	AS.	11
ORCH	BAUHINA BLAKEANA	'HONG KONG' ORCHID TREE	30 GAL	3" CAL. 10'HT x 6'W	AS.	3
SYCA	PLATANUS MEXICANA	MEXICAN SYCAMORE	B/B	3" CAL. 12'H x 6'W	AS.	10
TABB	TABEBUIA IMPETIGINOSA	PURPLE TABEBUIA	30 GAL	3-4" CAL. 10'H X 6' W	AS.	5
VITX	VITEX AGNUS-CASTUS	CHASTE TREE (MULTI)	15 GAL	6'HT x 5'W	AS.	4
	SHRUBS					
BIRD	STRELITZIA REGINAE	BIRD OF PARADISE	15 GAL	20-25 CANES	AS.	7
DURA	DURANTA SP.	DWARF 'SAPPHIRE SHOWERS'	3 GAL	18"HT-BUSHY	AS.	9
FLAX	DIANELLA TASMANICA	FLAX LILY 'VARIEGATED'	3 GAL	18"HT-BUSHY	AS.	102
HAME	HAMELIA PATENS	RED-ORANGE HAMELIA	3 GAL	18"HT-BUSHY	AS.	28
HAWT	RAPHIOLEPIS INDICA	'INDIAN HAWTHORNE 'CLARA'	3 GAL	18"HT-BUSHY	AS.	82
IRIS	DIETES IRIDIOIDES	WHITE AFRICAN IRIS	3 GAL	18"HT-BUSHY	AS.	27
JATR	JATROPHA INTEGERRIMA	COMPACT JATROPHA	10 GAL	24"HT-BUSHY	AS.	5
LIRI	LIRIOPE MUSCARI	LIRIOPE 'MAJESTIC'	3 GAL	18"HT-BUSHY	AS.	71
SAGE	LEUCOPHYLLUM FRUTESCENS	'GREEN CLOUD' CENIZO	3 GAL	24"HT-BUSHY	AS.	67
VIBR	VIBURNUM SUSPENSUM	SANDANKWA VIBURNUM	3 GAL	24"HT-BUSHY	AS.	23
	GROUND COVERS					
BLUE	RUELLIA SQUARROSA	BLUE SHADE RUELLIA	1 GAL	12"HT-BUSHY	12" O.C.	2220
CORL	BARLERIA REPENS	CORAL CREEPER	1 GAL		12" O.C.	1379
FOXT	ASPARAGUS DENSIFORMIS	FOXTAIL FERN	3 GAL	12"HT-BUSHY	18" O.C.	40
FROG	PHYLA INCISA	TEXAS FROG FRUIT	GTS.		18" O.C.	566
JASM	TRACH. ASIATICUM	ASIAN JASMINE	1 GAL	12"HT-BUSHY	12" O.C.	5,474
LANT	LANTANA CAMARA 'RED SPREAD'	RED SPREAD' LANTANA	1 GAL	12"HT-BUSHY	24" O.C.	563
WEDL	WEDELIA TRILOBATA	WEDELIA	4" POTS		12" O.C.	1,985
	GRASS					
HYDRO*	CYNODON DACTYLON	COMMON BERMUDA HYDROMULCH (WITH TACKIFIER)				53,530 S.F.
SOD	CYNODON DACTYLON	# 1 CERTIFIED '419' HYBRID BERMUDA SOD				11,900 S.Y.

NOTE: CONTAINER GROWN TREES SHALL BE GLEN FLORA FARMS (979) 677-3342 OR APPROVED EQUAL

1

MATERIAL SCHEDULE

DESCRIPTION	NOTES	QUANTITY
PREMIUM COMPOST	2" LAYER PREMIUM COMPOST (NINE KIDS COMPOST**)	118 C.Y.
SCREENED TOP SOIL	8" FOR ALL PLANTING BEDS	521 C.Y.
MULCH (HARDWOOD)	2" MIN. FOR ALL PLANTING BEDS AND WATERING BASINS (TEXAS NATIVE HARDWOOD MULCH)	1,911 BAGS (2CF BAGS)
HERBICIDE	ALL PLANTING BED AREAS AS SPECIFIED	21,297 S.F.
FERTILIZER	ALL PLANT MATERIAL PER DETAILS	--
PLANTING TABLETS	PER DETAILS / AS SPECIFIED	--
PRE-EMERGENT	ALL PLANTING BED AREAS AS SPECIFIED	21,297 S.F.
GUYING / STAKING	ALL TREES/PALMS PER DETAILS	105
CONCRETE EDGE	6x4" EXTRUDED COLORED CONCRETE 'SQUARE' EDGING (BUFF) PER PLANS/DETAILS	1,408 L.F.
ALUMINUM EDGE	5" BLACK ANODIZED ALUMINUM EDGE 'DREAMSCAPES' AS PER PLANS	911 L.F.
TREE RINGS	36" DIA. BLACK ANODIZED ALUMINUM EDGE 'DREAMSCAPES' TREE RINGS PER PLANS/DETAILS	44
IRRIGATION SYSTEM	COMPLETE AUTOMATIC IRRIGATION SYSTEM PER PLANS/DETAILS BY LICENSED CONTRACTOR	-

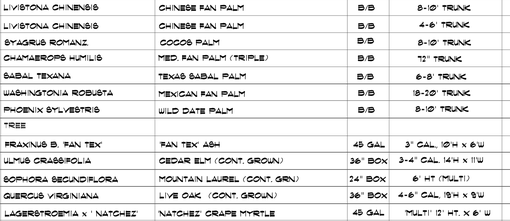
NOTE: CONTRACTORS MUST REVIEW TECHNICAL SPECIFICATIONS FOR ADDITIONAL PROJECT INFORMATION AND REQUIREMENTS.
** NINE KIDS COMPOST (365) 432-4583 OR CITY OF MCALLEN COMPOST (956) 681-4000

HARDSCAPE MATERIAL SCHEDULE

DESCRIPTION	NOTES	QUANTITY
BRICK PAVERS	BELGARD 'LAFITT GRAN SLAB' BRICK PAVERS (DESERT SAND) 3 PIECE MODULAR PAVER MIX - PAVER 1 (14-1/8" X 7-3/8" X 2") PAVER 2 (14-1/8" X 14-1/8" X 2") PAVER 3 (14-1/8" X 22-1/16" X 2") AS PER PLANS/DETAILS WITH TECHNIBEAL 'NATURAL LOOK IN' MATTE FINISH PENETRATING PAVER SEALER (PRODUCT CODE # 60304120)	2,238 S.F.
BRICK PAVER BAND	BELGARD 'HOLLAND STONE' BRICK PAVERS (FOSSIL BEIGE) 60MM, 4" X 8" X 2-3/8" AS PER PLANS/DETAILS WITH TECHNIBEAL 'NATURAL LOOK IN' MATTE FINISH PENETRATING PAVER SEALER (PRODUCT CODE # 60304120)	612 S.F.
SEATWALL	18" HT. CONCRETE SEATWALL WITH BRICK VENEER (COLOR TO MATCH BUILDING) WITH CAST STONE CAP AS PER PLANS/DETAILS	136 L.F.
OUTDOOR TABLE 'A'	VICTOR STANLEY A-365 ANTHRO-SITES 'TM' SERIES SURFACE MOUNT, RECYCLED PLASTIC SLATS 'MAPLE', PERFORATED SLOT PATTERN TABLE, POWDER COATED 'BLACK'	7
OUTDOOR TABLE 'B'	VICTOR STANLEY A-H 363 ADA ACCESSIBLE ANTHRO-SITES 'TM' SERIES SURFACE MOUNT, RECYCLED PLASTIC SLATS 'MAPLE'/PERFORATED SLOT PATTERN TABLE, POWDER COATED 'BLACK'	1
TRASH RECEPTACLE	VICTOR STANLEY A-36 STEELSITES 'TM' SERIES 'BLACK' POWDER COATED TRASH RECEPTACLE WITH POWDER COATED STEEL LINER AS PER PLANS DETAILS	2
ROOT BARRIER	DEEP ROOT UNIVERSAL BARRIER UB 12-2 PER PLANS/DETAILS	80 L.F.
CONCRETE CURB	6" X 6" CONCRETE CURB FOR DECOMPOSED GRANITE AREAS AS PER PLANS/DETAILS	165 L.F.
DECO	4" DECOMPOSED GRANITE COMPACTED 1/4" MINUS 'FINES'	3,065 S.F.

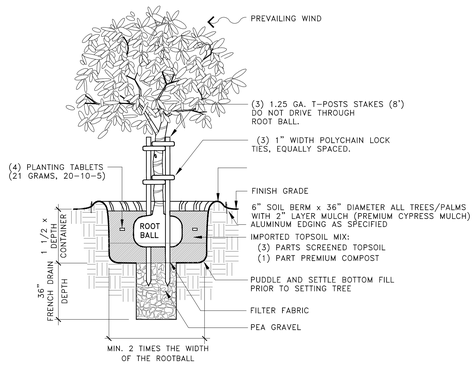
CONSTRUCTION NOTES

1. WORK UNDER THIS CONTRACT INCLUDES SITE REVIEW AND COORDINATION WITH EXISTING CONDITIONS, SITE CLEANUP, EXCAVATION, BED PREP, TILLING, PLANTING, STAKING, EDGING, IRRIGATION, PAVERS, TREE RINGS, DECOMPOSED GRANITE, SITE FURNITURE, MAINTENANCE, AND GUARANTEE.
2. LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND DIMENSIONS PRIOR TO BIDDING. QUANTITIES SHOWN IN SCHEDULE ARE FOR CONVENIENCE ONLY.
3. NOTIFY SSP DESIGN OF ANY DISCREPANCIES IN DRAWINGS/DETAILS OR INSUFFICIENT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
4. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. SPOTTING OF ALL UTILITIES IS REQUIRED.
5. NOTIFY AND MEET WITH SSP DESIGN PRIOR TO ANY CONSTRUCTION FOR VERIFICATION/INTERPRETATION OF PLANS.
6. LANDSCAPE CONTRACTOR SHALL STAKE OUT ALL BEDS, TREES, PALM LOCATIONS PRIOR TO INSTALLATION FOR APPROVAL BY SSP DESIGN.
7. CONTRACTOR TO COORDINATE WITH SSP DESIGN TO ENSURE PROPER PLACEMENT OF PLANT MATERIAL AND IRRIGATION EQUIPMENT.
8. CONTRACTOR TO INSTALL EXTRUDED CONCRETE EDGE AND TREE RINGS AS SHOWN ON PLANS.
9. NOTIFY SSP DESIGN/OWNER PRIOR TO PLANTING OPERATIONS FOR APPROVAL OF ALL PLANT MATERIAL ON SITE. ANY PLANT MATERIAL NOT APPROVED BY SSP DESIGN/OWNER WILL BE SUBJECT TO REJECTION.
10. IRRIGATION CONTRACTOR SHALL SUPPLY AND INSTALL COMPLETE AUTOMATIC IRRIGATION SYSTEM INCLUDING WATER METER, BACKFLOW DEVICE, CONTROLLER, MAINLINE, SLEEVES, DRIP, TO COVER ALL LANDSCAPE AREAS PER PLANS/DETAILS. IRRIGATION SYSTEM SHALL BE INSTALLED BY A TEXAS LICENSED IRRIGATOR ONLY.
11. CONTRACTOR SHALL REMOVE ALL EXISTING GRASS/WEEDS IN BEDS BY HERBICIDING PRIOR TO BED PREP AND SOIL REPLACEMENT.
12. CONTRACTOR SHALL PRUNE ALL EXISTING PALMS/TREES BY A CERTIFIED ARBORIST AS DIRECTED BY SSP DESIGN.
13. CONTRACTOR SHALL REMOVE ALL EXISTING GRASS AND WEEDS BY HERBICIDING, DISCING, FLOATING AND LIGHT GRADING OF ENTIRE PROJECT AREA PRIOR TO HYDROMULCHING/SODDING.
14. CONTRACTOR SHALL REMOVE 12" OF EXIST'G SOIL WITHIN ALL BED AREAS AND REPLACE WITH IMPORTED TOP SOIL/PREMIUM COMPOST MIX.
15. LANDSCAPE CONTRACTOR SHALL CONSTRUCT 6"x36" WATERING BASINS AROUND ALL TREES/PALMS WITH A MIN. 2" LAYER OF CYPRESS MULCH.
16. LANDSCAPE CONTRACTOR SHALL LOOSEN / GRADE ALL LAWN AREAS PRIOR TO HYDRO-MULCHING/SODDING TO ENSURE PROPER DRAINAGE AND UNIFORM SURFACE.
17. LANDSCAPE CONTRACTOR SHALL ESTABLISH AND MAINTAIN ALL PLANT MATERIAL FOR 90 DAYS AFTER SUBSTANTIAL COMPLETION AND SHALL GUARANTEE ALL TREES/PALMS FOR A PERIOD OF ONE YEAR.
18. IRRIGATION CONTRACTOR SHALL GUARANTEE ALL SYSTEM COMPONENTS FOR A PERIOD OF ONE YEAR.
19. SEE SPECIFICATION FOR FURTHER INSTRUCTIONS/REQUIREMENTS.

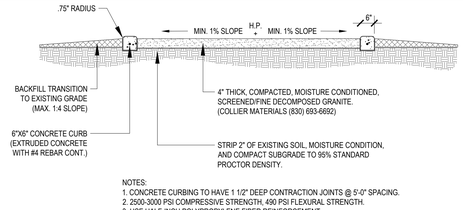


NOTES:
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
2. CONCRETE CURBING TO HAVE TAPERED DRAINAGE POINTS AT 10' O.C.
3. 2500- 3000 PSI COMPRESSIVE STRENGTH, 490 PSI FLEXURAL STRENGTH.
4. USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.
5. SMOOTH NATURAL FINISH, COLOR TO MATCH BUILDING (TEXAS BUFF).
6. EQUAL TO 'CONTOUR CURBS' EDGING (956-867-8350).

1 CONCRETE EDGE DETAIL
NOT TO SCALE



2 TREE PLANTING DETAIL
NOT TO SCALE

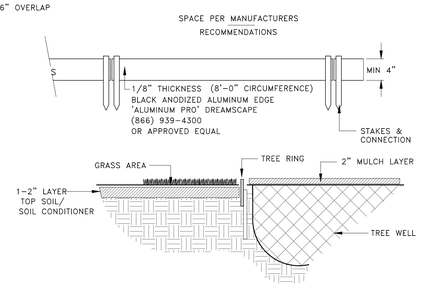


NOTES:
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
2. 2500-3000 PSI COMPRESSIVE STRENGTH, 490 PSI FLEXURAL STRENGTH.
3. USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.
4. NATURAL FINISH AND COLOR.
5. EQUAL TO 'CONTOUR CURBS' EDGING (956-867-8350). CONTOURCURBS.NET

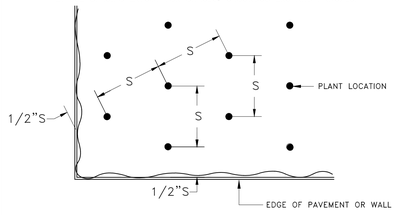
3 DECOMPOSED GRANITE DETAIL
NOT TO SCALE

NOTE:

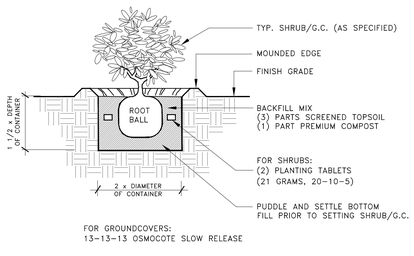
ALL ALUMINUM EDGING TO BE ANGLED WITH 6" OVERLAP AND FLUSH WITH ADJACENT PAVEMENT



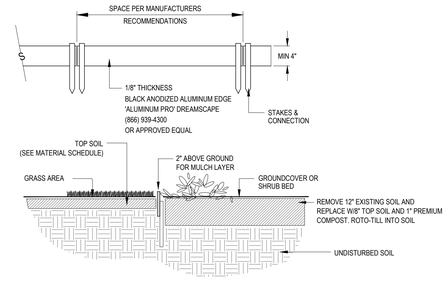
4 TREE RING DETAIL
NOT TO SCALE



5 TRIANGULAR PLANT SPACING DIAGRAM
NOT TO SCALE



6 SHRUB/G.C. PLANTING DETAIL
NOT TO SCALE

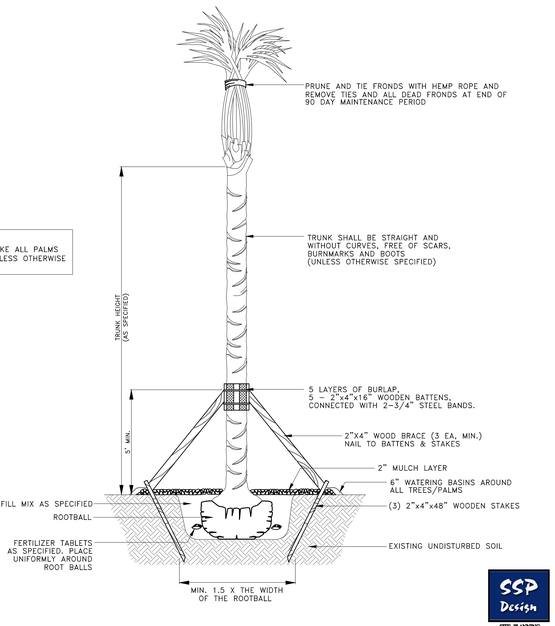


NOTE:

ALL EDGING TO BE ANGLED WITH 6" OVERLAP AND FLUSH WITH ADJACENT PAVEMENT

7 ALUMINUM EDGE DETAIL
NOT TO SCALE

NOTE:
CONTRACTOR TO STAKE ALL PALMS PER THIS DETAIL UNLESS OTHERWISE NOTED.



8 PALM PLANTING DETAIL
NOT TO SCALE

No.	REVISIONS	BY
1	Addendum # 2 (9/26/22)	

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By:
Job No. UTRGV/ECISD
Sheet: L3.02

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
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CHANIN
ENGINEERING, LLC

September 26, 2022

UTRGV / Edinburg CISD Collegiate High School
Addendum #2

CE Project No.: 22-226

The following changes, additions, and/or deletions are hereby made a part of the Construction Documents for the above noted project, fully and completely as if the same were fully contained therein. All other terms, conditions, and specifications of the original Invitation to Bid remain unchanged and is included in the contract.

PLEASE NOTE CHANGES AS FOLLOWS:

S4.04 – S4.04 Foundation Plan Canopies/ Framing Plan Canopies

- **Modifications were made to the walkway and stand-alone canopy framing plans. Replace original sheet with updated sheet**

End of – Addendum #2

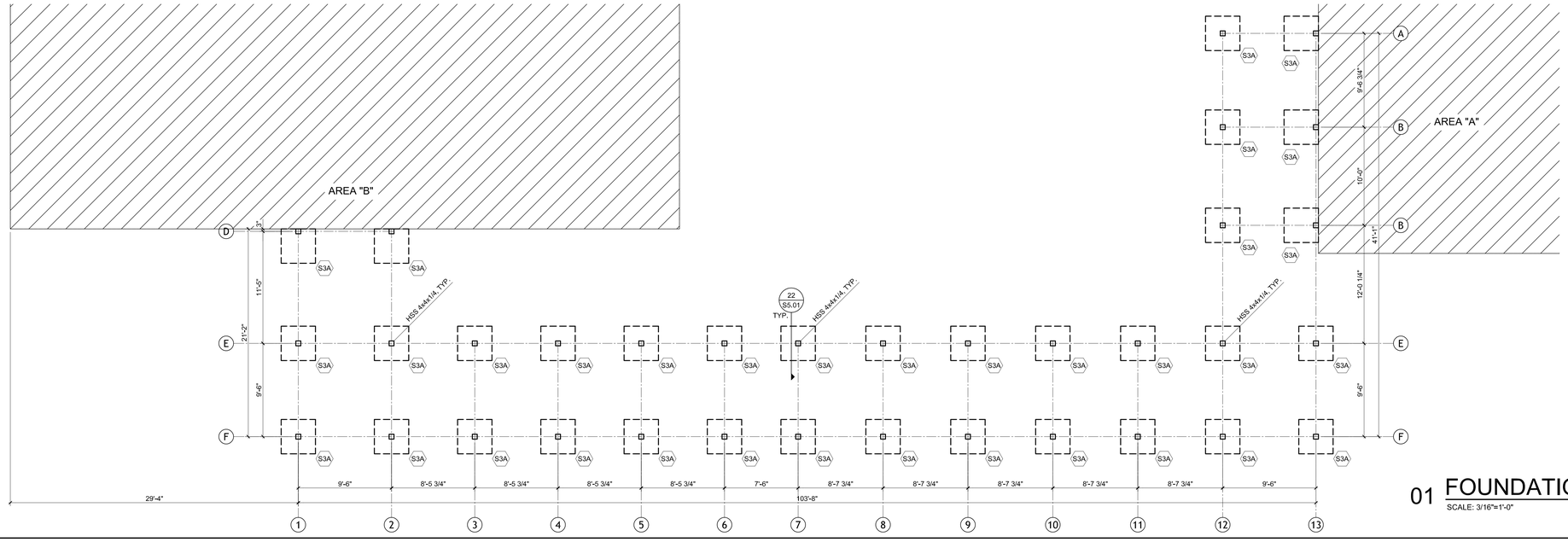


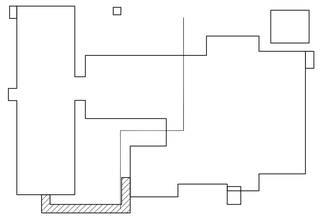
400 Nolana, Suite H2
McAllen, Texas 78504
T: (956) 687-9421 | F: (956) 687-3211
ChaninEngineering.com
TBPE Firm Registration No. F-9369

CHANIN ENGINEERING, LLC
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No.	REVISIONS	BY
2	09-26-22	

GMS ARCHITECTS
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fax (956) 546-0196





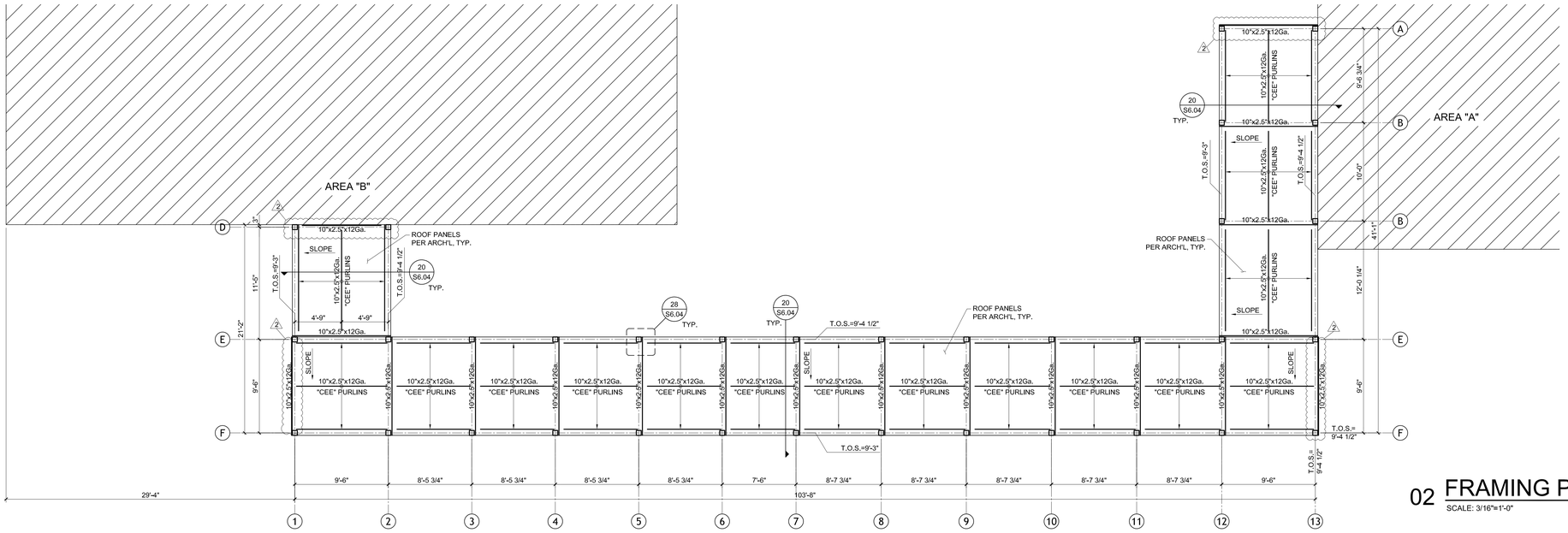
KEY PLAN

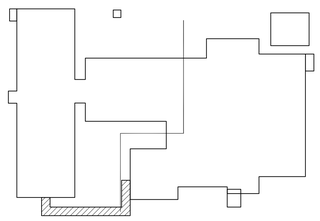
FOUNDATION NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. CONTRACTOR TO VERIFY REQUIRED F.F.E. WITH CIVIL ENGINEERING DRAWINGS.

01 FOUNDATION PLAN-WALKWAY CANOPY

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





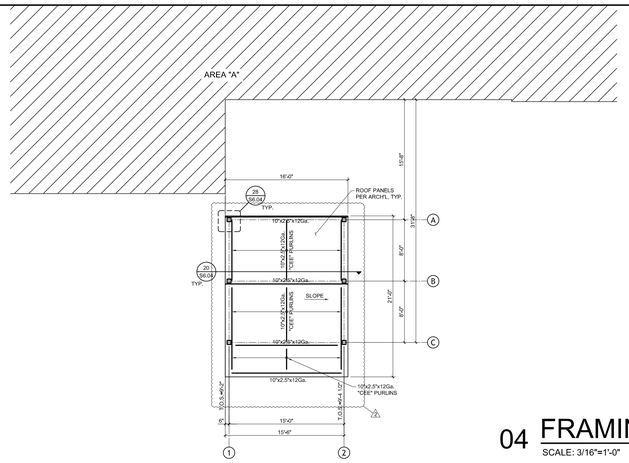
KEY PLAN

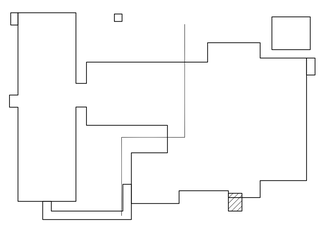
FRAMING NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL DIMENSIONS.

02 FRAMING PLAN-WALKWAY CANOPY

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





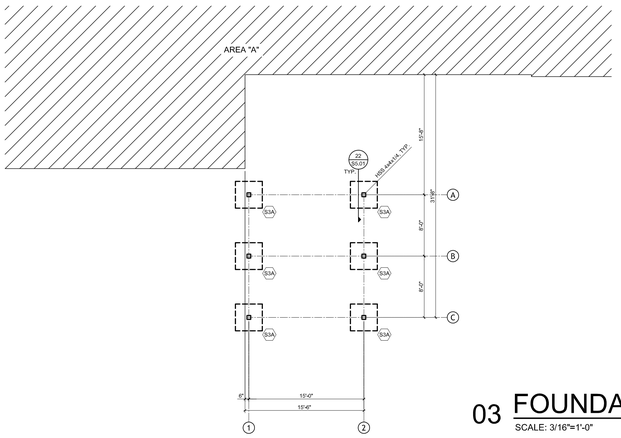
KEY PLAN

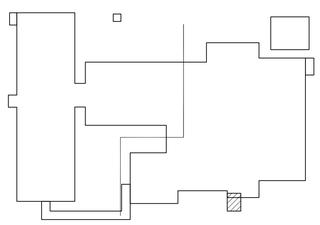
FRAMING NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL DIMENSIONS.

04 FRAMING PLAN-STAND ALONE CANOPY

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





KEY PLAN

FOUNDATION NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. CONTRACTOR TO VERIFY REQUIRED F.F.E. WITH CIVIL ENGINEERING DRAWINGS.

03 FOUNDATION PLAN-STAND ALONE CANOPY

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

UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

STATE OF TEXAS
MIGUEL CHANIN
93127
LICENSED
PROFESSIONAL ENGINEER
09-26-22

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	SEP. 08. 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	JP
Job No.	22226
Sheet:	S4.04

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September 26, 2022
UTRGV/ECISD Early College High School

ADDENDUM NO. 2

A. PURPOSE AND INTENT

This addendum is issued for the purpose of modifying the plans for the project referenced above. This addendum shall become part of the contract and all contractors shall be bound by its content. All aspects of the specifications and drawings not covered herein shall remain the same.
The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this addendum.

B. SCOPE

I. Drawings

1. Sheet ES1.01:
    a) Revised parking lot light fixture. See attached sheet.

2. Sheet ES1.02:
    a) Revised site plan. See attached sheet.

3. Sheet PS1.03:
    a) Revised storm sewer stub-out location, hose bib on dumpster area, and keyed notes. See attached sheet.

4. Sheet M3.01:
    a) Added duct mounted static pressure sensors. See attached sheet.
    b) Added relative humidity sensors. See attached sheet.

5. Sheet M3.02:
    a) Added duct mounted static pressure sensors. See attached sheet.
    b) Added relative humidity sensors. See attached sheet.

6. Sheet M3.03:
    a) Added duct mounted static pressure sensors. See attached sheet.

7. Sheet M3.04:
    a) Added duct mounted static pressure sensors. See attached sheet.
    b) Added relative humidity sensors. See attached sheet.
    c) Revised return ductwork serving AHU-11 & AHU-12.

8. Sheet M4.02:
    a) Added flow meter. See attached sheet.

9. Sheet M4.03:
    a) Revised central plant chilled water schematic diagram. See attached sheet.

10. Sheet M6.01:
    a) Revised Exhaust Fan Schedule. See attached sheet.

11. Sheet E4.01:
    a) Revised electrical plan. See attached sheet.

12. Sheet E4.03:
    a) Revised electrical plan. See attached sheet.

13. Sheet E4.09:
    a) Revised food service equipment schedule and kitchen electrical plan. See attached sheet.

14. Sheet E5.01:
    a) Revised exhaust fan connection schedule. See attached sheet.

15. Sheet E6.01:
    a) Revised light fixture schedule. See attached sheet.

16. Sheet E8.01:
    a) Revised panel schedules. See attached sheet.

17. Sheet E8.02:
    a) Revised panel schedules. See attached sheet.

18. Sheet E9.03:
    a) Revised slide gate operator detail. See attached sheet.

19. Sheet P2.01:
    a) Revised Keyed notes. See attached plumbing sheet.

20. Sheet P2.02:
    a) Revised Keyed notes and isometric view scale. See attached plumbing sheet.

21. Sheet P2.03
    a) Revised isometric view scale. See attached plumbing sheet.

22. Sheet P2.04:
    a) Revised Keyed notes. See attached plumbing sheet.

23. Sheet P2.05:
    a) Revised Keyed notes and isometric view scale. See attached plumbing sheet.

24. Sheet P2.06:
    a) Revised enlargements sheet number. See attached plumbing sheet.

25. Sheet P2.08:
    a) Revised Keyed notes. See attached plumbing sheet.

26. Sheet P2.09:
    a) Included isolation valves (2). See attached plumbing sheet.

27. Sheet P3.01:
    a) Revised keyed notes. See attached sanitary sewer plan.

28. Sheet P3.02:
    a) Revised keyed notes. See attached sanitary sewer plan.

29. Sheet P3.04:
    a) Revised keyed notes. See attached sanitary sewer plan.

30. Sheet P3.05:
    a) Revised keyed notes and can wash floor drain location. See attached sanitary sewer plan.

31. Sheet P3.07:
    a) Revised keyed notes. See attached sanitary sewer plan.

32. Sheet P3.08:
    a) Revised keyed notes. See attached sanitary sewer plan.

33. Sheet P4.01:
    a) Revised keyed notes. See attached kitchen plumbing plan.

34. Sheet P4.02:
    a) Revised keyed notes an can wash floor drain location. See attached kitchen sewer plan.

35. Sheet P5.02:
    a) Storm Sewer Downspout relocation. See attached storm water sewer plan.

36. Sheet P5.04:
    a) Storm Sewer Downspout relocation. See attached storm water sewer plan.

37. Sheet P5.06:
    a) Storm Sewer Downspout relocation. See attached storm water sewer plan.

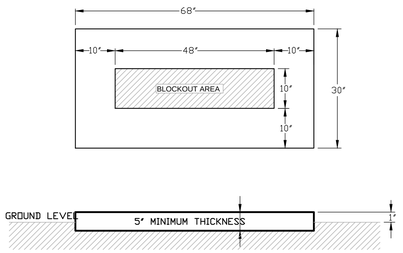
38. Sheet P5.07:
    a) Storm Sewer Downspout relocation. See attached storm water sewer plan.

39. Sheet P6.02:
    a) Revised Electric Water Heater Schedule and symbol legend. See attached plan.

40. Sheet P6.04:
    a) Revised Water Heaters and Dry wells details. See attached plan.



09/26/2022



NOTE: PROVIDE PER PUB REQUIREMETNS.

05 A.E.P. SECTIONALIZER CONCRETE PAD DETAIL

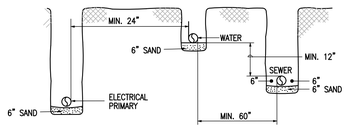
SCALE : NOT TO SCALE

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

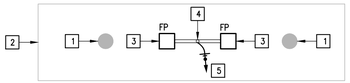
MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.

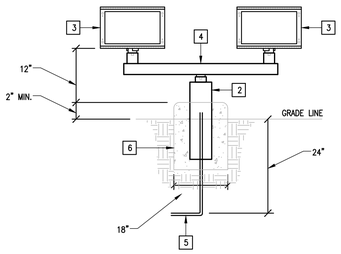


04 TRENCHING DETAIL

SCALE : NONE



PLAN VIEW

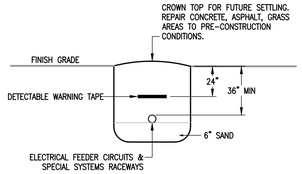


06 FLAG POLE LIGHTING DETAIL

SCALE : NOT TO SCALE

KEYED NOTES:

1. FLAG POLE.
2. FLAG POLE CONCRETE PAD.
3. PROVIDE FLOOD LIGHT TYPE "FP" – SEE LIGHT FIXTURE SCHEDULE.
4. PROVIDE SQUARE BULL HORN FOR MOUNTING TWO LIGHT FIXTURES IN LINE.
5. PROVIDE HOMERUN TO POWER SOURCE.
6. PROVIDE CONCRETE FOOTING. COORDINATE WITH ARCHITECTURAL/STRUCTURAL. TOP OF FOOTING TO BE 2" MINIMUM ABOVE GRADE.
7. PROVIDE STANCHION.

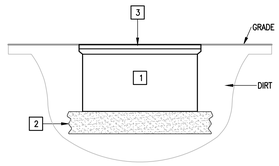


03 BURIAL DETAIL FOR ELECTRICAL RACEWAYS

SCALE : NONE

ELECTRICAL KEYED NOTES:

1. EXISTING ELECTRIC UTILITY OVERHEAD POWER LINES TO REMAIN.
2. EXISTING ELECTRIC UTILITY POWER POLE.
3. PROPOSED ELECTRIC UTILITY RISER POLE.
4. PROPOSED ELECTRIC UTILITY UNDERGROUND PRIMARY.
5. PROVIDE ELECTRIC UTILITY PAD MOUNT TRANSFORMER CONCRETE PAD – SEE DETAIL.
6. PROVIDE COLUMN LIGHT AND CONCRETE FOOTING AS SCHEDULED – SEE DETAIL. SWITCH LIGHTS THROUGH LIGHTING CONTACTOR LC1/LC2; BRANCH CIRCUIT: 1" – 2#10 & #10G.
7. PROVIDE ELECTRIC UTILITY SECTIONALIZER CONCRETE PAD.
8. PROVIDE NEW UNDERGROUND SECONDARY ELECTRIC LINE.
9. PROVIDE NEW ELECTRIC UTILITY SERVICE METER.
10. PROVIDE NEW FEEDER TO NEW PANELBOARDS/DISCONNECTS.
11. PROVIDE 4" TELEPHONE RACEWAY WITH PULLWIRE TO EXISTING TELEPHONE PEDESTAL. ROUTE TO BUILDING & TERMINATE IN M.D.F. ROOM. PRIOR TO TRENCHING COORDINATE TERMINATION POINT WITH UTILITY COMPANY.
12. PROVIDE 4" CATV RACEWAY WITH PULLWIRE. CAP BELOW GRADE AT PROPERTY LINE, & ROUTE TO BUILDING & TERMINATE IN M.D.F. ROOM. PRIOR TO TRENCHING COORDINATE TERMINATION POINT WITH UTILITY COMPANY.
13. SWITCH EXTERIOR POLE LIGHTS THROUGH LIGHTING CONTACTOR LC1/LC2. BRANCH CIRCUIT: 1" – 2#8 & #10G. SEE CORRESPONDING PANEL SCHEDULE.
14. PROVIDE 1–1" RACEWAY WITH PULLWIRE – (ELEVATOR SERVICE ALERT PANEL)
15. PROVIDE 1–1" RACEWAY WITH PULLWIRE (CCTV CAMERA). DATA CABLE AND CONNECTORS BY OWNER. CCTV CAMERA PROVIDED BY OWNER TO BE AT 20'–0" FROM POLE BASE.
16. PROVIDE 1–1" RACEWAY WITH PULLWIRE – (INTERCEPTOR SERVICE ALERT PANEL).
17. ACCESS CONTROL PEDESTAL. SEE DETAIL 02/E9.03.
18. PROVIDE POLE LIGHTS AS SCHEDULED – TYPICAL. SEE DETAIL.
19. PROVIDE THE FOLLOWING:
    1–2" RACEWAY WITH PULLWIRE (FIRE ALARM).
    1–2" RACEWAY WITH PULLWIRE (SPARE).
    1–1" RACEWAY WITH PULLWIRE (INTRUSION).
20. PROVIDE FLAG POLE LIGHTING – SEE DETAIL 5/E9.03. SWITCH LIGHTS THROUGH LIGHTING CONTACTOR LC1/LC2; BRANCH CIRCUIT: 1" – 2#10 & #10G.
21. PROVIDE BOLLARD LIGHT AND CONCRETE FOOTING AS SCHEDULED – SEE DETAIL. SWITCH LIGHTS THROUGH LIGHTING CONTACTOR LC1/LC2; BRANCH CIRCUIT: 1" – 2#10 & #10G.
22. CONNECT ELECTRIC DRIVE UNIT (208V, 1ø); BRANCH CIRCUIT: 2" – 3#4 & #8G. PROVIDE 3/4" X 10' COPPER CLAD GROUND ROD WITHIN 3'–0" OF GATE OPERATOR. COORDINATE EXACT LOCATION OF COMPONENTS WITH ARCHITECT PRIOR TO ANY ROUGH–IN. GATE CONTRACTOR SHALL PROVIDE ALL INTERNAL WIRING INCLUDING SAFETY LOOPS & PHOTO EYES. SEE DETAIL ON SHEET E9.03.
23. ACCESS CONTROL PEDESTAL AND VIDEO DOOR STATION. SEE DETAIL 02/E9.03.
24. PROPOSED LOCATION OF RELOCATED UTILITY POLE AND OVERHEAD SERVICE LINES. COORDINATE WITH AEP.
25. VIA EMERGENCY LIGHTING INVERTER.



02 POLYMER CONCRETE PULLBOX DETAIL

SCALE : NONE

KEYED NOTES:

1. PROVIDE POLYMER CONCRETE PULL BOX TIER 22 RATED. COMPLYING WITH ANSI/SCTE 77 AND NEC 314.30.
2. PROVIDE 8" OF GRAVEL OR CRUSHED ROCK.
3. PROVIDE ONE PIECE LOCKING COVER WITH LOGO TIER 22 RATED. INSTALL COVER LEVEL WITH GRADE.

GENERAL NOTES:

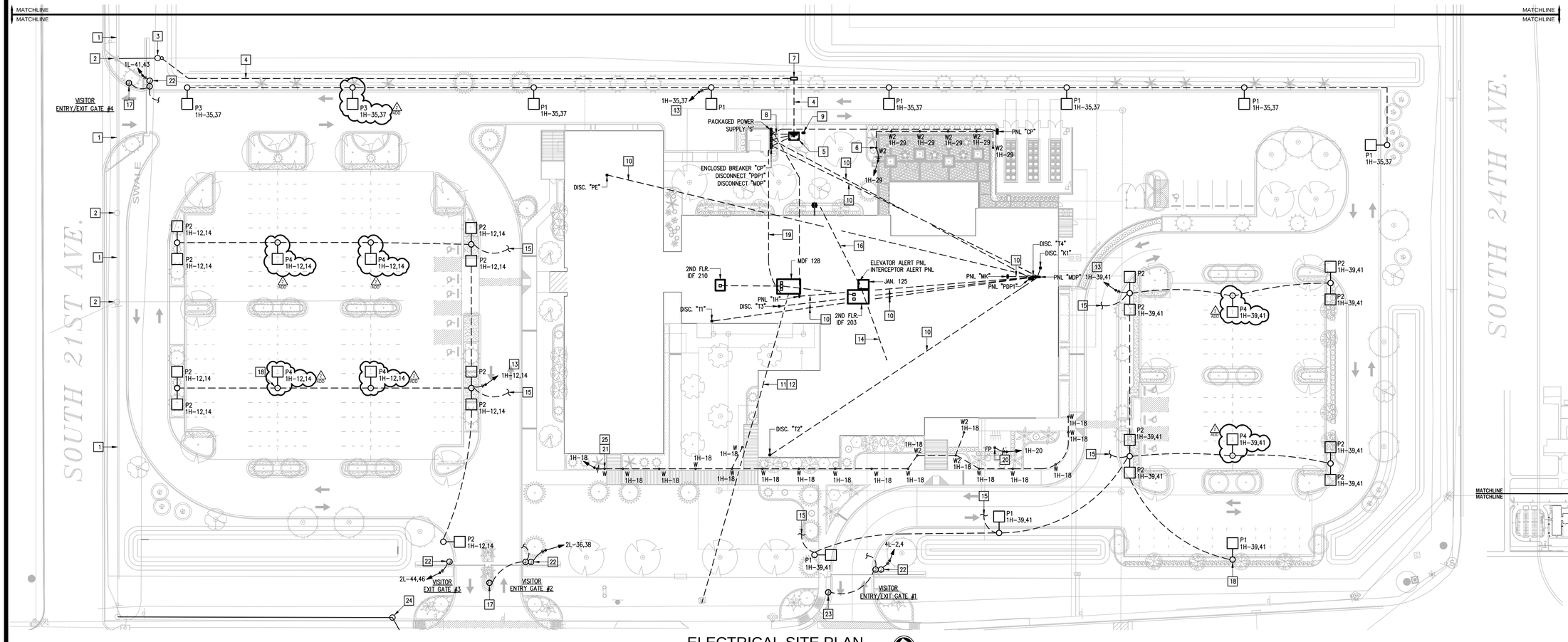
1. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
2. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
3. COORDINATE ELECTRICAL AND PLUMBING WITH GENERAL CONSTRUCTION.
4. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
5. FIELD VERIFY/SPOT EXACT LOCATIONS AND EXISTING CONDITIONS OF EXISTING PLUMBING, AND ELECTRICAL. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND WORKABLE SYSTEMS. SHOULD BIDDER FIND OMISSIONS OR DISCREPANCIES IN THE PLANS, BIDDER SHALL NOTIFY THE ENGINEER PRIOR TO THE BID DATE AND A WRITTEN CLARIFICATION WILL BE ISSUED.
6. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. CONTRACTORS ARE REQUIRED TO SEARCH AND INVESTIGATE FOR EXISTING UTILITIES BEFORE EXCAVATING.
7. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
8. PROVIDE J–BOXES (POLYMER CONCRETE) AS REQUIRED FOR PULL WIRING.
9. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
10. PERFORM ALL WORK PER LATEST VERSION OF NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
11. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
12. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
13. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
14. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB–CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
15. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
16. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING PHASE.
17. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
18. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
19. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
20. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
21. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
22. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
23. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
24. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
25. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
26. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.

RACEWAYS EMBEDDED IN FOUNDATION GENERAL NOTES:

RACEWAYS EMBEDDED WITHIN THE SLAB SHALL COMPLY WITH THE FOLLOWING:

1. SHALL HAVE A MINIMUM SPACING OF 2".
2. SHALL NOT BE LARGER THAN 1".
3. SHALL NOT BE RUN THROUGH THE SURFACE AREA OF THE FOOTING.
4. SHALL NOT BE CROSSED OVER/UNDER EACH OTHER WITH THE SLAB.
5. SHALL NOT BE TIED TO THE REBAR.
6. SHALL BE A MINIMUM OF 1.5" AWAY FROM SLAB REBAR. IF SPACING CANNOT BE ACCOMPLISHED; IT SHALL BE PROVIDED BELOW GRADE.

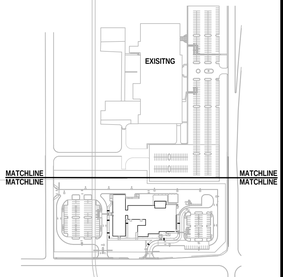
MATCHLINE
MATCHLINE



01 ELECTRICAL SITE PLAN

SCALE : 1" = 30'–0"

TRUE NORTH



MATCHLINE
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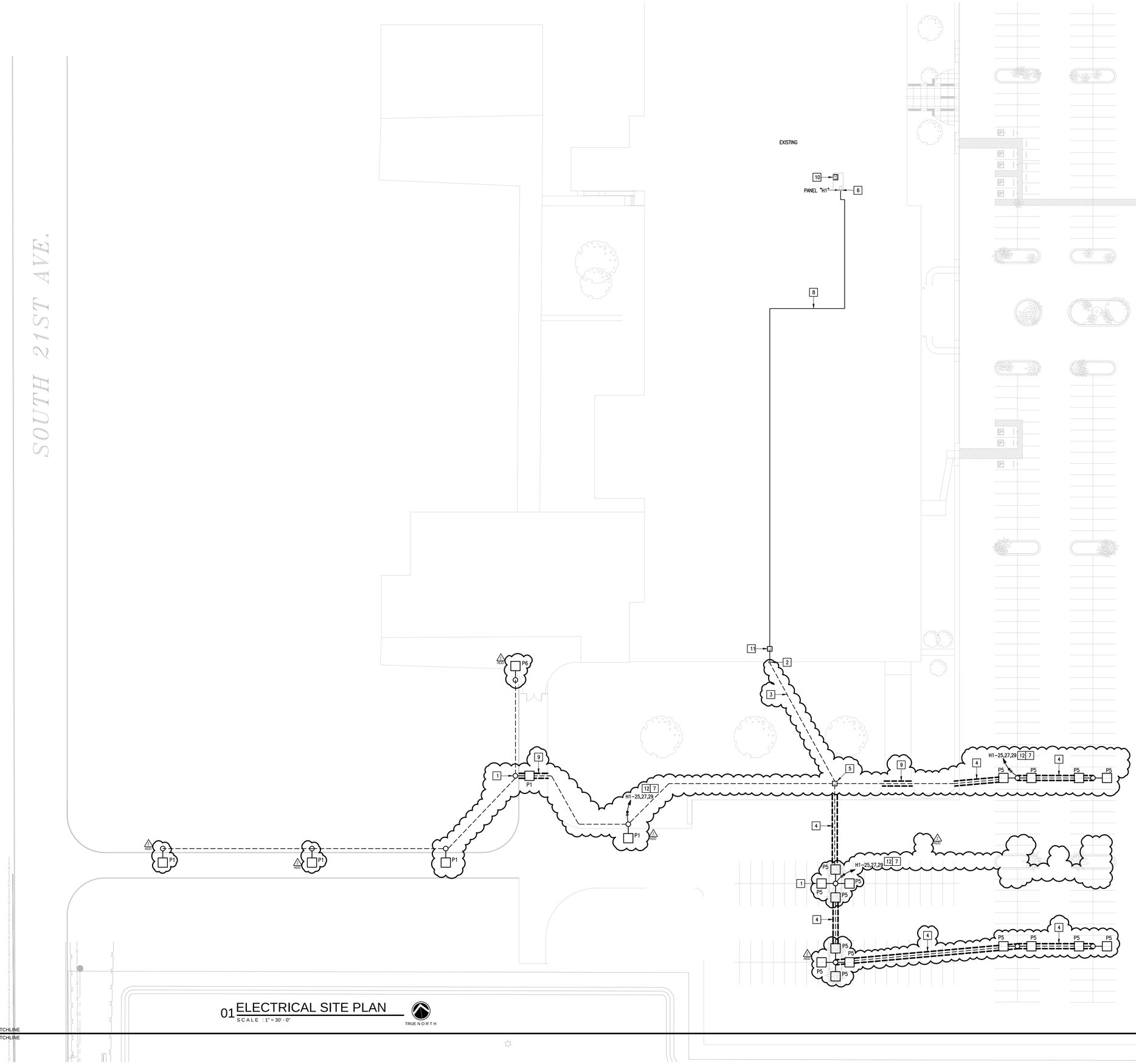
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01 ELECTRICAL SITE PLAN
SCALE : 1" = 30' - 0"

TRUE NORTH

GENERAL NOTES:

1. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
2. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
3. COORDINATE ELECTRICAL AND PLUMBING WITH GENERAL CONSTRUCTION.
4. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
5. FIELD VERIFY/SPOT EXACT LOCATIONS AND EXISTING CONDITIONS OF EXISTING PLUMBING, AND ELECTRICAL. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND WORKABLE SYSTEMS. SHOULD BIDDER FIND OMISSIONS OR DISCREPANCIES IN THE PLANS, BIDDER SHALL NOTIFY THE ENGINEER PRIOR TO THE BID DATE AND A WRITTEN CLARIFICATION WILL BE ISSUED.
6. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. CONTRACTORS ARE REQUIRED TO SEARCH AND INVESTIGATE FOR EXISTING UTILITIES BEFORE EXCAVATING.
7. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
8. PROVIDE J-BOXES (POLYMER CONCRETE) AS REQUIRED FOR PULL WIRING.
9. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
10. PERFORM ALL WORK PER LATEST VERSION OF NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
11. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
12. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
13. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
14. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
15. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
16. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING PHASE.
17. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
18. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
19. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
20. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
21. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
22. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
23. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
24. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
25. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.

KEYED NOTES:

1. PROVIDE POLE LIGHTS AS SCHEDULED – TYPICAL. SEE DETAIL.
2. RISE UP ALONG EXTERIOR WALL NEXT TO EXISTING RACEWAYS AND STUB OUT ABOVE CEILING.
3. PROVIDE UNDERGROUND BRANCH CIRCUIT. FIELD COORDINATE EXACT ROUTING WITH EXISTING UTILITIES.
4. PATCHING SHALL NOTCH EXISTING CONDITIONS. SAW CUT AND PATCH EXISTING PAVEMENT.
5. PROVIDE NEW 36"X36" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "ELECTRICAL" COVER LOGO – SEE DETAIL. DON'T SPLICE WIRING.
6. APPROXIMATE LOCATION OF EXISTING SQUARE D E1 SERIES 400A, 480/277V, 3P, 4W, PANEL. REMOVE EXISTING "H1-25" 20A/1P AND "H1-27,29" 20A/2P SPARE CIRCUIT BREAKERS. PROVIDE NEW 20A/3P CIRCUIT BREAKER TO CONNECT NEW POLE LIGHTING CIRCUIT "H1-25,27,29". ADD1
7. SWITCH NEW EXTERIOR POLE LIGHTS THROUGH NEW 3-POLE LIGHTING CONTACTOR; BRANCH CIRCUIT: 1" – 3#8 & #10G.
8. PROVIDE RACEWAY ABOVE CEILING. FIELD COORDINATE EXACT ROUTING WITH EXISTING CONDITIONS.
9. BORE UNDER EXISTING DRIVE.
10. APPROXIMATE LOCATION OF EXISTING 4-POLE LIGHTING CONTACTOR AND TIME CLOCK. PROVIDE NEW 277/480V, 20A/3P LIGHTING CONTACTOR TO BE CONTROLLED BY EXISTING TIME CLOCK. ADD1
11. PROVIDE JUNCTION BOX TO SPLICE CIRCUIT WIRING FOR EAST & WEST SIDE AREA LIGHTING.
12. BALANCE LOAD ACROSS PHASES. ADD1

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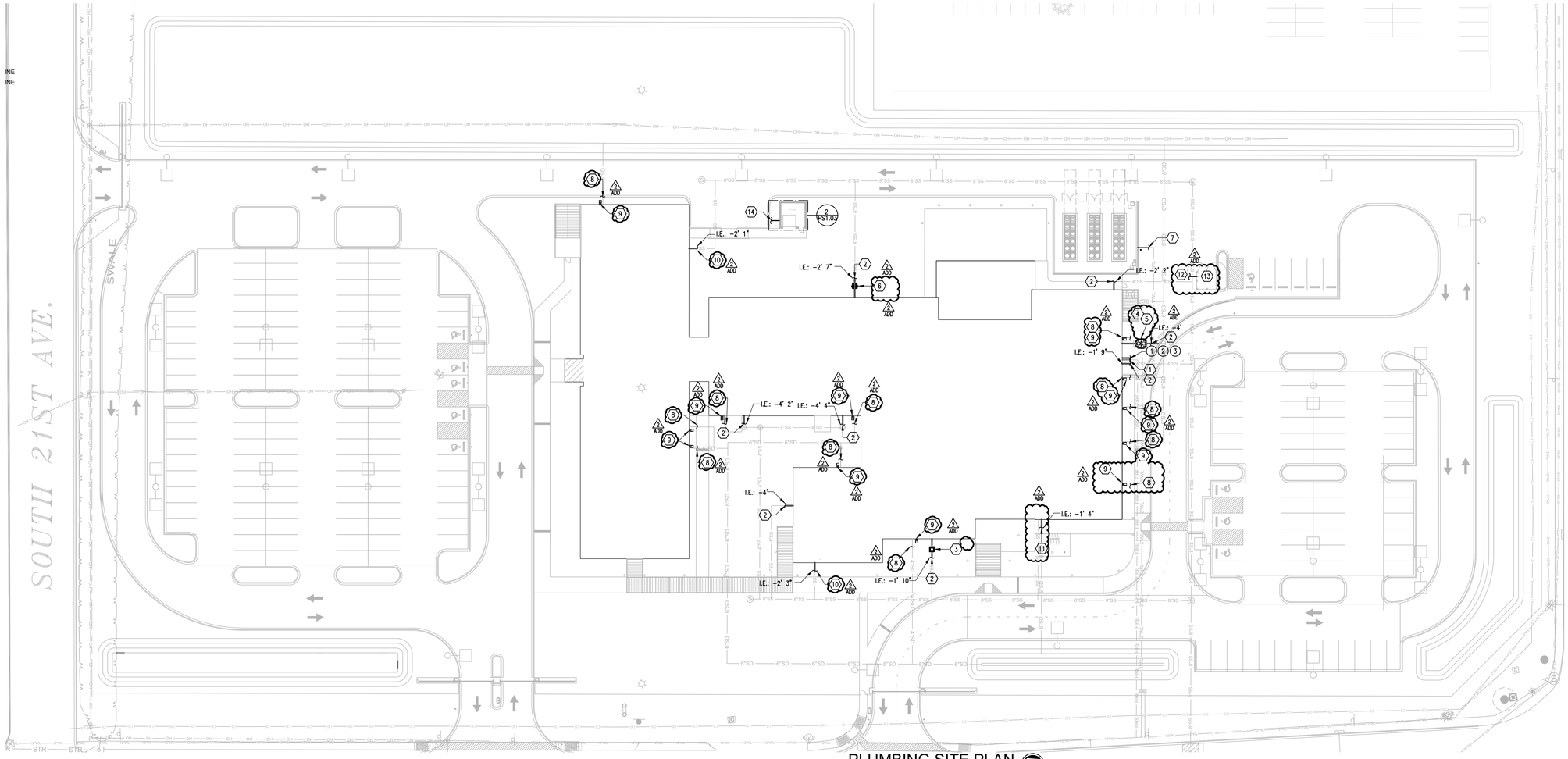
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01 PLUMBING SITE PLAN

SCALE : 1" = 30'-0"

NORTH

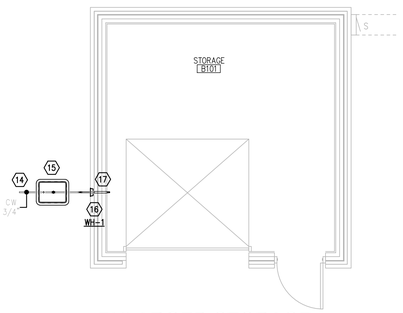
PLUMBING KEYED NOTES:

1. PROVIDE 3" DOMESTIC WATER LINE. SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION. PROVIDE LINE SIZE VALVE IN QUAZITE BOX. PRESSURE TEST THE MAIN DOMESTIC WATER SERVICE AT BUILDING ENTRANCE AFTER THE NEW WATER SERVICE AND RELATED INFRASTRUCTURE OUTSIDE THE BUILDING HAVE BEEN INSTALLED. CONTRACTOR SHALL PROVIDE ALL THE NECESSARY GAUGES, VALVES AND FITTINGS TO MONITOR AND DOCUMENT THE PRESSURE (PSI) EVERY HOUR FOR A PERIOD OF 24 HOURS. SUCH DATA WILL BE USED BY A/E TEAM AND OWNER TO DETERMINE IF A DOMESTIC WATER BOOSTER PUMP WILL BE REQUIRED.
2. PROVIDE 4" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
3. APPROXIMATE LOCATION OF OIL/WATER SEPARATOR. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
4. APPROXIMATE LOCATION OF GREASE INTERCEPTOR. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
5. PROVIDE GREASE INTERCEPTOR (GT-1). PROVIDE TIGHT-SEAL COVERS. PRIOR TO INSTALLATION COORDINATE PIPING SLOPE, TRENCHING AND BACKFILLING WITH CIVIL. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR TO AVOID CONFLICT WITH CURBS AND SIDEWALKS. SEE ASSOCIATED DETAIL ON DETAIL SHEET FOR MODEL No. & MANUFACTURER. PROVIDE SAMPLE WELL AS PER DETAIL.
6. APPROXIMATE LOCATION OF ACID NEUTRALIZATION TANK. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
7. PROVIDE NEW 1" DOMESTIC WATER LINE FOR CHILLER MAKEUP WATER. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION. PROVIDE LINE SIZE VALVE IN QUAZITE BOX.
8. CONNECT 6" PRIMARY DROP STORM PIPING DISCHARGING AT THIS APPROXIMATE LOCATION TO STORM DRAIN SYSTEM. REFER TO ROOF PLAN FOR MORE INFORMATION AND CIVIL PLAN FOR CONNECTION AND CONTINUATION.
9. SECONDARY STORM PIPING DISCHARGING AT THIS APPROXIMATE LOCATION. PROVIDE SPLASH BLOCKS. REFER TO ROOF PLAN FOR MORE INFORMATION.
10. PROVIDE 3" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
11. PROVIDE 2" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
12. PROVIDE 3/4" LINE TO SERVE HOSE BIBB AT DUMPSTER AREA. PROVIDE AN INLINE GATE VALVE IN QUAZITE BOX. NOT SHOWN FOR CLARITY. PRIOR TO INSTALLATION COORDINATE PIPING MATERIAL, TRENCHING AND BACKFILLING WITH CIVIL. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR TO AVOID CONFLICT WITH CURBS AND SIDEWALKS.
13. PROVIDE PEDESTAL HOSE BIBB AT DUMPSTER AREA. REFER TO DETAIL SHEET FOR MODEL NUMBER. COORDINATE COLOR OF PEDESTAL WITH OWNER AND ARCHITECT. SERVE PEDESTAL HOSE BIBB WITH 3/4" WATER LINE. PROVIDE TRANSITION FITTINGS AS NECESSARY. PRIOR INSTALLATION, COORDINATE EXACT LOCATION OF PEDESTAL WITH OWNER. REFER TO CIVIL DRAWINGS FOR LINE CONTINUATION.
14. PROVIDE 3/4" DOMESTIC WATER LINE TO SERVE WALL HYDRANT. SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION. PROVIDE LINE SIZE VALVE IN QUAZITE BOX.
15. PROVIDE GATE VALVE IN QUAZITE BOX. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
16. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
17. SLEEVE ALL GRADES BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.

