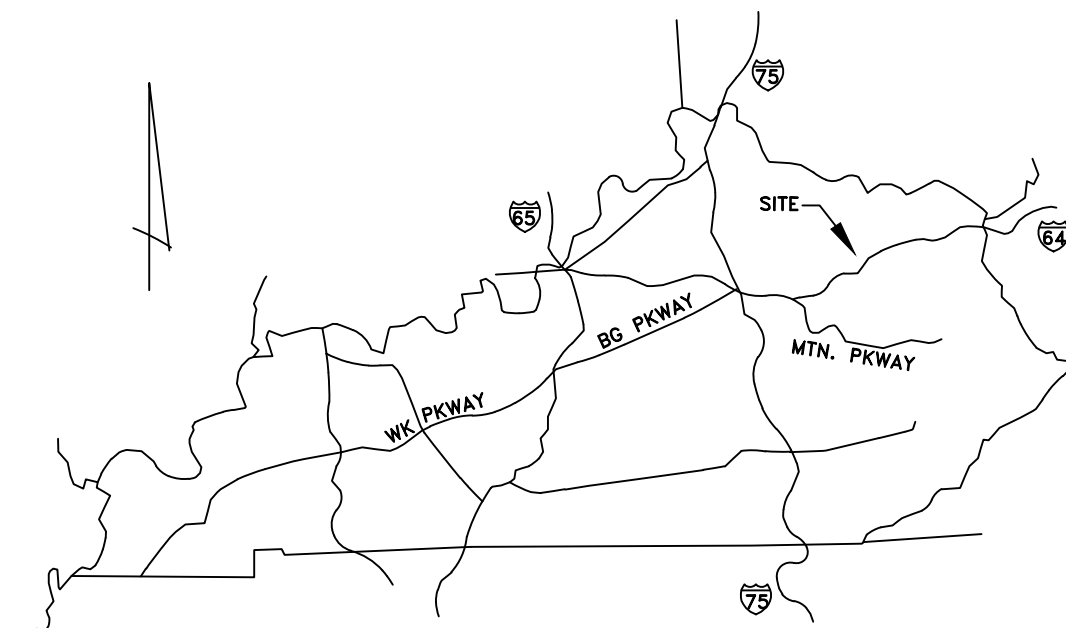


GATEWAY DISTRICT HEALTH DEPARTMENT ADMINISTRATION BUILDING OWINGSVILLE, KENTUCKY

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CODE INFORMATION:

Building Code: 2018 Kentucky Building Code, Third Edition

Project: Gateway Office Building

Project Site Address: TREADWAY AND GUDGELL AVE.

Brief Description: Office Building. Brick exterior with wood and metal stud framing, wood roof trusses, with asphalt shingle roof.

Use Group: B, Business Area

Heights and Areas: Table 504.3 Allowable Building Height in Feet above grade plane

Table 504.3 Construction Type VB not sprinkled. 20.33 feet actual height.

Table 504.4 Allowable number of stories above grade plane 1 stories allowed. 1 story actual.

Table 506.2 Allowable Area Factor Type VB 6,000 SF allowed. 3,485 SF actual.

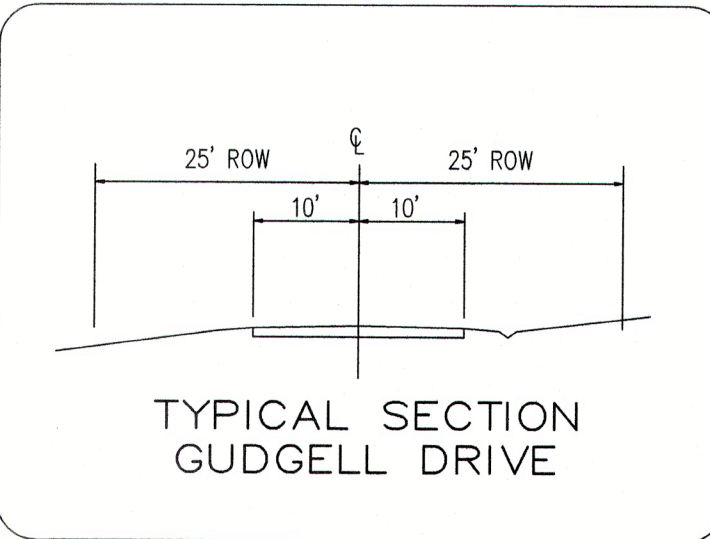
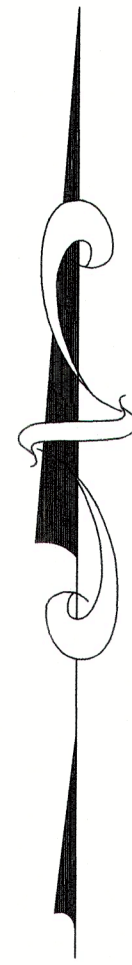
Section 1004 Occupant Load:

Business Areas - 100 gross (based on 3,485 SF = 35 Occupants)

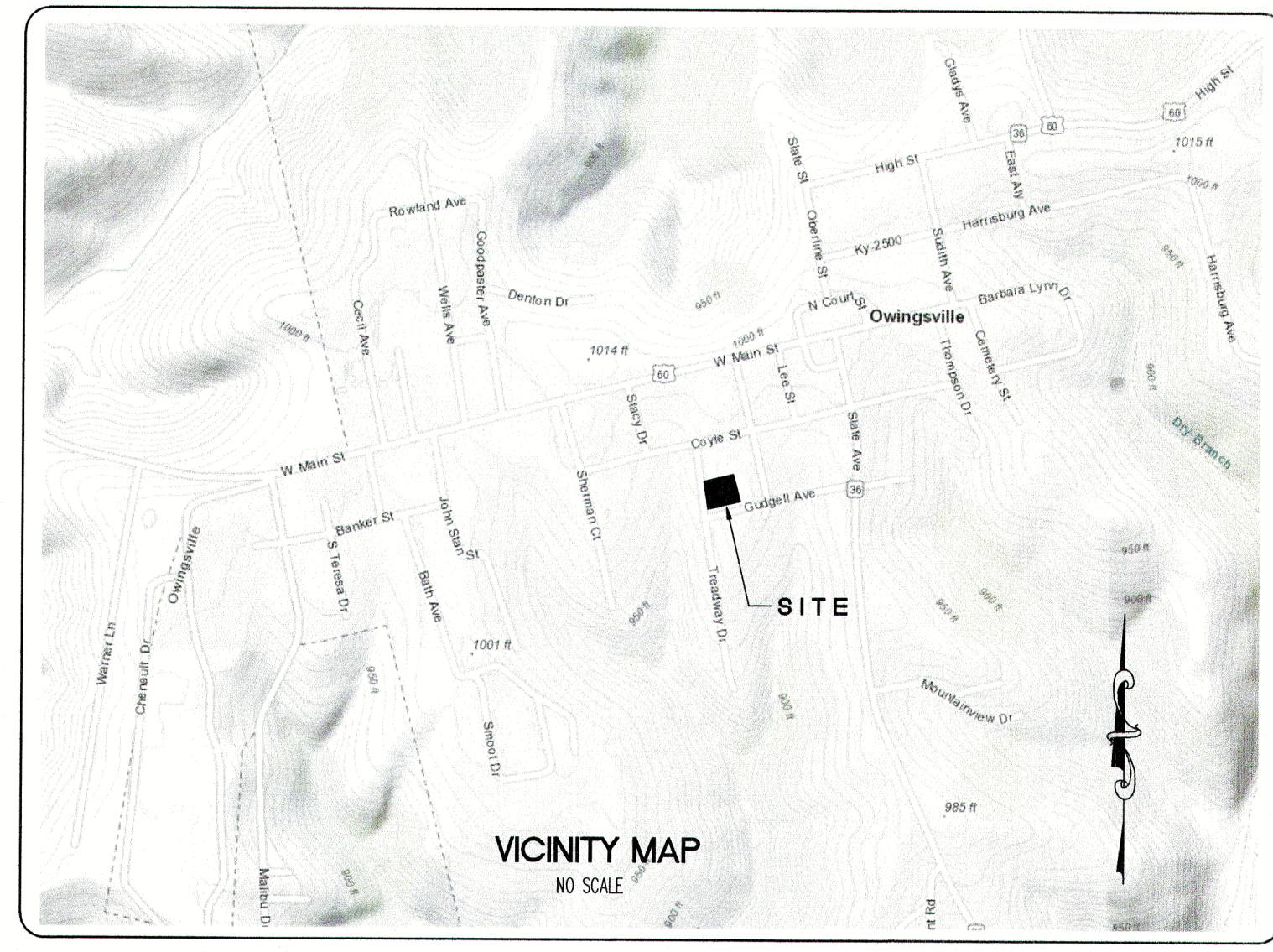
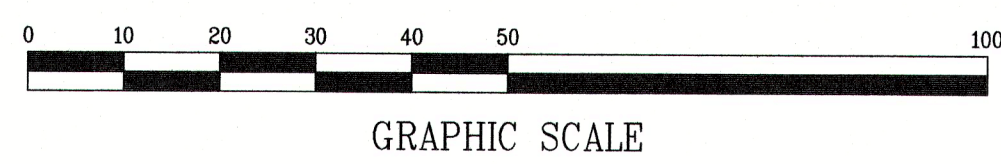
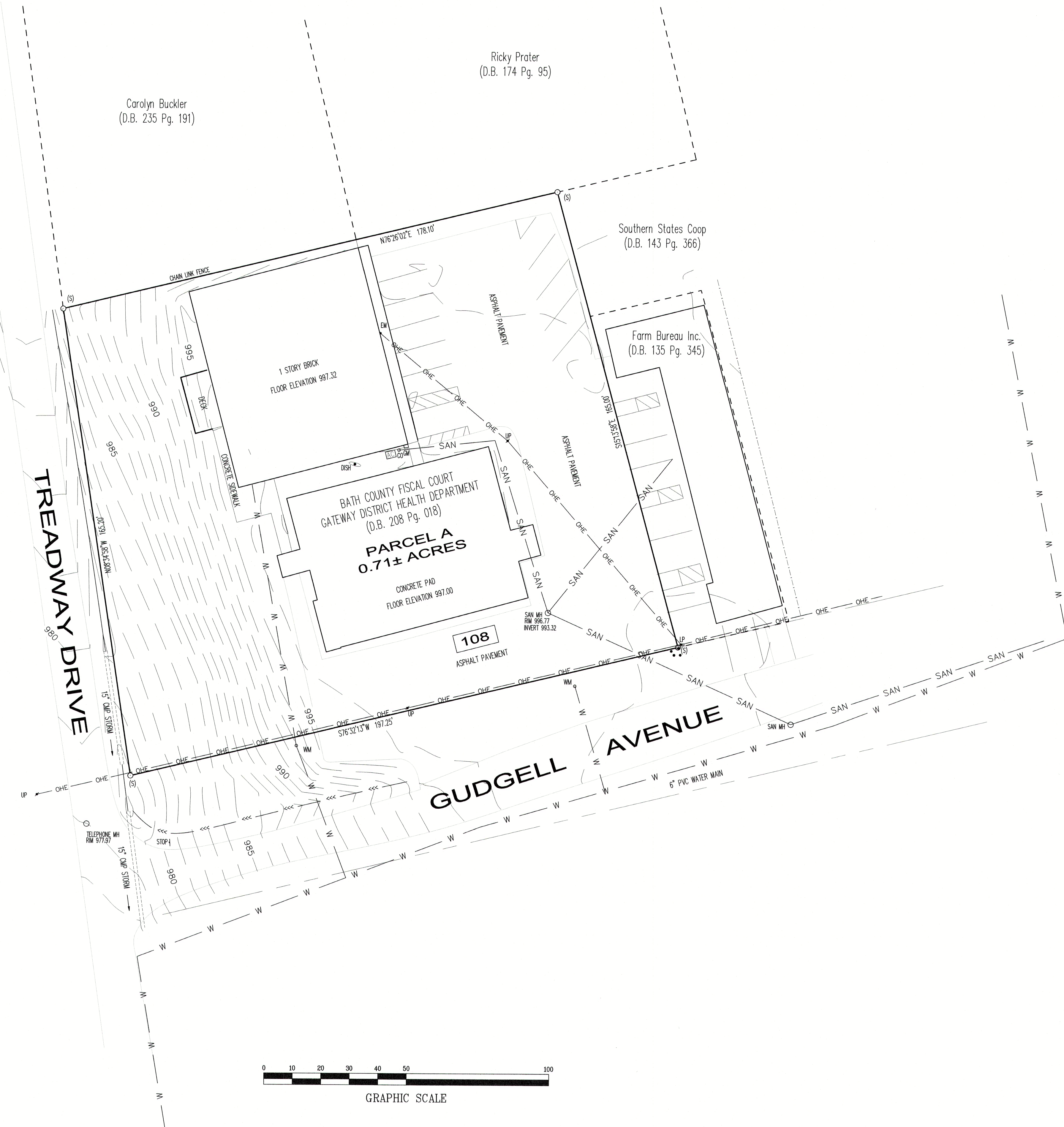
DATE: JANUARY 2025

SET NO.

North indicated is in relation to Kentucky State Plane, NAD 83, Single Zone.



- LEGEND**
- - Iron Pin
 - - MAG Nail
 - - Survey Spike
 - - Fence Post
 - (S) - Set (PLS 3349) *
 - (F) - Found
 - - R/W Monument
 - IP - Light Pole
 - - Tree
 - - Guy Anchor
 - WM - Water Meter
 - UP - Utility Pole
 - TH - Fire Hydrant
 - WV - Water Valve
 - GM - Gas Meter
 - MB - Mail Box
 - - Ballard
 - - Telephone Pedestal
 - - Air Conditioning Unit
 - EJB - Electric Junction Box
 - EIR - Electric Transformer
 - UEB - Underground Electric Box
 - STM MH - Storm Sewer Manhole
 - SAN MH - Sanitary Manhole
 - EM - Electric Meter
 - OD - Clean Out
 - EMH - Electric Manhole
 - TMH - Telephone Manhole
 - DBI - Drop Box Inlet
 - - Handicapped Parking
 - - - - - Ditch Line
 - - - - - Underground Telephone Cable
 - - - - - SAN - Sanitary Sewer
 - - - - - ST - Storm Sewer
 - - - - - W - Domestic Water Line
 - - - - - GAS - Natural Gas Line
 - - - - - OHT - Overhead Telephone
 - - - - - Storm Piping
 - - - - - Underground Electric Line
 - - - - - OHE - Overhead Electric Line
 - - - - - FM-SA - Sanitary Force Main
 - - - - - Fence
 - - - - - Subject Property Boundary
 - - - - - Adjoining Property Boundary
 - - - - - Tree (with size and type)
- * - #5 Rebar, 24" Long with plastic cap imprinted PLS 3349



LAND SURVEYOR'S CERTIFICATION

"This is to certify that the survey was prepared under the direct supervision of the undersigned, in accordance with the most recent minimum standards of practice for boundary surveys as set forth by Minimum Standards of Practice of Land Surveying in Kentucky (KAR 18.150). The accuracy and positional tolerance are in accordance with a Urban Class survey by GPS methods, (Relative positional accuracy ±0.05" +100 PPM)."

Survey completed on: October 30, 2023
 SIGNATURE: [Signature]
 # 3349
 DATE: 12/5/24

STATE OF KENTUCKY
 JAMES D. MAYO
 2726
 LICENSED PROFESSIONAL LAND SURVEYOR

GENERAL NOTES

- All corners indicated were found or set this survey, as noted.
- All property platted hereon is subject to any existing easement, recorded or unrecorded.
- No evidence of cemeteries or burial grounds was found this survey.
- PARCEL A is currently located in an Urban area.
- This survey was performed by guidelines as established by the State Board of Licensure for Land Surveying and meets the requirements of an Urban survey.
- No residential construction is permitted until sanitary sewer application is approved by the Bath County Health Department.

ENTRANCE NOTE

Any new roadway entrances are subject to approval by highway department or agency having jurisdiction and a permit issued prior to construction.

PURPOSE OF PLAT

The purpose of this plat is to determine and mark the boundary of PARCEL A, as shown hereon. There are no new tracts or parcels created by this plat.

FLOOD HAZARD NOTE

PARCEL A is located in Zone X - less than 0.2% annual chance of flooding more than 1 foot" as shown on Flood Insurance Rate Map Community Panel Number 21011C0120C, as prepared by Federal Emergency Management Agency (FEMA), effective date December 17, 2010.

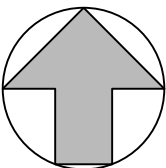
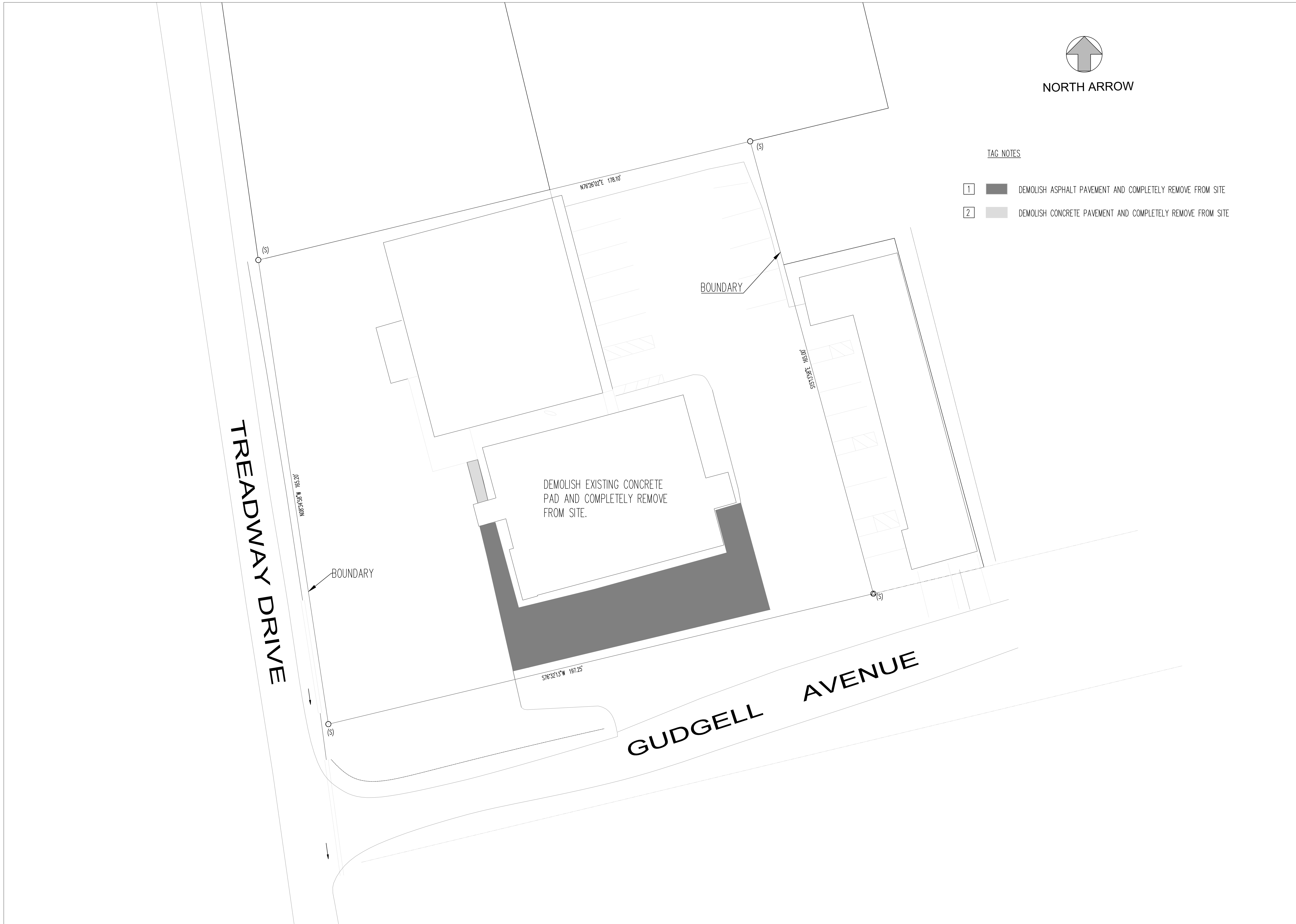
BOUNDARY AND TOPOGRAPHIC SURVEY
 FOR
**BATH COUNTY FISCAL COURT
 GATEWAY DISTRICT HEALTH**
 108 Guggell Avenue
 Owingsville, KY 40360

REVISION	DATE

DRAWN: JDM
 DATE: 10-30-2023
 CHECKED: JDM
 SCALE: 1" = 100'
 PROJECT: 12653.00.00



SHEET NO.
1 of 1



NORTH ARROW

TAG NOTES

- 1 [Dark Grey Box] DEMOLISH ASPHALT PAVEMENT AND COMPLETELY REMOVE FROM SITE
- 2 [Light Grey Box] DEMOLISH CONCRETE PAVEMENT AND COMPLETELY REMOVE FROM SITE



DEMOLITION PLAN
 GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

PROJECT NO.	DATE	REVISION	BY

ZONE	DESIGNED BY	DRAWN BY	CHECKED BY	REVIEWED BY	DATE	SCALE
	MSE	CRH	GAR	GAR	DECEMBER 2024	1" = 15'

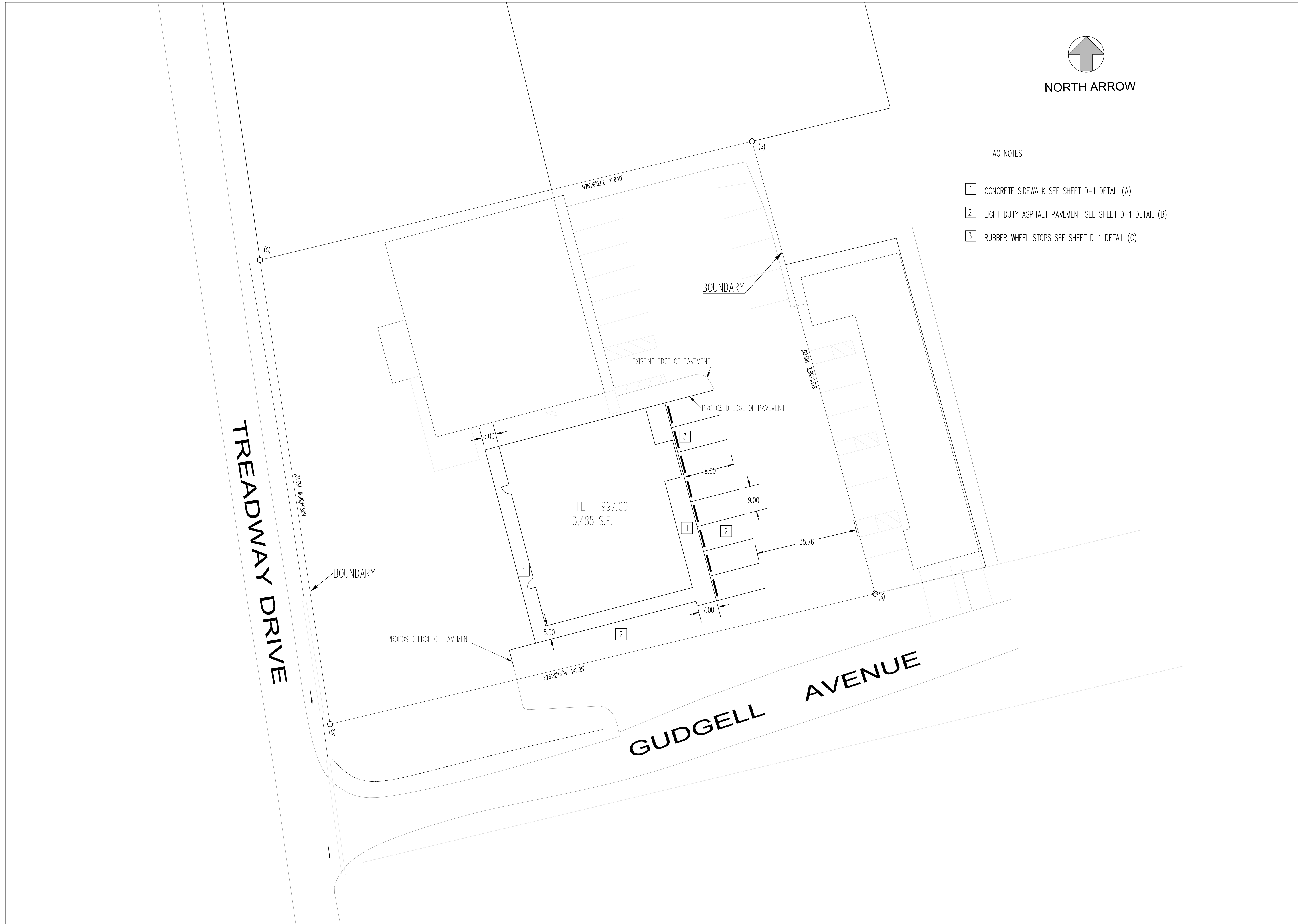
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DRAWING NO.
 C-1
 SHEET OF

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TAG NOTES

- 1 CONCRETE SIDEWALK SEE SHEET D-1 DETAIL (A)
- 2 LIGHT DUTY ASPHALT PAVEMENT SEE SHEET D-1 DETAIL (B)
- 3 RUBBER WHEEL STOPS SEE SHEET D-1 DETAIL (C)



SITE LAYOUT
 GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

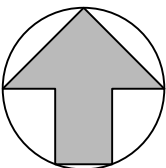
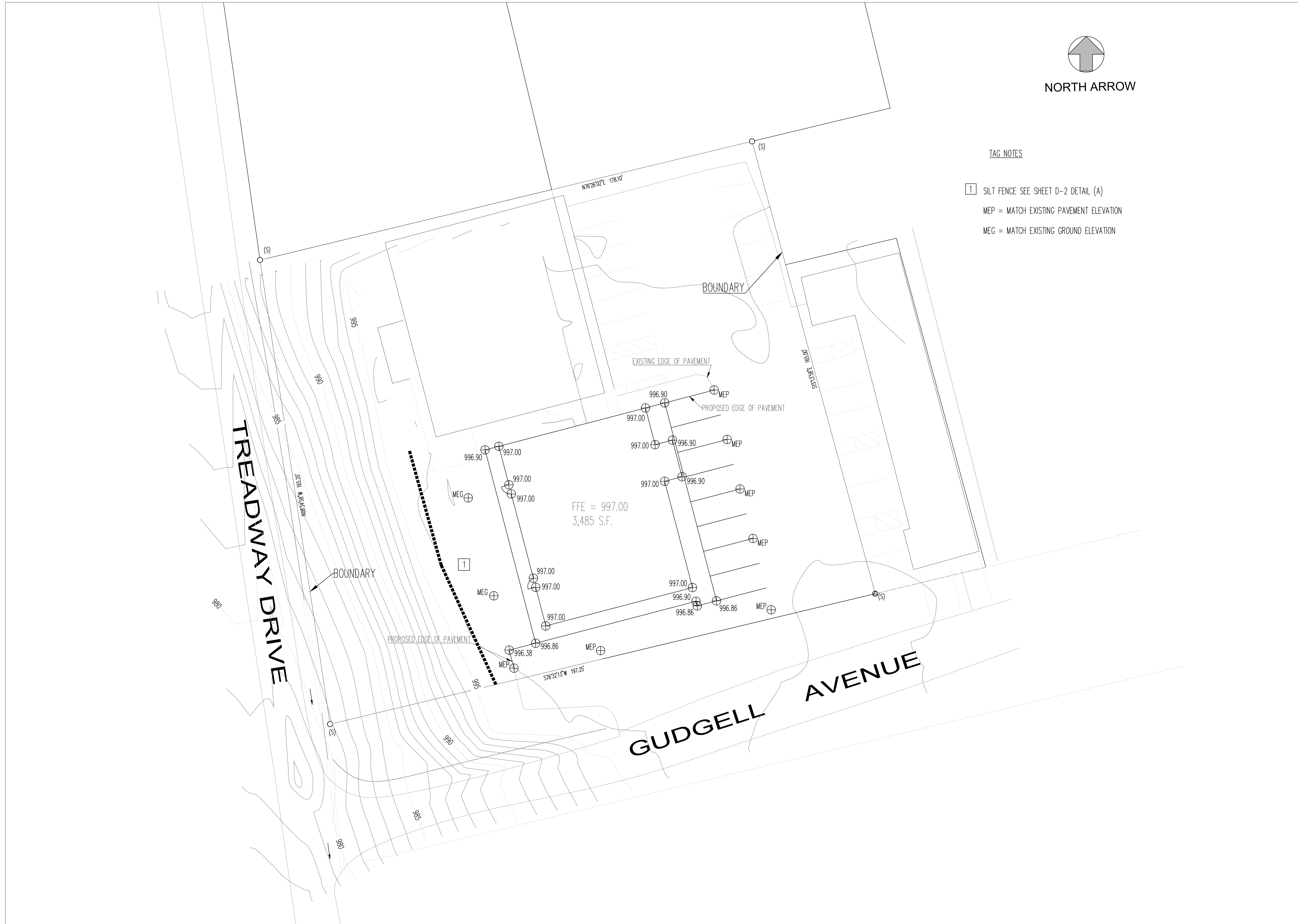
PROJECT NO.	DATE	REVISION	BY
ZONE			
DESIGNED BY MSE			
DRAWN BY CRH			
CHECKED BY GAR			
REVIEWED BY GAR			
DATE	DECEMBER 2024		
SCALE	1" = 15'		

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NORTH ARROW

TAG NOTES

- 1 SILT FENCE SEE SHEET D-2 DETAIL (A)
- MEP = MATCH EXISTING PAVEMENT ELEVATION
- MEG = MATCH EXISTING GROUND ELEVATION



GRADING AND EROSION CONTROL
 GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

PROJECT NO.	DATE	REVISION	BY

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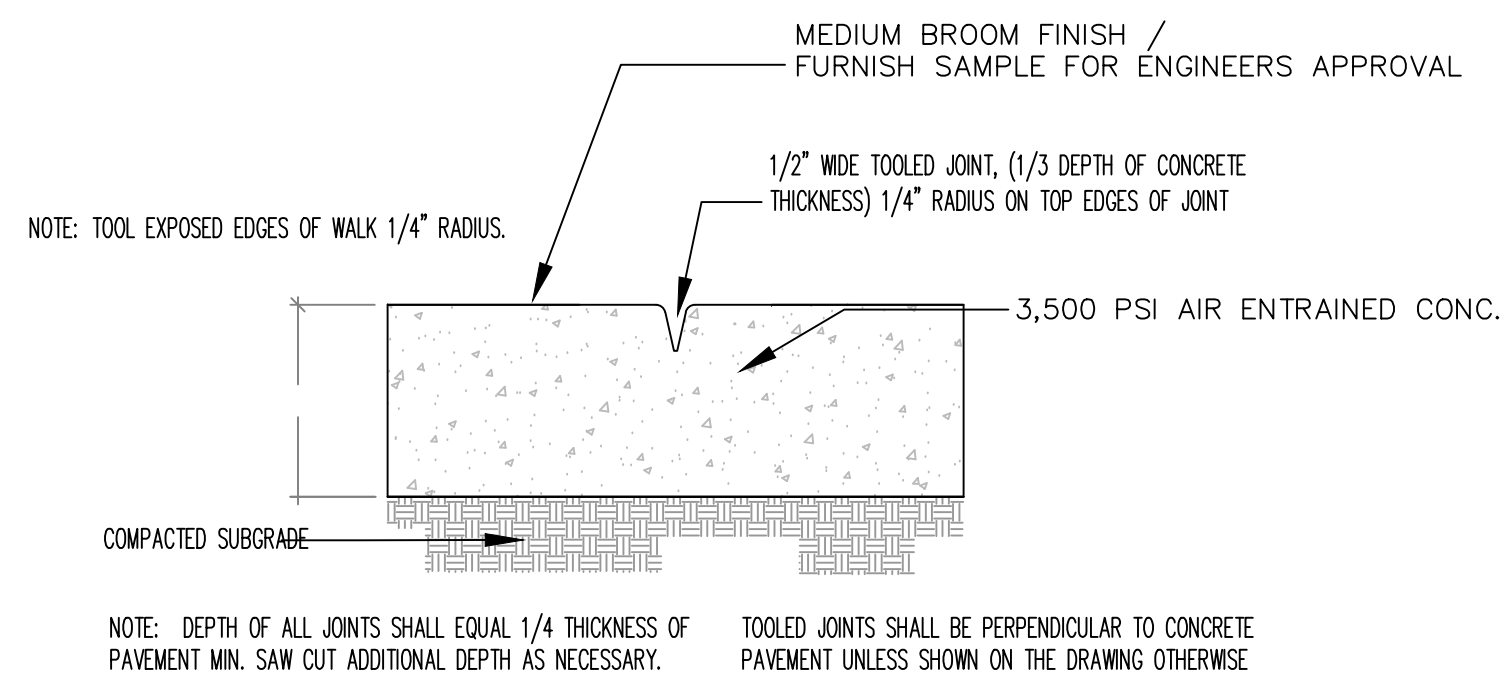
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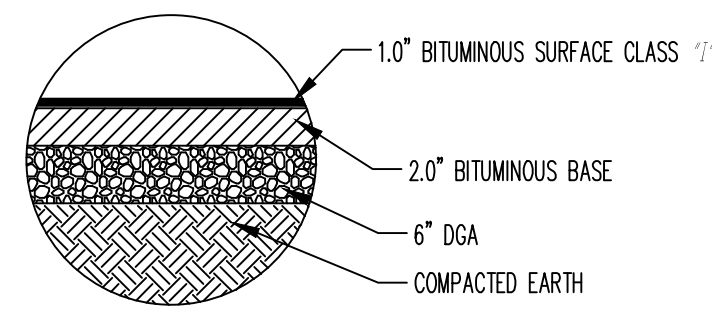
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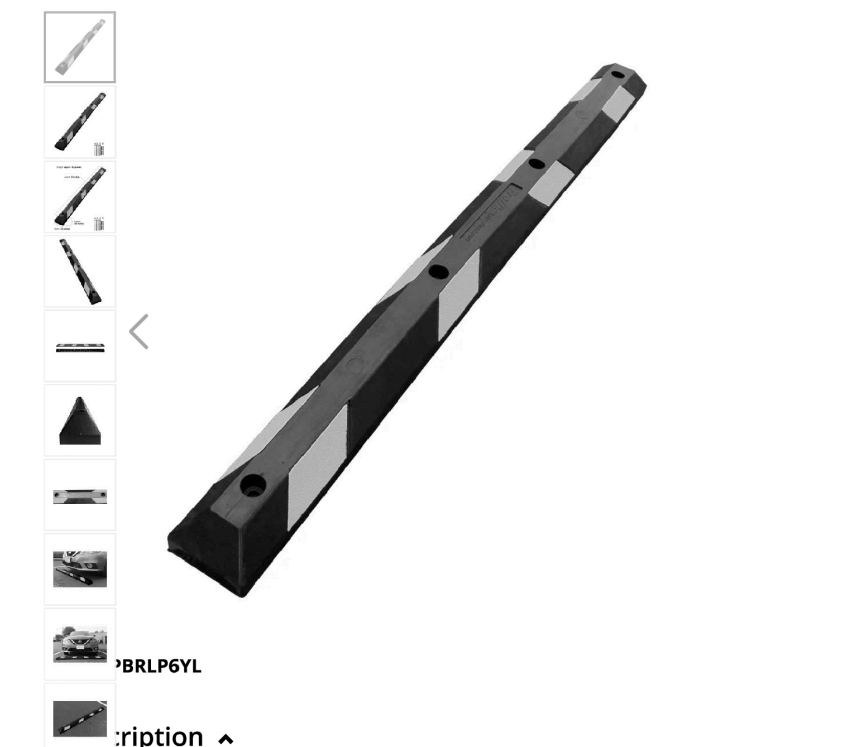


A
C-2 CONCRETE WALK / TOOLED CONTROL JOINT
NTS



B
C-2 LIGHT DUTY PAVEMENT
NTS

6' Low-Profile Rubber Parking Block (with hardware)
6' Yellow Low-Profile Rubber Parking Block W/Four (4) 8" Lag & Anchor Kit



- 70" long x 5 1/2" wide at base x 3 1/2" tall
- Includes Hardware for Mounting
- 25 lbs of 100% recycled rubber each
- Four (4) High Visibility Yellow Panels per side

C
C-2 RUBBER WHEEL STOP
NTS



SITE DETAILS
GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

PROJECT NO.	DATE	REVISION	BY
DESIGNED BY MSE			
DRAWN BY CRH			
CHECKED BY GAR			
REVIEWED BY GAR			
DATE	DECEMBER 2024		
SCALE	N/A		

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EROSION CONTROL NOTES:

THE EROSION CONTROL MEASURES NOTED BELOW ARE MINIMUMS AND DO NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR COMPLIANCE WITH ANY AND ALL U.S. EPA, KENTUCKY DIVISION OF WATER AND/OR LOCAL REQUIREMENTS.

CONTRACTOR SHALL ESTABLISH EROSION CONTROL MEASURES BEFORE DISTURBING SITE.

ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.

ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION, IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETED AND THE SITE IS STABILIZED.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT EROSION ONTO ADJACENT PROPERTY. ANY REMEDIAL MEASURES REQUIRED TO CORRECT DAMAGE CREATED BY EROSION SHALL BE AT THE CONTRACTOR'S EXPENSE.

TOPSOIL STOCKPILES THAT ARE NOT BEING UTILIZED FOR A PERIOD OF 14 DAYS TO BE SURROUNDED BY SILT FENCES, RE-SEEDED AND PLACED WHERE SOIL EROSION WOULD GO TO THE SEDIMENT BASIN.

SILT FENCES TO BE CLEANED OUT WHEN THEY BECOME ONE-THIRD FULL.

WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED, UNTIL SUCH TIME AS CONDITIONS PERMIT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL STORM SEWERS CLEANED OF SILT AND DEBRIS AND FUNCTIONING PROPERLY.

ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. A FIELD LOG OF INSPECTIONS SHALL BE MADE AND A COPY GIVEN TO THE OWNER.

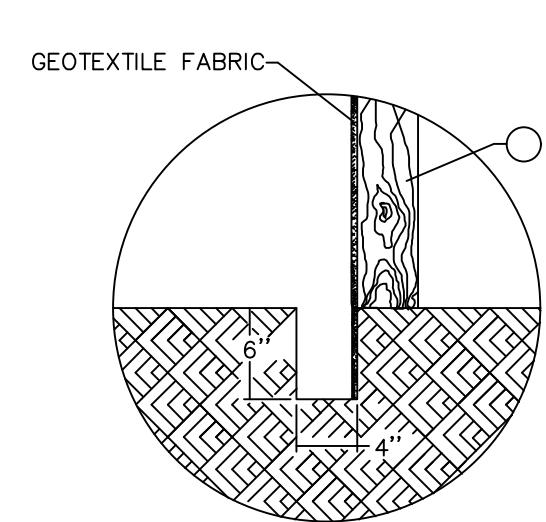
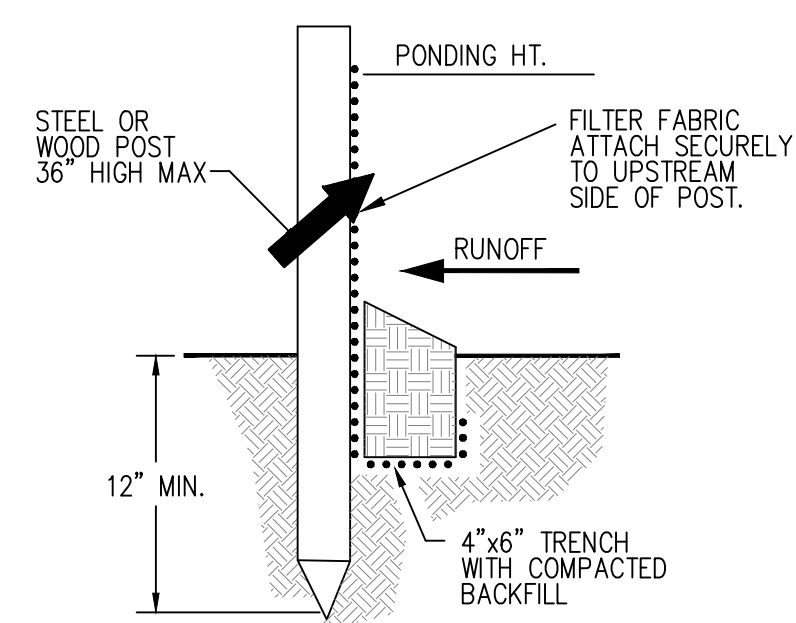
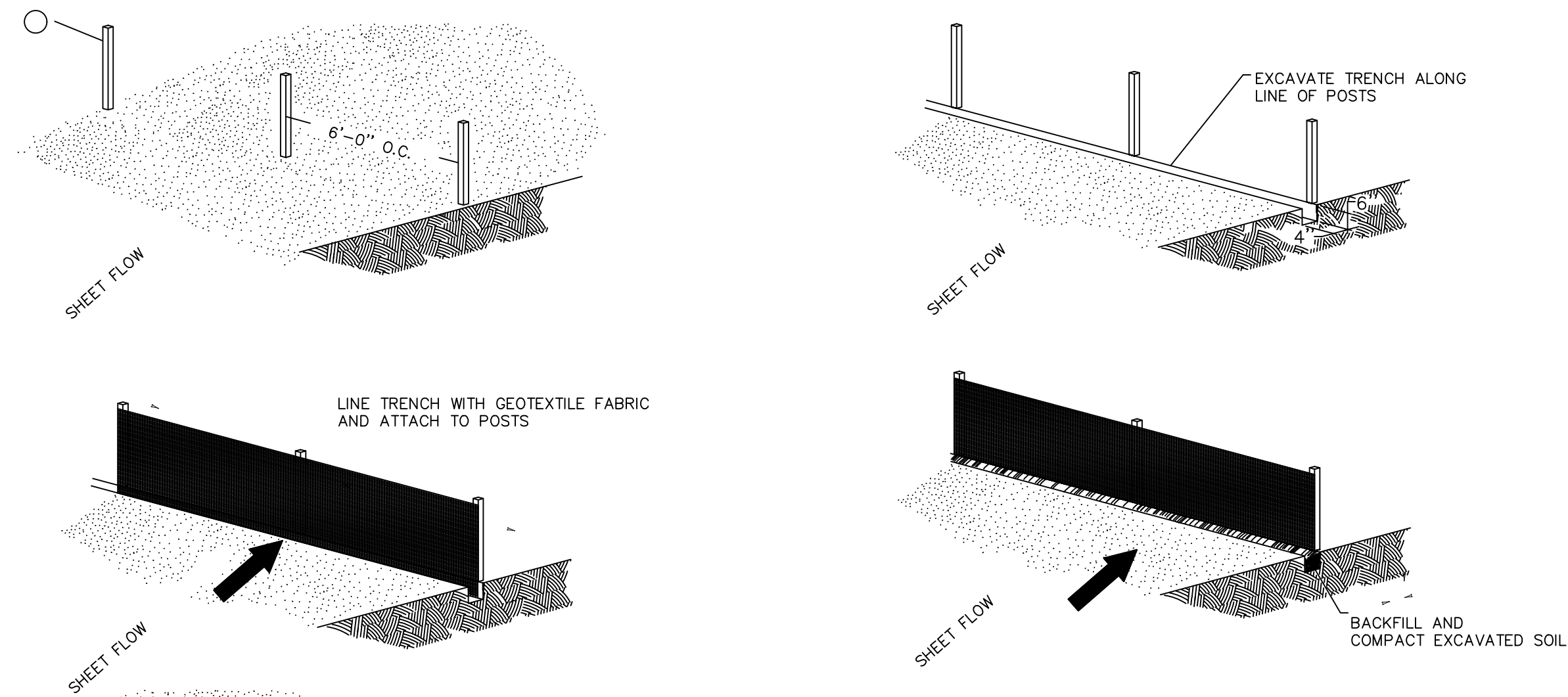
ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL SOIL STABILIZATION HAS BEEN OBTAINED.