ADD

FIRE SUPPRESSION KEYED NOTES:

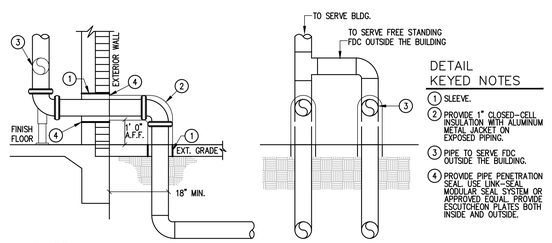
1. PROVIDE NEW FIRE SPRINKLER LINE. REFER TO CIVIL DRAWING FOR FIRE LINE CONTINUATION. VERIFY SIZE OF FIRE SPRINKLER LINE BY MEANS OF CALCULATION AND COORDINATE WITH GENERAL CONTRACTOR. COORDINATE FREE STANDING FDC AND PROVISION OF BACKFLOW PREVENTER WITH CIVIL. REFER TO PLUMBING SHEETS AND SPECIFICATIONS FOR MORE INFORMATION. COORDINATE EXACT LOCATION WITH ELECTRICAL CONTRACTOR & GENERAL CONTRACTOR.
2. SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
3. PROVIDE 1" CLOSED-CELL INSULATION WITH METAL JACKET ON EXPOSED PIPING. PENETRATE EXTERIOR WALL AS LOW AS POSSIBLE. TURN DOWN TO UNDERGROUND.



02 ENLARGED STORAGE PLUMBING PLAN

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

NORTH



DETAIL KEYED NOTES

1. SLEEVE.
2. PROVIDE 1" CLOSED-CELL INSULATION WITH ALUMINUM METAL JACKET ON EXPOSED PIPING.
3. PIPE TO SERVE FDC OUTSIDE THE BUILDING.
4. PROVIDE PIPE PENETRATION SEAL. USE LINK-SEAL MODULAR SEAL SYSTEM OR APPROVED EQUAL. PROVIDE ESCUTCHEON PLATES BOTH INSIDE AND OUTSIDE.

ADD 03 FIRE RISER ENTRANCE DETAIL

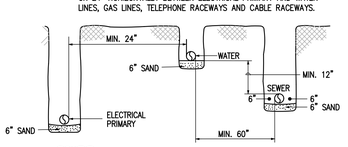
SCALE : NOT TO SCALE

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

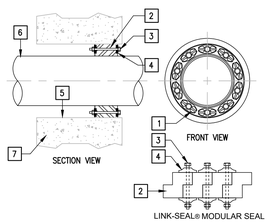
MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



ADD 04 TRENCHING DETAIL

SCALE : NONE



KEYED NOTES

1. LINK-SEAL MODULAR SEAL SYSTEM
2. ELASTOMERIC SEAL ELEMENT
3. BOLT
4. PRESSURE PLATE
5. PIPE SLEEVE
6. PIPE AS PER PLANS
7. EXTERIOR WALL

ADD 05 PIPE PENETRATION AT IMPERVIOUS BARRIER DETAIL

SCALE : NOT TO SCALE



KEYPLAN

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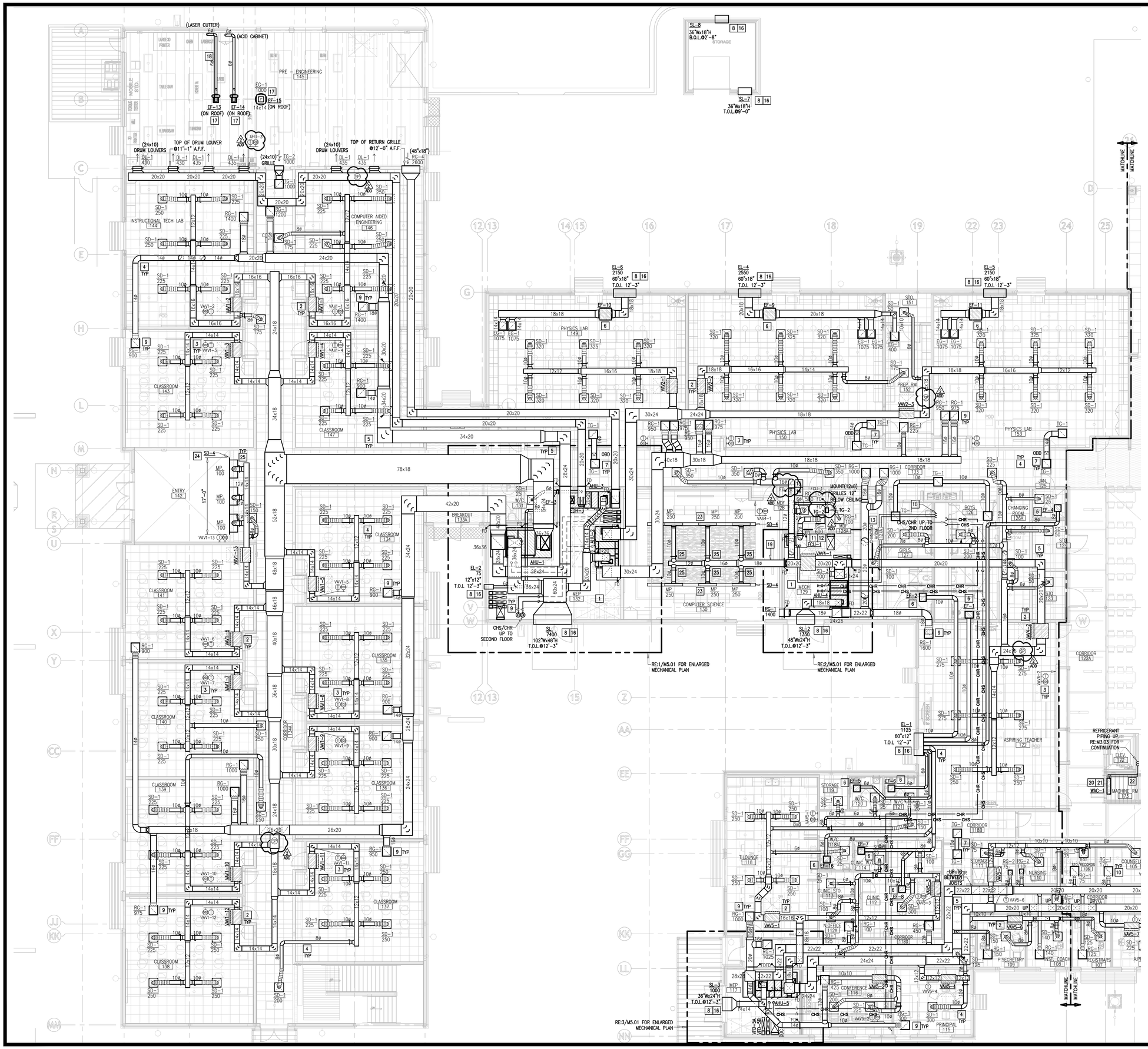
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GENERAL NOTES:

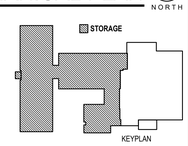
1. PRIOR TO LABELING EQUIPMENT, COORDINATE DESIGNATION AND IDENTIFICATION WITH OWNER AND BUILDING AUTOMATION SYSTEM.

KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. PROVIDE VAV TERMINAL UNITS AS SCHEDULED, PROVIDE DUCT TRANSITION AS NEEDED. MAINTAIN MINIMUM 4'-0" STRAIGHT DUCT SECTION UPSTREAM OF BOX AND MINIMUM 3'-0" CLEARANCE IN FRONT OF THE ACCESS PANEL. SUPPORT WITH GALVANIZED ALL-THREAD AS SHOWN IN DETAIL. LOCATE VAV TERMINAL UNIT AS HIGH AS POSSIBLE TIGHT TO THE BOTTOM OF THE STRUCTURE.
3. PROVIDE THERMOSTAT AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOOKING COVER FOR ALL SENSORS. (TYPICAL)
4. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. REFER TO SPECIFICATIONS. (TYPICAL)
5. DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS. (TYPICAL)
6. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
7. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
8. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
9. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
10. REFRIGERANT PIPING UP TO AIR COOLED CONDENSING UNIT ON ROOF. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA.
11. PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2015 SECTION 307.2.3. SEE DETAIL SHEET. ROUTE COPPER CONDENSATE LINE TO HUB DRAIN AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
12. PROVIDE FCU PLATFORM USING 3" X 3" X 1/4" GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. ENCLOSE PLATFORM USING 1" THICK MOISTURE RESISTANT PLYWOOD AND BOLT TO BRACKET WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM AND BE SEALED AIRTIGHT.
13. ROUTE REFRIGERANT PIPING TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. SLEEVE WALL PENETRATION. SEAL AIRTIGHT AROUND PIPE PENETRATION. (TYPICAL)
14. PROVIDE PLENUM BOX ON TOP OF AIR DEVICE FOR SIDE FLEX CONNECTION. REMOVE PATTERN DIFFUSER AND ENSURE S/A DEVICE DROPS AIR IN FRONT OF RACKS. COORDINATE EXACT LOCATION WITH OWNER AND ENGINEER PRIOR INSTALLATION. RG-1 TO BE USED AS SUPPLY AIR DEVICE.
15. PRIOR TO INSTALLATION OF FCU AND RELATED DUCTWORK, COORDINATE LOCATION OF COMMUNICATION AND DATA EQUIPMENT TO ENSURE RACKS ARE POSITIONED IN A PROPER MANNER CLEARLY IDENTIFYING THE COLD AND HOT ISLES. SUPPLY AIR DEVICES SHALL THROW AIR IN FRONT OF RACKS AND RETURN AIR DEVICES SHALL BE LOCATED ON BACK SIDE OF RACKS. DOCUMENT COORDINATION WITH OWNER, I.T. DEPARTMENT, AND ARCHITECT/ENGINEER PRIOR INSTALLATION.
16. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS; AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYPICAL)
17. PROVIDE EXHAUST FAN ON ROOF AS SCHEDULED TO SERVE LASER CUTTER MACHINE.
18. PROVIDE CHEMICAL GRADE FRP MATERIAL PIPE AS PER SPECIFICATIONS TO SERVE LASER CUTTER. PROVIDE TWO COATS OF LATEX PAINT ON EXPOSED PIPE ON ROOF.
19. PROVIDE DOUBLE WALL EXPOSED-PAINTED ROUND DUCT AS PER SPECIFICATIONS WITH DIFFUSERS AS SCHEDULED. PROVIDE HIGH PERFORMANCE PAINT AND COORDINATE FINAL COLOR OF DUCTS AND DIFFUSERS WITH ARCHITECT BEFORE ORDERING AND INSTALLING.
20. PROVIDE WALL MOUNTED EVAPORATOR UNIT (WAC) PER SCHEDULE. CONTRACTOR SHALL LOCATE UNIT AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS/REQUIREMENTS. FURNISH UNIT WITH ACCESSORIES PER SCHEDULE.
21. ROUTE COPPER CONDENSATE PIPING FROM MIN-SPLIT EVAPORATOR TO FLOOR DRAIN. SECURE VERTICAL PIPE TO WALL AS NECESSARY
22. ROUTE REFRIGERANT PIPING TO WALL MOUNTED EVAPORATOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. PROVIDE REFRIGERANT LINE SUPPORTS.
23. PROVIDE NEW LINEAR DIFFUSERS AS SCHEDULED. DIFFUSERS SHALL HAVE CONTINUOUS LOOK WITH LENGTH TO MATCH METAL PERFORATED CEILING FOR AESTHETICS PURPOSES. PROVIDE FIELD FABRICATED PLENUM BOX BEHIND AIR DEVICE. COORDINATE WITH ARCHITECTURAL PLAN FOR METAL CEILING DIMENSIONS. MOUNT LINEAR DIFFUSERS EVEN WITH CUSTOM CEILING.
24. PROVIDE NEW LINEAR DIFFUSER AS SCHEDULED. DIFFUSER SHALL HAVE CONTINUOUS LOOK WITH LENGTH AS SHOWN FOR AESTHETICS PURPOSES. PROVIDE FIELD FABRICATED PLENUM BOX BEHIND AIR DEVICE.
25. PROVIDE CABLE OPERATED BALANCING DAMPER. TYPICAL FOR ALL LINEAR DIFFUSERS IN THIS AREA, OPERABLE THRU FACE OF THE DIFFUSER. SEE DETAIL ON DETAIL SHEET.

01 1ST LEVEL MECHANICAL PLAN
SCALE : 1/8" = 1' - 0"

NORTH



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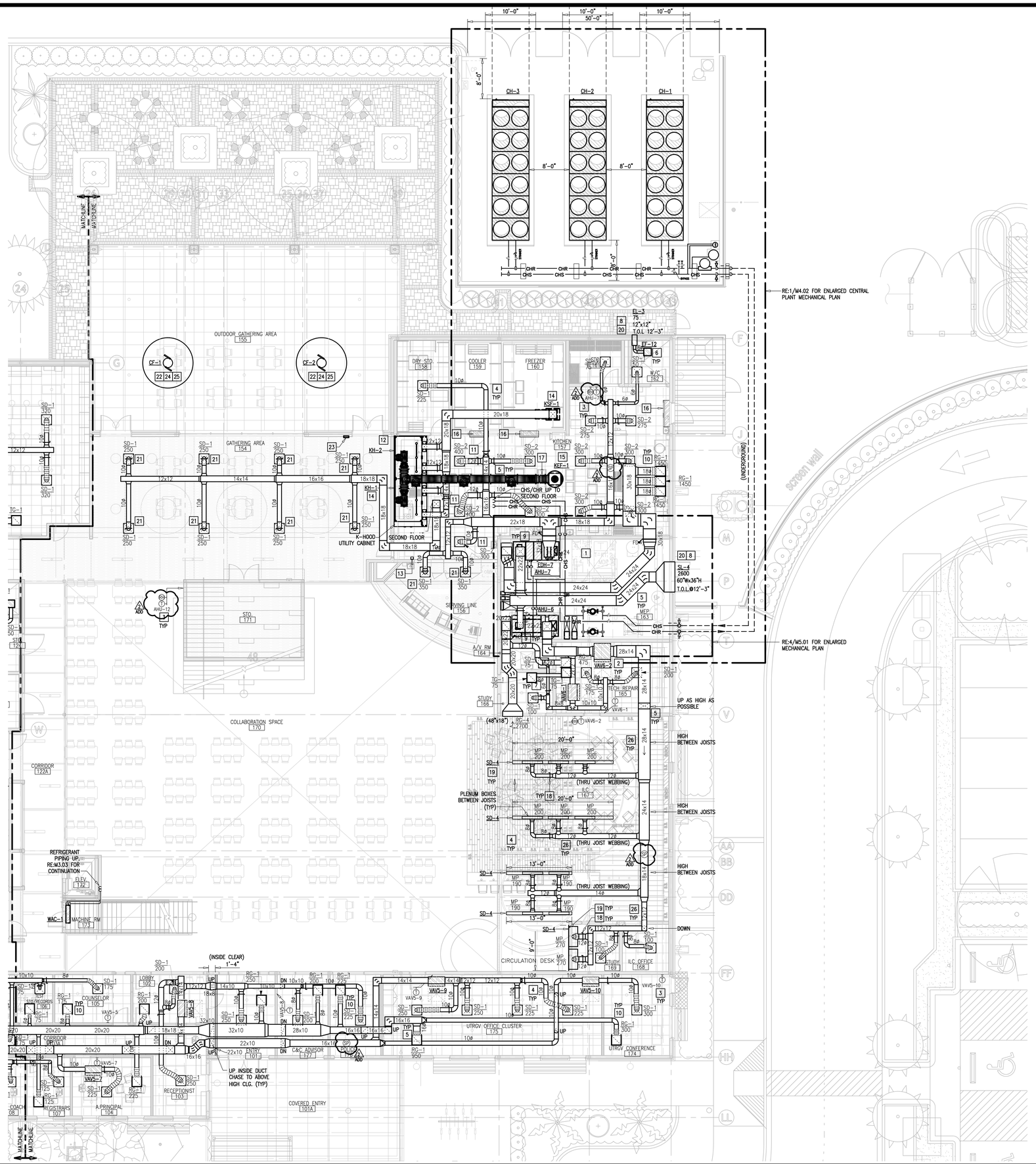
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Date: September 08, 2022
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Drawn By: XXX
Job No. 22V73
Sheet: M3.01

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GENERAL NOTES:

1. PRIOR TO LABELING EQUIPMENT, COORDINATE DESIGNATION AND IDENTIFICATION WITH OWNER AND BUILDING AUTOMATION SYSTEM.

KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. PROVIDE VAV TERMINAL UNITS AS SCHEDULED, PROVIDE DUCT TRANSITION AS NEEDED. MAINTAIN MINIMUM 4'-0" STRAIGHT DUCT SECTION UPSTREAM OF BOX AND MINIMUM 3'-0" CLEARANCE IN FRONT OF THE ACCESS PANEL. SUPPORT WITH GALVANIZED ALL-THREAD AS SHOWN IN DETAIL. LOCATE VAV TERMINAL UNIT AS HIGH AS POSSIBLE TIGHT TO THE BOTTOM OF THE STRUCTURE.
3. PROVIDE THERMOSTAT AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
4. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. REFER TO SPECIFICATIONS. (TYPICAL)
5. DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS. (TYPICAL)
6. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
7. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
8. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
9. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN. : ACCESS PANEL SHALL BE IN CEILING SPACE. (TYPICAL)
10. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
11. REMOVE PATTERN DIFFUSER.
12. PROVIDE KITCHEN HOOD SYSTEM AS PER SPECIFICATIONS AND SCHEDULES. REFER TO ELEVATIONS AND DETAILS SHEET FOR MORE INFORMATION.
13. MOUNT MANUAL PULL STATION FOR KITCHEN HOOD CHEMICAL SUPPRESSION SYSTEM AT THIS LOCATION. COORDINATE WITH ARCHITECTURAL.
14. PROVIDE KITCHEN HOOD SUPPLY FAN ON ROOF AS SCHEDULED. REFER TO MECHANICAL SCHEDULES FOR FOR MORE INFORMATION.
15. PROVIDE KITCHEN HOOD EXHAUST FAN ON ROOF AS SCHEDULED. REFER TO MECHANICAL SCHEDULES FOR FOR MORE INFORMATION.
16. AIR CURTAIN PROVIDED BY KITCHEN CONSULTANT. COORDINATE WITH GENERAL CONTRACTOR AND DIV.26.
17. PROVIDE PRE-MANUFACTURED GREASE DUCT AS PER DETAILS AND SPECIFICATIONS.
18. PROVIDE CABLE OPERATED BALANCING DAMPER. TYPICAL FOR ALL LINEAR DIFFUSERS IN THIS AREA, OPERABLE THRU FACE OF THE DIFFUSER. SEE DETAIL ON DETAIL SHEET.
19. PROVIDE NEW LINEAR DIFFUSERS AS SCHEDULED. DIFFUSERS SHALL HAVE CONTINUOUS LOOK WITH LENGTH AS SHOWN FOR AESTHETICS PURPOSES. PROVIDE FIELD FABRICATED PLENUM BOX BEHIND AIR DEVICE.
20. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYPICAL)
21. PROVIDE ROUND NECK OPPOSED BLADE BALANCING DAMPER TITUS MODEL AG-75 OR APPROVED EQUAL FOR VOLUME CONTROL IN ROUND NECK DIFFUSER. DAMPER SHALL BE OPERABLE THRU THE FACE OF THE DIFFUSER, TYPICAL ON SQUARE DIFFUSERS LOCATED IN HARD CEILING AREAS.
22. PROVIDE CEILING FAN AS SCHEDULED.
23. PROVIDE FAN CENTRAL CONTROLLER. CONTROLLER TO BE FURNISHED BY DIV. 23 AND INSTALLED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
24. INSTALL BOTTOM OF CEILING FAN BLADES AT 10'-0" A.F.F. WHILE MAINTAINING MANUFACTURER'S CLEARANCE REQUIREMENTS. BOTTOM OF WIDE FLANGE BEAM IS APPROXIMATELY AT 12'-8" A.F.F. REFER TO STRUCTURAL PLAN FOR EXACT LOCATION OF WIDE FLANGE BEAMS.
25. ATTACH CEILING FAN TO WIDE FLANGE BEAM PER THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND REQUIREMENTS. PROVIDE THE RECOMMENDED CLEARANCE REQUIRED ABOVE AND BELOW THE CEILING FAN PER THE MANUFACTURER'S REQUIREMENTS.
26. PROVIDE PAINTED WRAP INSULATION FOR DUCTWORK ABOVE CEILING CLOUD SYSTEM IN THIS AREA. COORDINATE COLOR WITH ARCHITECT.

01 1ST LEVEL MECHANICAL PLAN
SCALE : 1/8" = 1'-0"

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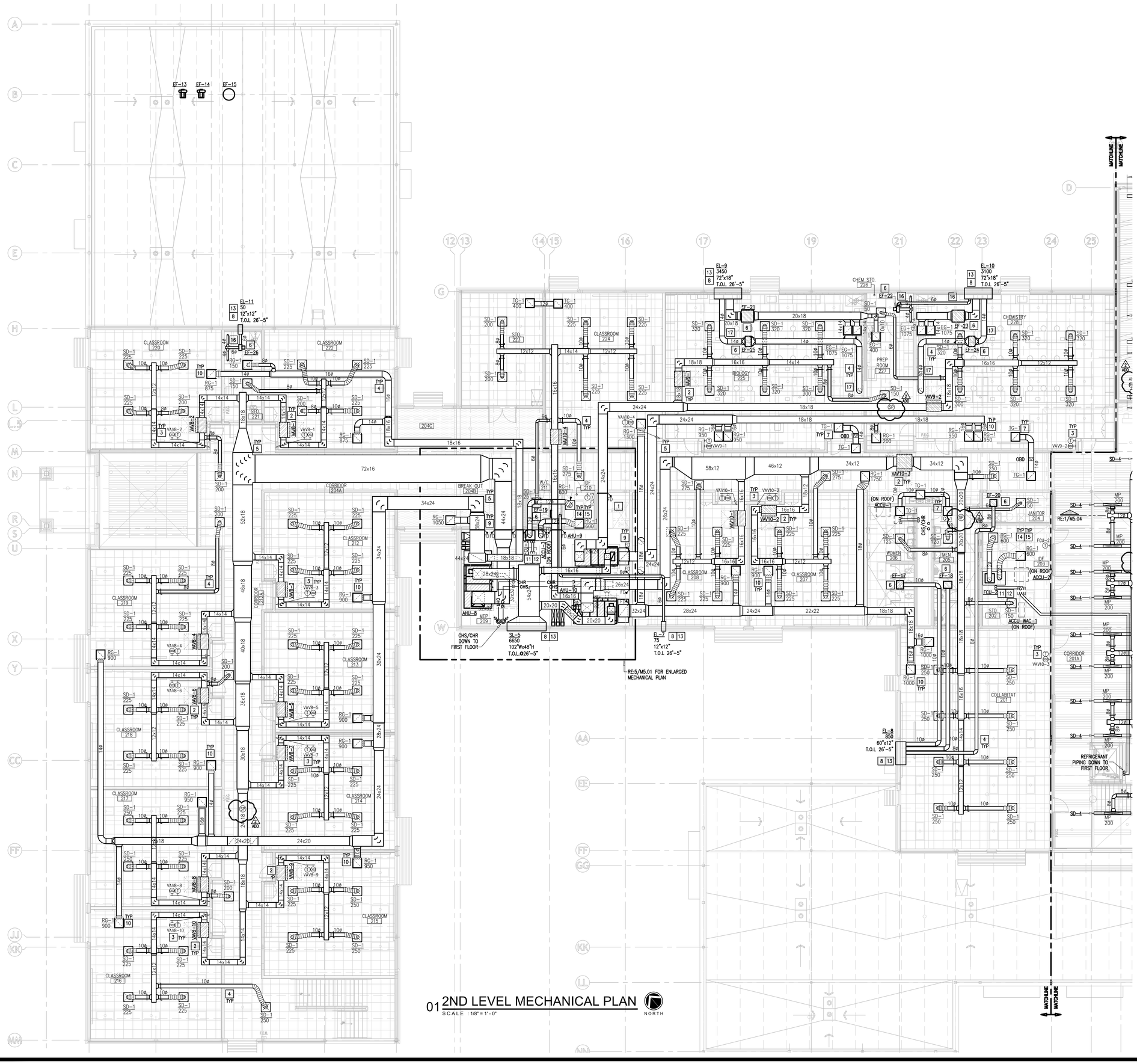
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01 2ND LEVEL MECHANICAL PLAN
SCALE : 1/8" = 1'-0"

NORTH

GENERAL NOTES:

1. PRIOR TO LABELING EQUIPMENT, COORDINATE DESIGNATION AND IDENTIFICATION WITH OWNER AND BUILDING AUTOMATION SYSTEM.

KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. PROVIDE VAV TERMINAL UNITS AS SCHEDULED, PROVIDE DUCT TRANSITION AS NEEDED. MAINTAIN MINIMUM 4'-0" STRAIGHT DUCT SECTION UPSTREAM OF BOX AND MINIMUM 3'-0" CLEARANCE IN FRONT OF THE ACCESS PANEL. SUPPORT WITH GALVANIZED ALL-THREAD AS SHOWN IN DETAIL. LOCATE VAV TERMINAL UNIT AS HIGH AS POSSIBLE TIGHT TO THE BOTTOM OF THE STRUCTURE.
3. PROVIDE THERMOSTAT AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOOKING COVER FOR ALL SENSORS. (TYPICAL)
4. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. REFER TO SPECIFICATIONS. (TYPICAL)
5. DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS. (TYPICAL)
6. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
7. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
8. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
9. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN. : ACCESS PANEL SHALL BE IN CEILING SPACE. (TYPICAL)
10. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
11. PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2015 SECTION 307.2.3. SEE DETAIL SHEET. ROUTE COPPER CONDENSATE LINE TO HUB DRAIN AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
12. PROVIDE FCU PLATFORM USING 3" X 3" X 1/4" GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. ENCLOSE PLATFORM USING 1" THICK MOISTURE RESISTANT PLYWOOD AND BOLT TO BRACKET WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM AND BE SEALED AIRTIGHT.
13. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYPICAL)
14. PROVIDE PLENUM BOX ON TOP OF AIR DEVICE FOR SIDE FLEX CONNECTION. REMOVE PATTERN DIFFUSER AND ENSURE S/A DEVICE DROPS AIR IN FRONT OF RACKS. COORDINATE EXACT LOCATION WITH OWNER AND ENGINEER PRIOR INSTALLATION. RG-1 TO BE USED AS SUPPLY AIR DEVICE.
15. PRIOR TO INSTALLATION OF FCU AND RELATED DUCTWORK, COORDINATE LOCATION OF COMMUNICATION AND DATA EQUIPMENT TO ENSURE RACKS ARE POSITIONED IN A PROPER MANNER CLEARLY IDENTIFYING THE COLD AND HOT ISLES. SUPPLY AIR DEVICES SHALL THROW AIR IN FRONT OF RACKS AND RETURN AIR DEVICES SHALL BE LOCATED ON BACK SIDE OF RACKS. DOCUMENT COORDINATION WITH OWNER, I.T. DEPARTMENT, AND ARCHITECT/ENGINEER PRIOR INSTALLATION.
16. PROVIDE STAINLESS STEEL DUCT AS PER SPECIFICATIONS TO SERVE ACID CABINETS EXHAUST.
17. PROVIDE STAINLESS STEEL DUCT AS PER SPECIFICATIONS TO SERVE FUME HOOD EXHAUST.

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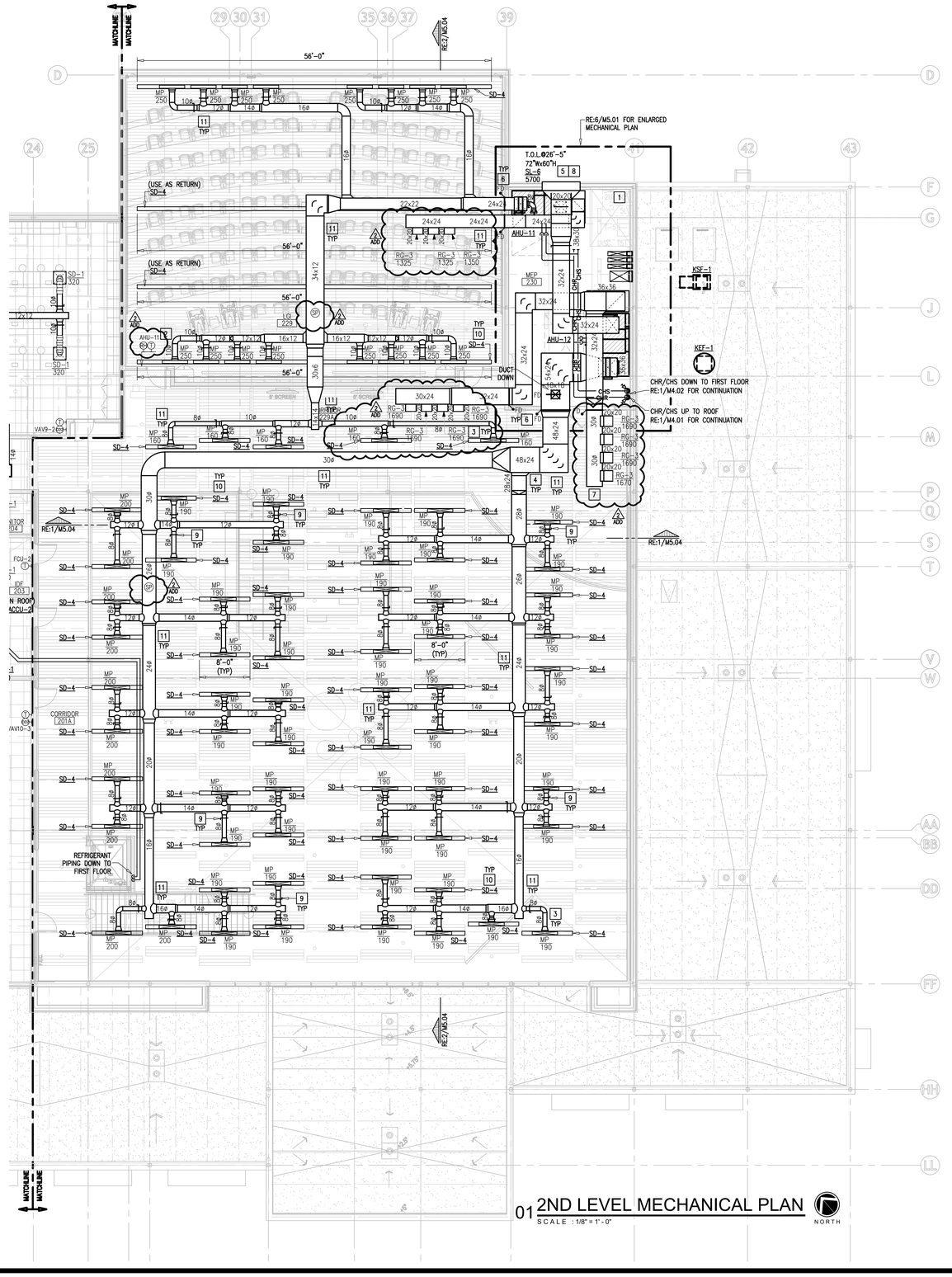
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01 2ND LEVEL MECHANICAL PLAN
SCALE : 1/8" = 1'-0"

NORTH

GENERAL NOTES:

1. PRIOR TO LABELING EQUIPMENT, COORDINATE DESIGNATION AND IDENTIFICATION WITH OWNER AND BUILDING AUTOMATION SYSTEM.

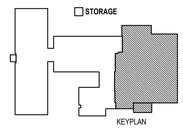
KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. PROVIDE THERMOSTAT AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
3. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. REFER TO SPECIFICATIONS. (TYPICAL)
4. DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS. (TYPICAL)
5. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
6. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN. : ACCESS PANEL SHALL BE IN CEILING SPACE. (TYPICAL)
7. EXPOSED PORTION OF RETURN AIR DUCT SHALL BE DOUBLE WALL PAINTED ROUND DUCT AS PER SPECIFICATIONS WITH AIR DEVICES AS SCHEDULED. PROVIDE HIGH PERFORMANCE PAINT AND COORDINATE FINAL COLOR OF DUCTS AND DIFFUSERS WITH ARCHITECT BEFORE ORDERING AND INSTALLING.
8. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYPICAL)
9. PROVIDE BALANCING DAMPER WITH CONCEALED CABLE DEVICE MODEL ROTO-TWIST OR APPROVED EQUAL. PROVIDE CABLE LENGTH AS REQUIRED. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
10. PROVIDE NEW LINEAR DIFFUSERS AS SCHEDULED. DIFFUSERS SHALL HAVE CONTINUOUS LOOK WITH LENGTH AS SHOWN FOR AESTHETICS PURPOSES. PROVIDE FIELD FABRICATED PLENUM BOX BEHIND AIR DEVICE.
11. DUCTWORK LOCATED ABOVE WOOD CEILING SYSTEM SHALL BE SHEET METAL CONSTRUCTION WITH PAINTED WRAP INSULATION AS PER SPECIFICATIONS, WITH AIR DEVICES AS SCHEDULED. PROVIDE HIGH PERFORMANCE PAINT AND COORDINATE FINAL COLOR OF DUCTS AND AIR DEVICES WITH ARCHITECT BEFORE ORDERING AND INSTALLING.

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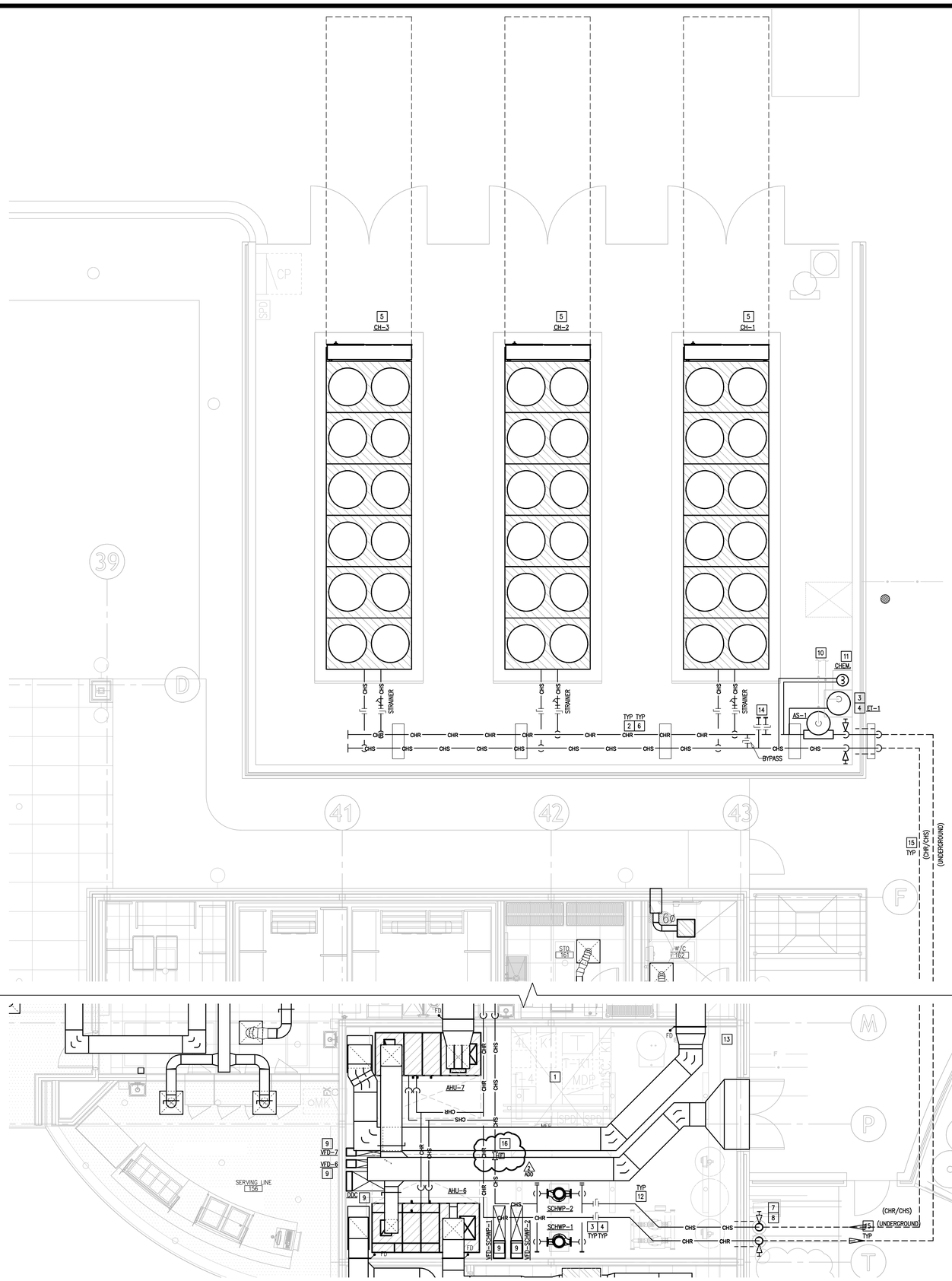
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Drawn By:	XXX
Job No.	22V73
Sheet:	M3.04



01 CENTRAL PLANT MECHANICAL PLAN

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

NORTH

GENERAL NOTES:

1. ALL PIPING WELDS MUST BE WIRE-BRUSHED AND PAINTED A MINIMUM OF 12" ON EITHER SIDE OF WELD PRIOR TO INSULATION.
2. AT LOWEST POINT IN PIPING ENTERING CHILLER BARRELS, PROVIDE 6" LONG DRAIN NIPPLES AND BALL VALVES FOR DRAINING NEW CHILLER.
3. INSULATE PER SPECIFICATIONS ALL PIPING, VALVES, FITTINGS, PUMP BODIES AND COLD SURFACES THAT ARE CAPABLE OF GENERATING CONDENSATION. FIBERGLASS INSULATION WILL NOT BE ALLOWED.
4. PRIOR TO INSTALLATION OF EQUIPMENT, VERIFY THAT MANUFACTURER RECOMMENDED AND CODE REQUIRED CLEARANCES ARE AVAILABLE.
5. INSTALL PIPES AND DUCTS AS HIGH AS POSSIBLE TO ALLOW MAXIMUM POSSIBLE HEADROOM. MIN. 10' A.F.F. OR AS HIGH AS POSSIBLE.
6. PROVIDE REFRIGERANT SIGNAGE, AND EMERGENCY CONTROLS AS PER SPECIFICATIONS AND AS PER REQUIREMENTS OF INTERNATIONAL MECHANICAL AND FIRE CODES.
7. PROVIDE P/T TEST PORT WITHIN 6 INCHES OF EVERY PRESSURE GAGE AND THERMOWELL. SEE PIPING SCHEMATIC FOR LOCATIONS.
8. REFER TO HYDRONIC PIPING SCHEMATICS FOR DETAILS AND PIPE SIZES.
9. PROVIDE PIPE STANCHION SUPPORTS AT SPECIFIED INTERVALS, CLOSE TO ELBOWS AND VALVES. PROVIDE CONCRETE PADS AS REQUIRED. RE: STRUCTURAL.
10. FOR ALL PIPING SUPPORTS LOCATED OUTDOORS, PROVIDE THE FOLLOWING:
    - A.) POLYAMIDE PRIME COAT OF DEVOE PAINTS, DEVRAN 201.
    - B.) INTERMEDIATE TOP COAT OF DEVOE PAINTS, DEVRAN 224HS.
    - C.) TOP COAT OF DEVOE PAINTS, DEVTHANE 379.

KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS (TYPICAL).
2. PROVIDE ALUMINUM METAL JACKETING FOR ALL CHW PIPING EXPOSED OUTDOORS. INDOOR PIPING TO HAVE ALL SERVICE JACKETING WITH APPROPRIATE IDENTIFICATION. SEE SPECIFICATIONS.
3. PROVIDE HYDRONIC PIPING WITH AUTOMATIC ISOLATION VALVES, THERMOWELLS, PRESSURE GAUGES, THERMOMETERS, FLOW SWITCHES, MANUAL VALVES, ETC. PROVIDE PIPING SPECIALTIES SUCH AS AIR SEPARATOR, EXPANSION TANK, MAKE UP WATER, CHEMICAL POT FEEDER, ETC. SEE PIPING SCHEMATIC AND ASSOCIATED DETAILS.
4. PROVIDE AIR SEPARATOR, EXPANSION TANK AND CHEMICAL POT FEEDER. INSTALL ON 4" HOUSEKEEPING CONCRETE PADS PROVIDED BY STRUCTURAL. PADS SHALL BE 6" LARGER ON ALL SIDES FOR ALL EQUIPMENT EXCEPT CHILLERS. REFER TO STRUCTURAL DRAWINGS.
5. PROVIDE CHILLER AS SCHEDULED. INSTALL CHILLER ON 6" HOUSEKEEPING CONCRETE PAD PROVIDED BY STRUCTURAL. PAD SHALL BE 12" LARGER ON ALL SIDES FOR CHILLERS. REFER TO STRUCTURAL DRAWINGS.
6. PIPE SUPPORTS AND STANCHIONS SHALL BE HOT DIPPED GALVANIZED AND PAINTED. BASE PLATE SHALL BE INSTALLED ON A 4" CONCRETE PAD. (TYPICAL)
7. SEAL AROUND PIPING AT EXTERIOR WALL PENETRATION WITH FIREPROOF CAULKING PER SPECIFICATIONS. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISH LOOK.
8. PROVIDE ISOLATION VALVES BEFORE ENTERING THE BUILDING. COORDINATE CHW PIPE ROUTING AT THIS LOCATION WITH WATER SOFTENER CONTRACTOR PRIOR INSTALLATION TO AVOID CONFLICT WITH WATER SOFTENER TANKS AND RELATED PIPING LOCATED INSIDE THE MECHANICAL ROOM.
9. PROVIDE VFD PER SCHEDULE WITH NEMA-1 ENCLOSURE FOR MOUNTING INDOORS. (TYPICAL)
10. PROVIDE MAKE UP WATER LINE 1" TO SERVE EXPANSION TANK. CONNECT TO BACKFLOW PREVENTER AND PRESSURE RELIEF VALVE. REFER TO "MAKE-UP DETAIL" ON DETAIL SHEET. COORDINATE WITH PLUMBING.
11. COORDINATE WITH WATER TREATMENT COMPANY TO ACHIEVE SPECIFIED WATER CONDITIONING. PROVIDE NEW FILTRATION SYSTEM AND DYE IN CHILLED WATER. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
12. PIPING INSIDE MECHANICAL ROOM SHALL BE SUPPORTED FROM GROUND WITH PIPE SUPPORTS (NOT SHOWN FOR CLARITY). PROVIDE PIPE SUPPORTS AS PER SPECIFICATIONS. SUBMIT SHOP DRAWINGS WITH PIPE SUPPORT LOCATIONS FOR APPROVAL.
13. FIRE SPRINKLER RISER LOCATION ENTRY TO BUILDING. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
14. PROVIDE CONNECTIONS FOR EMERGENCY CHILLER TIE-IN.
15. PROVIDE UNDERGROUND CHILLED WATER PIPING AS PER SPECIFICATIONS.
16. PROVIDE FLOW METER AS PER SCHEMATICS AND SPECIFICATIONS. INSTALL AS PER MANUFACTURER RECOMMENDATIONS.

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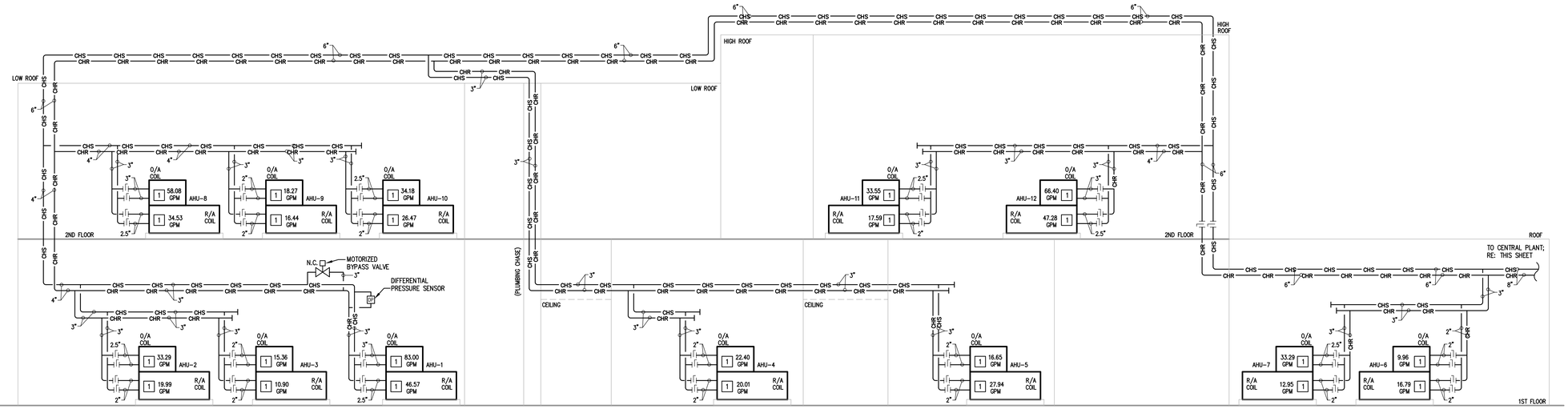
UTRGV/ EDINBURG CISD
COLLEGIATE HIGH SCHOOL

CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
09.08.2022

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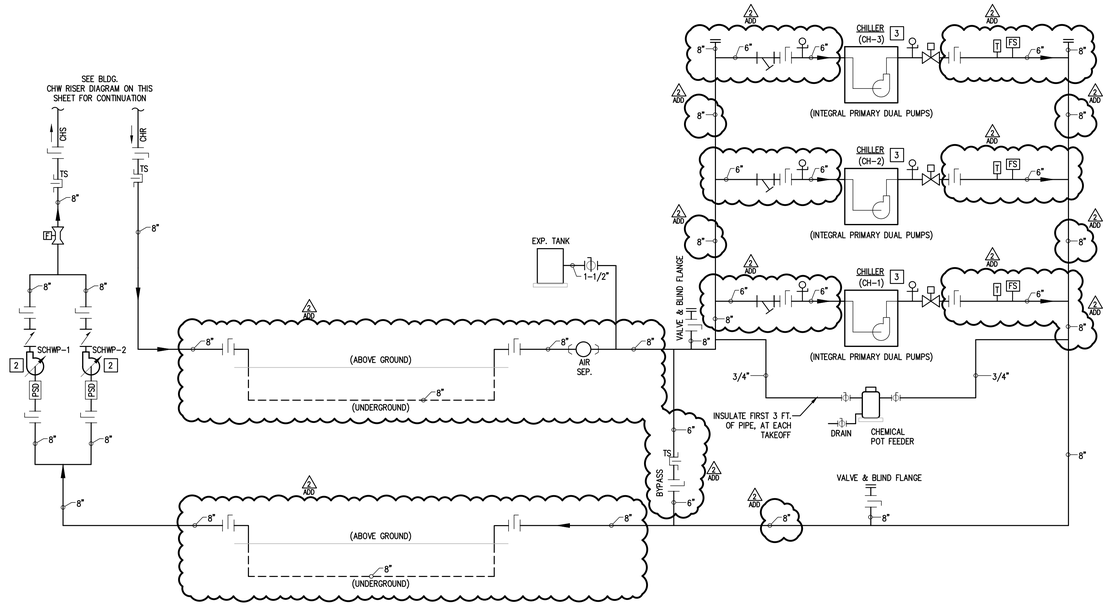
Date:	September 08, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	P.M.
Job No.	22V73
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BUILDING CHILLED WATER SCHEMATIC DIAGRAM

01 SCALE : NOT TO SCALE



CENTRAL PLANT CHILLED WATER SCHEMATIC DIAGRAM

02 SCALE : NOT TO SCALE

GENERAL NOTES:

1. ALL PIPING WELDS MUST BE WIRE-BRUSHED AND PAINTED A MINIMUM OF 12" ON EITHER SIDE OF WELD PRIOR TO INSULATION.
2. CLEAN AND PREPARE SURFACE OF CHILLED WATER PIPING BEFORE INSULATING. APPLY CORROSION COATING TO ALL PIPING. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
3. INSULATE PER SPECIFICATIONS ALL PIPING, VALVES, FITTINGS, PUMP BODIES AND COLD SURFACES THAT ARE CAPABLE OF GENERATING CONDENSATION. FIBERGLASS INSULATION WILL NOT BE ALLOWED.
4. PRIOR TO INSTALLATION OF EQUIPMENT, VERIFY THAT MANUFACTURER RECOMMENDED AND CODE REQUIRED CLEARANCES ARE AVAILABLE.
5. INSTALL PIPES AND DUCTS AS HIGH AS POSSIBLE TO ALLOW MAXIMUM POSSIBLE HEADROOM. MIN. 9' AFF.
6. PROVIDE P/T TEST PORT WITHIN 6 INCHES OF EVERY PRESSURE GAGE AND THERMOWELL. SEE PIPING SCHEMATIC FOR LOCATIONS.
7. REFER TO HYDRONIC PIPING SCHEMATICS FOR DETAILS.
8. FOR ALL PIPING SUPPORTS LOCATED OUTDOORS, PROVIDE THE FOLLOWING:
   - A) POLYAMIDE PRIME COAT OF DEVOE PAINTS, DEVRAN 201.
   - B) INTERMEDIATE TOP COAT OF DEVOE PAINTS, DEVRAN 224HS.
   - C) TOP COAT OF DEVOE PAINTS, DEVTHANE 379.
9. GPM's ARE SHOWN FOR VERIFICATION PURPOSE ONLY. DO NOT USE THIS DATA FOR TAB. IN CASE OF CONFLICT, OR IF FLOW DATA DO NOT MATCH WITH THOSE FOR SCHEDULED EQUIPMENT, USE LARGER OF THE TWO.
10. REFER TO SPECIFICATIONS FOR CONTROL COMPONENTS, DEVICES, AND SENSORS TO BE COORDINATED WITH MECHANICAL WORK.
11. AT LOWEST POINT IN PIPING ENTERING CHILLER BARRELS, PROVIDE 6" LONG DRAIN NIPPLES AND BALL VALVES FOR DRAINING CHILLER.
12. MINIMUM PIPE SIZE SHALL BE 1".

KEYED NOTES:

1. PROVIDE 2-WAY CONTROL VALVE AT AHU. REFER TO CHILLED WATER COIL CONNECTION SCHEMATIC WITH 2-WAY VALVE ON DETAIL SHEET.
2. REFER TO PUMP DETAIL ON DETAIL SHEET.
3. REFER TO CHILLER PIPING CONNECTION DETAIL ON DETAIL SHEET.

LEGEND:

- AIR SEPARATOR
- AUTOMATIC VALVE
- MANUAL VALVE
- STRAINER
- FLOW METER
- PUMP SUCTION DIFFUSER
- BALL VALVE
- WATER METER
- BLIND FLANGE
- PUMP
- PUMP WITH VFD
- PRESSURE GAUGE
- NEW EQUIPMENT
- NEW PIPING
- THERMOWELL FOR DDC TEMPERATURE SENSOR
- FLOW SWITCH
- CHECK VALVE
- THERMOMETER

No.	REVISIONS	BY
1 ADD	09/26/2022	ETHOS

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EXHAUST FAN SCHEDULE

MARK	ROOM NUMBER SERVING	TYPE	ELECTR. V/PH/P	CFM	INPUT WATTS	MOTOR HP	E.S.P. IN. H20	SOUND IN SONES	MANUFACTURER & MODEL NUMBER	WEIGHT (LBS)	CONTROL NOTES	NOTES
First Floor												
EF-1	BOYS RESTROOM 126	CEILING MOUNTED	120/60/1	300	108.0	-	0.4	1.5	LOREN COOK GC-642	35	A	1-6
EF-2	GIRLS RESTROOM 127	CEILING MOUNTED	120/60/1	300	108.0	-	0.4	1.5	LOREN COOK GC-642	35	A	1-6
EF-3	STAFF RESTROOM 131	CEILING MOUNTED	120/60/1	75	34.4	-	0.4	1.5	LOREN COOK GC-166	20	B	1-6
EF-4	JANITOR 125	CEILING MOUNTED	120/60/1	50	29.9	-	0.4	1.1	LOREN COOK GC-166	20	B	1-6
EF-5	STAFF RESTROOM 120	CEILING MOUNTED	120/60/1	75	34.4	-	0.4	1.5	LOREN COOK GC-166	20	B	1-6
EF-6	STAFF RESTROOM 121	CEILING MOUNTED	120/60/1	75	34.4	-	0.4	1.5	LOREN COOK GC-166	20	B	1-6
EF-7	CLINIC RESTROOM 114	CEILING MOUNTED	120/60/1	100	54.5	-	0.4	1.5	LOREN COOK GC-186	20	B	1-6
EF-8	CLINIC 112	CEILING MOUNTED	120/60/1	150	57.3	-	0.4	2.0	LOREN COOK GC-422	33	A	1-6
EF-9	PHYSICS LAB. PREP 150 & 152	SUSPENDED INLINE	208/60/3	2,550	-	1.00	0.5	8.9 / 8.2	LOREN COOK 210SQNH17D VF2	225	A, B, C	1, 2, 7-9
EF-10	PHYSICS LAB 149	SUSPENDED INLINE	208/60/3	2,150	-	1.00	0.5	6.8 / 6.7	LOREN COOK 210SQNH17D VF2	225	A, B, C	1, 2, 7-9
EF-11	ADD PHYSICS LAB 148	SUSPENDED INLINE	208/60/3	2,150	-	1.00	0.5	6.8 / 6.7	LOREN COOK 210SQNH17D VF2	225	A, B, C	1, 2, 7-9
EF-12	STAFF RESTROOM 162	CEILING MOUNTED	120/60/1	75	34.4	-	0.4	1.5	LOREN COOK GC-166	20	B	ADD 1-6
EF-13	PRE-ENGINEERING 145 LASER CUTTER	ROOF MOUNTED	208/60/3	500	-	5.5	8	119dB/97dB(A)	PLASTEC STORM 18	130	A, E	1,2,12-15
EF-14	PRE-ENGINEERING 145 ACID CABINET	ROOF MOUNTED	120/60/1	50	-	1/3	0.5	54dB(A)	PLASTEC SERIES 15	30	A, E.	1,2,12-15
EF-15	PRE-ENGINEERING 145 GENERAL EXHAUST	ROOF MOUNTED	120/60/1	1000	-	1/3	0.5	12.5	LOREN COOK 135 ACES DR92	100	A, B	1-4, 10, 11, 15
EF-16	ADD PHYSICS LAB 118A	CEILING MOUNTED	120/60/1	75	34.4	-	0.4	1.5	LOREN COOK GC-166	20	B	ADD 1-6
Second Floor												
EF-17	GIRLS RESTROOM 206	CEILING MOUNTED	120/60/1	300	108.0	-	0.4	1.5	LOREN COOK GC-642	35	A	1-6
EF-18	BOYS RESTROOM 205	CEILING MOUNTED	120/60/1	300	108.0	-	0.4	1.5	LOREN COOK GC-642	35	A	1-6
EF-19	STAFF RESTROOM 211	CEILING MOUNTED	120/60/1	75	34.4	-	0.4	1.5	LOREN COOK GC-166	20	B	1-6
EF-20	JANITOR 204	CEILING MOUNTED	120/60/1	100	54.5	-	0.4	1.5	LOREN COOK GC-186	20	B	1-6
EF-21	BIOLOGY LAB. PREP 225 & 226	SUSPENDED INLINE	208/3/60	2,550	-	1.00	0.5	8.9 / 8.2	LOREN COOK 210SQNH17D VF2	225	A, B, C	1, 2, 7-9
EF-22	ACID CABINETS 226	SUSPENDED INLINE	120/60/1	50	-	1/3	0.5	-	PLASTEC SERIES 15	30	A	1,2,12,13,14
EF-23	CHEMISTRY LAB 228	SUSPENDED INLINE	208/3/60	2,150	-	1.00	0.5	6.8 / 6.7	LOREN COOK 210SQNH17D VF2	225	A, B, C	1, 2, 7-9
EF-24	FUME HOOD 228	SUSPENDED INLINE	120/60/1	900	263.0	1/3	0.45	2.7	LOREN COOK GN 862	74	A, D	1-4, 6
EF-25	FUME HOOD 225	SUSPENDED INLINE	120/60/1	900	263.0	1/3	0.45	2.7	LOREN COOK GN 862	74	A, D	1-4, 6
EF-26	ACID CABINETS 221	SUSPENDED INLINE	120/60/1	50	-	1/3	0.5	54dB(A)	PLASTEC SERIES 15	30	A	1,2,12,13,14

NOTES:

1. PROVIDE FACTORY MOUNTED DISCONNECT.
2. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL." REFER TO SPECIFICATIONS.
3. PROVIDE FIELD-INSTALLED FAN SPEED CONTROLLER. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.
4. PROVIDE FAN WITH ALL ALUMINUM BACKDRAFT DAMPER.
5. PROVIDE PAINTED WHITE DELUXE ALUMINUM GRILLE WHERE AVAILABLE. IF DELUXE ALUMINUM GRILLE IS NOT AVAILABLE, PROVIDE PAINTED WHITE STYRENE GRILLE.
6. PROVIDE SPRING TYPE VIBRATION ISOLATORS FOR SUSPENDED INLINE TYPE FANS.
   PROVIDE RUBBER BUSHING VIBRATION ISOLATORS FOR CEILING MOUNTED TYPE FANS.
7. PROVIDE DIRECT DRIVE MOTOR.
8. PROVIDE FAN MOUNTED SPEED CONTROLLER FOR BALANCING PURPOSES. COORDINATE WITH ELECTRICAL CONTRACTOR.
9. PROVIDE INSULATED HOUSING, COVER FOR MOTOR CONTROLLER AND VIBRATION ISOLATORS.
10. PROVIDE SOUND ATTENUATING ALUMINUM ROOF CURB WITH TRAY, AUTOMATIC BELT TENSIONER, TIE DOWNS, STAINLESS STEEL SHAFT, ALUMINUM BACKDRAFT DAMPER
11. PROVIDE SPARE BELT SET.
12. PROVDE UV RESISTANT POLYPROPYLENE HOUSING, BLOWER WHEEL, ADJUSTABLE INLET DAMPER AND BACK DRAFT DAMPER.
14. PROVIDE TEFC MOTOR OUTSIDE OF AIRSTREAM. EF-10, 14, 16 & 22: FAN SHALL BE EXPLOSION PROOF. EF-13 & 14: PROVIDE WEATHERHOOD PROTECTION.
15. PROVIDE IBC 2015 COMPLIANT CURB AND ATTACHMENTS FROM UNIT TO CURB AND CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:
    1) ATTACHMENT OF EQUIPMENT TO CURB.
    2) CURB TO STRUCTURE.
    3) CURB AND ATTACHMENT HARDWARE STRENGTH.
    REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS.
    EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE.
    BOTH, THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING AND PROJECT SITE AND STAMPED AND SEALED BY A TEXAS LICENSED ENGINEER.
    SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.

CONTROL NOTES:

A. PROVIDE DDC START/STOP AND STATUS POINTS. REFER TO SEQUENCES OF OPERATIONS.
B. FAN SHALL BE OPERATED BY A WALL SWITCH VIA THE OCCUPANCY SENSOR PROVIDED BY DIV.26 COORDINATE WITH ELECTRICAL
C. EXHAUST FAN SHALL ALSO BE INTERLOCKED (HARDWIRED) WITH UTILITY CONTROLLER PUSHBUTTON EMERGENCY SWITCH.
   TO OVERRIDE STATUS AND SCHEDULE IN THE EVENT THE EMERGENCY SWITCH IS ACTIVATED. COORDINATE WITH ELECTRICAL.
D. FAN OPERATION SHALL BE INTERLOCKED WITH FUME HOOD LIGHT SWITCH. COORDINATE WITH ELECTRICAL CONTRACTOR.
E. FAN SHALL BE OPERATED BY A WALL TOGGLE SWITCH. COORDINATE WITHT ELECTRICAL.

LOUVER SCHEDULE

MARK	SERVES	CFM RANGE	FACE SIZE (W X H)	MIN. FREE AREA (FT^2)	RUSKIN MODEL NUMBER	NOTES
FIRST FLOOR						
SUPPLY						
SL-1	AHU-1, AHU-2, AHU-3	7400	102 X 48	16.57	EME520MD	ALL
SL-2	AHU-4	1350	48 X 24	3.30	EME520MD	ALL
SL-3	AHU-5	1000	36 X 24	2.43	EME520MD	ALL
SL-4	AHU-6, AHU-7	2600	60 X 36	6.67	EME520MD	ALL
EXHAUST						
EL-1	EF-1, EF-2, EF-4, EF-5 EF-6, EF-7, EF-8, EF-16	1125	60 X 12	1.66	EME520MD	ALL
EL-2	EF-3	75	12 X 12	0.28	EME520MD	ALL
EL-3	EF-12	75	12 X 12	0.28	EME520MD	ALL
EL-4	EF-9	2550	60 X 18	2.91	EME520MD	ALL
EL-5	EF-11	2150	60 X 18	2.91	EME520MD	ALL
EL-6	EF-10	2150	60 X 18	2.91	EME520MD	ALL
SECOND FLOOR						
SUPPLY						
SL-5	AHU-8, AHU-9, AHU-10	6650	102 X 48	16.57	EME520MD	ALL
SL-6	AHU-11, AHU-12	5700	72 X 60	14.60	EME520MD	ALL
EXHAUST						
EL-7	EF-19	75	12 X 12	0.28	EME520MD	ALL
EL-8	EF-17, EF-18, EF-20	850	60 X 12	1.66	EME520MD	ALL
EL-9	EF-21, EF-25	3450	72 X 18	3.52	EME520MD	ALL
EL-10	EF-22, EF-23, EF-24	3100	72 X 18	3.52	EME520MD	ALL
EL-11	EF-26	50	12 X 12	0.28	EME520MD	ALL
STORAGE BUILDING						
SUPPLY						
SL-7	NATURAL VENTILATION	-	36 X 18	1.70	EME520MD	ALL
SL-8	NATURAL VENTILATION	-	36 X 18	1.70	EME520MD	ALL

NOTES:

1. PRIOR TO ORDERING, COORDINATE LOUVER FINISH AND EXACT FACE SIZE WITH ARCHITECT.
2. PROVIDE STAINLESS STEEL BIRD SCREEN AND HARDWARE.
3. PROVIDE FACTORY APPLIED KYNAR 500 FINISH.
4. PROVIDE WITH TDI PRODUCT EVALUATION REPORT.

AIR COOLED CHILLER SCHEDULE

MARK	CHILLER OPTIONS	QTY.	NOMINAL (TONS)	CAPACITY (TONS)	AMBIENT TEMP (F)	FLOW (GPM)	MAX PD (FT WG)	EWT (F)	LWT (F)	# OF COMPRESSORS TYPE	MIN % CAPACITY	ELEC. V-PH-HZ	MCA	MOCP	IPLV AT ARI	FULL LOAD EER AT ARI	SOUND POWER OVERALL dBA	DIMENSIONS (LxWxH) IN.	OPERATING WEIGHT (LB)	MANUFACTURER & MODEL NUMBER
CH-1, 2, 3	High Efficiency Scrols	3	230	189.53	105	380.0	10	56	44	6 SCROLLS	17	480-3-60	504.0	600.0	17.661	9.577	99	334 x 88 x 98	17,022	TRANE ACSA 230

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CHANGES TO DESIGN RESULTING FROM SELECTION OF OTHER MANUFACTURERS EQUIPMENT.
2. LISTED CAPACITY BASED ON ACTUAL CONDITIONS LISTED ABOVE. EFFICIENCIES LISTED AT ARI CONDITIONS.
3. PROVIDE CHILLER WITH FACTORY INSTALLED HAIL GUARDS, LOW SOUND ACOUSTICAL PACKAGE, CONDENSER COIL COATING (E-COAT)
4. PROVIDE UNIT WITH LOW AMBIENT CONTROL TO 40°F , ACROSS THE LINE STARTER, AND SUCTION SERVICE VALVES.
5. CONDENSER COILS SHALL HAVE COPPER TUBES AND ALUMINUM FINS WITH FACTORY E-COATING. FIELD APPLIED COATINGS ARE NOT ALLOWED.
6. PROVIDE CHILLER WITH SINGLE POINT POWER CIRCUIT BREAKER CONNECTION, INCLUDING POWER FOR CONTROLS. CHILLER SHALL HAVE A 65,000 AMP SCWR RATING.
7. PROVIDE TERMINAL BLOCK FOR POWER CONNECTION. DIV. 26 WILL PROVIDE EXTERNALLY MOUNTED NON-FUSED DISCONNECT.
8. PROVIDE FACTORY INSTALLED CHECK VALVE, ISOLATION VALVE, AND PUMP VFD FOR BALANCING PURPOSES.
9. PROVIDE DEMAND LIMITING VIA 4-20MA INPUT FEATURE TO LIMIT MACHINE CAPACITY.
10. PROVIDE INTEGRAL PRIMARY DUAL PUMP PACKAGE WITH 40' TDH.
11. PROVIDE FACTORY INSTALLED HOT GAS BYPASS AS NEEDED, TO ALLOW CHILLER TO UNLOAD TO THE SCHEDULED MINIMUM CAPACITY.

DUAL PATH AIR HANDLER UNIT SCHEDULE

MARK	TYPE	TOTAL CFM	OA CFM	SERVES	ESP (INCHES)	MIN. HP	MIN. FAN REDUND. %	ELECTRICAL V/P/H	ELECTRICAL FLA / FAN	ELECTRICAL SGL PT MCA	ELECTRICAL SGL PT MOCP	CHILLED WATER COIL TOTAL MBH	CHILLED WATER COIL SENSIBLE MBH	CHILLED WATER COIL EAT DB/WB	CHILLED WATER COIL LAT	CHILLED WATER COIL EWT/LWT	CHILLED WATER COIL GPM	CHILLED WATER COIL MAX P.D. (FT H2O)	ELECTRIC HEATING COIL	MANUFACTURER & MODEL NUMBER	WEIGHT	NOTES
AHU-1	COMMON FAN	13,500	-		2.50	5 X 4	97%	480/3/60	6.7	35.5	40					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	9,000	-	1ST FLOOR				-				280	218	76.0/64.0	54/53.46	44/56	46.57	2.7		PCC	4054	ALL
	OUTSIDE AIR UNIT	4,500	4,500	CLASSROOMS	-			-				500	177	82.6/79.5	51/50.9	44/56	83.00	9.7				
AHU-2	COMMON FAN	6,000	-		2.50	5 X 2	60%	480/3/60	6.7	18.15	30					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	4,000	-	1ST FLOOR				-				120	97	76.0/64.0	54/53.85	44/56	19.99	1.5		PCC	2126	ALL
	OUTSIDE AIR UNIT	2,000	2,000	SCIENCE LABS				-				200	71	82.6/79.5	51/50.9	44/56	33.29	4.8				
AHU-3	COMMON FAN	2,600	-		1.25	3	-	480/3/62	4.2	6.65	15					-			RE: HEATER SCHEDULE	TRANE		
	RETURN AIR UNIT	1,700	-	1ST FLOOR				-				66	47	76.0/64.0	50.7/50.6	44/56	10.90	1.3		PCC	1627	ALL
	OUTSIDE AIR UNIT	900	900	PRE-ENGINEERING				-				93	33	82.6/79.5	50/49.9	44/56	15.36	2.2				
AHU-4	COMMON FAN	5,250	-		2.50	7.5	-	480/3/62	9.8	14.4	25					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	3,900	-	1ST FLOOR				-				120	94	76.0/64.0	54/53.56	44/56	20.01	1.7		PCC	1895	ALL
	OUTSIDE AIR UNIT	1,350	1,350	INTERMEDIATE				-				135	48	82.6/79.5	1/50.9	44/56	22.40	3.9				
AHU-5	COMMON FAN	6,500	-		2.50	5 X 2	72%	480/3/62	6.7	18.15	30					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	5,500	-	1ST FLOOR				-				168	133	76.0/64.0	54/53.67	44/56	27.94	2.0		PCC	2109	ALL
	OUTSIDE AIR UNIT	1,000	1,000	ADMIN AREA				-				100	35	82.6/79.5	51/50.9	44/56	16.65	3.4				
AHU-6	COMMON FAN	3,250	-		2.50	5	-	480/3/62	6.7	10.9	15					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	2,650	-	1ST FLOOR				-				101	79	76.0/64.0	54/53.48	44/56	16.79	1.3		PCC	1774	ALL
	OUTSIDE AIR UNIT	600	600	LIBRARY				-				60	21	82.6/79.5	51/50.9	44/56	9.96	0.9				
AHU-7	COMMON FAN	4,500	-		1.25	5	-	480/3/62	6.7	10.9	15					-			RE: HEATER SCHEDULE	TRANE		
	RETURN AIR UNIT	2,500	-	1ST FLOOR				-				78	61	76.0/64.0	54/53.45	44/56	12.95	5.8		PCC	1699	ALL
	OUTSIDE AIR UNIT	2,000	2,000	KITCHEN				-				200	71	82.6/79.5	51/50.9	44/56	33.29	4.8				
AHU-8	COMMON FAN	10,250	-		2.50	7.5 X 2	70%	480/3/62	9.8	26.9	45					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	6,750	-	2ND FLOOR	-			-				208	163	76.0/64.0	54/53.59	44/56	34.53	2.3		PCC	2864	ALL
	OUTSIDE AIR UNIT	3,500	3,500	CLASSROOMS				-				350	124	82.6/79.5	51/50.9	44/56	58.08	14.5				
AHU-9	COMMON FAN	4,000	-		2.50	5	-	480/3/62	6.7	10.9	15					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	2,900	-	2ND FLOOR				-				99	74	76.0/64.0	52.8/52.3	44/56	16.44	1.6		PCC	1907	ALL
	OUTSIDE AIR UNIT	1,100	1,100	SCIENCE LABS				-				110	39	82.6/79.5	51/50.9	44/56	18.27	2.3				
AHU-10	COMMON FAN	7,250	-		2.50	5 X 2	68%	480/3/62	6.7	18.15	30					-			AT VAV BOXES	TRANE		
	RETURN AIR UNIT	5,200	-	2ND FLOOR				-				159	126	76.0/64.0	54/53.65	44/56	26.47	1.8		PCC	2378	ALL
	OUTSIDE AIR UNIT	2,050	2,050	INTERMEDIATE				-				205	73	82.6/79.5	51/50.9	44/56	34.18	3.9				
AHU-11	COMMON FAN	5,000	-		1.25	5	-	480/3/62	6.7	10.9	15					-			RE: HEATER SCHEDULE	TRANE		
	RETURN AIR UNIT	3,300	-	2ND FLOOR				-				106	83	76.0/64.0	53/52.9	44/56	17.59	1.3		PCC	2020	ALL
	OUTSIDE AIR UNIT	1,700	1,700	LECTURE CLASSROOM				-				202	71	82.6/79.5	51.5/51.4	44/56	33.55	4.9				
AHU-12	COMMON FAN	13,500	-		1.25	7.5 X 2	92%	480/3/60	9.8	26.9	45					-			RE: HEATER SCHEDULE	TRANE		
	RETURN AIR UNIT	9,500	-	COMMON OPEN				-				285	230	76.0/64.0	54/53.9	44/56	47.28	2.0		PCC	3670	ALL
	OUTSIDE AIR UNIT	4,000	4,000	SPACE				-				400	142	82.6/79.5	51/50.9	44/56	66.40	6.1				

NOTES:

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND SUBSTITUTION PROCEDURES.
2. ESP IS STRICTLY EXTERNAL STATIC PRESSURE AND IS IN ADDITION TO ANY FILTERS, COILS, HEATERS OR OTHER ACCESSORIES INCLUDED WITH THE AIR HANDLING UNIT.
3. MOTOR SHALL BE NON-OVERLOADING, TEFC, PREMIUM EFFICIENCY, INDUCTION TYPE, WITH BLANKOFF PLATES FOR EACH FAN ARRAY SECTION. CUSTOM MOTOR IS NOT ACCEPTABLE. MOTOR SHALL BE AVAILABLE AT REGULAR SUPPLY HOUSES.
4. DUAL PATH UNIT WITH SUPPORT KIT, OUTSIDE AIR COIL ON TOP OF MAIN AIR HANDLING COIL. PROVIDE FAN ARRAY TYPE SUPPLY AIR FAN, WITH MINIMUM REDUNDANCY AS SCHEDULED. REFER TO AHU PLANS AND ELEVATIONS.
5. FILTER SECTION (FOR RA) WITH 2" MERV 8 PRE-FILTER, 4" MERV 13 AFTER FILTER, COIL SECTION, AND FAN SECTION, WITH DOORS ACCESS SIDE FOR EACH. PROVIDE GALVANIZED FILTER PAD FRAMES/RACKS NO LONGER THAN 24" FOR MERV 8 FILTERS ONLY.
   FOR OA SECTION, FILTERS SHALL BE MERV 8, WITH GALVANIZED FILTER FRAMES.
6. STAINLESS STEEL LINER AND CASING THROUGH UNIT. EXTEND STAINLESS STEEL DRAIN PAN THROUGH EXTENDED COIL SECTION.
7. CHW COILS SHALL BE 5/8" DIAMETER, MAXIMUM 8 ROWS WITH 10 FINS PER INCH OR LESS.
8. PROVIDE MINIMUM 18" ACCESS DOORS ON THE MIXING SECTION IMMEDIATELY DOWNSTREAM OF THE COIL SECTION. UNITS UNDER 10,000 CFM MAY UTILIZE 12" DOORS. PROVIDE 24" AIR STRAIGHTENING SECTION
9. WITH 20" DOOR IMMEDIATELY AFTER THE MIXING SECTION TO ALSO BE USED FOR FAN BLANK-OFF ACCESS. PROVIDE DISCHARGE PLENUM WITH TOP DISCHARGE.
10. PROVIDE DIRECT DRIVE SWSI AIRFOIL PLENUM FANS, 2" SPRING ISOLATORS AND SEISMIC SNUBBERS.
11. PROVIDE OUTSIDE AND RETURN AIR DAMPERS. COORDINATE ACTUATORS WITH DDC CONTRACTOR.

PUMP SCHEDULE

MARK	LOCATION	QTY	TYPE	MANUFACTURER & MODEL NUMBER	GPM	HEAD (FT)	MIN. HP	MIN. EFF.	RPM	ELECTRICAL	NOTES
SCHWP-1, 2	PUMP ROOM	2	VERTICAL INLINE SPLIT COUPLED	GRUNDFOS VLS 50126	760	100	30	77.5%	1,780	460V / 3PH / 60HZ	ALL

NOTES:

1. PROVIDE NON-OVERLOADING, PREMIUM EFFICIENCY, TEFC MOTORS, RATED FOR VFD DUTY.
2. PROVIDE COUPLINGS RATED FOR VFD DUTY. FALK T31 SPACER TYPE.
3. FACTORY REPRESENTATIVE SHALL FIELD-VERIFY PUMP ALIGNMENT WITH LASER ALIGNMENT TOOLS.
4. PROVIDE SUCTION DIFFUSERS AND SHAFT GROUNDING ON MOTORS.
5. PROVIDE ONE SET OF SPARE SEALS FOR EACH PUMP. COORDINATE DELIVERY WITH OWNER.

EXPANSION TANK SCHEDULE

Project: UTRGV-ECISD ECHS

MARK	SERVICE	TYPE	ACCEPTANCE VOLUME GALLONS	(DIAMETER) X (HEIGHT)	LOCATION	MANUFACTURER & MODEL NUMBER OR EQUAL	NOTES
EXP-1	CHILLED WATER	VERTICAL FLOOR MOUNT BLADDER	53	24"x37"	PUMP ROOM	BELL AND GOSSETT B-200	ALL

NOTES:

1. PROVIDE LINE SIZE AIR SEPARATOR, BELL AND GOSSETT ROLAIRTROL RL-8F FOR 8" CONNECTION.

ELECTRIC DUCT HEATER SCHEDULE

MARK	UNIT TYPE	DUCT SIZE (INCHES)	(HALF) TOTAL CFM	SERVES	KW	STG.	ELECTRICAL V/PH/HZ	NOTES	MANUFACTURER MODEL NUMBER
EDH-3	DUCT MOUNTED	REFER TO MECHANICAL PLANS	2,600	AHU-3	25	SCR	480/3/60	1-3	WARREN CBK
EDH-7	DUCT MOUNTED	REFER TO MECHANICAL PLANS	4,500	AHU-7	45	SCR	480/3/60	1-3	WARREN CBK
EDH-11	DUCT MOUNTED	REFER TO MECHANICAL PLANS	5,000	AHU-11	45	SCR	480/3/60	1-3	WARREN CBK
EDH-12	DUCT MOUNTED	REFER TO MECHANICAL PLANS	6,750	AHU-12	80	SCR	480/3/60	1-4	WARREN CBK

NOTES:

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL".
2. PROVIDE AIR PRESSURE SWITCH, MAGNETIC CONTACTORS, HI LIMIT CONTROL, PRIMARY AND SECONDARY OVER CURRENT PROTECTION (FUSES), DOOR INTERLOCKED DISCONNECT SWITCH.
3. DIV. 26 TO PROVIDE SAFETY DISCONNECT (SEPARATED FROM AHU FAN).
4. HEATER SIZED FOR ONLY HALF OF THE TOTAL AIRFLOW. REFER TO SEQUENCES OF OPERATIONS.

VFD SCHEDULE

MARK	EQUIPMENT SERVED	VFD QTY	MOTOR HP	FL AMPS	ELECTRICAL V/P/Hz	MANUFACTURER & MODEL NUMBER	NOTES
AIR HANDLER UNITS							
VFD-1	AHU-1	4	5	7.6	480/3/60	YASKAWA Z1000	1-2
VFD-2	AHU-2	2	5	7.6	480/3/60	YASKAWA Z1000	1-2
VFD-3	AHU-3	1	3	4.8	480/3/60	YASKAWA Z1000	1-3
VFD-4	AHU-4	1	7.5	11	480/3/60	YASKAWA Z1000	1-3
VFD-5	AHU-5	2	5	7.6	480/3/60	YASKAWA Z1000	1-2
VFD-6	AHU-6	1	5	7.6	480/3/60	YASKAWA Z1000	1-3
VFD-7	AHU-7	1	5	7.6	480/3/60	YASKAWA Z1000	1-3
VFD-8	AHU-8	2	7.5	11	480/3/60	YASKAWA Z1000	1-2
VFD-9	AHU-9	1	5	7.6	480/3/60	YASKAWA Z1000	1-3
VFD-10	AHU-10	2	5	7.6	480/3/60	YASKAWA Z1000	1-2
VFD-11	AHU-11	1	5	7.6	480/3/60	YASKAWA Z1000	1-3
VFD-12	AHU-12	2	7.5	11	480/3/60	YASKAWA Z1000	1-2
CHILLED WATER PUMPS							
VFD-SCHWP1	SCHWP-1	1	30	40	480/3/60	YASKAWA Z1000	1-3
VFD-SCHWP2	SCHWP-2	1	30	40	480/3/60	YASKAWA Z1000	1-3

NOTES:

1. PROVIDE NEMA 1 ENCLOSURE FOR VFD LOCATED INDOORS.
2. PROVIDE INTEGRAL DISCONNECT.
3. PROVIDE BYPASS WITH VFDS.

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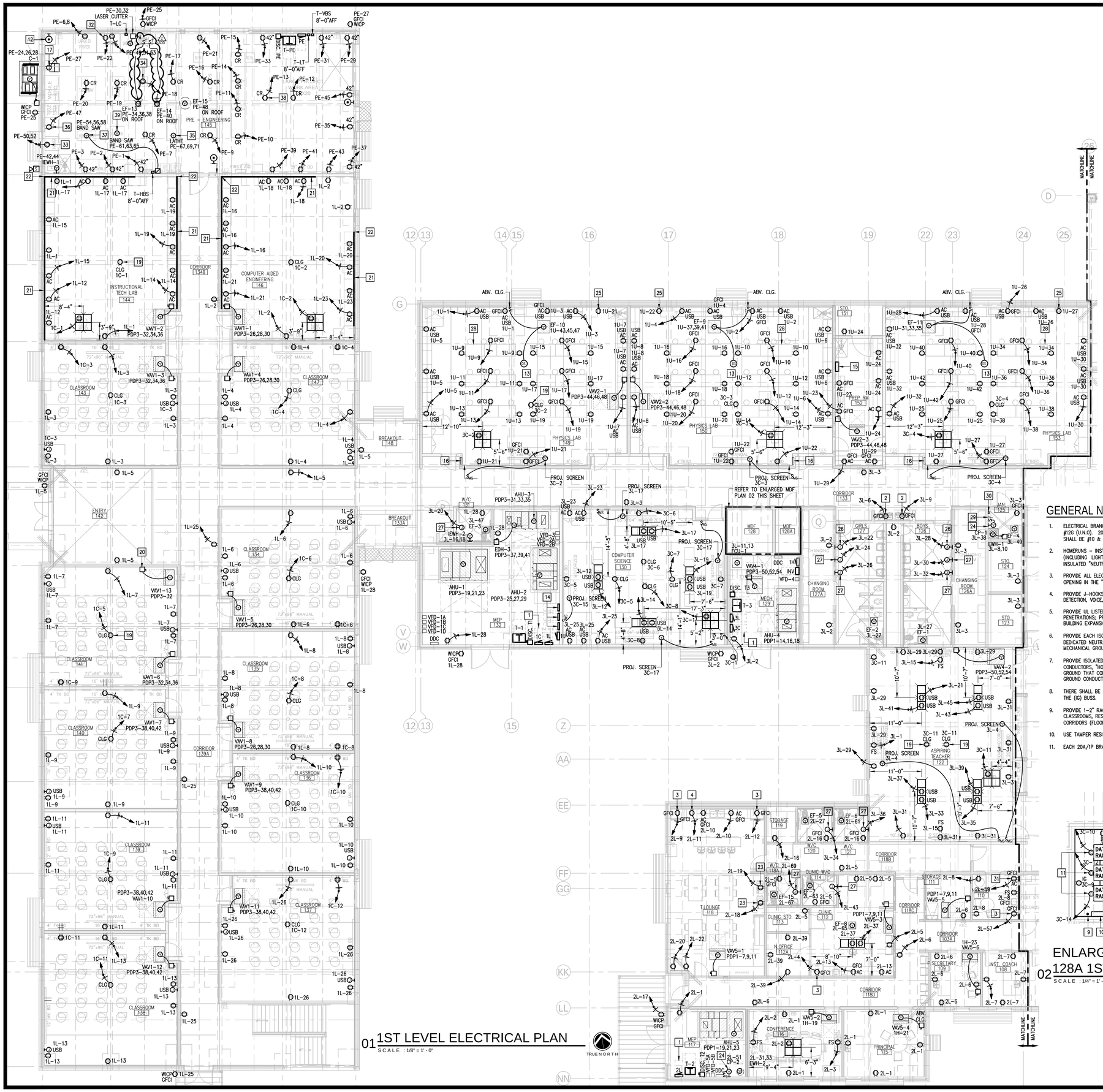
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COLLEGIATE HIGH SCHOOL



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KEYED NOTES:

1. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
2. CONNECT ELECTRIC DRINKING FOUNTAIN. ROUGH-IN AT 17-7/16" TO CENTER OF J-BOX. COORDINATE WITH PLUMBING CONTRACTOR. PROVIDE A REMOTE TEST SWITCH ADJACENT/ACCESSIBLE TO DRINKING FOUNTAIN AT 18" AFF.
3. CONNECT REFRIGERATOR.
4. CONNECT DISHWASHER.
5. PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A-D INT-APA). MOUNT AT 24" AFF.
6. CONNECT INTERCOM SYSTEM RACK.
7. CONNECT INTRUSION DETECTION SYSTEM CONTROL PANEL; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, 3C-13.
8. PROVIDE DATA RACK – PROVIDED BY OWNER.
9. PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.
10. PROVIDE SPECIAL SYSTEMS RACEWAYS TO THIS LOCATION. SEE SITE PLAN AND DETAIL.
11. PROVIDE SPECIAL RECEPTACLE FOR IDF-UPS (NEMA L5-30R) PENDANT MOUNTED SEE DETAIL; BRANCH CIRCUIT: 3/4" – 2#10 & #10G. FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.
12. PROVIDE EMERGENCY PUSH BUTTON. SEE DETAIL 07/E9.02.
13. CONNECT ALL RECEPTACLE CIRCUITS (EXCLUDING THE COMPUTER RECEPS) IN THIS ROOM THROUGH THE CORRESPONDING CONTACTOR ENCLOSURES FOR EMERGENCY SHUTOFF PURPOSED THEN THROUGH THE CORRESPONDING PANEL.
14. PROVIDE (SURFACE MOUNTED) CONTACTOR ENCLOSURE. ENCLOSURE SHALL BE E & I COMPANY ECP-24-FC. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
15. PROVIDE (SURFACE MOUNTED),LOW VOLTAGE RELAYS FOR SOLENOID ENCLOSURE. ENCLOSURE SHALL BE E & I COMPANY VP-2-2-CW-1-1-T-5-XL SOLENOID ENCLOSURE TO BE RATED FOR USE WITH DE-IONIZATION SYSTEM. PROVIDE SOLENOID ENCLOSURE WITH ASCO VALVES MODEL "8212A556L0100F1" AND PVC SCHED. 80 PIPING. COORDINATE THE EXACT LOCATION W/ THE ARCHITECT. COORDINATE THE INSTALLATION W/ THE PLUMBING CONTRACTOR. MOUNT AT 48" A.F.F. TO CENTER OF THE BOX. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
16. PROVIDE (SEMI-RECESSED)EMERGENCY UTILITY CONTROLLER W/ PURGE FAN CIRCUIT SWITCH FACING PREP ROOM. CONTROLLER SHALL BE E & I COMPANY MODEL NO. LCP-3-W-E-F-RT. BRANCH CIRCUIT: 1/2" RACEWAY – 2#12 & #12G. MOUNT AT 48" A.F.F. TO CENTER OF HIGHEST SWITCH. FAN NORMAL OPERATION TO BE SWITCHED VIA OCCUPANCY SENSOR. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
17. CONNECT AIR COMPRESSOR AIR DRYER.
18. CONNECT FIRE ALARM POWER SUPPLY; 3C-15.
19. PROVIDE PROJECTOR MOUNTING PLATE AND ELECTRICAL OUTLET. PROVIDE FLEXIBLE RACEWAY WITH 6'-0" OF SLACK. SEE DETAILS 08,09/E9.02 – TYPICAL.
20. PROVIDE VAV DISCONNECT ABOVE ACCESIBLE CEILING – TYPICAL.
21. PROVIDE TWO CHANNEL SURFACE ALUMINUM RACEWAY – SEE DETAIL.
22. RISE UP CONCEALED IN WALL RACEWAY AT THIS CORNER TO A JUCTION BOX ABOVE THE CEILING – SEE DETAIL.
23. CONNECT COPY MACHINE.
24. CONNECT CIRCULATING PUMP.
25. CONNECT SAFETY GOGGLE CABINET.
26. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER; BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +44" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
27. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER; BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
28. PROVIDE GFCI PROTECTION UPSTREAM FROM THE INITIAL RECEPTACLE. LAB TABLE PROVIDED WITH CUT OUTS FOR WIRING DEVICES. CONTRACTOR TO PROVIDE WIRING DEVICES, BACK BOXES, RACEWAYS AND WIRING – TYPICAL.
29. CONNECT INTERCEPTOR SERVICE ALERT PANEL PROVIDED BY PLUMBING CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR, 3L-5. PROVIDE A 1/2" RACEWAY FROM SERVICE ALERT PANEL TO SOLID INTERCEPTOR FOR WIRING. COORDINATE EXACT LOCATIONS WITH PLUMBER.
30. CONNECT ELEVATOR SERVICE ALERT PANEL PROVIDED BY PLUMBING CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR, 3L-7. SIGNAL WIRING TERMINATIONS AND INSTALLATIONS SHALL BE BY ELECTRICAL CONTRACTOR. PROVIDE A 6"X6"X6" NEMA 6XP SUBMERSIBLE J-BOX FOR WIRING IN ELEVATOR PIT. COORDINATE EXACT LOCATION OF ALL COMPONENTS WITH PLUMBER & ELEVATOR EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH-IN.
31. CONNECT MICROWAVE.
32. CONNECT OVEN 1,500W, 120V. COORDINATE WITH OWNER WHETHER A RECEPTACLE OR HARDWIRE CONNECTION IS REQUIRED.
33. CONNECT 3D PRINTER, 15A, 208V, 1ø; BRANCH CIRCUIT: 3/4" – 3#12 & #12G. COORDINATE WITH OWNER WHETHER A SPECIAL RECEPTACLE OR HARDWIRE CONNECTION IS REQUIRED.
34. CONNECT DRILL PRESS 3/4HP, 120V; BRANCH CIRCUIT: 3/4" – 2#10 & #10G. COORDINATE WITH OWNER WHETHER A SPECIAL RECEPTACLE OR HARDWIRE CONNECTION IS REQUIRED. PROVIDE HUBBELL CORD REEL MODEL NO. HBL12503Y/HBLI340PB/HBLIMB/HBLI148S.
35. CONNECT LATHE, 6.2A, 230V, 3ø, VIA BOOST XFMR T-LT; BRANCH CIRCUIT: 3/4" – 4#12 & #12G. PROVIDE A 30A, 3P3F, 20AF, 240V, S/N, NEMA 1 DISCONNECT.
36. CONNECT MILL 1.2A, 120V.
37. CONNECT HORIZONTAL BAND SAW 2HP, 230V, 3ø, VIA BOOST XFMR T-HBS; BRANCH CIRCUIT: 3/4" – 4#12 & #12G. PROVIDE UNISTRUT SUPPORT FROM STRUCTURE STEEL. PROVIDE SO CORD BRANCH CONNECTION. PROVIDE A 30A, 3P3F, 20AF, 240V, S/N, NEMA 1 DISCONNECT.
38. PROVIDE 3 OUTLET CORD REEL NORTHERN TOOL + EQUIPMENT MODEL NO. 45583. PROVIDE UNISTRUT SUPPORT FROM STRUCTURE STEEL AND DUPLEX RECEPTACLE SECURED TO UNISTRUCT FOR CONNECTING CORD REEL – TYPICAL FOR ALL PRE-ENGINEERING CORD REELS.
39. CONNECT VERTICAL BAND, 1HP, 220V, 3ø, SAW VIA BOOST XFMR T-VBS; BRANCH CIRCUIT: 3/4" – 4#12 & #12G. PROVIDE UNISTRUT SUPPORT FROM STRUCTURE STEEL. PROVIDE SO CORD BRANCH CONNECTION.
40. PROVIDE 4" RACEWAYS WITH PULLWIRE FOR DATA, FIRE ALARM WIRING, ETC.

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUITS & HOMERUNS SHALL BE 3/4" – 2#12 & #12G (U.N.O). 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM AND DATA CABLING.
5. PROVIDE UL LISTED FIRE STOPPING MATERIAL AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1–2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

01 1ST LEVEL ELECTRICAL PLAN

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

TRUE NORTH

02 ENLARGED AREA "A" MDF 128 AND 128A 1ST LEVEL ELECTRICAL PLAN

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

TRUE NORTH

KEYPLAN

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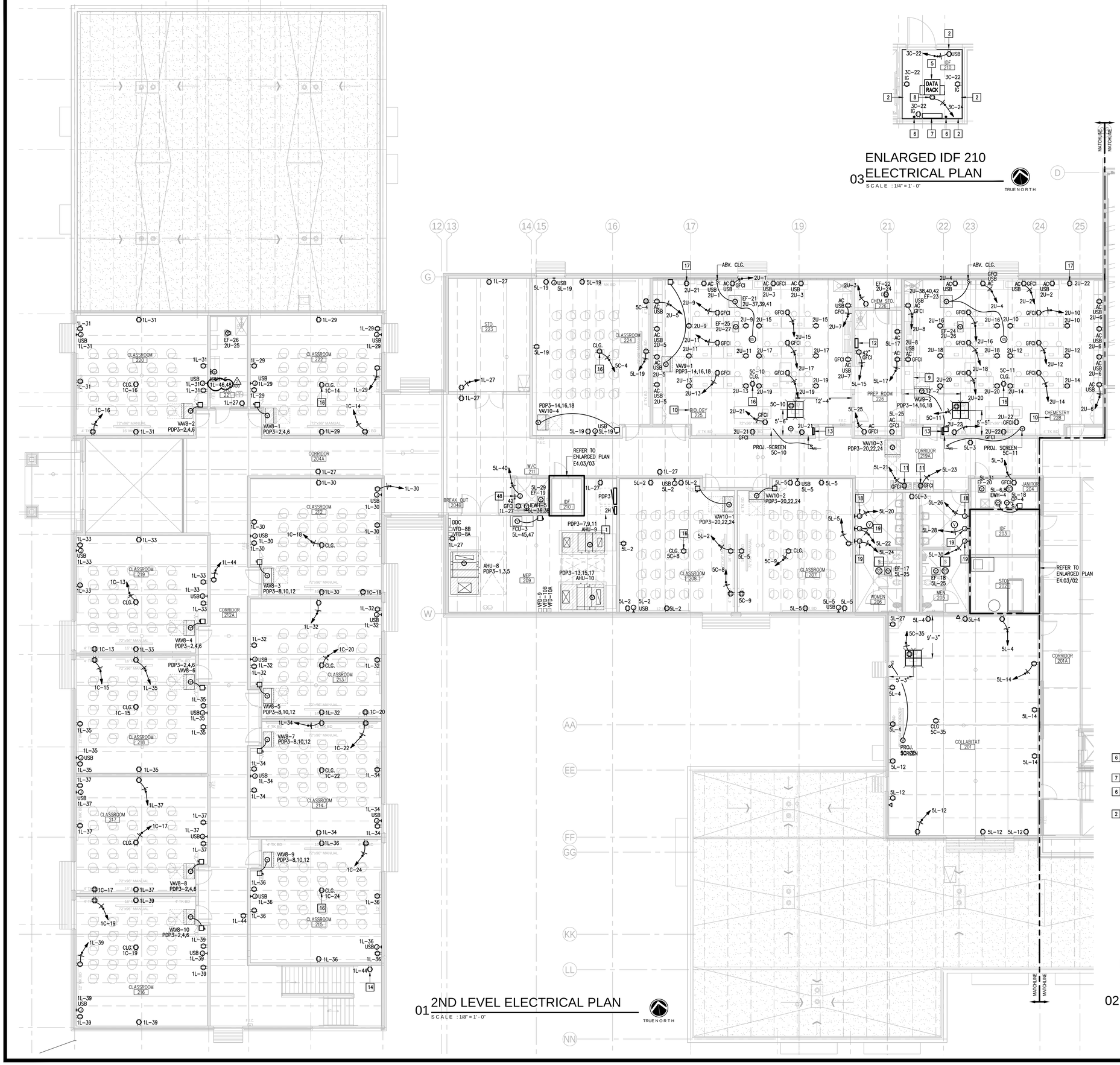
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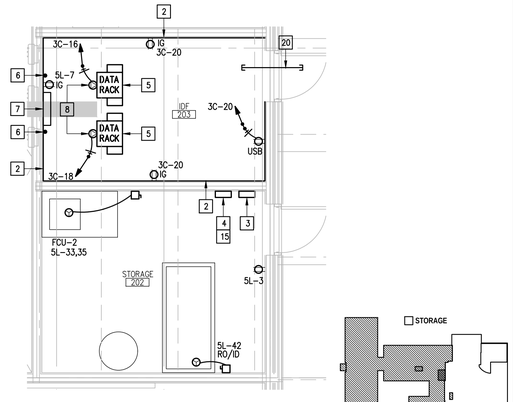


03 ENLARGED IDF 210 ELECTRICAL PLAN

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

01 2ND LEVEL ELECTRICAL PLAN

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



02 ENLARGED IDF 203 AND AND STORAGE 202 ELECTRICAL PLAN

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

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUITS & HOMERUNS SHALL BE 3/4" – #12 & #12G (U.N.O). 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM AND DATA CABLING.
5. PROVIDE UL LISTED FIRE STOPPING MATERIAL AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1-2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
2. PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A-D INT-APA). MOUNT AT 24" AFF.
3. PROVIDE INTERCOM SYSTEM SWITCHING MODULES WALL MOUNTED.
4. CONNECT INTRUSION DETECTION SYSTEM POWER SUPPLY; 5C-35.
5. PROVIDE DATA RACK – PROVIDED BY OWNER.
6. PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.
7. PROVIDE SPECIAL SYSTEMS RACEWAYS TO THIS LOCATION. SEE SITE PLAN AND DETAIL.
8. PROVIDE SPECIAL RECEPTACLE FOR IDF-UPS (NEMA L5-30R) PENDANT MOUNTED SEE DETAIL; BRANCH CIRCUIT: 3/4" – 2#10 & #10G. FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.
9. CONNECT FUMEHOOD. CONNECT BRANCH CIRCUIT TO THE MOTOR, LIGHT, & SWITCH, LD1-54. MOUNT THE THERMAL SWITCH ABOVE THE FUMEHOOD IN THE ACCESSIBLE CEILING SPACE.
10. CONNECT ALL RECEPTACLE CIRCUITS (EXCLUDING THE COMPUTER RECEPS) IN THIS ROOM THROUGH THE CORRESPONDING CONTACTOR ENCLOSURES FOR EMERGENCY SHUTOFF PURPOSED THEN THROUGH THE CORRESPONDING PANEL.
11. CONNECT ELECTRIC DRINKING FOUNTAIN. ROUGH-IN AT 17-7/16" TO CENTER OF J-BOX. COORDINATE WITH PLUMBING CONTRACTOR. PROVIDE A REMOTE TEST SWITCH ADJACENT/ACCESSIBLE TO DRINKING FOUNTAIN AT 18" AFF.
12. PROVIDE (SURFACE MOUNTED)LOW VOLTAGE RELAYS FOR SOLENOID ENCLOSURE. ENCLOSURE SHALL BE E & I COMPANY VP-2-2-CW-I-I-T-S-KL. SOLENOID ENCLOSURE TO BE RATED FOR USE WITH DE-IONIZATION SYSTEM. PROVIDE SOLENOID ENCLOSURE WITH ASCO VALVES MODEL "8212A556L0100F1" AND PVC SCHED. 80 PIPING. COORDINATE THE EXACT LOCATION W/ THE ARCHITECT. COORDINATE THE INSTALLATION W/ THE PLUMBING CONTRACTOR. MOUNT AT 48" A.F.F. TO CENTER OF THE BOX. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
13. PROVIDE (SEMI-RECESSED)EMERGENCY UTILITY CONTROLLER W/ PURGE FAN CIRCUIT SWITCH FACING PREP ROOM. CONTROLLER SHALL BE E & I COMPANY MODEL NO. LCP-3-W-E-F-RT. BRANCH CIRCUIT: 1/2" RACEWAY – 2#12 & #12G. MOUNT AT 48" A.F.F. TO CENTER OF HIGHEST SWITCH. FAN NORMAL OPERATION TO BE SWITCHED VIA OCCUPANCY SENSOR. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
14. MOUNTING HEIGHT TO BE FROM TOP OF LANDING.
15. PROVIDE FIRE ALARM POWER SUPPLY; 5C-33.
16. PROVIDE PROJECTOR MOUNTING PLATE AND ELECTRICAL OUTLET. PROVIDE FLEXIBLE RACEWAY WITH 6'-0" OF SLACK. SEE DETAILS 08,09/E9.2 – TYPICAL.
17. CONNECT SAFETY GOGGLE CABINET.
18. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER – SEE DETAIL. BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +44" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
19. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER – SEE DETAIL. BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
20. PROVIDE 3-4" RACEWAYS WITH PULLWIRE FOR SPECIAL SYSTEMS CABLING.

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Drawn By:	J.P.
Job No.	22V73
Sheet:	E4.03

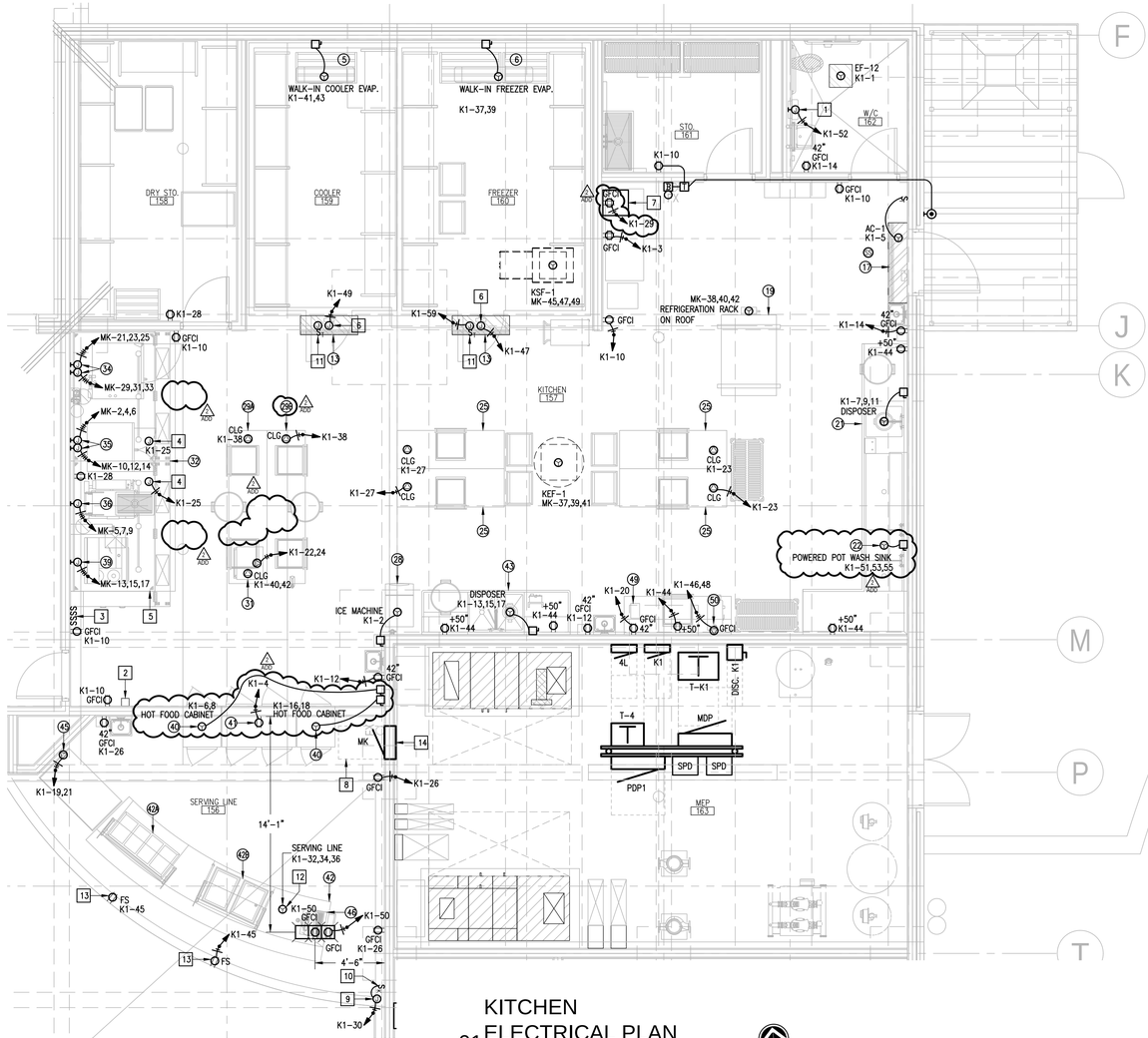
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FOOD SERVICE EQUIPMENT CONNECTION SCHEDULE:

ITEM #	ITEM DESCRIPTION	LOAD	VOLTAGE	CONNECTION REQUIRED	BRANCH CIRCUIT
(5)	WALK-IN REFRIGERATOR EVAPORATOR (1)	12A	120V/1PH/60HZ	PROVIDE A 30A, 2PNF, 240V, NEMA 4X SS DISCONNECT. COORDINATE LOCATION WITH SUPPLIER. POWER AND CONTROL CIRCUIT OBTAINED FROM CONDENSER.	3/4" – 2#12 & #12G
(6)	WALK-IN FREEZER EVAPORATOR (1)	17A	120V/1PH/60HZ	PROVIDE A 30A, 2PNF, 240V, NEMA 4X SS DISCONNECT. COORDINATE LOCATION WITH SUPPLIER. POWER AND CONTROL CIRCUIT OBTAINED FROM CONDENSER.	3/4" – 2#12 & #12G
(13)	AIR CURTAIN (2) ADD	6.5A	120V/1PH/60HZ	PROVIDE THERMAL SWITCH AT 8'–0"AFF.	3/4" – 2#12 & #12G
(17)	AIR CURTAIN (1)	13A	120V/1PH/60HZ	PROVIDE THERMAL SWITCH AT 8'–0"AFF.	3/4" – 2#12 & #12G
(19)	REFRIGERATION RACK (1) ADD	13.3A	480V/3PH/60HZ	ELECTRICAL CONTRACTOR TO PROVIDE FINAL CONNECTIONS TO REFRIGERATION RACK DISCONNECT SWITCH AND CONTROL PANEL.	3/4" – 4#12 & #12G ADD
(2)	2–COMPARTMENT SINK W/DISPOSAL (1) ADD	3HP	208V/3PH/60HZ	PROVIDE A 30A, 3PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL AT 18"AFF. CONNECT SOLENOID VALVE AND CONTROL SWITCH.	3/4" – 3#10 & #10G ADD
(22)	POWERED POT WASH SINK (1) ADD	17A	208V/3PH/60HZ	PROVIDE A 30A, 3PNF, 240V, NEMA 4X SS DISCONNECT. PROVIDE A HARDWIRE CONNECTION. INSTALL AT +18" AFF. ADD	3/4" – 3#10 & #10G ADD
(25)	WORK TABLE (4) ADD	20A	120V/1PH/60HZ	PROVIDE 20A LOCKING RECEPTACLE NEMA L5–20R. INSTALL CEILING MOUNTED. REFER TO DETAIL KITCHEN CONSULTANT DRAWINGS.	3/4" – 2#12 & #12G ADD
(28)	ICE MACHINE (1)	11.3 A ADD	120V/1PH/60HZ	PROVIDE A 30A, 2PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL WALL MOUNTED AT +72" A.F.F. ADD	3/4" – 2#12 & #12G
(29)	WORK TABLE (1) ADD	20A	120V/1PH/60HZ	PROVIDE 20A LOCKING RECEPTACLE NEMA L5–20R. INSTALL CEILING MOUNTED. REFER TO DETAIL IN KITCHEN CONSULTANT DRAWINGS. ADD	3/4" – 2#12 & #12G
(29)	WORK TABLE (1) ADD	20A	120V/1PH/60HZ	PROVIDE 20A LOCKING RECEPTACLE NEMA L5–20R. INSTALL CEILING MOUNTED. REFER TO DETAIL IN KITCHEN CONSULTANT DRAWINGS. ADD	3/4" – 2#12 & #12G ADD
(31)	MICROWAVE SONIC STEAMER (1)	20A	208V/1PH/60HZ	PROVIDE A NEMA 6–30R RECEPTACLE. INSTALL CEILING MOUNTED. REFER TO DETAIL IN KITCHEN CONSULTANT DRAWINGS. ADD	3/4" – 2#10 & #10G
(32) ADD	KITCHEN EXHAUST HOOD (1) ADD	5HP KEF–1 2HP KSF–1	480V/3PH/60HZ 480V/3PH/60HZ	KEF–1 CONNECT TO INTEGRAL DISCONNECT KSF–1 CONNECT TO INTEGRAL DISCONNECT PROVIDE INTERLOCK WIRING BETWEEN FANS AND SUPPLY FAN AND CONTROLS PANELS. MAGNETIC STARTERS FURNISHED BY DIV. 23.	3/4" – 3#12 & #12G 3/4" – 3#12 & #12G
(34)	DOUBLE STACKED COMBI OVEN (1) ADD	28.8 KW	480V/3PH/60HZ	PROVIDE (2) J–BOXES IN WALL AT (1)– 18"AFF & (1)– 36"AFF BRANCH TO CONNECTION ON EQUIPMENT. FIELD COORDINATE MOUNTING HEIGHT.	3/4" – 3#8 & #10G EACH
(35)	DOUBLE STACKED CONVECTION OVEN (1)	14A EA.	480V/3PH/60HZ TWO CONNECTIONS	PROVIDE (2) J–BOXES IN WALL AT (1)– 18"AFF & (1)– 36"AFF BRANCH TO CONNECTION ON EQUIPMENT. FIELD COORDINATE MOUNTING HEIGHT.	3/4" – 4#12 & #12G EACH
(36)	15 GAL. BRAISER (1)	7.6 KW	480V/3PH/60HZ	PROVIDE A HARDWIRE CONNECTION. INSTALL WALL MOUNTED AT 18"AFF.	3/4" – 4#12 & #12G
(39)	TWO BURNER RANGE GRIDDLE W/OVEN (1)	15.8 KW	480V/3PH/60HZ	PROVIDE J–BOX IN WALL AT 18"AFF BRANCH TO CONNECTION ON EQUIPMENT. FIELD COORDINATE MOUNTING HEIGHT.	3/4" – 4#10 & #10G
(40)	PASS THRU HEATED CABINET (2)	7.8A	208V/1PH/60HZ	PROVIDE 30A, 2PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL WALL MOUNTED AT +72" A.F.F.	3/4" – 3#12 & #12G
(41)	PASS THRU REFRIGERATOR (1) ADD	8.6 A	120V/1PH/60HZ	PROVIDE A 20A DUPLEX RECEPTACLE. INSTALL 90" AFF WALL MOUNTED. ADD	3/4" – 2#12 & #12G
(42)	SERVING COUNTER (1) ADD ADD	32A	120/208V/3PH /60HZ	LOAD CENTER TO POWER SERVING COUNTER. INSTALL AT +4" AFF.	1.25" – 4#3 & #8G ADD
(42)	HOT/COLD FOOD COUNTER (1)	15A	208V/1PH/60HZ	RECEPTACLE PROVIDED INTEGRAL TO SERVING COUNTER.	INTEGRAL TO SERVING COUNTER
(42)	HOT/FROST FOOD COUNTER (1)	10.8A	120V/1PH/60HZ	RECEPTACLE PROVIDED INTEGRAL TO SERVING COUNTER.	INTEGRAL TO SERVING COUNTER
(43)	DISPOSER (1) ADD	2HP ADD	208V/3PH/60HZ	PROVIDE A 30A, 3PNF, 240V, NEMA 4X SS DISCONNECT. PROVIDE A HARDWIRE CONNECTION. INSTALL AT +18" AFF.	3/4" – 3#12 & #12G ADD
(45)	REFRIGERATED MERCHANDISER (1)	13.5A	208V/1PH/60HZ	RECEPTACLE PROVIDED INTEGRAL TO SERVING COUNTER. ADD	INTEGRAL TO SERVING COUNTER ADD
(46)	POINT OF SALE (1) ADD	7.3A	120V/1PH/60HZ	PROVIDE 20A DUPLEX RECEPTACLES, DATA & FLOOR BOX. ADD	3/4" – 2#12 & #12G
(49)	ELECTRIC CAN OPENER (1)	15A	120V/1PH/60HZ	PROVIDE 20A DUPLEX RECEPTACLE. INSTALL WALL MOUNTED. INSTALL AT +48" AFF.	3/4" – 2#12 & #12G
(50)	HOT WATER DISPENSER (1)	5KW	208V/1PH/60HZ	PROVIDE A L6–30R RECEPTACLE. INSTALL WALL MOUNTED AT 18"AFF.	3/4" – 2#10 & #10G

NOTES:

1.) 48" AFF INDICATES TO TOP OF DEVICE;
18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
NOTE: VERIFY ELECTRICAL REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.