CONTRACTOR SHALL PROVIDE A CONCRETE WASHOUT STRUCTURE OR AREA UPSTREAM OF THE DETENTION BASIN IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS. THE LOCATION OF THE CONCRETE WASHOUT STRUCTURE/AREA SHALL BE APPROVED BY THE ENGINEER AND DESIGNATED ON THE SWPPP.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT NO MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PART OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED UNLESS THAT ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN 21 DAYS.

THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE TRACKING OF MUD ONTO PAVED ROADWAY FROM CONSTRUCTION AREAS. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

THE CONTRACTOR SHALL LIMIT ACCESS TO THE SITE TO THE CONSTRUCTION ENTRANCES. THE LOCATION OF THE CONSTRUCTION ENTRANCES SHALL BE APPROVED BY THE ENGINEER AND DESIGNATED ON THE SWPPP. THE CONTRACTOR SHALL INSTALL STONE SURFACE AT THE LOCATION WHERE CONSTRUCTION TRAFFIC LEAVES AND ENTERS THE SITE. THESE ACCESS POINTS SHALL BE MIN. 20' WIDE, 50' LONG, 0.5' DEEP AND USE NO. 7 STONE OVER GEOTEXTILE FABRIC (SEE DETAILS THIS SHEET). THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND PARKING AREAS FREE FROM MUD, DIRT, DEBRIS, AND ROCK. DUST SHALL BE KEPT TO A MINIMUM BY UTILIZING SPRINKLING, CALCIUM CHLORIDE, VEGETATIVE COVER, SPRAY ON ADHESIVES OR OTHER APPROVED METHODS. THIS ENTRANCE SHALL BE MAINTAINED UNTIL THE PERMANENT ENTRANCE HAS BEEN CONSTRUCTED.



A
C-3

NTS

- SEE STANDARD SPECIFICATIONS FOR POST SIZE, GEOTEXTILE FABRIC, WIRE STAPLES AND ALL OTHER PERTINENT INFORMATION.
- POSTS MAY BE WOODEN OR METAL T-SECTION.
- POSTS SHALL BE SET 1'-4" DEEP.
- 4. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
- 5. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
- 6. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.



EROSION CONTROL DETAILS
GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

PROJECT NO.	DATE	REVISION	BY
ZONE			
DESIGNED BY MSE			
DRAWN BY CRH			
CHECKED BY GAR			
REVIEWED BY GAR			
DATE	DECEMBER 2024		
SCALE	N/A		

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DRAWING NO.
D-2
 SHEET OF

STRUCTURAL QUALITY ASSURANCE PLAN

GENERAL

THE NEW STRUCTURE TO BE CONSTRUCTED IS ASSIGNED BY THE KENTUCKY BUILDING CODE, 2018 EDITION, TO SEISMIC USE GROUP AND SEISMIC DESIGN AS SPECIFIED. AS SUCH, THE BUILDING CODE MANDATES SPECIAL INSPECTION (SECTION 1704). SPECIAL INSPECTIONS FOR WIND RESISTANCE (SECTION 1705.11), SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE (SECTION 1705.12), STRUCTURAL OBSERVATION FOR SEISMIC RESISTANCE (SECTION 1704.6.1) AND STRUCTURAL OBSERVATIONS FOR WIND REQUIREMENTS (SECTION 1704.6.2), STRUCTURAL QUALITY ASSURANCE PLAN SPECIFICALLY IDENTIFIES THE RESPONSIBILITIES OF THE CONTRACTOR AND THE SPECIAL INSPECTOR IN PERFORMING THE REQUIRED TESTING AND INSPECTION OF THE STRUCTURAL WORK.

CONTRACTOR RESPONSIBILITIES

In accordance with Section 1704.4 of the Building Code, the Contractor shall submit to the Building Official and the Architect a written statement of responsibility that contains the following:

- Acknowledgement of awareness of the special requirements contained within this Structural Quality Assurance Plan.
- Acknowledgement that control shall be exercised to obtain conformance with the construction documents approved by the Building Official.
- Procedures for exercising control with the Contractor's organization, the method and frequency of reporting, and the distribution of reports.
- Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

The Structural Testing / Inspection Agency that is to act as the Special Inspector will be hired by the Owner.

Contractor shall pay for any additional structural testing/inspection required for work or materials not complying with the Construction Documents due to negligence or nonconformance and shall pay for any additional structural testing/inspection required for his convenience.

The Contractor is responsible to ensure that the Special Inspector is present for all work requiring special inspection. Any work that requires special inspection and is performed without the Special Inspector being present is subject to being demolished and reconstructed.

The Contractor has the following responsibilities to the Special Inspector:

- Provide copy of Construction Documents to the Special Inspector.
- Notify the Special Inspector sufficiently in advance of operations to allow assignment of personnel and scheduling of tests.
- Cooperate with Special Inspector and provide access to work.
- Provide samples of materials to be tested in required quantities.
- Provide storage space for the Special Inspector's exclusive use, such as for storing and curing concrete testing samples.
- Provide labor to assist the Special Inspector in performing tests/inspections.

SPECIAL INSPECTOR RESPONSIBILITIES

The Special Inspector shall maintain records of inspections in accordance with Section 1704.2.4 and shall distribute these records to the Architect and Structural Engineer on a weekly basis. At the conclusion of the project, the Special Inspector shall submit a written statement that the special inspections during construction have complied with this Structural Quality Assurance Plan and that any discrepancies noted during construction have been corrected.

SOILS

The Special Inspector shall perform the following:

- Verify structural fill complies with specifications and the geotechnical report.
- Perform field density tests to verify compaction of structural fill. As a minimum, perform one test per lift for every 2500 square feet of fill placed.
- Confirm all footings bear on earth & any shallow rock to be undercut a minimum of 24" below bottom of footing elevation. back fill per geotech. report

CAST-IN-PLACE CONCRETE

The Contractor shall perform the following:

- Establish concrete mix design proportions per ACI 318, Chapter 5. Submit 5 copies (minimum) of the concrete mix designs. Include the following:
 - Type and quantities of materials
 - Slump
 - Air content
 - Fresh unit weight
 - Aggregates sieve analysis
 - Design compressive strength
 - Location of placement in structure
 - Method of placement
 - Method of curing
 - Seven-day and 28-day compressive strengths
- Submit a certification from each manufacturer or supplier stating that materials meet the requirements of the specified ASTM and ACI standards.
- Submit certification that the ready-mixed concrete plant complies with the requirements of the National Ready Mix Concrete Association.

The Special Inspector shall perform the following:

- Verify quantity, location, and placement of reinforcing steel prior to concrete placement.
- Examine concrete in truck to verify that concrete appears properly mixed.
- Perform a slump test as deemed necessary for each concrete load. Record if water or admixtures are added to the concrete at the job site. Perform additional slump tests after job site adjustments.
- Mold four specimens per set for compressive strength testing; one set for each 50 cubic yards (or portion thereof) of each mix design in any one day. For each set set molded, record:
 - Slump
 - Air content
 - Unit weight
 - Temperature, ambient and concrete
 - Location of placement
 - Any pertinent information, such as addition of water, addition of admixtures, etc.
- Perform one 7-day and two 28-day compressive strength tests. (Use one as a spare to be broken as directed by the Structural Engineer if compressive strengths do not appear adequate.)
- Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, concrete design compressive strength, location of concrete placement in structure, concrete mix proportions and materials, compressive breaking strength and type of break.

NON-SHRINK GROUT UNDER STEEL BASE PLATES

The Special Inspector shall perform the following:

- Compressive strength tests per ASTM C109.
- Number of Tests: One test for each ten bags of grout used or minimum of one test for each day of grouting.
- Cube Size: 2-inch x 2-inch.
- Test Schedule: One cube at 3 days, two cubes at 7 days, three cubes at 28 days.

CONCRETE MASONRY

Contractor shall perform the following:

- Submit a certification from each manufacturer or supplier stating that the following materials comply with the specified ASTM or ACI Standards:
 - Concrete masonry units.
 - Mortar materials: Portland cement, hydrated lime, and aggregates.
 - Grout materials: Portland cement and aggregates.
 - Joint reinforcement steel.
 - Reinforcing steel.
- For reinforcing steel used in concrete masonry walls, submit certified mill test reports.

Special Inspector shall perform the following:

- Verify compressive strength of concrete masonry units, mortar, and coarse grout for every 5,000 sq. ft. of surface area (or portion thereof) as follows:
 - Three (3) concrete masonry units shall be tested in accordance with ASTM C140.
 - Six (6) mortar cube specimens shall be tested, three (3) at 7-days and three (3) at

WOOD CONSTRUCTION

- Check all wood framing layout and confirm compliance with plans, specs, and shop drawings.
- Visually inspect truss layout and anchorage and confirm compliance with plans, specs, and shop drawings.
- Visually inspect all roof and wall sheathing attachments and confirm compliance with plans, specs, and shop drawings.

SPECIAL INSPECTIONS PER CHAPTER 17 OF THE KENTUCKY BUILDING CODE

SECTION	ITEM	REQUIRED?		REMARKS
		YES	NO	
1704.2.5	FABRICATORS	X		FABRICATION OF WOOD TRUSSES PER SECTION 1704.2.5
1704.3.2	STRUCTURAL OBSERVATION FOR SEISMIC REQUIREMENTS		X	SEISMIC DESIGN CATEGORY "B"
1704.3.3	STRUCTURAL OBSERVATION FOR WIND REQUIREMENTS		X	Vasd = 89mph.
1705.2	STEEL	X		PER AISC 360 & TABLE 1705.2.2
1705.3	CONCRETE	X		PER TABLE 1705.3
1705.4	MASONRY	X		LEVEL B TMS 402/ACI 530/ASCE 5
1705.5	WOOD	X		PER SECTION 1704.2.5
1705.6	SOILS	X		PER TABLE 1705.6
1705.7	DRIVEN DEEP FOUNDATIONS		X	NONE
1705.8	CAST IN PLACE DEEP FOUNDATIONS		X	NONE
1705.9	HELICAL PILE FOUNDATIONS		X	NONE
1705.11.1	WIND - STRUCTURAL WOOD		X	Vasd = 89mph.
1705.11.2	WIND - COLD FORMED STEEL FRAMING		X	NONE
1705.11.3	WIND - WIND RESISTING COMPONENTS		X	NONE
1705.12.1	SEISMIC - STRUCTURAL STEEL		X	SEISMIC DESIGN CATEGORY "B"
1705.12.2	SEISMIC - STRUCTURAL WOOD		X	PER SECTION 1705.12.2
1705.12.3	SEISMIC - COLD FORMED STEEL FRAMING		X	SEISMIC DESIGN CATEGORY "B"
1705.12.4	DESIGNATED SEISMIC SYSTEMS		X	SEISMIC DESIGN CATEGORY "B"
1705.12.5	SEISMIC - ARCHITECTURAL COMPONENTS - INTERIOR/EXTERIOR NON-LOAD BEARING WALLS AND VENEER IN STRUCTURES		X	SEISMIC DESIGN CATEGORY "B"
1705.12.6	SEISMIC - MECHANICAL AND ELECTRICAL COMPONENTS		X	SEISMIC DESIGN CATEGORY "B"
1705.12.7	SEISMIC - STORAGE RACKS AND ACCESS FLOORS		X	NONE
1705.14	SPRAYED FIREPROOFING		X	NONE
1705.15	FIREPROOFING		X	NONE
1705.16	E.I.F.S.		X	NONE
1705.17	FIRE RESISTANT PENETRATIONS & JOINTS		X	NONE
1705.18	SMOKE CONTROL		X	NONE

GENERAL NOTES:

CONCRETE:

- All concrete shall conform and be designed, mixed, placed, tested, and cured in accordance with the provisions of the ACI Manual of Concrete Practice, (current edition). Special care shall be taken in curing floors, stairs, walls, and other exposed surfaces in accordance with the specifications.
- All concrete shall develop 3,500 PSI compressive strength in 28 days.

REINFORCEMENT STEEL:

- Reinforcement steel shall have a minimum yield strength of 60,000 PSI and conform with material specifications for reinforcing bars, ASTM A615 thru A617; see manual of standard practice, Concrete Reinforcing Steel Institute.
- Welded wire fabric shall conform to ASTM A185.
- All rebars shall be securely tied and held in place with a minimum concrete protection cover to all steel as follows:

Walls, Columns, Beams, and Pilasters	1/2"
Slabs	3/4"
Footings	3"

- Reinforcing steel bends shall be made as per diagram, and/or in accordance with A.C.I. Code.

- Lap all splices as specifically called for, but at least 38 bar diameters for bars less than or equal to #6, and 48 bar diameters, for bars greater than #6, (always 12 in. minimum) unless noted otherwise. Lap all splices in masonry reinforcement a minimum of 48 bar diameters.

- All bolts for structural steel joint fasteners shall be 3/4" high strength structural bolts, ASTM A325, Torque Control (Tension Set), unless otherwise noted.

- All structural steel shall be fabricated and erected in accordance with the latest OSHA regulations regarding steel erection.

- Foundations were designed using a maximum earth bearing pressure of 3,000 PSF. This value shall be field verified by special inspection.

- Any soils can lose strength if they become wet, so the foundation sub grades must be protected from exposure to water. Foundation construction the following procedures:
 - For soils that will remain exposed overnight or for an extended period of time, place a "lean" concrete mud-mat over the bearing areas. The concrete should be at least 4 inches thick. Flowable fill concrete or low-strength concrete is suitable for this cover, as conditions allow;

- Disturbed soil must be removed prior to foundation concrete placement.
- Foundation bearing conditions must be benched level.
- Areas loosened by excavation operations must be recompacted prior to reinforcing steel placement.
- Loose soil, debris, and excess surface water must be removed from the bearing surface prior to concrete placement.

- The Special Inspector shall observe all foundation excavations and provide recommendations for treatment of any unsuitable conditions encountered.

- The bearing conditions of foundation soils (stiff or better residual soil) shall be checked by means of portable dynamic cone penetration (DCP) testing at the direction of the special inspector.

- Keep the crushed stone moist, but not wet, immediately prior to slab concrete placement to minimize curling of the slab due to differential curing conditions between the top and bottom of the slab.

- The Special Inspector shall review the actual subgrade conditions prior to slab construction and to make recommendations for any unsuitable conditions encountered.

- Slab subgrade conditions are also considered earthwork areas; thus, the recommendations contained in the Earthwork section of the report apply.

NOTE TO CONTRACTOR:

The contractor shall coordinate the Structural Drawings with the Architectural, Mechanical, and Electrical Drawings and make certain all pipes, sleeves, ducts, inserts, and openings are located and in place before each concrete pour. The Contractor shall verify all dimensions shown on the Structural Drawings with dimensions shown on the Architectural Drawings.

The Contractor shall check and approve, with reasonable promptness, shop drawings and schedules for coordination of details, sizes, fitting tolerances, and dimensions. The Contractor shall stamp or sign these drawings and schedules with his approval and then submit them to the Architect for review.

EARTHQUAKE DESIGN DATA

OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	1.0
S _s	0.193
S ₁	0.081
SITE CLASS	D
S _w	0.206
S _m	0.130
SEISMIC DESIGN CATEGORY	B
BASIC SEISMIC-FORCE RESISTING SYSTEM	LIGHT-FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
DESIGN BASE SHEAR	0.0244W
SEISMIC RESPONSE COEFFICIENT (C _s)	0.0244
RESPONSE MODIFICATION FACTOR	6.5
ANALYSIS PROCEDURE	ELFP

SNOW DESIGN DATA

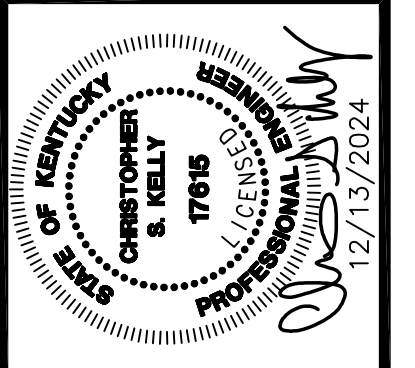
GROUND SNOW LOAD (P _g)	15 PSF
FLAT ROOF SNOW LOAD (P _f)	10.9 PSF
IMPORTANCE FACTOR (I _s)	1.0
THERMAL FACTOR (C _t)	1.1
SNOW EXPOSURE FACTOR (C _e)	0.90

DESIGN LIVE LOADS

ROOF	20 PSF
SLAB ON GRADE	100 PSF

WIND DESIGN DATA

ULTIMATE DESIGN WIND SPEED (V _{ult})	115 MPH	
NOMINAL DESIGN WIND SPEED (V _{nom})	89 MPH	
RISK CATEGORY	II	
WIND EXPOSURE CATEGORY	B	
INTERNAL PRESSURE COEFFICIENT	+/- 0.18	
COMPONENTS AND CLADDING [H<30 FT]		
ROOF 0 TO 7 DEGREES	EXPOSURE B (PSF)	EXPOSURE C (PSF)
INTERIOR ZONE	9.7 -23.8	13.5 -33.3
END ZONE	9.7 -39.9	13.5 -55.8
CORNER ZONE	9.7 -60.1	13.5 -84.1
ROOF >7 TO 27 DEGREES		
INTERIOR ZONE	13.7 -21.8	19.1 -30.5
END ZONE	13.7 -37.9	19.1 -50.0
CORNER ZONE	13.7 -56.0	19.1 -78.4
INTERIOR ZONE	21.8 -23.8	30.5 -33.3
END ZONE	21.8 -27.8	30.5 -38.9
CORNER ZONE	21.8 -27.8	30.5 -38.9
WALLS		
INTERIOR ZONE	23.8 -25.8	33.3 -36.1
END ZONE	23.8 -31.9	33.3 -44.6



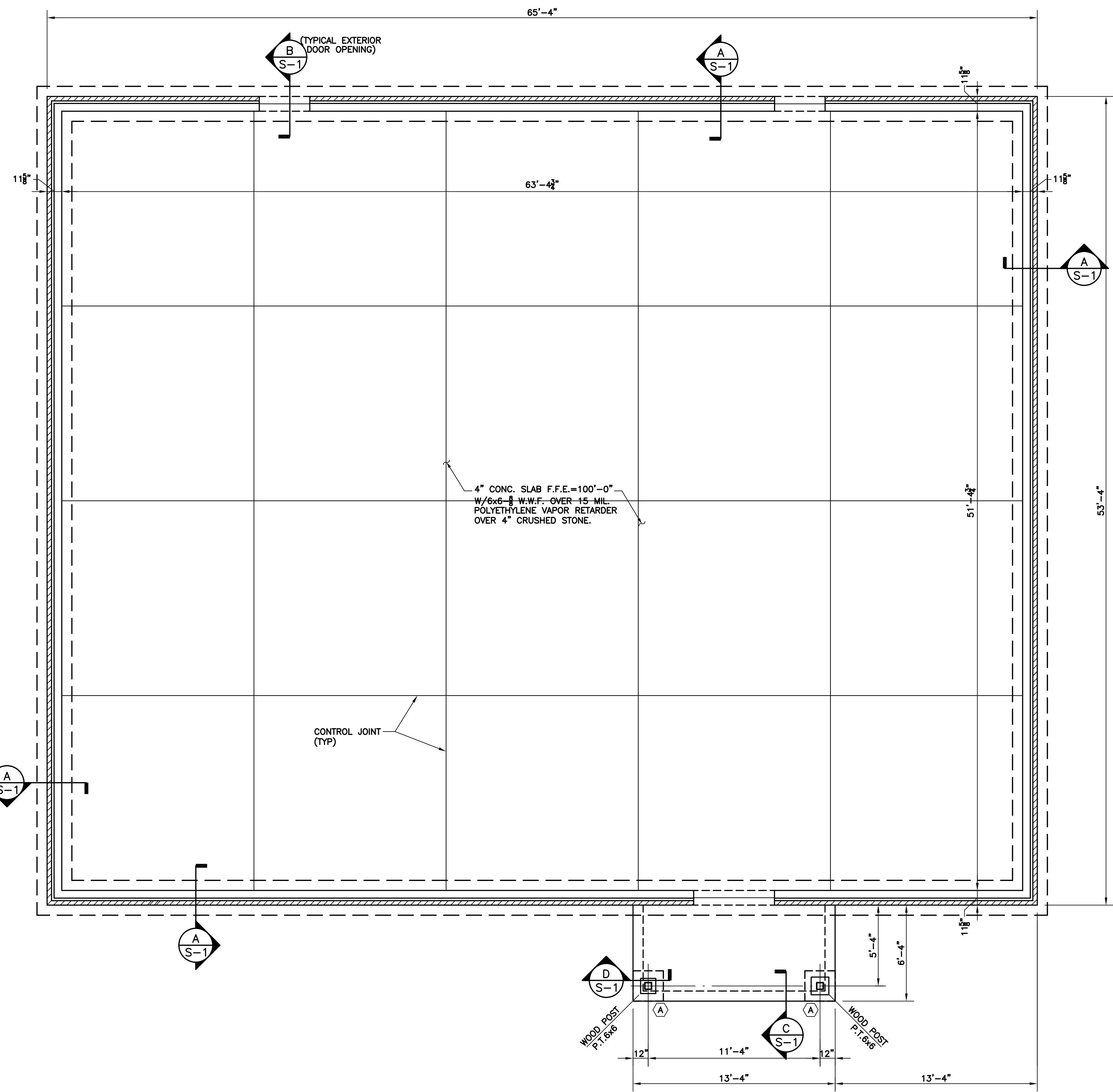
POAGE ENGINEERS & ASSOCIATES
 880 Sparks Court
 Suite 200
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 Phone: (609) 252-9084
 Fax: (609) 252-3730

GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

PROJECT NO. 5071-03	DESIGNED BY LSK	DRAWN BY SRF/p24220	CHECKED BY LSK	REVIEWED BY	DATE 12-15-2024	SCALE
BY	REVISION	DATE	REVIEWER'S COMMENTS: The design professional warrants any and all responsibility and liability for problems which arise from failure to follow these plans, specifications and the design intent they convey. This document discloses subject matter considered confidential by MSE of Kentucky, Inc. and on which MSE of Kentucky, Inc. has property rights. Neither review nor possession thereof confers or transfers any rights, or to use it for any purpose without the written permission of MSE of Kentucky, Inc.			

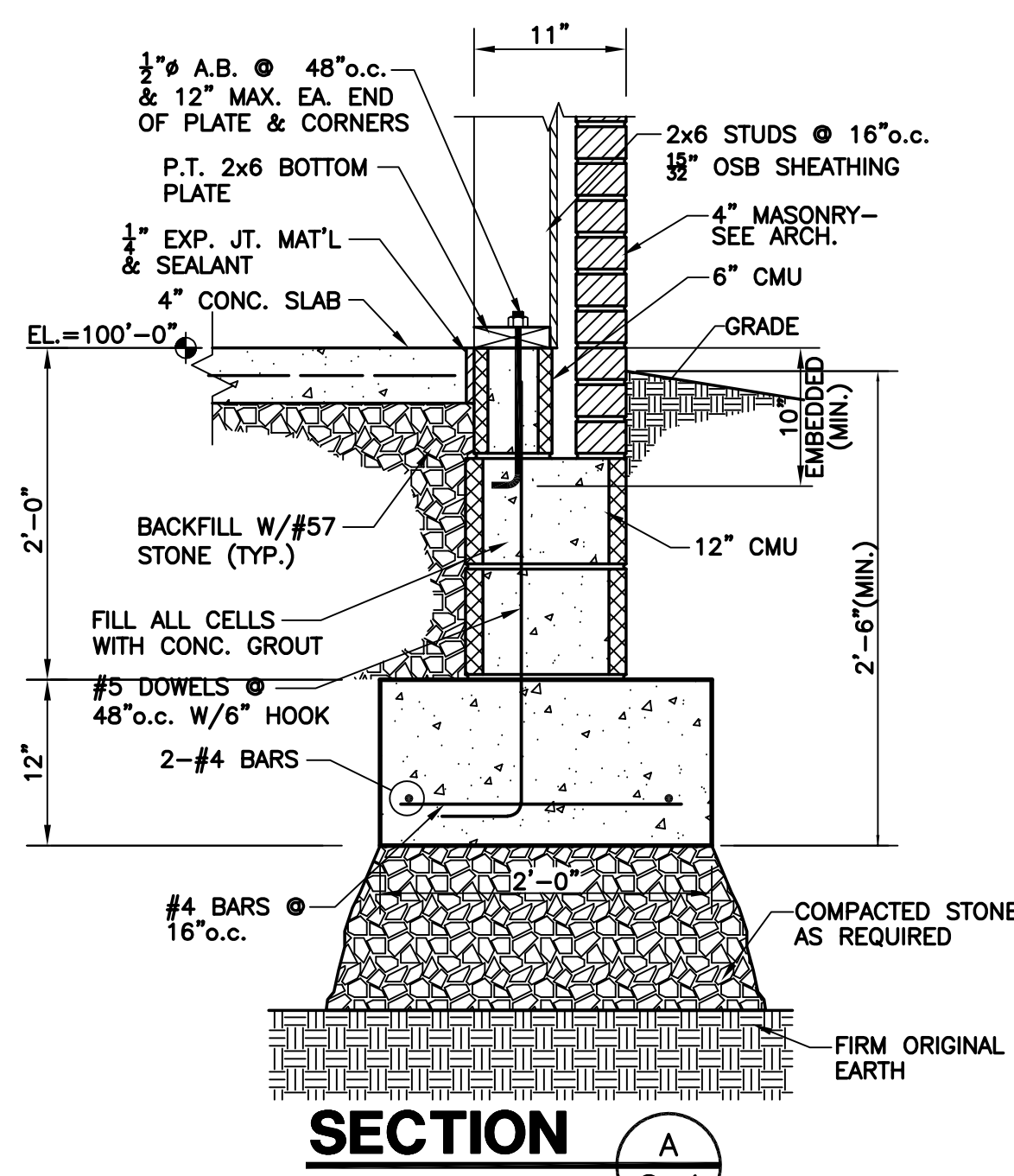
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S-0
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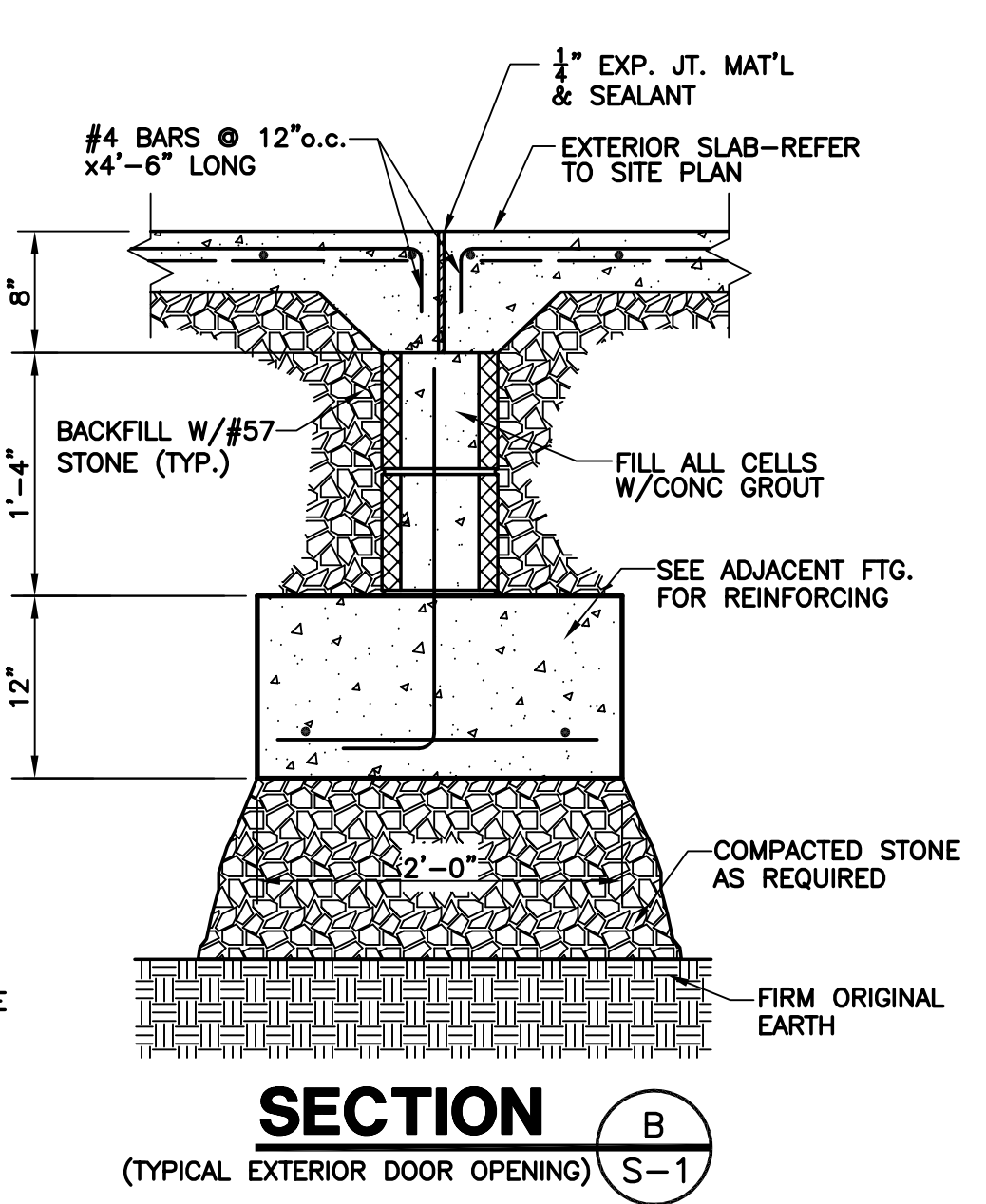


FOUNDATION PLAN

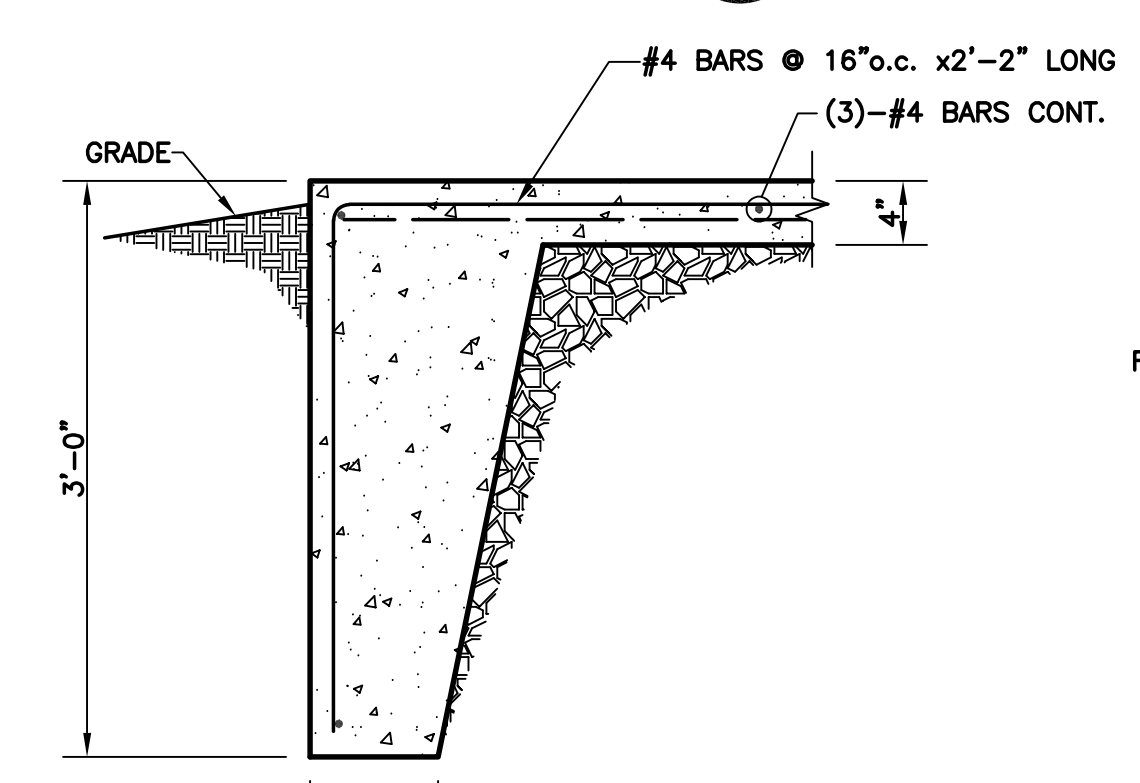
UNDERCUT ALL FOOTINGS AS REQUIRED TO EXTEND BELOW EXISTING FILL. BACKFILL TRENCHES W/COMPACTED DGA OR #2 STONE. PROOF ROLL ALL SLAB AREAS ONCE EXISTING SLABS ARE REMOVED - REFER TO GEOTECHNICAL REPORT.



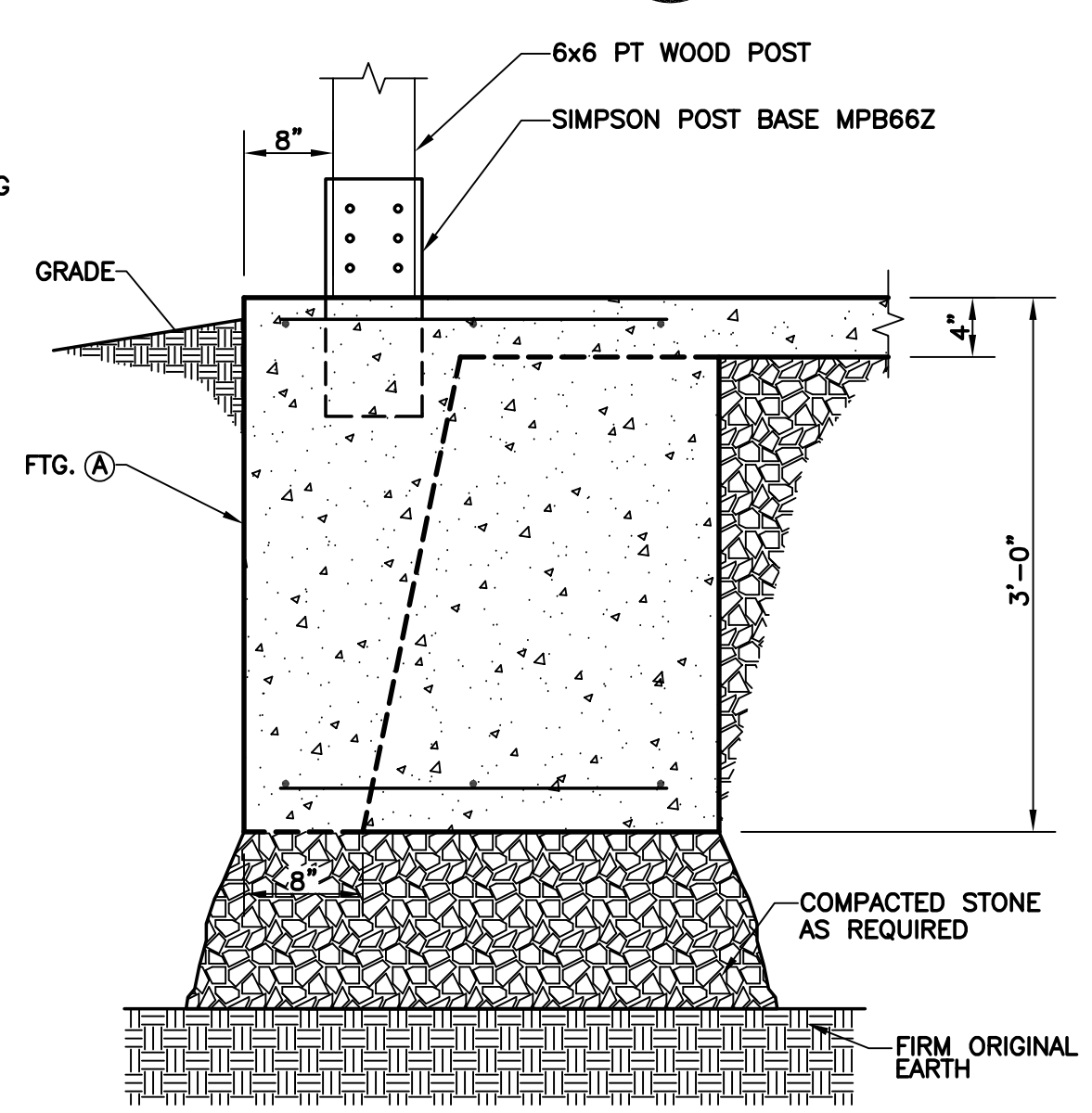
SECTION A
(S-1)



SECTION B
(TYPICAL EXTERIOR DOOR OPENING) S-1



SECTION C
(S-1)

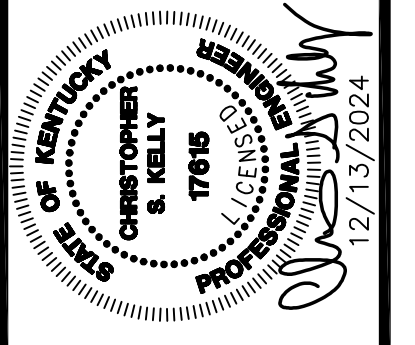


SECTION D
(S-1)

- NOTES:
- CONTRACTOR SHALL COORDINATE FLOOR DRAINS AND ELECTRICAL CONDUITS WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
 - ALL DIMENSIONS SHOWN ARE TO FOUNDATION WALL.
 - REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL INTERIOR NONLOAD-BEARING WALLS NOT LOCATED ON STRUCTURAL DRAWINGS.