01 KITCHEN ELECTRICAL PLAN
SCALE : 1/4" = 1'-0"

TRUE NORTH

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUITS & HOMERUNS SHALL BE 3/4" – 2#12 & #12G (U.N.O). 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J–HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM AND DATA CABLING.
5. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1–2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER – SEE SPECIFICATIONS; BRANCH CIRCUIT: 3/4" RACEWAY – 2#10 & #10G. MOUNT AT +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
2. PROVIDE JUNCTION BOX FOR FIRE SUPPRESSION SYSTEM 120/16/10A ABOVE CEILING; BRANCH CIRCUIT: 3/4" – 2#12 & #12G. COORDINATE WITH FIRE SUPPRESSION SYSTEM CONTRACTOR FOR ALL REQUIREMENTS AND FINAL LOCATIONS. PROVIDE RECESSED MOUNTED OCTAGON J–BOX AND 3/4" RACEWAY FOR PULL STATION AT 48"AFF. FIRE SUPPRESSION SYSTEM IS TO BE INTERCONNECTED TO BUILDING FIRE ALARM SYSTEM.
3. TO CONTROL KITCHEN HOODS FANS AND LIGHTS.
4. CONNECT KITCHEN HOOD LIGHTS.
5. CONNECT KITCHEN HOOD CONTROL PANEL.
6. CONNECT COOLER/FREEZER LIGHTS, DOOR HEATER AND PRESSURE RELIEF PORT.
7. PROVIDE RACK WALL MOUNTED.
8. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE ELECTRICAL GEAR. COORDINATE WITH OTHER TRADES – TYPICAL.
9. CONNECT MOTORIZED ROLL–UP DOOR(SUPPLIED BY OTHERS); BRANCH CIRCUIT: 3/4" – 2#10 & #10G.
10. CONNECT MOTORIZED GATE KEYED SWITCH (PROVIDED BY OTHERS).
11. CONNECT AIR CURTAIN TO 20A/1P SPARE BREAKER. COORDINATE CONNECTION WITH EQUIPMENT SUPPLIER. PROVIDE A THERMAL SWITCH.
12. CONNECT SERVING COUNTER INTEGRAL LOAD CENTER. COORDINATE POINT OF CONNECTION WITH KITCHEN EQUIPMENT SHOP DRAWINGS PRIOR TO ANY ROUGH–IN. ADD
13. COORDINATE EXACT LOCATION WITH MENU BOARD SUPPLIER PRIOR TO ANY ROUGH–IN.
14. PANELBOARD IS LOCATED ABOVE STRUCTURAL GRADE BEAM. STUB–UP UNDERGROUND FEEDERS AND ANY OTHER BRANCH CIRCUITS ON MECHANICAL ROOM SIDE OUTSIDE GRADE BEAM. PROVIDE A WIREWAY TO CONNECT WIRING ON BACKSIDE OF PANELBOARD.

No.	REVISIONS	BY
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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	September 08, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J.P.
Job No.	22V73
Sheet:	E4.09

LTG. CONTACTOR SCHEDULE "LC1":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1,2	PARKING LOT LIGHTING	480	20	2	1H-35,37
3,4	PARKING LOT LIGHTING	480	20	2	1H-12,14
5,6	PARKING LOT LIGHTING	480	20	2	1H-39,41
7	SPARE	277	20	1	–
8	SPARE	277	20	1	–

NOTES:
1. CONTACTOR TO BE CONTROLLED BY LUTRON RELAY POWER PAK. INTERLOCK ACCORDINGLY.
2. PROVIDE 20A, 277V, 8-POLE, NEMA 1, SURFACE MOUNT, ELECTRICALLY HELD LIGHTING CONTACTOR.

LTG. CONTACTOR SCHEDULE "LC2":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1	EXTERIOR LIGHTING	277	20	1	1H-7
2	BOLLARD LIGHTING	277	20	1	1H-18
3	FLAG LIGHTING	277	20	1	1H-20
4	EXTERIOR LIGHTING	277	20	1	1H-22
5	EXTERIOR LIGHTING	277	20	1	1H-24
6	BOLLARD LIGHTING	277	20	1	1H-27
7	FACADE LIGHTING	277	20	1	1H-29
8	SPARE	277	20	1	–

NOTES:
1. CONTACTOR TO BE CONTROLLED BY LUTRON RELAY POWER PAK. INTERLOCK ACCORDINGLY.
2. PROVIDE 20A, 277V, 8-POLE, NEMA 1, SURFACE MOUNT, ELECTRICALLY HELD LIGHTING CONTACTOR.

LTG. CONTACTOR SCHEDULE "LC3":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1,2,3	EWH-3	480	70	3	MK-26,28,30

NOTES:
1. CONTACTOR TO BE CONTROLLED BY LUTRON RELAY POWER PAK. INTERLOCK ACCORDINGLY.
2. PROVIDE 100A, 277V, 3-POLE, NEMA 1, SURFACE MOUNT, ELECTRICALLY HELD LIGHTING CONTACTOR.

LTG. CONTACTOR SCHEDULE "LC4":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1,2	EWH-4	208	30	2	5L-6,8

NOTES:
1. CONTACTOR TO BE CONTROLLED BY LUTRON RELAY POWER PAK. INTERLOCK ACCORDINGLY.
2. PROVIDE 30A, 120V, 2-POLE, NEMA 1, SURFACE MOUNT, ELECTRICALLY HELD LIGHTING CONTACTOR.

LTG. CONTACTOR SCHEDULE "LC5":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1,2	EWH-1	208	30	2	3L-8,10

NOTES:
1. CONTACTOR TO BE CONTROLLED BY LUTRON RELAY POWER PAK. INTERLOCK ACCORDINGLY.
2. PROVIDE 30A, 120V, 2-POLE, NEMA 1, SURFACE MOUNT, ELECTRICALLY HELD LIGHTING CONTACTOR.

LTG. CONTACTOR SCHEDULE "LC6":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1,2	EWH-2	208	30	2	2L-31,33

NOTES:
1. CONTACTOR TO BE CONTROLLED BY LUTRON RELAY POWER PAK. INTERLOCK ACCORDINGLY.
2. PROVIDE 30A, 120V, 2-POLE, NEMA 1, SURFACE MOUNT, ELECTRICALLY HELD LIGHTING CONTACTOR.

BOOST TRANSFORMER SCHEDULE:

DESIGN	KVA	PV	SV	DEGREE RISE	CONNECTION	FREQ HZ	SERVES PANELS	CAT. NO.	PRIMARY FEEDER (75'C COPPER)
T-LC	.5	208	120/240	115	1ø	60	LASER CUTTER	SQUARE "D": 500SV43B	1" – 2#12 & #12
T-LT	3.30	208	120/240	115	3ø	60	LATHE	SQUARE "D": 100SV43A – 3 QTY.	3/4" – 4#12 & #12G
T-HBS	3.30	208	120/240	115	3ø	60	BAND SAW	SQUARE "D": 100SV43A – 3 QTY.	3/4" – 4#12 & #12G
T-VBS	3.30	208	120/240	115	3ø	60	BAND SAW	SQUARE "D": 100SV43A – 3 QTY.	3/4" – 4#12 & #12G

GENERAL NOTE: PROVIDE VERTICALLY WALL MOUNTED BEGINNING AT 8'-0"AFF.

TRANSFORMER SCHEDULE:

DESIGN	KVA	PV	SV	DEGREE RISE	CONNECTION	FREQ HZ	SERVES PANELS	CAT. NO.	PRIMARY FEEDER (75'C COPPER)
T-1	63	480	120/208	115	DELTA Y	60	1L, 1C	POWER SMITHS: Esaver20M-63-480-208-HD-T115-F60	1.5" – 3#2 & #6G
T-2	45	480	120/208	115	DELTA Y	60	2L	POWER SMITHS: Esaver20M-45-480-208-HD-T115-F60	1.25" – 3#3 & #8G
T-3	63	480	120/208	115	DELTA Y	60	3L, 3C	POWER SMITHS: Esaver20M-63-480-208-HD-T115-F60	1.5" – 3#2 & #6G
T-4	30	480	120/208	115	DELTA Y	60	4L	POWER SMITHS: Esaver20M-30-480-208-HD-T115-F60	1" – 3#6 & #10G
T-5	100	480	120/208	115	DELTA Y	60	5L, 5C	POWER SMITHS: Esaver20M-100-480-208-HD-T115-F60	2" – 3#2/0 & #6G
T-PE	75	480	120/208	115	DELTA Y	60	PE	POWER SMITHS: Esaver20M-75-480-208-HD-T115-F60	2" – 3#1/0 & #6G
T-K1	63	480	120/208	115	DELTA Y	60	K1	POWER SMITHS: Esaver20M-63-480-208-HD-T115-F60	1.5" – 3#2 & #6G

EXHAUST FAN CONNECTION SCHEDULE:

DESIGNATION	HP/WATTS	FLA	VOLTAGE	CONNECTION FOR EACH	BRANCH CIRCUIT
1ST FLOOR					
EF-1	108 W	1.1	120V/1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-2	108 W	1.1	120V/1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-3	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR.	1/2" – 2#12 & #12G
EF-4	29.9 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR.	1/2" – 2#12 & #12G
EF-5	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR.	1/2" – 2#12 & #12G
EF-6	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR.	1/2" – 2#12 & #12G
EF-7	54.5 W	0.5	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR.	1/2" – 2#12 & #12G
EF-8	57.3 W	0.5	120V/1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-9	1 HP	4.6	208V/3PHASE	CONNECT ABOVE CEILING. PROVIDE A THERMAL SWITCH. SWITCH VIA OCCUPANCY SENSOR. INTERLOCKING BY HVAC CONTROLS CONTRACTOR TO LAB CONTROL PANEL. ADD	1/2" – 3#12 & #12G
EF-10	1 HP	4.6	208V/3PHASE	CONNECT ABOVE CEILING. PROVIDE A THERMAL SWITCH. SWITCH VIA OCCUPANCY SENSOR. INTERLOCKING BY HVAC CONTROLS CONTRACTOR TO LAB CONTROL PANEL. ADD	1/2" – 3#12 & #12G
EF-11	1 HP	4.6	208V/3PHASE	CONNECT ABOVE CEILING. PROVIDE A THERMAL SWITCH. SWITCH VIA OCCUPANCY SENSOR. INTERLOCKING BY HVAC CONTROLS CONTRACTOR TO LAB CONTROL PANEL. ADD	1/2" – 3#12 & #12G
EF-12	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR. ADD	1/2" – 2#12 & #12G
EF-13	5.5 HP	16.7	208V/3PHASE	CONNECT AT ROOF. PROVIDE AND SWITCH VIA THERMAL TOGGLE SWITCH. INTERLOCKING BY HVAC CONTROLS CONTR.	3/4" – 3#8 & #10G
EF-14	1/3 HP	7.2	120V/1PHASE	CONNECT AT ROOF. PROVIDE AND SWITCH VIA THERMAL TOGGLE SWITCH. INTERLOCKING BY HVAC CONTROLS CONTR. ADD	1/2" – 2#12 & #12G
EF-15	1/3 HP	7.2	120V/1PHASE	CONNECT AT ROOF. SWITCH VIA VACANCY SENSOR. INTERLOCKING BY HVAC CONTROLS CONTR. ADD	1/2" – 2#12 & #12G
EF-16	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR. ADD	1/2" – 2#12 & #12G
2ND FLOOR					
EF-17	108 W	1.1	120V/1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-18	108 W	1.1	120V/1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-19	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR.	1/2" – 2#12 & #12G
EF-20	54.5 W	0.5	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR.	1/2" – 2#12 & #12G
EF-21	1 HP	4.6	208V/3PHASE	CONNECT ABOVE CEILING. PROVIDE A THERMAL SWITCH. SWITCH VIA OCCUPANCY SENSOR. INTERLOCKING BY HVAC CONTROLS CONTRACTOR TO LAB CONTROL PANEL. ADD	1/2" – 3#12 & #12G
EF-22	1/3 HP	7.2	120V/1PHASE	CONNECT ABOVE CEILING. INTERLOCKING BY HVAC CONTROLS CONTR. ADD	1/2" – 2#12 & #12G
EF-23	1 HP	4.6	208V/3PHASE	CONNECT ABOVE CEILING. PROVIDE A THERMAL SWITCH. SWITCH VIA OCCUPANCY SENSOR. INTERLOCKING BY HVAC CONTROLS CONTRACTOR TO LAB CONTROL PANEL. ADD	1/2" – 3#12 & #12G
EF-24	1/3 HP	7.2	120V/1PHASE	CONNECT ABOVE CEILING. SWITCH VIA FUME HOOD SWITCH. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-25	1/3 HP	7.2	120V/1PHASE	CONNECT ABOVE CEILING. SWITCH VIA FUME HOOD SWITCH. INTERLOCKING BY HVAC CONTROLS CONTR. ADD	1/2" – 2#12 & #12G
EF-26	1/3 HP	7.2	120V/1PHASE	CONNECT ABOVE CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	HP/KW	FLA	MCA	MOCP	VOLTAGE	DISCONNECT	BRANCH CIRCUIT (75'C COPPER)
CH-1	–	486.4	504	600	480V/3PHASE	1) NONE	2-RUNS 3" – 3#350KCMIL & #1G
CH-2	–	486.4	504	600	480V/3PHASE	1) NONE	2-RUNS 3" – 3#350KCMIL & #1G
CH-3	–	486.4	504	600	480V/3PHASE	1) NONE	2-RUNS 3" – 3#350KCMIL & #1G
SCHWP-1	30 HP	40.0	50	100	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1.25" – 3#3 & #8G
SCHWP-2	30 HP	40.0	50	100	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1.25" – 3#3 & #8G
AHU-1	20 HP	26.8	35.5	70	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1" – 3#4 & #8G
AHU-2	10 HP	13.4	18.2	35	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	3/4" – 3#10 & #10G
AHU-3	3 HP	4.2	6.7	15	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1/2" – 3#12 & #12G
AHU-4	7.5 HP	9.8	14.4	30	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	3/4" – 3#10 & #10G
AHU-5	10 HP	13.4	18.2	35	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	3/4" – 3#10 & #10G
AHU-6	5 HP	6.7	10.9	20	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1/2" – 3#12 & #12G
AHU-7	5 HP	6.7	10.9	20	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1/2" – 3#12 & #12G
AHU-8	15 HP	19.6	26.9	50	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	3/4" – 3#8 & #10G
AHU-9	5 HP	6.7	10.9	20	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1/2" – 3#12 & #12G
AHU-10	10 HP	13.4	18.2	35	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	3/4" – 3#10 & #10G
AHU-11	5 HP	6.7	10.9	20	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	1/2" – 3#12 & #12G
AHU-12	15 HP	19.6	26.9	50	480V/3PHASE	2) VARIABLE FREQUENCY DRIVE.	3/4" – 3#8 & #10G
EDH-3	25 KW	30.1	–	40	480V/3PHASE	60A, 3PNF, 600V, NEMA 1.	3/4" – 3#8 & #10G
EDH-7	45 KW	54.2	–	70	480V/3PHASE	100A, 3PNF, 600V, NEMA 1.	1" – 3#4 & #8G
EDH-11	45 KW	54.2	–	70	480V/3PHASE	100A, 3PNF, 600V, NEMA 1.	1" – 3#4 & #8G
EDH-12	80 KW	96.3	–	125	480V/3PHASE	1) NONE	1.25" – 3#1 & #6G
VAV1-1,4,5,8,9,11	35 KW	42.1	–	60	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	1" – 4#6 & #10G
VAV1-2,3,7,10,12	31 KW	37.3	–	50	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	3/4" – 4#8 & #10G
VAV1-13	2 KW	7.2	–	20	277V/1PHASE	30A, 2PNF, 600V, S/N, NEMA 1.	1/2" – 2#12 & #12G
VAV2-1,2,3	34 KW	40.1	–	60	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	1" – 4#6 & #10G
VAV4-1,2	28 KW	33.7	–	45	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	3/4" – 4#8 & #10G
VAV5-1,3,5,8,9	25 KW	30.1	–	40	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	3/4" – 4#8 & #10G
VAV5-2	2 KW	7.2	–	20	277V/1PHASE	30A, 2PNF, 600V, S/N, NEMA 1.	1/2" – 2#12 & #12G
VAV5-4	2 KW	7.2	–	20	277V/1PHASE	30A, 2PNF, 600V, S/N, NEMA 1.	1/2" – 2#12 & #12G
VAV5-6	2 KW	7.2	–	20	277V/1PHASE	30A, 2PNF, 600V, S/N, NEMA 1.	1/2" – 2#12 & #12G
VAV5-7	1 KW	3.6	–	20	277V/1PHASE	30A, 2PNF, 600V, S/N, NEMA 1.	1/2" – 2#12 & #12G
VAV5-10	2 KW	7.2	–	20	277V/1PHASE	30A, 2PNF, 600V, S/N, NEMA 1.	1/2" – 2#12 & #12G
VAV8-1,3,5,7,9	26 KW	31.3	–	40	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	3/4" – 4#8 & #10G
VAV8-2,4,6,8,10	30 KW	36.1	–	50	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	3/4" – 4#8 & #10G
VAV9-1,2	22 KW	26.5	–	35	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	3/4" – 4#8 & #10G
VAV10-1,2,3,4	38 KW	45.7	–	60	480V/3PHASE	60A, 3PNF, 600V, S/N, NEMA 1 EACH.	1" – 4#6 & #10G
FCU-1	1/4HP	–	2	15	208V/1PHASE	1) NONE	1/2" – 2#12 & #12G
ACCU-1	–	–	13	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
FCU-2	1/4HP	–	2	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 1.	1/2" – 2#12 & #12G
ACCU-2	–	–	13	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
FCU-3	1/4HP	–	2	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 1.	1/2" – 2#12 & #12G
ACCU-3	–	–	13	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
ACCU-WAC-1	–	–	11	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
WAC-1	–	–	0.5	15	208V/1PHASE	4) THERMAL SWITCH.	1/2" – 2#12 & #12G
EWH-1	6 KW	28.8	–	40	208V/1PHASE	60A, 2PNF, 240V, NEMA 1.	3/4" – 2#8 & #10G
EWH-2	6 KW	28.8	–	40	208V/1PHASE	1) NONE	3/4" – 2#8 & #10G
EWH-3	54 KW	64.9	–	90	480V/3PHASE	100A, 3PNF, 600V, NEMA 1.	1.25" – 3#3 & #8G
EWH-4	6 KW	28.8	–	40	208V/1PHASE	60A, 2PNF, 240V, NEMA 1.	3/4" – 2#8 & #10G
IEWH-1	4 KW	19	–	25	208V/1PHASE	5 CIRCUIT BREAKER.	3/4" – 2#10 & #10G
IEWH-2	4 KW	19	–	25	208V/1PHASE	5) CIRCUIT BREAKER.	3/4" – 2#10 & #10G
IEWH-3	4 KW	19	–	25	208V/1PHASE	5) CIRCUIT BREAKER.	3/4" – 2#10 & #10G
IEWH-4	4 KW	19	–	25	208V/1PHASE	5) CIRCUIT BREAKER.	3/4" – 2#10 & #10G
IEWH-5	4 KW	19	–	25	208V/1PHASE	5) CIRCUIT BREAKER.	3/4" – 2#10 & #10G
IEWH-6	4 KW	19	–	25	208V/1PHASE	5) CIRCUIT BREAKER.	3/4" – 2#10 & #10G
BP-1	5 HP X 2	13.4	17.1	20	480V/3PHASE	30A, 3PNF, 600V, NEMA 1.	3/4" – 3#12 & #12G
ELEVATOR	15 HP	33.0	67.0	70	480V/3PHASE	3) BUSSMANN POWER MODULE SWITCH.	1" – 4#3 & #4G
SUMP PUMP	1/3 HP	7.2	–	20	208V/1PHASE	4) THERMAL SWITCH.	1/2" – 2#12 & #12G
C-1	15 HP	46.2	57.8	125	208V/3PHASE	200A, 3PNF, 240V, NEMA 3R.	1.25" – 3#4 & #8G
LASER CUTTER	–	–	15	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 1.	1/2" – 3#12 & #12G
CP-1	1/12 HP	–	–	20	120V/1PHASE	4) THERMAL SWITCH.	1/2" – 2#12 & #12G
CP-2	1/12 HP	–	–	20	120V/1PHASE	4) THERMAL SWITCH.	1/2" – 2#12 & #12G
CP-3	1/12 HP	–	–	20	120V/1PHASE	4) THERMAL SWITCH.	1/2" – 2#12 & #12G
CP-4	1/12 HP	–	–	20	120V/1PHASE	4) THERMAL SWITCH.	1/2" – 2#12 & #12G
RO/ID	–	–	–	25	120V/1PHASE	30A, 2PNF, 240V, NEMA 1.	3/4" – 2#10 & #10G

1) MEANS OF DISCONNECT IS THE CIRCUIT BREAKER (WITHIN SIGHT).
2) PROVIDE BY DIV. 23. INSTALLED AND CONNECTED BY DIV. 26.
3) BUSSMAN PS1, RATED FOR 100A, SHUNT TRIP, CONTROL POWER TRANSFORMER, FIRE SAFETY INTERFACE, KEY TO TEST SWITCH, PILOT LIGHT, MECHANICAL INTERLOCK AUXILIARY CONTACT, PHASE FAILURE/UNDER VOLTAGE RELAY, NEMA 1 ENCLOSURE.
4) EATON MANUAL STARTER "MS" SERIES.
5) PROVIDE LOCK SAFE CIRCUIT BREAKER PER NEC 110.25.

GENERAL NOTE: LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

ethos engineering
119 W. VAN BUREN AVE. STE.101
HARLINGEN, TX
PHONE: 956.230.3435
TEXAS REGISTERED
ENGINEERING FIRM
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09.08.2022

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: September 08, 2022
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J P
Job No. 22V73
Sheet: E5.01

LUMINAIRE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTES	LUMENS / LAMP	LUMEN MAINTENANCE	HOURS
A2	LED	2'X4' LAY-IN FLAT PANEL	0-10V	RECESSED	LITHONIA: CPX 2X4 6000L 80CRI 40K A12 MIN10 ZT MVOLT CREE: C-TR-C-FP24-50L-40K-WH	41	120V 1P 2W 277V 1P 2W		4950	L70	100,000
A2E	LED	2'X4' LAY-IN FLAT PANEL	0-10V	RECESSED	LITHONIA: CPX 2X4 6000L 80CRI 40K A12 MIN10 ZT MVOLT E10WLCP CREE: C-TR-C-FP24-50L-40K-WH-EB	41	120V 1P 2W 277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4950	L70	100,000
A3	LED	2'X4' LAY-IN FLAT PANEL	0-10V	RECESSED	LITHONIA: CPX 2X4 6000L 80CRI 40K A12 MIN10 ZT MVOLT CREE: C-TR-C-FP24-62L-40K-WH	53	277V 1P 2W		6125	L70	50,000
A3E	LED	2'X4' LAY-IN FLAT PANEL	0-10V	RECESSED	LITHONIA: CPX 2X4 6000L 80CRI 40K A12 MIN10 ZT MVOLT E10WLCP CREE: C-TR-C-FP24-62L-40K-WH-EB	53	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	6125	L70	50,000
A4	LED	2'X4' LAY-IN FLAT PANEL	0-10V	RECESSED	LITHONIA: CPX 2X4 6000L 80CRI 40K A12 MIN10 ZT MVOLT ILP: PAN24 50WLED U 40 NSF	41	277V 1P 2W		4950	L70	100,000
A4E	LED	2'X4' LAY-IN FLAT PANEL	0-10V	RECESSED	LITHONIA: CPX 2X4 6000L 80CRI 40K A12 MIN10 ZT MVOLT E10WLCP ILP: PAN24 50WLED U 40 NSF EM12	41	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4950	L70	100,000
B4	LED	LINEAR LIGHT	0-10V	PENDANT	MARK LIGHTING: S4LD LCB 4FT MSL4 80CRI 40K 600LMF MIN1 LVRD MVOLT BLK F2/72A RDCY BLKCY BCRD CORONET: LS4 LED 4 40 LTG1 UNV DB BLK AC SD	29	277V 1P 2W	PROVIDE A BLACK FINISH, BLACK CORD & CANOPY.	2304		50,000
B4E	LED	LINEAR LIGHT	0-10V	PENDANT	MARK LIGHTING: S4LD LCB 4FT MSL4 80CRI 40K 600LMF MIN1 LVRD MVOLT BLK E10WLCP F2/72A RDCY BLKCY BCRD CORONET: LS4 LED 4 40 LTG1 UNV DB BLK AC SD EMXXXV	29	277V 1P 2W	PROVIDE A BLACK FINISH, AN EMERGENCY BATTERY PACK, BLACK CORD & CANOPY.	2304		50,000
B20	LED	SUSPENDED LINEAR	0-10V	PENDANT	FINELITE: HP-4P-D-20'-B-H-840-F-96LG-277V-SC-FC-FA50-C4-FE-FB FORUM: SAUD 44 65 40 SAT C 4 UNV BK DIM	122	277V 1P 2W	PROVIDE A BLACK FINISH.	13000		
B24	LED	SUSPENDED LINEAR	0-10V	PENDANT	FINELITE: HP-4P-D-24'-B-H-840-F-96LG-277V-SC-FC-FA50-C4-FE-FB FORUM: SAUD 44 65 40 SAT C 4 UNV WH DIM	146	277V 1P 2W		15600		
B28	LED	SUSPENDED LINEAR	0-10V	PENDANT	FINELITE: HP-4P-D-28'-B-H-840-F-96LG-277V-SC-FC-FA50-C4-FE-SW FORUM: SAUD 44 65 40 SAT C 4 UNV BK DIM	170	277V 1P 2W	PROVIDE A BLACK FINISH.	18200		
C2	LED	6" LENSED DOWN LIGHT	0-10V	CEILING	GOTHAM: EVO6 40/20 AR MWD LSS MVOLT GZ10 TRBL HE WILLIAMS: 6DR-TL-L20/840-DM1-UNV-OM-OF-CS-N-F1	19	277V 1P 2W		2000	L90	55,000
C3	LED	4" LENSED DOWN LIGHT	0-10V	CEILING	LITHONIA: LDN4 40/25 L04AR LSS MVOLT EZ1 HE WILLIAMS: 4DR-TL-L30/840-DM1-UNV-OM-OF-CS-N-F1	28	277V 1P 2W		2900	L90	55,000
D2	LED	4' WRAPAROUND	0-10V	SURFACE/ROD	LITHONIA: BLMP4 48L SDSM GZ10 LP840 HE WILLIAMS: 17-4-L55/840-AF-DM-UNV	42	277V 1P 2W		5947	L70	50,000
D2E	LED	4' WRAPAROUND	0-10V	SURFACE/ROD	LITHONIA: BLMP4 48L SDSM GZ10 LP840 E10WLCP HE WILLIAMS: 17-4-L55/840-AF-EM/10W-DIM-UNV	42	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5947	L70	50,000
FP	LED	FLOOD LIGHT	0-10V	SURFACE	LITHONIA: DSXF1 LED P2 40K MFL MVOLT DNAXD DSXF1/2TS AFTM AFTMB LSI: XFLM NF LED 28 HO NW UE PLP MSV	36	277V 1P 2W	PROVIDE FIXTURE U.L. LISTED FOR WET LOCATION WITH TENON AND BULLHORN. PROVIDE A METALIC SILVER FINISH.	2979	L70	60,000
G2	LED	24" ROUND LIGHT	0-10V	SURFACE	CORONET: PRO LED 2 40 LTG3 UNV DB CC SM DL WHITE PRUDENTIAL: P4020 LED4 LO VWA CC D1 SC UNV SUR DM01	38	277V 1P 2W	PROVIDE A WHITE FINISH.	2803	L85	50,000
G2E	LED	24" ROUND LIGHT	0-10V	SURFACE	CORONET: PRO LED 2 40 LTG3 UNV DB CC SM DL EM277V WHITE PRUDENTIAL: P4020 LED4 LO VWA CC D1 SC UNV SUR DM01 EML	38	277V 1P 2W	PROVIDE A WHITE FINISH. PROVIDE WITH AN EMERGENCY BATTERY PACK.	2803	L85	50,000
G4	LED	48" ROUND LIGHT	0-10V	SURFACE	CORONET: PRO LED 4 40 LTG2 UNV DB CC SM DL WHITE PRUDENTIAL: P4040 LED4 SO VWA CC D1 SC UNV SUR DM01	147	277V 1P 2W	PROVIDE A WHITE FINISH.	20000	L85	50,000
H6	LED	24" X 48" HIGH BAY	0-10V	SURFACE/ROD	LITHONIA: IBE L24 22000LM SD080 MD MVOLT GZ10 40K 80CRI DWH LSI: MBH 1 LED 24L DPW UNV 40	145	277V 1P 2W		22679	L70	122,000
H6E	LED	24" X 48" HIGH BAY	0-10V	SURFACE/ROD	LITHONIA: IBE L24 22000LM SD080 MD MVOLT GZ10 40K 80CRI DWH LSI: MBH 1 LED 24L DPW UNV 40 EM	145	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	22679	L70	122,000
J2E	LED	8' LINEAR	0-10V	RECESSED	FINELITE: HPAR-H-80-40-F-277V-SC-VF LUX: EOS 4.0R FT 750 840K 80 1 UNV S1 EB		277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	0		
K	(1)	TAPE LIGHT	0-10V	SURFACE	NOVA FLEX:NF-DS-O-150-24V-4100K	93	277V 1P 2W	REFER TO PLANS FOR LENGHTS.LUMENS AND WATTAGE VALUE PER LINEAR FOOT.	411		
L2E	LED	WALL BRACKET	0-10V	WALL	LITHONIA: WL4 40L E21 LP840 EL14L LSI: W44 4 LED HO NW UE EM	43	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5265	LM80	
M	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WST LED P2 50K VW MVOLT X RAYON: T630LEDB 27 UNI12 50 T3 MTO G2	27	120V 1P 2W 277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS & WITH A METALIC SILVER FINISH.	3750		50,000
ME	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WST LED P2 50K VW MVOLT E7WH X RAYON: T630LEDB 27 UNI12 50 T3 MTO G2 EM	27	120V 1P 2W 277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS & WITH A EMERGENCY BATTERY PACK. PROVIDE A METALIC SILVER FINISH.	3750		50,000
N	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WST LED P3 50K VW MVOLT X RAYON: T630LEDB 45 UNI12 50 T3 MTO G2	50	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS & WITH A METACLIC SILVER FINISH.	6100		50,000
NE	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WST LED P3 50K VW MVOLT E7WH X RAYON: T630LEDB 45 UNI12 50 T3 MTO G2 EM	50	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS & WITH AN EMERGENCY BATTERY PACK. PROVIDE A METALIC SILVER FINISH.	6100	L80	50,000
O4	LED	LINEAR LIGHT	0-10V	RECESSED	MARK LIGHTING: SL4L-LOP-4FT-FLP-TG-80CRI-600LMF MIN10 277-ZT LUX: EOS 4.0-R FT 750 4' 40K 9 UNV S1 W	27	277V 1P 2W	PROVIDE A WHITE FINISH.	3000	L80	80,000
O4E	LED	LINEAR LIGHT	0-10V	RECESSED	MARK LIGHTING: SL4L-LOP-4FT-FLP-TG-80CRI-600LMF MIN10 277-ZT E10WLCP LUX: EOS 4.0-R FT 750 4' 40K 9 UNV S1 W EB	27	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK & A WHITE FINISH.	3000	L80	65,000
P1	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX2 LED P3 50K T2M 480 RPA PIRH X KW: RTAP25-6.0-9-(F)-DMX-BC-VD LSI: MRM LED 24L SIL 2 HV DIM 50 70CRI MSV IMSBT2HV RTP B5 A156 25 X X	187	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 110MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE A METALIC SILVER FINISH. PROVIDE 3/4" CCTV CAMERA HUB AT 20'-0" SEE SITE PLAN.	24748	L80	100,000
P2	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX2 LED P4 50K T5M 480 RPA X PIRH KW: RTAP25-6.0-9-(F)-DMX-BC-VD LSI: MRM LED 30L SIL 5W HV DIM 50 70CRI MSV IMSBT2HV RTP B5 A156 25 X X	247	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 110MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE A METALIC SILVER FINISH. PROVIDE 3/4" CCTV CAMERA HUB AT 20'-0" SEE SITE PLAN.	31177	L80	100,000
P3	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX2 LED P3 50K TFTM 480 RPA PIRH DNAXD KW: RTAP25-6.0-9-(F)-DMX-BC-VD LSI: MRM LED 24L SIL FT HV DIM 50 70CRI MSV IMSBT2HV RTP B5 A156 25 X X	187	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 110MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE A METALIC SILVER FINISH. PROVIDE 3/4" CCTV CAMERA HUB AT 20'-0" SEE SITE PLAN.	25652	L80	100,000
P4	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX2 LED P4 50K T5W 480 RPA PIRH DNAXD KW: RTAP25-6.0-9-(F)-DMX-BC-VD LSI: MRM LED 36L SIL 5W HV DIM 50 70CRI MSV IMSBT2HV RTP B5 A156 25 X X	270	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 110MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE A METALIC SILVER FINISH. PROVIDE 3/4" CCTV CAMERA HUB AT 20'-0" SEE SITE PLAN.	34875	L80	100,000
P5	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX2 LED P6 50K T5W 480 RPA PIRH DNAXD KW: RTAP25-6.0-9-(F)-DMX-BC-VD LSI: MRM LED 42L SIL 5W HV DIM 50 70CRI MSV IMSBT2HV RTP B5 A156 25 X X	354	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 110MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE A METALIC SILVER FINISH. PROVIDE 3/4" CCTV CAMERA HUB AT 20'-0" SEE SITE PLAN.	42555	L80	100,000
P6	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX2 LED P6 50K TFTM 480 RPA PIRH DNAXD KW: RTAP25-6.0-9-(F)-DMX-BC-VD LSI: MRM LED 42L SIL FT 50 70CRI MSV IMSBT2HV RTP B5 A156 25 X X	354	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 110MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE A METALIC SILVER FINISH. PROVIDE 3/4" CCTV CAMERA HUB AT 20'-0" SEE SITE PLAN.	44130	L80	100,000
Q3	LED	DECORATIVE DRUM PENDANT 36"ø	0-10V	PENDANT	LUMETTA: S7217 CHAMELEON: SB-CUSTOM 36X52R X X SV4 SV4 62D24 40K 9 CCK-SV4 X	75	277V 1P 2W	FIXTURE COLOR TEMPERATURE AND FINISH TO BE SELECTED AT A LATER DATE. PROVIDE COLOR CHART TO FINISH SELECTION BY ARCHITECT. ELECTRICAL CONTRACTOR TO FIELD VERIFY CABLE LENGHT TO ACHIEVE MOUNTING HEIGHT SPECIFIED.	6000		
Q4	LED	DECORATIVE DOUBLE DRUM PENDANT 48"ø	0-10V	PENDANT	LUMETTA: SP008363C CHAMELEON: SB-CUSTOM 36X42R X X SV4 62D24 40K 9 CCK-SV4 X	75	277V 1P 2W	FIXTURE COLOR TEMPERATURE AND FINISH TO BE SELECTED AT A LATER DATE. PROVIDE COLOR CHART TO FINISH SELECTION BY ARCHITECT. ELECTRICAL CONTRACTOR TO FIELD VERIFY CABLE LENGHT TO ACHIEVE MOUNTING HEIGHT SPECIFIED.	6000		
Q6	LED	DECORATIVE DRUM PENDANT 72"ø	0-10V	PENDANT	LUMETTA: P57217 CHAMELEON: FS-CUSTOM- 72X17R X SV4 62D24 40 9 CCK-SV4 X	75	277V 1P 2W	FIXTURE COLOR TEMPERATURE AND FINISH TO BE SELECTED AT A LATER DATE. PROVIDE COLOR CHART TO FINISH SELECTION BY ARCHITECT. ELECTRICAL CONTRACTOR TO FIELD VERIFY CABLE LENGHT TO ACHIEVE MOUNTING HEIGHT SPECIFIED.	6000		
R2	LED	CYLINDER	0-10V	PENDANT	LITHONIA: EVO6PC 40/60 AR MWD LSS MVOLT GZ1 PSAN S6 DBLB PEACHTREE LIGHTING: C10BLR 60 DMLV1 40K 80 SH BK PND 72" 120-277	44	277V 1P 2W	PROVIDE MATTE BLACK FINISH, PND PENDANT MOUNTING. ELECTRICAL CONTRACTOR TO FIELD VERIFY PENDANT LENGHT TO MOUNT CYLINDER FLUSH WITH BOTTOM OF CLOUDS.	4671	LM-79	60,000
R2E	LED	CYLINDER	0-10V	PENDANT	LITHONIA: EVO6PC 40/60 AR MWD LSS MVOLT GZ1 PSAN S6 E10WCPR DBLB PEACHTREE LIGHTING: C10BLR 60 DMLV1 40K 80 SH BK PND 72" 120-277 EML4	44	277V 1P 2W	PROVIDE MATTE BLACK FINISH, PND PENDANT MOUNTING. ELECTRICAL CONTRACTOR TO FIELD VERIFY PENDANT LENGHT TO MOUNT CYLINDER FLUSH WITH BOTTOM OF CLOUDS. PROVIDE WITH AN EMERGENCY BATTERY PACK & REMOTE TEST SWITCH.	4671	LM-79	60,000
R3	LED	CYLINDER	0-10V	PENDANT	LITHONIA: EVO6PC 40/30 AR MWD LSS MVOLT GZ1 PSAN S6 DBLB PEACHTREE LIGHTING: C10BLR 45 DMLV1 40K 80 SH BK PND 72" 120-277	46	277V 1P 2W	PROVIDE MATTE BLACK FINISH, PND PENDANT MOUNTING. ELECTRICAL CONTRACTOR TO FIELD VERIFY PENDANT LENGHT TO MOUNT CYLINDER FLUSH WITH BOTTOM OF CLOUDS.	4635		50,000
R3E	LED	CYLINDER	0-10V	PENDANT	LITHONIA: EVO6PC 40/30 AR MWD LSS MVOLT GZ1 PSAN S6 DBLB PEACHTREE LIGHTING: C10BLR 45 DMLV1 40K 80 SH BK PND 72" 120-277	46	277V 1P 2W	PROVIDE MATTE BLACK FINISH, PND PENDANT MOUNTING. ELECTRICAL CONTRACTOR TO FIELD VERIFY PENDANT LENGHT TO MOUNT CYLINDER FLUSH WITH BOTTOM OF CLOUDS. PROVIDE WITH AN EMERGENCY BATTERY PACK & REMOTE TEST SWITCH.	4635		50,000
S	LED	WRAPAROUND	0-10V	SURFACE	BEGHELLI: BS101LED 4 HT LO WT40 120-277V SS TPS VENTURE: VP4-4QNA-BF1	40	120V 1P 2W	PROVIDE UL LISTED FOR DAMP LOCATIONS.	4400	L70	122,000
T	LED	6" CYLINDER DOWN LIGHT	0-10V	PENDANT	LITHONIA: LDN6CYL 50/40 L06AR LSS MVOLT GZ10 PM DNA PEACHTREE LIGHTING: C9BLR 50 40K 80 SH X PND XX" 120-277	44	277V 1P 2W	PROVIDE UL LISTED FOR DAMP LOCATIONS. PROVIDE A SILVER FINISH FINISH.ELECTRICAL CONTRACTOR TO FIELD VERIFY STEM LENGHT TOACHIEVE MOUNTING HEIGHT SPECIFIED.	4671		50,000
U	LED	TAPE LIGHT	0-10V	SURFACE	NOVA FLEX: NF-DS-O-160-24V-4100K/NF-CH-4540-X-WHITE/DVP-10P LLI: LLI-LHE4.4W-65-42-24V-90-360/LLI-XR-ELF-W-F-360/LLI-PS-DM-150W-XXV-KO	132	277V 1P 2W	PROVIDE WITH RECESSED HOUSING, DRIVERS & DIMMING SWITCH.	12330	LM79	50,000
V	LED	SCONCE	0-10V	SURFACE	G LIGHTING: GL-5436-H-W-X-F-G ELCAST: 5001-50K-14MLED-277-SG	14	277V 1P 2W	PROVIDE A SILVER GRAY FINISH.	630		
V2	LED	WALL WASHER	0-10V	PENDANT	LUMENPULSE: LOG 277 12 RGBW 60X60 SAM BK DMX/RDM LT02 LUMASCAPE: LS9050-22 D 4CW 73 WF 1 A 09 PS AG 006/LS6402U-032/LS6540-09 PD BT/LS6950-W	25	277V 1P 2W	PROVIDE A ANODIC SILVER FINISH. PROVIDE CONNECTORS, POWER SUPPLY, DMX CONTROLLER, LEADER AND JUMPER CABLES.	4619	L70	60,000
W	LED	BOLLARD	0-10V	SURFACE	LUMINIS: L0627 L1L10-R5 277 MST K5 ELCAST: BRF-36-MOD-25MLED-50K-277-SG-4FT	25	277V 1P 2W	PROVIDE U.L. LISTED FOR WET LOCATION. PROVIDE A SILVER GRAY FINISH.	2125		
W2	LED	LIGHT COLUMN	0-10V	POLE	LUMINIS: L0641 L1L50-R5 277V MST K5 ELCAST: BRF-36-MOD-60MLED-50K-277-SG-15FT	25	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATION. PROVIDE A SILVER GRAY FINISH.	2125		
X	LED	CURVED LIGHT	0-10V	PENDANT	MARK LIGHTING: SLOT 4 DIRECT, 400LMF FORUM LIGHTING: ARCD-44-65LED40-WOL-C24"-MS(20'-1 5/16")-UNV-XX-D10V	73	277V 1P 2W	PROVIDE A WHITE FINISH & 24" LENGHT AIRCRAFT CABLE.	7800		
X1	LED	SINGLE SIDED EXIT SIGN		WALL/CEILING	BEGHELLI: FTZ-SA-LR1-UWW MULE LIGHTING: WLPCX 1 R W U SD		277V 1P 2W	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0		
X2	LED	DOUBLE SIDED EXIT SIGN		WALL/CEILING	BEGHELLI: FTZ-SA-LR2-UWW MULE LIGHTING: WLPCX 2 R W U SD		277V 1P 2W	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0		
Y4	LED	LINEAR LIGHT	0-10V	PENDANT	MARK LIGHTING: S4LID LCB 4FT MSL4 80CRI 40K 400LMF I80CRI 140K I600LMF MIN1 SCT MVOLT BLK ZT F2/72A RDCY BLKCY CCRD LUX: EOS 4.0-P-DI-500-500-4'-40K-80-1-UNV-S1-B-HC-150	33	277V 1P 2W	PROVIDE A BLACK FINISH.	5000	L80	60,000
Y4E	LED	LINEAR LIGHT	0-10V	PENDANT	MARK LIGHTING: S4LID LCB 4FT MSL4 80CRI 40K 400LMF I80CRI 140K I600LMF MIN1 SCT MVOLT BLK E10WLCP ZT F2/72A RDCY BLKCY CCRD LUX: EOS 4.0-P-DI-500-500-4'-40K-80-1-UNV-S1-B-HC-150-EB	33	277V 1P 2W	PROVIDE A BLACK FINISH & WITH AN EMERGENCY BATTERY PACK.	5000	L80	60,000
Y4S	LED	LINEAR LIGHT	0-10V	SURFACE	EOS 4.0-S-LAM-500-4'-40K-8-UNV-S1-B-HC	40	277V 1P 2W	PROVIDE A BLACK FINISH.	2000	L80	60,000
Y4SE	LED	LINEAR LIGHT	0-10V	PENDANT	EOS 4.0-S-LAM-500-4'-40K-8-UNV-S1-B-HC-EB	40	277V 1P 2W	PROVIDE A BLACK FINISH & WITH AN EMERGENCY BATTERY PACK.	2000	L80	60,000
Z		STAGE LIGHT	0-10V	RECESSED	ETC: 7413A1061 STRAND LEKO: 64505001/SPX1535LT/TBC	300	120V 1P 2W		0		
Z4	LED	LINEAR LIGHT	0-10V	SURFACE	MARK LIGHTING: S1LS LCB 4FT MSL4 90CRI 40K 600LMF MIN1 MVOLT WHT CORONET: LS1 4 40 HIGH UNV DB W SM FL	40	277V 1P 2W	PROVIDE A WHITE FINISH.	3200	L70	60,000

GENERAL NOTES:
1. LIGHT FIXTURE EQUALS MANUFACTURED BY SIGNIFY AND COOPER ARE ACCEPTABLE, PROVIDED THEY MEET OR EXCEED SPECIFICATIONS (AESTHETICS, CONSTRUCTION, PHOTOMETRICS, DLC, ENERGY STAR).
2. EXTRA MATERIALS: SEE SPECIFICATIONS.
3. EMERGENCY BATTERY PACKS SHALL BE COMPLETE FACTORY INSTALLED WITH NI-CAD BATTERY, CHARGER INDICATING LIGHT, ELECTRONIC CIRCUITRY, 1400 LUMENS OUTPUT, 90 MINUTES DURATION & FIVE FULL YEARS WARRANTY.
4. FURNISH ALL 2' X 4' LAY-IN LIGHT FIXTURES WITH INTEGRAL CEILING CLIPS.
5. INCLUDE VERIFICATION OF LIGHT FIXTURE EFFECANCY IN LIGHT FIXTURE SUBMITTALS BY ATTACHING ONE OF THE FOLLOWING:
* SCREENSHOT OF DLC WEBSITE LISTING FOR SPECIFIC LIGHT FIXTURE. CAN BE FOUND AT HTTPS://WWW.DESIGNLIGHTS.ORG
* SCREENSHOT OF ENERGY STAR WEBSITE LISTING FOR SPECIFIC LIGHT FIXTURE. CAN BE FOUND AT HTTPS://WWW.ENERGYSTAR.GOV
* PART EFFICIENCY DOCUMENTATION IN THE FORM OF LM-79 OR LM-80 DOCUMENTS WITH ADDITIONAL DOCUMENTATION DISPLAYING THE LINK BETWEEN THE PART AND THE LIGHT FIXTURE.

No.	REVISIONS	BY
1 ADD	09/26/2022	ETHOS

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COLLEGIATE HIGH SCHOOL



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Interior Designers

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Scale: As Noted
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4L

ROOM MEP 163 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 125 | MAIN BKR 100
FED FROM T-4 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT.	0.18			2	25/2	GATE OPERATOR	0.96		
3	20/1	RECEPT.		0.18		4	|			0.96	
5	20/1	RECEPT.			0.18	6	20/1	RECEPT.			0.9
7	20/1	RECEPT.	0.18			8	20/1	RECEPT.	0.72		
9	20/1	RECEPT.		0.18		10	20/1	RECEPT.		0.54	
11	20/1	RECEPT.			1.08	12	20/1	RECEPT.			0.72
13	20/1	RECEPT.	0.72			14	20/1	RECEPT.	0.36		
15	20/1	RECEPT.		0.36		16	20/1	RECEPT.		0.18	
17	20/1	RECEPT.			0.54	18	20/1	SPR. CONTROLLER			0.18
19	20/1	SPACE	0			20	20/1	RECEPT.	0.72		
21	20/1	SPACE		0		22	20/1	RECEPT.		1.44	
23	25/2	SPACE			0	24	20/1	RECEPT.			0.18
25	⚠ 1 ADD		0			26	20/1	FLAT SCREEN	0.108		
27	ADD 20/1	SPACE		0		28	20/1	CP-3		0.1	
29	20/1	SPACE			0	30	20/1	CF-1			1.08
31	25/2	IEWH-3	2			32	20/1	CF-2	1.08		
33	|			2		34	20/1	SPACE		0	
35	20/1	FLAT SCREEN			0.216	36	20/1	SPACE			0
37	20/1	RECEPT.	0.36			38	20/1	SPACE	0		
39	20/1	SPARE		0		40	20/1	FLAT SCREEN		0.108	
41	20/1	SPARE			0	42	20/1	SPARE			0
43	20/1	SPARE	0			44	20/1	SPARE	0		
45	20/1	SPARE		0		46	20/1	SPARE		0	
47	20/1	SPARE			0	48	20/1	SPARE			0
49	20/1	SPACE	0			50	20/1	SPACE	0		
51	20/1	SPACE		0		52	20/1	SPACE		0	
53	20/1	SPACE			0	54	20/1	SPACE			0
55	20/1	SPACE	0			56	20/1	SPACE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE			0	60	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE							7.39	6.05	5.08

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	1.92	0.48	(25%)	RECEPTACLES	10.3	10.2	(50%>10)
MOTORS	4.18	4.18	(100%)	NONCONTINUOUS	4	4	(100%)
				TOTAL LOAD		18.8	
				BALANCED 3-PHASE LOAD		52.3 A	

MK

ROOM SERVING AREA 156 | VOLTS 480Y/277V 3P 4W | AIC 42,000
MOUNTING FLUSH | BUS AMPS 400 | MAIN BKR 350
FED FROM MDP | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	LIGHTING	0.82			2	20/3	* DBL. STACK CONV. OVEN	4.17		
3	20/1	SPACE		0		4	|			4.17	
5	20/3	* 15 GAL. BRAISER			2.53	6	|				4.17
7	|		2.53			8	−/1	SHUNT TRIP SPACE	0		
9	|			2.53		10	20/3	* DBL. STACK CONV. OVEN		4.17	
11	−/1	SHUNT TRIP SPACE			0	12	|				4.17
13	30/3	* TWO BURNER RANGE	5.27			14	|		4.17		
15	|			5.27		16	−/1	SHUNT TRIP SPACE		0	
17	|				5.27	18	20/3	AHU-7			2.11
19	−/1	SHUNT TRIP SPACE	0			20	|		2.11		
21	30/3	* COMBI OVEN		7.33		22	|			2.11	
23	|				7.33	24	20/1	SPACE			0
25	|		7.33			26	90/3	EWH-3	18		
27	−/1	SHUNT TRIP SPACE		0		28	⚠ 1 ADD			18	
29	30/3	* COMBI OVEN			7.33	30	|				18
31	|		7.33			32	70/3	EDH-7	15		
33	|			7.33		34	|			15	
35	−/1	SHUNT TRIP SPACE			0	36	|				15
37	20/3	(5HP) KEF-1	2.11			38	20/3	REFRIGERATION RACK	4.32		
39	|			2.11		40	|			4.32	
41	|				2.11	42	|				4.32
43	20/1	SHUNT TRIP SPACE	0			44	20/1	SPACE	0		
45	20/3	(2HP) KSF-1		0.942		46	20/1	SPACE		0	
47	|				0.942	48	20/1	SPACE			0
49	|		0.942			50	20/1	SPACE	0		
51	20/1	SHUNT TRIP SPACE		0		52	20/1	SPACE		0	
53	20/1	SPARE			0	54	20/1	SPACE			0
55	20/1	SPARE	0			56	110/3	**XFMR T-K1 (63KVA)	22.4		
57	20/1	SPARE		0		58	|			26.6	
59	20/1	SPARE			0	60	|				27.5
		TOTAL CONNECTED KVA BY PHASE							96.5	99.9	101

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	1.02	1.28	(125%)	KITCHEN EQUIPMENT	154	100	(65%)
LARGEST MOTOR	6.32	1.58	(25%)	NONCONTINUOUS	54	54	(100%)
MOTORS	20.1	20.1	(100%)	HEATING	48.6	48.6	(100%)
RECEPTACLES	11	10.5	(50%>10)	COOLING	8.31	0	(0%)
				TOTAL LOAD		236	
				BALANCED 3-PHASE LOAD		284 A	

1. PROVIDE WITH 100% RATED MAIN BREAKER.
2. PROVIDE AN EXTERNALLY MOUNTED MULTI-METERING PACKAGE IN A NEMA 1 ENCLOUSRE. CONTRACTOR SHALL CONNECT AND INTERFACE WITH BUILDING AUTOMATION SYSTEM (BAS). COORDINATE WITH DIV. 23.
3. INTERLOCK OVENS AND BRAISERS SHUNT TRIP BREAKERS WITH KITCHEN HOOD FIRE SUPPRESSION SYSTEM.
4. PROVIDE NEMA 4X STAINLESS STEEL FRONT COVER.

* PROVIDE SHUNT TRIP TYPE.
** PROVIDE NON-PROGRAMMABLE SOLID STATE BREAKER.

K1

ROOM MEP 163 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 175
FED FROM T-K1 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	EF-12	0.038			2	20/1	ICE MACHINE	1.7		
3	20/1	RECEPT.		0.36		4	20/1	PASS THRU REFRIG.		1.03	
5	20/2	AC			1.18	6	20/2	HOT FOOD CABINET			1.61
7	30/3	DISPOSER	1.33			8	|		1.61		
9	|			1.33		10	20/1	RECEPT.		1.08	
11	|		⚠ 1 ADD		1.33	12	20/1	RECEPT.			0.36
13	20/3	DISPOSER	0.942			14	20/1	RECEPT.	0.36		
15	|			0.942		16	20/2	HOT FOOD CABINET		1.61	
17	|				0.942	18	|				1.61
19	20/2	REFRIGERATED MERCH.	1.66			20	20/1	CAN OPENER	0.18		
21	|			1.66		22	30/2	SONIC STEAMER		1.05	
23	20/1	WORK TABLE			1.2	24	|				1.05
25	20/1	KITCHEN HOOD LIGHTING	0.2			26	20/1	RECEPT.	0.54		
27	20/1	WORK TABLE		1.2		28	20/1	RECEPT.		0.36	
29	20/1	DATA RACK RECEPT. ⚠ 2 ADD			1.2	30	20/1	(3/4HP) MOTORIZED GATE			1.66
31	20/1	SPARE	0			32	60/3	SERVING LINE	5.6		
33	20/1	SPARE		0		34	⚠ 1 ADD			5.6	
35	20/1	SPARE			0	36	|				5.6
37	20/2	* WALK-IN FREEZER EVAP.	0.85			38	20/1	WORK TABLE	1.2		
39	|			0.85		40	20/2	WORK TABLE		1.67	
41	20/2	* WALK-IN COOLER EVAP.			0.146	42	|				1.67
43	|		0.146			44	20/1	RECEPT.	0.9		
45	20/1	FLAT SCREEN		0.216		46	30/2	HOT WATER DISPENSER		2.5	
47	20/1	WALK-IN FREEZER ADD			1.8	48	|				2.5
49	20/1	WALK-IN FREEZER ADD	1.8			50	20/1	FLOOR BOX	0.36		
51	25/3	POWERED POT WASH SINK		3		52	20/1	HAND DRYER		1.5	
53	|				3	54	20/1	SPARE			0
55	|		3			56	20/1	SPARE	0		
57	20/1	AIR CURTAIN		0.648		58	20/1	SPARE		0	
59	20/1	AIR CURTAIN			0.648	60	20/1	SPARE			0
		TOTAL CONNECTED KVA BY PHASE							22.4	26.6	27.5

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.2	0.25	(125%)	RECEPTACLES	11	10.5	(50%>10)
LARGEST MOTOR	3.99	0.998	(25%)	KITCHEN EQUIPMENT	48.7	31.7	(65%)
MOTORS	11	11	(100%)	HEATING	3.6	3.6	(100%)
				COOLING	1.99	0	(0%)
				TOTAL LOAD		58	
				BALANCED 3-PHASE LOAD		161 A	

* PROVIDE H.A.C.R. TYPE.

3L

ROOM MEP 129 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 125
FED FROM T-3 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FLAT SCREEN	0.108			2	20/1	RECEPT.	1.08		
3	20/1	RECEPT.		1.44		4	20/1	PROJ. SCREEN		0.2	
5	20/1	SPACE			0	6	20/1	DRINKING FOUNTAIN			0.8
7	20/1	SPACE	0			8	40/2	EWH-1	3		
9	20/1	DRINKING FOUNTAIN		0.8		10	⚠ 1 ADD			3	
11	15/2	FCU-1			0.348	12	ADD 20/1	USB RECEPT.			0.36
13	|		0.348			14	20/1	USB RECEPT.	0.36		
15	20/1	FLAT SCREEN		0.216		16	25/2	IEWH-2		2	
17	20/1	PROJ. SCREEN, USB RECEPT.			0.46	18	⚠ 2 ADD				2
19	20/1	USB RECEPT.	0.36			20	ADD 20/1	HAND DRYER	1.5		
21	20/1	USB RECEPT.		0.18		22	20/1	HAND DRYER		1.5	
23	20/1	USB RECEPT.			0.36	24	20/1	HAND DRYER			1.5
25	20/1	USB RECEPT.	0.54			26	20/1	HAND DRYER	1.5		
27	20/1	EF-1, EF-2		0.24		28	20/1	HAND DRYER		1.5	
29	20/1	RECEPT.			1.08	30	20/1	HAND DRYER			1.5
31	20/1	RECEPT.	1.26			32	20/1	HAND DRYER	1.5		
33	20/1	USB RECEPT.		0.18		34	20/1	HAND DRYER		1.5	
35	20/1	USB RECEPT.			0.18	36	20/1	HAND DRYER			1.5
37	20/1	USB RECEPT.	0.18			38	20/1	CP-1	0.1		
39	20/1	USB RECEPT.		0.18		40	20/1	SPARE		0	
41	20/1	USB RECEPT.			0.18	42	20/1	SPARE			0
43	20/1	USB RECEPT.	0.18			44	20/1	SPARE	0		
45	20/1	USB RECEPT.		0.18		46	20/1	SPARE		0	
47	20/1	EF-3, LIGHTING			0.079	48	20/1	SPARE			0
49	20/1	EF-4, LIGHTING	0.074			50	20/2	SPARE	0		
51	20/1	SPARE		0		52	|			0	
53	20/1	SPARE			0	54	20/1	SPACE			0
55	20/1	SPARE	0			56	20/1	SPACE	0		
57	20/1	SPARE		0		58	20/1	SPACE		0	
59	20/1	SPARE			0	60	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE							12.1	13.1	10.3

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.082	0.103	(125%)	RECEPTACLES	24.1	17	(50%>10)
LARGEST MOTOR	0.696	0.174	(25%)	NONCONTINUOUS	10	10	(100%)
MOTORS	0.711	0.711	(100%)	COOLING	0.696	0.696	(100%)
				TOTAL LOAD		28.7	
				BALANCED 3-PHASE LOAD		79.7 A	

2L

ROOM MEP 117 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 150
FED FROM T-2 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT.	1.26			2	20/1	FLAT SCREEN, RECEPT.	0.468		
3	20/1	FLAT SCREEN		0.108		4	20/1	REFRIG		1.2	
5	20/1	RECEPT.			1.26	6	20/1	RECEPT.			1.26
7	20/1	RECEPT.	0.72			8	20/1	FLAT SCREEN, RECEPT.	0.468		
9	20/1	REFRIG		1.2		10	20/1	RECEPT.		0.36	
11	20/1	DISHWASHER			1.2	12	20/1	REFRIG			1.2
13	20/1	RECEPT.	0.36			14	20/1	RECEPT.	1.26		
15	20/1	RECEPT.		0.9		16	20/1	RECEPT.		0.54	
17	20/1	RECEPT.			0.36	18	20/1	COPIER			1.2
19	20/1	COPIER	1.2			20	20/1	VENDING MACHINE	1		
21	20/1	RECEPT.		0.18		22	20/1	VENDING MACHINE		1	
23	20/1	ELEVATOR CONTROLS			0.1	24	20/1	RECEPT.			1.08
25	20/1	ELEVATOR CONTROLS	0.1			26	20/1	FLAT SCREEN, RECEPT.	0.468		
27	20/1	EF-5, LIGHTING		0.079		28	20/1	RECEPT.		0.54	
29	20/1	RECEPT.			0.18	30	20/1	RECEPT.			0.18
31	40/2	EWH-2	3			32	20/2	SUMP PUMP	0.432		
33	⚠ 1 ADD			3		34	|			0.432	
35	ADD 20/1	RECEPT.			0.36	36	25/2	GATE OPERATOR			0.96
37	20/1	RECEPT.	0.36			38	|		0.96		
39	20/1	RECEPT.		0.54		40	25/2	SPACE		0	
41	20/1	RECEPT.			0.9	42	|				0
43	20/1	HAND DRYER	1.5			44	25/2	GATE OPERATOR	0.96		
45	20/1	RECEPT.		1.62		46	|			0.96	
47	20/1	RECEPT.			1.62	48	25/2	IEWH-4			2.22
49	20/1	RECEPT.	0.18			50	⚠ 2 ADD		2.22		
51	20/1	CP-2		0.1		52	ADD 20/1	LIGHTING		0.08	
53	20/2	SPARE			0	54	20/1	SPARE			0
55	|		0			56	20/1	SPARE	0		
57	20/1	REFRIG		1.2		58	20/1	SPARE		0	
59	20/1	MICROWAVE			1	60	20/1	SPARE			0
61	20/1	EF-6, LIGHTING	0.079			62	20/1	SPARE	0		
63	20/2	EF-7, LIGHTING		0.101		64	20/1	SPACE		0	
65	20/1	EF-8			0.063	66	20/1	SPACE			0
67	20/1	EF-15	0.038			68	20/1	SPACE	0		
69	20/1	HAND DRYER		1.5		70	20/1	SPACE		0	
71	20/1	RECEPT.			0.36	72	20/1	SPACE			0
73	20/1	SPARE	0			74	20/1	SPACE	0		
75	20/1	SPARE		0		76	20/1	SPACE		0	
77	20/1	SPARE			0	78	20/1	SPACE			0
79	20/1	SPACE	0			80	20/1	SPACE	0		
81	20/1	SPACE		0		82	20/1	SPACE		0	
83	20/1	SPACE			0	84	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE							17	15.6	15.5

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.203	0.254	(125%)	RECEPTACLES	32.3	21.1	(50%>10)
LARGEST MOTOR	1.92	0.48	(25%)	CONTINUOUS	0.2	0.25	(125%)
MOTORS	5.04	5.04	(100%)	NONCONTINUOUS	10.4	10.4	(100%)
				TOTAL LOAD		37.6	
				BALANCED 3-PHASE LOAD		104 A	

1L

ROOM MEP 132 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 175
FED FROM T-1 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT.	0.54			2	20/1	RECEPT.	0.72		
3	20/1	RECEPT.		1.08		4	20/1	RECEPT., USB RECEPT.		1.8	
5	20/1	RECEPT.			0.9	6	20/1	RECEPT., USB RECEPT.			1.8
7	20/1	RECEPT., USB RECEPT.	1.62			8	20/1	RECEPT., USB RECEPT.	1.8		
9	20/1	RECEPT., USB RECEPT.		1.8		10	20/1	RECEPT., USB RECEPT.		1.8	
11	20/1	RECEPT., USB RECEPT.			1.8	12	20/1	RECEPT.			0.36
13	20/1	RECEPT., USB RECEPT.	1.62			14	20/1	RECEPT.	0.36		
15	20/1	RECEPT.		0.36		16	20/1	RECEPT.		0.54	
17	20/1	RECEPT.			0.54	18	20/1	RECEPT.			0.54
19	20/1	RECEPT.	0.54			20	20/1	RECEPT.	0.36		
21	20/1	RECEPT.		0.36		22	20/2	SPACE		0	
23	20/1	RECEPT.			0.36	24	|				0
25	20/1	RECEPT.	0.72			26	20/1	RECEPT., USB RECEPT.	1.8		
27	20/1	RECEPT.		1.62		28	20/1	RECEPT.		0.9	
29	20/1	RECEPT., USB RECEPT.			1.8	30	20/1	RECEPT., USB RECEPT.			1.8
31	20/1	RECEPT., USB RECEPT.	1.8			32	20/1	RECEPT., USB RECEPT.	1.8		
33	20/1	RECEPT., USB RECEPT.		1.8		34	20/1	RECEPT., USB RECEPT.		1.8	
35	20/1	RECEPT., USB RECEPT.			1.8	36	20/1	RECEPT., USB RECEPT.			1.8
37	20/1	RECEPT., USB RECEPT.	1.8			38	80/3	PANEL 1U	7.69		
39	20/1	RECEPT., USB RECEPT.		1.8		40	|			8.23	
41	25/2	GATE OPERATOR			0.96	42	|				8.05
43	|		0.96			44	20/1	RECEPT.	0.54		
45	25/2	SPACE		0		46	25/2	IEWH-6		2	
47	|				0	48	|				2
49	20/1	SPARE	0			50	20/1	SPARE	0		
51	20/1	SPARE		0		52	20/1	SPARE		0	
53	20/1	SPARE			0	54	20/1	SPARE			0
55	20/1	SPARE	0			56	20/1	SPARE	0		
57	20/1	SPARE		0		58	20/1	SPACE		0	
59	20/1	SPARE			0	60	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE							24.7	25.9	24.5

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	4	1	(25%)	MOTORS	11.2	11.2	(100%)
				RECEPTACLES	63.9	37	(50%>10)
				TOTAL LOAD		49.1	
				BALANCED 3-PHASE LOAD		136 A	

2H

ROOM MEP 209 | VOLTS 480Y/277V 3P 4W | AIC 14,000
MOUNTING SURFACE | BUS AMPS 100 | MAIN BKR 40
FED FROM 1H | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	LIGHTING	2.58			2	20/1	LIGHTING	0		
3	20/1	LIGHTING		0.525		4	20/1	LIGHTING		0	
5	20/1	LIGHTING			2.98	6	20/1	LIGHTING			0
7	20/1	LIGHTING	2.27			8	20/1	SPARE	0		
9	20/1	LIGHTING		0.441		10	20/1	SPARE		0	
11	20/1	SPARE			0	12	20/1	SPARE			0
13	20/1	SPARE	0			14	20/1	SPACE	0		
15	20/1	SPARE		0		16	20/1	SPACE		0	
17	20/1	SPARE			0	18	20/1	SPACE			0
19	20/1	SPARE	0			20	20/1	SPACE	0		
21	20/1	SPACE		0		22	20/1	SPACE		0	
23	20/1	SPACE			0	24	20/1	SPACE			0
25	20/1	SPACE	0			26	20/1	SPACE	0		
27	20/1	SPACE		0		28	20/1	SPACE		0	
29	20/1	SPACE			0	30	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE							4.85	0.966	2.98

	CONN KVA	CALC KVA			CALC KVA
LIGHTING	8.79	11	(125%)	TOTAL LOAD	11
				BALANCED 3-PHASE LOAD	13.2 A

3C

ROOM MEP 129 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 125 | MAIN BKR 125
FED FROM T-3 | NEUTRAL 200% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT.	0.72			2	20/1	PROJ. SCREEN, RECEPT.	0.64		
3	20/1	PROJ. SCREEN, RECEPT.		0.64		4	20/1	PROJ. SCREEN, RECEPT.		0.64	
5	20/1	RECEPT.			0.36	6	20/1	RECEPT.			0.36
7	20/1	RECEPT.	0.36			8	20/1	RECEPT.	0.36		
9	20/1	IG DUPLEX, USB RECEPT.		1.18		10	30/1	MDF-UPS		2.88	
11	20/1	RECEPT.			0.9	12	30/1	MDF-UPS			2.88
13	20/1	SPACE	0			14	30/1	MDF-UPS	2.88		
15	20/1	PROJ. SCREEN		0.1		16	30/1	IDF – UPS		2.88	
17	20/1	PROJ. SCREEN			0.2	18	30/1	IDF – UPS			2.88
19	20/1	IG DUPLEX, RECEPT.	0.61			20	20/1	IG DUPLEX, USB RECEPT.	0.68		
21	20/1	SPARE		0		22	20/1	IG DUPLEX, USB RECEPT.		0.93	
23	20/1	SPARE			0	24	30/1	MDF-UPS			2.88
25	20/1	SPARE	0			26	20/1	SPARE	0		
27	20/1	SPARE		0		28	20/1	SPACE		0	
29	20/1	SPARE			0	30	20/1	SPACE			0
31	20/1	SPACE	0			32	20/1	SPARE	0		
33	20/1	SPACE		0		34	20/1	SPACE		0	
35	20/1	SPACE			0	36	20/1	SPACE			0
37	20/1	SPACE	0			38	60/3	SPACE	0		
39	20/1	SPACE		0		40	|			0	
41	20/1	SPACE			0	42	|				0
		TOTAL CONNECTED KVA BY PHASE							6.25	9.25	10.5

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	0.1	0.025	(25%)	RECEPTACLES	5

S

ROOM | VOLTS 208/120V 2P 3W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 60 | MAIN BKR 40
FED FROM 1H | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B
1	20/1	LIGHTING	0.108		2	20/1	RECEPT.	0.36	
3	20/1	SPACE		0	4	20/1	RECEPT.		0.54
5	20/1	SPACE	0		6	20/1	SPACE	0	
7	20/1	SPACE		0	8	20/1	SPACE		0
9	20/1	SPACE	0		10	20/1	SPACE	0	
11	20/1	SPACE		0	12	20/1	SPACE		0
							TOTAL CONNECTED KVA BY PHASE	0.468	0.54

	CONN KVA	CALC KVA			CALC KVA
LIGHTING	0.108	0.135	(125%)	TOTAL LOAD	1.04
RECEPTACLES	0.9	0.9	(50%>10)	BALANCED LOAD	4.98 A

1. PROVIDE NEMA 3R ENCLOSURE.
2. PROVIDE PACKAGED POWER SUPPLY WITH INTEGRAL 7.5KVA TRANSFORMER, 30A/2P 480V PRIMARY MCB AND 40A/2P 240V SECONDARY MCB.

CP

ROOM | VOLTS 480Y/277V 3P 4W | AIC 65,000
MOUNTING SURFACE | BUS AMPS 1200 | MAIN BKR MLO
FED FROM UTILITY | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE PHENOLIC CIRCUIT BREAKER IDENTIFICATION NAMETAGS PER SPECIFICATIONS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	600/3	CH-1	135			2	600/3	CH-2	135		
3	|			135		4	|			135	
5	|				135	6	|				135
7	600/3	CH-3	0.003			8	60/3	SPD	0		
9	|			0.003		10	|		0		
11	|				0.003	12	|			0	
13	20/3	SPARE	0			14	40/3	SPARE	0		
15	|			0		16	|			0	
17	|				0	18	|				0
19	20/1	SPACE	0			20	20/1	SPACE	0		
								TOTAL CONNECTED KVA BY PHASE	269	269	269

	CONN KVA	CALC KVA			CALC KVA
LARGEST MOTOR	33.3	8.31	(25%)	TOTAL LOAD	817
COOLING	808	808	(100%)	BALANCED 3-PHASE LOAD	982 A

1. PROVIDE A NEMA 3R OUTDOOR ENCLOSURE.

PE

ROOM PRE-ENGINEERING 145 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 250
FED FROM T-PE | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	RECEPT.	1.6			2	20/1	RECEPT.	1.6		
3	20/1	RECEPT.		1.6		4	20/1	SPACE		0	
5	20/1	SPACE			0	6	20/2	3D PRINTER			1.56
7	20/1	RECEPT.	1.6			8	|		1.56		
9	20/1	RECEPT.		1.6		10	20/1	RECEPT.		1.6	
11	20/1	RECEPT.			1.6	12	20/1	RECEPT.			1.6
13	20/1	RECEPT.	1.6			14	20/1	RECEPT.	1.6		
15	20/1	RECEPT.		1.6		16	20/1	RECEPT.		1.6	
17	20/1	RECEPT.			1.6	18	20/1	DRILL PRESS			1.66
19	20/1	RECEPT.	1.6			20	20/1	RECEPT.	1.6		
21	20/1	RECEPT.		1.6		22	20/1	RECEPT.		1.6	
23	20/1	SPACE			0	24	125/3 ADD	C-1			5.82
25	20/1	RECEPT.	0.36			26	|		5.82		
27	20/1	RECEPT.		1.78		28	|			5.82	
29	20/1	RECEPT.			1.2	30	20/2	LASER CUTTER			1.56
31	20/1	RECEPT.	1.2			32	|		1.56		
33	20/1	RECEPT.		1.2		34	45/3	(5.5HP) EF-13		2.11	
35	20/1	RECEPT.			1.2	36	|				2.11
37	20/1	RECEPT.	1.2			38	|		2.11		
39	20/1	RECEPT.		1.2		40	20/1	(1/3HP) EF-14		0.864	
41	20/1	RECEPT.			1.2	42	25/2 ADD	IEWH-1			2.22
43	20/1	RECEPT.	1.2			44	|		2.22		
45	20/1	RECEPT.		1.2		46	20/1	SPACE		0	
47	20/1	RECEPT.			0.18	48	20/1	(1/3HP) EF-15			0.864
49	30/3	OVEN	2.88			50	20/2	3D PRINTER	1.56		
51	|			2.88		52	|			1.56	
53	|				2.88	54	20/3	BAND SAW			0.942
55	60/3	SPARE	0			56	|		0.942		
57	|			0		58	|			0.942	
59	|				0	60	20/1	SPARE			0
61	20/3	BAND SAW	0.582			62	20/1	SPARE	0		
63	|			0.582		64	20/1	SPARE		0	
65	|				0.582	66	20/1	SPARE			0
67	20/3	LATHE	0.942			68	20/1	SPARE	0		
69	|			0.942		70	20/1	SPARE		0	
71	|				0.942	72	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	35.3	32.3	29.7

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	17.5	4.36	(25%)	RECEPTACLES	60	35	(50%>10)
MOTORS	32.9	32.9	(100%)	NONCONTINUOUS	4.44	4.44	(100%)
				TOTAL LOAD		76.7	
				BALANCED 3-PHASE LOAD		213 A	

1. PROVIDE WITH SHUNT TRIP MAIN BREAKER INTERLOCKED WITH RED KNOB EMERGENCY PUSH BUTTONS.

2U

ROOM MEP 230 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 100 | MAIN BKR 80
FED FROM 5L | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	USB RECEPT.	0.36			2	20/1	USB RECEPT.	0.36		
3	20/1	RECEPT., USB RECEPT.		0.54		4	20/1	USB RECEPT.		0.36	
5	20/1	USB RECEPT.			0.72	6	20/1	USB RECEPT.			0.72
7	20/1	USB RECEPT.	0.36			8	20/1	USB RECEPT.	0.36		
9	20/1	RECEPT.		0.54		10	20/1	RECEPT.		0.54	
11	20/1	RECEPT.			0.54	12	20/1	RECEPT.			0.54
13	20/1	RECEPT.	0.54			14	20/1	RECEPT.	0.54		
15	20/1	RECEPT.		0.54		16	20/1	RECEPT.		0.54	
17	20/1	RECEPT.			0.54	18	20/1	RECEPT.			0.54
19	20/1	RECEPT.	0.54			20	20/1	RECEPT.	0.54		
21	20/1	RECEPT.		0.72		22	20/1	RECEPT.		0.72	
23	20/1	RECEPT.			0.36	24	20/1	RECEPT.			0.72
25	20/1	RECEPT.	0.54			26	20/1	USB RECEPT.	0.36		
27	20/1	RECEPT.		0.72		28	20/1	USB RECEPT.		0.36	
29	20/1	RECEPT.			0.36	30	20/1	USB RECEPT.			0.54
31	20/3	(1HP) EF-11	0.582			32	20/1	USB RECEPT.	0.54		
33	|			0.582		34	20/1	RECEPT.		0.54	
35	|				0.582	36	20/1	RECEPT.			0.54
37	20/3	(1HP) EF-9	0.582			38	20/1	RECEPT.	0.54		
39	|			0.582		40	20/1	RECEPT.		0.54	
41	|				0.582	42	20/1	RECEPT.			0.54
43	20/3	(1HP) EF-10	0.582			44	20/1	SPACE	0		
45	|			0.582		46	20/1	SPARE		0	
47	|				0.582	48	20/1	SPARE			0
49	20/1	SPARE	0			50	20/1	SPARE	0		
51	20/1	SPARE		0		52	20/1	SPARE		0	
53	20/1	SPARE			0	54	20/1	SPARE			0
55	20/1	SPARE	0			56	20/1	SPARE	0		
57	20/1	SPARE		0		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	6.49	6.53	5.63

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	1.75	0.436	(25%)	MOTORS	6.95	6.95	(100%)
				RECEPTACLES	11.7	10.9	(50%>10)
				TOTAL LOAD		18.2	
				BALANCED 3-PHASE LOAD		50.6 A	

5L

ROOM MEP 230 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 225
FED FROM T-5 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	SPARE	0			2	20/1	RECEPT., USB RECEPT.	1.8		
3	20/1	RECEPT.		0.9		4	20/1	RECEPT.		0.9	
5	20/1	RECEPT., USB RECEPT.			1.8	6	40/2 ADD	EWH-4			3
7	20/1	IG DUPLEX	0.25			8	|		3		
9	20/1	RECEPT.		0.54		10	20/1	RECEPT.		1.08	
11	20/1	RECEPT.			0.54	12	20/1	RECEPT.			1.08
13	20/1	PROJ. SCREEN	0.1			14	20/1	RECEPT.	0.54		
15	20/1	RECEPT.		0.18		16	20/1	PROJ. SCREEN		0.1	
17	20/1	RECEPT.			0.36	18	20/1	CP-4			0.1
19	20/1	RECEPT., USB RECEPT.	1.62			20	20/1	HAND DRYER	1.5		
21	20/1	DRINKING FOUNTAIN		0.8		22	20/1	HAND DRYER		1.5	
23	20/1	DRINKING FOUNTAIN			0.8	24	20/1	HAND DRYER			1.5
25	20/1	EF-17, EF-18, RECEPT.	0.6			26	20/1	HAND DRYER	1.5		
27	20/1	RECEPT.		0.18		28	20/1	HAND DRYER		1.5	
29	20/1	EF-19, LIGHTING			0.079	30	20/1	HAND DRYER			1.5
31	20/1	EF-20, LIGHTING	0.142			32	20/1	USB RECEPT.	0.72		
33	15/2	FCU-2		0.348		34	20/1	USB RECEPT.		0.72	
35	|				0.348	36	25/2 ADD	IEWH-5			2
37	20/1	MOTORIZED SHADE	0.6			38	|		2		
39	20/1	FLAT SCREEN		0.216		40	20/1	HAND DRYER		1.5	
41	20/1	LIGHTING			0.9	42	25/1	RO/D			3
43	20/1	LIGHTING	0.6			44	15/2	* ACCU-WAC-1, WAC-1	0.999		
45	15/2	FCU-3		0.348		46	|			0.999	
47	|				0.348	48	20/1	SPARE			0
49	20/2	* ACCU-1	1.08			50	20/1	SPARE	0		
51	|			1.08		52	20/1	SPARE		0	
53	20/2	* ACCU-2			1.08	54	20/1	SPARE			0
55	|		1.08			56	80/3	PANEL 2U	6.49		
57	20/2	* ACCU-3		1.08		58	|			6.53	
59	|				1.08	60	|				5.63
								TOTAL CONNECTED KVA BY PHASE	24.6	20.5	25.1

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	1.62	2.03	(125%)	RECEPTACLES	37.9	24	(50%>10)
LARGEST MOTOR	3	0.75	(25%)	CONTINUOUS	0.25	0.313	(125%)
MOTORS	10.6	10.6	(100%)	NONCONTINUOUS	10	10	(100%)
				COOLING	9.88	9.88	(100%)
				TOTAL LOAD		57.5	
				BALANCED 3-PHASE LOAD		160 A	

* PROVIDE H.A.C.R. TYPE.

5C

ROOM MEP 230 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 125 | MAIN BKR 100
FED FROM T-5 | NEUTRAL 200% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	SPACE	0			2	20/1	SPACE	0		
3	20/1	SPACE		0		4	20/1	RECEPT.		0.54	
5	20/1	SPACE			0	6	20/1	RECEPT.			0.18
7	20/1	RECEPT.	0.54			8	20/1	RECEPT.	0.54		
9	20/1	RECEPT.		0.54		10	20/1	PROJ. SCREEN, RECEPT.		0.64	
11	20/1	PROJ. SCREEN, RECEPT.			0.64	12	20/1	PROJ. SCREEN, RECEPT.			0.38
13	20/1	PRE-WIRED FURNITURE	1.5			14	20/1	PRE-WIRED FURNITURE	1.5		
15	20/1	PRE-WIRED FURNITURE		1.5		16	20/1	PRE-WIRED FURNITURE		1.5	
17	20/1	PRE-WIRED FURNITURE			1.5	18	20/1	PRE-WIRED FURNITURE			1.5
19	20/1	PRE-WIRED FURNITURE	1.5			20	20/1	PRE-WIRED FURNITURE	1.5		
21	20/1	PRE-WIRED FURNITURE		1.5		22	20/1	PRE-WIRED FURNITURE		1.5	
23	20/1	PRE-WIRED FURNITURE			1.5	24	20/1	PRE-WIRED FURNITURE			1.5
25	20/1	PRE-WIRED FURNITURE	1.5			26	20/1	PRE-WIRED FURNITURE	1.5		
27	20/1	PRE-WIRED FURNITURE		1.5		28	20/1	PRE-WIRED FURNITURE		1.5	
29	20/1	PRE-WIRED FURNITURE			1.5	30	20/1	PRE-WIRED FURNITURE			1.5
31	20/1	RECEPT.	0.18			32	20/1	RECEPT.	0.18		
33	20/1	RECEPT.		0.18		34	20/1	SPARE		0	
35	20/1	PROJ. SCREEN, RECEPT.			0.64	36	20/1	SPARE			0
37	20/1	SPARE	0			38	20/1	SPARE	0		
39	20/1	SPARE		0		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	10.4	10.9	10.8

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	0.1	0.025	(25%)	MOTORS	0.5	0.5	(100%)
				RECEPTACLES	31.7	20.8	(50%>10)
				TOTAL LOAD		21.4	
				BALANCED 3-PHASE LOAD		59.3 A	

1U

ROOM MEP 132 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 100 | MAIN BKR 80
FED FROM 1L | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	USB RECEPT.	0.36			2	20/1	USB RECEPT.	0.36		
3	20/1	USB RECEPT.		0.36		4	20/1	USB RECEPT.		0.36	
5	20/1	USB RECEPT.			0.54	6	20/1	USB RECEPT.			0.54
7	20/1	USB RECEPT.	0.54			8	20/1	USB RECEPT.	0.54		
9	20/1	RECEPT.		0.54		10	20/1	RECEPT.		0.54	
11	20/1	RECEPT.			0.54	12	20/1	RECEPT.			0.54
13	20/1	RECEPT.	0.54			14	20/1	RECEPT.	0.54		
15	20/1	RECEPT.		0.54		16	20/1	RECEPT.		0.54	
17	20/1	RECEPT.			0.54	18	20/1	RECEPT.			0.54
19	20/1	RECEPT.	0.54			20	20/1	RECEPT.	0.54		
21	20/1	RECEPT.		0.72		22	20/1	RECEPT.		0.72	
23	20/1	RECEPT.			0.36	24	20/1	RECEPT.			0.72
25	20/1	RECEPT.	0.54			26	20/1	USB RECEPT.	0.36		
27	20/1	RECEPT.		0.72		28	20/1	USB RECEPT.		0.36	
29	20/1	RECEPT.			0.36	30	20/1	USB RECEPT.			0.54
31	20/3	(1HP) EF-11	0.582			32	20/1	USB RECEPT.	0.54		
33	|			0.582		34	20/1	RECEPT.		0.54	
35	|				0.582	36	20/1	RECEPT.			0.54
37	20/3	(1HP) EF-9	0.582			38	20/1	RECEPT.	0.54		
39	|			0.582		40	20/1	RECEPT.		0.54	
41	|				0.582	42	20/1	RECEPT.			0.54
43	20/3	(1HP) EF-10	0.582			44	20/1	SPACE	0		
45	|			0.582		46	20/1	SPARE		0	
47	|				0.582	48	20/1	SPARE			0
49	20/1	SPARE	0			50	20/1	SPARE	0		
51	20/1	SPARE		0		52	20/1	SPARE		0	
53	20/1	SPARE			0	54	20/1	SPARE			0
55	20/1	SPARE	0			56	20/1	SPARE	0		
57	20/1	SPARE		0		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	7.69	8.23	8.05

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	1.75	0.436	(25%)	MOTORS	5.24	5.24	(100%)
				RECEPTACLES	18.7	14.4	(50%>10)
				TOTAL LOAD		20	
				BALANCED 3-PHASE LOAD		55.6 A	

PDP1

ROOM OUTDOORS | VOLTS 480Y/277V 3P 4W | AIC 65,000
MOUNTING SURFACE | BUS AMPS 800 | MAIN BKR 800
FED FROM UTILITY | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	15/3	(5HP) AHU-6	2.11			2	100/3	SCHWP-1	11.1		
3	|			2.11		4	|			11.1	
5	|				2.11	6	|				11.1
7	40/3	VAV5-1, VAV5-3, VAV5-5,	8.33			8	100/3	SCHWP-2	11.1		
9	|	VAV5-8, VAV5-9		8.33		10	|			11.1	
11	|				8.33	12	|				11.1
13	400/3	PANEL PDP3	117			14	25/3	(7.5HP) AHU-4	2.5		
15	|			115		16	|			2.5	
17	|				115	18	|				2.5
19	30/3	(5HPX2) AHU-5	3.71			20	30/3	VAV6-1, VAV6-2	6		
21	|			3.71		22	|			6	
23	|				3.71	24	|				6
25	20/3	(5HPX2) BP-1	1.33			26	300/3	PANEL PDP2	60.3		
27	|			1.33		28	|			60.3	
29	|				1.33	30	|				60.3
31	60/3	SPD	0			32	20/3	SPACE	0		
33	|			0		34	|			0	
35	|				0	36	|				0
37	20/3	SPACE	0			38	20/3	SPACE	0		
39	|			0		40	|			0	
41	|				0	42	|				0
								TOTAL CONNECTED KVA BY PHASE	223	221	221

	CONN KVA	CALC KVA			CALC KVA
LARGEST MOTOR	33.3	8.31	(25%)	TOTAL LOAD	574
MOTORS	121	121	(100%)	BALANCED 3-PHASE LOAD	690 A
HEATING	444	444	(100%)		
COOLING	101	0	(0%)		

1. PROVIDE TAYLOR PHASE GUARD/TIME MARK SHUNT TRIP PROTECTION TO MAIN BREAKER.
2. PROVIDE SHUNT TRIP MAIN BREAKER.

PDP2

ROOM | VOLTS 480Y/277V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 300
FED FROM PDP1 | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	15/3	(5HP) AHU-11	2.11			2	70/3	EDH-11	15		
3	|			2.11		4	|		15		
5	|				2.11	6	|			15	
7	45/3	(7.5HPX2) AHU-12	5.43			8	125/3	EDH-12	26.7		
9	|			5.43		10	|			26.7	
11	|				5.43	12	|				26.7
13	20/3 ADD	ELEVATOR	11.1			14	20/3	SPACE	0		
15	|			11.1		16	|			0	
17	|				11.1	18	|				0
19	20/3	SPACE	0			20	20/3	SPACE	0		
21	|			0		22	|			0	
23	|				0	24	|				0
								TOTAL CONNECTED KVA BY PHASE	60.3	60.3	60.3

	CONN KVA	CALC KVA			CALC KVA
LARGEST MOTOR	33.3	8.31	(25%)	TOTAL LOAD	167
MOTORS	33.3	33.3	(100%)	BALANCED 3-PHASE LOAD	200 A
HEATING	125	125	(100%)		
COOLING	22.6	0	(0%)		

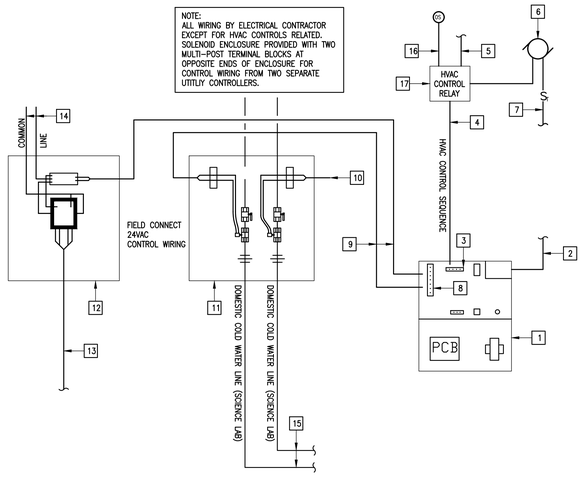
PDP3

ROOM MEP 209 | VOLTS 480Y/277V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 400
FED FROM PDP1 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	45/3	(7.5HPX2) AHU-8	5.43			2	60/3	VAV8-1, VAV8-2, VAV8-4,	12		
3	|			5.43		4	|	VAV8-6, VAV8-8, VAV8-10		12	
5	|				5.43	6	|				12
7	15/3	(5HP) AHU-9	2.11			8	40/3	VAV8-3, VAV8-5, VAV8-7,	6.67		
9	|			2.11		10	|	VAV8-9		6.67	
11	|				2.11	12	|				6.67
13	30/3	(5HPX2) AHU-10	3.71			14	50/3	VAV9-1, VAV9-2, VAV10-4	10.3		
15	|			3.71		16	|			10.3	
17	|				3.71	18	|				10.3
19	40/3	(5HPX4) AHU-1	7.43			20	50/3	VAV10-1, VAV10-2, VAV10-3	9.67		
21	|			7.43		22	|			9.67	
23	|				7.43	24	|				9.67
25	30/3	(5HPX2) AHU-2	3.71			26	40/3	VAV1-1, VAV1-4, VAV1-5,	8		
27	|			3.71		28	|	VAV1-8		8	
29	|				3.71	30	|				8
31	15/3	(3HP) AHU-3	1.33			32	40/3	VAV1-2, VAV1-3, VAV1-6,	8.33		
33	|			1.33		34	|	VAV1-13		6.33	
35	|				1.33	36	|				6.33
37	40/3	EDH-3	8.33			38	50/3	VAV1-7, VAV1-9, VAV1-10,	9.33		
39	|			8.33		40	|	VAV1-11, VAV1-12		9.33	
41	|				8.33	42	|				9.33
43	20/1	SPACE	0			44	60/3	VAV2-1, VAV2-2, VAV2-3	11.3		
45	20/1	SPACE		0		46	|			11.3	
47	20/1	SPACE			0	48	|				11.3
49	20/1	SPACE	0			50	50/3	VAV4-1, VAV4-2	9.33		
51	20/1	SPACE		0		52	|			9.33	
53	20/1	SPACE			0	54	|			

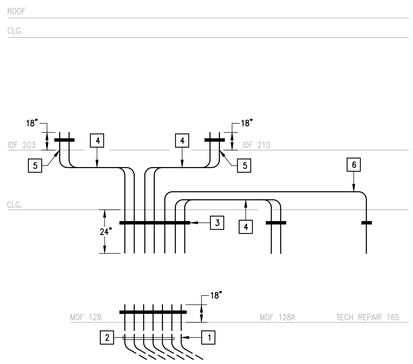
KEYED NOTES:

1. PROVIDE UTILITY CONTROLER WITH PANIC BUTTON (PURGE), FIELD CONFIGURE CONTROLS SYSTEM. FAN NORMAL SPEED TO BE VIA OCCUPANCY SENSOR.
2. PROVIDE 120VAC POWER SUPPLY WIRING IN CONDUIT MAKE CONNECTION @ J-BOX.
3. PROVIDE ENERGY MANAGEMENT CONTROL CONTACTOR TO MAKE CONNECTIONS TO TERMINAL 1.
4. PROVIDE 1/2"EMT AND CONTROL WIRING FROM AIR HANDLING DEVICE.
5. TO HVAC CONTROL PANEL.
6. EXHAUST FAN BY MECHANICAL CONTRACTOR. EXHAUST FAN SHALL ACTIVATE HIGH SPEED TO PURGE MODE ON PANIC. PROVIDE ADDITIONAL LOW SPEED CONTROL SWITCH. SEE CONTROLS SEQUENCE.
7. PROVIDE 208V, 3ø LINE & NEUTRAL FROM PANELBOARD.
8. CONNECT OUTPUT CIRCUIT WIRING TO TERMINAL 2.
9. PROVIDE 1/2" EMT FIELD INSTALLED. PROVIDE NEW 18AWG TO EACH SOLENOID AND RELAY.
10. TO ADJACENT LAB UTILITY CONTROLLER.
11. PROVIDE SOLENOID ENCLOSURE.
12. PROVIDE CONTACTOR ENCLOSURE.
13. PROVIDE 120VAC TO CONVENIENCE OUTLETS AT STUDENT WORK STATIONS.
14. PROVIDE 120V FROM PANELBOARD.
15. PROVIDE CONNECTIONS TO SCIENCE LAB TABLES – TYPICAL.
16. PROVIDE OCCUPANCY SENSOR AND CONTROL WIRE LUTRON MODEL NO. LOS-CDT-2000-WH.
17. HVAC CONTROL RELAY BY DIV. 23.



01 TYPICAL SCIENCE LAB UTILITY CONTROLS DETAIL

SCALE : NOT TO SCALE

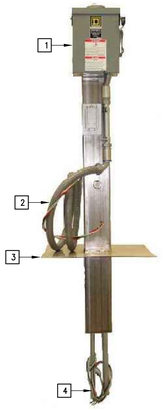


KEYED NOTES:

1. PROVIDE RACEWAYS WITH PULLWIRE (FIBER OPTIC CABLE BY OWNER). SEE SHEET MEP1.01.
2. PROVIDE SPECIAL SYSTEMS RACEWAYS. SEE SITE PLAN FOR QUANTITIES.
3. PROVIDE UNISTRUT WALL BRACKET AS REQUIRED. SECURE RACEWAYS WITH "U" CLAMPS – TYPICAL.
4. PROVIDE 1-4" RACEWAY WITH PULLWIRE (FIBER OPTIC CABLE BY OWNER) AND 1-4" WITH PULLWIRE (SPARE). ROUTE ABOVE ACCESSIBLE CEILING SPACE.
5. PROVIDE SLEEVES THROUGH FLOOR.
6. PROVIDE 1-4" RACEWAY WITH PULLWIRE (FIBER OPTIC CABLE BY OWNER). ROUTE ABOVE ACCESSIBLE CEILING SPACE.

03 SPECIAL SYSTEMS RACEWAYS DETAIL

SCALE : NOT TO SCALE



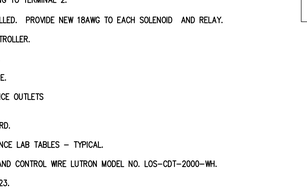
KEYED NOTES:

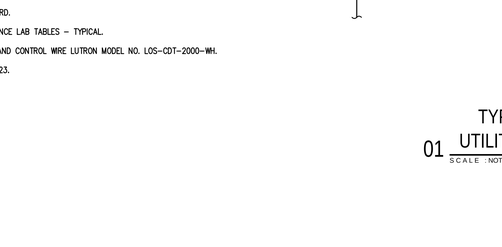
1. PROVIDE ROOF TOP PEDESTAL DISCONNECT MAPA PRODUCTS MODEL NO. MPD-30-32;42/12-G-10C-NF-, REFER TO EQUIPMENT CONNECTION SCHEDULE FOR AMPERAGE.
2. FLEXIBLE CONNECTION TO HVAC EQUIPMENT.
3. SECURE TO BUILDING STRUCTURAL STEEL.
4. CONNECT TO POWER SOURCE.

GENERAL NOTE:
COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO MAKING ANY NEW PENETRATIONS THROUGH ROOF IN ORDER TO MEET EQUIPMENT REQUIRED CLEARANCES.

04 ACCU ON ROOF DISCONNECT PEDESTAL DETAIL

SCALE : NONE



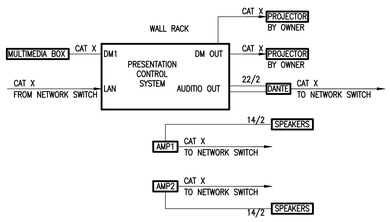


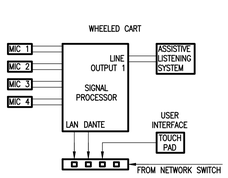
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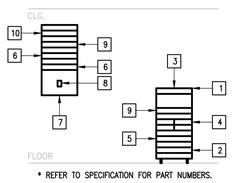
1. PROVIDE TIME CLOCK TO CONTROL PUMP.
2. LINE VOLTAGE AQUASTAT CONTROLLER FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR. CONNECTED BY ELECTRICAL CONTRACTOR. AQUASTAT CLOSES WHEN STORAGE TANK WATER TEMPERATURE DROPS BELOW 120°F (ADJ.).
3. CIRCULATING PUMP FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR. POWERED BY DIV. 26.

05 CIRCULATING PUMP WIRING SCHEMATIC & DETAIL

SCALE : NOT TO SCALE







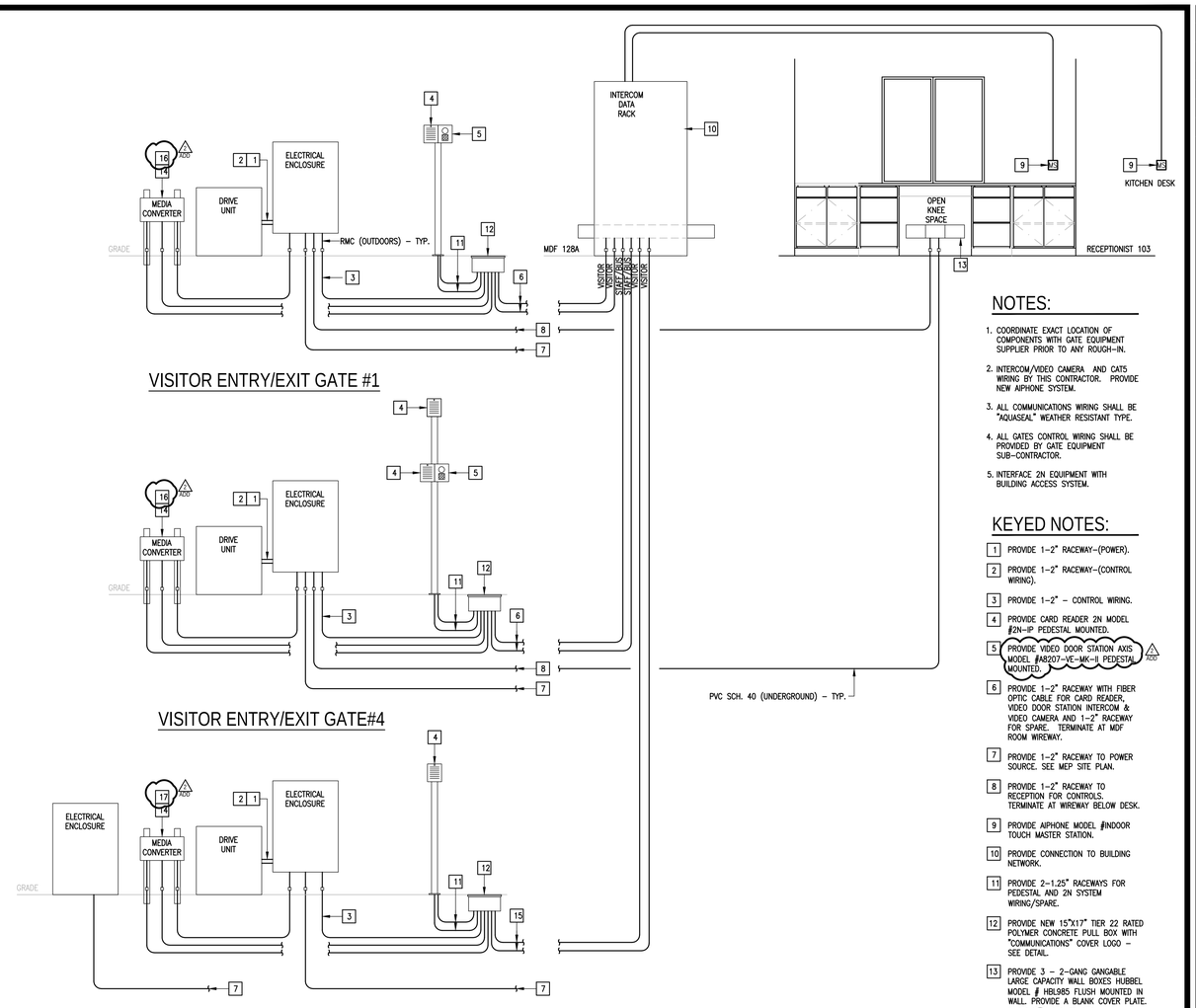
* REFER TO SPECIFICATION FOR PART NUMBERS.

KEYED NOTES:

1. PROVIDE WHEELED CART.
2. PROVIDE SIGNAL PROCESSOR.
3. PROVIDE USER INTERFACE TOUCH PANEL.
4. PROVIDE MICROPHONE WIRELESS TRANSMITTER.
5. PROVIDE ASSISTIVE LISTENING TRANSMITTER.
6. PROVIDE AMPLIFIER.
7. PROVIDE WALL MOUNT RACK.
8. PROVIDE 120V DEDICATED CIRCUIT.
9. PROVIDE SEQUENCER.
10. PROVIDE PRESENTATION CONTROL SYSTEM.

06 CAFETORIUM SOUND SYSTEM RACK RISER DETAIL

SCALE : NOT TO SCALE



VISITOR ENTRY GATE #2 & EXIT GATE #3

NOTES:

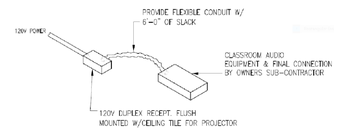
1. COORDINATE EXACT LOCATION OF COMPONENTS WITH GATE EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH-IN.
2. INTERCOM/VIDEO CAMERA AND CAT5 WIRING BY THIS CONTRACTOR. PROVIDE NEW AIPHONE SYSTEM.
3. ALL COMMUNICATIONS WIRING SHALL BE "AQUASEAL" WEATHER RESISTANT TYPE.
4. ALL GATES CONTROL WIRING SHALL BE PROVIDED BY GATE EQUIPMENT SUB-CONTRACTOR.
5. INTERFACE 2N EQUIPMENT WITH BUILDING ACCESS SYSTEM.

KEYED NOTES:

1. PROVIDE 1-2" RACEWAY-(POWER).
2. PROVIDE 1-2" RACEWAY-(CONTROL WIRING).
3. PROVIDE 1-2" – CONTROL WIRING.
4. PROVIDE CARD READER 2N MODEL #2N-IP PEDESTAL MOUNTED.
5. PROVIDE VIDEO DOOR STATION AXIS MODEL #A8207-VE-MK-II PEDESTAL MOUNTED. (NOTE 3)
6. PROVIDE 1-2" RACEWAY WITH FIBER OPTIC CABLE FOR CARD READER, VIDEO DOOR STATION INTERCOM & VIDEO CAMERA AND 1-2" RACEWAY FOR SPARE. TERMINATE AT MDF ROOM WIREWAY.
7. PROVIDE 1-2" RACEWAY TO POWER SOURCE. SEE MEP SITE PLAN.
8. PROVIDE 1-2" RACEWAY TO RECEPTION FOR CONTROLS. TERMINATE AT WIREWAY BELOW DESK.
9. PROVIDE AIPHONE MODEL #INDOOR TOUCH MASTER STATION.
10. PROVIDE CONNECTION TO BUILDING NETWORK.
11. PROVIDE 2-1.25" RACEWAYS FOR PEDESTAL AND 2N SYSTEM WIRING/SPARE.
12. PROVIDE NEW 15"X17" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "COMMUNICATIONS" COVER LOGO – SEE DETAIL.
13. PROVIDE 3 – 2-GANG GANGABLE LARGE CAPACITY WALL BOXES HUBBEL MODEL # HBL985 FLUSH MOUNTED IN WALL. PROVIDE A BLANK COVER PLATE.
14. PROVIDE MEDIA CONVERTER TRANSITION NETWORKS MODEL #SS-IES-1210-LRT IN A NEMA 3R OUTDOOR ENCLOSURE. PROVIDE 120V CONNECTION AND IN-LINE FUSE PROTECTION TO MEDIA CONVERTER FROM GATE OPERATOR; BRANCH CIRCUIT: 1/2" – 2#12 & #12G. (NOTE 3)
15. PROVIDE 1-2" RACEWAY WITH FIBER OPTIC CABLE FOR CARD READER STATION INTERCOM AND 1-2" RACEWAY FOR SPARE. TERMINATE AT MDF ROOM WIREWAY.
16. PROVIDE IN SAME MEDIA CONVERTER OUTDOOR ENCLOSURE:
    (1) GENETEC "LP 1501" MERCURY BOARD (SINGLE DOOR CONTROLLER).
    (1) COMNET "PS-DRA240-48A D36" OUTDOOR POWER SUPPLY.
    (1) COMNET "CNGE4+2SMSPOEHO/M" OUTDOOR POE SWITCH. (NOTE 3)
17. PROVIDE IN SAME MEDIA CONVERTER OUTDOOR ENCLOSURE:
    (1) GENETEC "LP 1501" MERCURY BOARD (SINGLE DOOR CONTROLLER). (NOTE 3)

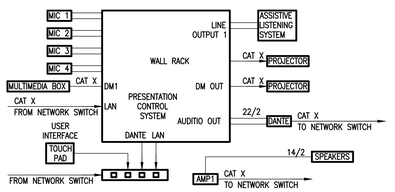
02 SLIDE GATE OPERATOR DETAIL

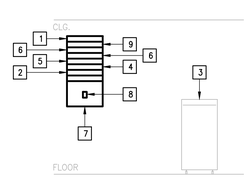
SCALE : NOT TO SCALE



08 TYPICAL CLASSROOM AUDIO SYSTEM DETAIL

SCALE : NOT TO SCALE





* REFER TO SPECIFICATION FOR PART NUMBERS.

KEYED NOTES:

1. PROVIDE PRESENTATION CONTROL SYSTEM.
2. PROVIDE SIGNAL PROCESSOR.
3. PROVIDE USER INTERFACE TOUCH PANEL AT PODIUM.
4. PROVIDE MICROPHONE WIRELESS TRANSMITTER.
5. PROVIDE ASSISTIVE LISTENING TRANSMITTER.
6. PROVIDE AMPLIFIER.
7. PROVIDE WALL MOUNT RACK.
8. PROVIDE 120V DEDICATED CIRCUIT.
9. PROVIDE SEQUENCER.

07 LECTURE HALL INTEGRATED AUDIO SYSTEM RISER DETAIL

SCALE : NOT TO SCALE

No.	REVISIONS	BY
1 (NOTE)	09/26/2022	ETHOS

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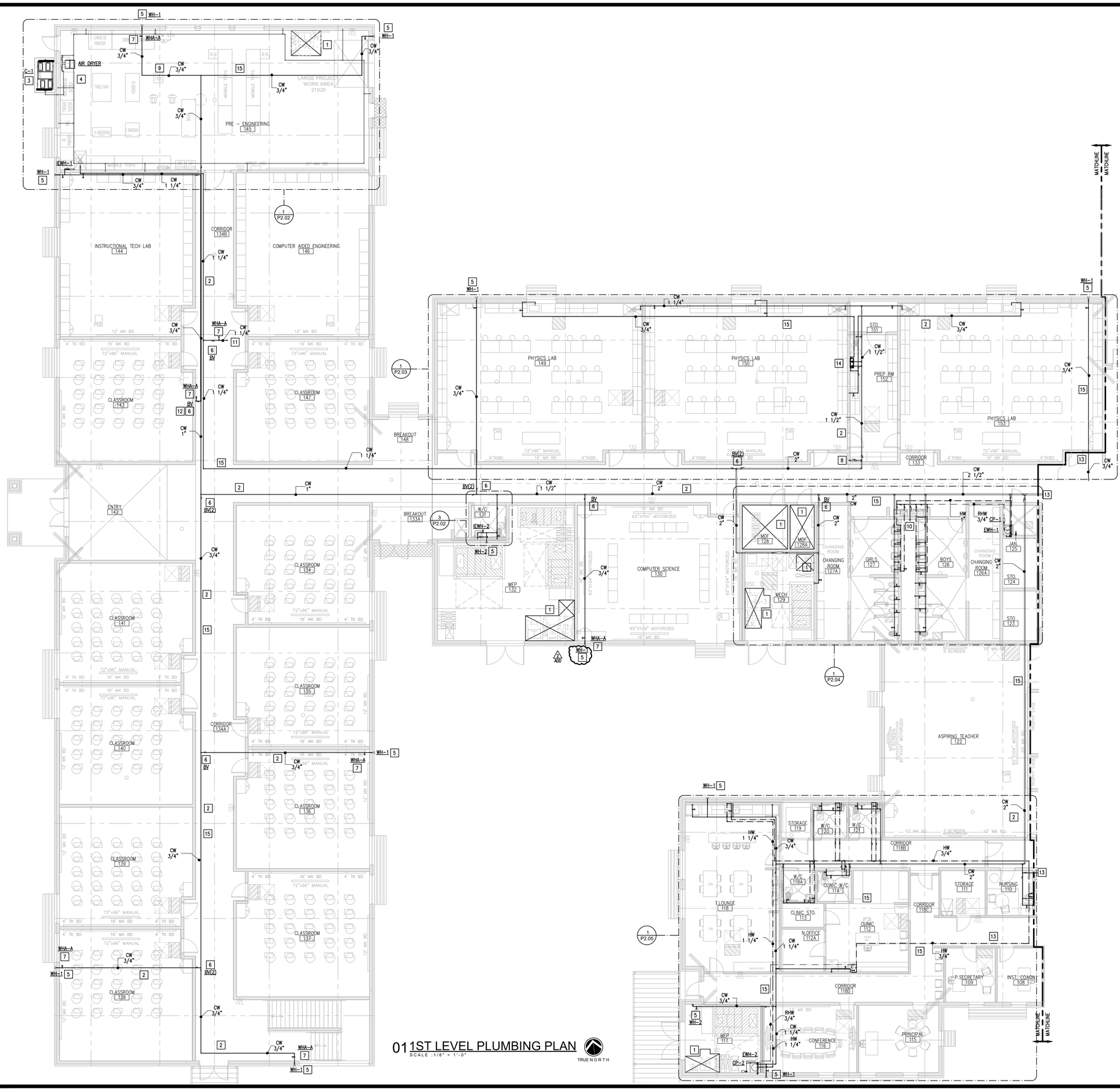
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LICENSED PROFESSIONAL ENGINEER
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STATE OF TEXAS
09.08.2022

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Architects-Planners
Interior Designers

Date:	September 08, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J.P.
Job No.	22V73
Sheet:	E9.03

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F-15998



GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.

PLUMBING KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
3. PROVIDE AIR COMPRESSOR (C-1) AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
4. PROVIDE AND INSTALL COMPRESSED AIR DRYER AT THIS APPROXIMATE LOCATION. PROVIDE COMPRESSED AIR DRYER WITH ASSOCIATED AIR FILTERS. COORDINATE EXACT LOCATION WITH OWNER.
5. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
6. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AND INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
7. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
8. RUN 2" COLD WATER LINE UP TO 2ND FLOOR TO SERVE SCIENCE LAB CLASSROOM.
9. RUN 3/4" COLD WATER LINE UP TO 2ND FLOOR TO SERVE WALL HYDRANT/ ROOF HYDRANT.
10. RUN 2" COLD WATER LINE UP TO 2ND FLOOR.
11. RUN 1 1/4" COLD WATER LINE UP TO 2ND FLOOR TO SERVE EMERGENCY SHOWER.
12. RUN 3/4" COLD WATER LINE UP TO 2ND FLOOR TO SERVE SINK.
13. SEE 1/P2.06 FOR CONTINUATION.
14. DROP DOMESTIC WATER LINE INTO SOLENOID ENCLOSURE BOX TO SERVE LAB SINKS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. SOLENOID ENCLOSURE PROVIDE BY ELECTRICAL CONTRACTOR. COORDINATE ALL CONNECTIONS AND MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR.
15. ROUTE ALL WATER LINES AS HIGH AS POSSIBLE TO AVOID CONFLICT WITH CHILLED WATER PIPING, ROOF DRAIN PIPING, CABLE TRAY, DUCTWORK, ETC. COORDINATE WITH OTHER TRADES.