FOOTING SCHEDULE		
MARK	FOOTING SIZE	REINFORCING STEEL
(A)	2'-0"x2'-0"x36"	3-#5 BARS EACH WAY TOP & BOTTOM

POAGE ENGINEERS & ASSOCIATES
880 Sparks Court
Suite 200
Lexington, KY 40504
Phone: (609) 255-9064
Fax: (609) 252-3730



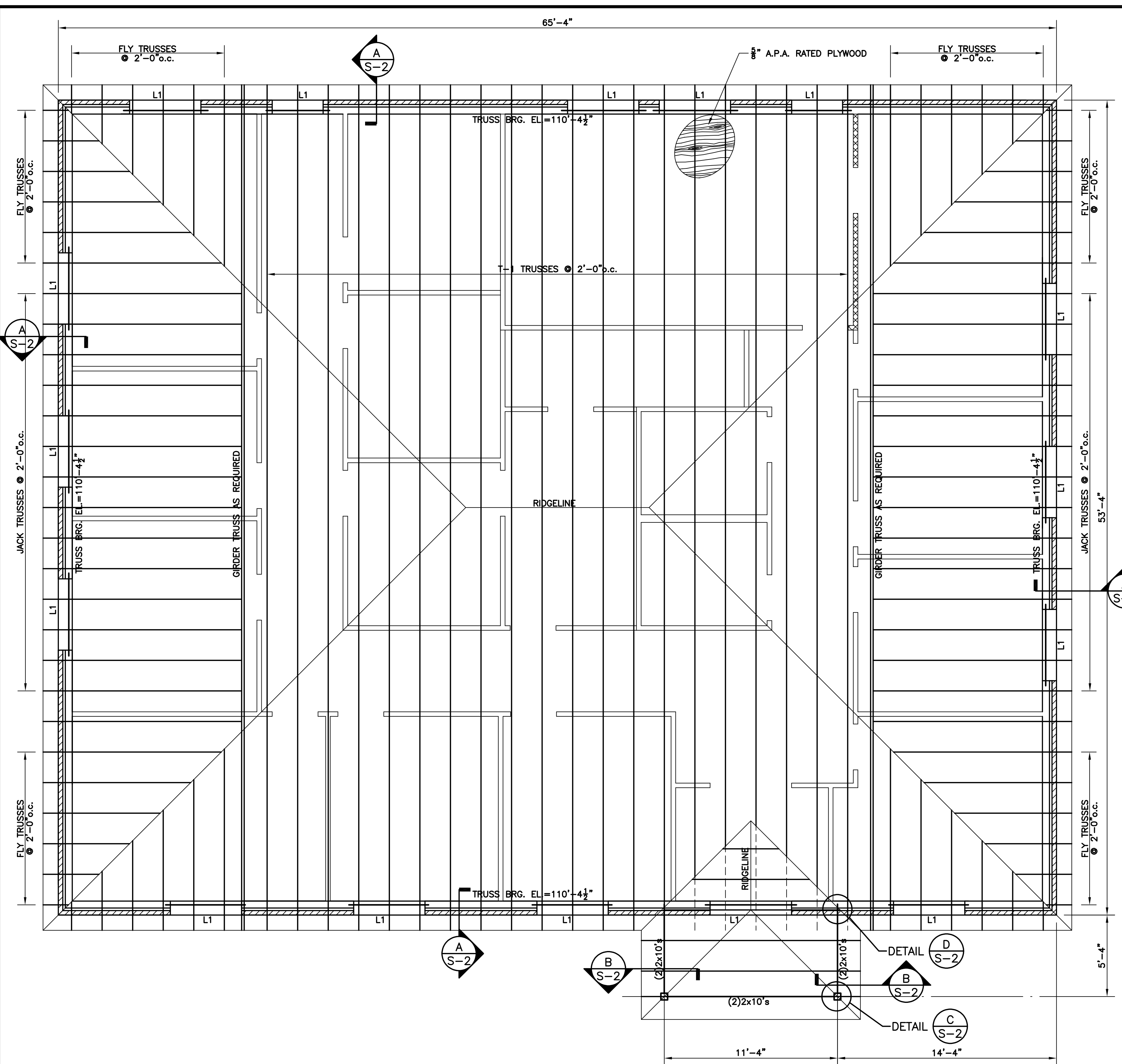
GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

DATE	REVISION	BY

PROJECT NO. 5071-03
DESIGNED BY LSK
DRAWN BY SRF (p24220)
CHECKED BY LSK
REVIEWED BY
DATE 12-15-2024
SCALE

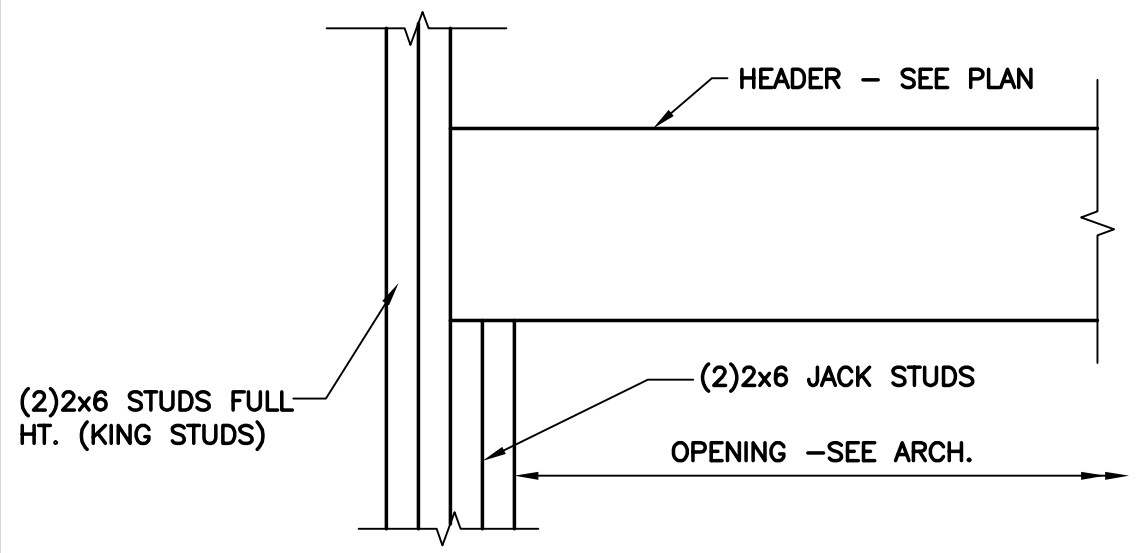
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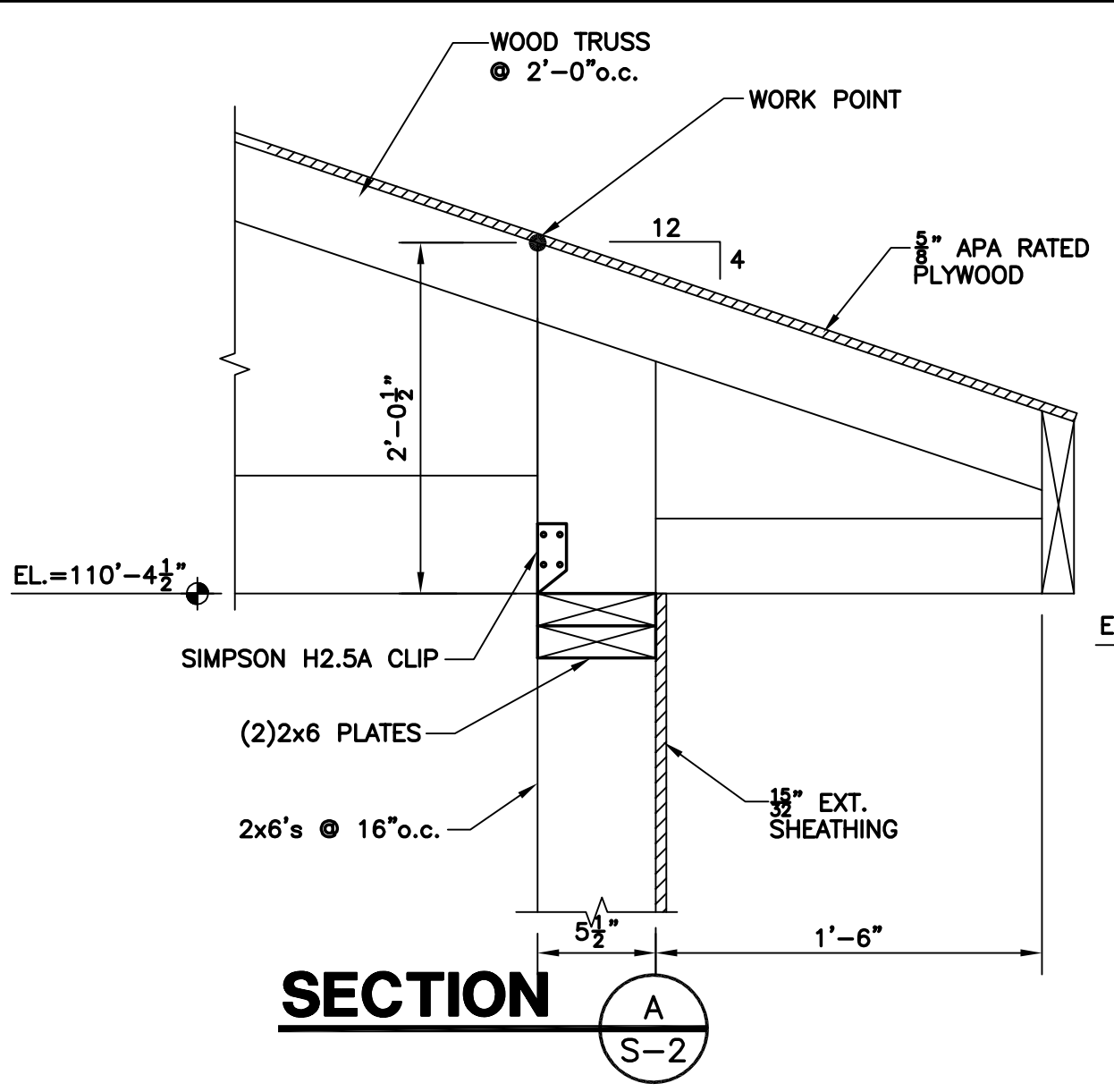


ROOF FRAMING PLAN

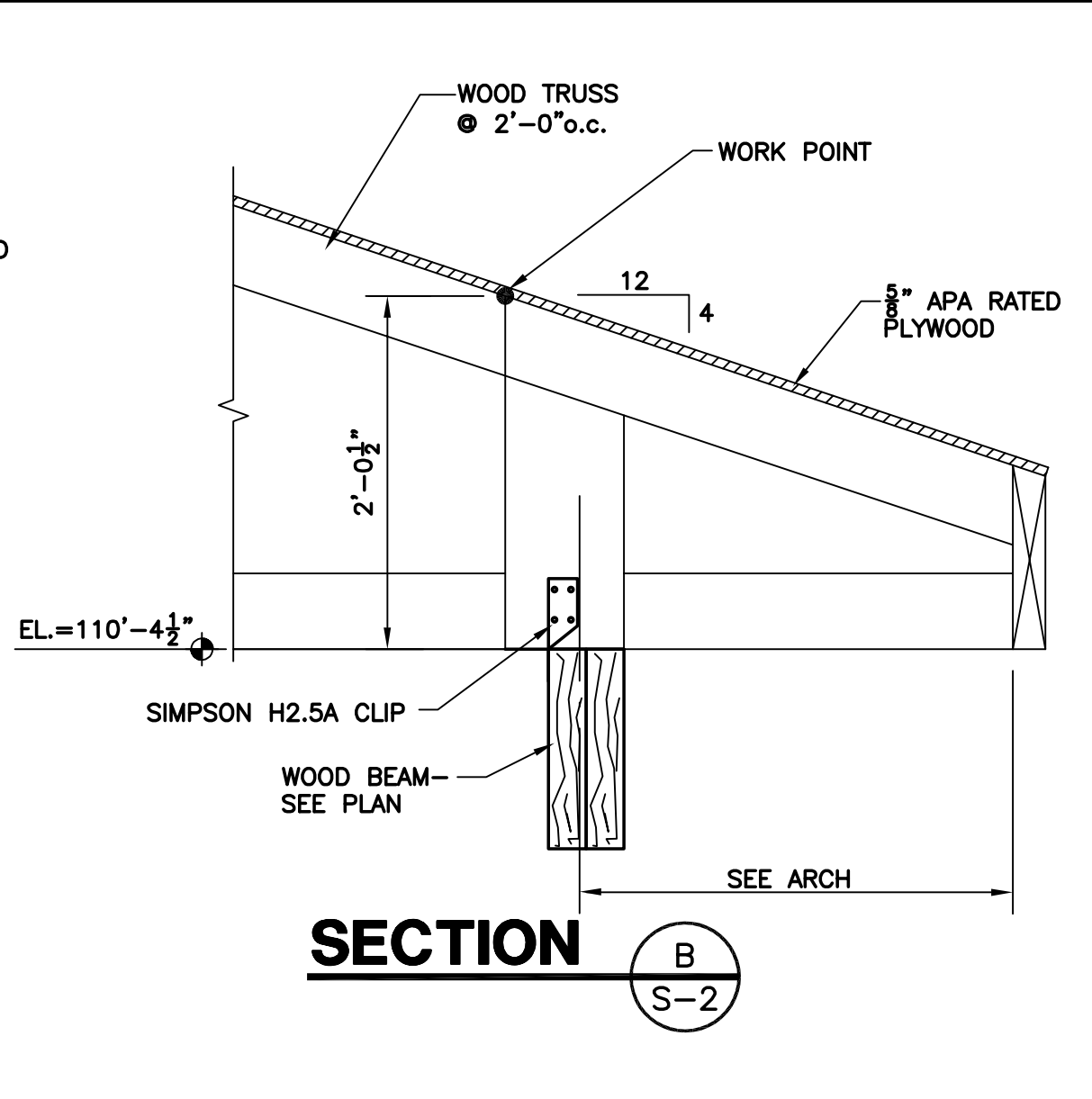
L1 - (3)2x10 & L3½x3½x½



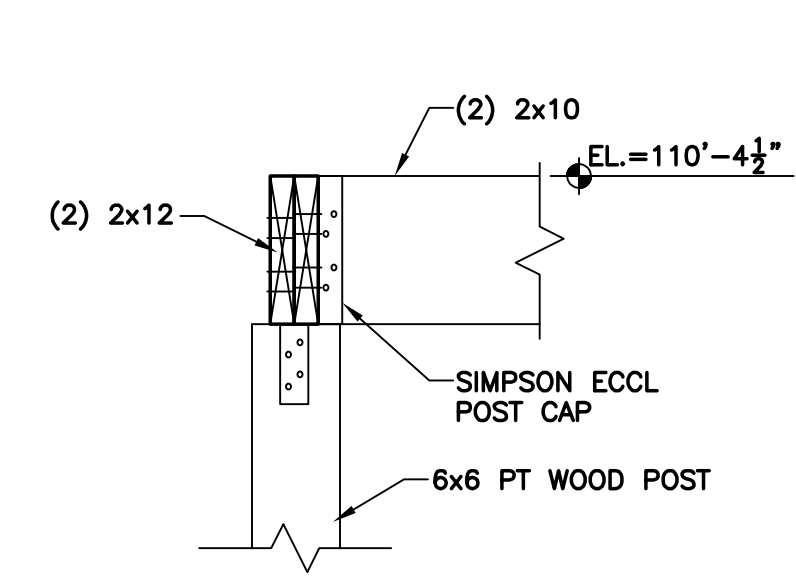
TYPICAL WINDOW / DOOR OPENING DETAIL



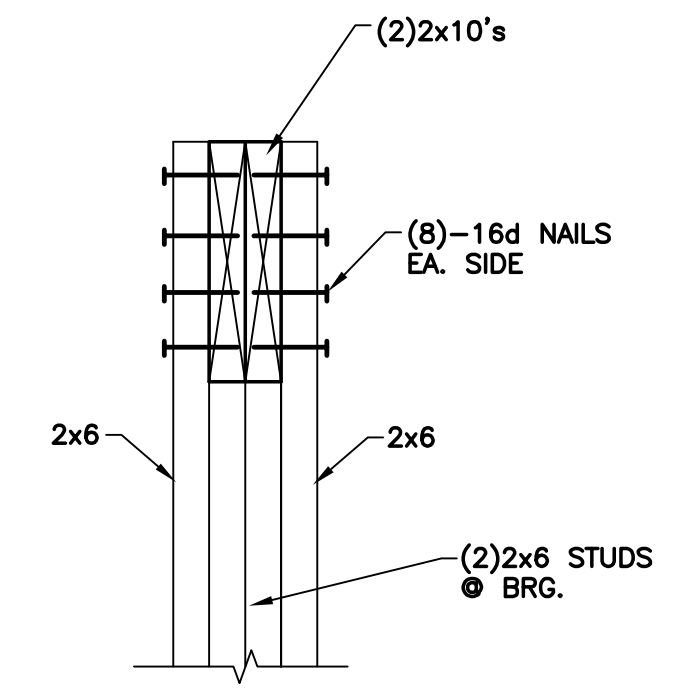
SECTION A S-2



SECTION B S-2



DETAIL C S-2



SECTION D S-2

NOTES:
 -ALL ROOF TRUSSES TO BE @ 24" o.c. (MAX)
 -ALL TRUSSES SHALL BE ATTACHED TO PLATE (OR LVL) USING SIMPSON H2.5A TRUSS ANCHORS EA. END.

NOTES:
 1) ALL ROOF SHEATHING SHALL BE 5/8" SQUARE EDGE EXTERIOR SHEATHING W/7" CLIPS ATTACHED W/8d NAILS @ 6" o.c. ALL EDGES AND 12"(MAX) AT INTERMEDIATE SUPPORTS (TYP. U.N.O.)
 2) ALL EXTERIOR WALL SHEATHING SHALL BE 5/8" APA RATED EXTERIOR SHEATHING ATTACHED PER TYPICAL SHEAR PANEL NAILING DETAIL.
 3) ALL WOOD BEAMS SHALL HAVE PLYWOOD SPACERS AS REQUIRED TO PROVIDE BEAM WIDTH TO MATCH STUD WALL WIDTH.
 4) ALL WOOD TRUSSES SHALL BE SPACED @ 2'-0" o.c. (TYP. U.N.O.)
 5) ALL TRUSSES SHALL BE ATTACHED TO PLATE (OR LVL) USING SIMPSON H2.5A TRUSS ANCHORS EA. END.

TRUSS NOTES:

- Lumber Specifications:
 Top and bottom chords to be No. 2 (2x4 minimum) Southern Pine minimum.
 Web members to be No. 2 Southern Pine minimum. (2x4 minimum)
- Provide 2x4 cross bracing or bridging at all 1/3 points of the truss span for the bottom chord.
 All wood truss bracing shall conform to the Truss Plate Institute HIB-(latest edition).
- The erection and handling of the wood trusses must follow the Truss Plate Institute HIB-(latest edition).
- Truss gusset plates shall be steel, either nailed or press-in, complying with the standards of the Truss Plate Institute HIB-(latest edition).
- The structural design of the wood trusses shall be based on the design loads shown. Should truss design or design loads vary from that shown, comply with local design codes. The Contractor shall submit truss shop drawings, including structural calculations, signed and sealed by a Structural Engineer, licensed to practice in Kentucky, for review.
- Design loads for wood trusses are as follows:
TOP CHORD
 Dead load = 15 PSF
 Live load = 20 PSF
 Wind load = (per KBC)
BOTTOM CHORD
 Dead load = 10 PSF

POAGE ENGINEERS & ASSOCIATES
 880 Sparta Court
 Suite 200
 Lexington, KY 40504
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 Fax: (606) 252-3130

REGISTERED PROFESSIONAL ENGINEER
 No. 12137/2024

GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

DATE	REVISION	BY

PROJECT NO. 5071-03
 DESIGNED BY **CSK**
 DRAWN BY **SRT(p24220)**
 CHECKED BY **CSK**
 REVIEWED BY
 DATE **12-15-2024**
 SCALE

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**GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY**

DATE	REVISION	BY

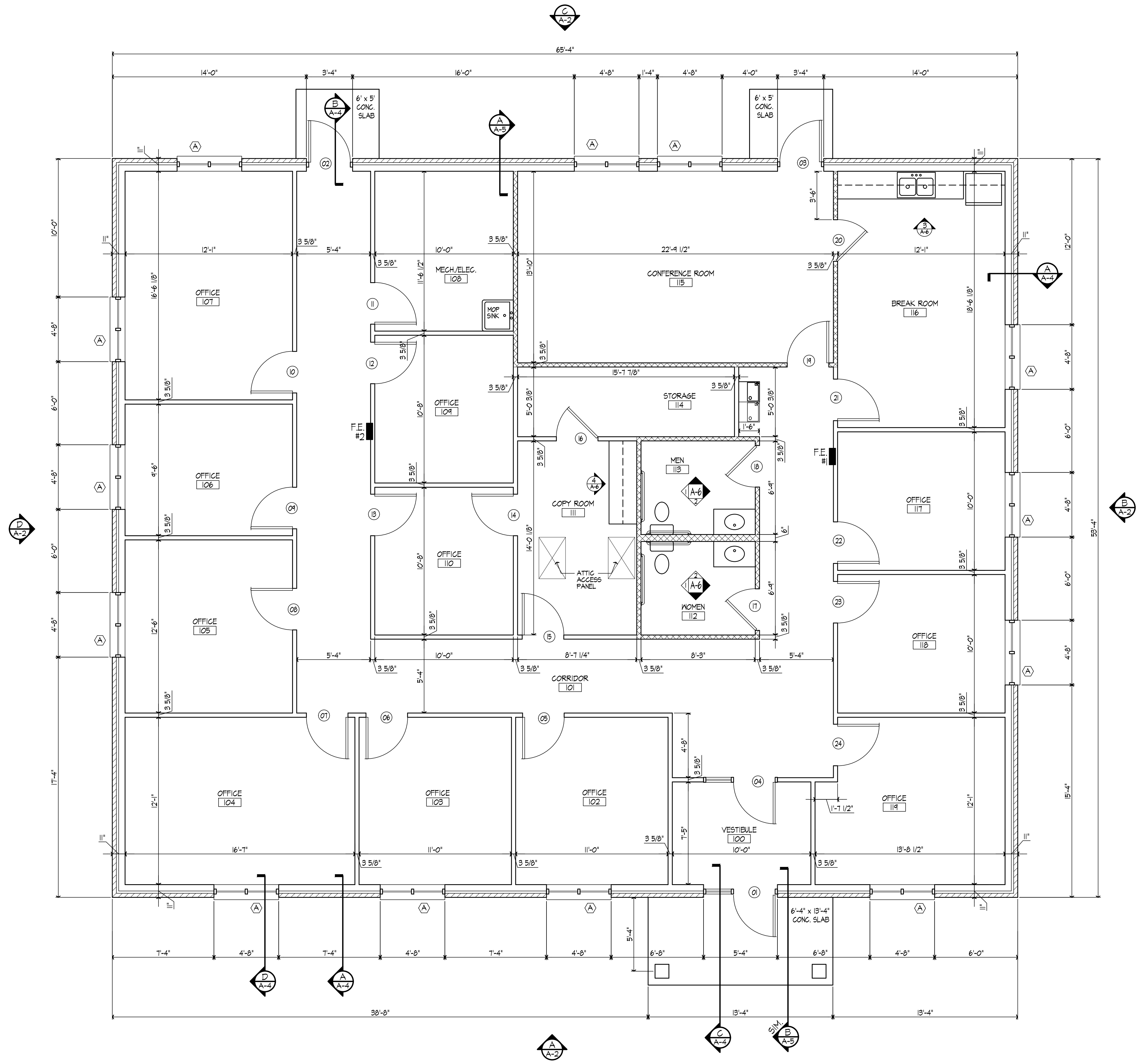
PROJECT NO. 5071-03
 DESIGNED BY: BLM/M5F
 DRAWN BY: BLM
 CHECKED BY: M5F
 REVIEWED BY: M5F
 DATE: DEC. 2024
 SCALE: AS NOTED

**Engineers
Architects
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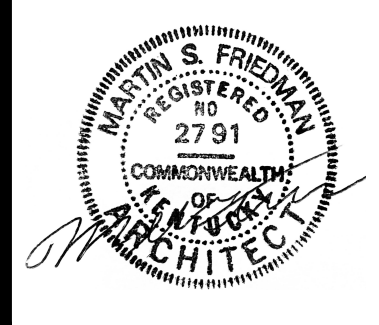
WALL TYPES

- ALL INTERIOR METAL STUDS WALLS SHALL BE 20 GA. CAN. STUDS, 1-3/8" FLANGE 3/8" RETURN @ 16" O.C. (362/600S17-33) FULL HEIGHT TO MATCH EXTERIOR WOOD STUD WALLS W/ 5/8" F.C. 6YF BOARD CONTINUOUS TO BOTTOM OF TRUSSES. SEE FLOOR PLAN FOR SPECIFIC SIZE.
- ALL EXTERIOR WALLS SHALL BE 2x6x10" #2 MIN. WOOD STUDS, 16" O.C., WITH WOOD BLOCKING AT FLYWAD. JOINT.
- 3 1/2" SOUND BATTS, CONTINUOUS TO TOP OF WALLS, TYPICAL. ALL WALLS SURROUNDING RESTROOMS AND CONFERENCE ROOM.
- *ALL TRUSSES TO RECEIVE (2) LAYERS 5/8" F.C. GYPSUM BOARD @ BOTTOM CHORD OF ROOF TRUSS. ACOUSTICAL CEILING TO BE SUSPENDED BELOW THE GYPSUM BOARD CEILING (SEE WALL SECTIONS).
- *COORDINATE ACTUAL PLACEMENT OF ATTIC ACCESS PANELS WITH OTHER MECH., ELEC. AND PLUMBING ITEMS.
- ● FE = FIRE EXTINGUISHER

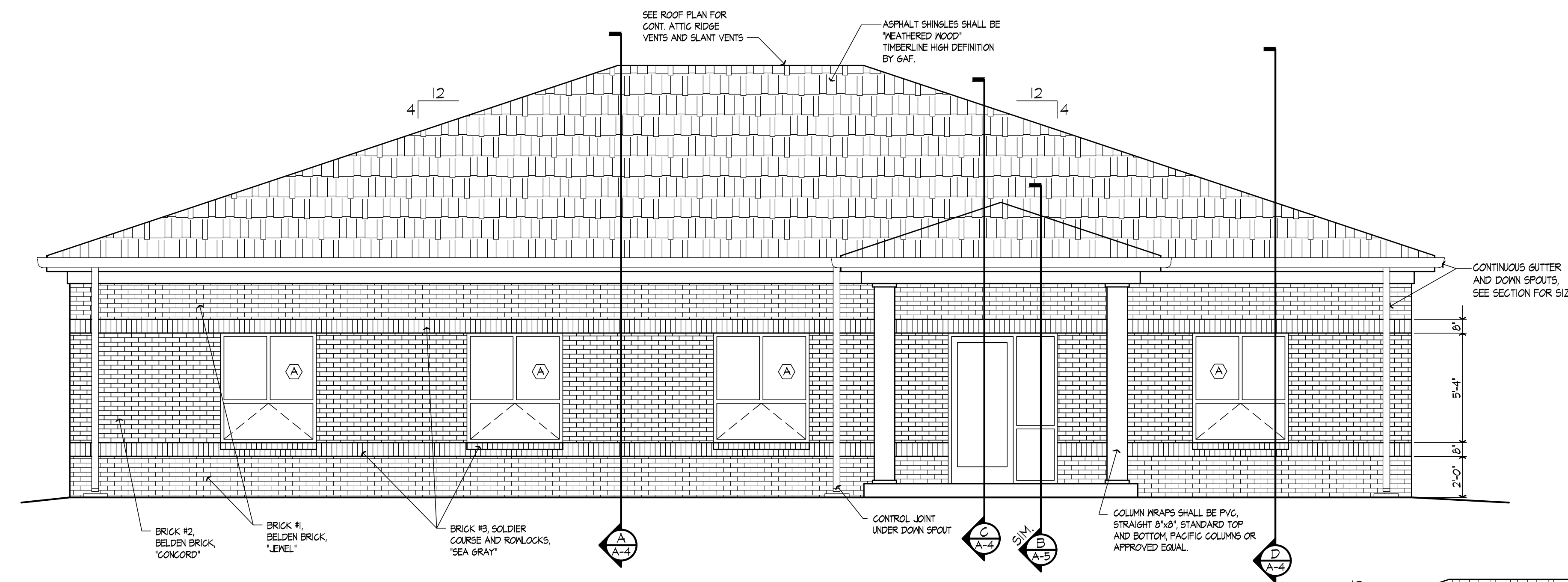


3,485 SQ.FT.

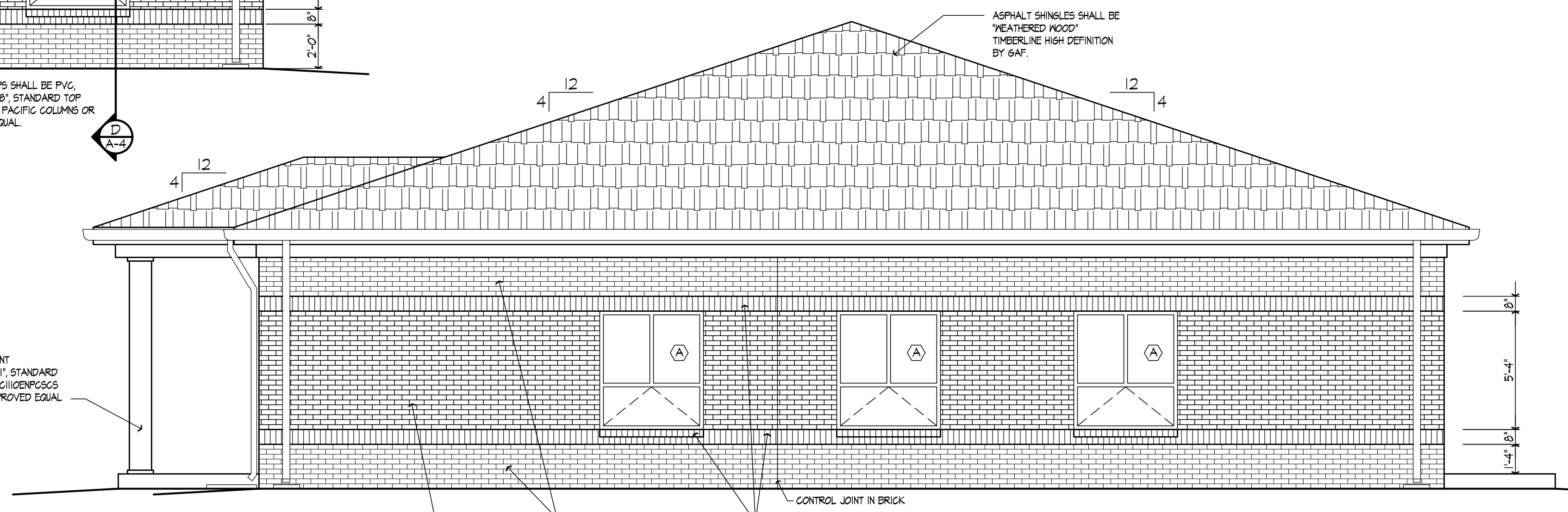
FLOOR PLAN
SCALE: 1/4"=1'-0" 3,485 SQ.FT.



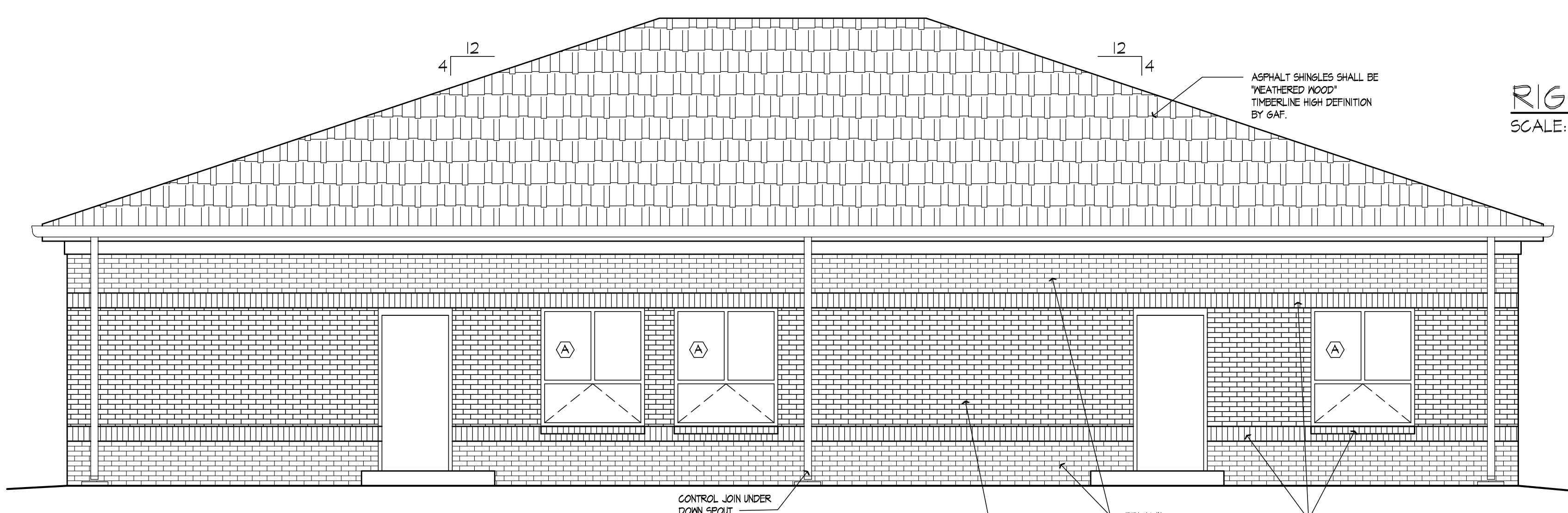
**GATEWAY DISTRICT HEALTH DEPARTMENT
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OWINGSVILLE, KENTUCKY**



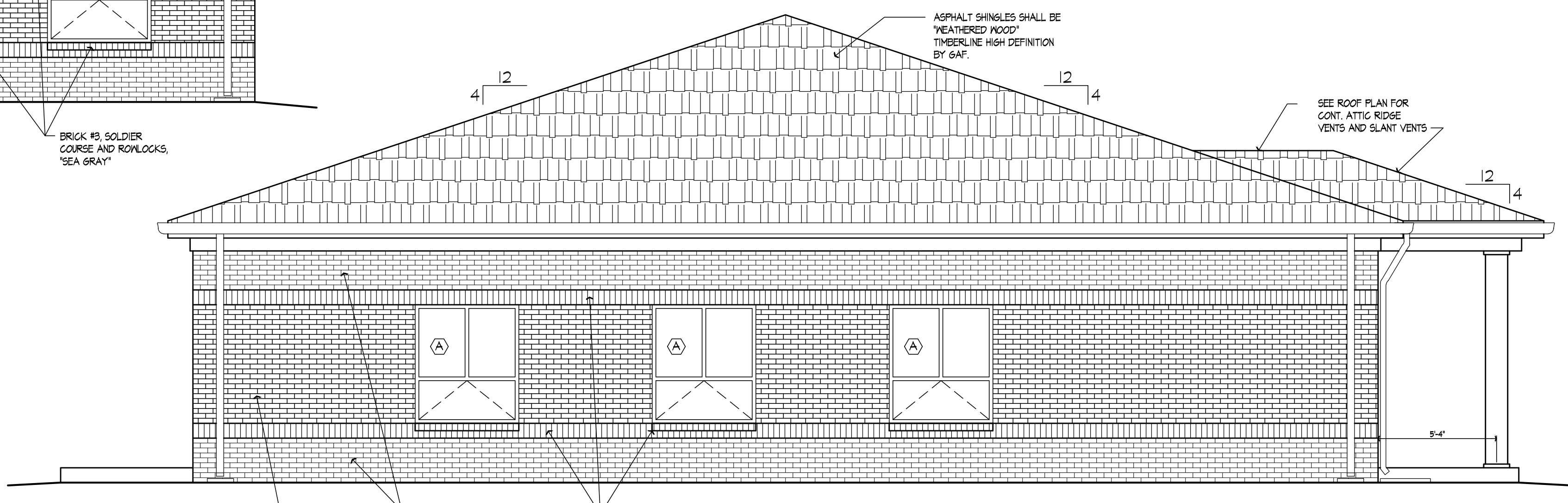
FRONT ELEVATION (A)
SCALE: 1/4"=1'-0" (A-2)



RIGHT SIDE ELEVATION (B)
SCALE: 1/4"=1'-0" (A-2)



REAR ELEVATION (C)
SCALE: 1/4"=1'-0" (A-2)



LEFT SIDE ELEVATION (D)
SCALE: 1/4"=1'-0" (A-2)

DATE	REVISION	BY

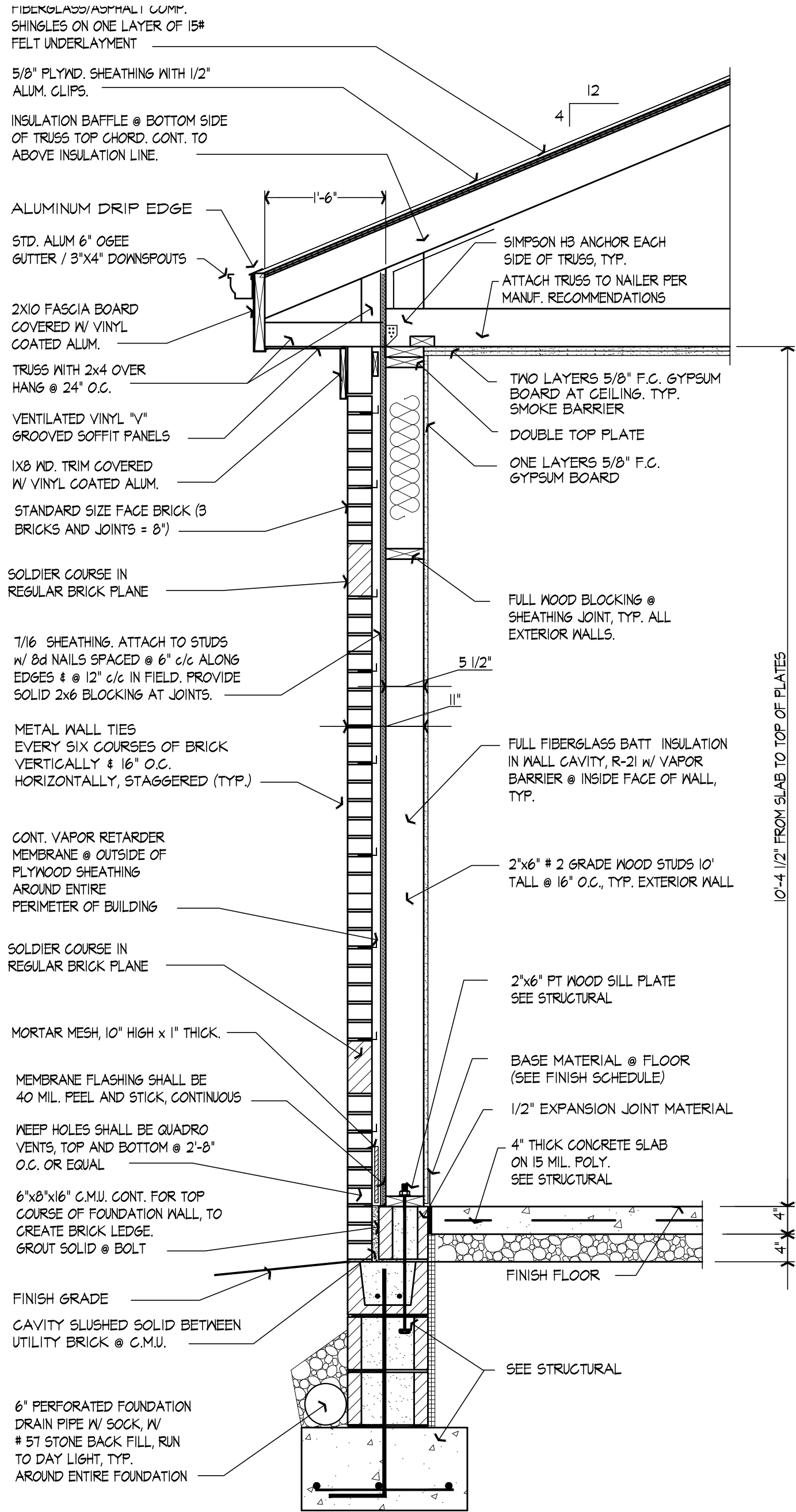
PROJECT NO. 5071-03
DESIGNED BY: BLL/M5F
DRAWN BY: BLL
CHECKED BY: M5F
REVIEWED BY: M5F
DATE: DEC. 2024
SCALE: AS NOTED

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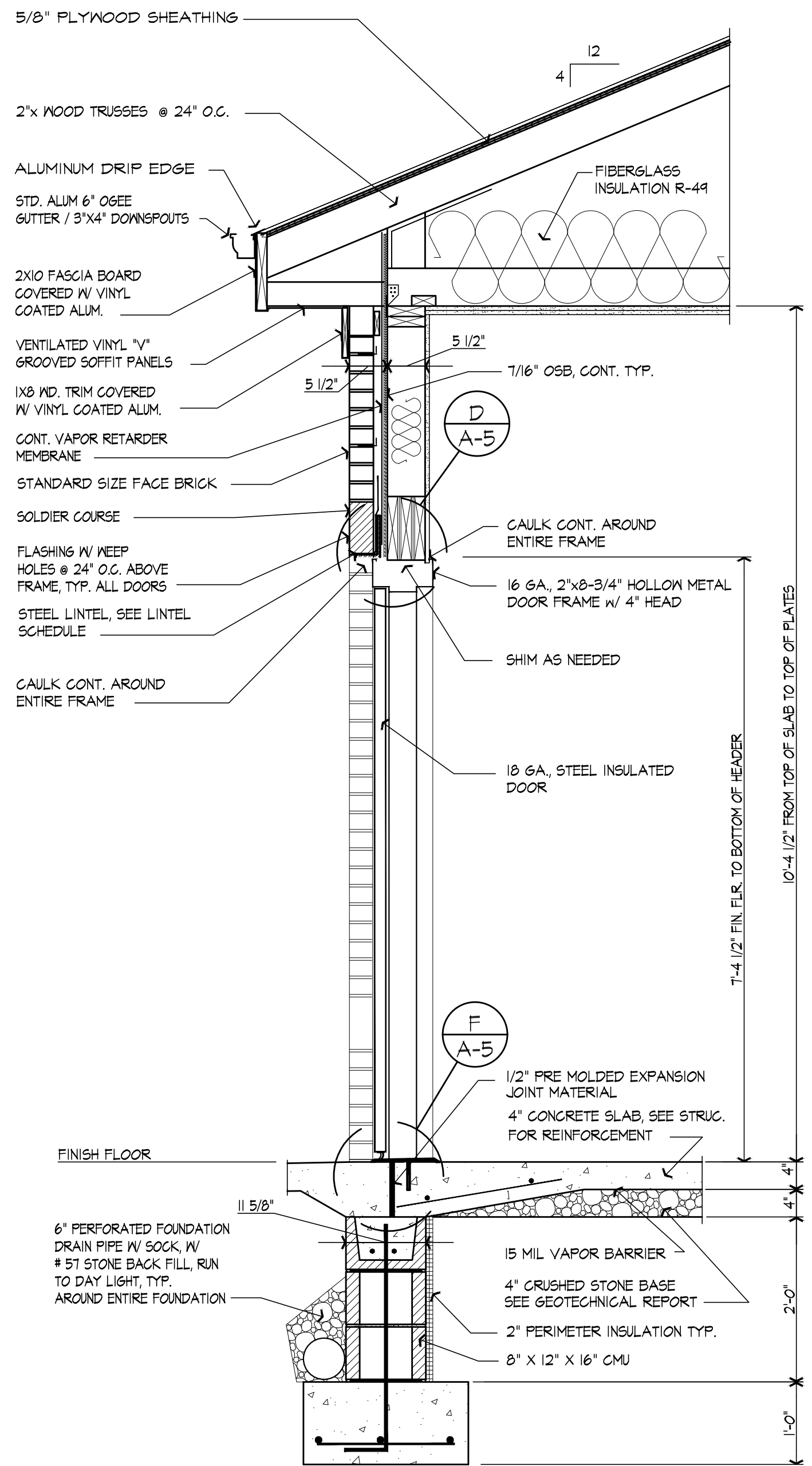
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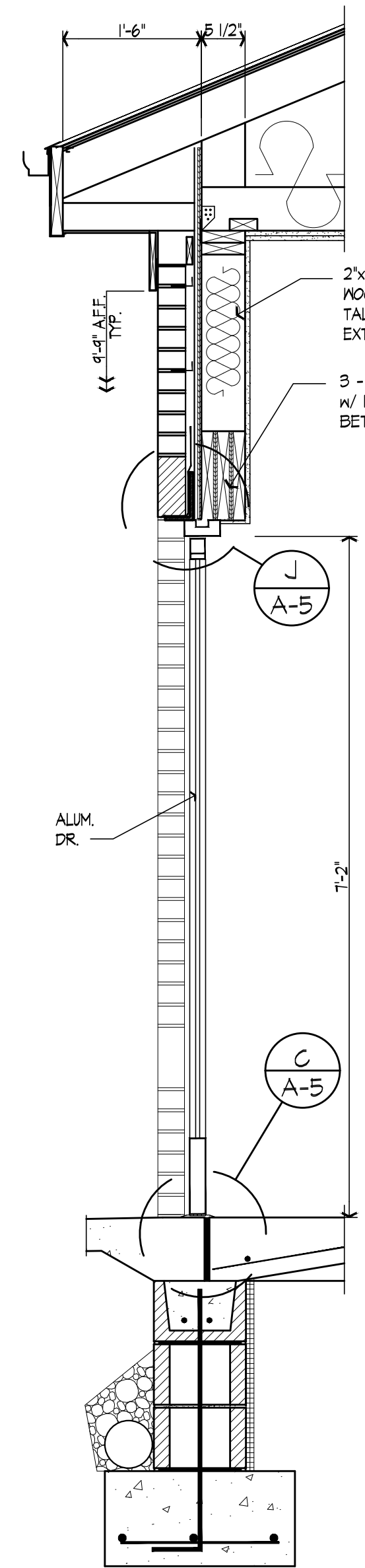
**GATEWAY DISTRICT HEALTH DEPARTMENT
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OWINGSVILLE, KENTUCKY**



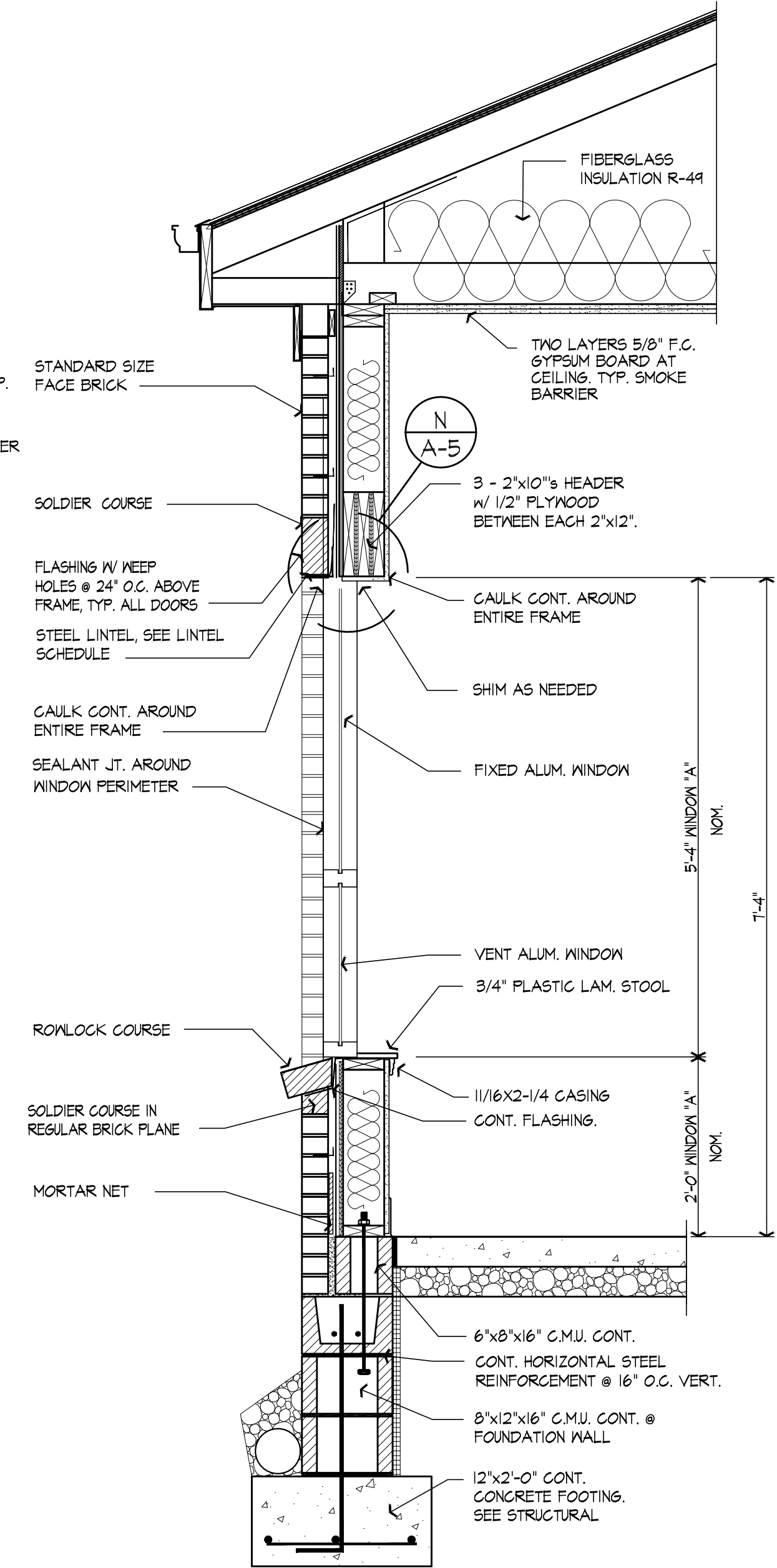
WALL SECTION, TYP. A-A-4
SCALE: 3/4" = 1'-0"



WALL SECTION, TYP. B-B-4
SCALE: 3/4" = 1'-0"



WALL SECTION, TYP. C-C-3
SCALE: 3/4" = 1'-0"



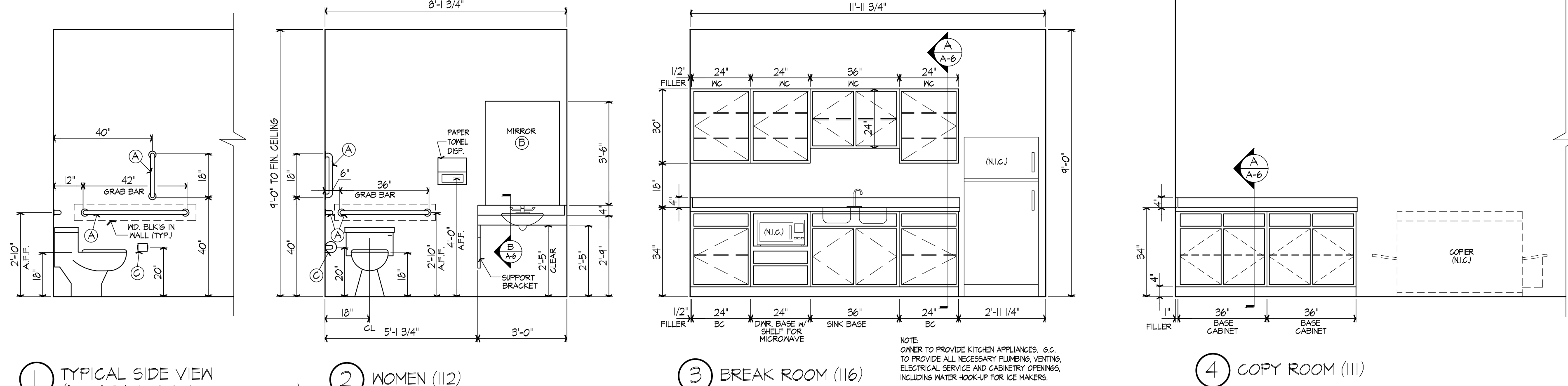
WALL SECTION, TYP. D-D-4
SCALE: 3/4" = 1'-0"

PROJECT NO. 2011-03	DESIGNED BY BELL/MSF
DATE	REVISION
DESIGNED BY BELL	
CHECKED BY MSF	
REVIEWED BY	
DATE DEC. 2024	
SCALE AS NOTED	

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INTERIOR ELEVATIONS

3/8" = 1'-0"



1 TYPICAL SIDE VIEW (for ADA toilet & accessories)
2 WOMEN (112) MEN (113) - Opp. View

3 BREAK ROOM (116)
NOTE: OWNER TO PROVIDE KITCHEN APPLIANCES, E.G. TO PROVIDE ALL NECESSARY PLUMBING, VENTING, ELECTRICAL SERVICE AND CABINETRY OPENINGS INCLUDING WATER HOOD-UP FOR ICE MAKERS.