011ST LEVEL PLUMBING PLAN
SCALE :1/8" = 1'-0"

TRUE NORTH

STORAGE

KEYPLAN

No.	REVISIONS	BY
1 ADD	09/26/2022	ETHOS

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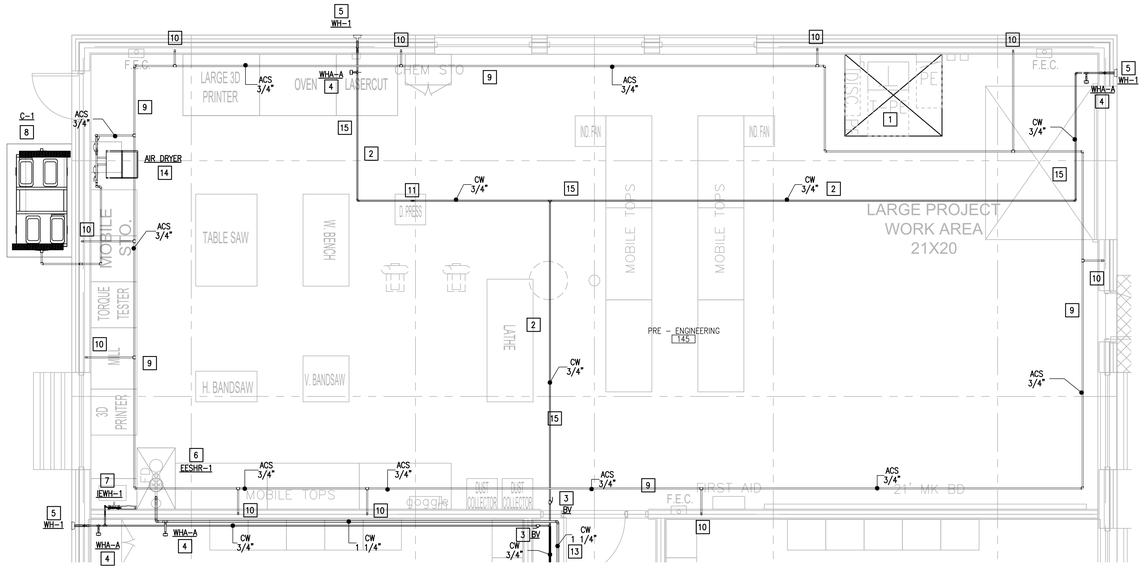
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Interior Designers

Date:	September 08, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	MOV
Job No.	22V73
Sheet:	P2.01

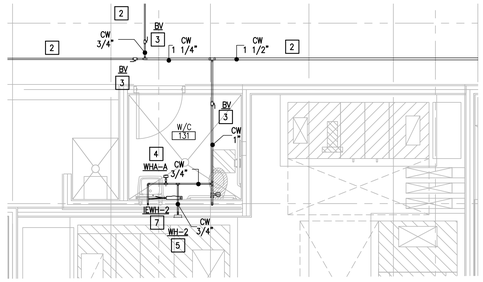
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01 1ST LEVEL PLUMBING PLAN

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

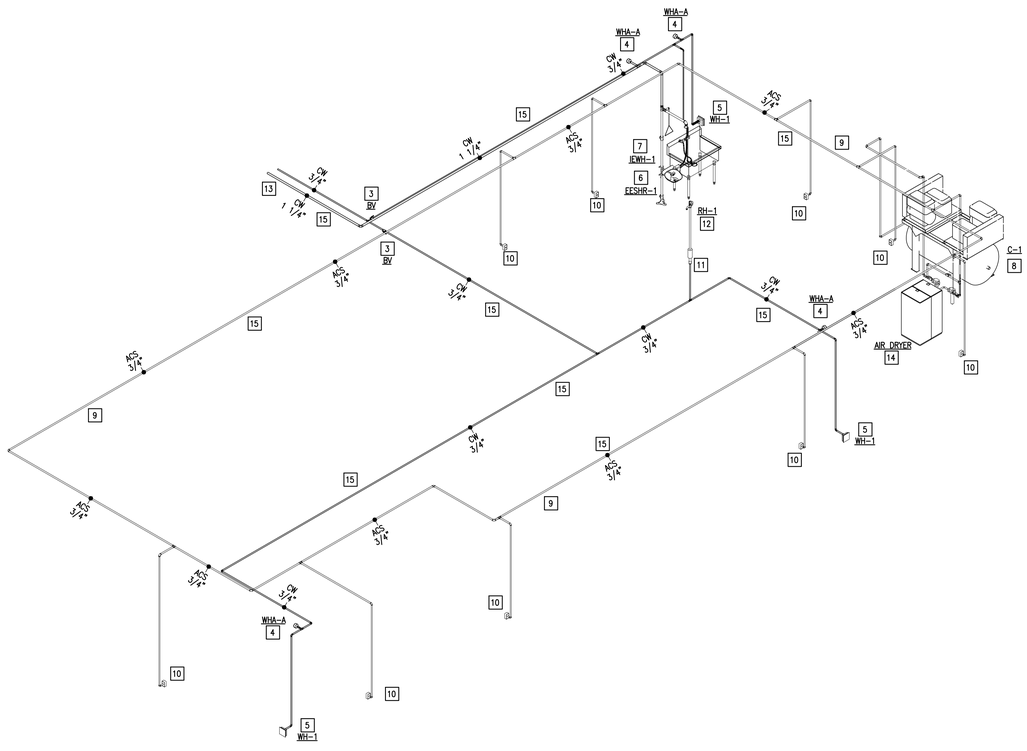
TRUE NORTH



03 1ST LEVEL PLUMBING PLAN

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

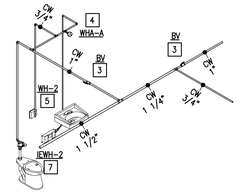
TRUE NORTH



02 1ST LEVEL PLUMBING ISOMETRIC

SCALE : NOT TO SCALE

ADD



04 1ST LEVEL PLUMBING ISOMETRIC

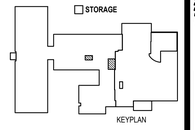
SCALE : 1/4" = 1'-0"

GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.

PLUMBING KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
3. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AND INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
4. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
5. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
6. PROVIDE EMERGENCY SHOWER AND EYE/FACE WASH AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
7. PROVIDE INSTANTANEOUS ELECTRICAL WATER HEATER AS SCHEDULED.
8. PROVIDE AND INSTALL AIR COMPRESSOR (C-1) AS SCHEDULED AT THIS APPROXIMATE LOCATION. PROVIDE HOUSEKEEPING CONCRETE PAD. ATTACH EQUIPMENT TO CONCRETE PAD WITH BOLTS AND VIBRATION ISOLATORS. COORDINATE EXACT LOCATION WITH OWNER.
9. PROVIDE COMPRESSED AIR PIPING AS PER SPECIFICATIONS AND DROP AT DESIGNATED SYSTEM AIR OUTLETS. PROVIDE ANCHORS, BUILDING ATTACHEMENTS AND PIPE SUPPORTS AS PER SPECIFIACTIONS.
10. PROVIDE AIR TERMINATIONS OUTLETS ATTACHED TO STRUCTURAL MEMBERS AT THIS APPROXIMATE LOCATION. SEE DETAIL ON THE DETAIL SHEET. PRIOR TO INSTALLATION PROVIDE SHOP DRAWINGS THAT INCLUDE AIR TERMINATION OUTLET DETAILS FOR COORDINATION WITH OWNER PROVIDE HOSE REELS AND EQUIPMENT CONNECTIONS.
11. 3/4" COLD WATER UP TO SERVE ROOF HYDRANT.
12. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET (TYPICAL).
13. 1 1/4" COLD WATER LINE FROM BACKFLOW PREVENTER TO SERVE EMERGENCY SHOWER.
14. PROVIDE AND INSTALL COMPRESSED AIR DRYER AT THIS APPROXIMATE LOCATION. PROVIDE COMPRESSED AIR DRYER WITH ASSOCIATED AIR FILTERS. COORDINATE EXACT LOCATION WITH OWNER.
15. ROUTE ALL WATER LINES AS HIGH AS POSSIBLE AND BETWEEN JOIST TO AVOID CONFLICT WITH CHILLED WATER PIPING, ROOF DRAIN PIPING, CABLE TRAY, DUCTWORK, ETC. COORDINATE WITH OTHER TRADES.



KEYPLAN

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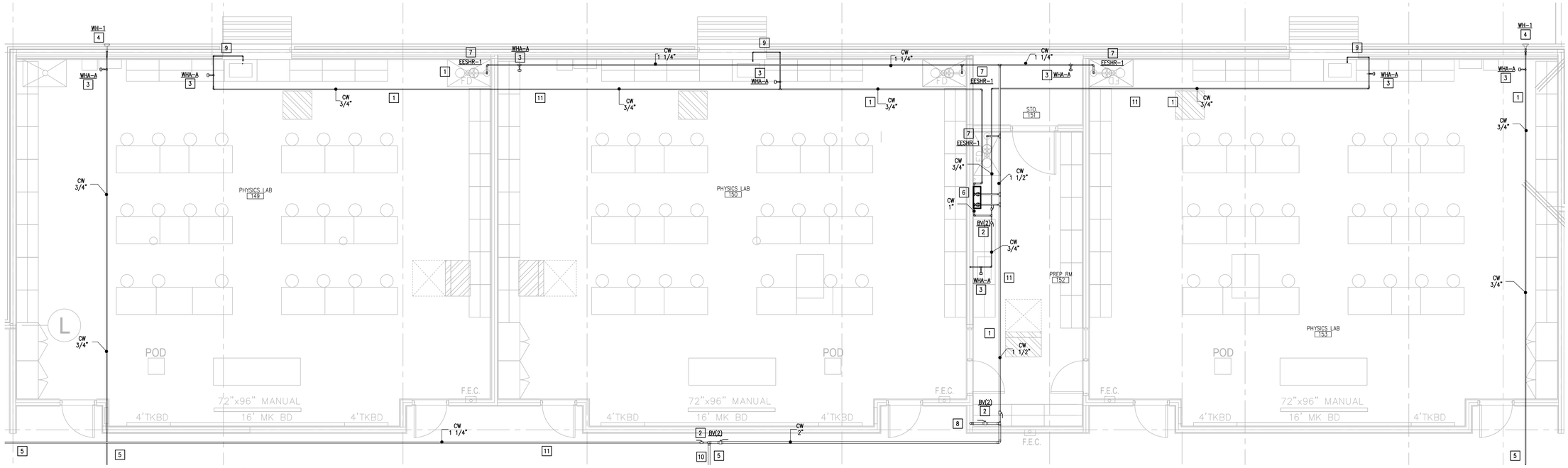
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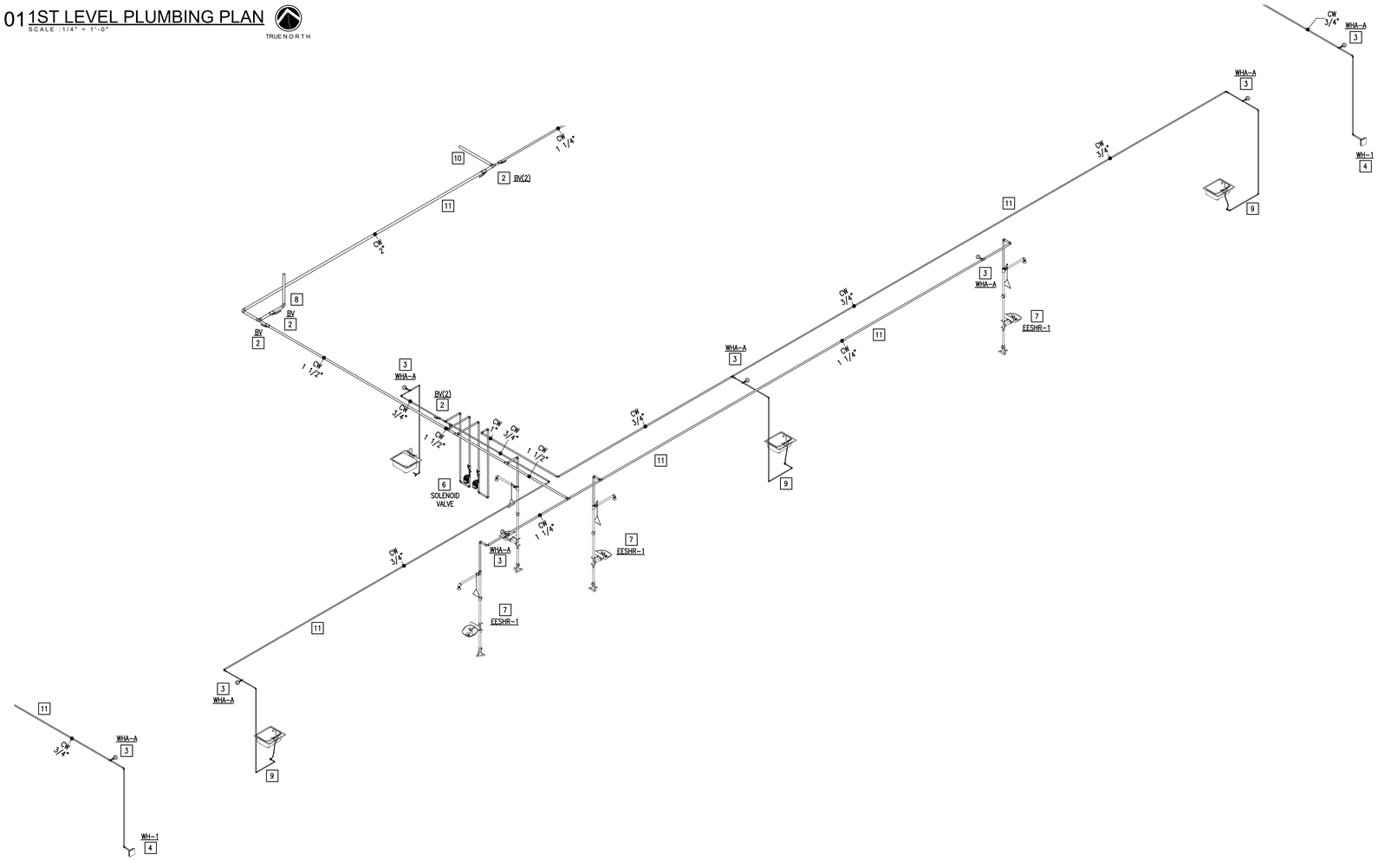
Date:	September 08, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	MOV
Job No.	22V73
Sheet:	P2.02



01 1ST LEVEL PLUMBING PLAN

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

TRUE NORTH



02 1ST LEVEL PLUMBING ISOMETRIC

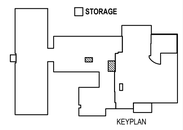
SCALE : NOT TO SCALE

GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.

PLUMBING KEYED NOTES:

1. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
2. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AND INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
3. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
4. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
5. REFER TO 01/P2.01 FOR CONTINUATION.
6. DROP DOMESTIC WATER LINE INTO SOLENOID ENCLOSURE BOX TO SERVE LAB SINKS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. SOLENOID ENCLOSURE PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE ALL CONNECTIONS AND MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR.
7. PROVIDE EMERGENCY SHOWER AND EYE/FACE WASH AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
8. RUN 2" COLD WATER LINE UP TO 2ND FLOOR TO SERVE SCIENCE LAB CLASSROOMS.
9. DROP 1/2" COLD WATER LINE AND RUN COLD WATER LINE IN WALL TO SERVE LAB SINK AT THIS APPROXIMATE LOCATION.
10. 2" COLD WATER LINE FROM BACKFLOW PREVENTER TO SERVE SCIENCE LABS CLASSROOMS.
11. ROUTE ALL WATER LINES AS HIGH AS POSSIBLE TO AVOID CONFLICT WITH CHILLED WATER PIPING, ROOF DRAIN PIPING, CABLE TRAY, DUCTWORK, ETC. COORDINATE WITH OTHER TRADES.



KEYPLAN

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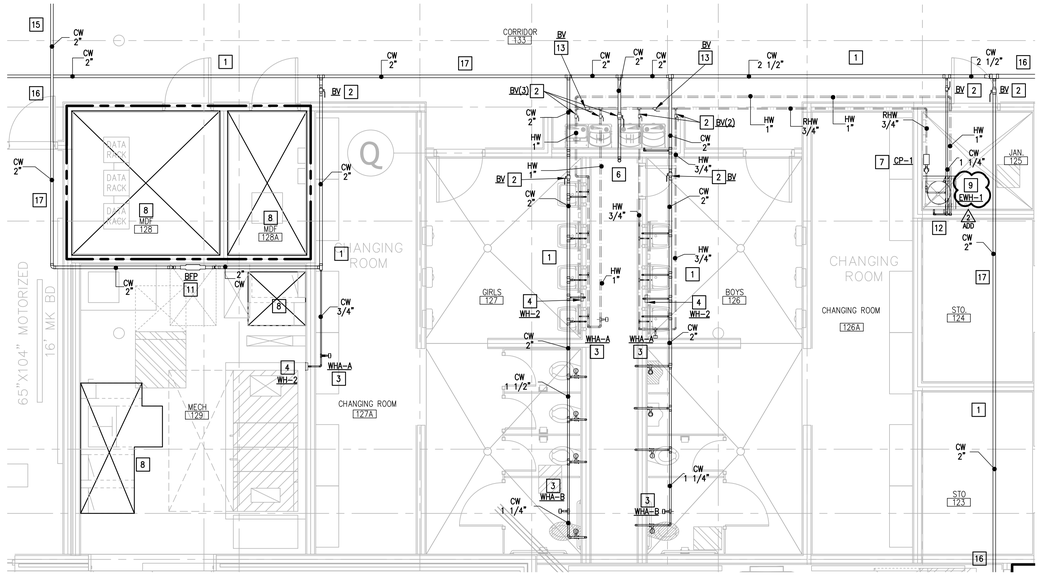
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09.08.2022

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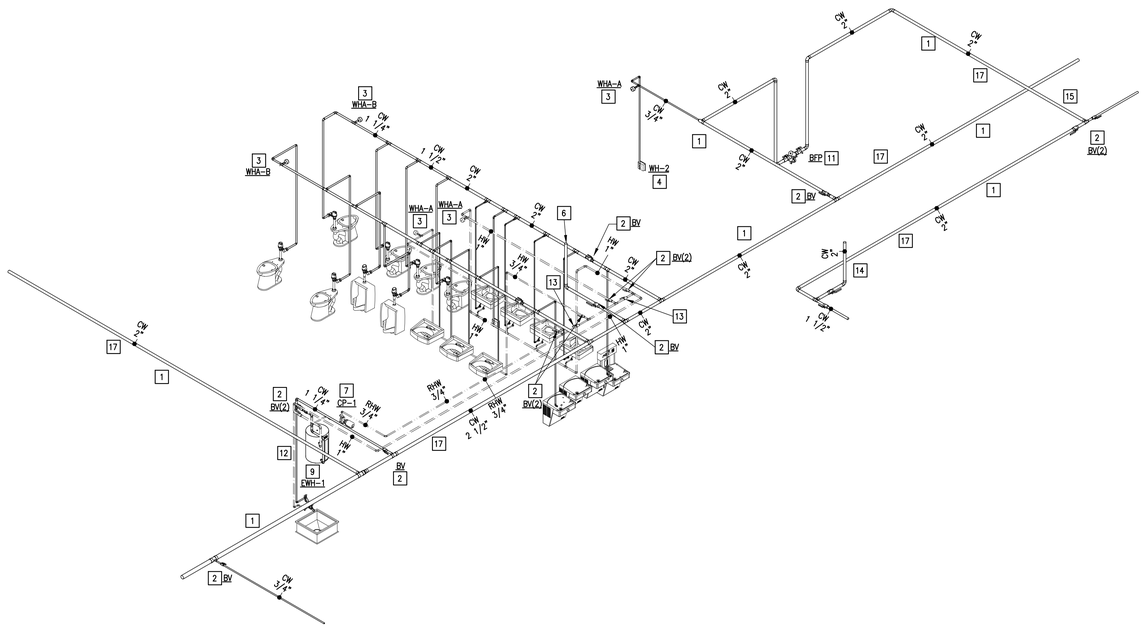
Date:	September 08, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	MOV
Job No.	22V73
Sheet:	P2.03



01 1ST LEVEL PLUMBING PLAN

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

TRUE NORTH



02 1ST LEVEL PLUMBING ISOMETRIC

SCALE : NOT TO SCALE

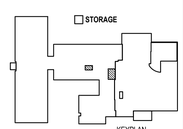
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GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.

PLUMBING KEYED NOTES:

1. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
2. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AND INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
3. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
4. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE INSTALLATION WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
5. NOT USED.
6. RUN 2" COLD WATER LINE UP TO 2ND FLOOR.
7. PROVIDE CIRCULATING PUMP, CP-1, AS SCHEDULED OR AN APPROVED EQUAL. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
8. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
9. PROVIDE WALL MOUNTED ELECTRIC WATER HEATER (EWH-1) AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAL SHEET (TYPICAL).
10. NOT USED
11. PROVIDE BACKFLOW PREVENTER (BFP) WILKINS MODEL #975XLS OR APPROVED EQUAL. INSTALL BFP AGAINST WALL IN WATER LINE SERVING SCIENCE LAB TABLES UPSTREAM THE SOLEHOOD ENCLOSURE BOX AND 40" A.F.F. PROVIDE MINIMUM OF 3' CLEARANCE IN FRONT OF BACK FLOW PREVENTER FOR TESTING AND SERVICE. PROVIDE DRAIN RECEPTOR UNDER BACK FLOW PREVENTER AND RUN COOPER LINE TO NEAREST FLOOR DRAIN. REFER TO DETAIL ON DETAILS SHEET.
12. PROVIDE 3/4" COLD AND 3/4" HOT WATER DOWN TO SERVE MOB SERVICE BASIN (MBS).
13. BRONZE ISOLATION VALVE NORMALLY CLOSED. SUPPLIED AS A BYPASS FOR THE RECIRCULATING LOOP. REFER TO ASSOCIATED DETAIL FOR MORE INFORMATION.
14. RUN 2" COLD WATER LINE UP TO 2ND FLOOR TO SERVE SCIENCE LAB CLASSROOMS.
15. 2" COLD WATER LINE FROM BACKFLOW PREVENTE TO SERVE SCIENCE LAB CLASSROOMS.
16. SEE 01/P2.01 FOR CONTINUATION.
17. ROUTE ALL WATER LINES AS HIGH AS POSSIBLE TO AVOID CONFLICT WITH CHILLED WATER PIPING, ROOF DRAIN PIPING, CABLE TRAY, DUCTWORK, ETC. COORDINATE WITH OTHER TRADES.



KEYPLAN

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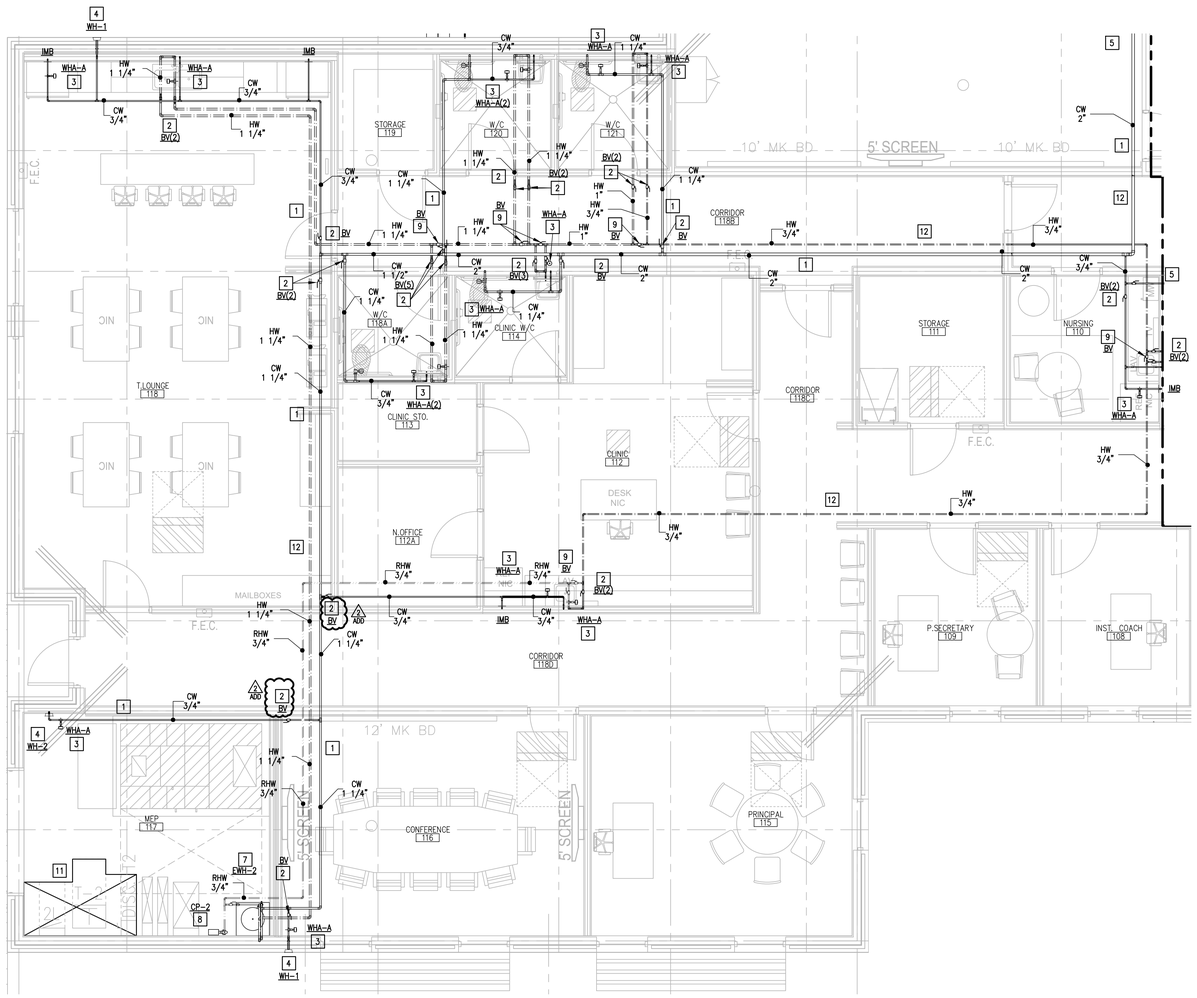
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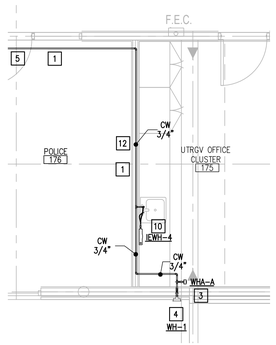
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01 1ST LEVEL PLUMBING PLAN

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

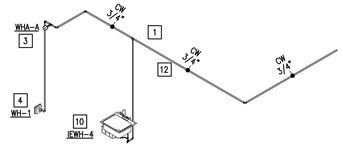
TRUE NORTH



03 1ST LEVEL PLUMBING PLAN

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

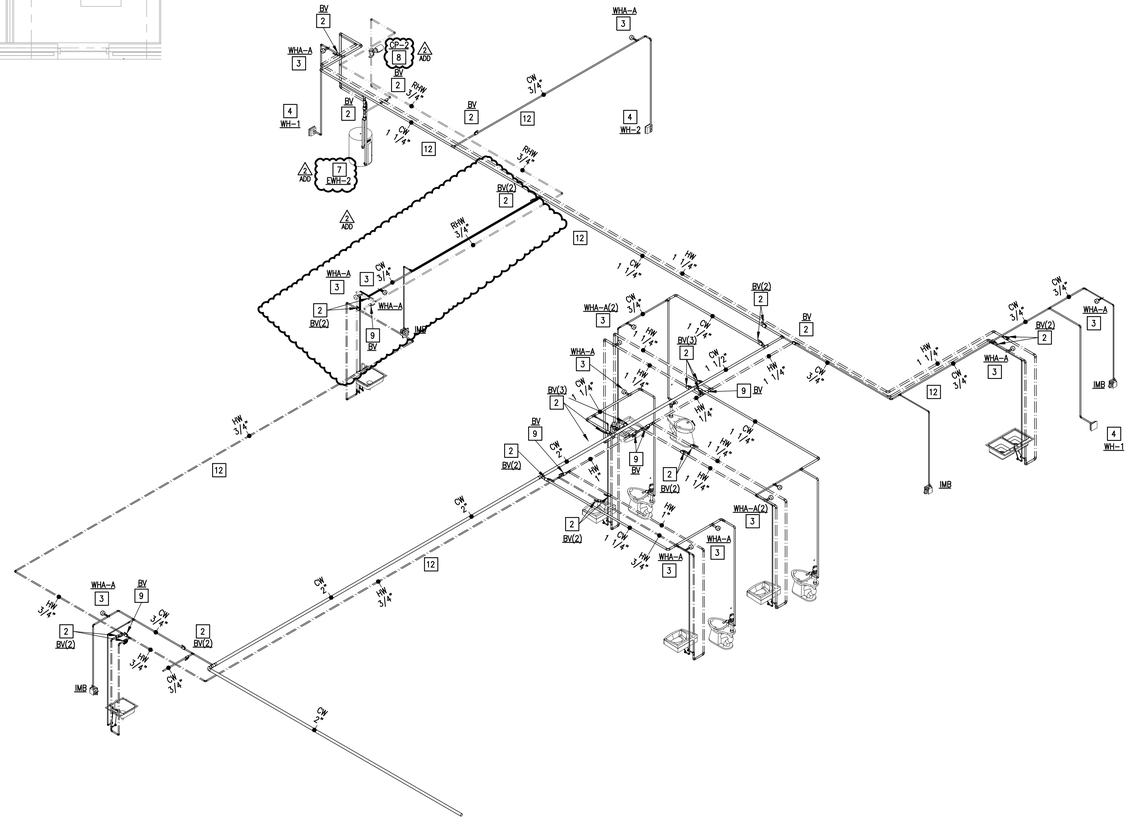
TRUE NORTH



04 1ST LEVEL PLUMBING ISOMETRIC

SCALE : NOT TO SCALE

ADD 2



02 1ST LEVEL PLUMBING ISOMETRIC

SCALE : NOT TO SCALE

ADD 2

GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.

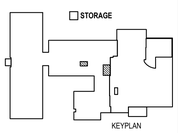
PLUMBING KEYED NOTES:

1. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
2. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AND INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
3. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
4. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
5. REFER TO 01/P2.01 FOR CONTINUATION.
6. NOT USED.
7. PROVIDE FLOOR MOUNTED ELECTRIC WATER HEATER, EWH-2, AS SCHEDULED OR AN APPROVED EQUAL. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
8. PROVIDE CIRCULATING PUMP, CP-2, AS SCHEDULED OR AN APPROVED EQUAL. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
9. BRONZE ISOLATION VALVE NORMALLY CLOSED. SUPPLIED AS A BYPASS FOR THE RECIRCULATING LOOP. REFER TO ASSOCIATED DETAIL FOR MORE INFORMATION.
10. PROVIDE INSTANTANEOUS ELECTRICAL WATER HEATER AS SCHEDULED.
11. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
12. ROUTE ALL WATER LINES AS HIGH AS POSSIBLE TO AVOID CONFLICT WITH CHILLED WATER PIPING, ROOF DRAIN PIPING, CABLE TRAY, DUCTWORK, ETC. COORDINATE WITH OTHER TRADES.

No.	REVISIONS	BY
2 ADD	09/26/2022	ETHOS

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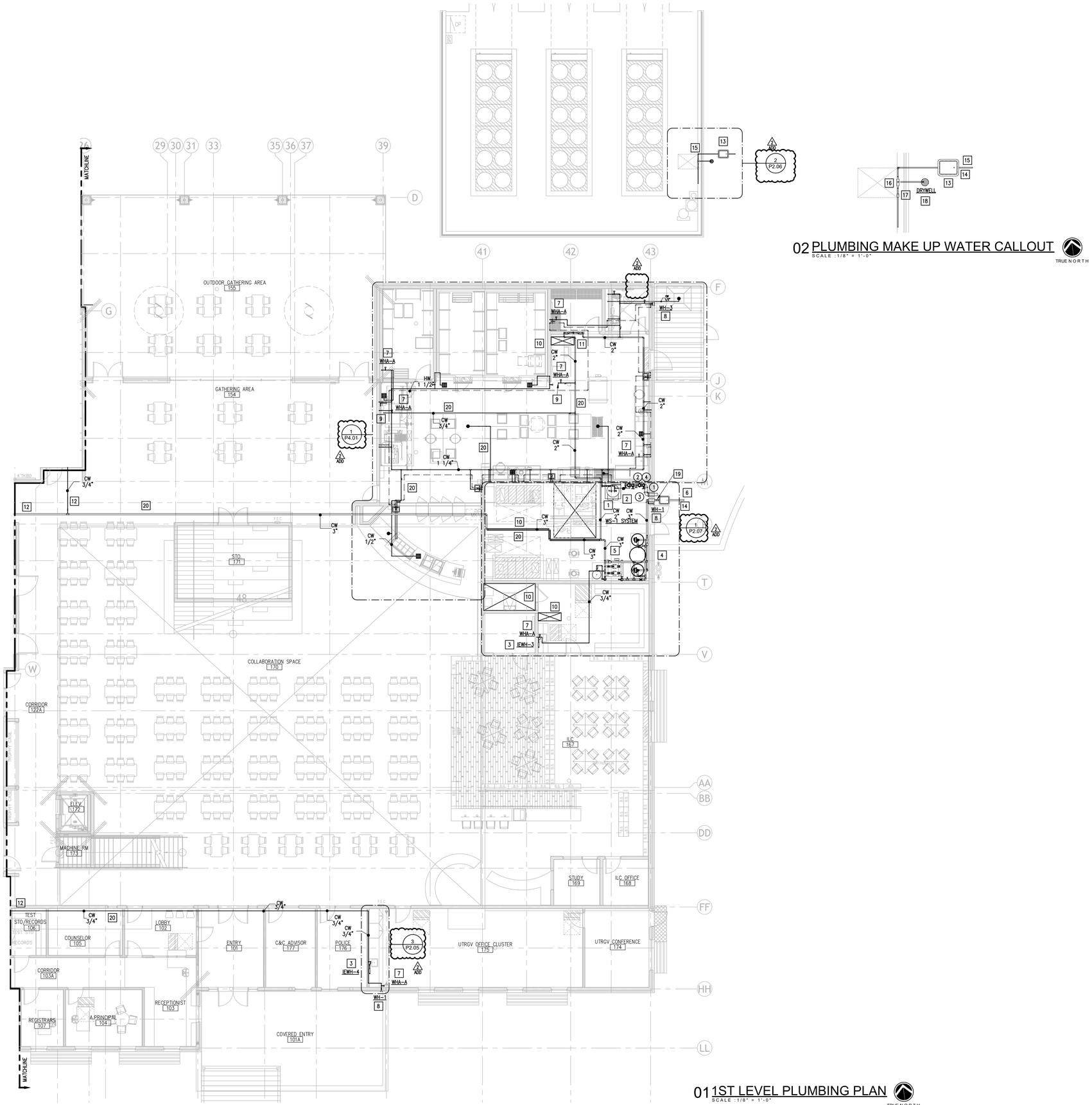


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02 PLUMBING MAKE UP WATER CALLOUT

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

TRUE NORTH

01 1ST LEVEL PLUMBING PLAN

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

TRUE NORTH

GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.
3. ALL POINTS OF CONNECTION OF EQUIPMENT SHOWN ON PLANS (RO/DI SYSTEM, WATER HEATERS, CIRCULATING PUMP, ETC.) ARE SCHEMATIC IN NATURE. ISOMETRIC VIEWS PROVIDE A GENERAL IDEA OF WHERE THESE POINTS OF CONECTION COULD BE. CONTRACTOR SHALL VERIFY EXACT LOCATION OF POINTS OF CONNECTION WITH EQUIPMENT CUTSHEETS DURING SUBMITAL PROCESS AND INSTALLATION ACTIVITIES.

PLUMBING KEYED NOTES:

1. PROVIDE FLOOR MOUNTED ELECTRIC WATER HEATER (EWH-3) AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
2. PROVIDE CIRCULATING PUMP (CP-3) AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
3. PROVIDE INSTANTANEOUS ELECTRIC WATER HEATER (IEWH-3&4) AS SCHEDULED.
4. PROVIDE WATER SOFTENER SYSTEM AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
5. PROVIDE BOOSTER PUMP (BP-1) AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
6. PROVIDE 3" DOMESTIC WATER LINE. SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION. REFER TO SITE PLAN FOR SITE LOCATION.
7. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
8. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
9. RUN 3/4" COLD WATER LINE UP TO 2ND FLOOR TO SERVE WALL HYDRANT/ ROOF HYDRANT.
10. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
11. PROVIDE 2" WATER METER MODEL DLJ-200 OR APPROVED EQUAL. INSTALL METER WITHIN THE WALL WITH AN ACCESS DOOR FACING THE KITCHEN. LEBEL ACCESS DOOR "WATER SUB-METER". PROVIDE LINE SIZE ISOLATION VALVES AT THE INLET AND AT THE OUTLET OF METER. COORDINATE EXACT LOCATION WITH OWNER PRIOR INSTALLATION.
12. SEE 1/P2.01 FOR CONTINUATION.
13. PROVIDE GATE VALVE IN QUAZITE BOX. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
14. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR UTILITY CONNECTION AND CONTINUATION.
15. PROVIDE 1" MAKE UP WATER LINE. CONNECT TO BACKFLOW PREVENTER AND PRESSURE RELIEF VALVE. REFER TO "MAKE-UP DETAIL" ON DETAIL SHEET.
16. PROVIDE A BACKFLOW PREVENTER (BFP) WILKINS MODEL #975XL2 OR APPROVED EQUAL. INSTALL MOUNTED ON SUPPORTS IN WATER LINE SERVING MAKE UP WATER. PROVIDE A MINIMUM OF 3" CLEARANCE IN FRON OF BFP FOR TESTING AND SERVICE. PROVIDE DRAIN RECEPTOR UNDER BFP AND RUN COOPER LINE TO NEARBY DRY WELL. SEE ASSOCIATED DETAIL ON DETAIL SHEET FOR CONCRETE PIPE SUPPORT AND BFP.
17. PROVIDE A PRESSURE REDUCING VALVE (PRV) WATTS SERIES LFU5B OR APPROVED EQUAL. REFER TO ASSSOCAITE DETAIL ON DETAILS SHEET.
18. PROVIDE DRYWELL TO SERVE BACK-FLOW PREVENTER DRAIN LINE. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
19. PROVIDE 1" CLOSED-CELL INSULATION WITH METAL JACKET ON EXPOSED PIPING. PENETRATE EXTERIOR WALL AS LOW AS POSSIBLE. TURN DOWN TO UNDERGROUND.
20. ROUTE ALL WATER LINES AS HIGH AS POSSIBLE TO AVOID CONFLICT WITH CHILLED WATER PIPING, ROOF DRAIN PIPING, CABLE TRAY, DUCTWORK, ETC. COORDINATE WITH OTHER TRADES.

FIRE SUPPRESSION KEYED NOTES:

1. PROVIDE NEW FIRE SPRINKLER LINE. REFER TO CIVIL DRAWING FOR FIRE LINE CONTINUATION. VERIFY SIZE OF FIRE SPRINKLER LINE BY MEANS OF CALCULATION AND COORDINATE WITH GENERAL CONTRACTOR. COORDINATE FREE STANDING FDC AND PROVISION OF BACKFLOW PREVENTER WITH CIVIL. REFER TO PLUMBING SHEETS AND SPECIFICATIONS FOR MORE INFORMATION. COORDINATE EXACT LOCATION WITH ELECTRICAL CONTRACTOR & GENERAL CONTRACTOR.
2. FIRE SPRINKLER RISER LOCATION. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
3. COORDINATE FREE STANDING FDC AND PROVISION OF BACK FLOW PREVENTER WITH CIVIL.
4. PROVIDE FIRE SPRINKLER LINE WITH BACK FLOW PREVENTER ON RISER. REFER TO CIVIL DRAWING FOR FIRE LINE CONTINUATION. VERIFY SIZE OF FIRE SPRINKLER LINE BY MEANS OF CALCULATION AND COORDINATE WITH GENERAL CONTRACTOR.

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1 ADD 1	09/26/2022	ETHOS

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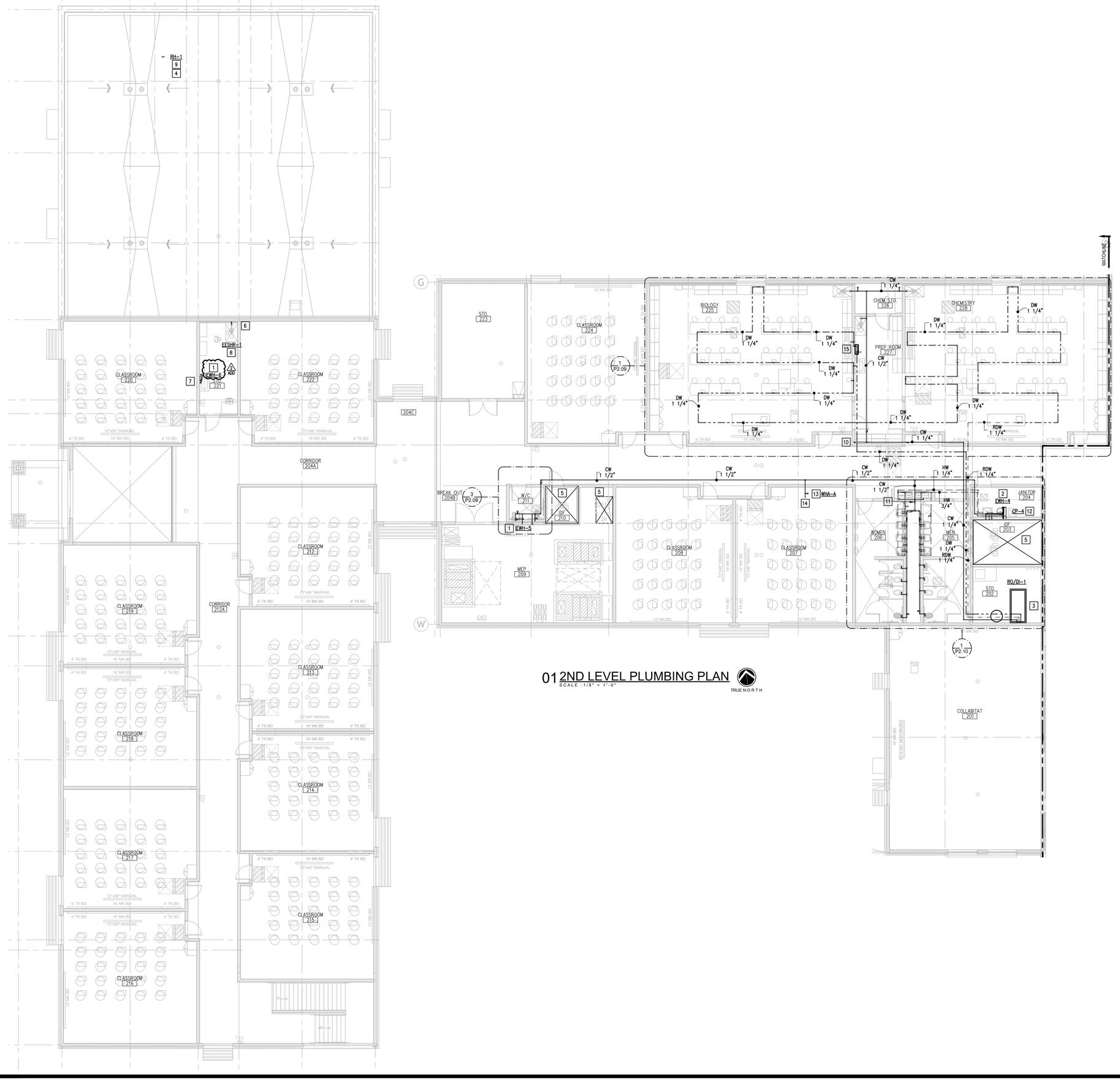
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ENGINEER
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01 2ND LEVEL PLUMBING PLAN

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

TRUE NORTH

GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.

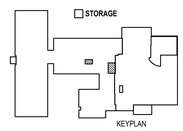
KEYED NOTES:

1. PROVIDE INSTANTANEOUS ELECTRIC WATER HEATER (EWH-5&6) AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
2. PROVIDE WALL MOUNTED ELECTRIC WATER HEATER (EWH-4) AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
3. PROVIDE (RO/DI) WATER TREATMENT SYSTEM AND STORAGE TANK AS SCHEDULE. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
4. ADD RUN 3/4" COLD WATER LINE UP TO ROOF TO SERVE WALL HYDRANT/ ROOF HYDRANT.
5. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
6. 1 1/4" COLD WATER LINE UP FROM 1ST FLOOR CEILING SPACE TO SERVE EMERGENCY EYE SHOWER AND EYE/ FACE WASH.
7. 1/2" COLD WATER LINE UP FROM 1ST FLOOR TO SERVE LAB SINK AND IEWH AT THIS APPROXIMATE POINT. AVOID CONFLICT WITH BEAMS.
8. PROVIDE EMERGENCY SHOWER AND EYE/FACE WASH AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
9. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETAILS ON DETAILS SHEET (TYPICAL).
10. 2" COLD WATER LINE UP FROM 1ST FLOOR BACKFLOW PREVENTER TO SERVE SCIENCE LABS.
11. 2" COLD WATER LINE UP FROM 1ST FLOOR CEILING SPACE.
12. PROVIDE CIRCULATING PUMP, CP-4, AS SCHEDULED. REFER TO SCHEDULES SHEET AND DETAILS FOR MORE INFORMATION.
13. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY PAINTO TO MATCH THE WALL /CEILING. (TYPICAL)
14. RUN 3/4" COLD WATER LINE UP TO ROOF HYDRANT.
15. DROP DOMESTIC WATER LINE INTO SOLENOID ENCLOSURE BOX TO SERVE LAB SINKS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. SOLENOID ENCLOSURE PROVIDE BY ELECTRICAL CONTRACTOR. COORDINATE ALL CONNECTIONS AND MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR.

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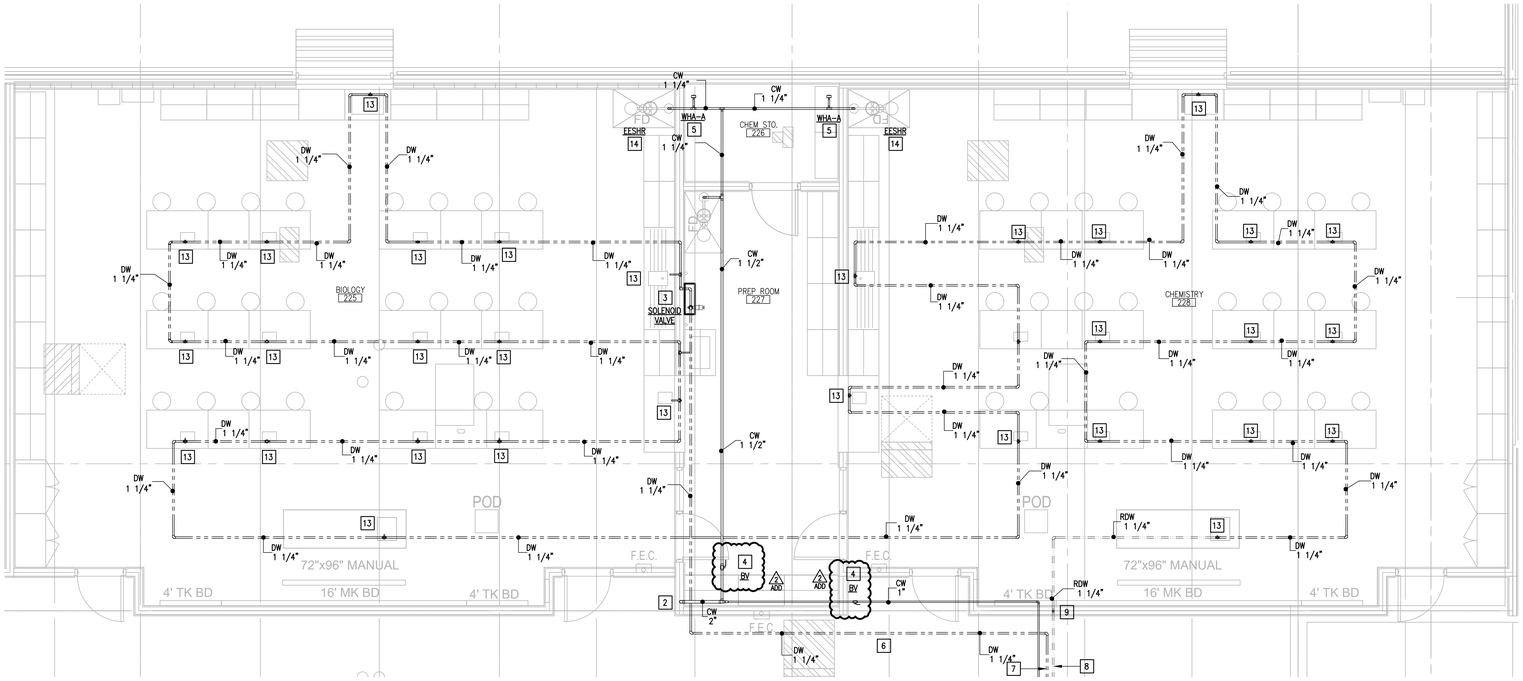
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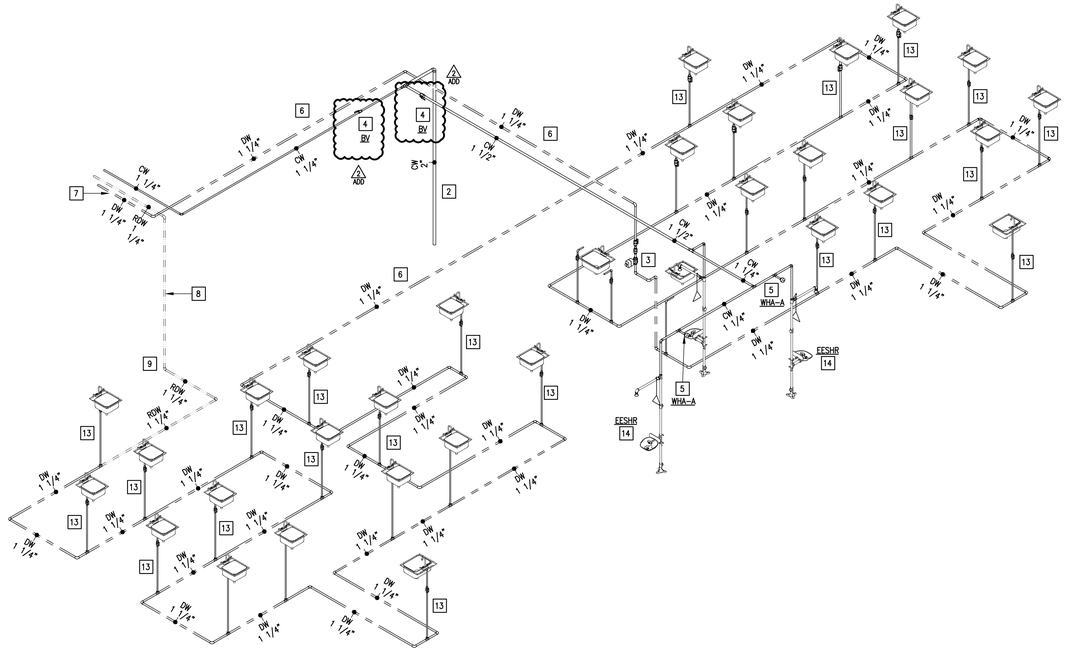
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Sheet: P2.08



01 2ND LEVEL PLUMBING PLAN

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

TRUE NORTH

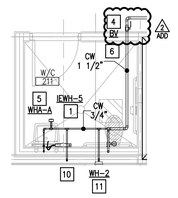


02 2ND LEVEL PLUMBING PLAN

SCALE : NOT TO SCALE

ADD

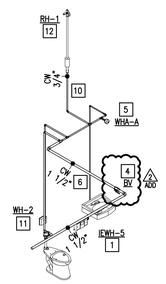
TRUE NORTH



03 2ND LEVEL PLUMBING PLAN

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

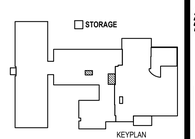
TRUE NORTH



04 2ND LEVEL PLUMBING ISOMETRIC

SCALE : NOT TO SCALE

ADD



KEYPLAN

GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. NOT ALL ACCESSORIES REQUIRED FOR INSTALLATION ARE SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCIATED DETAILS ON THE DETAILS SHEET FOR INSTALLATION AND SPECIFICATIONS.

PLUMBING KEYED NOTES:

1. PROVIDE INSTANTANEOUS ELECTRIC WATER HEATER (EWH-5) AS SCHEDULED. REFER TO DETAILS SHEET FOR THE ASSOCIATED DETAIL.
2. RUN 2" COLD WATER LINE UP FROM 1ST FLOOR BACKFLOW PREVENTER VALVE TO SERVE SCIENCE LABS.
3. DROP DEIONIZED WATER LINE INTO SOLENOID ENCLOSURE BOX TO SERVE LAB SINKS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. SOLENOID ENCLOSURE PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE ALL CONNECTIONS AND MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR.
4. PROVIDE BRONZE ISOLATION BALL ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE INDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
5. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY PAINTO TO MATCH THE WALL /CEILING. (TYPICAL)
6. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAILS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
7. 1 1/4" CPVC SCH 80 DEIONIZED WATER LINE FROM RO/DI SYSTEM. REFER TO 01/P2.10 FOR MORE INFORMATION.
8. 1 1/4" CPVC SCH 80 RETURN DEIONIZED WATER LINE TO RO/DI SYSTEM.
9. ROUTE PIPE UP IN WALL CAVITY FROM 1ST FLOOR CEILING SPACE TO 2ND FLOOR CEILING SPACE AT THIS APROXIMATE POINT.
10. RUN 3/4" COLD WATER LINE UP TO ROOF HYDRANT.
11. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
12. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETAILS ON DETAILS SHEET (TYPICAL).
13. PROVIDE 1/2" CPVC SCH 80 DEIONIZED WATER LINE TO SERVE LAB SINKS, INSTRUCTOR'S DESK AND FUME HOOD FROM RO/DI WATER SYSTEM LOOP. (TYPICAL)
14. PROVIDE EMERGENCY SHOWER AND EYE/FACE WASH AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.

No.	REVISIONS	BY
1 ADD1	09/26/2022	ETHOS

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LICENSED PROFESSIONAL ENGINEER
09.08.2022

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Date:	September 08, 2022
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	MOV
Job No.	22V73
Sheet:	P2.09

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GENERAL NOTES:

1. LAB SINKS (LS-1), FUME HOODS (FH-1) AND FAUCETS AT PREP ROOMS AND SCIENCE LABS ARE PART OF THE MILLWORK. (PROVIDED BY GENERAL CONTRACTOR). PLUMBING CONTRACTOR SHALL PROVIDE AND CONNECT ALL SERVICES AND ACCESSORIES SUCH AS WATER, SEWER, VENT, WATER STOPS, STAINLESS STEEL FLEXIBLE RISERS, P-TRAPS, ETC. COORDINATE WITH GENERAL CONTRACTOR.
2. INVERTED ELEVATIONS SHOWN IN PLUMBING PLANS ARE BEST APPROXIMATIONS AND CAN BE IMPROVED DURING CONSTRUCTION.

KEYED NOTES:

1. PROVIDE 4" SANITARY SEWER CONNECTION WITH A TWO-WAY YARD CLEAN-OUT. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION
2. PROVIDE 3" SANITARY SEWER CONNECTION WITH A TWO-WAY YARD CLEAN-OUT. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION
3. PROVIDE ACID NEUTRALIZATION TANK (ANT-1) AS SCHEDULE. REFER TO ASSOCIATED DETAIL IN DETAILS SHEET.
4. PROVIDE SAMPLE WELL AS PER DETAIL. REFER TO DETAILS SHEET.
5. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS. (TYPICAL)
6. SLEEVE ALL GRADE BEAM, FLOOR SLAB AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
7. PROVIDE FLOOR DRAIN AND FLOOR SINKS AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
8. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
9. STRUCTURAL ROOF FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
10. PROVIDE 2" VENT TO 2" VENT THRU ROOF.

01 1ST LEVEL WASTE & VENT PLAN
SCALE : 1/8" = 1'-0"

02 1ST LEVEL WASTE & VENT PLAN
SCALE : 1/4" = 1'-0"

03 1ST LEVEL WASTE & VENT ISOMETRIC
SCALE: NOT TO SCALE

KEYPLAN

No.	REVISIONS	BY
1	09/26/2022	ETHOS

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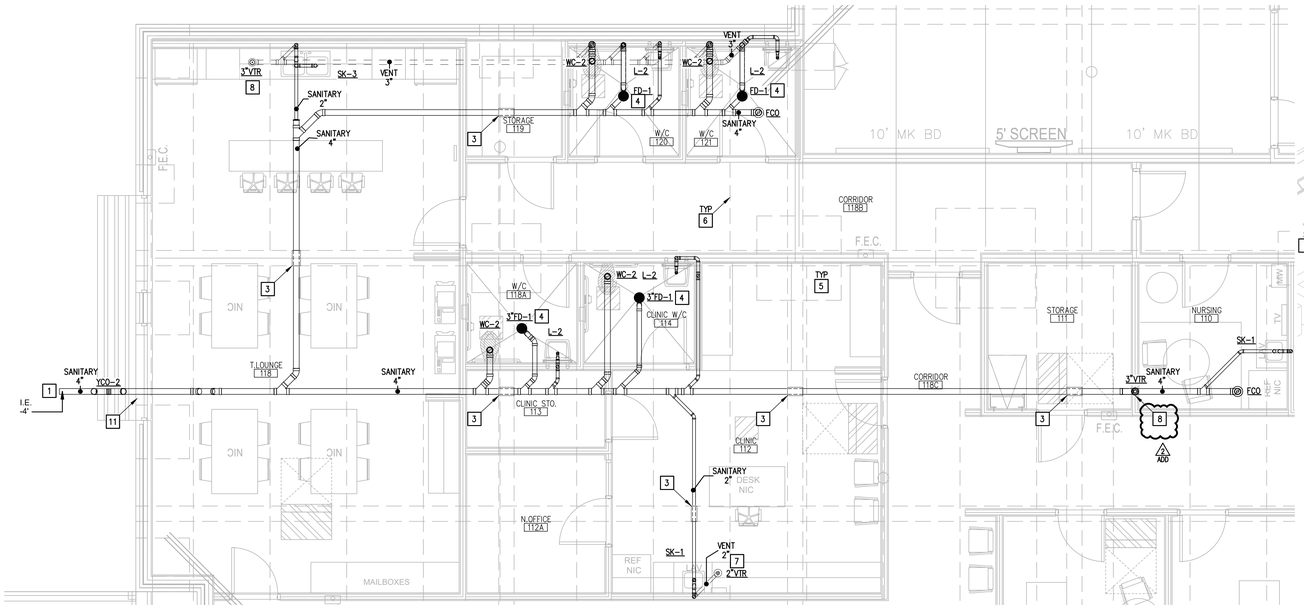
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Drawn By:	CAR
Job No.	22V73
Sheet:	P3.01

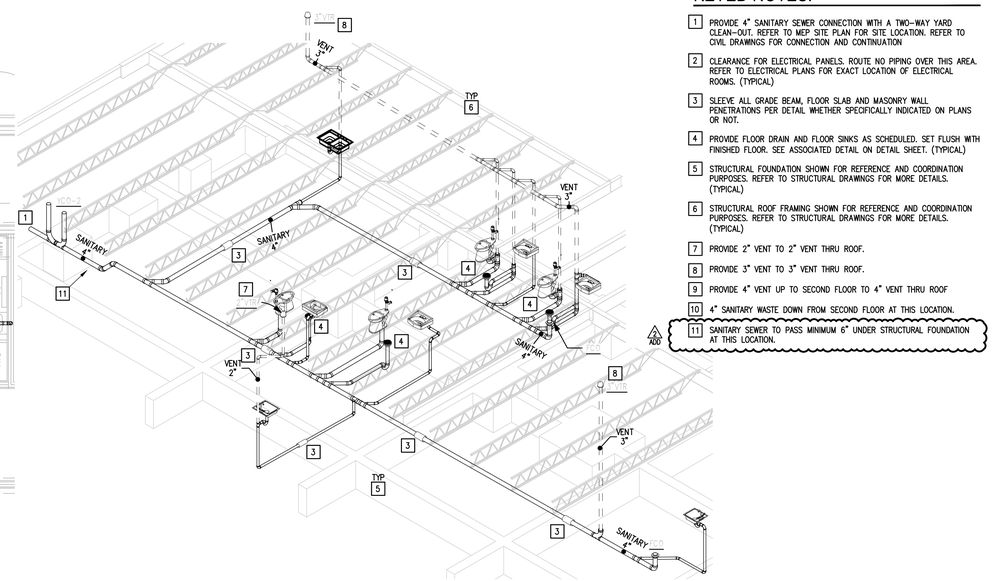
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01 1ST LEVEL WASTE & VENT PLAN

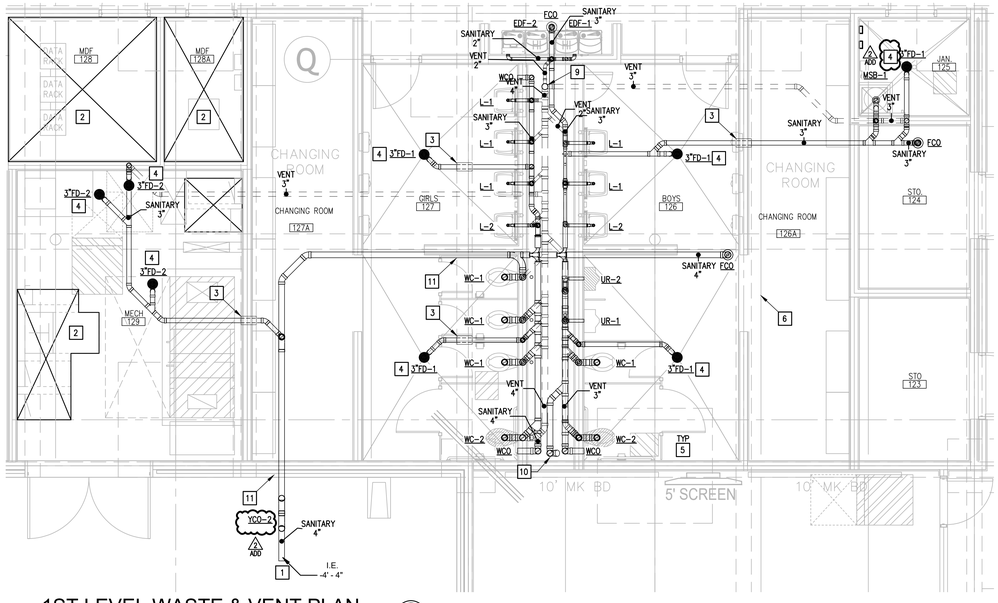
SCALE : 1/4" = 1'-0"

NORTH



02 1ST LEVEL WASTE & VENT PLAN

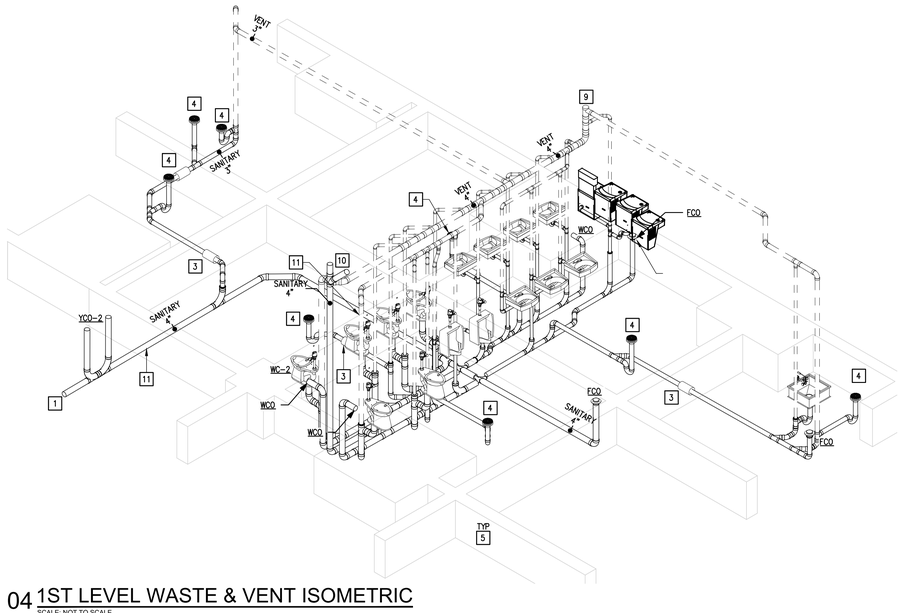
SCALE: NOT TO SCALE



03 1ST LEVEL WASTE & VENT PLAN

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

NORTH



04 1ST LEVEL WASTE & VENT ISOMETRIC

SCALE: NOT TO SCALE

GENERAL NOTES:

1. INVERTED ELEVATIONS SHOWN IN PLUMBING PLANS ARE BEST APPROXIMATIONS AND CAN BE IMPROVED DURING CONSTRUCTION.

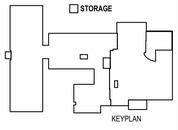
KEYED NOTES:

1. PROVIDE 4" SANITARY SEWER CONNECTION WITH A TWO-WAY YARD CLEAN-OUT. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION
2. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS. (TYPICAL)
3. SLEEVE ALL GRADE BEAM, FLOOR SLAB AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
4. PROVIDE FLOOR DRAIN AND FLOOR SINKS AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
5. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
6. STRUCTURAL ROOF FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
7. PROVIDE 2" VENT TO 2" VENT THRU ROOF.
8. PROVIDE 3" VENT TO 3" VENT THRU ROOF.
9. PROVIDE 4" VENT UP TO SECOND FLOOR TO 4" VENT THRU ROOF
10. 4" SANITARY WASTE DOWN FROM SECOND FLOOR AT THIS LOCATION.
11. SANITARY SEWER TO PASS MINIMUM 6" UNDER STRUCTURAL FOUNDATION AT THIS LOCATION.

No.	REVISIONS	BY
1 ADD	09/26/2022	ETHOS

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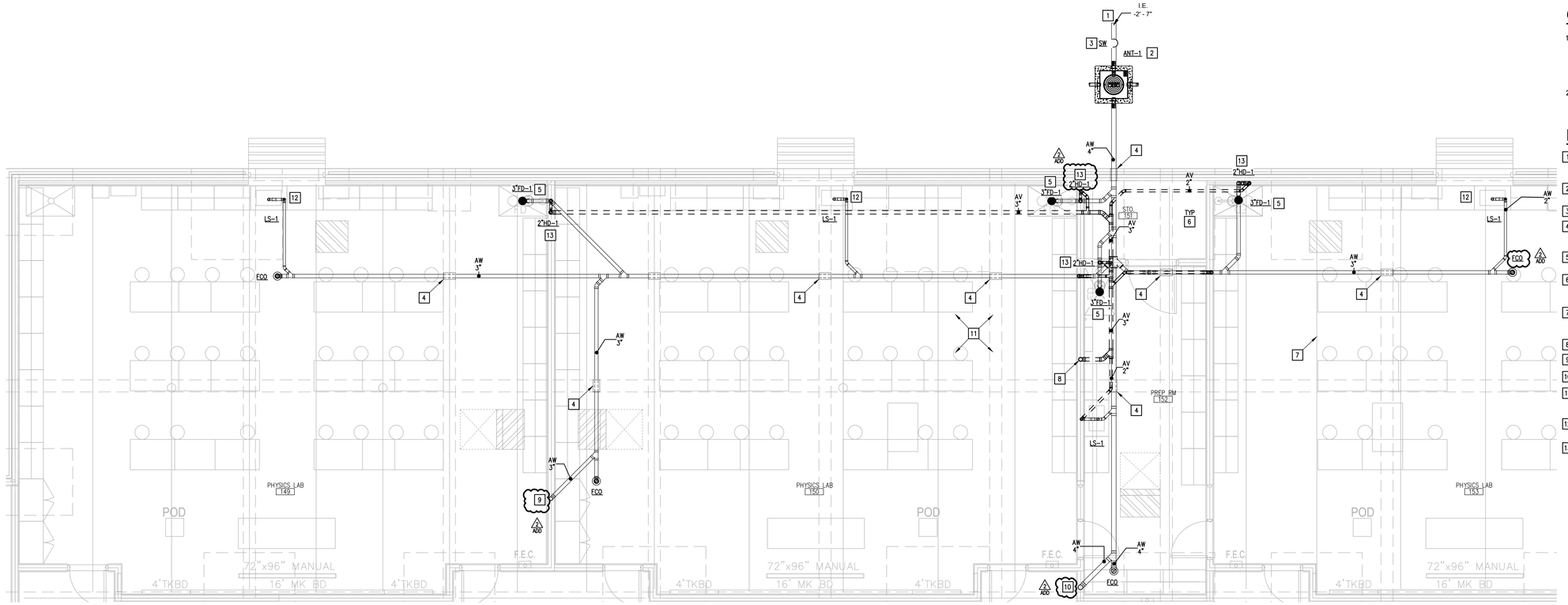


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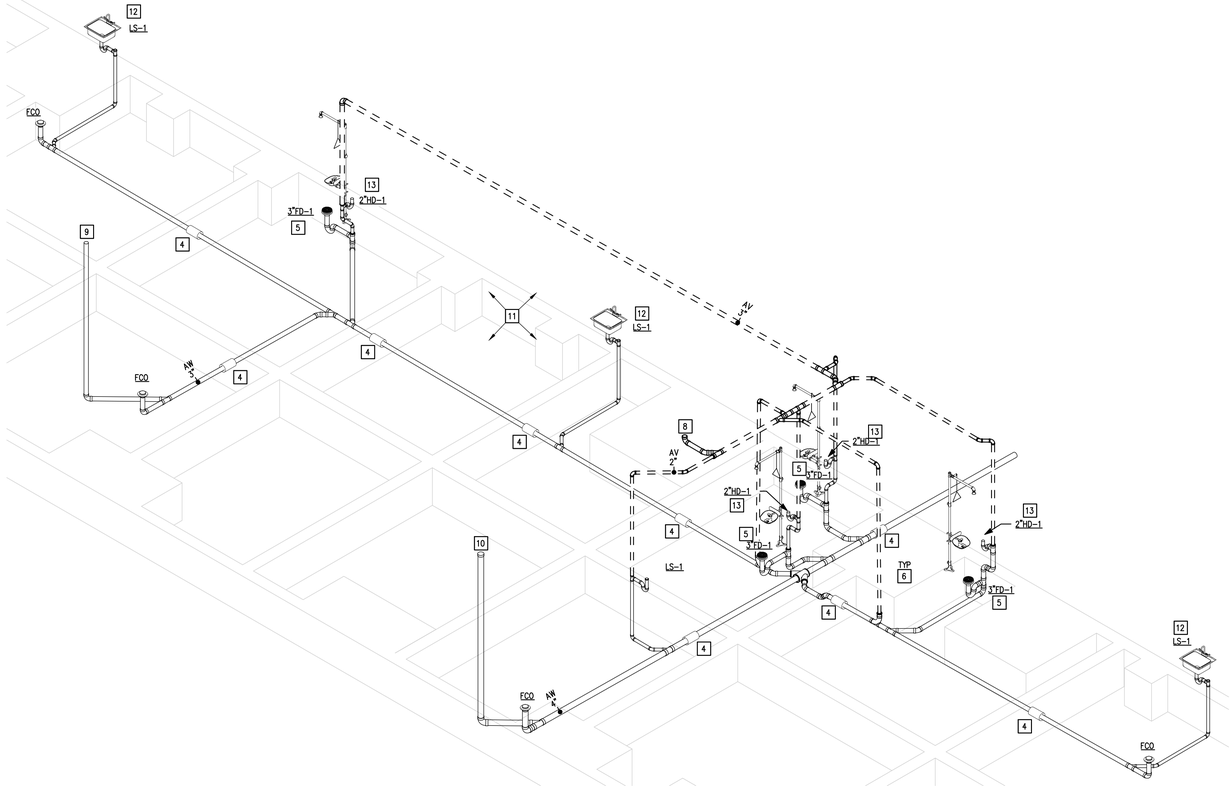
Date:	September 08, 2022
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Project Architect:	David Monreal, AIA
Drawn By:	CAR
Job No.	22V73
Sheet:	P3.02



01 1ST LEVEL WASTE & VENT PLAN

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

NORTH



02 1ST LEVEL SCIENCE LABS ISOMETRIC

SCALE : NOT TO SCALE

GENERAL NOTES:

1. LAB SINKS (LS-1), FUME HOODS (FH-1) AND FAUCETS AT PREP ROOMS AND SCIENCE LABS ARE PART OF THE MILLWORK. (PROVIDED BY GENERAL CONTRACTOR). PLUMBING CONTRACTOR SHALL PROVIDE AND CONNECT ALL SERVICES AND ACCESSORIES SUCH AS WATER, SEWER, VENT, WATER STOPS, STAINLESS STEEL FLEXIBLE RISERS, P-TRAPS, ETC. COORDINATE WITH GENERAL CONTRACTOR.
2. INVERTED ELEVATIONS SHOWN IN PLUMBING PLANS ARE BEST APPROXIMATIONS AND CAN BE IMPROVED DURING CONSTRUCTION.

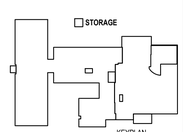
KEYED NOTES:

1. PROVIDE 4" SANITARY SEWER CONNECTION WITH A TWO-WAY YARD CLEAN-OUT. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION
2. PROVIDE ACID NEUTRALIZATION TANK (ANT-1) AS SCHEDULE. REFER TO ASSOCIATED DETAIL IN DETAILS SHEET.
3. PROVIDE SAMPLE WELL AS PER DETAIL. REFER TO DETAILS SHEET.
4. SLEEVE ALL GRADE BEAM, FLOOR SLAB AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
5. PROVIDE FLOOR DRAIN AND FLOOR SINKS AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
6. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
7. STRUCTURAL SECOND FLOOR FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
8. PROVIDE 3" ACID VENT UP TO SECOND FLOOR IN WALL CAVITY
9. 3" ACID WASTE DOWN FROM SECOND FLOOR AT THIS LOCATION.
10. 4" ACID WASTE DOWN FROM SECOND FLOOR AT THIS LOCATION.
11. PROVIDE ACID RESISTANT PIPING FOR ALL WASTE AND VENT SYSTEM SERVING SCIENCE LABS. REFER TO SPECIFICATIONS FOR MORE INFORMATION. (TYPICAL)
12. PROVIDE PLUMBING CONNECTION TO INSTRUCTOR'S DESK AS PER DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
13. PROVIDE 2" HUB DRAIN FOR EMERGENCY EYEWASH DRAIN. PROVIDE A 2"X3" HUB INCREASER. PROVIDE A 12"X12" ACCESS PANEL FOR MAINTENANCE ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. RUN NEARBY EYE WASH STATION WASTE PIPE HUB DRAIN AND INDIRECTLY CONNECT. REFER TO ASSOCIATED DETAIL.

No.	REVISIONS	BY
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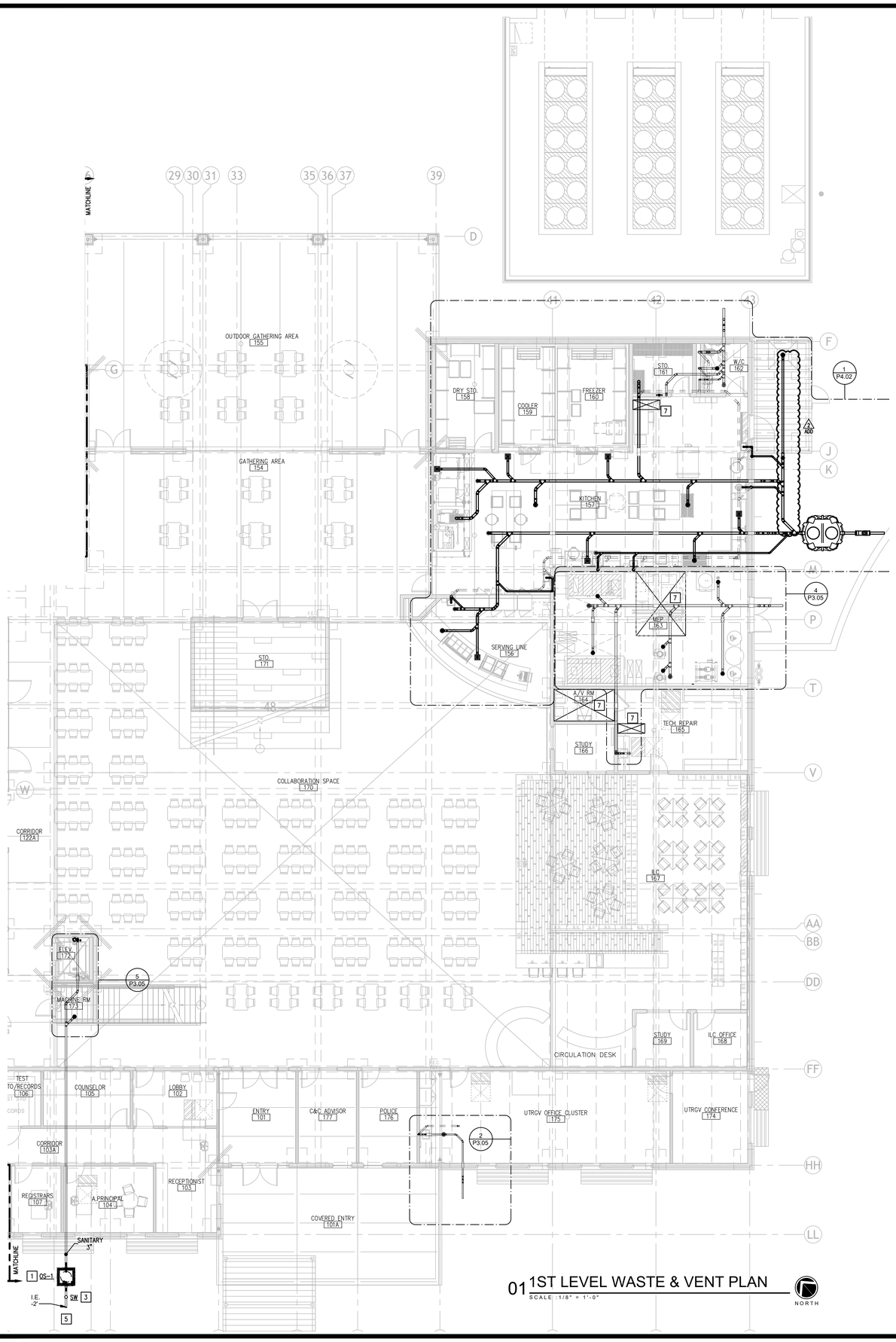
KEYPLAN

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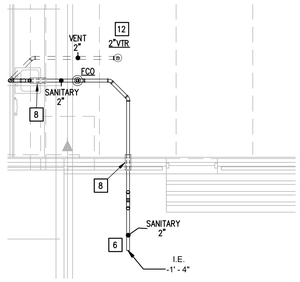
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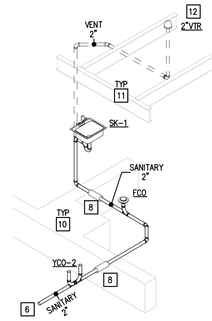
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Project Architect:	David Monreal, AIA
Drawn By:	CAR
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Sheet:	P3.04



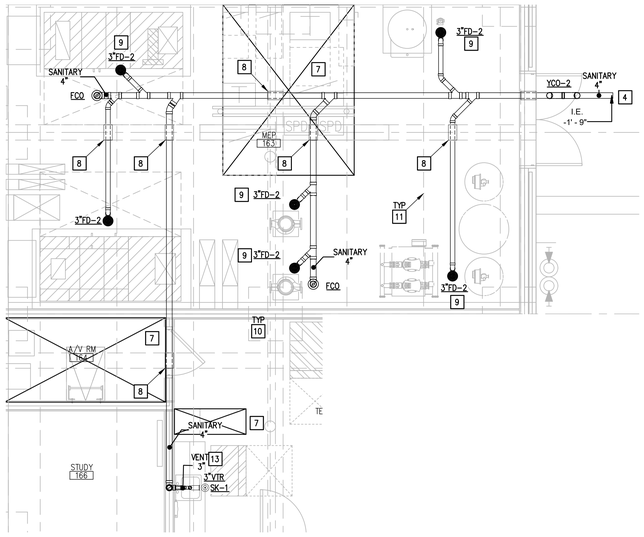
01 1ST LEVEL WASTE & VENT PLAN
SCALE : 1/8" = 1'-0"



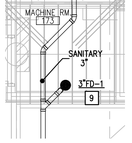
02 1ST LEVEL WASTE & VENT PLAN
SCALE : 1/4" = 1'-0"



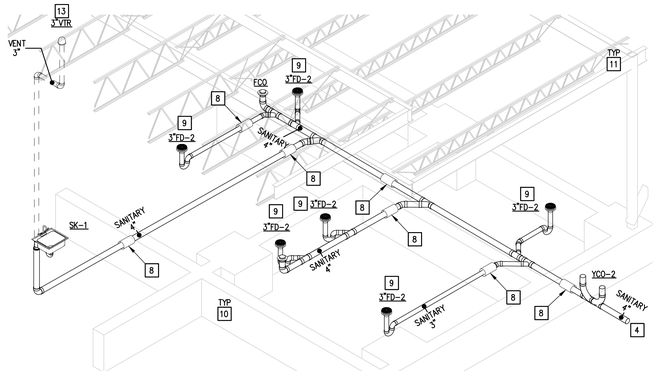
03 1ST LEVEL WASTE & VENT ISOMETRIC
SCALE: NOT TO SCALE



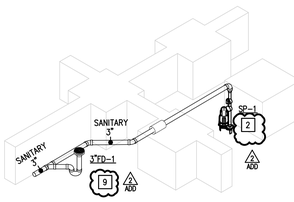
04 1ST LEVEL WASTE & VENT PLAN
SCALE : 1/4" = 1'-0"



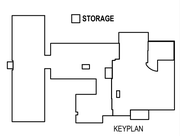
05 1ST LEVEL WASTE & VENT PLAN
SCALE : 1/4" = 1'-0"



06 1ST LEVEL WASTE & VENT ISOMETRIC
SCALE : NOT TO SCALE



07 1ST LEVEL WASTE & VENT ISOMETRIC
SCALE : 1/4" = 1'-0"



GENERAL NOTES:

1. INVERTED ELEVATIONS SHOWN IN PLUMBING PLANS ARE BEST APPROXIMATIONS AND CAN BE IMPROVED DURING CONSTRUCTION.

KEYED NOTES:

1. PROVIDE OIL SEPARATOR (OS-1) AS SCHEDULED. REFER TO THE ASSOCIATED DETAIL ON THE DETAILS SHEET.
2. PROVIDE SUMP PUMP (SP-1) AS SCHEDULED. REFER TO THE ASSOCIATED DETAIL ON THE DETAILS SHEET.
3. PROVIDE SAMPLE WELL (SW) AS PER DETAIL. REFER TO THE ASSOCIATED DETAIL ON THE DETAILS SHEET.
4. PROVIDE 4" SANITARY SEWER CONNECTION WITH A TWO-WAY YARD CLEAN-OUT. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION
5. PROVIDE 3" SANITARY SEWER CONNECTION WITH A TWO-WAY YARD CLEAN-OUT. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION
6. PROVIDE 2" SANITARY SEWER CONNECTION WITH A TWO-WAY YARD CLEAN-OUT. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION
7. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS. (TYPICAL)
8. SLEEVE ALL GRADE BEAM, FLOOR SLAB AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
9. PROVIDE FLOOR DRAIN AND FLOOR SINKS AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
10. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
11. STRUCTURAL ROOF FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
12. PROVIDE 2" VENT TO 2" VENT THRU ROOF.
13. PROVIDE 3" VENT TO 3" VENT THRU ROOF.

No.	REVISIONS	BY
1 ADD 1	09/26/2022	ETHOS

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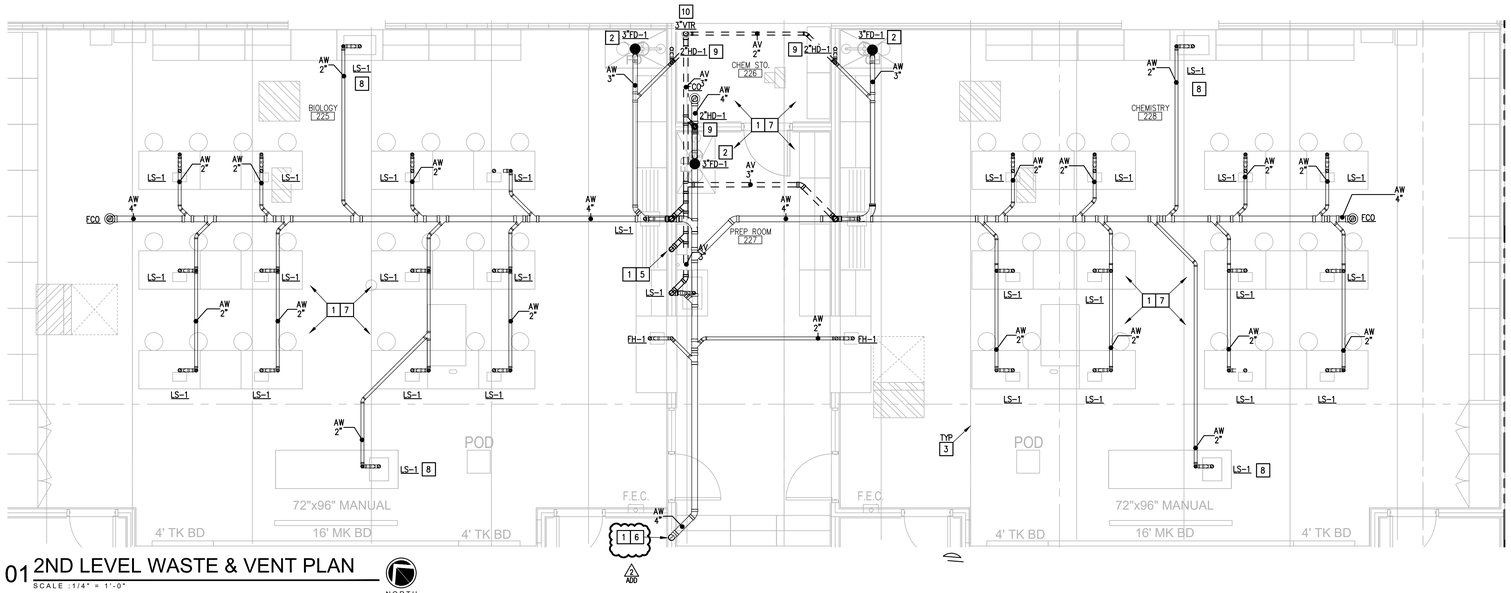
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Drawn By: CAR
Job No. 22V73
Sheet: P3.05

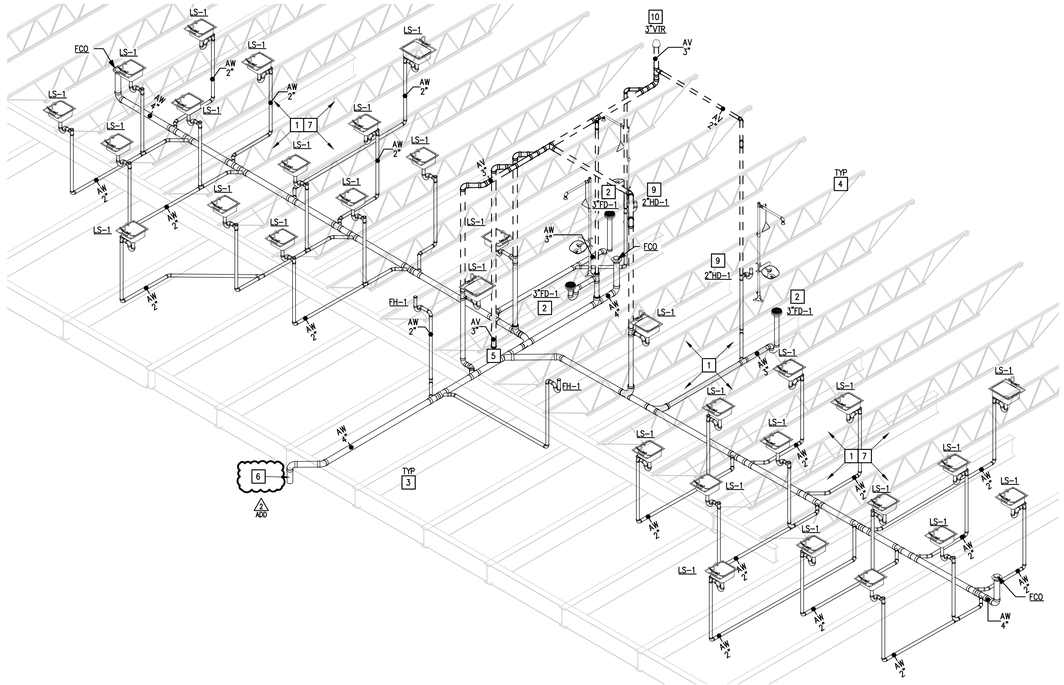
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01 2ND LEVEL WASTE & VENT PLAN

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

NORTH



02 2ND LEVEL SCIENCE LABS ISOMETRIC

SCALE : NOT TO SCALE

GENERAL NOTES:

1. LAB SINKS (LS-1), FUME HOODS (FH-1) AND FAUCETS AT PREP ROOMS AND SCIENCE LABS ARE PART OF THE MILLWORK. (PROVIDED BY GENERAL CONTRACTOR). PLUMBING CONTRACTOR SHALL PROVIDE AND CONNECT ALL SERVICES AND ACCESSORIES SUCH AS WATER, SEWER, VENT, WATER STOPS, STAINLESS STEEL FLEXIBLE RISERS, P-TRAPS, ETC. COORDINATE WITH GENERAL CONTRACTOR.

KEYED NOTES:

1. SLEEVE ALL GRADE BEAM, FLOOR SLAB AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
2. PROVIDE FLOOR DRAIN AND FLOOR SINKS AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
3. STRUCTURAL SECOND FLOOR FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
4. STRUCTURAL ROOF FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
5. 3" ACID VENT UP FROM FIRST FLOOR IN WALL CAVITY.
6. 4" ACID WASTE DOWN TO FIRST FLOOR IN WALL CAVITY.
7. PROVIDE ACID RESISTANT PIPING FOR ALL WASTE AND VENT SYSTEM SERVING SCIENCE LABS. REFER TO SPECIFICATIONS FOR MORE INFORMATION. (TYPICAL)
8. PROVIDE PLUMBING CONNECTION TO INSTRUCTOR'S DESK AS PER DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
9. PROVIDE 2" HUB DRAIN FOR EMERGENCY EYEWASH DRAIN. PROVIDE A 2"X3" HUB INCREASER. PROVIDE A 12"X12" ACCESS PANEL FOR MAINTENANCE ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. RUN NEARBY EYE WASH STATION WASTE PIPE HUB DRAIN AND INDIRECTLY CONNECT. REFER TO ASSOCIATED DETAIL.
10. 3" ACID VENT UP TO 3" ACID VENT THRU ROOF

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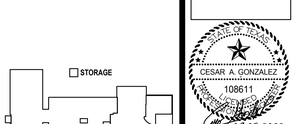
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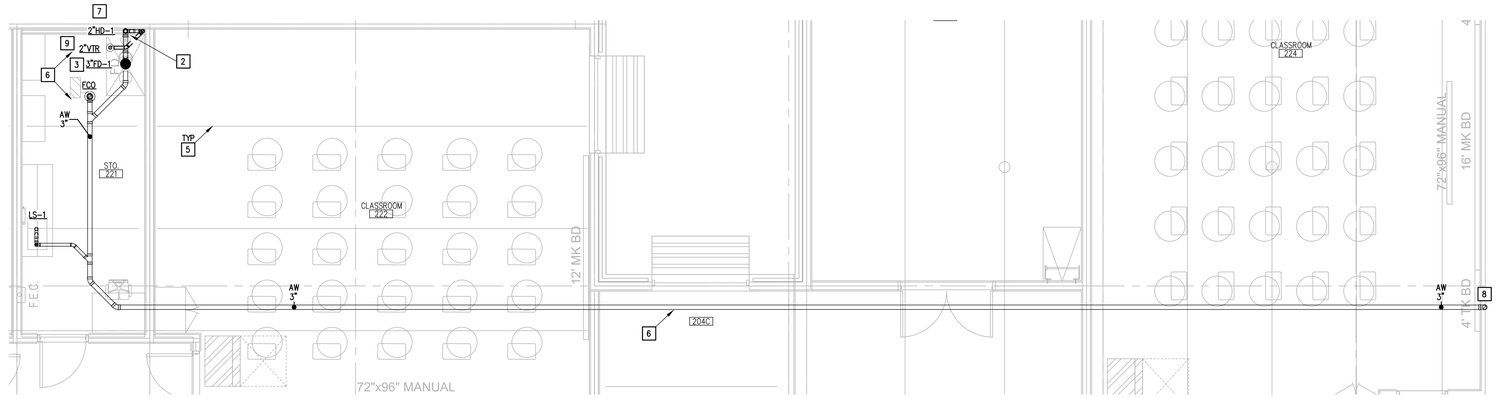
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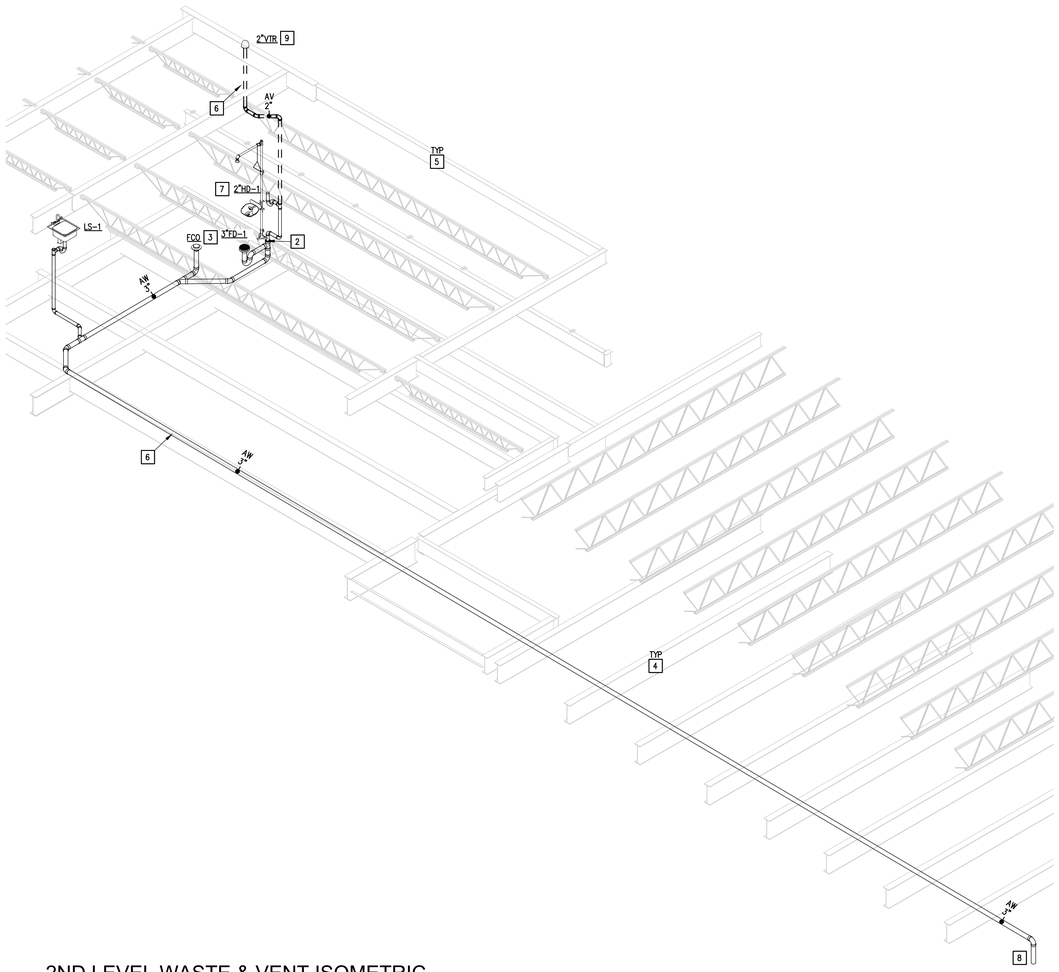
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Drawn By:	CAR
Job No.	22V73
Sheet:	P3.07



01 2ND LEVEL WASTE & VENT PLAN

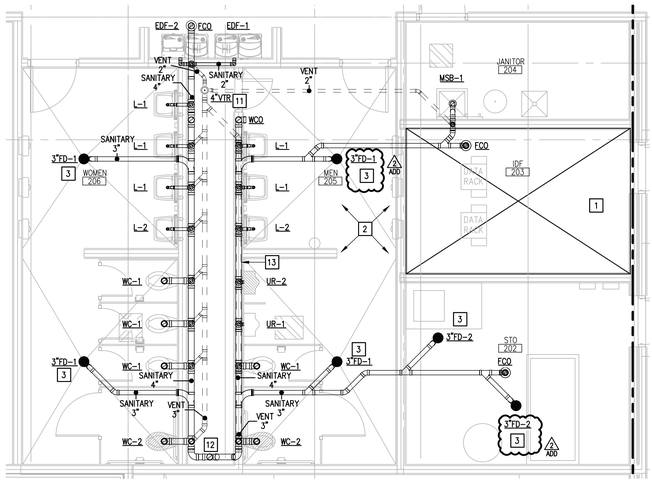
SCALE :1/4" = 1'-0"

NORTH



02 2ND LEVEL WASTE & VENT ISOMETRIC

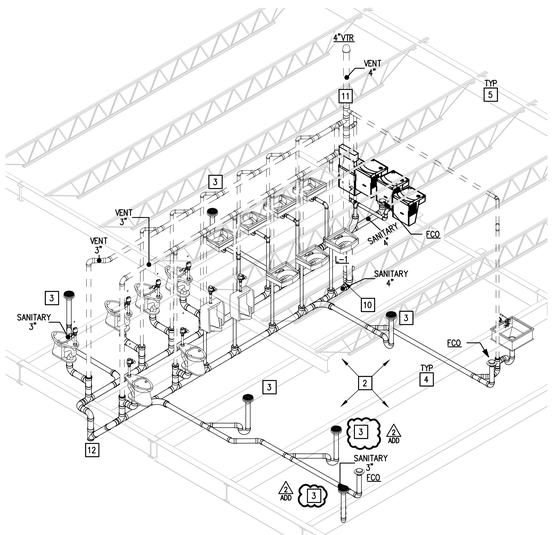
NOT TO SCALE



03 2ND LEVEL WASTE & VENT PLAN

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

NORTH



04 2ND LEVEL WASTE & VENT ISOMETRIC

NOT TO SCALE

GENERAL NOTES:

1. LAB SINKS (LS-1), FUME HOODS (FH-1) AND FAUCETS AT PREP ROOMS AND SCIENCE LABS ARE PART OF THE MILLWORK. (PROVIDED BY GENERAL CONTRACTOR). PLUMBING CONTRACTOR SHALL PROVIDE AND CONNECT ALL SERVICES AND ACCESSORIES SUCH AS WATER, SEWER, VENT, WATER STOPS, STAINLESS STEEL FLEXIBLE RISERS, P-TRAPS, ETC. COORDINATE WITH GENERAL CONTRACTOR.

KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS. (TYPICAL)
2. SLEEVE ALL GRADE BEAM, FLOOR SLAB AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
3. PROVIDE FLOOR DRAIN AND FLOOR SINKS AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
4. STRUCTURAL SECOND FLOOR FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
5. STRUCTURAL ROOF FRAMING SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
6. PROVIDE ACID RESISTANT PIPING FOR ALL WASTE AND VENT SYSTEM SERVING SCIENCE LABS. REFER TO SPECIFICATIONS FOR MORE INFORMATION. (TYPICAL)
7. PROVIDE 2" HUB DRAIN FOR EMERGENCY EYEWASH DRAIN. PROVIDE A 2"X3" HUB INCREASER. PROVIDE A 12"X12" ACCESS PANEL FOR MAINTENANCE ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. RUN NEARBY EYE WASH STATION WASTE PIPE HUB DRAIN AND INDIRECTLY CONNECT. REFER TO ASSOCIATED DETAIL.
8. 3" ACID WASTE DOWN TO FIRST FLOOR IN WALL CAVITY.
9. 2" ACID VENT UP TO 2" ACID VENT THRU ROOF
10. 4" VENT UP FROM SECOND FLOOR.
11. PROVIDE 4" VENT TO 4" VENT THRU ROOF.
12. 4" SANITARY WASTE DOWN TO FIRST FLOOR AT THIS LOCATION.
13. VENT PIPING OVERLAPPING SANITARY PIPING AT THIS LOCATION. REFER TO ISOMETRIC FOR MORE CLARITY

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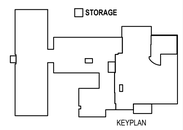
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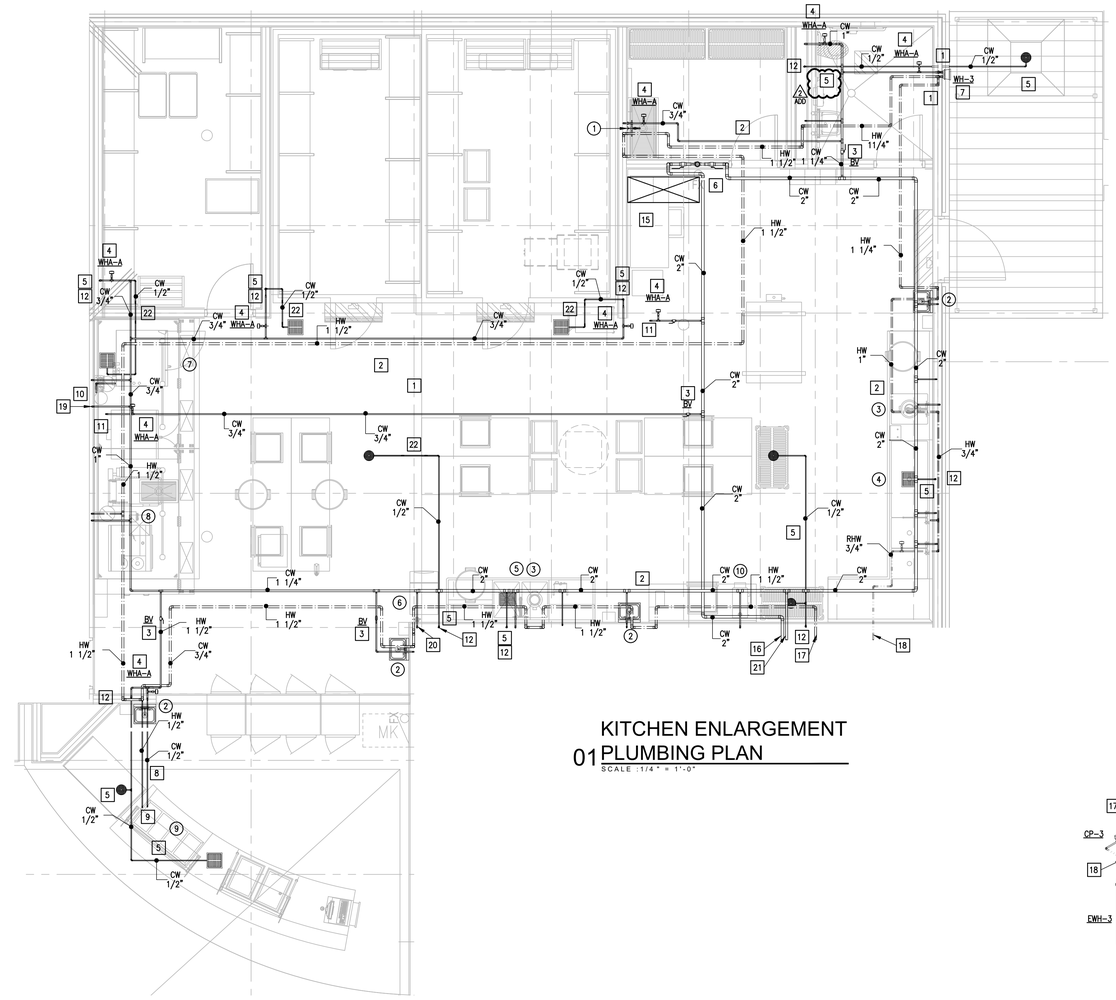


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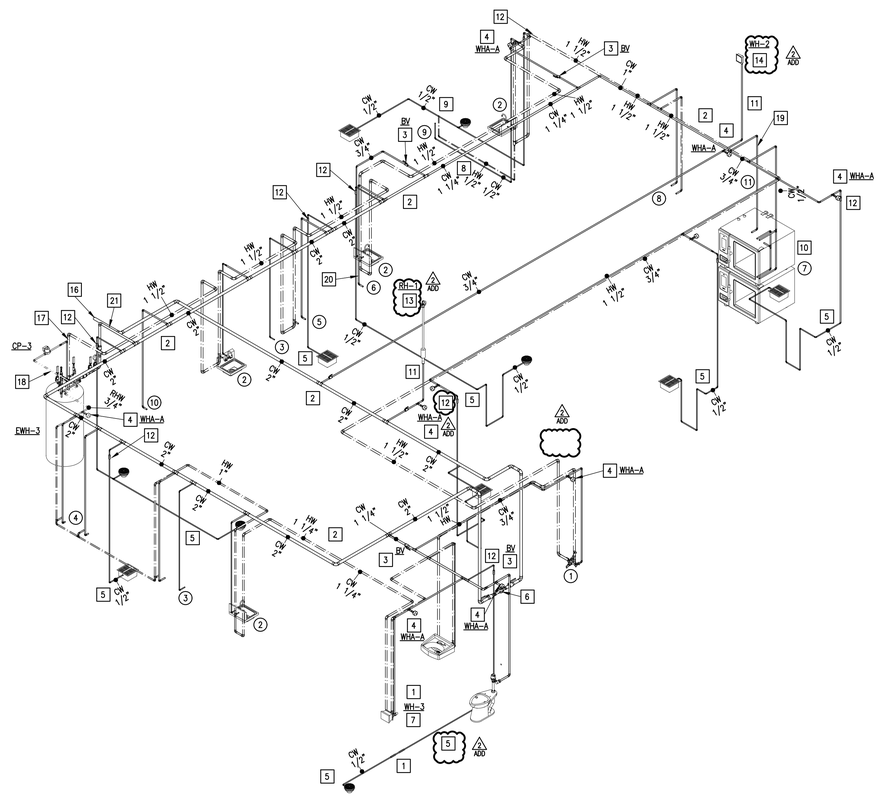
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KITCHEN ENLARGEMENT
01 PLUMBING PLAN
SCALE : 1/4" = 1'-0"

KITCHEN EQUIPMENT SCHEDULE

DESIG.	DESCRIPTION	WATER CONNECTIONS		
		CW	HW	ROUGH-IN
1	SERVICE FAUCET.	1/2"	1/2"	36" A.F.F.
2	HAND SINK. SPECIFIED BY ARCHITECT. PROVIDE POINT OF USE THERMOSTATIC VALVE LEONARD #270-LF-BRKT-BV OR EQUAL.	1/2"	1/2"	12" A.F.F.
3	DISPOSER	1/2"	--	12" A.F.F.
4	POWERED POT WASH SINK. SPECIFIED BY ARCHITECT.	1- 1/2" 2- 3/4"	--	12" A.F.F.
5	VEGETABLE PREP TABLE	1/2"	1/2"	12" A.F.F.
6	ICE MACHINE. SPECIFIED BY ARCHITECT.	3/8"	--	48" A.F.F.
7	DOUBLE STACKED COMBI OVEN. SPECIFIED BY ARCHITECT.	1- 3/4" UNFILTERED 1- 3/4" FILTERED PER UNIT	--	24" A.F.F. 48" A.F.F. PER UNIT
8	POT/KETTLE FILLER WITH HOSE RACK – CONNECT COLD WATER TO FAUCET AS PER MANUFACTURER'S RECOMMENDATIONS. SPECIFIED BY ARCHITECT.	1/2"	1/2"	24" A.F.F.
9	HOT/COLD FOOD COUNTER	1/2"	--	4" A.F.F.
10	HOT WATER DISPENSER – CONNECT WATER LINES AS PER MANUFACTURER'S RECOMMENDATIONS. SPECIFIED BY ARCHITECT.	1/4"	--	12" A.F.F.
11	REVERSE OSMOSIS WATER FILTRATION SYSTEM FOR DOUBLE STACK COMBI OVEN.	3/4"	--	--



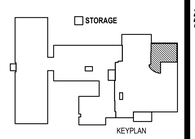
KITCHEN ENLARGEMENT
02 PLUMBING ISOMETRIC
SCALE : 1/4" = 1'-0"

GENERAL NOTES:

1. FOR ALL ISOLATION VALVES LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES "WATER VALVE" AND WHICH CEILING TILE IS TO BE REMOVED TO ACCESS THE VALVE. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER WITH WATER FLOW DIRECTION INDICATION AND ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE AND TYPE PRIOR TO INSTALLATION.
2. ACCESSORIES REQUIRED FOR INSTALLATION ARE NOT SHOWN ON DRAWINGS FOR CLARITY. SEE ASSOCIATED DETAILS ON THE DETAILS SHEETS FOR INSTALLATION AND SPECIFICATIONS.
3. KITCHEN EQUIPMENT TO BE PROVIDED BY OTHERS AND INSTALLED BY THE PLUMBING CONTRACTOR. REFER TO ARCHITECTURAL KITCHEN ENLARGEMENT DRAWINGS. COORDINATE WITH THE GENERAL CONTRACTOR.

PLUMBING KEYED NOTES:

1. SLEEVE ALL GRADE BEAMS. FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
2. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAILS. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
3. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
4. PROVIDE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
5. PROVIDE 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. ROUTE PIPING UNDERNEATH THE POLYETHYLENE VAPOR BARRIER. PIPING SHALL NOT BE EMBEDED IN THE CONCRETE FLOOR SLAB. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR APPROVED EQUAL. (TYPICAL)
6. PROVIDE 2" WATER METER MODEL DU-200 OR APPROVED EQUAL. INSTALL METER WHITHIN THE WALL WITH AN ACCESS DOOR FACING THE KITCHEN. LABEL ACCESS DOOR "WATER SUB-METER". PROVIDE LINE SIZE ISOLATION VALVES AT THE INLET AND AT THE OUTLET OF METER. COORDINATE EXACT LOCATION WITH OWNER PRIOR INSTALLATION.
7. PROVIDE WALL HYDRANT AT CAN WASH AREA. COORDINATE MOUNTING HEIGHT WITH ARCHITECT AND OWNER DURING CONSTRUCTION.
8. PROVIDE 1/2" SOFT DRAWN COPPER COLD AND HOT WATER LINES UNDER CONCRETE FLOOR SLAB TO SERVE KITCHEN EQUIPMENT. ROUTE PIPING UNDERNEATH THE POLYETHYLENE VAPOR BARRIER. PIPING SHALL NOT BE EMBEDDED IN THE CONCRETE FLOOR SLAB. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE "POLY-SLEEVE" OR EQUAL. (TYPICAL)
9. COORDINATE FINAL COLD AND HOT WATER STUB OUTS WITH KITCHEN/SERVING LINE CONSULTANT & GENERAL CONTRACTOR.
10. PROVIDE FILTERED WATER TO DOUBLE STACKED COMBI OVEN FROM REVERSE OSMOSIS SYSTEM. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR.
11. RUN 3/4" COLD WATER LINE UP TO 2ND FLOOR/ ROOF TO SERVE WALL HYDRANT/ ROOF HYDRANT.
12. PROVIDE A PPP MODEL P1-500 TRAP PRIMER WITH DU-U ADAPTER OR APPROVED EQUAL. TAP FROM TOP OF COLD WATER LINE TO PROVIDE A DEBRIS LOOP AND CONNECT TO TRAP PRIMER. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. CAP ANY UNUSED PORTS. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
13. PROVIDE ROOF HYDRANT AS SCHEDULED. SEED ASSOCIATED DETAIL ON DETAILS SHEET (TYPICAL).
14. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
15. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
16. ROUTE 2" COLD WATER LINE TO WATER METER FROM MAIN BRANCH TO SERVE KITCHEN.
17. 1-1/2" HOT WATER LINE FROM ELECTRICAL WATER HEATER EWH-3 TO SERVE KITCHEN.
18. 3/4" RECIRCULATING HOT WATER LINE TO CIRCULATING PUMP CP-3.
19. ROUTE 3/4" COLD WATER LINE TO SERVE REVERSE OSMOSIS SYSTEM TO SERVE DOUBLE STACKED COMBI OVEN.
20. PROVIDE DOMESTIC COLD WATER TO ICE MAKER THROUGH WATER FILTRATION SYSTEM.
21. PROVIDE 1-1/2" COLD WATER LINE FROM WATER METER TO SERVE ELECTRICAL WATER HEATER EWH-3. REFER TO 01/P.07 FOR MORE INFORMATION AND SEE THE DETAIL ON DETAILS SHEETS.
22. RUN COLD WATER LINES BELOW GRADE BEAMS.