4 COPY ROOM (111)

FINISH SCHEDULE

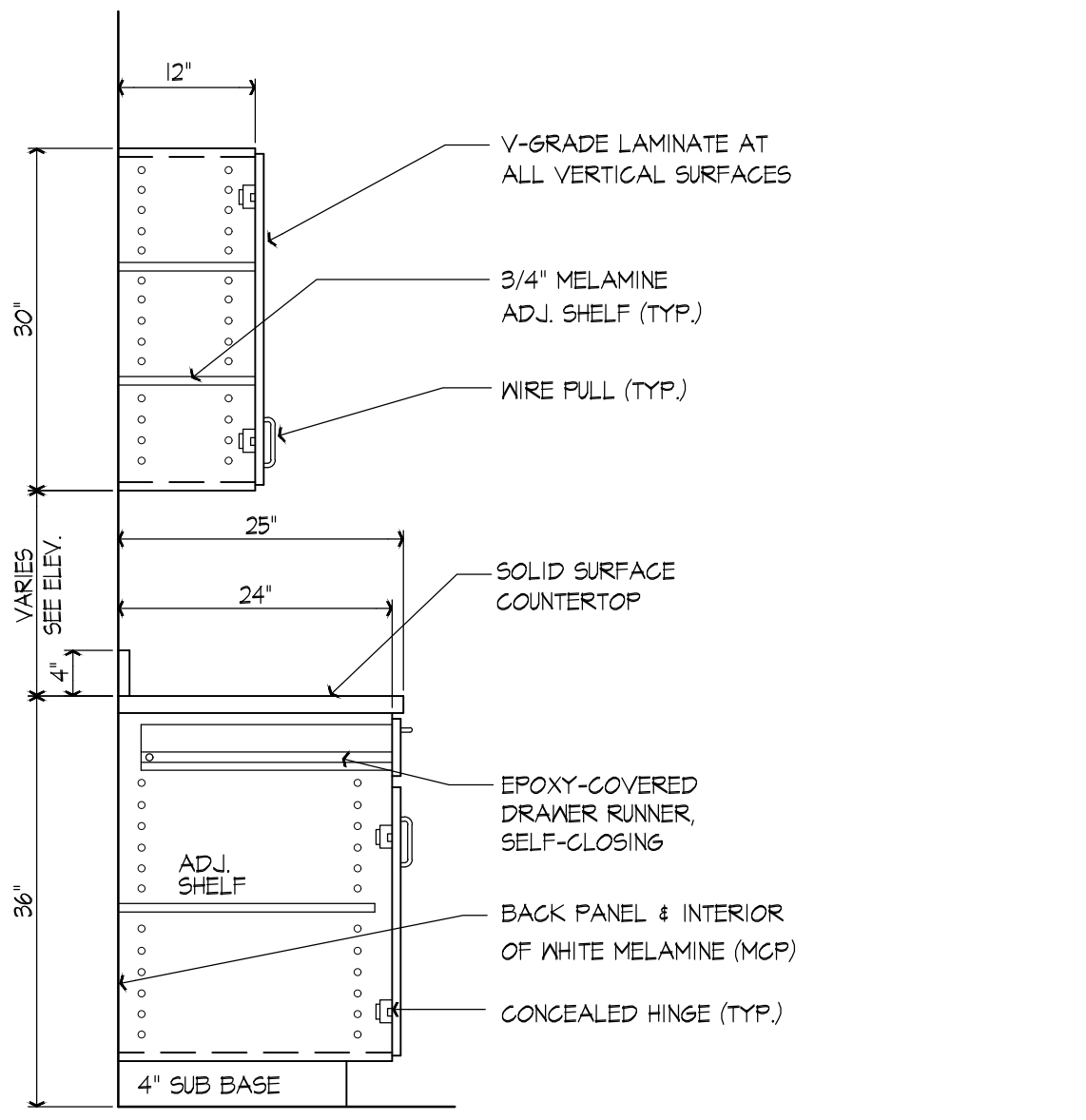
ROOM #	ROOM NAME	FLOOR	BASE	WALLS & TRIM	MISC.	CLG.	CLG. HT.
100	VESTIBULE						
101	CORRIDOR	LVP-1	C-1	B-1	P-1		9'-0"
102	OFFICE	LVP-1		B-1	P-4		9'-0"
103	OFFICE	LVP-1		B-1	P-3		9'-0"
104	OFFICE	LVP-1		B-1	P-4		9'-0"
105	OFFICE	LVP-1		B-1	P-3		9'-0"
106	OFFICE	LVP-1		B-1	P-6		9'-0"
107	OFFICE	LVP-1		B-1	P-4		9'-0"
108	MECHANICAL/ELECTRICAL			B-1	P-3	P-8	+/- 10'-4"
109	OFFICE	LVP-1		B-1	P-4		9'-0"
110	OFFICE	LVP-1		B-1	P-4		9'-0"
111	COPY ROOM	LVP-1		B-1	P-1	L-3 L-1	9'-0"
112	WOMEN	PT-1		B-1	P-5	L-2	9'-0"
113	MEN	PT-1		B-1	P-5	L-2	9'-0"
114	STORAGE	LVP-1		B-1	P-6	P-8	+/- 10'-4"
115	CONFERENCE ROOM	LVP-1		B-1	P-7		9'-0"
116	BREAK ROOM	LVP-1		B-1	P-7	L-2 L-1	9'-0"
117	OFFICE	LVP-1		B-1	P-3		9'-0"
118	OFFICE	LVP-1		B-1	P-2		9'-0"
119	OFFICE	LVP-1		B-1	P-3		9'-0"

FINISH SPECIFICATIONS

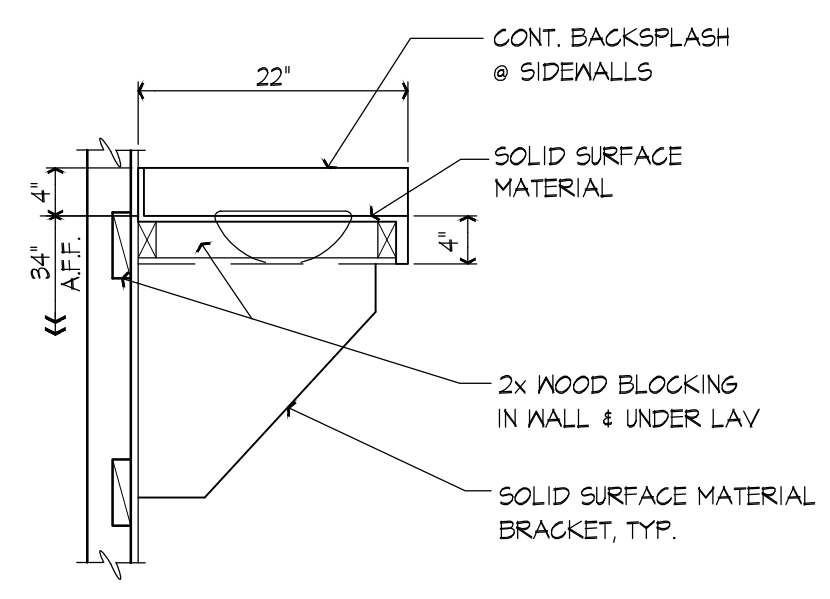
FLOORS: LVT-1 Interface Flooring "Textured Woodgrains 3.0mm" Color: CO1402 Antique Light Oak, 25cm x 1m C-1 Interface Flooring "Step Repeat 849", Color: 104938 Smoke, 50cm x 50cm PT-1 Portobello America Tile "Portolino" Sand NAT, 12"x24" BASE: B-1 Tarkett Vinyl Wall Base 4" Cove Base, Color - 63 Burnt Umber B CEILING: A-1 Armstrong "Fire Fused" #128, 24" x 24" x 5/8", Square Lay-in, White (WH) tiles with White grid	WALLS: P-1 Benjamin Moore #631 Midnight Oil P-2 Benjamin Moore #860 Appartion P-3 Benjamin Moore #818 Iced Marble P-4 Benjamin Moore #2121-50 Pike's Peak Gray P-5 Benjamin Moore #565 Mount Saint Anne P-6 Benjamin Moore #331 Silver Song P-7 Benjamin Moore #595 Nales Gray P-8 Benjamin Moore #2121-70 Chantilly Lace PLASTIC LAMINATES/SOLID SURFACE: L-1 Wilsonart #17002K-5T Fisher Oak, Aligned Texture L-2 Formica #8524-49 Sea Salt L-3 Wilsonart #46TT-39 Gray Mesh
---	--

NOTES:

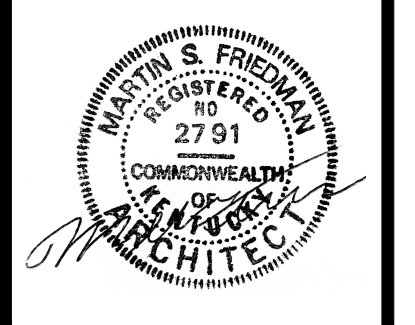
- A) All interior plastic laminated window stools to be finished with plastic laminate finish L-3.
- B) All interior metal doors and door frames to be painted with finish P-1.
- C) All interior wood doors to be plain-sliced White Oak with factory finish stain.



TYP. LAMINATE CABINETS
SCALE: 3/4" = 1'-0"



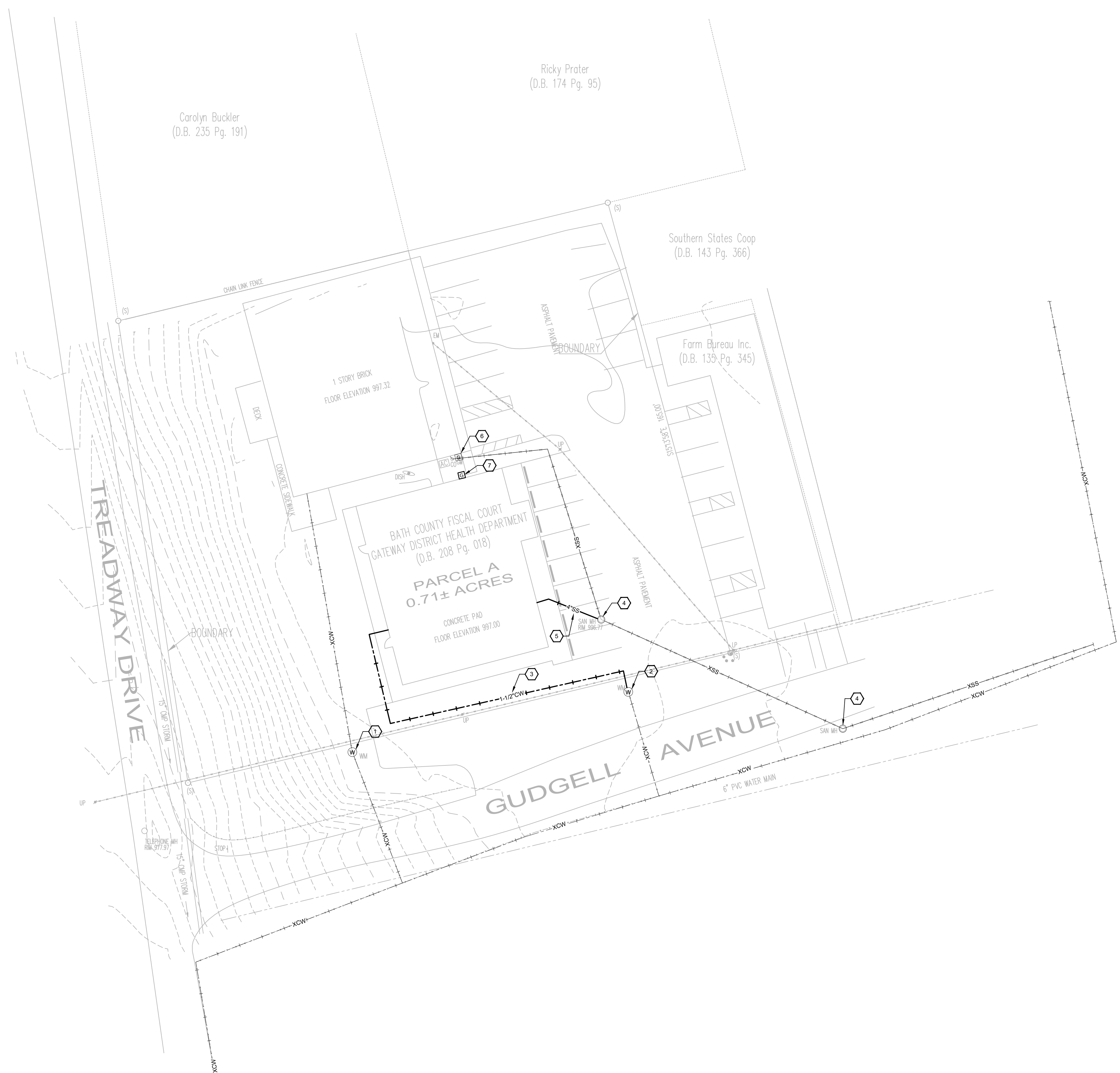
LAVATORY SECTION
SCALE: 3/4" = 1'-0"



**GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY**

PROJECT NO.	5071-03
DESIGNED BY	BLL
DRAWN BY	BLL
CHECKED BY	M5F
REVIEWED BY	
DATE	DEC. 2024
SCALE	AS NOTED

MS&E
OF KENTUCKY, INC.
 Engineers
 Architects
 Planners
 Phone: (859) 223-5894
 Fax: (859) 223-2807
 624 Wellington Way
 Lexington, KY 40503
 www.ms&e.com



1 SITE PLAN - PLUMBING
1" = 20'-0"

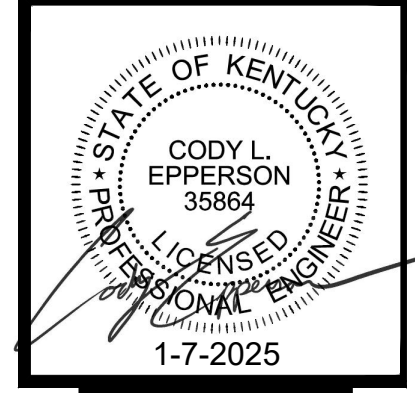
Carolyn Buckler
(D.B. 235 Pg. 191)

Ricky Prater
(D.B. 174 Pg. 95)

Southern States Coop
(D.B. 143 Pg. 366)

Form Bureau Inc.
(D.B. 135 Pg. 345)

BATH COUNTY FISCAL COURT
GATEWAY DISTRICT HEALTH DEPARTMENT
(D.B. 208 Pg. 018)
PARCEL A
0.71± ACRES
CONCRETE PAD
FLOOR ELEVATION 997.00



- GENERAL NOTES**
- REFER TO SHEET P0.
 - REFER TO CIVIL SITE PLAN FOR ADDITIONAL SITE INFORMATION.
 - MAINTAIN REQUIRED CLEARANCES BETWEEN SITE UTILITIES, PROPERTY LINES, ETC.
 - ALL WORK SHALL BE COORDINATED WITH LOCAL UTILITY COMPANIES AND PERFORMED PER UTILITY COMPANY STANDARDS AND REQUIREMENTS.

- SHEET NOTES** ○
- EXISTING WATER METER TO REMAIN.
 - NEW WATER METER BY UTILITY COMPANY, FIELD VERIFY EXACT LOCATION.
 - PROVIDE 1-1/2" DOMESTIC WATER SERVICE FROM WATER METER TO BUILDING. WATER SERVICE TO BE BURIED MINIMUM 36" DEPTH. COORDINATE SERVICE ENTRANCE REQUIREMENTS WITH UTILITY COMPANY.
 - EXISTING SANITARY SEWER MANHOLE, FIELD VERIFY EXACT LOCATION.
 - PROVIDE 4" SANITARY SEWER FROM EXISTING MANHOLE TO BUILDING. COORDINATE SEWER SERVICE REQUIREMENTS WITH UTILITY COMPANY.
 - EXISTING GAS METER SERVING ADJACENT BUILDING.
 - PROVIDE HIGH PRESSURE NATURAL GAS SERVICE TO METER LOOP ON BUILDING. COORDINATE GAS SERVICE TAP IN THIS AREA WITH UTILITY COMPANY. ENSURE SERVICE ENTRANCE REQUIREMENTS OF UTILITY COMPANY ARE MET.

GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

DATE	REVISION	BY

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PROJECT NO. 5071-03
 DESIGNED BY CE
 DRAWN BY CE
 CHECKED BY CE
 REVIEWED BY CE
 DATE JANUARY 2025
 SCALE AS NOTED

M&E OF KENTUCKY, INC.
 Engineers
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 Planners
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 Fax: (609)223-2607
 624 Wellington Way
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 www.msex.com

DRAWING NO.
SU1



1 SITE PLAN - ELECTRICAL
1" = 20'-0"



EPPERSON ENGINEERING
112 W. UNIVERSITY DR.
SOMERSET, KY 42503
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GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

GENERAL NOTES

- REFER TO SHEET E0.
- MAINTAIN REQUIRED CLEARANCES BETWEEN SITE UTILITIES, PROPERTY LINES, ETC.
- ALL WORK SHALL BE COORDINATED WITH LOCAL UTILITY COMPANIES AND PERFORMED PER UTILITY COMPANY STANDARDS AND REQUIREMENTS.

SHEET NOTES ○

- EXISTING UTILITY POLE.
- EXISTING UTILITY POLE WITH EXISTING POLE MOUNTED TRANSFORMERS.
- EXISTING UTILITY POLE WITH NEW POLE MOUNTED TRANSFORMER.
- PROVIDE ONE (1) 3" CONDUIT WITH PULL STRINGS FROM UTILITY POLE TO METER BASE ON BUILDING FACADE. ALL WORK ASSOCIATED WITH ELECTRIC SERVICE ENTRANCE SHALL BE COORDINATED WITH POWER UTILITY COMPANY REQUIREMENTS.
- PROVIDE TWO (2) 2" CONDUITS WITH PULL STRING FROM UTILITY POLE TO MDF LOCATED INSIDE BUILDING. REFER TO SHEET E2 FOR ADDITIONAL INFORMATION. ALL WORK ASSOCIATED WITH TELECOMMUNICATION SERVICE ENTRANCE SHALL BE COORDINATED WITH OWNER PREFERRED TELECOM PROVIDER REQUIREMENTS.

DATE	REVISION	BY

PROJECT NO. 5071-03	DESIGNED BY JE
	DRAWN BY JE
	CHECKED BY JE
	REVIEWED BY JE
	DATE JANUARY 2025
	SCALE AS NOTED

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DRAWING NO.
SU2

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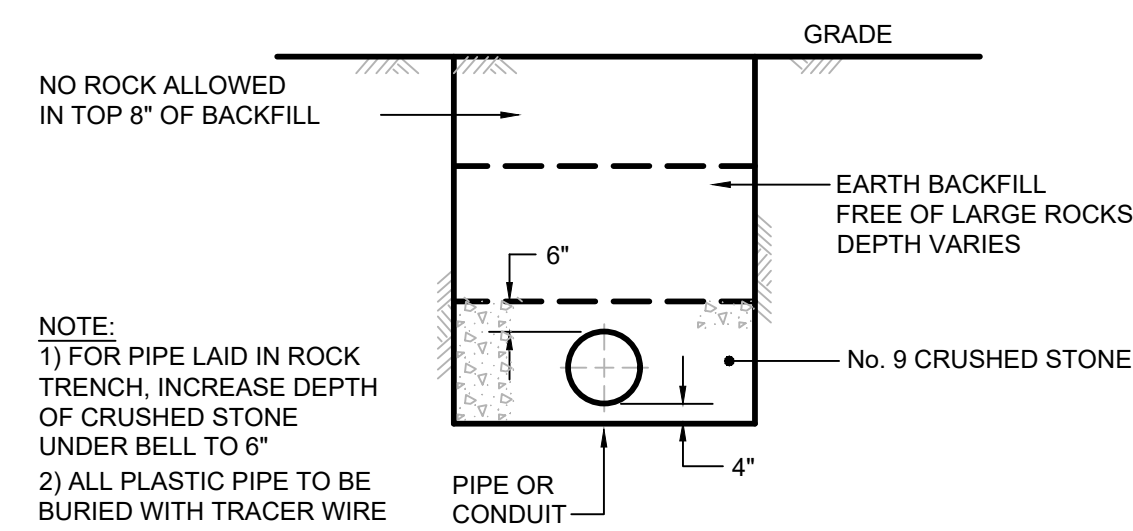
PLUMBING LEGEND

PLUMBING SYMBOLS	
SYMBOL	DESCRIPTION
—○	PIPE DOWN
—○	PIPE UP
—○—	TEE DOWN
—○—	TEE UP
—→	CONTINUATION
—┘	CAP
⊥	HAMMER ARRESTOR
⊕	BALANCING VALVE
⊕	BALL VALVE
⊕	BUTTERFLY VALVE
⊕	ELECTRIC CONTROL VALVE
⊕	PRESSURE REDUCING VALVE
⊕	CHECK VALVE
⊕	GATE VALVE
⊕	PLUG VALVE
▷	REDUCER
	UNION
∞	VALVE IN VERTICAL
⊕	PRESSURE GAUGE
⊕	STRAINER
⊕	FLOW INDICATOR
—○	CLEANOUT
—○	FLOOR CLEANOUT
⊕	THERMOMETER
⊕	FLOOR DRAIN
⊕	P-TRAP
⊕	FLOOR DRAIN GRATE
⊕	SHEET NOTE
⊕	EQUIPMENT TAG

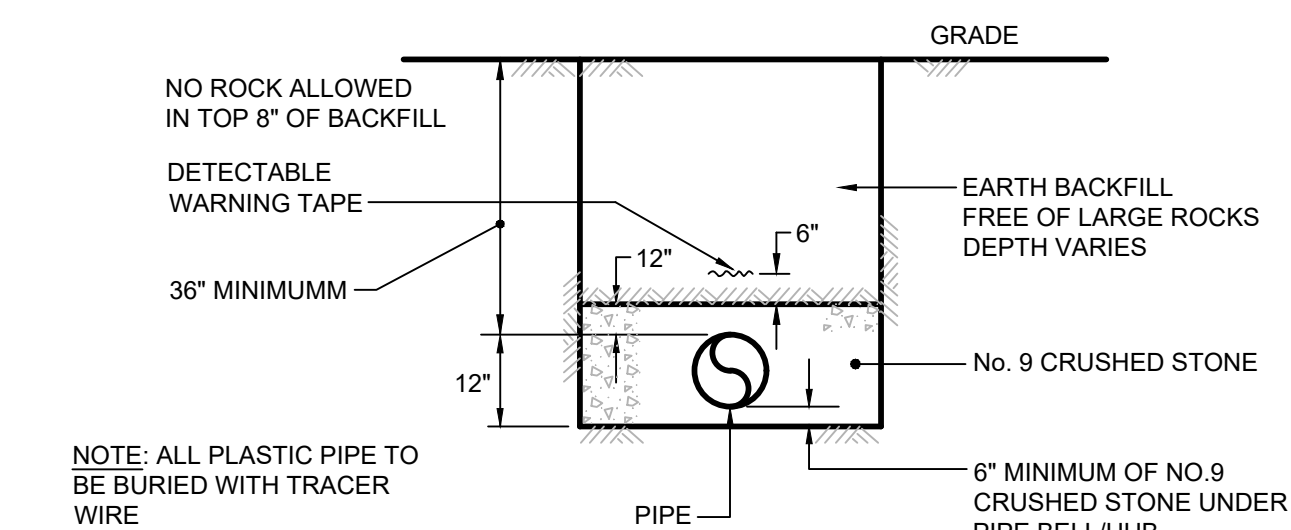
ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BTU	BRITISH THERMAL UNIT
CO	CLEANOUT
CW	COLD WATER
ECO	EXTERIOR CLEANOUT
ET	EXPANSION TANK
ETP	ELECTRONIC TRAP PRIMER
EWC	ELECTRIC WATER COOLER
EWB	ELECTRIC WATER HEATER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
GPM	GALLONS PER MINUTE
GWH	GAS WATER HEATER
HA	HAMMER ARRESTOR
HB	HOSE BIBB
HW	HOT WATER
LAV	LAVATORY
MB	MOP BASIN
MBH	1,000 BTU
MS	MOP SINK
OR	OPEN RECEPTACLE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
S	SINK
SS	SANITARY SEWER
TP	TRAP PRIMER
U	URINAL
V	VENT
VB	VACUUM BREAKER
VTR	VENT THROUGH ROOF
WH	WALL HYDRANT

GENERAL NOTES - PLUMBING:

- CONSTRUCTION PHASING:** ALL WORK SHALL BE COORDINATED AND SCHEDULED WITH THE GENERAL CONTRACTOR, OTHER TRADES, THE OWNER, RELATED UTILITY COMPANIES SHALL COINCIDE WITH CONSTRUCTION PHASING PER THE ARCHITECTURAL DOCUMENTS. CONTACT THE ARCHITECT/ENGINEER IN THE EVENT OF A CONFLICT.
- NEW UTILITIES:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NEW UTILITY SERVICES AND COSTS UNDER THIS CONTRACT. COORDINATE AND SCHEDULE ALL RELATED WORK WITH THE UTILITY COMPANIES.
- MAINTAIN SITE UTILITIES:** THE CONTRACTOR SHALL MAINTAIN ALL EXISTING SITE UTILITIES AT ALL TIMES. THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE ANY OUTAGE. SCHEDULED SHUT-DOWNS SHALL REQUIRE 48 HOUR PRIOR NOTIFICATION WITH OWNER. COORDINATE ALL RELATED WORK WITH THE OWNER AND THE UTILITY COMPANIES AS REQUIRED.
- VERIFY UTILITIES:** FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WHERE REQUIRED FOR CONNECTIONS OF NEW WORK PRIOR TO CONSTRUCTION AND FABRICATION. DOCUMENT ON THE AS-BUILT DRAWINGS; THE TYPE, SIZE, MATERIAL, LOCATION AND INVERT ELEVATIONS OF ALL UTILITIES ENCOUNTERED. COORDINATE ALL RELATED WORK WITH ALL PARTIES INVOLVED. CONTACT THE ENGINEER IN THE EVENT OF A CONFLICT.
- CONTACT B.U.D.:** THE EXISTING UTILITIES, EQUIPMENT, AND PIPING SHOWN ON THESE DRAWINGS ARE FROM RECORD DRAWINGS AND VISUAL INSPECTION OF THE SITE. THE NUMBER, LOCATION, SIZE, AND TYPE OF UTILITIES SHOWN ARE APPROXIMATE, AND THERE MAY BE OTHER UTILITIES NOT SHOWN. THE CONTRACTOR SHALL CONTACT ALL AFFECTED UTILITY COMPANIES AND KENTUCKY B.U.D. PRIOR TO BEGINNING EXCAVATION.
- PERMITS, TESTING, AND INSPECTIONS:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, TESTING AND SCHEDULES INSPECTIONS.
- REMOVAL OF EXISTING UTILITIES:** REMOVE UNUSED/ABANDONED EQUIPMENT, PIPING, ETC. AS NECESSARY TO INSTALL THE NEW WORK. CAP THE ENDS OF ALL LINES AND ABANDON IN PLACE.
- PATCHING AND REPAIRING:** PATCH AND REPAIR ALL AREAS WHERE WALLS, SLABS, PAVEMENT, CURBS, VEGETATION AND MATERIALS HAVE BEEN CUT, REMOVED, DISTURBED AND OR MODIFIED. MATCH EXISTING MATERIALS, RATINGS, AND FINISHES.
- CUTTING EXISTING MATERIALS:** CUTTING OF EXISTING PAVEMENT, SLABS, CONCRETE MASONRY, WALLS, ETC. SHALL BE SAW-CUT OR CORE DRILLED. NO "HAMMER DRILLING" WILL BE ALLOWED.
- ROOFING PENETRATIONS:** ALL ROOF PENETRATIONS SHALL BE IN COMPLIANCE WITH THE ROOFING MANUFACTURER'S GUIDELINES, THE AMERICAN ROOFING COUNCIL, AND MAINTAIN ALL WARRANTIES.
- WALL PENETRATIONS:** SEAL ALL PIPING PENETRATIONS THROUGH EXTERIOR WALLS WITH SILICONE SEALANT AS REQUIRED TO MAKE WATERWEATHER TIGHT.
- EXISTING WALL OPENINGS:** EXISTING OPENINGS IN WALLS THAT ARE NOT BEING RE-USED SHALL BE PATCHED/CLOSED BY THE GENERAL CONTRACTOR.
- NEW OPENINGS:** NEW OPENINGS FOR PLUMBING PENETRATIONS THROUGH FIRE/SMOKE RATED WALLS, ASSEMBLIES AND SLABS SHALL BE BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH THE GENERAL CONTRACTOR AND OTHER TRADES.
- FIRE AND SMOKE STOPPING:** ALL PLUMBING PENETRATIONS THROUGH FIRE/SMOKE RATED WALLS, ASSEMBLIES AND SLABS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH THE GENERAL CONTRACTOR AND OTHER TRADES.
- INSULATION:** INSULATE ALL DOMESTIC HOT/COLD WATER, RECIRCULATION PIPING, AND ROOF LEADERS.
- HAMMER ARRESTOR:** ALL HAMMER ARRESTORS SHOWN ON FLOOR PLANS, BUT NOT ON RISERS OR VICE VERSA SHALL BE PROVIDED AND INSTALLED AS SHOWN ON BOTH.
- VALVES:** ALL VALVES SHOWN ON FLOOR PLANS, BUT NOT ON RISERS OR VICE VERSA, SHALL BE PROVIDED AND INSTALLED AS IF SHOWN ON BOTH.
- ELECTRICAL PANELS AND EQUIPMENT:** PLUMBING PIPING, SYSTEMS, AND EQUIPMENT SHALL BE INSTALLED TO MAINTAIN THE DEDICATED WORKING/ELECTRICAL SPACE ABOVE, BELOW, AND IN FRONT OF ELECTRICAL PANELS AND EQUIPMENT PER THE REQUIREMENTS OF THE N.E.C. (NATIONAL ELECTRIC CODE).

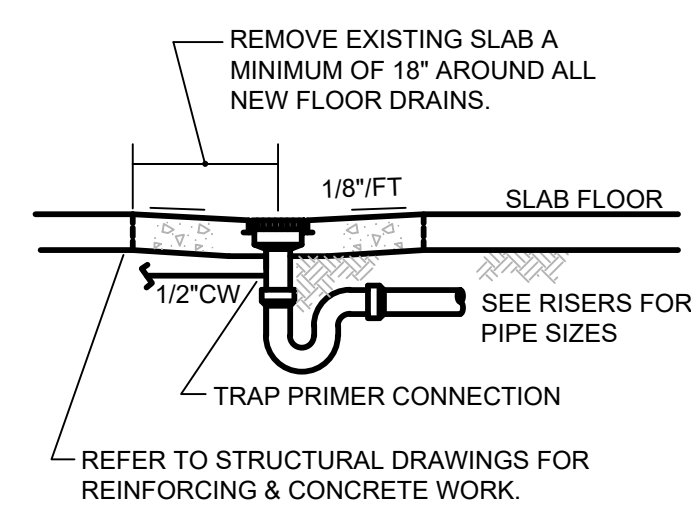


TRENCH DETAIL FOR EARTH COVER
NOT TO SCALE

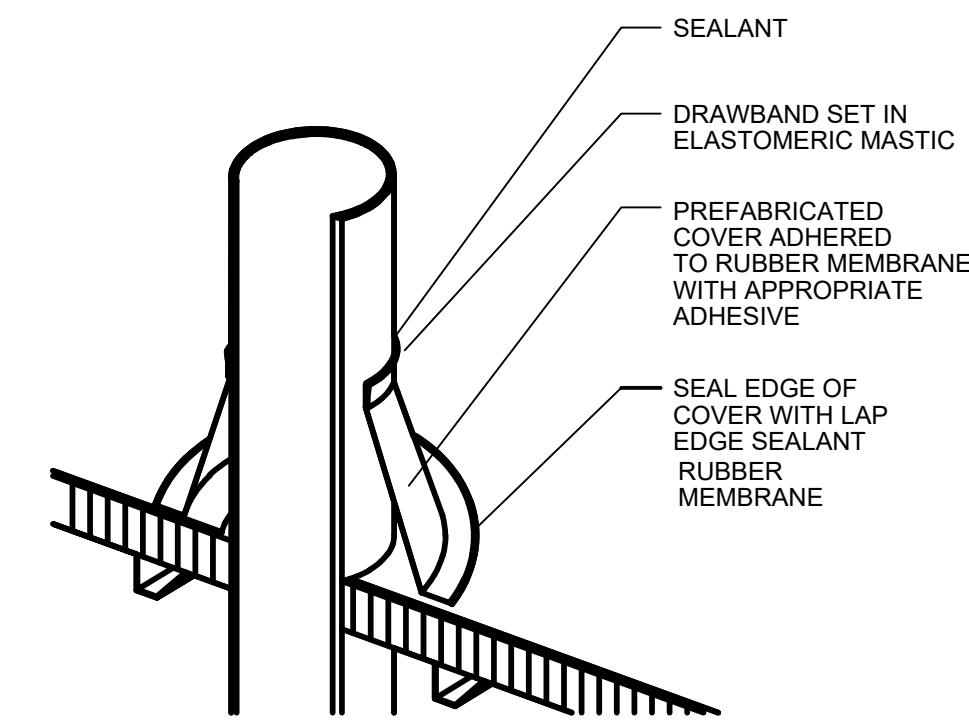


TRENCH DETAIL FOR NEW SLAB/PAVEMENT
NOT TO SCALE

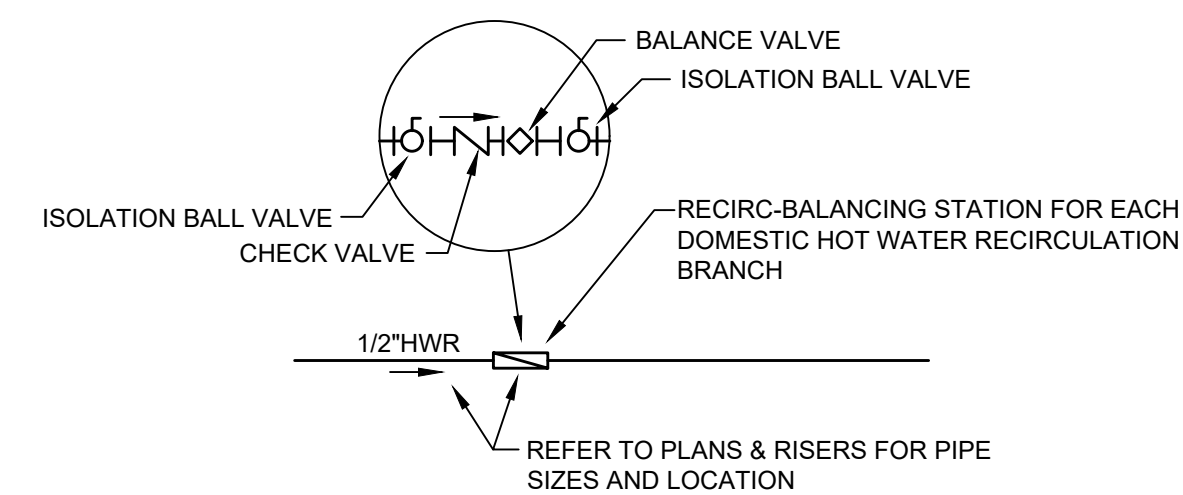
PLUMBING LINETYPES	
SYMBOL	DESCRIPTION
---1"CW---	UNDER SLAB COLD WATER PIPING WITH SIZE
---1"CW---	COLD WATER PIPING WITH SIZE
---1"HW---	HOT WATER PIPING WITH SIZE
---1"SS---	UNDER SLAB SANITARY PIPING WITH SIZE
---1"SS---	SANITARY PIPING WITH SIZE
---1"V---	UNDER SLAB VENT PIPING WITH SIZE
---1"V---	VENT PIPING WITH SIZE
---1"G---	UNDER SLAB GAS PIPING WITH SIZE (SLEEVED)
---1"G---	GAS PIPING WITH SIZE



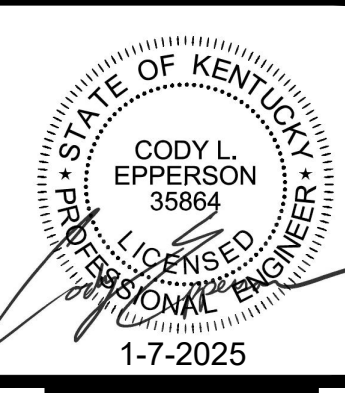
FLOOR DRAIN DETAIL - SLAB
NOT TO SCALE



TYPICAL VENT THROUGH ROOF DETAIL
NOT TO SCALE



RECIRCULATION BALANCING STATION (RBS) - DOMESTIC HOT WATER RECIRCULATION PIPING
NOT TO SCALE



GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

DATE	REVISION	BY

DESIGN DOCUMENTS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THE REVISIONS, AMENDMENTS, AND THE ORIGINAL DRAWINGS.
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PROJECT NO. 5071-03
DESIGNED BY CE
DRAWN BY CE
CHECKED BY CE
REVIEWED BY CE
DATE: JANUARY, 2025
SCALE: AS NOTED

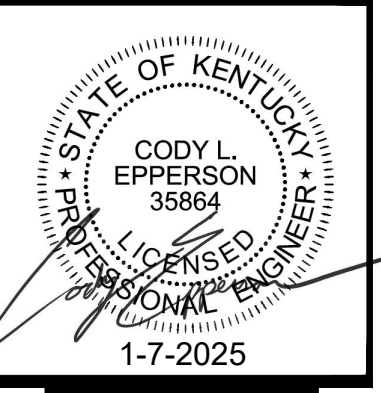
Engineers
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624 Wellington Way
Lexington, KY 40503
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SHEET INDEX	
SHEET NUMBER	SHEET TITLE
P0	PLUMBING LEGEND & NOTES
P1	SANITARY SEWER PLAN
P2	DOMESTIC WATER & GAS PLAN
P3	PLUMBING RISERS
P6	PLUMBING SCHEDULES
P7	PLUMBING SPECIFICATIONS

DRAWING NO.
P0



EPPERSON ENGINEERING
 112 W. UNIVERSITY DR.
 SOMERSET, KY 42503
 EPPERSONENG.COM
 1-606-802-7885



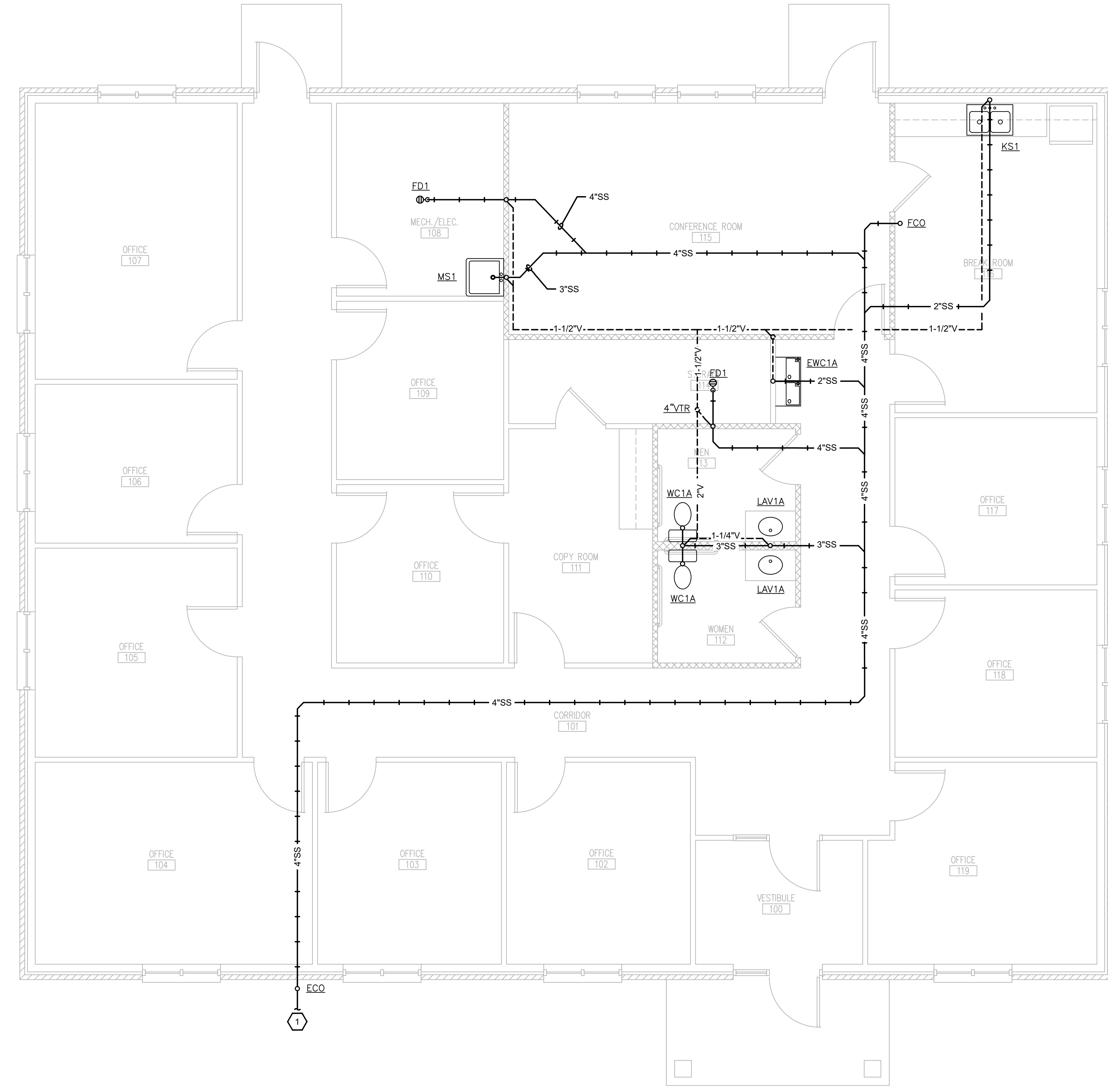
GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

GENERAL NOTES

- REFER TO SHEET P0.
- REFER TO SANITARY SEWER RISER ON SHEET P3 AND PLUMBING FIXTURE SCHEDULE ON SHEET P6 FOR PIPE SIZES NOT SHOWN.

SHEET NOTES ○

- REFER TO SITE PLAN ON SHEET SU1 FOR CONTINUATION.



1 FLOOR PLAN - SANITARY SEWER
 1/4" = 1'-0"

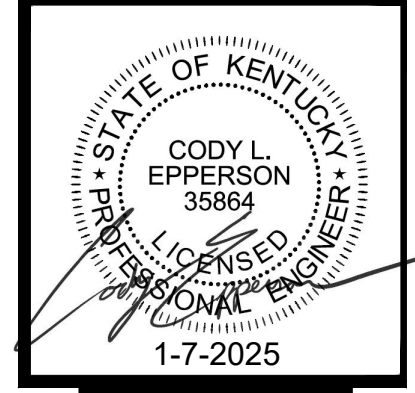
DATE	REVISION	BY

PROJECT NO. 5071-03	DESIGNED BY CE
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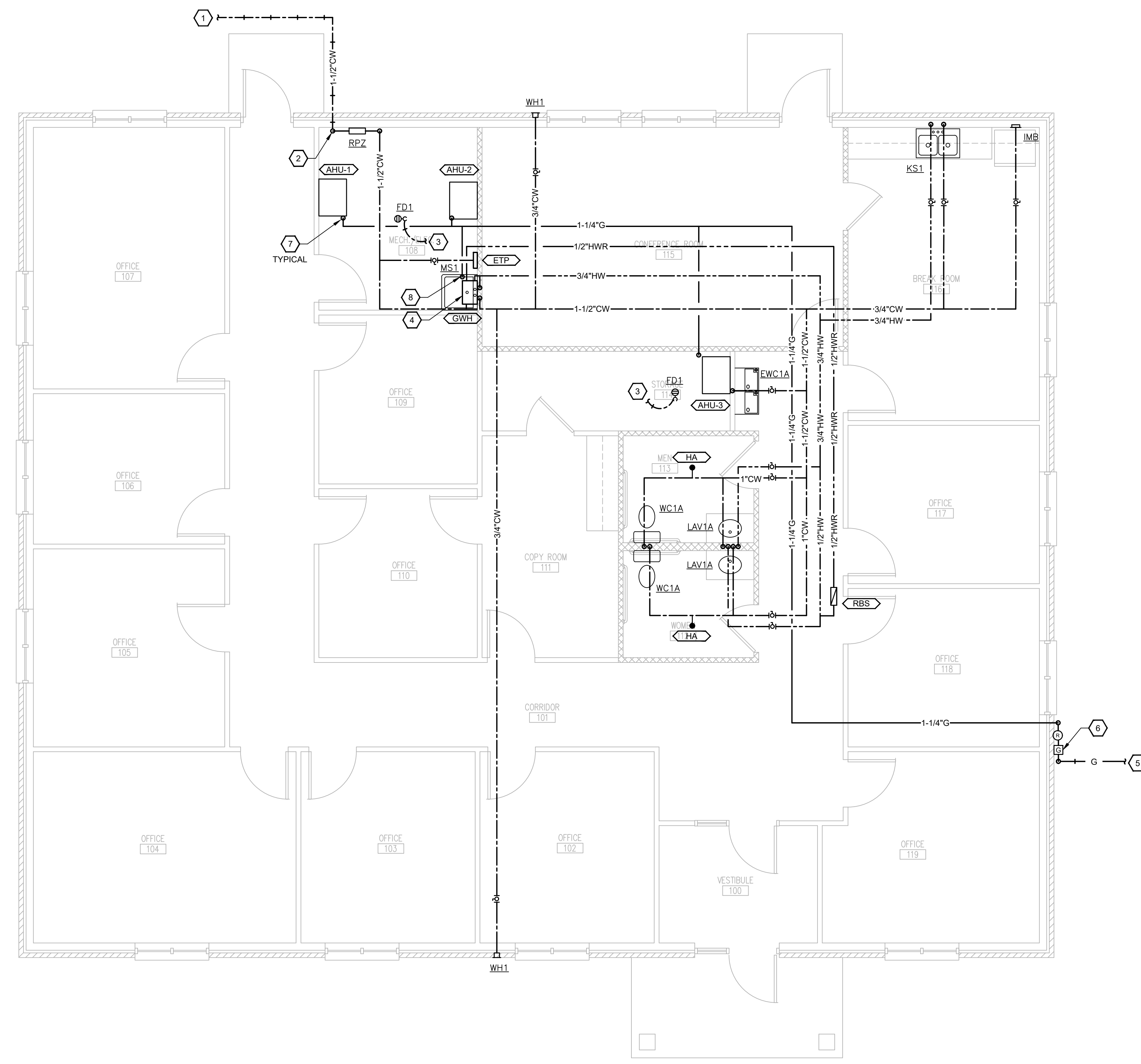
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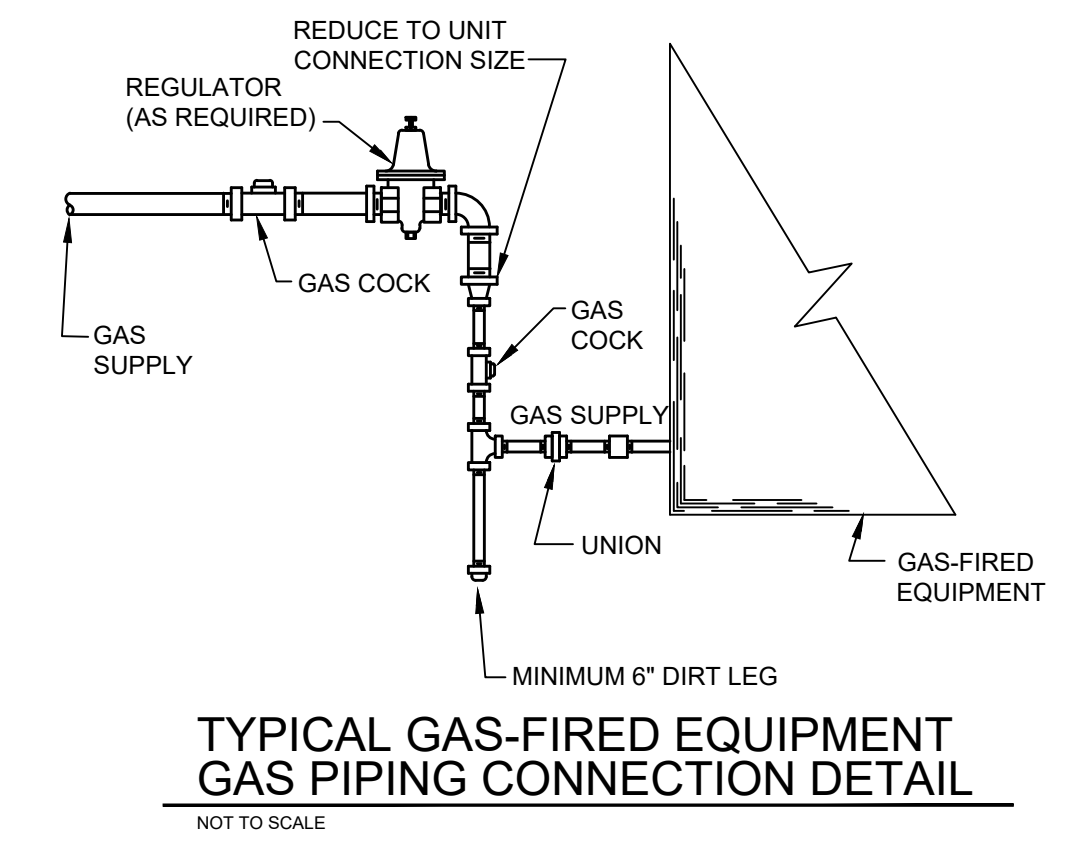


GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY



- GENERAL NOTES**
- REFER TO SHEET P0.
 - REFER TO DOMESTIC WATER RISER ON SHEET P3 AND PLUMBING FIXTURE SCHEDULE ON SHEET P6 FOR PIPE SIZES NOT SHOWN.
 - ALL HOT AND COLD WATER PIPING TO BE INSULATED WITH MINIMUM 1" INSULATION.
 - REFER TO TYPICAL GAS CONNECTION DETAIL ON THIS SHEET.

- SHEET NOTES**
- PROVIDE 1-1/2" DOMESTIC WATER SERVICE TO BUILDING. REFER TO PLUMBING SITE PLAN ON SHEET SU1 FOR ADDITIONAL INFORMATION.
 - STUB UP WATER SERVICE INSIDE BUILDING ENVELOPE AT APPROXIMATE LOCATION SHOWN WITH MAIN WATER SHUT OFF VALVE, PRV, ETC.. CONTRACTOR SHALL ADJUST PRV TO LOWEST POSSIBLE SETTINGS TO CORRECTLY OPERATE FARTHEST FIXTURE(S) IN BUILDING.
 - PROVIDE 1/2"CW FROM ELECTRONIC TRAP PRIMER 'ETP' LOCATED IN MECHANICAL ROOM.
 - PROVIDE TANKLESS GAS WATER HEATER WITH INTEGRAL RECIRCULATION PUMP ABOVE MOP SINK. BOTTOM OF WATER HEATER SHALL BE 4' AFF. REFER TO SCHEDULE ON SHEET P6 FOR ADDITIONAL INFORMATION.
 - PROVIDE NATURAL GAS SERVICE TO BUILDING. REFER TO PLUMBING SITE PLAN ON SHEET SU1 FOR ADDITIONAL INFORMATION.
 - PROVIDE GAS METER LOOP ON BUILDING PER UTILITY COMPANY REQUIREMENTS WITH ASSOCIATED LOCKING GAS COCKS, TEST PORTS AND PRESSURE REGULATOR(S). GAS LINE ENTERING BUILDING SHALL HAVE PRESSURE OF 7"-10" W.C. ROUTE GAS PIPING TO BUILDING ATTIC SPACE.
 - PROVIDE 1/2" GAS CONNECTION TO HVAC EQUIPMENT. REFER TO TYPICAL GAS CONNECTION DETAIL ON THIS SHEET. COORDINATE CONNECTION LOCATION/SIZE WITH HVAC EQUIPMENT INSTALLER. TYPICAL.
 - PROVIDE 3/4" GAS CONNECTION TO TANKLESS WATER HEATER. REFER TO TYPICAL GAS CONNECTION DETAIL ON THIS SHEET.



CONNECTED GAS LOAD SCHEDULE

EQUIPMENT	LOCATION	INPUT (KBTU) / EACH	QTY	TOTAL (KBTU)
GWH	MECH ROOM	160	1	160
AHU-1	MECH ROOM	60	1	60
AHU-2	MECH ROOM	60	1	60
AHU-3	STORAGE 114	60	1	60
TOTAL CONNECTED LOAD:				340

REMARKS:

- COORDINATE LOCATIONS OF ALL EQUIPMENT WITH INSTALLING CONTRACTOR.
- VERIFY MINIMUM AND MAXIMUM GAS PRESSURE FOR EACH PIECE OF EQUIPMENT TO ENSURE APPROPRIATE GAS PRESSURE IS DELIVERED TO EACH APPLIANCE

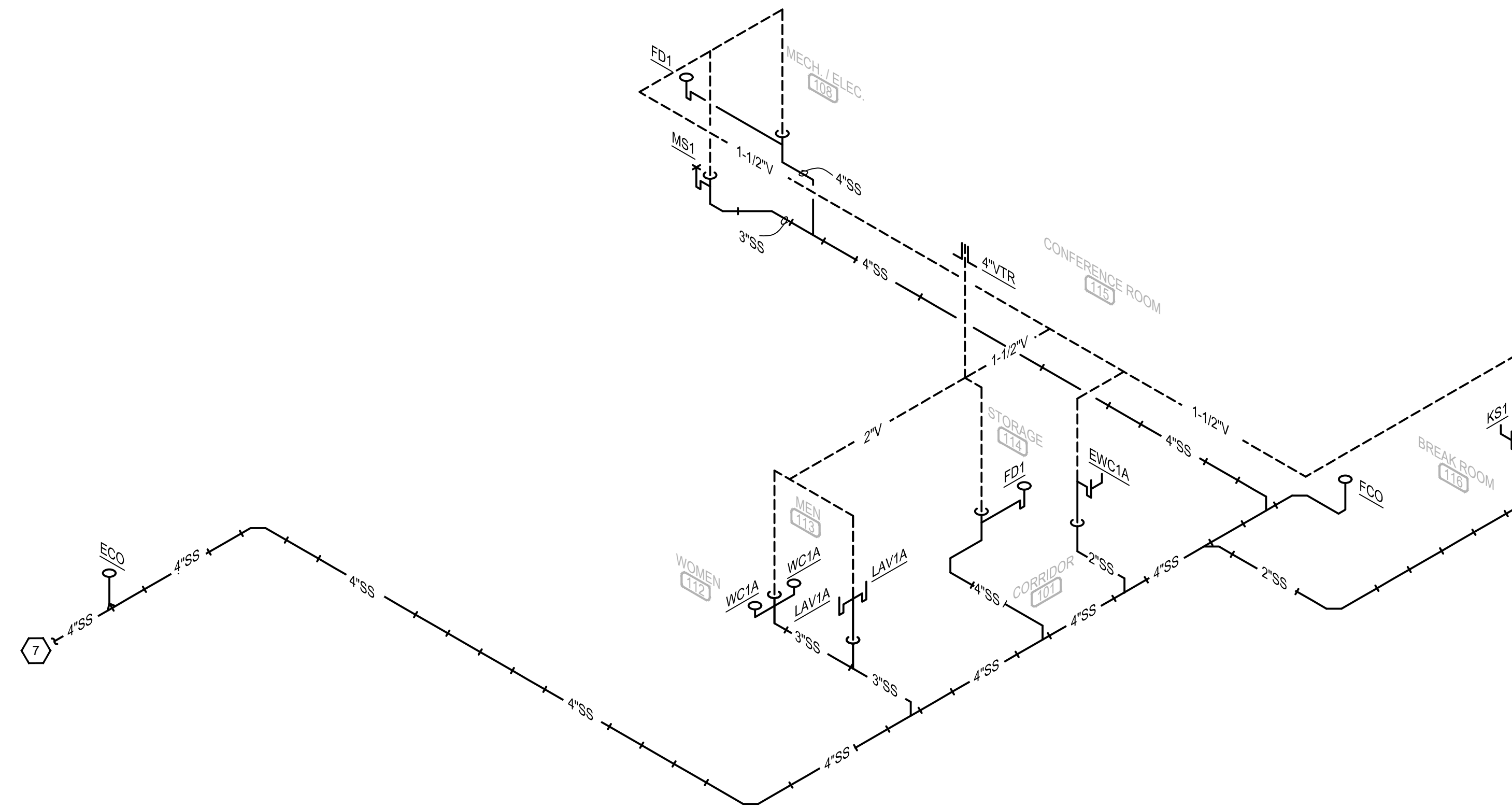
1 FLOOR PLAN - DOMESTIC WATER & GAS
1/4" = 1'-0"

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PROJECT NO. 5071-03	DESIGNED BY CE
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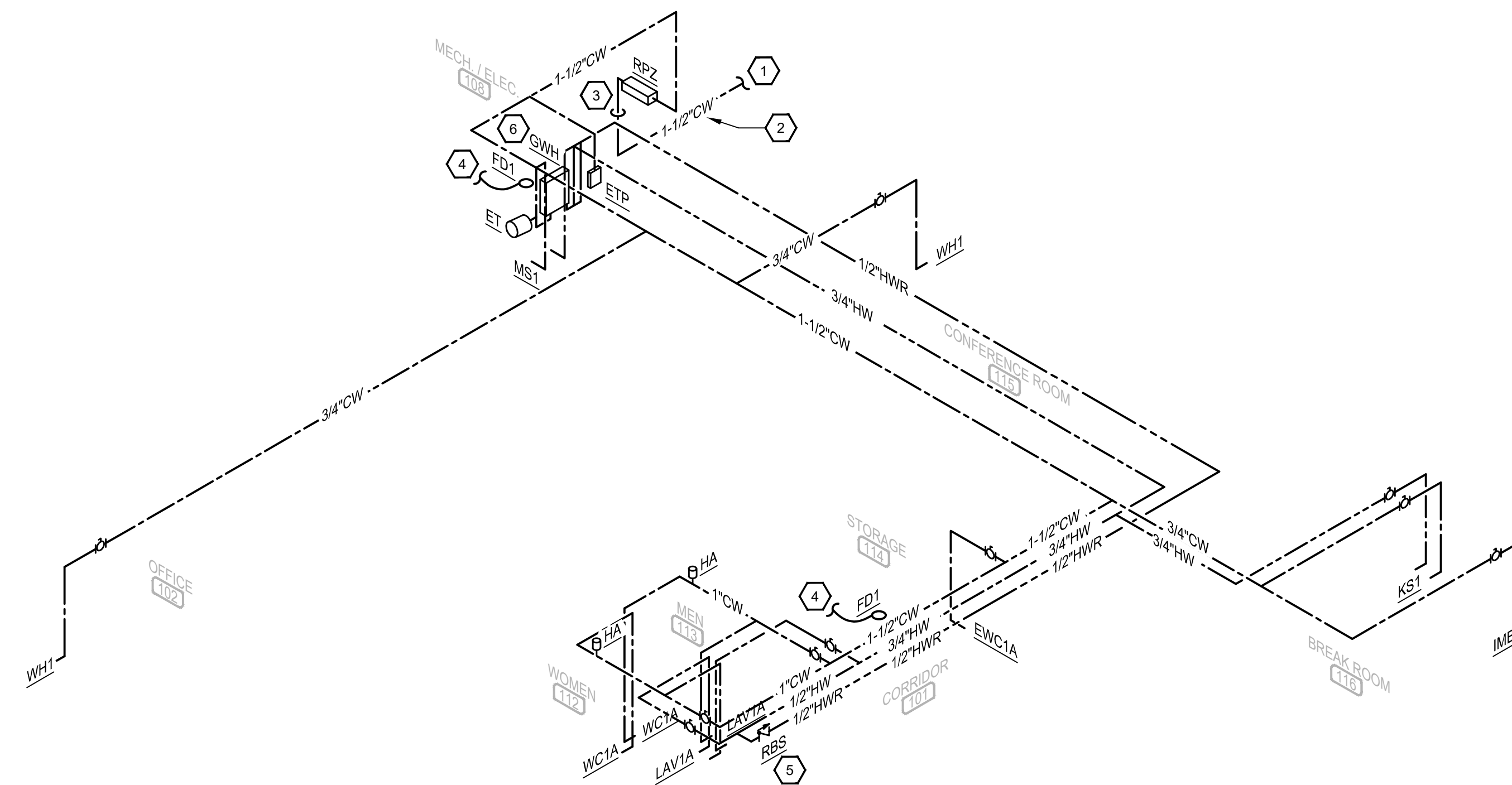
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DRAWING NO.
P2



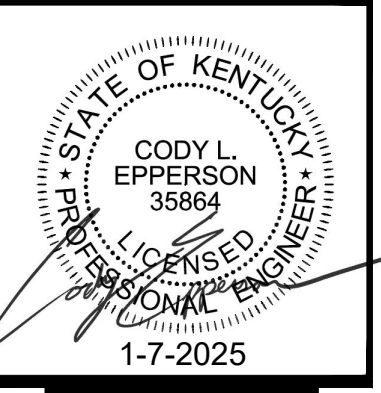
PLUMBING RISER - SANITARY SEWER

NOT TO SCALE



PLUMBING RISER - DOMESTIC WATER

NOT TO SCALE



GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

GENERAL NOTES

1. REFER TO SHEET P0.
2. REFER TO PLUMBING FIXTURE SCHEDULE ON SHEET P6 FOR ADDITIONAL INFORMATION.
3. ALL HOT AND COLD WATER PIPING TO BE INSULATED WITH MINIMUM 1" INSULATION.

SHEET NOTES

1. NEW WATER SERVICE. REFER TO PLUMBING SITE PLAN ON SHEET SU1 FOR ADDITIONAL INFORMATION.
2. PROVIDE 1-1/2" DOMESTIC WATER SERVICE. WATER SERVICE TO BE BURIED AT A MINIMUM 36" DEPTH.
3. STUB UP WATER SERVICE INSIDE BUILDING ENVELOPE AS APPROXIMATE LOCATION SHOWN WITH MAIN WATER SHUT OFF VALVE, PRV, ETC.. CONTRACTOR SHALL ADJUST PRV TO LOWEST POSSIBLE SETTINGS TO CORRECTLY OPERATE FARTHEST FIXTURE(S) IN BUILDING.
4. PROVIDE 1/2"CW FROM ELECTRONIC TRAP PRIMER (ETP) LOCATED IN MECH./ELEC. ROOM 108.
5. PROVIDE HOT WATER RECIRCULATION BALANCING VALVE. REFER TO DETAIL ON SHEET P0 FOR ADDITIONAL INFORMATION.
6. PROVIDE VALVE KIT ACCESSORY FOR SHUTOFF/SERVICE VALVES FOR TANKLESS WATER HEATER WITH RECIRCULATION CONNECTION.
7. SANITARY SEWER TO EXIT BUILDING AT THIS LOCATION. REFER TO PLUMBING SITE PLAN ON SHEET SU1.

DATE	REVISION	BY

DESIGN DOCUMENTS: The user shall be responsible for all errors and omissions, and the design shall remain the user's responsibility. The user shall be responsible for all errors and omissions, and the design shall remain the user's responsibility.

PROJECT NO. 5071-03
 DESIGNED BY CE
 DRAWN BY CE
 CHECKED BY CE
 REVIEWED BY CE
 DATE JANUARY 2025
 SCALE AS NOTED

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DRAWING NO.
P3

PLUMBING FIXTURE SCHEDULE											
MARK	MANUFACTURER	MODEL / TYPE	TRIM	CW	HW	TRAP	WASTE	VENT	MOUNTING TYPE / HEIGHT	REMARKS	OTHER ACCEPTABLE MANUFACTURERS
ECO	JOSAM	55000-Y HEAVY DUTY EXTERIOR CLEANOUT	COATED CAST IRON FINISH	-	-	-	4"	-	GROUND	COLOR/FINISH SHALL BE SELECTED BY ARCHITECT.	WADE, ZURN
EWC1A	ELKAY	LZSTL8WSSK BI-LEVEL ADA ELECTRIC WATER COOLER WITH BOTTLE FILLING STATION	TRIM: CARRIER	1/2"	-	1-1/4"	1-1/4"	1-1/4"	WALL HUNG; REFER TO ARCHITECT DRAWINGS FOR MOUNTING HEIGHT	8 GPH OF CHILLED WATER; STAINLESS STEEL FINISH; FLEXIBLE SAFETY BUBBLER; FRONT AND SIDE BUBBLER PUSHBAR ACTIVATION; TOUCHLESS BOTTLE FILLER SENSOR ACTIVATION; LED FILTER STATUS	ACORN, OASIS
FCO	JOSAM	55000 HEAVY DUTY ONE-WAY INTERIOR FLOOR CLEANOUT	COATED CAST IRON FINISH	-	-	-	4"	-	FLUSH IN FLOOR	COLOR/FINISH SHALL BE SELECTED BY ARCHITECT.	WADE, ZURN
FD1	JOSAM	30004-7A FLOOR DRAIN	7" SATIN FINISH, BRONZE STRAINER	1/2"	-	4"	4"	1-1/2"	FLUSH IN FLOOR	1/2" TRAP PRIMER CONNECTION	ZURN, J.R. SMITH
IMB	SIOUX CHIEF	896-G1000	QUARTER TURN BALL VALVE	1/2"	-	-	-	-	BOTTOM 48" AFF		GUY GRAY, OATEY
KS1	AMERICAN STANDARD	20DB.8332283S.075 DOUBLE BOWL SINK, OVERALL DIMENSIONS 33x22	FAUCET: AMERICAN STANDARD 7077300.075, 605XTMV1070 1/2" THERMOSTATIC MIXING VALVE TRIM: CHROME PLATED GRID DRAINS	1/2"	1/2"	1-1/2"	1-1/2"	1-1/4"	COUNTER SET/DROP-IN	COORDINATE INSTALLATION WITH CASEWORK	SINK: ELKAY; FAUCET: DELTA
LAV1A	AMERICAN STANDARD	0476228 ADA LAVATORY WITH TOUCHLESS FAUCET	FAUCET: AMERICAN STANDARD 6055205.002, 605XTMV1070 1/2" THERMOSTATIC MIXING VALVE TRIM: CHROME PLATED GRID DRAIN, SUPPLY STOPS, ADA COMPLIANT INSULATION	1/2"	1/2"	1-1/4"	1-1/4"	1-1/4"	COUNTER SET/DROP-IN	COORDINATE INSTALLATION WITH CASEWORK; PROVIDE BATTERIES FOR FAUCET AS REQUIRED	LAV: KOHLER, ZURN; FAUCET: KOHLER, SLOAN
MS1	FIAT	TSB100 TERRAZZO MOP SINK	FAUCET: 830AA SERVICE SINK FAUCET WITH VACUUM BREAKER TRIM: 832AA HOSE AND HANGER, 889CC MOP HANGER, MSG STAINLESS STEEL WALL GUARDS	3/4"	3/4"	3"	3"	1-1/2"	FLOOR SET	24" X 24" X 12", STAINLESS STEEL CAPS ON ALL SIDES, ACCESSIBLE CHECK VALVES ON SUPPLIES	MUSTEE, PROFLO
RPZ	ZURN	112-975XL2 REDUCED PRESSURE BACKFLOW PREVENTER	OS&Y ISOLATION VALVES, STRAINER, AND FULL SIZE AIR GAP	1-1/2"	-	-	-	-	18" AFF TO CENTERLINE	ALL COMPONENTS SHALL BE APPROVED FOR USE IN POTABLE WATER SYSTEMS	WATTS, WILKINS
WC1A	AMERICAN STANDARD	3043.001 ADA WATER CLOSET	FLUSH VALVE: AMERICAN STANDARD 6065.161.002 (LEFT/RIGHT HAND - SEE DRAWINGS) SEAT: AMERICAN STANDARD 5901.100	1"	-	INTEGRAL	3"	1-1/2"	FLOOR SET: RIM 16-1/2"	ADA COMPLIANT, ELONGATED BOWL, TOP SPUD, 1.6G DC SENSOR FLUSH VALVE (PROVIDE BATTERIES AS REQUIRED), HEAVY DUTY OPEN FRONT SEAT LESS COVER; PROVIDE REQUIRED GRAB BARS	WC: KOHLER, ZURN; FV: KOHLER SLOAN

TANKLESS GAS WATER HEATER SCHEDULE											
MARK	MANUFACTURER	MODEL	LOCATION	TYPE	GPM (MIN/MAX)	NATURAL GAS BTUH INPUT	INLET PRESSURE (IN. W.C.)	ELECTRICAL			NOTES
								VOLTAGE	MCA	MOCP	
GWH	RINNAI	CXP160i	INTERIOR	TANKLESS	0.13/9	160,000	3.5 - 10.5	120	4	15	ALL

NOTES:
1. INTEGRAL TEMPERATURE CONTROLLER; CONTRACTOR SHALL VERIFY PARAMETERS ARE CORRECT
2. INCLUDE CONDENSATE NEUTRALIZER; AFTER NEUTRALIZER, ROUTE CONDENSATE TO MOP SINK BELOW
3. PROVIDE AND INSTALL ISOLATION VALVES/KIT ACCESSORY (INCLUDE DEDICATED HOT WATER RETURN)
4. PROVIDE AND INSTALL CONCENTRIC VENT PER MANUFACTURER'S INSTRUCTIONS; COORDINATE WITH ROOFING CONTRACTOR
5. PROVIDE ALL NECESSARY CHECK VALVES AS REQUIRED.
6. PROVIDE EXPANSION TANK ON COLD WATER INLET PER LOCAL CODE.
7. PROVIDE WITH INTEGRAL RECIRCULATION PUMP

MANUFACTURER WARRANTY: 8 YEAR HEAT EXCHANGER, 5 YEAR PART
OTHER ACCEPTABLE MANUFACTURERS: AO SMITH, RHEEM

TRAP PRIMER SCHEDULE						
MARK	MANUFACTURER	MODEL	V / Ø	LOCATION	NUMBER OF PORTS	NOTES
ETP	PRECISION PLUMBING PRODUCTS	MPB-500	120 / 1	MECH ROOM	2	1

NOTES:
1. INSTALL PER MANUFACTURER'S INSTRUCTION

OTHER ACCEPTABLE MANUFACTURERS: SIOUX CHIEF, ZURN

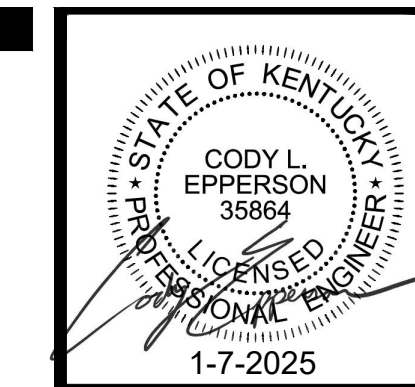
WATER HAMMER ARRESTOR SCHEDULE						
MARK	MANUFACTURER	MODEL	LOCATION	PIPE SIZE (IN)	FIXTURE UNITS	NOTES
HA	ZURN SHOKTROL	100	SEE PLANS	3/4"	1-11	ALL

NOTES:
1. SIZING PER PLUMBING DRAINAGE INSTITUTE (PDI) STANDARD PDI-WH201, LATEST EDITION
2. ASSE 1010 CERTIFIED
3. LEAD FREE

OTHER ACCEPTABLE MANUFACTURERS: SIOUX CHIEF, JOSAM

RECIRCULATION BALANCING STATION					
MARK	MANUFACTURER	MODEL	LOCATION	PIPE SIZE (IN)	NOTES
RBS	CIRCUIT SOLVER	CSUA-1/2-110-CV1	SEE PLANS	1/2"	ALL

NOTES:
1. INTEGRAL CHECK VALVE
2. INTEGRAL ISOLATION BALL VALVES
3. INTEGRAL 0.2 GPM BYPASS
4. LEAD FREE



GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

PROJECT NO.	DESIGNED BY	DRAWN BY	CHECKED BY	REVIEWED BY	DATE	SCALE
5071-03	CE	CE	CE	CE	JANUARY 2025	AS NOTED

DATE: _____ BY: _____

REVISION: _____

DESIGN DOCUMENTS: The user shall be responsible and liable for problems which arise from failure to follow the provisions, instructions, and the design intent of any drawing.
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DRAWING NO.
P6

PLUMBING SPECIFICATIONS

GENERAL REQUIREMENTS

SCOPE:

FURNISH ALL LABOR, MATERIALS, EQUIPMENT, APPLIANCES AND NECESSARY INCIDENTALS FOR THE COMPLETE INSTALLATION OF ALL PLUMBING SHOWN ON THE DRAWINGS AND AS SPECIFIED.

A. WORK SPECIFIED IN THIS SECTION

- SANITARY DRAIN, WASTE AND VENT SYSTEMS.
- DOMESTIC HOT AND COLD WATER SYSTEMS.
- DOMESTIC WATER HEATERS.
- FURNISH AND SET ALL SLEEVED FOR PIPE PASSING THROUGH WALLS AND FLOORS.
- PIPE COVERING, INSULATION AND WRAPPING.
- EXCAVATION AND BACKFILL.
- ALL PLUMBING FIXTURES, WATER HEATERS, VALVES, AND OTHER MISCELLANEOUS ITEMS OR EQUIPMENT REQUIRED FOR A COMPLETE INSTALLATION.
- PROVIDE COLLARS AT FIRE RATED PENETRATIONS.

B. PROVISIONS FOR THIS SECTION APPLY TO ALL WORK SPECIFIED IN ALL SECTIONS UNDER DIVISION 22. ALL ITEMS INDICATED ON SITE, ARCHITECTURAL, MECHANICAL, OR PLUMBING DRAWINGS ARE TO BE PROVIDED COMPLETE FROM POINT OF CONNECTION TO FINISHED FIXTURE IN CONFORMANCE WITH ALL GOVERNING AUTHORITY REQUIREMENTS. NOTHING IN THESE DRAWINGS OR SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK IN VIOLATION OF GOVERNING CODES.

C. IN ADDITION, WORK IN DIVISION 22 IS GOVERNED BY THE PROVISIONS OF THE BIDDING REQUIREMENTS, CONTRACT FORMS, GENERAL CONDITIONS AND ALL SECTIONS UNDER DIVISION 1, GENERAL REQUIREMENTS.

- EXAMINATION OF PREMISES: VISIT THE SITE, VERIFY ALL MEASUREMENTS AND JOB CONDITIONS, AND PAY ALL COSTS NECESSARY TO PERFORM THE WORK. COORDINATE DIVISION OF FEE RESPONSIBILITIES WITH GENERAL CONTRACTOR.
- THE PLUMBING CONTRACTOR/COMPANY SHALL BE LICENSED AND HOLD A CURRENT CONTRACTING LICENSE AS A PLUMBING CONTRACTOR THAT HAS BEEN VALID FOR A MINIMUM OF TWO YEARS IN THE STATE WHERE THE PROJECT IS LOCATED.
- THE PLUMBING CONTRACTOR/COMPANY SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE INSTALLING COMMERCIAL PLUMBING SYSTEMS SIMILAR TO THOSE DESCRIBED IN THESE SPECIFICATIONS AND PROVIDE A LIST OF PREVIOUS PROJECTS, INCLUDING NAME OF PROJECT AND CONTACT PERSON NAMES AND PHONE NUMBERS.
- THE PLUMBING CONTRACTOR/COMPANY SHALL BE ABLE TO BOND WORK HE IS BIDDING TO PERFORM AND SHALL PROVIDE WRITTEN STATEMENT FROM THE BONDING AGENCY PROPOSED TO BE USED FOR THIS PROJECT A SEPARATE DOCUMENT IN ADDITION TO THE PLUMBING BID SUBMITTED IF REQUIRED BY THE GENERAL CONTRACTOR. THE BONDING AGENCY SHALL BE ONE HAVING A BEST'S INSURANCE RATING OF A OR A+.

D. CONTRACTOR IS RESPONSIBLE FOR RESULTS CAUSED BY DEVIATING FROM THE PLANS.

REGULATIONS, PERMITS, FEES, CHARGES, INSPECTIONS:

A. REGULATIONS: COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS. ALL MATERIALS AND WORK MUST COMPLY WITH LOCAL CONSTRUCTION, MECHANICAL, PLUMBING, ELECTRICAL AND FIRE CODES. AS A MINIMUM, COMPLY WITH THE FOLLOWING: IMC, IPC, IECC, NEC, NFPA CODES AND ALL LOCAL STATE AND CITY CODES.

B. IN ADDITION TO THE REQUIREMENTS OF ALL GOVERNING CODES, ORDINANCES AND AGENCIES, CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS:

- 2018 KENTUCKY BUILDING CODE (BASED ON 2015 INTERNATIONAL BUILDING CODE)
- 2015 INTERNATIONAL BUILDING CODE
- 2015 INTERNATIONAL MECHANICAL CODE
- 2012 INTERNATIONAL ENERGY CONSERVATION CODE OR 2010 ASHRAE 90.1 REFER TO ARCHITECTURAL COVER SHEET.
- KENTUCKY STATE PLUMBING LAW, REGULATIONS & CODES (815 KAR CHAPTER 20)
- KENTUCKY STATE BOILER REGULATION (KRS 236, 815 KAR 15)

C. CURRENT CODES ADOPTED BY THE RESPECTIVE JURISDICTION WILL SUPERSEDE THE LISTED CODES.

D. FEES AND PERMITS: PAY ALL CONNECTION, INSTALLATION, USE, DEVELOPMENT, ETC., FEES AND/OR CHARGES. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. COORDINATE DIVISION OF FEE RESPONSIBILITIES WITH THE GENERAL CONTRACTOR.

E. INSPECTIONS: ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES. PRIOR TO FINAL APPROVAL, FURNISH THE ARCHITECT WITH CERTIFICATES OF INSPECTIONS AND APPROVALS BY THE LOCAL AUTHORITIES IN ACCORDANCE WITH DIVISION 1.

DRAWINGS AND SPECIFICATIONS:

A. REFER TO DIVISION 1 FOR INFORMATION ON SUBMITTALS AND SHOP DRAWINGS.

B. IF A CONFLICT EXISTS ON OR WITHIN THE DRAWINGS AND SPECIFICATIONS, ASSUME THE MOST EXPENSIVE FOR BIDDING PURPOSES, AND PROMPTLY NOTIFY THE ARCHITECT AND ENGINEER.

RECORD DRAWINGS: PROVIDE RECORD DRAWINGS FOR ALL WORK UNDER SECTIONS IN DIVISION 22. SEE DIVISION 1 FOR DETAILED REQUIREMENTS COVERING PREPARATION OF RECORD DRAWINGS.

WORK AND MATERIALS: UNLESS OTHERWISE SPECIFIED, ALL MATERIALS MUST BE NEW AND OF THE QUALITY SPECIFIED. THE WORKMANSHIP SHALL BE OF A QUALITY THAT IS ACCEPTABLE TO THE ARCHITECT AND IS EQUAL TO THE STANDARDS OF THE TRADES. CONTRACTOR MUST STAFF THE PROJECT WITH SUFFICIENT SKILLED WORKMEN, INCLUDING A FULLY QUALIFIED CONSTRUCTION SUPERINTENDENT, TOO COMPLETE THE WORK IN THE TIME ALLOTTED. THE SUPERINTENDENT MUST BE QUALIFIED TO SUPERVISE ALL OF THE WORK IN HIS WORK CATEGORY.

APPROVAL OF MATERIALS AND EQUIPMENT: REFER TO DIVISION 1 FOR DESCRIPTION OF MATERIAL AND EQUIPMENT FOR PRIOR APPROVALS AND SUBSTITUTIONS. MUST BE RECEIVED BY ENGINEER 10 DAYS PRIOR TO DUE DATE/BID OPENING.

MAINTENANCE MANUAL:

- PRIOR TO COMPLETION OF THE PROJECT, COMPILER A COMPLETE EQUIPMENT AND MAINTENANCE MANUAL FOR ALL EQUIPMENT SUPPLIED UNDER SECTIONS OF DIVISION 22 AS DESCRIBED IN DIVISION 1.
- MANUALS SHALL BE BOUND IN A THREE-RING BINDER. A PRELIMINARY SUBMITTAL OF THE MANUAL SHALL BE MADE TO THE ARCHITECT 90 DAYS AFTER RECEIVING APPROVED SUBMITTALS. FINAL SUBMITTAL OF THE MANUAL SHALL BE MADE FOUR WEEKS PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT.

EQUIPMENT PURCHASES: ARRANGE FOR PURCHASES AND DELIVERY OF ALL MATERIALS AND EQUIPMENT WITHIN 15 DAYS AFTER APPROVAL OF SUBMITTALS. COORDINATE WITH GENERAL CONTRACTOR.

COOPERATIVE WORK:

- CORRECT WITHOUT CHARGE ANY WORK REQUIRING ALTERATION DUE TO LACK OF PROPER SUPERVISION OR FAILURE TO MAKE PROPER PROVISIONS IN TIME. CORRECT WITHOUT CHARGE ANY DAMAGE TO ADJACENT WORK CAUSED BY THE ALTERATION. SEE DIVISION 1 FOR ADDITIONAL REQUIREMENTS.
- COOPERATIVE WORK INCLUDES:
 - GENERAL SUPERVISION AND RESPONSIBILITY FOR PROPER LOCATION, ROUGH-IN AND SIZE WORK RELATED TO DIVISION 22 BUT PROVIDED UNDER OTHER DIVISIONS OF THESE SPECIFICATIONS.
 - INSTALLATION OF SLEEVES, INSERTS AND ANCHOR BOLTS FOR WORK UNDER SECTIONS IN DIVISION 22.
 - ELECTRICAL WORK AS SPECIFIED HEREIN. REFER TO DIVISION 26 FOR REQUIREMENTS.
 - MECHANICAL WORK AS SPECIFIED HEREIN. REFER TO DIVISION 23 FOR REQUIREMENTS.

CONSTRUCTION FACILITIES:

- GENERAL: UNDER THIS DIVISION OF THE SPECIFICATIONS EXECUTE ALL WORK IN A MANNER TO PROVIDE A SAFE AND LAWFUL INGRESS AND EGRESS TO THE OWNER'S ESTABLISHMENT AND SUCH FACILITIES SHALL BE KEPT CLEAR OF MATERIAL OR EQUIPMENT AS DIRECTED BY THE ARCHITECT. REFER TO DIVISION 1 FOR ADDITIONAL REQUIREMENTS.
- FURNISH AND MAINTAIN FROM THE BEGINNING TO THE COMPLETION OF AL WORK ALL LAWFUL AND NECESSARY GUARDS, RAILINGS, FENCES, CANOPIES, LIGHTS, AND WARNING SIGNS. TAKE ALL NECESSARY PRECAUTIONS REQUIRED BY CITY AND STATE LAWS TO AVOID INJURY OR DAMAGE TO ANY AND ALL PERSONS AND PROPERTY.

GUARANTEE: GUARANTEE ALL MATERIAL, EQUIPMENT, AND WORKMANSHIP FOR ALL SECTIONS UNDER DIVISION 22. THE CONTRACTOR SHALL BE RESPONSIBLE TO BE FREE FROM DEFECTS OF MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE AS OUTLINED IN DIVISION 1. REPLACE WITHOUT CHARGE ANY MATERIAL OR EQUIPMENT PROVING DEFECTIVE DURING THIS PERIOD. THE GUARANTEE

SHALL INCLUDE PERFORMANCE OF THE EQUIPMENT UNDER ALL CONDITIONS OF LOAD, INSTALLING ANY ADDITIONAL ITEMS OF CONTROL AND/OR PROTECTIVE DEVICES AS REQUIRED.