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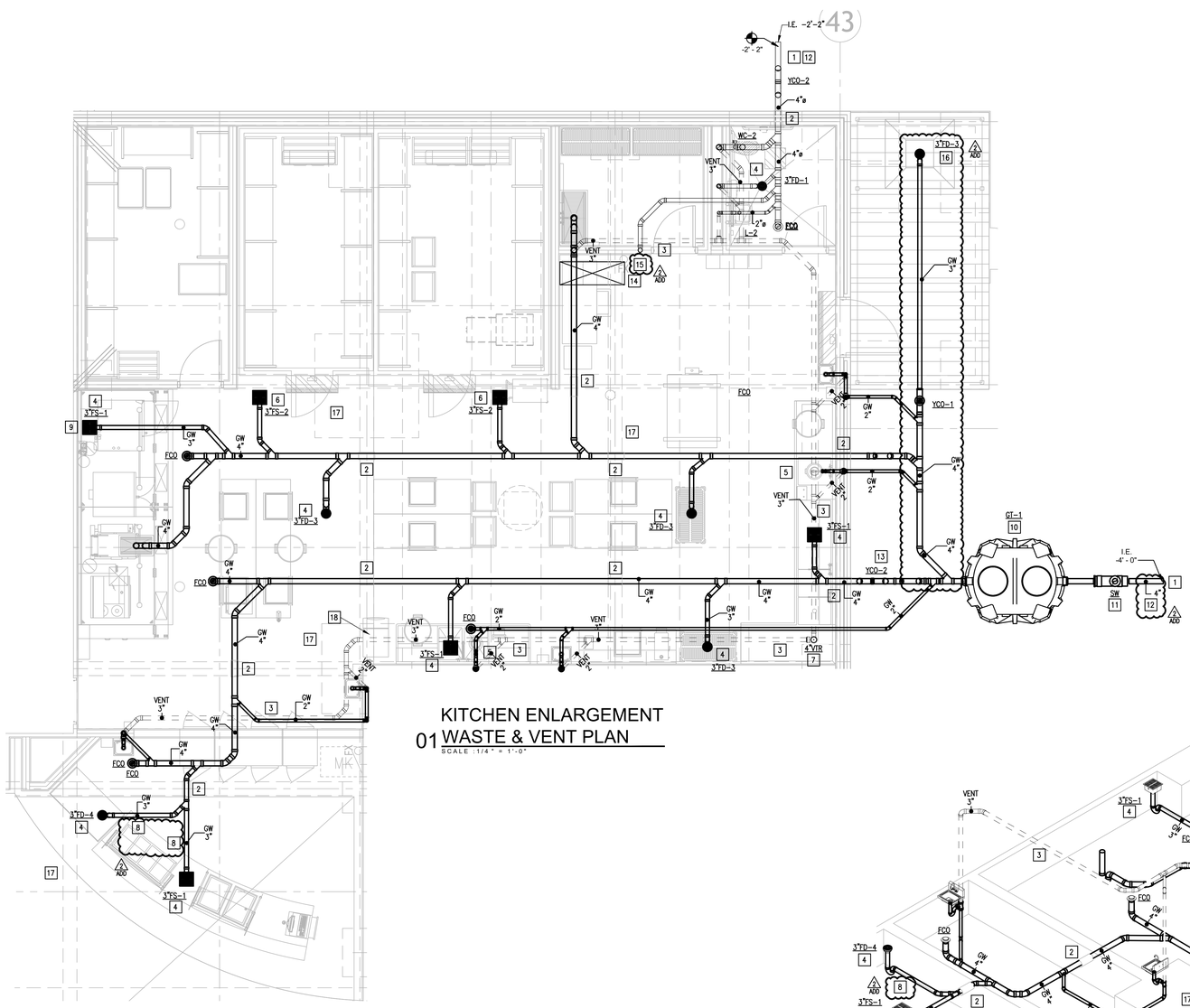
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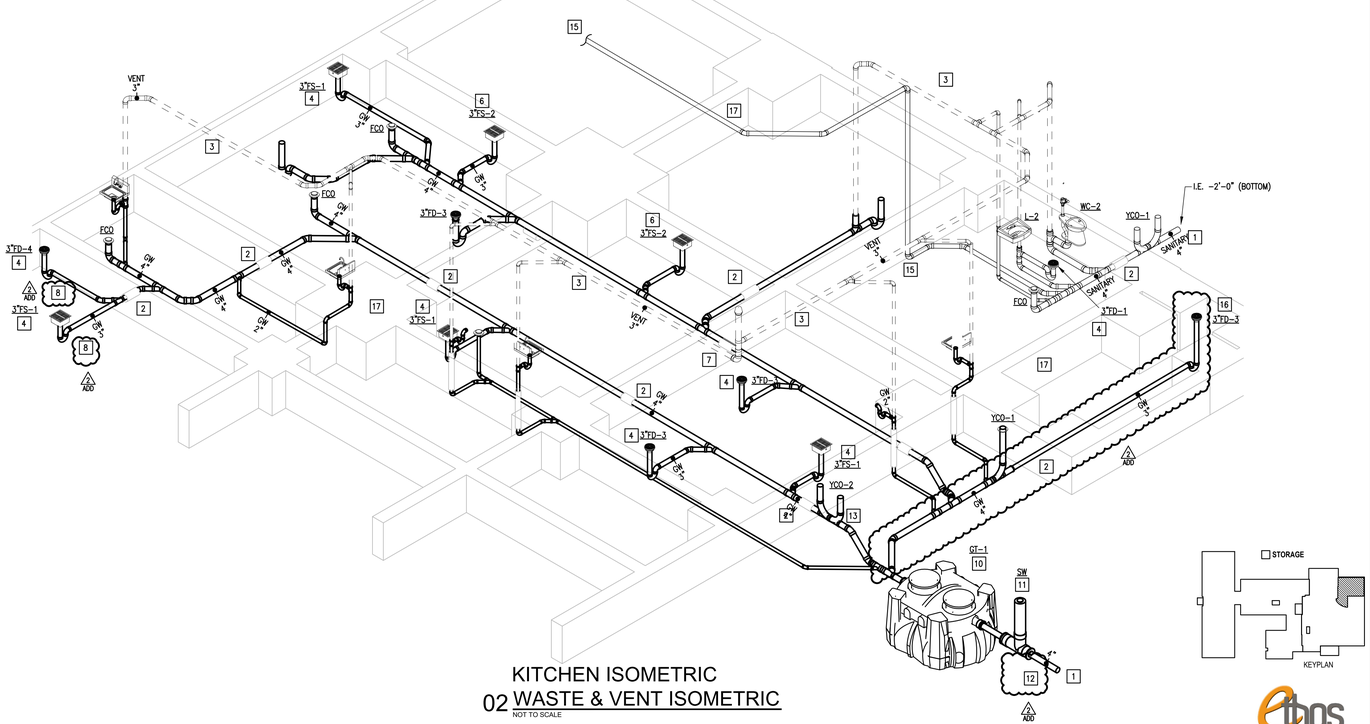
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KITCHEN ENLARGEMENT
01 WASTE & VENT PLAN
SCALE : 1/4 " = 1'-0"



KITCHEN ISOMETRIC
02 WASTE & VENT ISOMETRIC
NOT TO SCALE

KEYPLAN

WASTE AND VENT KEYED NOTES:

1. REFER TO PS1.02 FOR SITE LOCATION AND CIVIL DRAWINGS FOR UTILITY CONNECTION.
2. SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
3. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIADTED DETAIL ON DETAIL SHEET – TYPICAL.
4. PROVIDE FLOOR DRAIN/ SINKS AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
5. PROVIDE SANITARY SEWER CONNECTION FOR DISPOSER.
6. PROVIDE FLOOR DRAIN TO COLLECT WALK-IN COOLER/FREEZER CONDENSATION. COORDINATE WITH KITCHEN EQUIPMENT CONTRACTOR.
7. PROVIDE 4" VENT UP TO 4" VENT THROUGH ROOF.
8. COORDINATE FINAL FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH KITCHEN/SERVING LINE CONSULTANT & GENERAL CONTRACTOR.
9. PROVIDE 3/4 GRATE FOR FLOOR SINK.
10. PROVIDE GREASE INTERCEPTOR (GT-1) AS SCHEDULED. REFER TO ASSOCIATED DETAIL ON THE DETAILS SHEET.
11. PROVIDE SAMPLE WELL AS PER DETAIL. REFER TO ASSOCIATED DETAIL ON THE DETAILS SHEET.
12. PROVIDE 4" SANITARY SEWER CONNECTION AND TWO-WAY YARD CLEANOUT. REFER TO ASSOCIATED DETAIL ON THE DETAILS SHEET. REFER TO M.E.P. SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
13. PROVIDE NEW 4" GREASE SEWER LINE. REFER TO MEP SITE PLAN FOR SITE LOCATION. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
14. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
15. 3" WASTE DOWN FROM 2ND FLOOR. REFER TO 01/P3.02 FOR CONTINUATION.
16. PROVIDE FLOOR DRAIN TO SERVE CANWASH STATION. SET FLUSH WITH FINISHED FLOOR. REFER TO ASSOCIATED DETAIL ON THE DETAILS SHEET.
17. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
18. CONNECT ICE MACHINE CONDENSATE PIPES TO THE FLOOR SINK UNDER THE NEARBY SINK.

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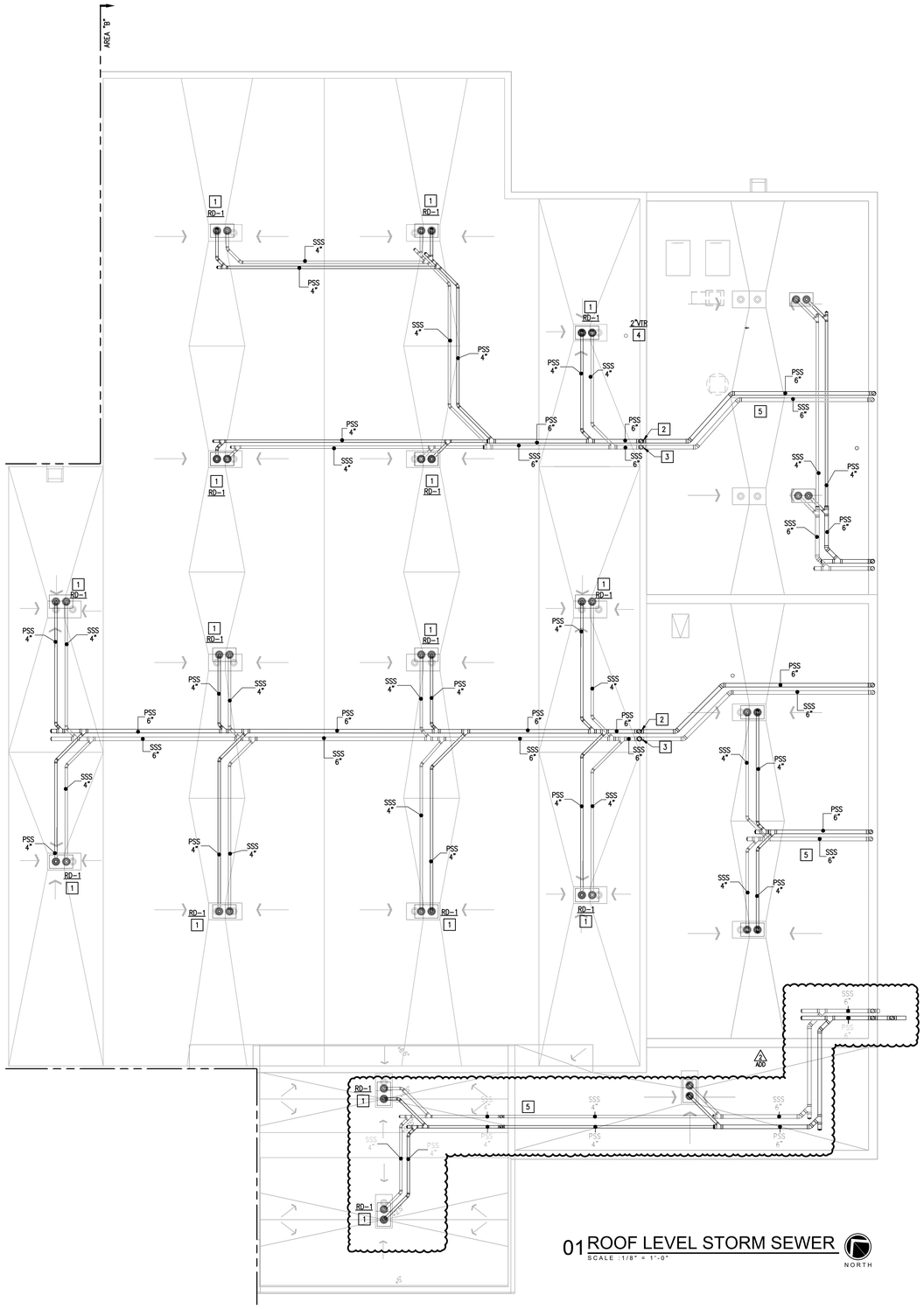
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01 ROOF LEVEL STORM SEWER
SCALE : 1/8" = 1'-0"

NORTH

GENERAL NOTES:

1. ALL HORIZONTAL LEADERS TO BE A MINIMUN OF 1/8" PER FOOT SLOPE.
2. ALL VERTICAL LEADER LINES DOWN AND CONCEALED IN WALL CAVITY, UNLESS OTHERWISE NOTED. REFER TO DRAWINGS.
3. COORDINATE ROOF DRAIN PIPING WITH GENERAL CONTRACTOR AND HVAC CONTRACTOR.
4. PROVIDE INSULATION ON ALL ABOVE GROUND STORM LINES. REFER TO SPECIFICATIONS FOR DETAILS.
5. STORM DRAIN AND SEWER PIPING SHOWING ON THIS PLAN TO BE INSTALLED UNDER THE ROOF AND ABOVE THE CEILING.
6. COORDINATE ROOF DRAIN LOCATIONS WITH STRUCTURAL CONTRACTOR.

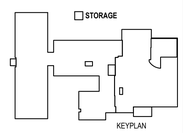
PLUMBING KEYED NOTES:

1. PROVIDE ROOF DRAIN, RD-1, AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET. (TYPICAL)
2. PRIMARY STORM DRAIN DOWNSPOUTS DOWN TO FIRST FLOOR CEILING SPACE AT THIS APROXIMATE POINT. SEE ASSOCIATED DETAIL ON DETAILS SHEET. REFER TO 01/P5.03 AND 01/P5.05 FOR CONTINUATION.
3. SECONDARY STORM DRAIN DOWNSPOUTS DOWN IN WALL CAVITY TO FIRST FLOOR CEILING SPACE AT THIS APROXIMATE POINT. SEE ASSOCIATED DETAIL ON DETAILS SHEET. REFER TO 01/P5.03 AND 01/P5.05 FOR CONTINUATION.
4. 2" VENT UP THROUGH ROOF FROM SECOND FLOOR.
5. STORM SEWER IN A DIFFERENT LEVEL. REFER TO 01/P5.04 FOR MORE INFORMATION.

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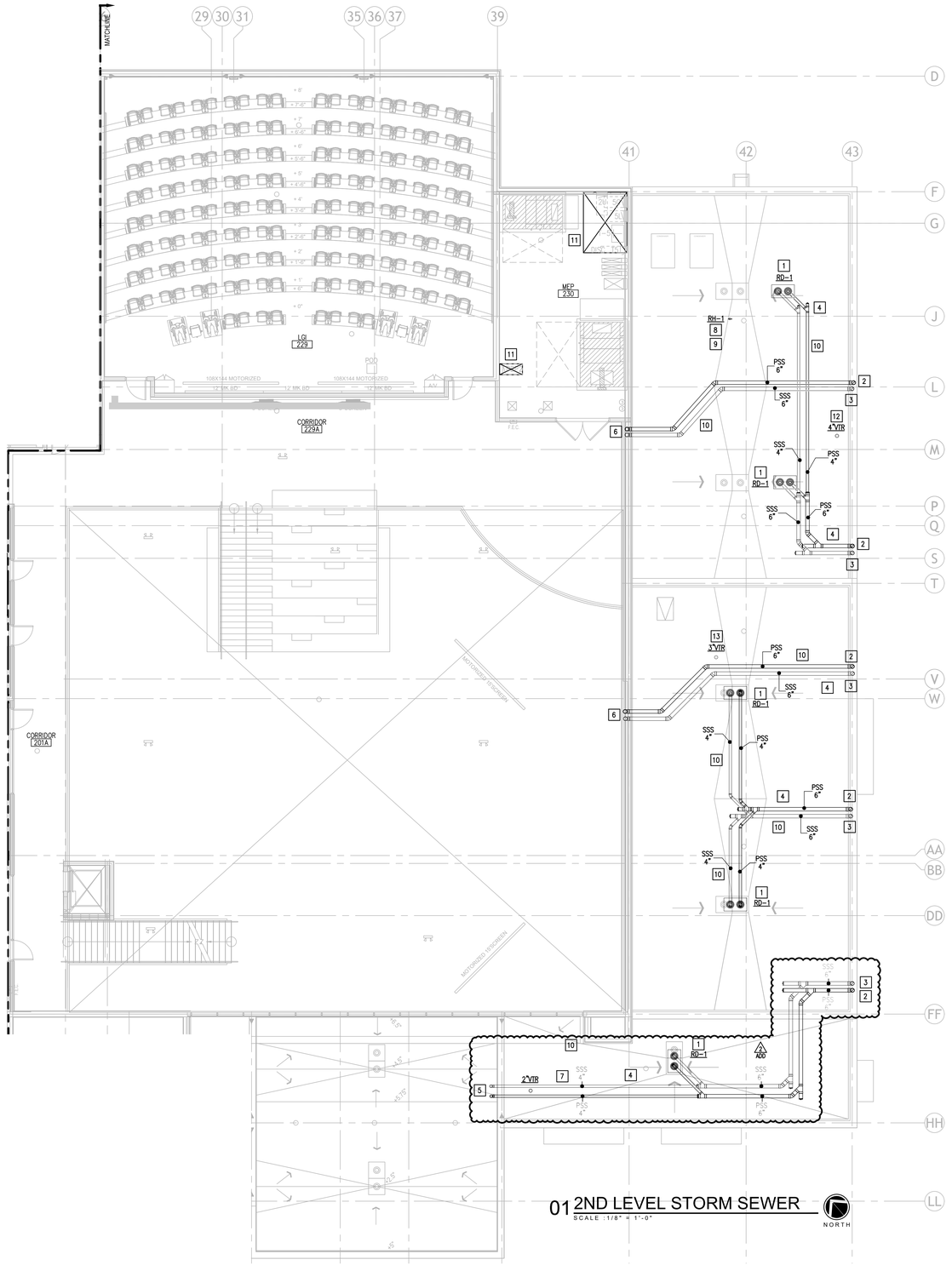
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Project Architect:	David Monreal, AIA
Drawn By:	MOV
Job No.	22V73
Sheet:	P5.02



01 2ND LEVEL STORM SEWER
SCALE : 1/8" = 1'-0"

NORTH

GENERAL NOTES:

1. ALL HORIZONTAL LEADERS TO BE A MINIMUN OF 1/8" PER FOOT SLOPE.
2. ALL VERTICAL LEADER LINES DOWN AND CONCEALED IN WALL CAVITY, UNLESS OTHERWISE NOTED. REFER TO DRAWINGS.
3. COORDINATE ROOF DRAIN PIPING WITH GENERAL CONTRACTOR AND HVAC CONTRACTOR.
4. PROVIDE INSULATION ON ALL ABOVE GROUND STORM LINES. REFER TO SPECIFICATIONS FOR DETAILS.
5. STORM DRAIN AND SEWER PIPING SHOWING ON THIS PLAN TO BE INSTALLED UNDER THE ROOF AND ABOVE THE CEILING.

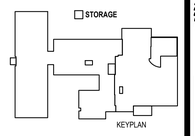
PLUMBING KEYED NOTES:

1. PROVIDE ROOF DRAIN, RD-1, AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET. (TYPICAL)
2. PRIMARY STORM DRAIN DOWNSPOUTS DISCHARGING IN WALL CAVITY AT THIS APROXIMATE LOCATION TO STORM DRAIN SYSTEM. SEE ASSOCIATED DETAIL ON DETAILS SHEET. REFER TO 01/P5.05 FOR CONTINUATION.
3. SECONDARY STORM DRAIN DOWNSPOUTS DISCHARGING IN WALL CAVITY AT THIS APROXIMATE POINT. SEE ASSOCIATED DETAIL ON DETAILS SHEET. REFER TO 01/P5.05 FOR CONTINUATION.
4. STORM DRAIN AND SEWER PIPING TO BE INSTALLED UNDER THE ROOF AND ABOVE THE CEILING.
5. 4" STORM DRAIN PIPE DOWN FROM ROOF TO 1ST FLOOR CEILING SPACE. REFER TO 01/P05 FOR CONTINUATION.
6. 6" STORM DRAIN PIPE DOWN FROM ROOF TO 1ST FLOOR CEILING SPACE. REFER TO 01/P05 FOR CONTINUATION.
7. 2" VENT UP THROUGH ROOF.
8. 3/4" COLD WATER UP FROM 2ND FLOOR TO SERVE ROOF HYDRANT.
9. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETALS ON DETAILS SHEET.
10. ROUTE STORM DRAIN PIPES IN 1ST FLOOR CEILING SPACE. COORDINATE WITH GENERAL CONTRACTOR AND OTHER TRADES.
11. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
12. 4" VENT UP THROUGH ROOF.
13. 3" VENT UP THROUGH ROOF.

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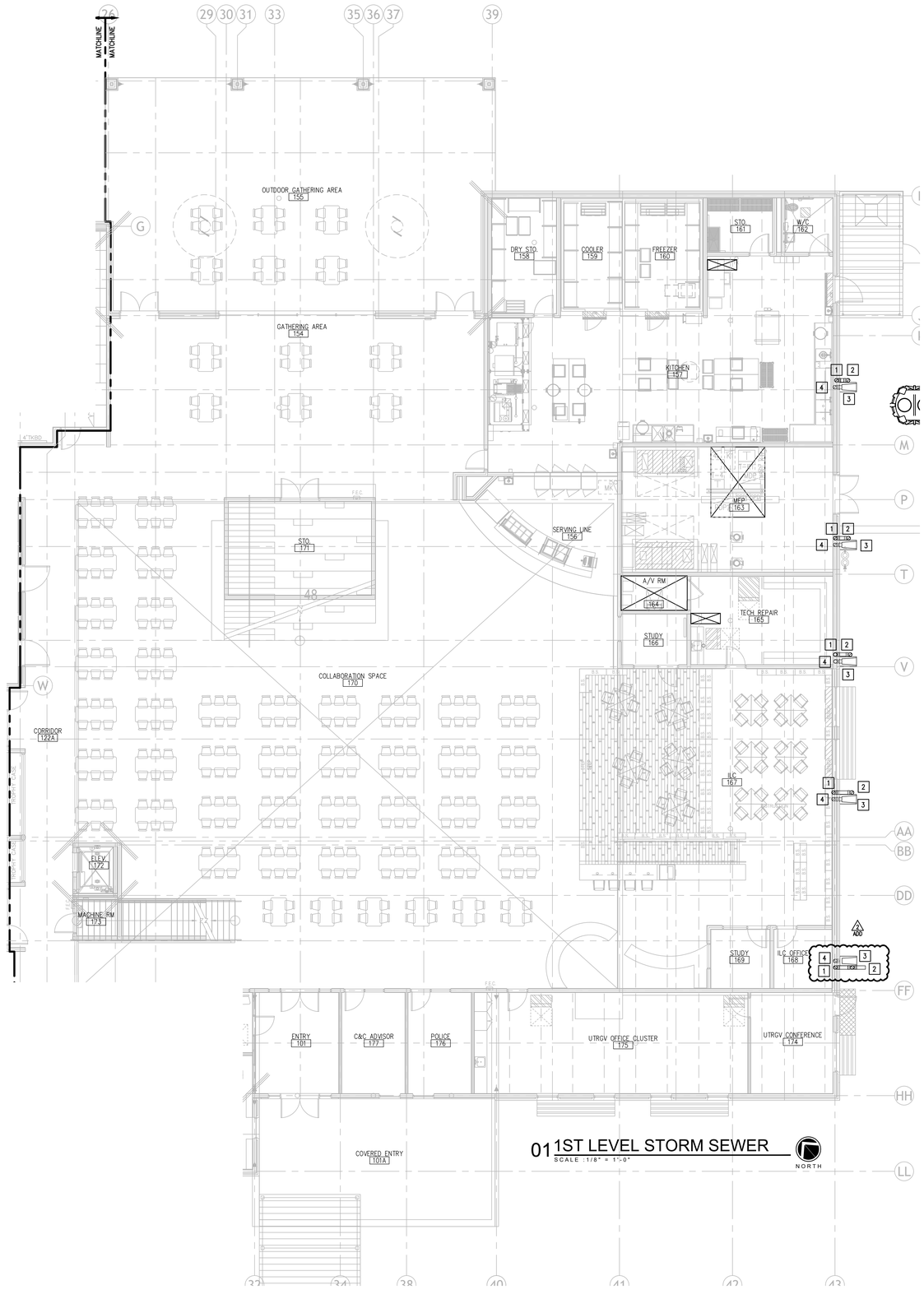


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Job No.	22V73
Sheet:	P5.04

PLUMBING KEYED NOTES:

1. PRIMARY STORM DRAIN DOWNSPOUT DISCHARGING AT THIS APPROXIMATE LOCATION TO STORM DRAIN SYSTEM. SEE ASSOCIATED DETAILS ON DETAILS SHEET.
2. REFER TO PLUMBING SITE PLAN FOR SITE LOCATION AND CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION. COORDINATE WITH CIVIL UTILITY CONTRACTOR. (TYPICAL)
3. PROVIDE SPLASH BLOCK FOR SECONDARY OVERFLOW STORM DRAIN PIPE AS SHOWN.
4. SECONDARY STORM DRAIN DOWNSPOUT DISCHARGING AT THIS APPROXIMATE LOCATION TO SPLASH BLOCKS. SEE ASSOCIATED DETAILS ON DETAILS SHEET.



01 1ST LEVEL STORM SEWER
SCALE : 1/8" = 1'-0"

NORTH

STORAGE

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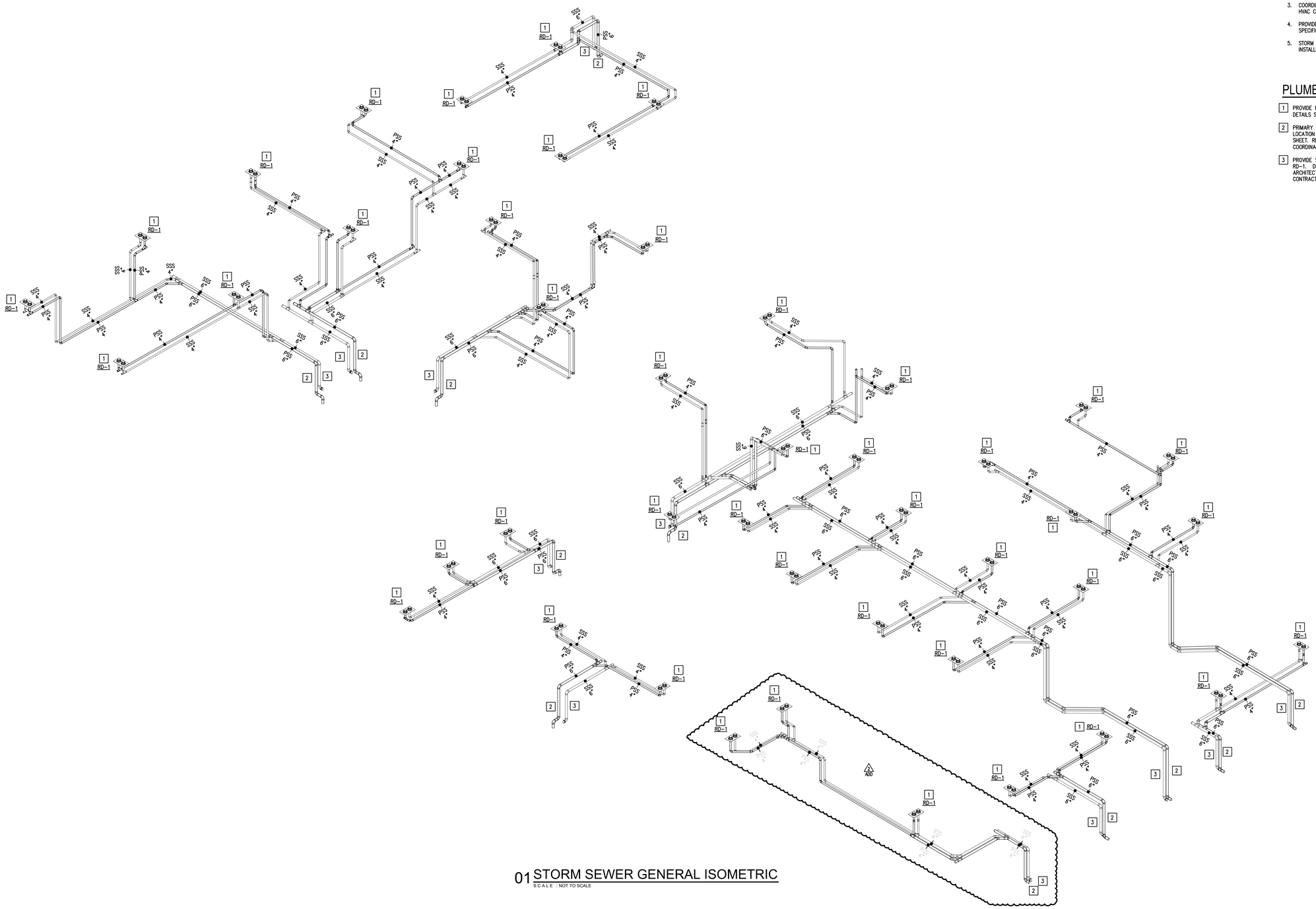
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01 STORM SEWER GENERAL ISOMETRIC

SCALE : NOT TO SCALE

GENERAL NOTES:

1. ALL HORIZONTAL LEADERS TO BE A MINIMUN OF 1/8" PER FOOT SLOPE.
2. ALL VERTICAL LEADER LINES DOWN AND CONCEALED IN WALL CAVITY, UNLESS OTHERWISE NOTED. REFER TO DRAWINGS.
3. COORDINATE ROOF DRAIN PIPING WITH GENERAL CONTRACTOR AND HVAC CONTRACTOR.
4. PROVIDE INSULATION ON ALL ABOVE GROUND STORM LINES. REFER TO SPECIFICATIONS FOR DETAILS.
5. STORM DRAIN AND SEWER PIPING SHOWING ON THIS PLAN TO BE INSTALLED UNDER THE ROOF AND ABOVE THE CEILING.

PLUMBING KEYED NOTES:

1 PROVIDE ROOF DRAIN, RD-1, AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET. (TYPICAL)

2 PRIMARY STORM DRAIN DOWNSPOUT DISCHARGING AT THIS APPROXIMATE LOCATION TO STORM DRAIN SYSTEM. SEE ASSOCIATED DETAILS ON DETAILS SHEET. REFER TO CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION. COORDINATE WITH CIVIL UTILITY CONTRACTOR. (TYPICAL)

3 PROVIDE SECONDARY STORM DRAIN PIPE FROM ROOF DRAIN COMBINATION RD-1. DROP STORM DRAIN PIPING IN WALL CAVITY. REFER TO ARCHITECTURAL SHEET AND COORDINATE INSTALLATION WITH GENERAL CONTRACTOR AND CIVIL. SEE ASSOCIATED DETAIL ON DETAILS SHEET.

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BOOSTER PUMP SCHEDULE

Project: UTRGV / ECISD Early College High School

MARK	TYPE	LOCATION	TOTAL GPM	HEAD FT WG	MOTOR HP (QTY)	MOTOR RPM	MIN. PUMP EFFICIENCY	ELECTRICAL V-PH-HZ	ELECTRICAL MOCP	ELECTRICAL AMPS	MANUFACTURER & MODEL	NOTES
BP-1	DUPLEX	MEP 163	170	104	5HP (2)	3600	71%	460/3/60	20A	17.1	GRUNDFOS HYRDRO MPC-E 2CRE 20-2 3X460V	ALL

NOTES:

1. PROVIDE TEFC, PREMIUM EFFICIENCY, NON-OVERLOADING MOTORS.
2. THE DOMESTIC BOOSTER SYSTEM SHALL BE NSF-61 APPROVED
3. THE SYSTEM WILL BE SUPPLIED WITH SINGLE POINT POWER CONNECTION POINT
4. DIV. 26 TO PROVIDE SAFETY DISCONNECT. COORDINATE WITH ELECTRICAL CONTRACTOR.
5. PROVIDE BLADDER TANK ELBI WTL-200 OR APPROVED EQUAL

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE

Project: UTRGV / ECISD Early College High School

MARK	LOCATION	MINIMUM FLOW RATE	DEGREE RISE AT FLOW RATE	ELECTRICAL V/PH	KW	DIMENSIONS LENGTH X WIDTH	MANUFACTURER & MODEL NUMBER	NOTES
IEWH-1	SEE PLAN	0.8	36°	208V / 1PH	4	10.125"X6.25"	CHRONOMITE M-20L/208-ADJ	1,2
IEWH-2	SEE PLAN	0.8	36°	208V / 1PH	4	10.125"X6.25"	CHRONOMITE M-20L/208-ADJ	1,2
IEWH-3	SEE PLAN	0.8	36°	208V / 1PH	4	10.125"X6.25"	CHRONOMITE M-20L/208-ADJ	1,2
IEWH-4	SEE PLAN	0.8	36°	208V / 1PH	4	10.125"X6.25"	CHRONOMITE M-20L/208-ADJ	1,2
IEWH-5	SEE PLAN	0.8	36°	208V / 1PH	4	10.125"X6.25"	CHRONOMITE M-20L/208-ADJ	1,2
IEWH-6	SEE PLAN	0.8	36°	208V / 1PH	4	10.125"X6.25"	CHRONOMITE M-20L/208-ADJ	1,2

NOTES:

1. MANUFACTURER & MODEL NUMBER ARE "OR APPROVED EQUAL".

ELECTRIC WATER HEATER SCHEDULE

PROJECT: UTRGV/ Edinburg CISD Collegiate High School

MARK	LOCATION	CAPACITY (GAL.)	KW	NUMBER OF ELEMENTS	RECOVERY IN GPH AT 80°F RISE	ELECTRICAL V / PH / HZ	NOTES	MANUFACTURER & MODEL NUMBER
EWH-1	JANITOR 125	10	6	1	30	208/1/60	ALL	AO SMITH DEL-10
EWH-2	MEP 117	15	6	1	30	208/1/60	ALL	AO SMITH DEL-15
EWH-3	MEP 163	120	54	9	316	480/3/60	ALL	AO SMITH DSE-120A
EWH-4	JANITOR 204	10	6	1	30	208/1/60	ALL	AO SMITH DEL-10

NOTES:

1. MANUFACTURER AND MODEL NUMBER ARE "OR APPROVED EQUAL".
2. PROVIDE EXPANSION TANK STATE WATERGUARD ETC-2 OR EQUAL.
3. PROVIDE IMMERSION TYPE THERMOSTAT.
4. REFER TO DETAIL SHEET FOR MORE INFORMATION.
5. PROVIDE HOT WATER RECIRCULATING PUMP. REFER TO PUMP SCHEDULE FOR MORE INFORMATION.

CIRCULATING PUMP SCHEDULE

Project: UTRGV / ECISD Early College High School

MARK	TYPE	SERVES	LOCATION	GPM	HEAD FT WG	MIN. HP	RPM	SUCTION DIA. (IN.)	IMPELLER DIA. (IN.)	ELEC. V-PH-HZ	WEIGHT (LBS)	NOTES	MANUFACTURER AND MODEL
CP-1	CIRCULATING PUMP	EWH-1	SEE PLAN	5	20	1/12	3300	3/4	3	120-1-60	13	ALL	BELL & GOSSETT PL-30B
CP-2	CIRCULATING PUMP	EWH-2	SEE PLAN	5	20	1/12	3300	3/4	3	120-1-60	13	ALL	BELL & GOSSETT PL-30B
CP-3	CIRCULATING PUMP	EWH-3	SEE PLAN	5	20	1/12	3300	3/4	3	120-1-60	13	ALL	BELL & GOSSETT PL-30B
CP-4	CIRCULATING PUMP	EWH-4	SEE PLAN	5	20	1/12	3300	3/4	3	120-1-60	13	ALL	BELL & GOSSETT PL-30B

NOTES:

1. PROVIDE BRONZE BOOSTER BODY.
2. PUMPS SHALL BE OPERATED AND CONTROLLED THRU TIME CLOCK AND THRU AQUASTAT. COORDINATE WITH ELECTRICAL CONTRACTOR.
3. REFER TO DETAIL SHEET FOR MORE INFORMATION.

AIR COMPRESSOR PUMP SCHEDULE

Project: UTRGV / ECISD Early College High School

MARK	TYPE	TOTAL CFM	TANK (GAL.)	MAX PRESSURE	MIN, MOTOR HP	ELECT. V/P/H	MANUFACTURER & MODEL	NOTES
C-1	AIR COMPRESSOR	49.3	120	175	15	200/3/60	QUINCY F370	ALL

NOTES:

1. PROVIDE HOUSEKEEPING CONCRETE PAD.
2. MOTOR STARTER TO BE PROVIDED WITH AIR COMPRESSOR BY PLUMBING CONTRACTOR, SAFETY DISCONNECT PROVIDED AND INSTALLED BY ELECTIRCAL CONTRACTOR, COORDINATE WITH BY DIV. 26.
3. PROVIDE COMPRESSED AIR REFRIGERATED AIR DRYER QUINCY MODEL QRHT-50 OR APPROVED EQUAL. PROVIDE WITH VALVED 3-WAY BYPASS.
4. PROVIDE PRE-FILTER QMF25.
5. PROVIDE AFTER-FILTER QCF25.

PLUMBING SYMBOLS LEGEND

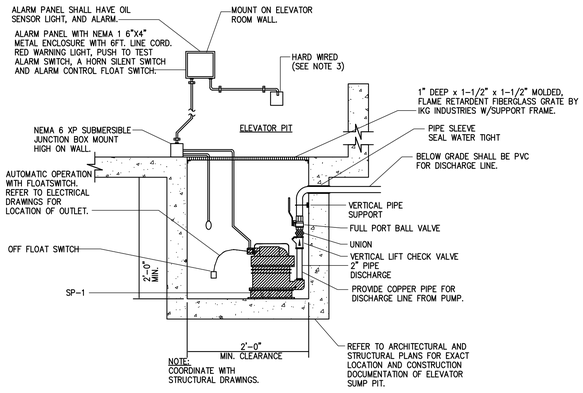
	(CW) COLD WATER SUPPLY	PRV	PRESSURE REDUCING VALVE
	(HW) HOT WATER SUPPLY	GT	GREASE TRAP
	(GAS) GAS LINE	S.S.	SANITARY SEWER
	SOIL & WASTE LINE – ENLARGED PLANS	WC	WATER CLOSET
2 ADD	(GW) GREASE WASTE – ENLARGED PLANS	UR	URINAL
	VENT LINE – ENLARGED PLANS	P.O.C.	POINT OF CONNECTION
	(RHW) RE-CIRCULATING HOT WATER LINES	L	LAVATORY
2 ADD	(AW) ACID WASTE	SSP	PRIMARY STORM SEWER
	(AV) ACID VENT	SSS	SECONDARY STORM SEWER
	(DW) DEIONIZED WATER LINE	SK	SINK
	(RDW) RETURN DEIONIZED WATER LINE	EDF	ELECTRIC DRINKING FOUNTAIN
FCO	FLOOR CLEANOUT	MSB	MOP SERVICE BASIN
FD	FLOOR DRAIN (FD) WITH DEEP SEAL TRAP	EESHR	EMERGENCY EYE/SHOWER
FS	FLOOR SINK (FS) WITH DEEP SEAL TRAP	TP	TRAP PRIMER
HD	HUB DRAIN WITH DEEP SEAL TRAP	EWH	ELECTRIC WATER HEATER
YCO-2	YARD CLEANOUT – 2 WAY	VTR	VENT THRU ROOF
	WALL HYDRANT (WH)	CO	CLEANOUT
	*WATER HAMMER ARRESTOR (WHA)		BALL VALVE (BV)
	WYE FITTING		QUAZITE BOX WITH GATE VALVE
	45° ELBOW FITTING	H	SECTION VIEW CUT
	90° ELBOW FITTING		

* PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA.

GENERAL NOTES:

(APPLY TO ALL PLUMBING SHEETS)

1. ALL PLUMBING WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.
2. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
3. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH THE WORK OF OTHER TRADES. COORDINATE WITH MECHANICAL, ELECTRICAL AND STRUCTURAL FOR PROPER CLEARANCES.
4. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION WORK.
5. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR.
6. SLEEVE ALL OUTSIDE WALLS, FOUNDATION GRADE BEAMS, INTERIOR WALL PENETRATIONS, AND FIRE SEAL ALL PENETRATION THROUGH FIRE WALLS AND FLOORS WHETHER SHOWN ON PLANS OR NOT.
7. PROVIDE MINIMUM 15' OF SEPARATION BETWEEN HVAC INTAKES AND VENT THRU ROOFS.
8. RECORD INVERT ELEVATIONS OF ALL YARD CLEAN OUT (YCO) ON "AS-BUILT" DRAWINGS.
9. PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.
10. PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.
11. PROVIDE ANY BACKFLOW PREVENTION DEVICE REQUIRED BY CODE OR LOCAL AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY AND LOCAL AGENCIES AND INCLUDE COST IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.
12. REFER TO PLUMBING FIXTURE ROUGH-IN SCHEDULE FOR INDIVIDUAL PIPE CONNECTIONS TO FIXTURES.
13. PRIOR TO POURING FOUNDATION AND ERECTING WALLS, COORDINATE INSTALLATION OF PLUMBING FIXTURE CARRIERS WITH GENERAL CONTRACTOR.
14. STUDS AT DRY WALLS SHALL NOT BE CUT THRU HORIZONTAL DIRECTION. COORDINATE WITH DRY WALL CONTRACTOR.
15. CONTRACTOR SHALL NOT CUT ANY EXTERIOR WALL STUD.



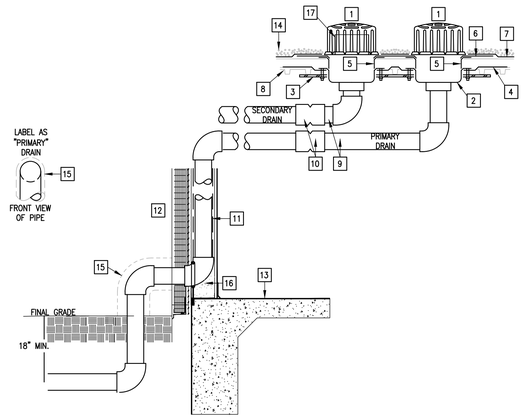
SUMP PUMP (SP-1)

BELL & GOSSETT SERIES "2EC" MODEL "2EC0511", EFFLUENT SUMP PUMP 50 GPM AT 25 HD, 1/2 HP, 115 V, 1PH. BELL & GOSSETT P/N# A27320J DOUBLE FLOAT SWITCH BELL & GOSSETT P/N# S10020N1 NEMA 1 SIMPLEX CONTROL PANEL.

NOTES:

1. ALARM PANEL MAY BE DIRECT WIRED.
2. LABEL SUMP PUMP DEDICATED RECEPTACLE "FOR SUMP PUMP ONLY".
3. LABEL ALARM PANEL "FOR ALARM PANEL ONLY".
4. REFER TO DETAIL DRAWINGS FOR BASIN REQUIREMENTS.
5. NO PVC ALLOWED FOR PUMP DISCHARGE PIPING.
6. NOTE USED PROVIDE AND INSTALL A LOCAL VISUAL/AUDIBLE ALARM JUST OUTSIDE THE ELEVATOR IN ADDITION TO THE ALARM PANEL IN THE ELEVATOR WALL.
7. COORDINATE WITH ARCHITECT FOR LOCATION.

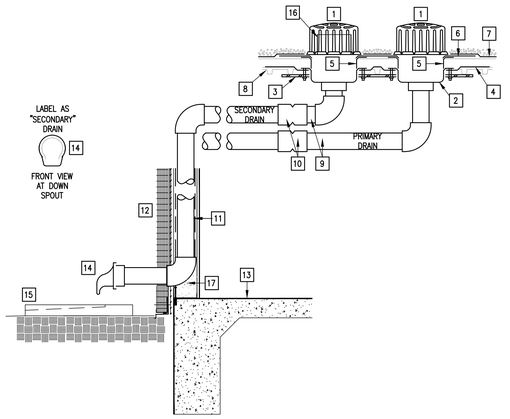
SP-1
01 SUMP PUMP DETAIL
SCALE: NOT TO SCALE



RD-1
02 PRIMARY ROOF DRAIN DETAIL
SCALE :NOT TO SCALE

ROOF DRAIN DETAIL KEYED NOTES:

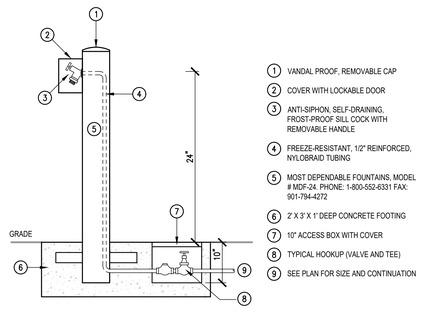
1. ROOF DRAIN
2. DRAIN BODY
3. UNDER DECK CLAMP
4. ROOF SUMP RECEIVER
5. EXTENSION COLLAR
6. 4# LEAD FLASHING–EXTEND MINIMUM 12" FROM DRAIN BODY
7. COUNTER FLASHING
8. ROOF DECK
9. MINIMUM 1/8" PER FEET SLOPE ON HORIZONTAL RUNS
10. RUBBER "O" RINGS TYPE EXPANSION COUPLING WITHIN 4 FEET OF EACH ROOF DRAIN.
11. RAIN WATER CONDUCTOR IN WALL CAVITY
12. WALL
13. FLOOR
14. ROOF
15. ALUMINUM METAL JACKET
16. FILL BLOCK WITH CONCRETE AT ELBOW AREA
17. ADJUSTABLE STANDPIPE.



RD-1
03 SECONDARY ROOF DRAIN DETAIL
SCALE :NOT TO SCALE

ROOF DRAIN DETAIL KEYED NOTES:

1. ROOF DRAIN
2. DRAIN BODY
3. UNDER DECK CLAMP
4. ROOF SUMP RECEIVER
5. EXTENSION COLLAR
6. 4# LEAD FLASHING–EXTEND MINIMUM 12" FROM DRAIN BODY
7. COUNTER FLASHING
8. ROOF DECK
9. MINIMUM 1/8" PER FEET SLOPE ON HORIZONTAL RUNS
10. EXPANSION COUPLING WITHIN 4 FEET OF EACH ROOF DRAIN.
11. RAIN WATER CONDUCTOR INSIDE WALL CAVITY
12. WALL
13. FLOOR
14. PROVIDE DOWNSPOUT NOZZLE EQUAL TO JOSAM 25010.
15. SPLASH BLOCK (GENERAL CONTRACTOR)
16. ADJUSTABLE STANDPIPE.
17. FILL BLOCK WITH CONCRETE AT ELBOW AREA



1. VANDAL PROOF, REMOVABLE CAP
2. COVER WITH LOCKABLE DOOR
3. ANTI-SIPHON, SELF-DRAINING, FROST-PROOF SILL COCK WITH REMOVABLE HANDLE
4. FREEZE-RESISTANT, 1/2" REINFORCED, NYLOBRAID TUBING.
5. MOST DEPENDABLE FOUNTAINS, MODEL # MDF-24. PHONE: 1-800-552-6331 FAX: 901-794-4272
6. 2' X 3' X 1' DEEP CONCRETE FOOTING
7. 10" ACCESS BOX WITH COVER
8. TYPICAL HOOKUP (VALVE AND TEE)
9. SEE PLAN FOR SIZE AND CONTINUATION

PEDESTAL TYPE
04 HOSE BIBB DETAIL
SCALE: NOT TO SCALE

No.	REVISIONS	BY
1 ADD	09/26/2022	ETHOS

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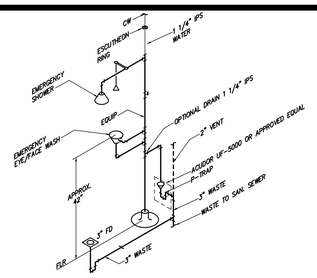
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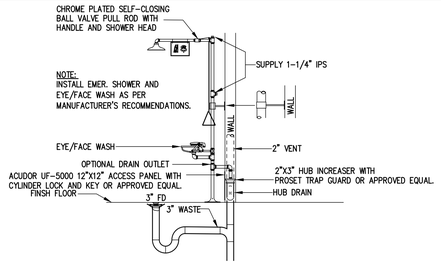
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ENGINEERING FIRM
F-15998



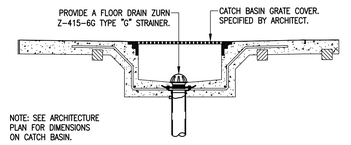
01 EMERGENCY SHOWER & EYE/FACE PIPING SCHEMATIC

SCALE: NOT TO SCALE



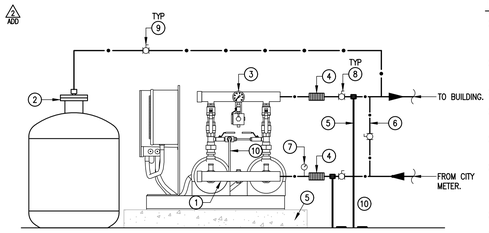
02 EMERGENCY SHOWER & EYE/FACE DETAIL

SCALE: NOT TO SCALE



03 CATCH BASIN CAN WASH AREA WITH FLOOR DRAIN DETAIL

SCALE: NOT TO SCALE

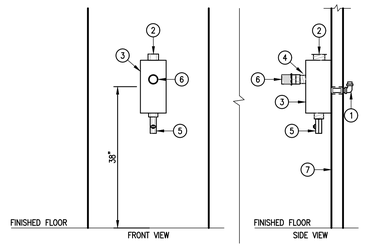


KEYED NOTES:

1. PROVIDE 1/4" TAP ON THE SUCTION MANIFOLD FOR LOW-SUCTION PRESSURE SWITCH.
2. PROVIDE BLADDER TANK AS PER SCHEDULE.
3. PROVIDE DISCHARGE GAUGE.
4. PROVIDE STAINLESS STEEL FLEXIBLE CONNECTORS.
5. PROVIDE CONCRETE PAD AND SECURE BOOSTER PUMP SKID.
6. PROVIDE BYPASS LINE. KEEP THIS VALVE CLOSED DURING NORMAL OPERATION. DO NOT INSTALL A CHECK VALVE.
7. PROVIDE SUCTION GAUGE.
8. PROVIDE ISOLATION VALVE.
9. PROVIDE COPPER PIPING AND ROUTE TO DRAIN.
10. PROVIDE SUPPORTS TO PROPERLY SECURE DISCHARGE AND SUCTION PIPING TO FLOOR.

04 BOOSTER PUMP DETAIL

SCALE: NOT TO SCALE



KEYED NOTES

1. 1/2" FEMALE NPT PIPE ELBOW – RAPID AIR PART No.50607
2. 1/2" BRASS PLUG – RAPID AIR PART No.50136
3. ALUMINUM BLOCK – RAPID AIR PART No.M81010
4. BRASS HEX REDUCING BUSHING FROM 1/2" TO 3/8"
5. DRAIN VALVE – RAPID AIR PART No.50120.
6. 3/8" QUICK CONNECT
7. METAL STUD WALL

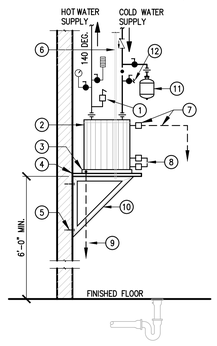
05 COMPRESSED AIR TERMINATION OUTLET DETAIL

SCALE: NOT TO SCALE

06 INSTRUCTORS DESK SINK DRAIN DETAIL

SCALE: NOT TO SCALE

NOTE: PROVIDE HEAT TRAP DEVICE OR AN ARRANGEMENT OF TUBING AS PER IECC. INSULATE THE FIRST 8' OF OUTLET PIPING AND THE INLET PIPING BETWEEN THE STORAGE TANK AND A HEAT TRAP (INCLUDE THE HEAT TRAP).



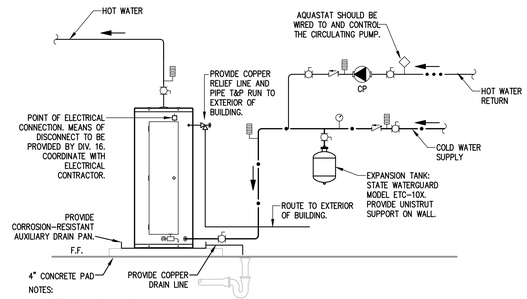
KEYED NOTES

1. POP-OFF VALVE/ANTI-SIPHON DEVICE.
2. ELECTRIC WATER HEATER AS SCHEDULED.
3. PAN WITH DRAIN.
4. 3/4" MIN. MOISTURE RESISTANT PLYWD.
5. SECURE TO WALL AS REQUIRED.
6. (2) 3/8"ø RODS, SECURE TO STRUCTURE.
7. RELIEF VALVE WITH 3/4"MIN. COPPER DRAIN LINE TO MOP SINK OR OPEN DRAIN.
8. HEATING ELEMENT AS SPEC'D.
9. COPPER DRAIN LINE TO MOP SINK OR OPEN DRAIN.
10. (2) KNEE BRACES, L 1.25X1.25X.25 GALV., @ 8' O.C. WITH WELDED JOINTS.
11. EXPANSION TANK: WESSELS COMPANY MODEL TTA-5 OR APPROVED EQUAL. PROVIDE UNISTRUT SUPPORT ON WALL.
12. RETURN HOT WATER PIPE, REFER TO CIRCULATING PUMP DETAIL.

07 EWH-1, EWH-2 & EWH-4 WALL MOUNTED ELECTRIC WATER HEATER DETAIL

SCALE: NOT TO SCALE

ADD



NOTES:

1. PREFERRED PIPING DIAGRAM.
2. THE TEMPERATURE AND PRESSURE RELIEF VALVE SETTING SHALL NOT EXCEED PRESSURE RATING OF ANY COMPONENT IN THE SYSTEM.
3. PROVIDE HEAT TRAP DEVICE OR AN ARRANGEMENT OF TUBING AS PER IECC. INSULATE THE FIRST 8' OF OUTLET PIPING AND THE INLET PIPING BETWEEN THE STORAGE TANK AND HEAT TRAP (INCLUDE THE HEAT TRAP).
4. WHERE WATER HEATER IS INSTALLED IN A ROOM WITH SUSPENDED CEILING, SHUT OFF VALVES MUST BE LOCATED BELOW SUSPENDED CEILING.

LEGEND

TEMPERATURE & PRESSURE RELIEF VALVE	CHECK VALVE	FULL PORT BALL VALVE	PRESSURE GAUGE
AQUASTAT	DRAIN	TEMPERATURE GAGE	CIRCULATING PUMP

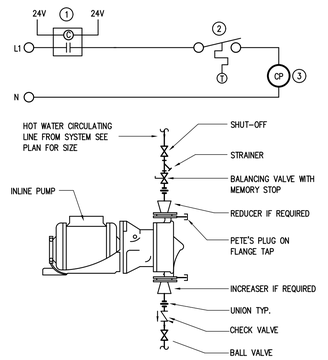
08 EWH-3 FLOOR MOUNTED ELECTRIC WATER HEATER DETAIL

SCALE: NOT TO SCALE

ADD

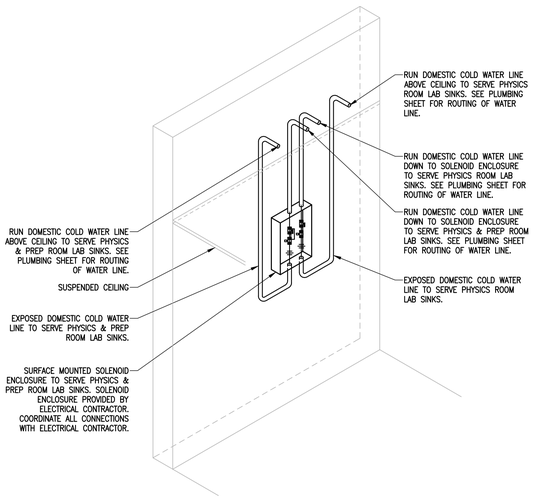
NOTES:

1. POWER TO PUMP TO BE CONTROLLED BY TIME CLOCK PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
2. LINE VOLTAGE AQUASTAT CONTROLLER FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR. CONNECTED BY ELECTRICAL CONTRACTOR. AQUASTAT CLOSES WHEN DOMESTIC HOT WATER RETURN LINE TEMPERATURE DROPS BELOW 120°F (ADJ.).
3. CIRCULATING PUMP FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR. CONNECTED BY DIV. 26.



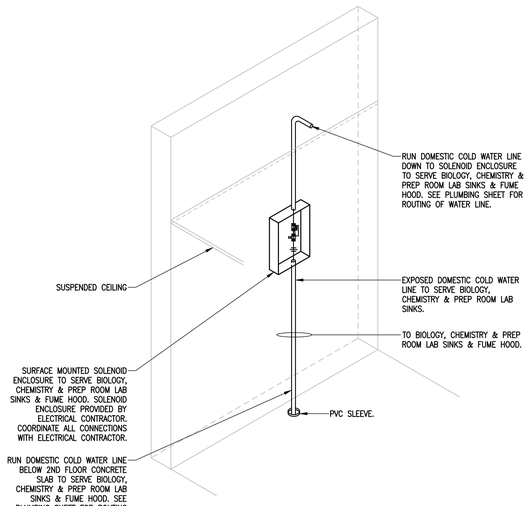
09 CP-1 & CP-2 CIRCULATING PUMP WIRING SCHEMATIC & DETAIL

SCALE: NOT TO SCALE



10 PHYSICS & PREP ROOM SOLENOID ENCLOSURE DETAIL

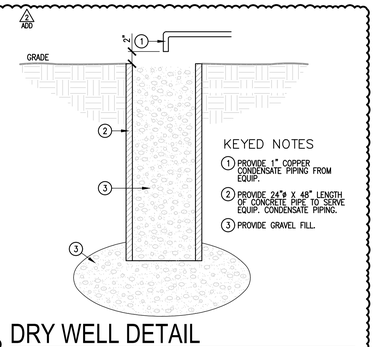
SCALE: NOT TO SCALE



11 BIOLOGY, CHEMISTRY & PREP ROOM SOLENOID ENCLOSURE DETAIL

SCALE: NOT TO SCALE

ADD



KEYED NOTES

1. PROVIDE 1" COPPER CONDENSATE PIPING FROM EQUIP.
2. PROVIDE 24"ø X 48" LENGTH OF CONCRETE PIPE TO SERVE EQUIP. CONDENSATE PIPING.
3. PROVIDE GRAVEL FILL.

12 DRY WELL DETAIL

SCALE: NOT TO SCALE

No.	REVISIONS	BY
1 ADD	09/26/2022	ETHOS

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09.08.2022

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Architects-Planners
Interior Designers

Date: September 08, 2022
Scale: As Noted
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