ELECTRICAL WORK:

A. ELECTRICAL WIRING, INCLUDING POWER WIRING AND CONTROL WIRING (EXCEPT AS OTHERWISE SPECIFIED UNDER AUTOMATIC TEMPERATURE CONTROLS), ALL RACEWAYS, WIRING, OUTLET AND JUNCTION BOXES, AND LABOR FOR INSTALLATION OF THE WIRING AND EQUIPMENT SHALL BE INCLUDED IN ELECTRICAL DIVISION 26 OF THE SPECIFICATIONS.

PRODUCT HANDLING:

- PROTECTION: TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE MATERIAL OF THIS SECTION BEFORE, DURING, AND AFTER INSTALLATION.
- REPLACEMENTS: IN THE EVENT OF DAMAGE, IMMEDIATELY REPAIR ALL DAMAGED AND DEFECTIVE WORK TO THE APPROVAL OF THE ENGINEER, AT NOT ADDITIONAL COST TO THE OWNER.

SUBMITTALS:

- MANUFACTURER'S LITERATURE: WITHIN 35 DAYS AFTER AWARD OF CONTRACT AND BEFORE ANY MATERIALS OF THIS SECTION ARE DELIVERED TO THE JOB SITE. SUBMIT COMPLETE BROCHURES OF ALL MATERIALS AND EQUIPMENT, PER DIVISION 1 OF THE SPECIFICATIONS.
- OTHER SUBMITTALS:
 - SHOP DRAWINGS: HANGERS AND SUPPORTS, PIPING INSULATION, VALVES, PUMPS, WATER HEATER, AND ALL PLUMBING FIXTURES.
- SETS IN BOUND BOOKLET FORM OF WRITTEN OPERATING AND MAINTENANCE INSTRUCTIONS AND BROCHURES FOR EQUIPMENT SPECIFIED IN THIS SECTION. FULLY INSTRUCT OWNERS OPERATING PERSONNEL.
- RECORD DRAWINGS: KEEP AN ACCURATE DIMENSIONED RECORD OF AS-BUILT LOCATIONS AND ELEVATIONS, AS REFERRED TO APPROVED BASE DATUM, OF BURIED CONCEALED.
- OPERATION AND MAINTENANCE INSTRUCTIONS: DELIVER TO ARCHITECT, SHOW COMPLETE LISTS, MANHOLES, CLEANOUTS, VALVES, PLUGGED ENDS, AND OF WORK WHICH IS INSTALLED DIFFERENT FROM SHOWN IN THE PLANS.

MISCELLANEOUS:

- EXAMINATION OF THE SITE: EXERCISE CARE IN EXAMINING THE SITE AND COORDINATE ALL WORK INDICATED ON THE DRAWINGS WITH EXISTING CONDITIONS. REPORT TO ARCHITECT IN WRITING CONDITIONS THAT WILL PREVENT PROPER PROVISIONS OF THIS WORK. VERIFY DEPTH AND LOCATIONS OF ALL SERVICE LINES WITH SERVICING COMPANIES HAVING JURISDICTION BEFORE EXCAVATING, BY SUBMISSION OF THE BID. THE CONTRACTOR WARRANTS THAT HE HAS FAMILIARIZED HIMSELF WITH THE EXISTING CONDITIONS AND WILL PERFORM ALL WORK AS REQUIRED FOR HOOKUP AND AS REQUIRED BY THE CONTRACT DOCUMENTS AT NO ADDITIONAL COST.
- PERMITS AND FEES: ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND FEE REQUIRED BY ALL GOVERNING AGENCIES.
- SERVICE CONNECTIONS: MAKE ALL NECESSARY ARRANGEMENTS WITH APPLICABLE UTILITY COMPANY FOR CONNECTION TO SERVICE LINES. PAY ALL FEES ASSOCIATED WITH WORK INCLUDING METERS, HOOKUP CHARGE AND UTILITY ASSESSMENTS FEES.
- DRAWINGS: COORDINATE ALL SPACE REQUIREMENTS WITH OTHER TRADES. DRAWINGS INDICATE DESIRED LOCATION AND ARRANGEMENT OF PIPING, EQUIPMENT, AND OTHER ITEMS AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE.

PRODUCTS

GENERAL

- PIPE SLEEVES AND WRAPPING: PROVIDE POLISHED CHROMIUM PLATED AND BRASS SET SCREW FLANGES WHERE PLUMBING PIPING PASSES THROUGH WALLS, FLOORS, CEILINGS, AND PARTITIONS IN FINISHED PORTIONS OF BUILDING INCLUDING FLANGES ON PIPES AT FIXTURES. ALL SLEEVES IN CONCRETE AND EXTERIOR WALLS SHALL BE 20 GA. GALVANIZED IRON ONE INCH O.D. LARGER THAN THE PIPE, CAULKED IF BELOW GRADE IN A MOISTURE PROOF MANNER. ALL PIPES PENETRATING THROUGH FIRE WALLS AND FLOORS SHALL BE PROPERLY SEALED WITH DOW CORNING 3-6548 SILICONE RTV FOAM OR EQUAL. INSTALL PER MANUFACTURER'S DIRECTIONS.
- PIPE IDENTIFICATION:
 - PIPING IDENTIFICATION PER ANSI AND OSHA STANDARDS: EACH INDIVIDUAL PIPELINE SHALL BE MARKED FOR QUICK AND EASY IDENTIFICATION AS TO CONTENTS AND CHARACTER OF MATERIAL CARRIED IN THE PIPES BY SET ON SMA OR STR MARKER.
 - MARKERS SHALL BE INSTALLED AND SPACED AT NOT MORE THAN 20 FOOT INTERVALS AND SO LOCATED THAT MARKERS SHALL BE VISIBLE WHERE PIPING IS EXPOSED.

- ONE MARKER SHALL BE INSTALLED AT EACH SIDE OF VALVES, SPECIAL FITTINGS AND AT BRANCH TAKE-OFFS. IN FURRED SPACES INSTALL ONE BAND 2 FEET ABOVE FLOOR AND 19 INCHES BELOW CEILING LINE.
- MATERIALS: MATERIALS WHEN NOT OTHERWISE DEFINITELY SPECIFIED SHALL CONFORM TO THE APPLICABLE ASTM, ASME, AGA AND ASA STANDARDS.
- ALL GAS FIRED EQUIPMENT SHALL INCLUDE A LABEL INDICATING THAT THE APPLIANCE HAS BEEN ADJUSTED, MODIFIED OR RE-CALIBRATED FOR THE ALTITUDE WHERE IN THE PROJECT IS TO BE LOCATED (GREEN STICKER). THE APPLIANCE SHALL ALSO INCLUDE A COMPLIANCE STATEMENT INDICATING THAT THE APPLIANCE HAS BEEN ADJUSTED, MODIFIED OR RE-CALIBRATED FOR THE PROPER OPERATION AT THE ALTITUDE OF THE PROJECT AND SHALL BE LISTED CAPABLE FOR USE WITH NATURAL GAS OR PROPANE GAS IF PROPANE IS LISTED ON THE DRAWINGS.

PIPE AND FITTING SCHEDULE:

PIPE AND FITTINGS:

- NO PIPE OF FOREIGN MANUFACTURER WILL BE ACCEPTABLE ON PROJECTS REQUIRED TO MEET THE BUY AMERICA ACT.
- ALL PIPING, FITTINGS, FLANGES, ETC. SHALL BE FREE FROM DEFECTS AND SHALL COMPLY WITH THE APPROPRIATE ASTM SPECIFICATIONS.
- BLACK STEEL PIPE: ASTM A53 ERW GRADE B, STANDARD WEIGHT (SCHEDULE 40) OR EXTRA STRONG (SCHEDULE 80) AS SPECIFIED.
- COPPER TUBING: ASTM B88, TYPE L OR K AS SPECIFIED.
- PVC PIPE AND FITTINGS: ASTM D1785 CLASS 150 WITH ATSM D 2564 SOLVENT CEMENT JOINT UNLESS OTHERWISE SPECIFIED. SCHEDULE 40. PVC PLASTIC PIPE FITTING: ASTM F 628, SCHEDULE 40.
- PEX-AL-HDPE DISTRIBUTION SYSTEM: ASTM F 1986 TUBING AND METAL-INSERT TYPE WITH COPPER OR STAINLESS-STEEL CRIMP RING AND MATCHING PEX-AL-HDPE TUBE DIMENSIONS. MANIFOLD: MULTIPLE-OUTLET, PLASTIC OR CORROSION-RESISTED-METAL ASSEMBLY COMPLYING WITH ASTM F 877: WITH PLASTIC OR CORROSION-RESISTANT-METAL VALVE FOR EACH OUTLET.
- PP PIPING AND FITTINGS: ASTM F 2389; CSA B137.11.
- ACRYLONITRILE BUTADIENE STYRENE (ABS) PLASTIC PIPE: ASTM D 2661, SCHEDULE 40, ASTM F 628 SCHEDULE 40. ABS PLASTIC PIPE FITTINGS: ASTM F 409, ACCESSIBLE AND REPLACEABLE, SOLVENT CEMENT AND THREADED TYPES, DRAIN PATTERN.

- CAST IRON SOIL PIPE AND FITTINGS: ASTM A74.
- WELDED BLACK STEEL FITTINGS: ASTM A234 GRADE B, 150-POUND FOR STANDARD WEIGHT PIPING, 300-POUND FOR EXTRA STRONG PIPING, OR OF WEIGHT OR SCHEDULE OF MATCHING PIPING.
- THREADED MALLEABLE IRON FITTINGS: ANSI B16.3, 150-POUND FOR STANDARD WEIGHT PIPING, 300-POUND FOR EXTRA STRONG PIPING, OR OF WEIGHT OR SCHEDULE OF MATCHING PIPING EITHER BLACK OR GALVANIZED TO MATCH PIPING.
- WELDED FLANGES: ASTM A181 GRADE B, 150-POUND FOR STANDARD WEIGHT, 300-POUND FOR EXTRA STRONG PIPING OR OF EQUAL WEIGHT OF CONNECTED EQUIPMENT.
- COPPER FITTINGS: WROUGHT COPPER, ANSI SPECIFICATION B16.22.
- BALL VALVES DOMESTIC WATER: BRONZE, FULLPORT, CLASS 150, THREADED. NIBCO T-585 OR EQUAL.
- PARTITION STOP VALVES: T&S B-0415, LOOSE KEY TYPE WITH WALL FLANGE.

- BALANCING COCKS 2 INCHES AND SMALLER SHALL BE ARMSTRONG, NIBCO, TACO OR WATTS.
- SOLDER: JOINTS IN COPPER PIPING ABOVE GRADE SHALL BE STAY SAFE 50 SOLDER OR 95-5 SOLDER SHALL BE SILFOS OR SILVERLOW FOR ALL REFRIGERANT PIPING JOINTS.
- CONDENSATE DRAINS SHALL BE TYPE L HARD COPPER TUBING WITH WROUGHT-COPPER FITTINGS (CAN'T BE USED FOR CONDENSING GAS-FIRED APPLICATIONS) OR PVC PIPE AND FITTINGS WHERE ALLOWED. A P-TRAP SHALL BE PROVIDED AT DRAINS.
- DOMESTIC HOT WATER, HOT WATER RETURN, AND COLD WATER PIPING SHALL BE TYPE L OR K HARD TEMPERED COPPER PIPE WITH WROUGHT-COPPER FITTINGS USING 95-5 SOLDER. PEX TUBE PIPING MAY BE USED IN LIEU OF COPPER ON SIZES 2-INCHES AND SMALLER. WHERE PIPING IS EXPOSED OUTSIDE PARTITIONS, USE TYPE L OR K HARD COPPER TUBING AND WROUGHT COPPER FITTINGS.

ROOF FLASHING: SANITARY VENT FLASHING: SEMCO 1100-3 OR 1100-5, WITH ONE-PIECE LEAD FLASHING AND COUNTERFLASHING SLEEVE.

PIPE SLEEVE: AT CONCRETE WALLS FOR FLOORS, ADJUST-TO-CREATE, PARAMOUNT, HOLE-OUT SPERZEL CRETSELEAVE FLOOR SLEEVES SHALL EXTEND TO TOP OF CONCRETE CURBS FOR PIPING RISING THROUGH FLOORS. WALL SLEEVES SHALL BE FLUSH WITH FINISHED SURFACE, SLEEVES SHALL BE SIZED TO ALLOW 1/8 INCH CLEARANCE AROUND PIPE INSULATION. INSULATION AND COVERING SHALL BE CONTINUOUS THROUGH WALL AND FLOOR SLEEVES.

CLEANOUTS:

- FULL SIZE CLEANOUTS SHALL BE INSTALLED AT THE BASE OF EACH SOIL WASTE STACK. ALL OTHER CLEANOUTS SHALL BE INSTALLED WHERE SHOWN ON THE DRAWINGS AND WHERE REQUIRED BY STATE, LOCAL, OR NATIONAL PLUMBING CODES.
- ALL CLEANOUTS SHALL BE INSTALLED IN LOCATIONS EASILY ACCESSIBLE FOR RODDING.

PIPE INSULATION:

- ALL DOMESTIC HOT WATER, HOT WATER RECIRCULATION AND COLD WATER PIPING SHALL BE COVERED WITH PIPE INSULATION. INSULATION THICKNESS SHALL BE 3/4 INCH FOR COLD WATER AND 1 INCH FOR HOT WATER, ADD ADDITIONAL INSULATION AS NECESSARY TO PREVENT FREEZING.
- INSULATE ALL PIPING UNDER LAVATORIES ACCESSIBLE TO PHYSICALLY HANDICAPPED WITH HOT WATER SUPPLY AND "P" TRAP PREFABRICATED INSULATION, HANDI LAV GUARD.

PIPE HANGERS:

- HANGERS SHALL BE SUPPLIED WITH FACTORY INSTALLED ISOLATION AND DI-CHROMATE FINISH
- PIPE 2 INCHES AND SMALLER: GRINNEL F69, PIPE 2-1/2 INCH AND LARGER: GRINNEL F65, CONCRETE INSERTS: GRINNEL 281 AND 282, RISER CLAMPS FOR COPPER PIPING: GRINNEL 261P, PLASTIC COATED, RISER CLAMPS FOR OTHER PIPING: GRINNEL 261.
- HANGER RODS SHALL CONFORM TO THE FOLLOWING: PIPE SIZE 2 INCH AND SMALLER: 3/8 INCH RODS, PIPE SIZE 2-1/2 INCH AND 3 INCH: 1/2 INCH RODS, PIPE SIZE 3 INCH AND LARGER: 5/8 INCH RODS.

PLUMBING FIXTURES:

- FIXTURES SHALL BE THE WATER SAVING TYPE WITH MAXIMUM USAGE OF 1.6 GALLONS PER FLUSH FOR WATER CLOSETS, 2.5 GALLONS PER MINUTE FOR SHOWERS, 3.0 GALLONS PER MINUTE FOR SERVICE SINKS, 1.0 GALLON PER FLUSH FOR URINALS, 0.5 GALLONS PER MINUTE FOR PUBLIC LAVATORIES, 2.2 GALLONS PER MINUTE FOR PRIVATE LAVATORIES AND 2.2 GALLONS PER MINUTE FOR SINKS.
- ALL FIXTURES SHALL BE CAULKED TO THE FLOOR OR WALL WITH WATER RESISTANT WHITE BUTYL RUBBER CAULKING COMPOUND. TRIM FOR SHALL MATCH IN DESIGN. SUPPLY FAUCETS SHALL HAVE RENEWABLE SEATS AND BARREL.

PLUMBING EQUIPMENT

VALVES:

MANUFACTURER: WATTS, MILWAUKEE, CRANE, KENNEDY, STOCKHAM, MISSON, GRINNELL, KEYSTONE, OR NIBCO

PIPE HANGERS & SUPPORTS:

MANUFACTURER: GRINNELL, ELCEN, KIN-LINE, UNI-STRUT, F&S, B-LINE, MICHIGAN, OR PIPING TECHNOLOGY & PRODUCTS

INSULATION:

MANUFACTURER: /CERTANTEED, MANVILLE, PITTSBURGH, ARMSTRONG, LSP PRODUCTS, OR OWENS-CORNING

PLUMBING SUPPLY STOPS:

MANUFACTURER: EASTMAN, CRANE, KOHLER, WOLVERINE, MCGUIRE, BRASSCRAFT, EBC, ZURN

PRESSURE REDUCING VALVES:

MANUFACTURER: WATTS SERIES 223, ZURN OR WILKINS

P-TRAPS:

MANUFACTURER: AMERICAN STANDARD, KOHLER, MCGUIRE, BRASSCRAFT, DEARBORN, EBC

EXECUTION

SURFACE CONDITIONS:

- INSPECTIONS: ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNING AUTHORITIES, THE ORIGINAL DESIGN, AND REFERENCED STANDARDS.
- DISCREPANCIES:
 - IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER.
 - DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED. INTERFERENCES BETWEEN INSTALLED WORK OF VARIOUS TRADES DUE TO LACK OF COORDINATION SHALL BE RESOLVED BY THE ARCHITECT/ENGINEER WHOSE DECISION IS FINAL. RELOCATES OR OFFSET ANY WORK AS REQUIRED TO ACCOMMODATE WORK OF OTHER TRADES AT NO EXTRA COST TO THE OWNER WHEN SO DIRECTED BY THE ARCHITECT.

VERIFICATION OF DIMENSIONS:

- SCALED AND FIGURED DIMENSIONS ARE APPROXIMATE ONLY. BEFORE PROCEEDING WITH WORK, CAREFULLY CHECK AND VERIFY DIMENSIONS AT SITE, AND BE RESPONSIBLE FOR PROPERLY FITTING EQUIPMENT AND MATERIALS TOGETHER AND TO THE STRUCTURE IN SPACES PROVIDED.
- DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND MANY OFFSET, BENDS, SPECIAL FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED. CAREFULLY STUDY DRAWINGS AND PREMISES IN ORDER TO DETERMINE BEST METHODS, EXACT LOCATIONS, ROUTES, BUILDING OBSTRUCTIONS, AND INSTALL APPARATUS AND EQUIPMENT IN AVAILABLE LOCATIONS. INSTALL APPARATUS AND EQUIPMENT IN MANNER AND IN LOCATIONS TO AVOID OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAY CLEAR.

LOCATION AND SPACE REQUIREMENTS:

- CONTACTOR SHALL FULLY INFORM HIMSELF REGARDING PECULIARITIES AND LIMITATION OF SPACES AVAILABLE FOR INSTALLATION OF WORK UNDER THIS DIVISION. DRAWINGS INDICATE DESIRED LOCATION AND ARRANGEMENT OF PIPING, EQUIPMENT AND OTHER ITEMS AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. WORK SPECIFIED AND NOT CLEARLY DEFINED BY DRAWINGS SHALL BE INSTALLED AND ARRANGED IN A SATISFACTORY MANNER. IN ANY CASE AND AT ANY TIME A CHANGE IN LOCATION REQUIRED BY OBSTACLES OR THE INSTALLATION OF OTHER TRADES NOT SHOWN ON THE PLUMBING PLANS SHALL BE MADE BY CONTRACTOR WITHOUT ADDITIONAL CHARGE PROVIDED THE CHANGE IS ORDERED BEFORE WORK IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.
- VERIFY ALL SPACES, DIMENSIONS FOR ALL FIXTURES, EQUIPMENT, OR OWNER-FURNISHED EQUIPMENT AND EQUIPMENT FURNISHED UNDER OTHER SECTIONS.
- OBTAIN ALL NECESSARY ROUGH IN DATA AND DIMENSIONS FOR ALL FIXTURES, EQUIPMENT, OR OWNER-FURNISHED EQUIPMENT AND EQUIPMENT FURNISHED UNDER OTHER SECTIONS.
- MAINTAIN AMPLE HEADROOM CLEARANCES AND ACCESSIBILITY. MAINTAIN CEILING HEIGHTS.
- CONSTANTLY CHECK WORK OF OTHER TRADES TO PREVENT INTERFERENCE WITH THIS INSTALLATION.

CUTTING AND PATCHING: CUT WORK AND PATCH PER DIVISION 1 AS NECESSARY TO PROPERLY INSTALL NEW WORK. AS THE WORK PROGRESSES, COORDINATE NECESSARY OPENINGS, HOLES, CHASES, ETC., IN THEIR CORRECT LOCATION. IF THE REQUIRED OPENINGS, HOLES AND CHASES ARE NOT IN THEIR CORRECT LOCATIONS, MAKE THE NECESSARY CORRECTIONS AT NO COST TO THE OWNER. AVOID EXCESSIVE CUTTING AND DO NOT CUT STRUCTURAL MEMBERS WITHOUT THE CONSENT OF THE ARCHITECT. PATCHING BY GENERAL CONTRACTOR AT MECHANICAL PLUMBING OR FIRE PROTECTION CONTRACTOR'S EXPENSE. INCLUDE AS A PART OF THE WORK UNDER THIS CONTRACT ALL STRUCTURAL FRAMING REQUIRED BY PENETRATIONS THROUGH THE ROOF AND NECESSARY STEEL TO SUPPORT DUCTS AND PIPES BETWEEN STRUCTURAL STEEL UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

CLOSING IN OF UNFINISHED WORK: COVER NO WORK UNTIL INSPECTED, TESTED, AND APPROVED. WHERE WORK IS COVERED BEFORE INSPECTION AND TESTING, UNCOVER IT, AND AFTER TESTED, INSPECTED, AND APPROVED, RESTORE ALL WORK TO ORIGINAL PROPER CONDITION.

EXCAVATION AND BACKFILL:

- PERFORM ALL NECESSARY EXCAVATION, SHORING AND BACKFILLING REQUIRED FOR THE PROPER LAYING OF ALL PIPES AND CONDUITS INSIDE THE BUILDING AND PREMISES, AND OUTSIDE AS MAY BE NECESSARY. CONFORM TO DIVISION 2 REQUIREMENTS. REMOVE ALL EXCESS EXCAVATED MATERIAL FROM THE SITE OR DISPOSE OF ON SITE AS DIRECTED BY GENERAL CONTRACTOR.
- EXCAVATE ALL TRENCHES OPEN CUT, KEEP TRENCH BANKS AS NEARLY VERTICAL AS PRACTICABLE, AND SHEET AND BRACE TRENCHES WHERE REQUIRED FOR STABILITY AND SAFETY. EXCAVATE TRENCHES TRUE TO LINE AND MAKE BOTTOMS NO GREATER THAN 18" WIDE BUT NO WIDER THAN NECESSARY TO PROVIDE AMPLE WORK ROOM. GRADE TRENCH BOTTOMS ACCURATELY TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF PIPE ON UNDISTURBED SOIL ALONG ITS ENTIRE LENGTH.

C. PROVIDE BACKFILLING AND COMPACTION IN ACCORDANCE WITH REQUIREMENT OF DIVISION 2 AND UNDER DIRECTION OF THE ARCHITECT AND THE OWNER'S TESTING FIRM TO THE REQUIRED DENSITY. MAKE THE FIRST 2' OF FILL IN 6' LAYERS, EACH THOROUGHLY COMPACTED AS DIRECTED, AND FREE FROM ROCKS, LARGE CLODS OF EARTH, LEAVES, BRANCHES, AND DEBRIS. COMPACT THE REST OF THE BACKFILL TO PREVENT SETTLEMENT AS DIRECTED, USING IN THE BACKFILL NO ROCKS LARGER THAN 4" IN DIAMETER, AND USING NO ROCKS AT ALL IN THE TOP 12".

ACCESSIBILITY:

- INSTALL VALVES, DAMPERS, THERMOMETERS, GAUGES, TRAPS, CLEANOUTS, CONTROL DEVICES OR OTHER SPECIALTIES REQUIRING READING, ADJUSTMENT, INSPECTION, REPAIRS, REMOVAL, OR RE-PLACEMENT CONVENIENTLY AND ACCESSIBLY THROUGHOUT THE FINISHED BUILDING. WHERE ANY OF THESE DEVICES ARE SHOWN ON THE CONTRACT DRAWINGS TO BE INSTALLED ABOVE ANY INACCESSIBLE CEILINGS, THE MECHANICAL CONTRACTOR SHALL FURNISH ACCESS DOORS OR PANELS AS REQUIRED.
- ALL ACCESS DOORS OR PANELS IN WALLS AND CEILINGS REQUIRED FOR ACCESS TO CONTROL DEVICES, TRAPS, VALVES AND SIMILAR DEVICES ARE TO BE FURNISHED AND INSTALLED AS PART OF THE WORK UNDER THIS SECTION. PROVIDE TYPE AS SPECIFIED UNDER DIVISION 8. ACCESS PANELS TO MATCH RATING AND FINISH OF ADJACENT SURROUNDINGS.
- PROVIDE DUCTS WHICH Pierce A FIRE SEPARATION WITH FIRE DAMPERS OF SAME FIRE RATING AS THE SEPARATION.
- REFER TO DRAWINGS AND "FINISH SCHEDULE" FOR TYPE OF WALL AND CEILING IN EACH AREA AND FOR RATED CONSTRUCTION.
- COORDINATE WORK OF VARIOUS SECTIONS TO LOCATED VALVES, TRAPS, AND DAMPERS WITH OTHERS TO AVOID UNNECESSARY DUPLICATION OF ACCESS DOORS.

ROOF FLASHINGS: FLASH AND COUNTERFLASH ALL PIPING, CONDUITS AND DUCTWORK PENETRATING ROOFING MEMBRANE WITH FLASHING PER ROOFING MANUFACTURER'S RECOMMENDATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILING OF DUCT AND PIPE PENETRATIONS THROUGH ROOF.

EQUIPMENT ROUGH-IN:

- ROUGH IN ALL EQUIPMENT AND FIXTURES AS DESIGNATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. THE DRAWINGS INDICATE ONLY THE APPROXIMATE LOCATION OF ROUGH-INS. THE EXACT ROUGH-IN LOCATIONS MUST BE DETERMINED FROM LARGE-SCALE CERTIFIED DRAWINGS. THE CONTRACTOR SHALL OBTAIN ALL CERTIFIED ROUGH-IN INFORMATION BEFORE PROGRESSING WITH ANY WORK FOR ROUGH-IN FINAL CONNECTIONS.
- BE RESPONSIBLE FOR PROVIDING ALL OUTLETS AND SERVICES OF PROPER SIZE AT THE REQUIRED LOCATIONS.
- MINOR CHANGES IN THE CONTRACT DRAWINGS SHALL BE ANTICIPATED AND PROVIDED FOR UNDER THIS DIVISION OF THE SPECIFICATIONS.
- ROUGH-IN ONLY (UNLESS OTHERWISE DESIGNATED ON THE DRAWINGS) SHALL INCLUDE THE FOLLOWING:
 - PLUMBING: PROVIDE ALL SERVICES DESIGNATED AND REQUIRED, INCLUDING WASTE AND WATER, VALVE AND CAP STUB-OUTS FOR WATER AND GAS, CAP ALL WASTE AND VENT OUTLETS.

OWNER-FURNISHED AND OTHER EQUIPMENT:

- ROUGH-IN ONLY FOR ALL OWNER-FURNISHED EQUIPMENT (SEE DIVISION 1) AND ALL EQUIPMENT FURNISHED UNDER OTHER SECTIONS OF THE SPECIFICATIONS, EXCEPT AS OTHERWISE SPECIFIED AND/OR NOTED ON THE DRAWINGS.
- PROVIDE ALL SERVICES DESIGNATED, VALVE AND CAP ALL PIPING, CAP ALL WASTE PIPING AND LEAVE IN A CLEAN ORDERLY MANNER.
- ROUGH-IN REQUIREMENTS SHALL BE AS OUTLINED IN THE PRECEDING PARAGRAPH TITLED "EQUIPMENT ROUGH-IN".

EQUIPMENT FINAL CONNECTIONS:

- PROVIDE ALL PIPING FINAL CONNECTIONS FOR ALL EQUIPMENT UNDER DIVISION 22 AS REQUIRED HEREIN SPECIFIED AND INDICATED ON THE DRAWINGS.
- PLUMBING: PROVIDE FINAL PLUMBING CONNECTIONS COMPLETE WITH SHUTOFF VALVES, RISERS, TRAPS, VACUUM BREAKERS AND INDIRECT WASTES FOR ALL EQUIPMENT FURNISHED AND INSTALLED UNDER OTHER SECTIONS OF THESE SPECIFICATIONS, EXCEPT AS OTHERWISE DESIGNATED. INCLUDE UNDER THE PLUMBING SECTION OF THE SPECIFICATIONS ARE THE FINAL CONNECTIONS TO THE FOLLOWING:
 - MISCELLANEOUS EQUIPMENT SPECIFIED TO BE FURNISHED AND INSTALLED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS.
 - COLD WATER MAKE-UP CONNECTIONS TO HYDRONIC EQUIPMENT,
 - KITCHEN EQUIPMENT, FURNISHED UNDER OTHER SECTIONS OF THE SPECIFICATIONS.

MACHINERY ACCESSORIES:

- APPLICATION: DO NOT INSTALL ANY EQUIPMENT IN AN APPLICATION NOT RECOMMENDED BY THE MANUFACTURER.
- INSTALLATION: ALIGN, LEVEL, AND ADJUST ALL EQUIPMENT FOR PROPER OPERATION. INSTALL SO CONNECTING AND DISCONNECTING OF PIPING AND ACCESSORIES CAN READILY BE DONE AND SO ALL PARTS ARE READILY ACCESSIBLE FOR INSPECTION, SERVICE, AND REPAIR. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

PIPE AND EQUIPMENT SUPPORTS:

- WHERE SUPPORTS, FOUNDATIONS, STANDS, SUSPENDED PLATFORMS FOR MACHINERY, TANKS, OR OTHER EQUIPMENT ARE INDICATED OR SPECIFIED, PERFORM THE FOLLOWING:
 - LOCATE SUPPORT MEMBERS TO AVOID EQUIPMENT STRAINS AND INTERFERENCE WITH PIPING CONNECTIONS, TUBE PULLING OR OTHER MAINTENANCE OPERATIONS.
 - WHERE SADDLES ARE REQUIRED, USE CAST IRON OR WELDED STEEL SADDLES WITH CURVATURE TO FIT THE TANK SHELL.
 - Mount POWER-DRIVEN EQUIPMENT ON COMMON BASE WITH DRIVER.
- CONCRETE INSERTS: FURNISH AND INSTALL ALL CONCRETE INSERTS REQUIRED FOR ALL MATERIAL AND EQUIPMENT SPECIFIED AND/OR SHOWN ON THE DRAWINGS FOR DIVISION 22.
- CONCRETE FOUNDATIONS: WORK UNDER THIS SECTION INCLUDES COORDINATION OF CONSTRUCTION OF ALL CONCRETE FOUNDATIONS INDICATED OR REQUIRED FOR EQUIPMENT SPECIFIED HEREIN OR IN OTHER SECTIONS UNDER DIVISION 22. MATERIAL AND WORKMANSHIP SHALL BE DESCRIBED UNDER DIVISION 3.
- GROUT UNDER ALL EQUIPMENT AFTER LEVELING, FILLING COMPLETELY THE SPACE BETWEEN MACHINERY BED PLATE AND FOUNDATION SURFACE AS SPECIFIED IN DIVISION 3. FINISH EXPOSED SURFACE OF GROUT FOR A NEAT APPEARANCE.
- FLOOR STANDS: WHERE EQUIPMENT IS MOUNTED STANDARD OR ON LEGS, CONSTRUCT OF STRUCTURAL STEEL OR STEEL PIPE AND FITTINGS, CROSS-BRACE AND FASTEN WITH FLANGES OR PLATES BOLTED TO FLOOR.
- CEILING OR WALL SUPPORTS: USE SUSPENDED PLATFORM, STRAP HANGERS, BRACKET OR SHELF, WHICHEVER IS MOST SUITABLE FOR EQUIPMENT AND LOCATION. CONSTRUCT OF STRUCTURAL STEEL MEMBERS, STEEL PLATES, RODS OR PIPE AS REQUIRED. CROSS-BRACE AND FASTEN TO BUILDING STRUCTURE OR INSERTS IN AN APPROVED MANNER.
- STEEL WORK: NEATLY FABRICATE AND ERECT STEEL WORK WITH BURRS AND WELDING SPATTER GROUND OFF. PAINT AFTER FABRICATION WITH A RUST-INHIBITIVE PRIMER.

HANGER AND SUPPORTS:

- HOLD HORIZONTAL PIPE RUNS FIRMLY IN PLACE USING APPROVED STEEL AND IRON HANGERS, SUPPORTS, AND/OR PIPE REST UNLESS OTHERWISE INDICATED. SUSPEND HANGER RODS FROM CONCRETE INSERTS OR FROM APPROVED BRACKETS, CLAMPS OR CLIPS. HANG PIPES INDIVIDUALLY OR IN GROUPS IF SUPPORTING STRUCTURE IS ADEQUATE TO SUPPORT WEIGHT OF PIPING AND FLUID. EXCEPT FOR BURIED PIPING, HANG OR SUPPORT PIPE RUNS SO THAT THEY MAY EXPAND OR CONTRACT FREELY WITHOUT STRAIN TO PIPE OR EQUIPMENT.
 - HORIZONTAL STEEL PIPING: PROVIDE HANGERS OR SUPPORTS EVERY 10 FT. EXCEPT EVERY 8 FT. FOR PIPING 1-1/4 INCH AND SMALLER.
 - HORIZONTAL COPPER TUBING: FOR 2 INCH DIAMETER AND OVER, PROVIDE HANGERS EVERY 10 FEET, FOR 1-1/2 INCH DIAMETER AND SMALLER EVERY 6 FEET.
 - HORIZONTAL CAST-IRON NO-HUB PIPING: PROVIDE HANGERS OR SUPPORTS AT EACH SIDE OF NO-HUB FITTINGS. PROVIDE ANTI-SEPARATION BRACING AT EACH 90 DEGREE CHANGE IN DIRECTION.
 - HORIZONTAL CAST IRON HUB AND SPIGOT PIPING: PROVIDE HANGERS OR SUPPORTS AT EACH HUB.
 - VERTICAL PIPING: SUPPORT AT FLOOR WITH IRON PIPE CLAMPS.

TEST:

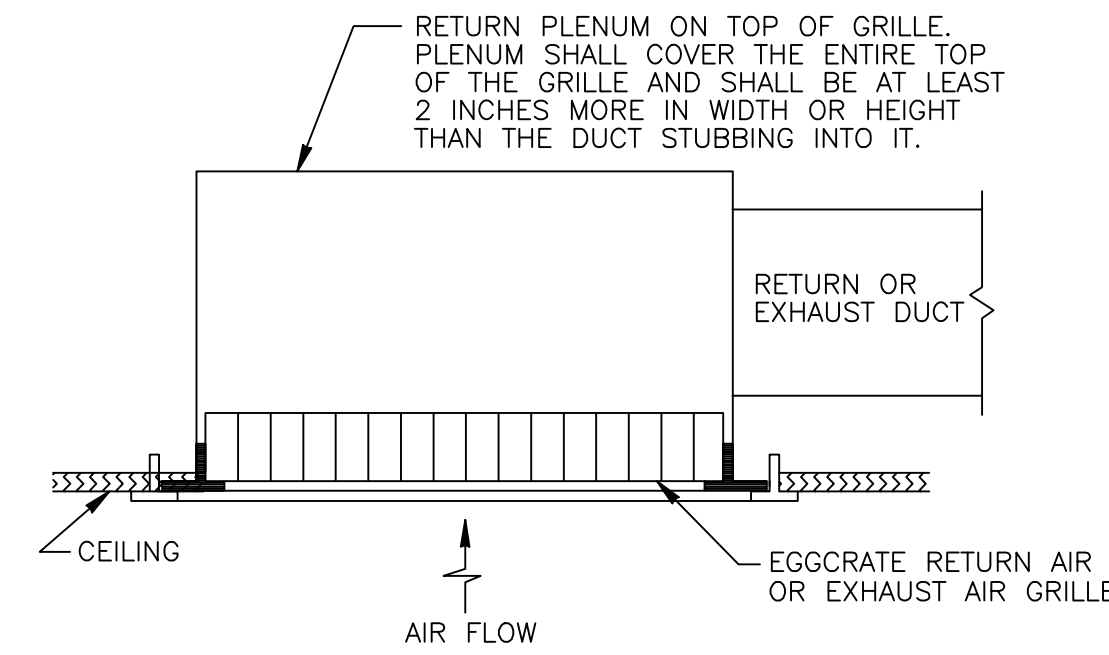
- PERFORM TEST TO ARCHITECT'S SATISFACTION. MAKE TEST IN PRESENCE OF OWNER'S REPRESENTATIVE AND AT THE TIME SUITABLE TO HIM IF REQUESTED. FURNISH NECESSARY LABOR AND EQUIPMENT AND BEAR COST FOR TESTING. COST OF REPLACING AND/OR REPAIRING

DAMAGE RESULTING THEREFORE SHALL

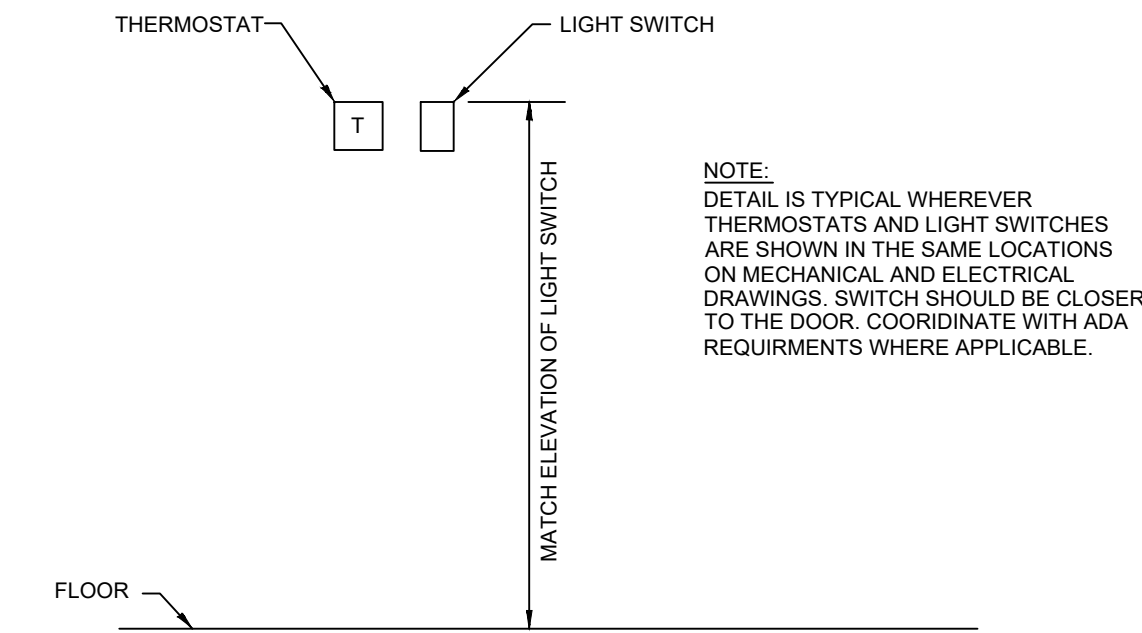
MECHANICAL LEGEND

HVAC	
SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER (4-WAY, 3-WAY, 2-WAY, 1-WAY)
	RETURN GRILLES
	EXHAUST GRILLES
	FLEXIBLE CONNECTION
	SUPPLY AIR DUCT (UP-, DOWN)
	RETURN AIR DUCT (UP-, DOWN)
	EXHAUST AIR DUCT (UP-, DOWN)
	ROUND DUCT DOWN
	ROUND DUCT UP
	DUCT TRANSITION
	DUCT CHANGE IN ELEVATION; R= RISE, D= DROP
	MANUAL VOLUME CONTROL BALANCE DAMPER
	MOTORIZED DAMPER
	ELBOW WITH TURNING VANES
	ELBOW ROUND
	INDICATES AIR FLOW DIRECTION
	SENSOR
	THERMOSTAT
	AIR DEVICE (X-1) / AIRFLOW (CFM)
	EQUIPMENT IDENTIFICATION
	INDICATED TAG OR SHEET NOTE

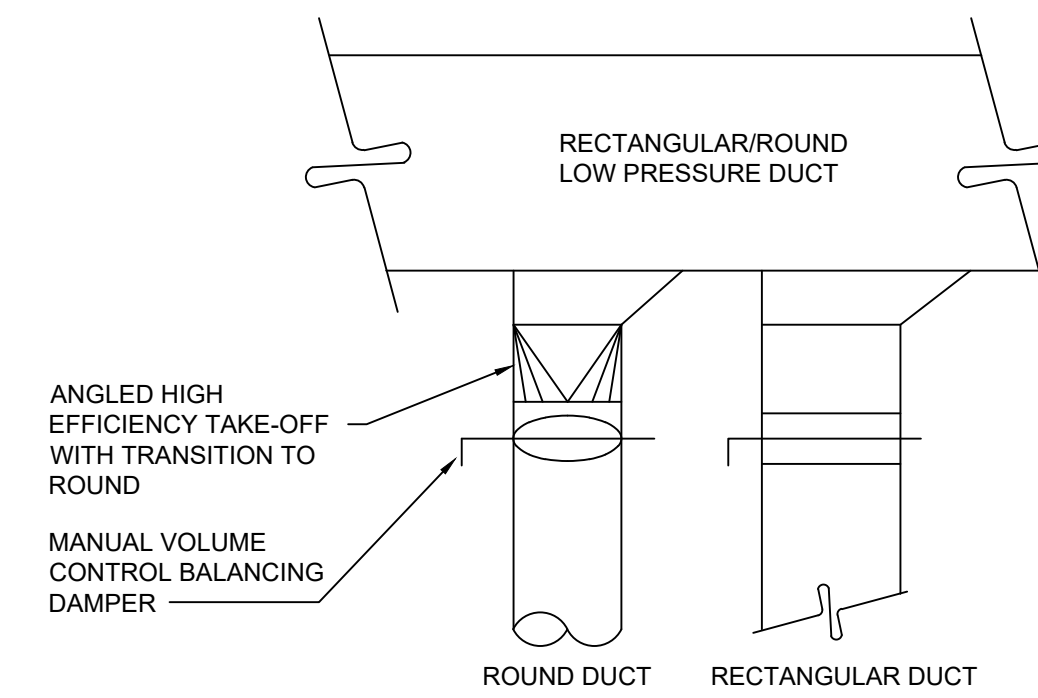
ABBREVIATIONS	
AHU-X	AIR HANDLING UNIT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
EF-X	EXHAUST FAN
EH-X	ELECTRIC HEATER
ESP	EXTERNAL STATIC PRESSURE
HP	HORSEPOWER
HP-X	HEAT PUMP UNIT
KW	KILOWATT
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
R-X	RETURN AIR DEVICE
S-X	SUPPLY AIR DEVICE



1 CEILING RETURN DETAIL
NOT TO SCALE



2 THERMOSTAT MOUNTING DETAIL
NOT TO SCALE

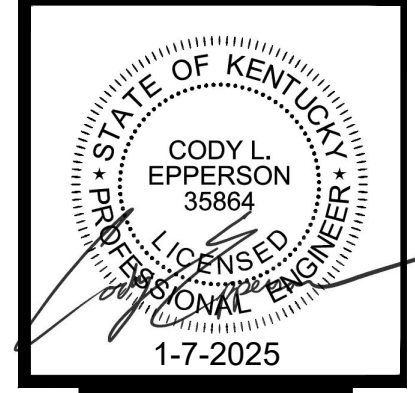


3 LOW PRESSURE BRANCH TAKEOFF DETAIL
NOT TO SCALE

MECHANICAL NOTES

- REFER TO THE CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- ALL MECHANICAL WORK SHALL BE PERFORMED BY A LICENSED MECHANICAL CONTRACTOR.
- ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF DUCTWORK, PIPING, EQUIPMENT, AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, VALVE, OR COMPONENT. CONTRACTOR TO PROVIDE ANY ADDITIONAL DUCT OR PIPING OFFSETS AND/OR FITTINGS, INCLUDING DIVIDED DUCTS AND FLATTENED DUCTS, REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES AS ENCOUNTERED IN THE FIELD.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE ROUTING AND INSTALLATION OF MECHANICAL DUCTWORK, PIPING, AND EQUIPMENT WITH ALL OTHER DISCIPLINES AND TRADES INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, PLUMBING, AND ELECTRICAL.
- REFER TO THE ENTIRE SET OF CONSTRUCTION DOCUMENTS FOR DETAILS OF INSTALLATION REQUIREMENTS, FURNISH ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR COMPLETE, OPERATIONAL, AND FULLY FUNCTIONAL MECHANICAL SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE KENTUCKY BUILDING CODE, ASHRAE, IMC, IECC, SMACNA, AND NFPA.
- THE EXACT LOCATIONS OF ALL EQUIPMENT, DUCTS, DIFFUSERS, ETC. SHALL BE COORDINATED WITH ALL OTHER TRADES. CEILING MOUNTED LIGHTING AND ELECTRICAL DEVICES TAKE PRECEDENCE OVER CEILING MOUNTED MECHANICAL EQUIPMENT. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING GRID AND LIGHTING LAYOUT FOR COORDINATION OF FINAL DIFFUSER LOCATIONS.
- CONTRACTOR SHALL VISIT THE JOB SITE. FIELD VERIFY FIT, COORDINATE WITH OTHER TRADES, AND BECOME FAMILIAR WITH ALL PROJECT CONDITIONS PRIOR TO FABRICATING DUCTWORK, INSTALLING EQUIPMENT, ETC. NO ALLOWANCES OR CHANGE ORDERS WILL BE ALLOWED FOR LACK THEREOF.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND COSTS FOR ALL PERMITS, TESTING, AND INSPECTIONS.
- THE ENTIRE MECHANICAL INSTALLATION SHALL BE AS REQUIRED TO MAINTAIN FIRE/SMOKE RATINGS AND/OR "UL" ASSEMBLY RATINGS AS REQUIRED BY THE CONTRACT DOCUMENTS AND AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS. SEAL AROUND ALL PENETRATIONS THROUGH ALL FIRE/SMOKE SEPARATIONS AND/OR "UL" RATED ASSEMBLIES. COORDINATE ALL PENETRATIONS WITH THE CONSTRUCTION MANAGER AND/OR GENERAL CONTRACTOR. PROVIDE ADDITIONAL FIRE DAMPERS, SMOKE DETECTORS, AND SMOKE DAMPERS (INCLUSIVE OF WIRING) AS REQUIRED FOR A FULLY FUNCTIONAL AND CODE COMPLIANT SYSTEM.
- ALL DUCTWORK, PIPING, AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE. NO OTHER TRADES, I.E. ELECTRICAL, CEILING, PLUMBING, ETC., SHALL BE SUSPENDED, HUNG, OR SUPPORTED FROM MECHANICAL DUCTWORK OR MECHANICAL PIPING.
- ALL EXTERIOR BUILDING PENETRATIONS MUST BE COORDINATED WITH THE ARCHITECT AND SHALL BE FLASHED AND SEALED WEATHER-TIGHT. ALL MATERIALS AND COLORS MUST BE PRE-APPROVED BY THE ARCHITECT. NEW OPENINGS AND/OR PENETRATIONS FOR MECHANICAL ITEMS SHALL BE CUT, SLEEVED, ETC. BY THE MECHANICAL CONTRACTOR.
- ROUTE DUCTWORK AS HIGH AS POSSIBLE TO FACILITATE ACCESS TO ABOVE CEILING SPACE. COORDINATE ROUTING WITH OTHER SERVICES AND TRADES. PROVIDE ADDITIONAL DUCTWORK, OFFSETS, ETC., TO ACCOMMODATE FIELD CONDITIONS AS REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM AT NO ADDITIONAL COST. ADDITIONAL OFFSETS REQUIRE APPROVAL FROM THE ENGINEER. ROUTE DUCTWORK BETWEEN JOISTS WHERE POSSIBLE.
- ALL AIR DEVICES LOCATED ABOVE GYPBOARD OR HARD CEILINGS SHALL HAVE ACCESSIBLE BALANCING DAMPERS.
- ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED PER SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- PROVIDE AND INSTALL DUCT ACCESS DOORS FOR INSPECTION OF ALL INSTALLED FIRE DAMPERS AS DIRECTED BY SMACNA HVAC CONSTRUCTION STANDARDS.
- MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0". ALL FLEXIBLE DUCT SHALL CONFORM TO THE REQUIREMENTS OF UL 181 FLEXIBLE AIR DUCTS. SUPPORT TO ELIMINATE SAGGING AND KINKING. INSULATED FLEXIBLE DUCTS SHALL MEET MINIMUM R-VALUES REQUIRED BY ENERGY CODE.
- ALL HVAC EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. UTILIZE FACTORY FILTERS DURING CONSTRUCTION.
- THE MECHANICAL CONTRACTOR SHALL BALANCE SYSTEM TO AIR QUANTITIES INDICATED ON PLANS AND PROVIDE OWNERS REPRESENTATIVES WITH COMPLETE NEBA/ABC BALANCE REPORT. THE MECHANICAL CONTRACTOR SHALL PROVIDE AS MANY ADDITIONAL SITE VISITS BY THE LICENSED TAB CONTRACTOR AS REQUIRED BY THE ENGINEER FOR A COMPLETE AND FUNCTIONING AND APPROVED SYSTEM IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- COMMISSIONING REPORT SHALL BE REQUIRED TO ENSURE PROPER OPERATION OF ALL HVAC SYSTEM(S) INSTALLED.
- ALL RECTANGULAR 90 DEG. AND 45 DEG. ELBOWS SHALL HAVE TURNING VANES.
- PROVIDE A MANUAL VOLUME DAMPER AT ALL BRANCH TAKE-OFFS ON SUPPLY, RETURN, AND OUTSIDE AIR DUCTWORK AT NO ADDITIONAL COST. PROVIDE A MAIN RETURN DAMPER UPSTREAM OF OUTSIDE AIR CONNECTIONS IN RETURN AIR PLENUM DESIGNS. COORDINATE ADDITIONAL MANUAL

- VOLUME DAMPER LOCATIONS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM WITH THE ENGINEER PRIOR TO ORDER, FABRICATION, OR INSTALLATION.
- ALL DUCT DIMENSIONS SHOWN ARE INTERIOR "CLEAR" DUCT DIMENSIONS.
- MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN OUTDOOR AIR INTAKES AND EXHAUST, PLUMBING VENTS, ETC. AND/OR AS REQUIRED BY IMC, WHICHEVER IS MORE STRINGENT.
- ALL CONTROL WIRING AND CONDUIT SHALL COMPLY WITH NEC. ANY WIRING ROUTED IN EXPOSED/OPEN CEILING AREAS, ABOVE INACCESSIBLE CEILINGS, OR THROUGH WALLS SHALL BE INSTALLED IN CONDUIT.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND DRAWINGS FOR CONNECTIONS TO ALL HVAC EQUIPMENT.
- STRUCTURAL MEMBERS SHALL NOT BE CUT OR COMPROMISED IN ANY WAY.
- DO NOT BLOCK ACCESS TO HVAC OR ELECTRICAL EQUIPMENT. DO NOT INSTALL PIPING, DUCTWORK, OR EQUIPMENT OVER ELECTRICAL PANELS/SWITCHGEAR OR THE 42" CLEARANCE IN FRONT OF THESE ELECTRICAL ITEMS. COORDINATE ADDITIONAL REQUIREMENTS WITH NEC.
- MAINTAIN CLEARANCES AROUND ALL HVAC EQUIPMENT, DEVICES, CONTROLLERS, ETC. PER MANUFACTURER'S RECOMMENDATIONS.



GATEWAY DISTRICT HEALTH DEPARTMENT
ADMINISTRATION BUILDING
OWINGSVILLE, KENTUCKY

DATE	REVISION	BY

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DRAWN BY CE
CHECKED BY CE
REVIEWED BY CE
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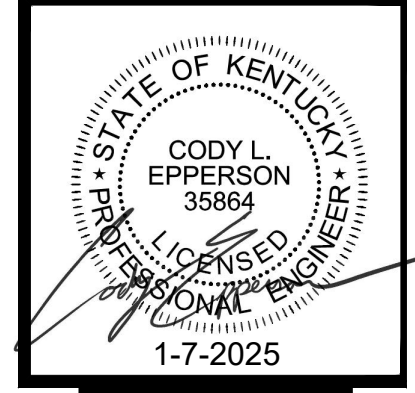
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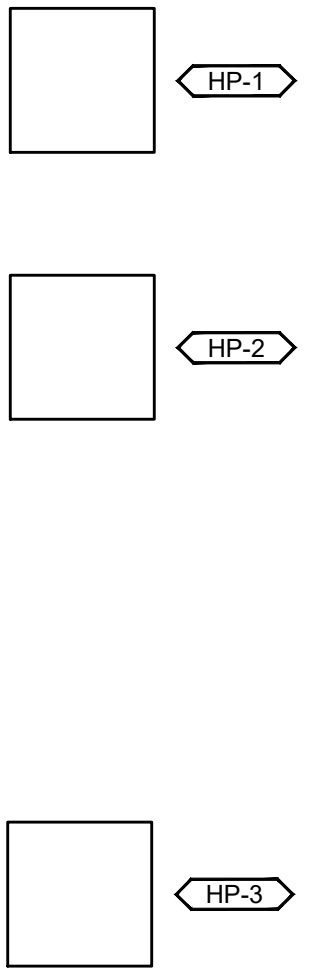
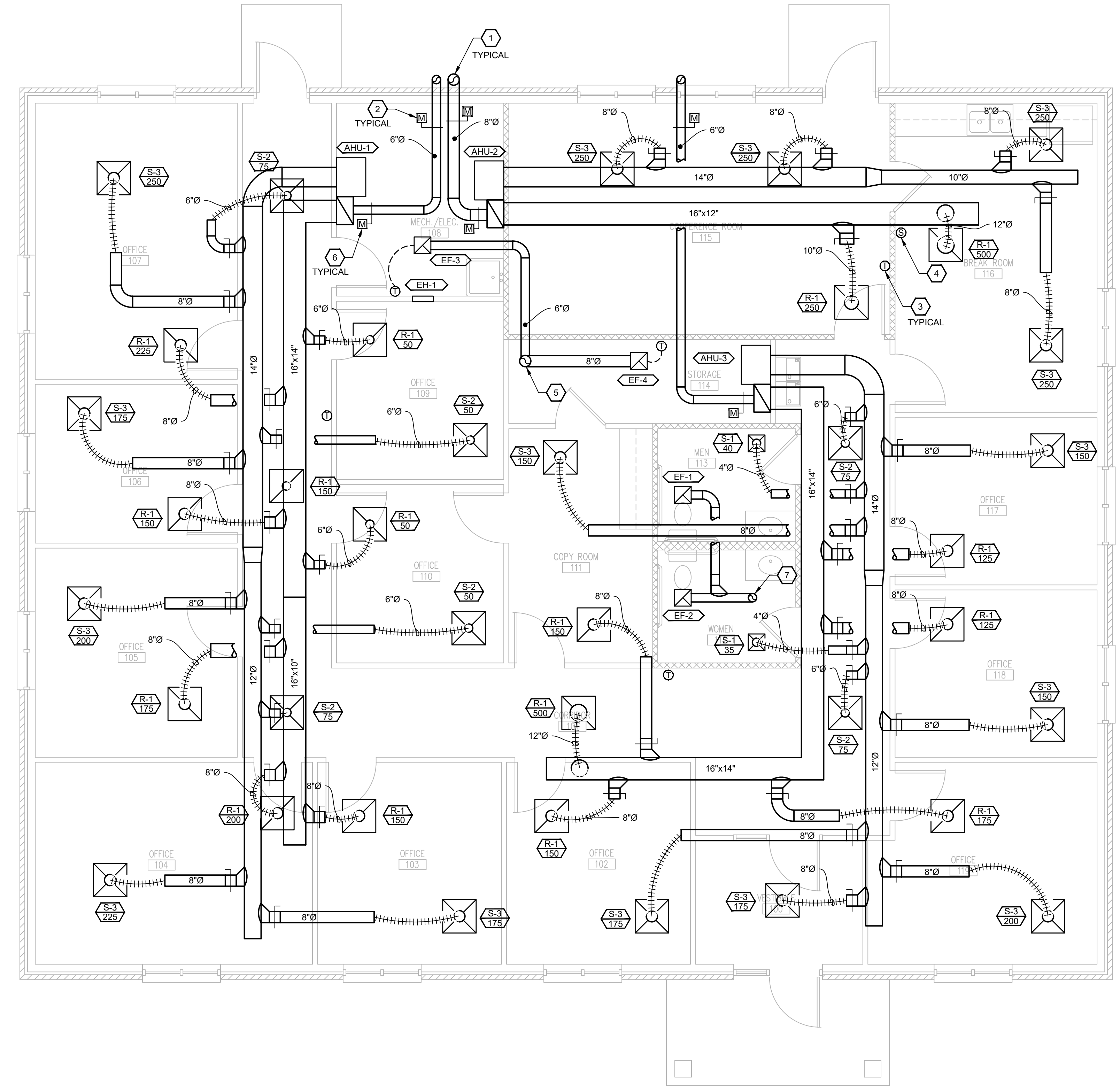
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SHEET INDEX	
SHEET NUMBER	SHEET TITLE
M0	HVAC LEGEND & NOTES
M1	HVAC PLAN
M6	HVAC SCHEDULES
M7	HVAC SPECIFICATIONS

DRAWING NO.
M0



GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
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GENERAL NOTES

- REFER TO SHEET M0.
- EXTERIOR HVAC EQUIPMENT SHOWN SHALL BE INSTALLED ON POURED CONCRETE PAD. LOCATE EACH UNIT BETWEEN BUILDING AND SIDEWALK (WHERE APPLICABLE). UNITS SHALL NOT BE LOCATED IN FRONT OF BUILDING WINDOWS.
- AIR HANDLERS TO BE VERTICAL UPFLOW TYPE, MOUNTED ON MINIMUM 18" TALL STANDS.
- PROVIDE FLEXIBLE DUCT CONNECTOR ON SUPPLY SIDE OF EACH DUCTED HVAC SYSTEM.
- ALL REFRIGERANT PIPING AND CONTROL WIRING TO BE CONCEALED FROM VIEW (I.E. ROUTED INSIDE EXTERIOR WALLS TO ATTIC SPACE).
- CONDENSATE PIPING ASSOCIATED WITH INDOOR HVAC EQUIPMENT SHALL ROUTE TO FLOOR DRAIN OR MOP SINK LOCATED IN ROOM. REFER TO PLUMBING PLAN ON SHEET P1.
- PROVIDE HIGH EFFICIENCY TAKEOFFS (HETOs) FOR ALL SUPPLY BRANCH DUCTS.
- MAINTAIN A MINIMUM 10' CLEARANCE BETWEEN ALL BUILDING INTAKE OPENINGS AND EXHAUST OUTLETS.
- EACH FURNACE SHALL UTILIZE CONCENTRIC VENT KIT THROUGH ROOF.
- ALL THERMOSTATS SERVING SPLIT SYSTEMS SHALL BE DIGITAL, 7-DAY PROGRAMMABLE, WIFI THERMOSTATS AND INSTALLED IN CLEAR, KEYPAD LOCK BOXES.

SHEET NOTES

- PROVIDE SOFFIT CAP WITH INSECT SCREEN. VERIFY COLOR TO MATCH BUILDING SOFFIT. TYPICAL.
- PROVIDE OUTSIDE AIR DUCT WITH 24V MOTORIZED DAMPER LOCATED DIRECTLY INSIDE BUILDING ENVELOPE AS INDICATED. DAMPER SHALL BE POWERED FROM ASSOCIATED FURNACE. CONTRACTOR SHALL UPSIZE LOW VOLTAGE TRANSFORMER AS NECESSARY. DAMPER OPERATION SHALL BE INTERLOCKED WITH BLOWER MOTOR TO OPEN WHEN BLOWER IS ACTIVATED. TYPICAL.
- PROVIDE AND INSTALL WALL MOUNTED THERMOSTAT 48" AFF. ROUTE CONTROL WIRING CONCEALED BACK TO UNIT. TYPICAL.
- PROVIDE AND INSTALL WALL MOUNTED WIRED TEMPERATURE SENSOR 48" AFF. ROUTE CONTROL WIRING CONCEALED BACK TO THERMOSTAT LOCATED IN CONFERENCE ROOM FOR WEIGHTED TEMPERATURE AVERAGING OF AREAS SERVED (50%/50%).
- ROUTE 8" EXHAUST DUCT UP THROUGH ROOF AND TERMINATE AT HOODED ROOF CAP WITH INTEGRAL BACKDRAFT DAMPER AND INSECT SCREEN. COORDINATE COLOR/FINISH WITH ARCHITECT.
- PROVIDE 120V MOTORIZED DAMPER WHERE OUTSIDE AIR DUCT PENETRATES RETURN DUCT. DAMPER SHALL BE INTERLOCKED WITH ENTRY HALL/CORRIDOR LIGHTS AND SHALL ONLY BE OPEN WHEN THE FACILITY IS OCCUPIED. TYPICAL FOR ALL AIR HANDLERS SHOWN.
- ROUTE 6" EXHAUST DUCT UP THROUGH ROOF AND TERMINATE AT HOODED ROOF CAP WITH INTEGRAL BACKDRAFT DAMPER AND INSECT SCREEN. COORDINATE COLOR/FINISH WITH ARCHITECT.

UNIT	SUPPLY (CFM)	RETURN (CFM)	OUTSIDE AIR (CFM)	EXHAUST (CFM)
AHU-1	1275	1150	125	100
AHU-2	1000	750	250	0
AHU-3	1225	1125	100	340
TOTAL	3500	3025	475	440

HVAC CONTROL NOTES

SPLIT SYSTEMS

OCCUPIED MODE (COOLING):
INDOOR UNITS SHALL BE SET TO 72 DEGREES FAHRENHEIT 1 HOUR BEFORE FACILITY OPENS.

UNOCCUPIED MODE (COOLING):
INDOOR UNITS SHALL BE SET BACK TO 78 DEGREES FAHRENHEIT

OCCUPIED MODE (HEATING):
INDOOR UNITS SHALL BE SET TO 70 DEGREES FAHRENHEIT 1 HOUR BEFORE FACILITY OPENS

UNOCCUPIED MODE (HEATING):
INDOOR UNITS SHALL BE SET BACK TO 64 DEGREES FAHRENHEIT

- *NOTES***
- SPLIT SYSTEM SYSTEMS #1,2,3 ARE EQUIPPED WITH TWO ELECTRONIC OUTSIDE AIR DAMPERS (ONE 24V, ONE 120V). THE 24V DAMPER SHALL OPEN UPON BLOWER MOTOR ACTIVATION. THE 120V DAMPER SHALL OPEN WHEN HALL/CORRIDOR LIGHTS ARE ENERGIZED (ONLY OPEN WHEN FACILITY IS OCCUPIED).
 - COORDINATE EXACT TEMPERATURE SET POINTS AND FACILITY OCCUPIED/UNOCCUPIED SCHEDULE WITH OWNER
 - CONTRACTOR RESPONSIBLE FOR OWNER TRAINING ON ALL THERMOSTATS TO ENSURE CORRECT SCHEDULE AND SET POINTS ARE ACHIEVED FOR ALL AREAS/SYSTEMS PRIOR TO FINAL COMPLETION.

1 FLOOR PLAN - HVAC
1/4" = 1'-0"

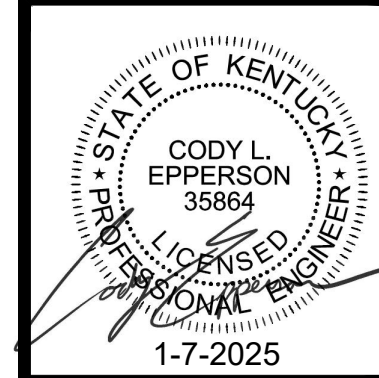
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DRAWING NO.
M1



DUAL FUEL SPLIT SYSTEM SCHEDULE																	
MARK	MANUFACTURER	TYPE	MODEL	TONNAGE	COOLING		HEATING			EFFICIENCY				ELECTRICAL			NOTES
					COOLING STAGES	COOLING CAPACITY (MBH)	HEATING STAGES	HEATING CAPACITY (MBH)	AUXILIARY GAS HEAT (kBTU)	SEER2	EER2	HSPF2	AHRI #	V/Ø/Hz	MCA	MOCP	
OUTDOOR UNIT																	
HP-1,2,3	TRANE	HEAT PUMP	4TWR6036N1	3	2	36.6	2	34.4	-	16	12	7.5	208776488	240/1/60	20	35	1,2
INDOOR UNIT																	
AHU-1,2,3	TRANE	FURNACE/ COIL	S9X2B060U 4TXCB006DS3	*	-	*	2	*	60	*	*	*	*	120	9.5	20	3-8

NOTES:
 1. INSTALL ON POURED CONCRETE EQUIPMENT PAD AND PUMP UPS
 2. PROVIDE WITH LOW AMBIENT COOLING
 3. MOUNT VERTICAL ON MINIMUM 18" TALL STAND
 4. PROVIDE 1" FILTER RACK AT BOTTOM SIDE OF FURNACE; PROVIDE 1" DISPOSABLE MERV-8 FILTER
 5. FURNACE SHALL UTILIZE CONCENTRIC VENT THROUGH ROOF PER MANUFACTURER'S INSTRUCTIONS; COORDINATE ROOF PENETRATION WITH ROOFING CONTRACTOR
 6. PROVIDE WITH PROGRAMMABLE WIFI THERMOSTAT
 7. FURNACE OPERATION SHALL HAVE 2 CONTROL STAGES; 96% AFUE
 8. PROVIDE WIRED OUTSIDE AIR TEMPERATURE SENSOR FOR DUAL FUEL OPERATION

WARRANTY: 1-YEAR PART, 5-YEAR COMPRESSOR

* = SEE ASSOCIATED HEAT PUMP / FURNACE / COIL FOR PAIRED SPLIT SYSTEM RATING

OTHER ACCEPTABLE MANUFACTURERS: DAIKIN, CARRIER

ELECTRIC HEATER SCHEDULE										
TAG	MANUFACTURER	MODEL	TYPE	CFM	BTUH	ELECTRICAL				NOTES:
						VOLTAGE	KW	FLA	MOCP	
EH-1	QMARK	CWH1101DSF	WALL MOUNTED	65	3413	120	1	8.4	20	ALL

NOTES:
 1. INTEGRAL FACTORY INSTALLED THERMOSTAT AND DISCONNECT. SET THERMOSTAT TO 50°F.
 2. WHITE POWDER COAT TRIM
 3. 1" SEMI-RECESSED MOUNTING FRAME

OTHER ACCEPTABLE MANUFACTURERS: MARKEL, REDDI

EXHAUST FAN SCHEDULE													
MARK	MANUFACTURER	MODEL	TYPE	CFM	ESP (IN H2O)	SONES	DRIVE TYPE	MAX RPM	ELECTRICAL				NOTES
									V/Ø/Hz	HP	NAMEPLATE AMPS	MOCP	
EF-1,2	GREENHECK	SP-A70-QD	CEILING	70	0.125	<1	DIRECT	700	115/1/60	FRAC.	0.18	15	1-7
EF-3	GREENHECK	SP-A110-QD	CEILING	100	0.375	1.5	DIRECT	950	115/1/60	FRAC.	0.2	15	1-6,8
EF-4	GREENHECK	SP-A200-QD	CEILING	200	0.375	3	DIRECT	900	115/1/60	FRAC.	0.5	15	1-6,8

NOTES:
 1. PROVIDE WITH FACTORY MOUNTED UNIT DISCONNECT
 2. PROVIDE WITH FACTORY MOUNTED SPEED CONTROL. ADJUST AS NECESSARY TO OBTAIN CFM INDICATED.
 3. PROVIDE WITH INTEGRAL BACKDRAFT DAMPER.
 4. PROVIDE WITH ROOF CAP WITH INTEGRAL BIRD SCREEN (SEE DRAWINGS)
 5. SUPPORT FROM THE STRUCTURE. INCLUDE HANGING VIBRATION ISOLATION MOUNTING KIT
 6. INCLUDE DESIGNER GRILLE
 7. INTERLOCK OPERATION WITH LIGHTING OCCUPANCY SENSOR. COORDINATE WITH ELECTRICAL CONTRACTOR.
 8. PROVIDE COOLING ONLY THERMOSTAT IN SPACE FOR EXHAUST FAN CONTROL. SET THERMOSTAT TO 70°F.

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: COOK, PANASONIC

AIR DEVICE SCHEDULE												
MARK	MANUFACTURER	MODEL	FRAME SIZE	MAX CFM	NECK SIZE	TYPE	AIR PATTERN	LOCATION & MOUNTING	MAX P.D. (IN WC)	MAX NC	NOTES	
S-1	PRICE	SCD	12x12	78	4"Ø	SQUARE CONE	4-WAY	LAY-IN CEILING	0.05	< 20	1,2	
S-2	PRICE	SCD	24x24	176	6"Ø	SQUARE CONE	4-WAY	LAY-IN CEILING	0.05	< 20	1,2	
S-3	PRICE	SCD	24x24	279	8"Ø	SQUARE CONE	4-WAY	LAY-IN CEILING	0.05	< 20	1,2	
R-1	PRICE	80	24x24	2166		EGG CRATE	0 DEGREE	LAY-IN CEILING	0.05	< 20	1-3	

NOTES:
 1. PROVIDE WITH INSULATED BACK
 2. PROVIDE WITH WHITE FINISH
 3. CONTRACTOR TO PROVIDE RETURN PLENUM BOX ON TOP/BEHIND GRILLE. PLENUM SHALL COVER THE ENTIRE GRILLE AND SHALL BE AT LEAST 2 INCHES MORE IN WIDTH OR HEIGHT THAN DUCT STUBBING INTO IT.

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: TITUS, KRUEGER

HVAC INSULATION SCHEDULE			
TYPE	LOCATION	INSULATION R-VALUE	INSULATION MATERIAL
REFRIGERANT PIPING	INDOORS	3/4" THICK	ARMAFLEX
REFRIGERANT PIPING	OUTDOORS	3/4" THICK	ARMAFLEX (WITH UV PROTECTIVE COATING)
DUCTWORK	CONCEALED INDORS	R-4.2	FOIL BACK FIBERGLASS WRAP
DUCTWORK	CONCEALED (ATTIC)	R-8	FOIL BACK FIBERGLASS WRAP
DUCTWORK	EXPOSED INDORS	-	NONE
DUCTWORK	OUTDOORS	R-8	2" BOARD INSULATION W/ ALUMINUM METAL CLAD JACKETING
OUTSIDE AIR DUCTWORK	INDOORS	R-8	FOIL BACK FIBERGLASS WRAP
CONDENSATE PIPE	INDOORS	3/4" THICK	ARMAFLEX

GATEWAY DISTRICT HEALTH DEPARTMENT
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PROJECT NO. 5071-03	DESIGNED BY CE	DRAWN BY CE	CHECKED BY CE	REVIEWED BY CE	DATE JANUARY 2025	SCALE AS NOTED
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DRAWING NO.
M6

MECHANICAL SPECIFICATIONS

1. GENERAL REQUIREMENTS:

- 1.1. PROVISIONS OF THIS SECTION APPLY TO ALL WORK SPECIFIED IN ALL SECTIONS UNDER DIVISION 23.
- 1.2. IN ADDITION, WORK IN DIVISION 23 IS GOVERNED BY THE PROVISIONS OF THE BIDDING REQUIREMENTS, CONTRACT FORMS, GENERAL CONDITIONS, AND ALL SECTIONS UNDER DIVISION 1, GENERAL REQUIREMENTS.
- 1.3. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL WORK EQUIPMENT, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- 1.4. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH CURRENT INTERNATIONAL MECHANICAL CODE, ALL LOCAL CODES, AND ALL OTHER REGULATION GOVERNING THE SCOPE OF WORK IN THIS PROJECT.
- 1.5. UNLESS OTHERWISE SPECIFIED, ALL EQUIPMENT AND MATERIALS MUST BE NEW AND OF THE QUALITY SPECIFIED. THE WORKMANSHIP SHALL BE OF A QUALITY AND NEATNESS THAT IS ACCEPTABLE TO THE ARCHITECT, ENGINEER, AND OWNER, AND IS GREATER THAN OR EQUAL TO STANDARDS OF THE TRADES. WORK NOT INSTALLED IN THIS MANNER SHALL BE REPAIRED, REMOVED, REPLACED, OR OTHERWISE REMEDIED AS DIRECTED BY THE ARCHITECT / ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 1.6. THE MECHANICAL CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE WORK OF ALL OTHER TRADES, GENERAL TYPE CONSTRUCTION, AND THE RELATIONSHIP OF THE CONTRACTOR'S WORK TO OTHER SECTIONS AND TRADES.

2. EXAMINATION OF PREMISES:

- 2.1. MECHANICAL CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE THE CONDITIONS THAT MAY AFFECT THE WORK.
- 2.2. NO ALLOWANCE SHALL BE MADE DUE TO CONTRACTOR'S FAILURE TO MAKE SUCH EXAMINATION.
- 2.3. DO NOT SCALE DRAWINGS. FIELD VERIFY EXACT DIMENSIONS AND MEASUREMENTS

3. MECHANICAL CONTRACTOR

- 3.1. THE MECHANICAL CONTRACTOR/COMPANY SHALL BE LICENSED AND CERTIFIED IN THE STATE / LOCATION OF THE PROJECT FOR A MINIMUM OF TWO YEARS.
- 3.2. THE MECHANICAL CONTRACTOR/COMPANY SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE INSTALLING COMMERCIAL MECHANICAL SYSTEMS SIMILAR TO THOSE DESCRIBED IN THESE SPECIFICATIONS AND PROVIDE A LIST OF PREVIOUS COMPANY PROJECTS, INCLUDING NAME OF PROJECT AND CONTACT NAMES AND PHONE NUMBERS FOR REFERENCE.

4. PERMITS, INSPECTIONS, AND FEES

- 4.1. MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY ALL FEES ASSOCIATED WITH OBTAINING ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED TO COMPLETE THIS PROJECT.
- 4.2. PROVIDE COPIES OF PERMITS TO THE GENERAL CONTRACTOR
- 4.3. SUBMIT COPIES OF INSPECTION RESULTS TO THE ENGINEER AND INCLUDE COPIES OF PASSED INSPECTIONS IN THE OPERATION AND MAINTENANCE MANUALS SUBMITTED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT.

5. WARRANTY AND GUARANTEE

- 5.1. MECHANICAL CONTRACTOR SHALL WARRANTY AND GUARANTEE FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION ALL EQUIPMENT AND MATERIAL INSTALLED AND/OR FURNISHED BY THE MECHANICAL CONTRACTOR. DEFECTS WHICH APPEAR DURING THAT ONE YEAR PERIOD SHALL BE CORRECTED AT THE EXPENSE OF MECHANICAL CONTRACTOR.
- 5.2. EQUIPMENT STANDARD WARRANTIES SHALL BE: 5 YEAR COMPRESSOR WARRANTY AND 1 YEAR PARTS WARRANTY, UNLESS OTHERWISE SPECIFIED.

6. DRAWINGS AND SPECIFICATIONS

- 6.1. CONTRACTOR SHALL REVIEW THE COMPLETE SET OF DRAWINGS, AS WORK PERTAINING TO THE MECHANICAL CONTRACTOR AND THAT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR MAY BE SHOWN ON OTHER DRAWING SHEETS OR IN OTHER SPECIFICATION SECTIONS.
- 6.2. IF ANY DISCREPANCIES OCCUR BETWEEN THE ACCOMPANYING DRAWINGS AND THE ASSOCIATED SPECIFICATIONS ASSUME THE MOST EXPENSIVE FOR BIDDING PURPOSES AND REPORT SUCH DISCREPANCIES TO THE ARCHITECT / ENGINEER IN A TIMELY MANNER TO ALLOW A WORKABLE SOLUTION TO BE FOUND.
- 6.3. NO ALLOWANCE OR EXTRA PAYMENT SHALL BE GIVEN FOR RELOCATION OF PIPING, DUCTWORK, CONDUIT, AND EQUIPMENT NOT INSTALLED PER THESE SPECIFICATIONS AND INSTRUCTIONS OR INSTALLED IN A MANNER NOT CONFORMING TO THE MANUFACTURER'S REQUIREMENTS OR SUGGESTIONS.

7. SUBMITTALS AND SHOP DRAWINGS:

- 7.1. SUBMITTALS AND SHOP DRAWINGS SHALL BE SUBMITTED BY THE MECHANICAL CONTRACTOR WITHIN 15 DAYS AFTER AWARDED THE PROJECT FOR ENGINEER REVIEW.
- 7.2. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR ALL HVAC EQUIPMENT, FANS, CONTROLS, HANGERS, INSULATION, GRDs, DUCTWORK, AND OTHER STANDARD ITEMS AS REQUIRED TO COMPILE A COMPLETE SUBMITTAL ON THIS PROJECT.
- 7.3. ALL EQUIPMENT AND MATERIAL SUBMITTED SHALL BE AS SPECIFIED ON THE DRAWINGS OR EQUAL AS APPROVED BY THE ENGINEER.

8. OPERATION AND MAINTENANCE MANUALS

- 8.1. UPON COMPLETION OF THE PROJECT, SUBMIT PHYSICAL SETS IN BOUND BOOKLET FORM OF ALL WRITTEN OPERATING INSTRUCTIONS AND MAINTENANCE REQUIREMENTS FOR ALL HVAC EQUIPMENT AND MATERIAL USED AND/OR INSTALLED ON THE PROJECT.
- 8.2. PROVIDE A LISTING OF ALL HVAC EQUIPMENT ON THE PROJECT WITH THE FOLLOWING INFORMATION: EQUIPMENT IDENTIFICATION NUMBER FROM DRAWINGS, AREA SERVED, MODEL NUMBER, SERIAL NUMBER, AND FILTER SIZES.
- 8.3. INCLUDE AIR BALANCE REPORT IN O&M MANUALS, WHEN APPLICABLE.
- 8.4. COPIES OF INSPECTION RESULTS SHALL BE SUBMITTED WITH O&M MANUALS
- 8.5. INCLUDE A LETTER OF GUARANTEE STARTING AT THE DATE OF SUBSTANTIAL COMPLETION.

9. INSTALLATION OF HVAC EQUIPMENT, MATERIALS, AND SYSTEMS:

- 9.1. COORDINATE HVAC EQUIPMENT AND MATERIALS INSTALLATION WITH ALL OTHER BUILDING COMPONENTS.
- 9.2. FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS.
- 9.3. COORDINATE LOCATION AND REQUIREMENTS OF CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS IN TIME FOR PREPARATION FOR SUCH WORK TO OCCUR WITHOUT HINDERING OR DELAYING THE WORK OF OTHER TRADES.
- 9.4. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES, SLEEVES, AND OPENINGS

THAT ARE TO BE INSTALLED IN POURED IN PLACE CONCRETE, WALL OPENINGS, ROOF OPENINGS, AND OTHER STRUCTURAL COMPONENTS AS THEY ARE CONTRACTED.

- 9.5. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL HVAC EQUIPMENT AND MATERIAL AS HIGH AS POSSIBLE.
- 9.6. INSTALL HVAC EQUIPMENT, PIPING, AND DUCTWORK IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE EQUIPMENT ACCESSORIES AS NECESSARY FOR PROPER OPERATION OR RECOMMENDED BY THE MANUFACTURER, EVEN IF SUCH ACCESSORIES ARE NOT SHOWN ON THE DRAWINGS OR MENTIONED IN THE SPECIFICATIONS.
- 9.7. MECHANICAL CONTRACTOR TO PROVIDE NO LESS THAN THE MANUFACTURER'S MINIMUM RECOMMENDED CLEARANCES ON ALL EQUIPMENT. ALL ISSUES PERTAINING TO CLEARANCES SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION. INSTALLATION WITHOUT APPROVAL SHALL BE CORRECTED AT THE MECHANICAL CONTRACTOR'S EXPENSE.
- 9.8. MECHANICAL CONTRACTOR SHALL INSTALL NEOPRENE ISOLATION BLOCKS OR SPRING VIBRATION ISOLATORS AS APPROVED BY EQUIPMENT MANUFACTURER ON ALL HVAC EQUIPMENT TO MINIMIZE NOISE AND VIBRATIONS.

10. PROTECTION OF EQUIPMENT AND MATERIALS:

- 10.1. UNLESS SPECIFIED OR REQUESTED BY OWNER IN WRITING, PERMANENT HVAC SYSTEMS SHALL NOT BE OPERATED DURING CONSTRUCTION.
- 10.2. DURING CONSTRUCTION, ALL DUCTWORK AND PIPING SHALL BE CAPPED AND SEALED AT ALL TIMES AS TO PREVENT DIRT, DUST, AND DEBRIS FROM ENTERING DUCTWORK AND PIPING SYSTEM.

11. MECHANICAL PIPING:

- 11.1. REFRIGERANT PIPING
 - 11.1.1. DURING INSTALLATION OF REFRIGERANT PIPING, MECHANICAL CONTRACTOR SHALL FLOW NITROGEN THROUGH PIPING AT ALL TIMES WHEN BRAZING THE REFRIGERANT PIPING.
 - 11.1.2. REFRIGERANT PIPING SHALL BE LEAK TESTED WITH NITROGEN TO A PRESSURE OF NO LESS THAN 350 PSI OR AS DIRECTED BY THE EQUIPMENT MANUFACTURER, AND PERFORM A TRIPLE EVACUATION.
 - 11.1.3. REFRIGERANT PIPING SHALL BE INSULATED WITH A MINIMUM 3/8" THICK ARMAFLEX INSULATION.
 - 11.1.4. REFRIGERANT PIPING INSULATION INSTALLED OUTDOORS SHALL HAVE A UV PROTECTANT COATING.
 - 11.1.5. REFRIGERANT PIPING TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. ROUTE IN A LINEAR FASHION FOLLOWING BUILDING STRUCTURAL CONTOURS.
 - 11.1.6. INSTALL ESCUTCHEONS AROUND ALL REFRIGERANT PIPING WHEN VISIBLY PENETRATING A WALL, FLOOR, OR PARTITION.
- 11.2. CONDENSATE PIPING
 - 11.2.1. ALL CONDENSATE PIPING SHALL BE CONSTRUCTED OF SCHEDULE 40 PVC OR AS SPECIFIED OTHERWISE.
 - 11.2.2. CONDENSATE PIPING SHALL BE INSTALLED AS TO HAVE A SLOPE OF NO LESS THAN 1/8" PER FOOT.
 - 11.2.3. UNLESS SPECIFIED OTHERWISE, ALL CONDENSATE PIPING SHALL BE EXTERNALLY INSULATED WITH A MINIMUM 3/4" THICK ARMAFLEX INSULATION.
 - 11.2.4. MECHANICAL CONTRACTOR SHALL INSTALL CONDENSATE SAFETY DEVICES IN ALL CONDENSATE DRAINS OF HVAC EQUIPMENT AS TO REDUCE RISK OF DAMAGE FROM CLOGGED CONDENSATE DRAINS.
 - 11.2.5. CONDENSATE PIPING TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
 - 11.2.6. INSTALL ESCUTCHEONS AROUND ALL CONDENSATE PIPING WHEN VISIBLY PENETRATING A WALL, FLOOR, OR PARTION.
 - 11.2.7. WHEN A CONDENSATE PUMP IS USED, INSTALL PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

12. IDENTIFICATION OF HVAC EQUIPMENT

- 12.1. ALL HVAC EQUIPMENT AND ASSOCIATED THERMOSTATS/SENSORS SHALL BE CLEARLY IDENTIFIED AND LABELED.
- 12.2. EQUIPMENT NAMEPLATES SHALL BE BLACK FACED FORMICA WITH WHITE ENGRAVED LETTERING. NAMEPLATE TEXT TO BE A MINIMUM OF 3/8" IN HEIGHT.
- 12.3. VALVE TAGS SHALL BE EMBOSSED BRASS OR ALUMINUM WITH A MINIMUM TEXT HEIGHT OF 3/8".
- 12.4. VALVE TAGS SHALL IDENTIFY AREA SERVED AND NORMAL VALVE POSITION.
- 12.5. PIPING LABELS SHALL INCLUDE PIPE SIZE, ARROW INDICATING FLOW DIRECTION, AND REFRIGERANT CIRCUIT LOCATION. PIPING LABELS SHALL HAVE TEXT SIZE AND INSTALLED IN ACCORDANCE WITH ASME A13.1 FOR PIPING.
- 12.6. ALL DUCTWORK SHALL BE CLEARLY LABELED AND IDENTIFIED: SUPPLY, RETURN, EXHAUST, OUTSIDE AIR

13. MECHANICAL WIRING AND ELECTRICAL REQUIREMENTS

- 13.1. ALL TEMPERATURE CONTROL WIRING, INTERLOCK WIRING, AND EQUIPMENT CONTROL WIRING FOR HVAC EQUIPMENT SHALL BE INCLUDED BY THE MECHANICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- 13.2. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING ALL EQUIPMENT HAVING ELECTRICAL REQUIREMENTS OF 120 VOLTS OR GREATER.
- 13.3. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT, WIRING, JUNCTION BOXES, AND DISCONNECTS ASSOCIATED WITH HVAC EQUIPMENT WITH ELECTRICAL REQUIREMENTS OF 120 VOLTS OR GREATER UNLESS PROVIDED AS AN INTEGRAL PART OF THE EQUIPMENT.
- 13.4. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL THERMOSTAT JUNCTION BOX, AND STUB-UP CONDUIT ABOVE CEILING WITH PULL STRING FOR ALL THERMOSTATS AND WALL MOUNTED CONTROL DEVICES. MECHANICAL CONTRACTOR TO COORDINATE LOCATION WITH ELECTRICAL CONTRACTOR.
- 13.5. MECHANICAL CONTRACTOR SHALL FURNISH, MOUNT, AND INSTALL ALL HVAC CONTROLS AS INDICATED ON PLANS UNLESS OTHERWISE NOTED.
- 13.6. ALL CONTROL WIRING INSTALLED IN AN EXPOSED LOCATION OR OUTDOORS SHALL BE INSTALLED IN NON-FLEXIBLE CONDUIT. CONDUIT TYPE PER NEC BASED ON LOCATION.
- 13.7. ALL LOW VOLTAGE CONTROL WIRING SHALL BE CONSTRUCTED PER MANUFACTURER'S

REQUIREMENTS OR RECOMMENDATIONS.

14. DUCTWORK

- 14.1. DUCTWORK CONSTRUCTION
 - 14.1.1. UNLESS OTHERWISE SPECIFIED, ALL DUCTWORK SHALL BE OF SHEET METAL CONSTRUCTION.
 - 14.1.2. DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA SPECIFICATIONS.
 - 14.1.3. ALL DUCTWORK SIZES SHOWN ON DRAWINGS ARE INTERNAL DIMENSIONS AND DO NOT TAKE INTO ACCOUNT ANY INTERNAL LINERS OR INSULATION.
 - 14.1.4. ALL DUCT JOINTS ARE TO BE SEALED WITH A SUITABLE COMMERCIAL GRADE DUCT SEALER.
 - 14.1.5. ALL OUTSIDE AIR DUCTS SHALL BE INSTALLED WITH A MOTORIZED LOW-LEAK DAMPER THAT IS INTERLOCKED WITH UNIT FAN. DAMPER SHALL BE CLOSED AT ALL TIMES FAN IS NOT OPERATING.
- 14.2. DUCTWORK INSULATION
 - 14.2.1. ALL DUCTWORK INSULATION SHALL HAVE A COMPOSITE FIRE AND SMOKE RATING AS TESTED UNDER ASTM E-84, NFPA 255, AND UL 723 NOT EXCEEDING FLAME SPREAD OF 25 AND SMOKE DEVELOPED OF 50.
 - 14.2.2. DUCTS INSTALLED IN AN UNCONDITIONED SPACE INTERNAL TO THE BUILDING ENVELOPE SHALL BE EXTERNALLY INSULATED WITH MINIMUM R-6.0 INSULATION VALUE.
 - 14.2.3. DUCTS INSTALLED WITHIN THE BUILDING ENVELOPE AND IN A CONCEALED SPACE, SHALL BE EXTERNALLY INSULATED WITH 1" INSULATION WITH A MINIMUM OF R-4.2 INSULATION VALUE.
 - 14.2.4. DUCTS INSTALLED IN OUTDOOR LOCATIONS SHALL BE EXTERNALLY INSULATED WITH 2" RIGID FOAM BOARD INSULATION WITH A MINIMUM INSULATION VALUE OF R-8.0 AND SHALL BE WRAPPED WITH A WEATHER RESISTANT ALUMINUM METAL CLAD JACKETING.
 - 14.2.5. UNLESS SPECIFIED OTHERWISE, DUCTS INSTALLED IN EXPOSED AREAS ARE NOT REQUIRED TO BE INSULATED.
 - 14.2.6. ALL OUTSIDE AIR DUCTWORK SHALL BE INSULATED WITH MINIMUM R-8.0 INSULATION VALUE.
 - 14.2.7. ALL RECTANGULAR DUCT INSULATION SHALL MEET MINIMUM R-VALUES REQUIRED BY THE IECC.
 - 14.2.8. ALL SHEET METAL DUCT SHALL BE EXTERNALLY INSULATED ONLY, NO INTERNAL/DUCT LINER INSULATION PERMITTED.
- 14.3. FLEXIBLE DUCTWORK
 - 14.3.1. FLEXIBLE DUCTWORK SHALL HAVE A COMPOSITE FIRE AND SMOKE RATING AS TESTED UNDER ASTM E-84, NFPA 255, AND UL 723 NOT EXCEEDING FLAME SPREAD OF 25 AND SMOKE DEVELOPED OF 50.
 - 14.3.2. FLEXIBLE DUCTWORK SHALL BE INSTALLED IN LENGTHS NOT TO EXCEED 5 FEET UNLESS SPECIFIED OTHERWISE.
 - 14.3.3. FLEXIBLE DUCTWORK SHALL BE SUPPORTED PER MANUFACTURER'S INSTRUCTIONS NOT TO EXCEED EVERY 4 FEET TO ELIMINATE SAGGING.
 - 14.3.4. INSTALLED FLEXIBLE DUCTS SHALL MEET MINIMUM R-VALUES REQUIRED BY THE IECC.

15. HANGERS AND SUPPORTS

- 15.1. COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" CHAPTER 5, "HANGERS AND SUPPORTS".
- 15.2. HANGER SPACING SHALL COMPLY WITH SMACNA'S SPECIFICATIONS
- 15.3. SUPPORT ALL HVAC EQUIPMENT, DUCTWORK, AND PIPING FROM BUILDING STRUCTURE.
- 15.4. ALL HANGERS EXPOSED TO VIEW SHALL BE CONSTRUCTED OF THREADED ROD AND ANGLE OR CHANNEL SUPPORTS.
- 15.5. HANG ITEMS FROM TOP MEMBER OF JOISTS OR PROVIDE ADDITIONAL STRUCTURE TO SPAN BETWEEN TOP MEMBERS IF NEEDED.
- 15.6. DO NOT USE METAL DECKING FOR SUSPENSION OF PIPING, DUCTWORK, OR EQUIPMENT.
16. FIRESTOPPING:
 - 16.1. PROVIDE SEALS FOR ANY OPENING THROUGH WALLS, FLOORS, OR CEILINGS USED AS PASSAGE FOR MECHANICAL COMPONENTS SUCH AS PIPING OR DUCTWORK.
 - 16.2. PROVIDE FIRE STOPPING SEALING TO MATCH OR EXCEED FIRE RESISTANT RATING OF PENETRATED WALLS, PARTITIONS, CEILINGS, OR FLOORS.
 - 16.3. FIRE STOPPING SEALANT SHALL BE INSTALLED TO FILL OPENINGS AROUND MECHANICAL SERVICES PENETRATING FLOORS AND WALLS TO PROVIDE FIRE-STOPS WITH FIRE RESISTANT RATINGS INDICATED FOR FLOOR, WALL, CEILING, OR PARTITION ASSEMBLY IN WHICH PENETRATION OCCURS. COMPLY WITH INSTALLATION REQUIREMENTS ESTABLISHED BY THE MANUFACTURER AND THE TESTING AGENCY.

17. COORDINATION BETWEEN TRADES

- 17.1. EXAMINE ALL DRAWINGS AND SPECIFICATIONS PERTAINING TO THE PROJECT BEFORE SUBMITTING ANY PROPOSAL OR PERFORMING ANY WORK.
- 17.2. COOPERATE WITH ALL OTHER CONTRACTORS IN LOCATING PIPING, DUCTWORK, CONDUIT, OPENINGS, CHASES, AND EQUIPMENT IN ORDER TO AVOID CONFLICT WITH ANY OTHER CONTRACTOR'S WORK.
- 17.3. GIVE SPECIAL ATTENTION TO POINTS WHERE DUCTS OR PIPING MUST CROSS OTHER DUCTS OR PIPING, AND WHERE DUCTS, PIPING, AND CONDUIT MUST FUR INTO WALLS AND COLUMNS.
- 17.4. MAKE KNOWN TO OTHER TRADES THE INTENDED POSITIONING OF MATERIALS AND EQUIPMENT, AND INTENDED ORDER OF THE WORK.

18. TESTING AND BALANCING

- 18.1. UPON THE COMPLETION OF THE HVAC EQUIPMENT AND DUCTWORK, AIR BALANCE SHALL BE PERFORMED BY A NEBB/AABC CERTIFIED TESTING AND BALANCING AGENCY.
- 18.2. SYSTEM TO BE BALANCED TO THE SPECIFIED CFM VALUES ON DRAWINGS.
- 18.3. AABC TESTING AND BALANCING CONTRACTOR TO VERIFY ALL UNIT INFORMATION AND CORRECT CONTROL OPERATION.
- 18.4. SUBMIT COMPLETE TESTING AND BALANCE REPORT TO ENGINEER UPON COMPLETION. INCLUDE REPORT IN CLOSEOUT DOCUMENTS.



GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

PROJECT NO. 5071-03	DESIGNED BY	CE	DATE	REVISION	BY
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	CHECKED BY	CE			
	REVIEWED BY	CE	JANUARY, 2025		
	SCALE	AS NOTED			

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DRAWING NO.
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ELECTRICAL LEGEND

LIGHTING	
SYMBOL	DESCRIPTION
	RECESSED LUMINAIRE
	WALL BRACKET STRIP LUMINAIRE
	INDUSTRIAL STRIP LUMINAIRE
	SURFACE OR PENDANT STRIP LUMINAIRE
	DOWNLIGHT LUMINAIRE
	SURFACE OR PENDANT MOUNTED LUMINAIRE
	WALL MOUNTED LUMINAIRE (NORMAL & EMERGENCY)
	EMERGENCY LUMINAIRE
	REMOTE HEAD EMERGENCY LUMINAIRE (SINGLE & TWIN)
	COMBINATION EXIT SIGN EMERGENCY LUMINAIRE (WALL & CEILING)
	EXIT SIGN - SINGLE FACE (WALL & CEILING)
	EXIT SIGN - DOUBLE FACE (WALL & CEILING)
	LIGHTING CONTROL TAG - 'X' INDICATES LIGHTING CONTROL RISER NUMBER ASSOCIATED WITH ROOM/AREA
	LIGHT SWITCH - 'X' INDICATES THE FOLLOWING TYPES: 3 - 3 WAY, 4 - 4 WAY, K - KEY OPERATED, D - DIMMER, OS - LINE VOLTAGE OCCUPANCY SENSOR, L - LOW VOLTAGE, M - MANUAL MOTOR STARTER W/ HANDLE GUARD KIT AND PADLOCK. SEE LIGHTING CONTROL RISER SHEETS FOR ADDITIONAL TYPES
	BATTERY PACK
	OCCUPANCY/VACANCY SENSOR (CEILING)
	LIGHTING CONTACTOR; MECHANICALLY-HELD AND POLES AS REQUIRED
	TIME CLOCK
	PHOTOCELL

POWER	
SYMBOL	DESCRIPTION
	TAMPER RESISTANT DUPLEX RECEPTACLE - 'X' INDICATES THE FOLLOWING: C - ABOVE COUNTER, CM - CEILING MOUNTED, E - EMERGENCY, G - GROUND FAULT CIRCUIT INTERRUPTER, GB - BLANK FACE GROUND FAULT CIRCUIT INTERRUPTER, IG - ISOLATED GROUND, P - PLUG LOAD CONTROL, S - CONTAINS INTEGRAL SURGE PROTECTION, WP - WEATHER PROOF, USB - CONTAINS USB PORT(S). (NOTE: 'X' NOTATION DESCRIPTIONS TYPICAL FOR ALL RECEPTACLE TYPES)
	TAMPER RESISTANT QUADRUPLUX RECEPTACLE
	TAMPER RESISTANT SINGLE RECEPTACLE
	TAMPER RESISTANT SPECIAL PURPOSE RECEPTACLE
	TAMPER RESISTANT FLOOR MOUNTED OR RECESSED RECEPTACLE(S) AND COVERPLATE. SEE DRAWINGS FOR QUANTITY REQUIRED
	COMBINATION FLOOR BOX WITH QUANTITY OF TAMPER RESISTANT DUPLEX RECEPTACLES AND RJ45 DATA JACKS/UTP CABLES AS NOTED ON DRAWINGS.
	CONDUIT TURNED DOWN
	CONDUIT TURNED UP
	CONDUIT WITH END CAP
	EQUIPMENT CONNECTION
	CIRCUIT CONTINUATION
	CIRCUIT HOMERUN TO ELECTRICAL DISTRIBUTION BOARD (SWITCHBOARD, PANELBOARD, ETC.). THE NUMBER OF TICK MARKS INDICATE QUANTITY OF PHASE AND NEUTRAL CONDUCTORS. LONG TICK MARKS REPRESENT PHASE (UNGROUND) CONDUCTORS. SHORT TICK MARKS REPRESENT NEUTRAL (GROUND) CONDUCTORS. A GROUNDING CONDUCTOR IS NOT SHOWN AS A TICK MARK HOWEVER SHALL BE INSTALLED WITH ALL CIRCUITS. TICK MARKS AND CONDUCTOR SIZES ARE ONLY SHOWN ON THE HOMERUN. INSTALL THE REQUIRED QUANTITY AND SIZE OF CONDUCTORS TO EACH DEVICE ON THE SAME CIRCUIT AS INDICATED ON THE DRAWINGS. IF CONDUCTOR SIZES NOT SHOWN ON HOMERUN, THE FOLLOWING IS REQUIRED: MINIMUM CONDUCTOR SIZE = #12 MINIMUM CONDUIT SIZE = 3/4 INCH CIRCUIT NOTATION EXAMPLE: #10 = (3) #10 PHASE CONDUCTORS AND (1) #10 NEUTRAL CONDUCTOR #10G = (1) #10 GROUNDING CONDUCTOR 3/4" = CONDUIT SIZE P-1 = DISTRIBUTION BOARD "P" - STARTING POLE POSITION IN BOARD
	SURFACE MOUNTED PANELBOARD (DISTRIBUTION & BRANCH CIRCUIT); 'X' INDICATES IDENTIFICATION
	FLUSH MOUNTED PANELBOARD (BRANCH CIRCUIT); 'X' INDICATES IDENTIFICATION
	ELECTRICAL METER
	GROUND ROD
	EMERGENCY SHUT-OFF BUTTON
	JUNCTION BOX
	DISCONNECT SWITCH (SIZE/POLES/NEMA - INDICATED ON DRAWINGS)
	DISCONNECT SWITCH WITH ENCLOSED FUSE(S) OR CIRCUIT BREAKER (SIZE/POLES/FUSING/NEMA - INDICATED ON DRAWINGS)
	VARIABLE FREQUENCY DRIVE
	ELECTRIC MOTOR

SYSTEMS	
SYMBOL	DESCRIPTION
	VOICE/DATA OUTLET WITH QUANTITY OF RJ45 JACK(S) AND CAT6 CABLE(S) AS INDICATED - #V REPRESENTS THE NUMBER OF VOICE JACKS AND CABLES, #D REPRESENTS THE NUMBER OF DATA JACKS AND CABLES (NOTE: #V/#D NOTATION DESCRIBED ABOVE TYPICAL FOR ALL COMMUNICATION OUTLETS); C - ABOVE COUNTER, CG - CEILING MOUNTED
	DATA OUTLET FOR WIRELESS ACCESS POINT WITH TWO RJ45 DATA JACKS AND TWO CAT6 CABLES (WALL & CEILING)

ABBREVIATIONS	
1Ø	1-PHASE
+X'	INDICATES MOUNTING HEIGHT TO BOTTOM OF DEVICE
C	DEVICE TO BE INSTALLED 4 INCHES ABOVE COUNTER/TABLE BACKSPLASH TO BOTTOM OF DEVICE
SPD	SURGE PROTECTION DEVICE
W	DEVICE TO BE INSTALLED 42" ABOVE FLOOR TO BOTTOM OF DEVICE
WP	PROVIDE DEVICE WITH VERTICALLY MOUNTED WEATHERPROOF COVER. RECEPTACLES TO BE WEATHER-RESISTANT TYPE AND PROVIDED WITH A CAST ALUMINUM, EXTRA DUTY, WHILE-IN-USE COVER

ELECTRICAL DEVICE MOUNTING HEIGHTS	
COMMUNICATION / MULTIMEDIA OUTLETS	16 INCHES TO BOTTOM
INTERIOR RECEPTACLES	16 INCHES TO BOTTOM
EXTERIOR RECEPTACLES	24 INCHES TO BOTTOM
SWITCHES	48 INCHES TO TOP

NOTE: MOUNTING HEIGHTS UNLESS OTHERWISE NOTED ON DRAWINGS

ELECTRICAL NOTES

GENERAL

- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER, PER INDUSTRY STANDARD, AND TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
- WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
- ALL MATERIALS USED IN THE INSTALLATION SHALL BE U.L. APPROVED AND NEW.
- DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOF, ETC.
- DETAILS ARE SHOWN ON DIFFERENT SHEETS. THE CONTRACTOR SHALL REFER TO THOSE DETAILS WHETHER OR NOT CALLED IN REFERENCE NOTES.
- CONTRACTOR SHALL NOTIFY AND COOPERATE WITH OTHER TRADES SUCH THAT NO DUCTS, PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER, OR PASS THROUGH ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
- NO WIRING SHALL RUN IN DUCT WORK.
- THE MINIMUM SIZE OF THE CONDUCTORS ARE TO BE #12 AWG THHN COPPER, UNLESS INDICATED OTHERWISE ON THE DRAWINGS. STRANDED CONDUCTORS ARE NOT ALLOWED IN THE CONDUCTORS SMALLER THAN #10 AWG.
- USE EPOXY ANCHORS TO SUPPORT THE ELECTRICAL EQUIPMENT. EXPANSION ANCHOR BOLTS ARE NOT ACCEPTED.
- THE CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND OTHER DRAWINGS PRIOR TO BID.
- CONTRACTOR SHALL REVIEW ALL ARCHITECT'S ELEVATIONS, SECTIONS AND FLOOR PLANS PRIOR TO ROUGH-IN OF ELECTRICAL JUNCTION BOXES.
- ALL JUNCTION BOXES SHALL HAVE MINIMUM DEPTH OF 2-1/8" UNLESS OTHERWISE SPECIFIED. SECURE ALL JUNCTION BOXES AS SHOWN IN THE DETAILS. FURNISH AND INSTALL PROPER PLASTER RINGS.
- REFER TO ARCHITECTURAL CABINET CASEWORK ELEVATION DRAWINGS FOR CLARIFICATION ON MOUNTING AND PLACEMENT OF ALL RACEWAY, RECEPTACLES, AND SWITCHES.
- MANY DEVICE MOUNTING LOCATIONS ARE DEPENDENT ON MILLWORK LOCATIONS. COORDINATE ALL APPLICABLE LOCATIONS WITH MILLWORK INSTALLER PRIOR TO BEGINNING WORK.
- LIGHT SWITCHES INSTALLED ADJACENT TO EACH OTHER, SHALL BE GANGED TOGETHER WITH ONE PIECE COVER PLATE.
- CONSULT ARCHITECTS REFLECTED CEILING PLANS FOR COORDINATION.
- CONTRACTOR SHALL MEET WITH THE CEILING AND MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, CEILING TYPES, AND ROUGH-IN REQUIREMENTS OF ALL LIGHTING FIXTURES PRIOR TO DUCT, PIPING, AND CEILING INSTALLATIONS.
- CONTRACTOR SHALL MEET WITH MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, AND REQUIREMENTS OF MECHANICAL EQUIPMENT CONNECTIONS PRIOR TO INSTALLATIONS.
- CONNECT ALL EMERGENCY LIGHT FIXTURES, NIGHT LIGHTS, EGRESS LIGHTS, AND EXIT SIGNS TO UNSWITCHED CONDUCTOR(S).
- THE CONTRACTOR SHALL TERMINATE THE ELECTRICAL CONNECTIONS TO ALL THE EQUIPMENT BY PROVIDING THE NECESSARY MALE/FEMALE CONNECTOR, RECEPTACLE, PLUG, ETC.
- FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL THE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED. THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED UNDER OTHER DIVISIONS WITH APPROVED SHOP DRAWINGS PRIOR TO BEGINNING ROUGH-IN.
- VERIFY EXACT LOCATION(S) OF ALL EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
- AT THE END OF THE JOB, PROVIDE BLANK COVER PLATES TO MATCH THE OTHER COVER PLATES FOR ALL JUNCTION BOXES WHERE DEVICES HAVE NOT YET BEEN INSTALLED.

LIGHTING

- THE CONTRACTOR SHALL INSTALL THE REQUIRED NUMBER OF CONDUCTORS BETWEEN SWITCHES, LIGHT FIXTURES AND ASSOCIATED DEVICES FOR A COMPLETE AND WORKING SYSTEM. PROVIDE SINGLE-LEVEL OR DUAL-LEVEL SWITCHING, THREE-WAY SWITCHING OR OTHER SWITCHING METHOD AS INDICATED ON THE DRAWINGS.
- INSTALL AN UNSWITCHED CONDUCTOR TO ALL, EXIT SIGNS, EMERGENCY LIGHTS AND ALL OTHER FIXTURES USED FOR EMERGENCY ILLUMINATION AND SUPPLIED WITH INTEGRAL OR EXTERNAL BATTERIES.



GATEWAY DISTRICT HEALTH DEPARTMENT
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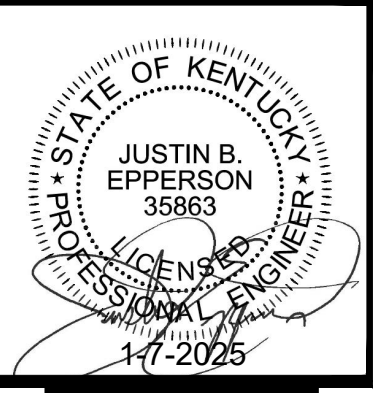
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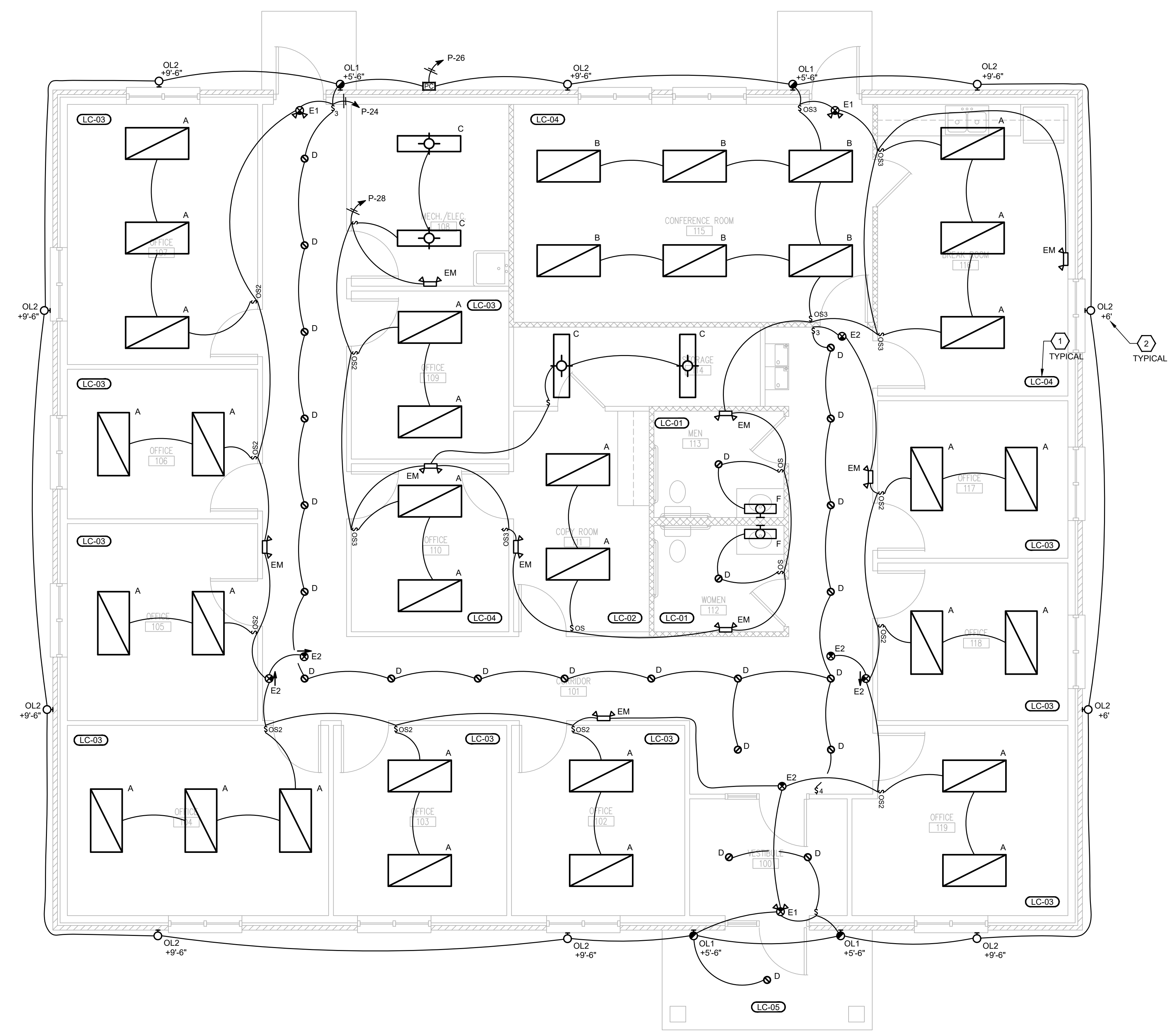
SHEET INDEX	
SHEET NUMBER	SHEET TITLE
E0	ELECTRICAL LEGEND & NOTES
E1	LIGHTING PLAN
E2	POWER & SYSTEMS PLAN
E5	ELECTRICAL DETAILS
E6	ELECTRICAL SCHEDULES
E7	ELECTRICAL SPECIFICATIONS



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- GENERAL NOTES**
- REFER TO SHEET E0.
 - ALL TYPE 'EM' EMERGENCY LIGHT FIXTURES TO BE MOUNTED 7'-6" ABOVE FINISHED FLOOR TO BOTTOM OF LIGHT FIXTURE.
 - MAINTAIN RATINGS OF ALL WALLS AND CEILINGS PENETRATED.
 - DIMMING CONDUCTORS NOT SHOWN ON FLOOR PLAN. REFER TO LIGHTING CONTROL RISERS ON SHEET E5 FOR ADDITIONAL INFORMATION.

- SHEET NOTES**
- INDICATES LIGHTING CONTROL RISER ASSOCIATED WITH AREA. SEE DETAILS ON SHEET E5 FOR ADDITIONAL INFORMATION. TYPICAL.
 - INDICATES MOUNTING HEIGHT ABOVE GRADE/FINISHED FLOOR TO BOTTOM OF LIGHT FIXTURE. TYPICAL.

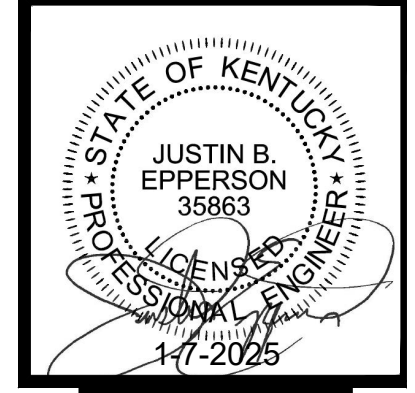
1 FLOOR PLAN - LIGHTING
 1/4" = 1'-0"

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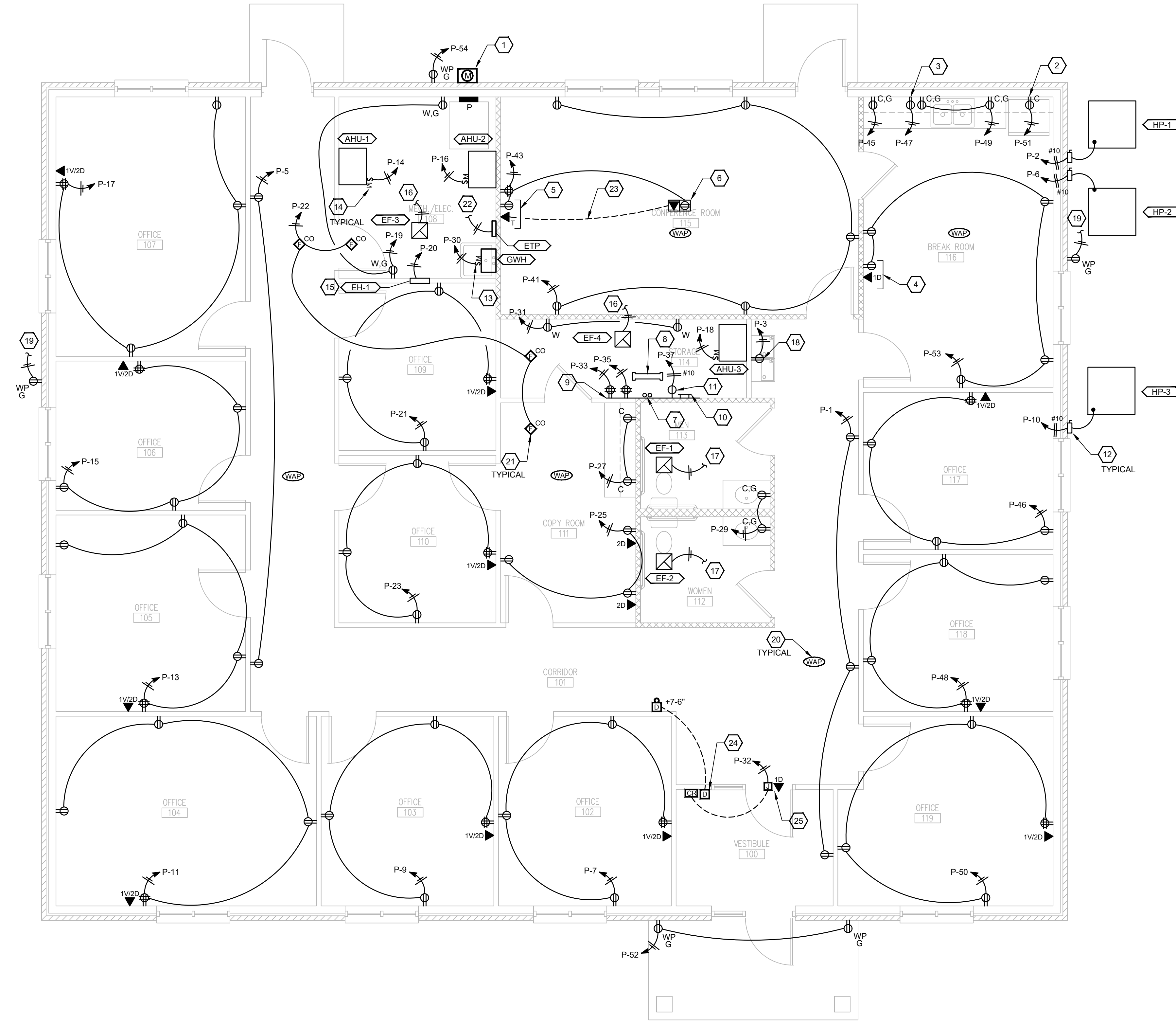
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1 FLOOR PLAN - POWER & SYSTEMS
 1/4" = 1'-0"

GENERAL NOTES

- REFER TO SHEET E0.
- MAINTAIN RATINGS OF ALL WALLS AND CEILINGS PENETRATED.
- COORDINATE ALL ELECTRICAL CONNECTIONS TO MECHANICAL AND PLUMBING EQUIPMENT WITH EQUIPMENT INSTALLER.
- ALL DEVICES TO BE FLUSH MOUNTED UNLESS OTHERWISE NOTED; NO EXPOSED WIRING OR SURFACE RACEWAY PERMITTED.

SHEET NOTES

- PROVIDE SERVICE ENTRANCE METER BASE ENCLOSURE ON BUILDING FACADE. COORDINATE REQUIREMENTS WITH LOCAL POWER UTILITY COMPANY.
- PROVIDE DEDICATED CIRCUIT AND RECEPTACLE FOR REFRIGERATOR WITH GFCI PROTECTION AT THE CIRCUIT BREAKER. RECEPTACLE TO BE MOUNTED AT SAME HEIGHT AS NEARBY COUNTERTOP RECEPTACLES.
- PROVIDE DEDICATED CIRCUIT AND RECEPTACLE FOR BELOW COUNTER MICROWAVE WITH GFCI PROTECTION AT THE CIRCUIT BREAKER. MICROWAVE TO BE LOCATED ON SHELF WITHIN CABINETS. SEE ARCHITECTURAL SHEETS. COORDINATE EXACT RECEPTACLE LOCATION WITH CABINETS CONSTRUCTION PRIOR TO ROUGH-IN FOR COMPLETE CONCEALMENT.
- PROVIDE RECEPTACLE AND 1-CAT6 FOR OWNER-FURNISHED WALL MOUNTED TV. COORDINATE LOCATION AND HEIGHT WITH ASSOCIATED MOUNTING BRACKETS PRIOR TO ROUGH-IN FOR COMPLETE CONCEALMENT BEHIND DISPLAY.
- PROVIDE RECEPTACLE, DATA OUTLET, AND HDMI MULTIMEDIA OUTLET FOR OWNER-FURNISHED WALL MOUNTED TV. ALL DEVICES SHALL BE INSTALLED IN RECESSED 4-GANG "TV BOX" (LEGRAND EVOLUTION SERIES MODEL#EFSB2 OR EQUAL). COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH DISPLAY AND ASSOCIATED MOUNTING BRACKETS PRIOR TO ROUGH-IN FOR COMPLETE CONCEALMENT BEHIND DISPLAY. PROVIDE ALL REQUIRED TV BOX ACCESSORIES TO ACCOMMODATE DEVICES AND CONNECTIONS INDICATED.
- PROVIDE 4-COMPARTMENT COMBINATION FLOOR BOX (LEGRAND EVOLUTION SERIES MODEL#EFB45 OR EQUAL WITH CONCEALED SERVICE TRIM) FLOOR BOX SHALL HAVE TWO DUPLEX RECEPTACLES, ONE LOW VOLTAGE OUTLET WITH TWO CAT6 CONNECTIONS, AND ONE HDMI OUTLET FOR MULTIMEDIA. COORDINATE TRIM REQUIREMENTS WITH FLOOR FINISHES. COLOR SELECTED BY ARCHITECT. CONTRACTOR SHALL VERIFY FINAL LOCATION OF FLOOR BOX IN ROOM WITH OWNER-FURNISHED CONFERENCE TABLE PRIOR TO ROUGH-IN.
- PROVIDE TWO (2) 2" CONDUITS STUBBED UP INSIDE ROOM FOR COMMUNICATION SERVICE ENTRANCE PATHWAY(S). SEE SITE PLAN FOR ADDITIONAL INFORMATION.
- PROVIDE ONE (1) TWO POST COMMUNICATION RACK
- PROVIDE ONE (1) 6" FIRE RATED 3/4" MOUNTING BACKBOARD 24" AFF
- PROVIDE GROUND BAR WITH MINIMUM #6 INSULATED BONDING CONDUCTORS TO THE COMMUNICATION RACK(S) AND TELEPHONE/DATA SERVICE ENTRANCE(S). CONTRACTOR SHALL INSTALL A MINIMUM #4 INSULATED GROUNDING CONDUCTOR IN CONDUIT FROM GROUND BAR TO THE ELECTRICAL SERVICE GROUNDING SYSTEM.
- PROVIDE ONE (1) DEDICATED CIRCUIT WITH 2#10, 1#10G, 3/4"C. VERIFY REQUIRED RECEPTACLE CONFIGURATION WITH OWNER UPS EQUIPMENT
- PROVIDE 60A/2P, 240V, NEMA-3R NON-FUSED DISCONNECT SWITCH AND LFMC CONNECTION TO OUTDOOR HVAC EQUIPMENT. COORDINATE EXACT DISCONNECT SWITCH LOCATION WITH HVAC INSTALLER. TYPICAL.
- PROVIDE TOGGLE SWITCH AND CONNECTION TO TANKLESS WATER HEATER. SWITCH SHALL BE LOCATED IN SIGHT WITHIN 5' OF UNIT CONNECTION.
- PROVIDE TOGGLE SWITCH AND CONNECTION TO INDOOR HVAC EQUIPMENT. SWITCH SHALL BE LOCATED IN SIGHT WITHIN 5' OF UNIT CONNECTION. TYPICAL.
- PROVIDE CONNECTION TO ELECTRIC WALL HEATER SERVING MECHANICAL ROOM, DISCONNECT SWITCH FURNISHED INTEGRAL TO UNIT.
- PROVIDE CONNECTION TO EXHAUST FAN FROM UNSWITCHED LIGHTING CIRCUIT SERVING ROOM, DISCONNECT SWITCH FURNISHED WITH UNIT.
- PROVIDE CONNECTION TO EXHAUST FAN FROM SWITCHED LIGHTING CIRCUIT SERVING ROOM, FAN SHALL OPERATE WITH LIGHTS. DISCONNECT SWITCH FURNISHED WITH UNIT.
- PROVIDE DEDICATED CIRCUIT AND RECEPTACLE FOR ELECTRIC WATER COOLER WITH GFCI PROTECTION AT THE CIRCUIT BREAKER. COORDINATE LOCATION WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN FOR CONCEALMENT BEHIND EQUIPMENT.
- CONNECT TO EXTERIOR RECEPTACLE CIRCUIT P-54.
- PROVIDE WIRELESS ACCESS POINT AT THIS LOCATION WITH 2-CAT6 NETWORK CONNECTIONS FROM COMMUNICATION RACK; CONTRACTOR TO PROVIDE APPROPRIATE CONNECTOR(S) WITH CONCEALED CONNECTION BEHIND DEVICE. TYPICAL.
- PROVIDE CEILING MOUNTED CARBON MONOXIDE DETECTOR WITH INTEGRAL BATTERY BACKUP. TYPICAL.
- PROVIDE CONNECTION TO ELECTRONIC TRAP PRIMER FROM ROOM RECEPTACLE CIRCUIT P-19. CONNECTION SHALL BE UPSTREAM OF ALL GFCI PROTECTION.

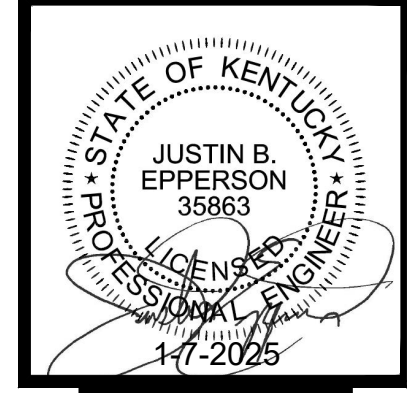
- PROVIDE REQUIRED PATHWAYS AND WIRING BETWEEN WALL MOUNTED RECESSED TV BOX AND FLOOR MOUNTED RECESSED CONFERENCE TABLE FLOOR BOX. FOR POWER, PROVIDE 3/4" CONDUIT PATHWAY. FOR DATA, PROVIDE 1" CONDUIT PATHWAY. FOR MULTI-MEDIA, PROVIDE 1-1/2" CONDUIT PATHWAY. ALL CONDUITS SHALL EXTEND FROM FLOOR BOX TO TV BOX AND STUB OUT ABOVE CEILING.
- PROVIDE DOORBELL SYSTEM WITH REMOTE PUSHBUTTON AND REMOTE WALL MOUNTED CHIME. LOCATE TRANSFORMER ABOVE DROP CEILING NEAR CHIME. TRANSFORMER POWERED FROM NEARBY ACCESS CONTROL CIRCUIT (SEE NOTE 25).
- PROVIDE STAND-ALONE DOOR CONTROLLER (AVIGILON OP-CR-SDC OR EQUIVALENT) WITH REMOTE CARD READER. FURNISH DEDICATED CIRCUIT AND DATA CONNECTION TO CONTROLLER LOCATION ABOVE CEILING. COORDINATE WIRING REQUIREMENTS TO LOCK WITH DOOR HARDWARE INSTALLER.

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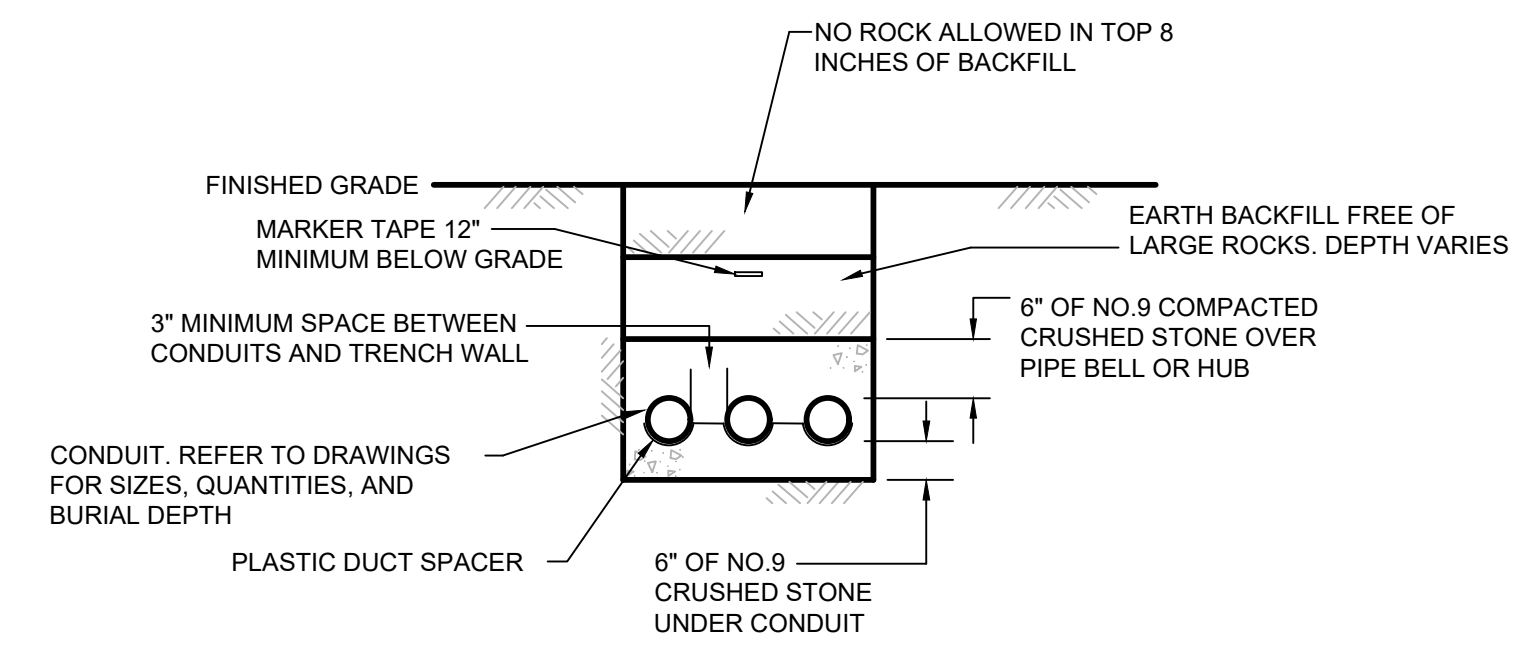
PROJECT NO. 5071-03	DESIGNED BY JE	JE
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	CHECKED BY JE	JE
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	DATE	JANUARY 2025
	SCALE	AS NOTED

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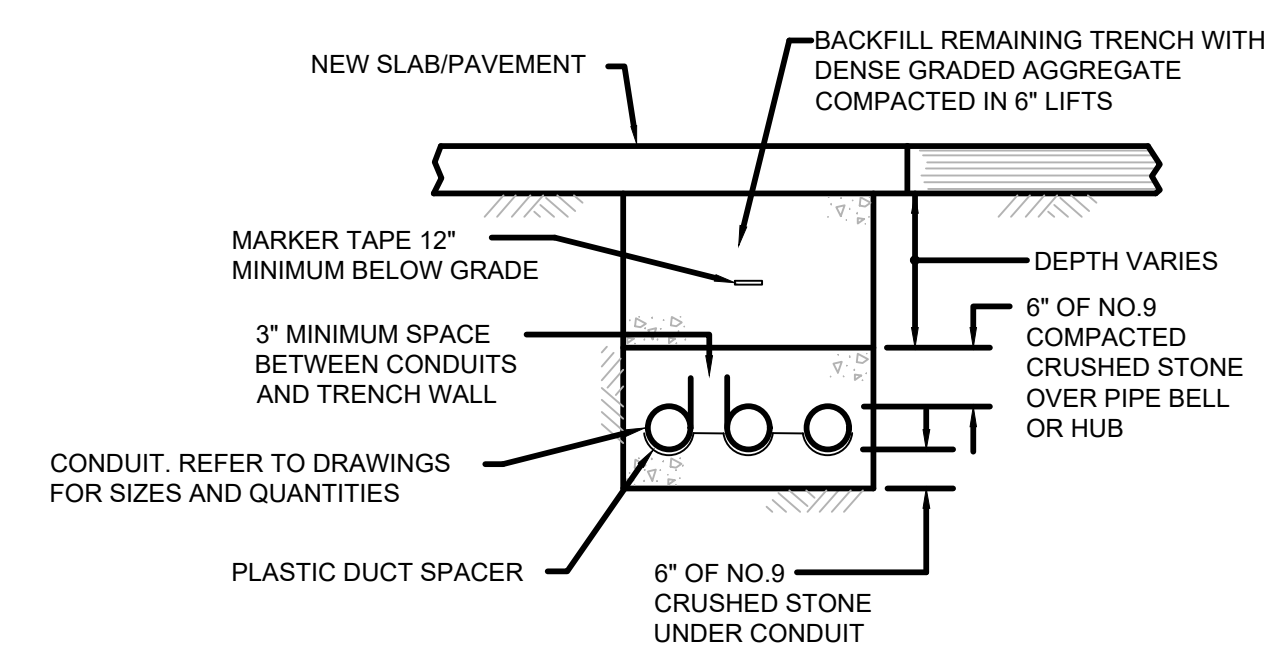
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E2



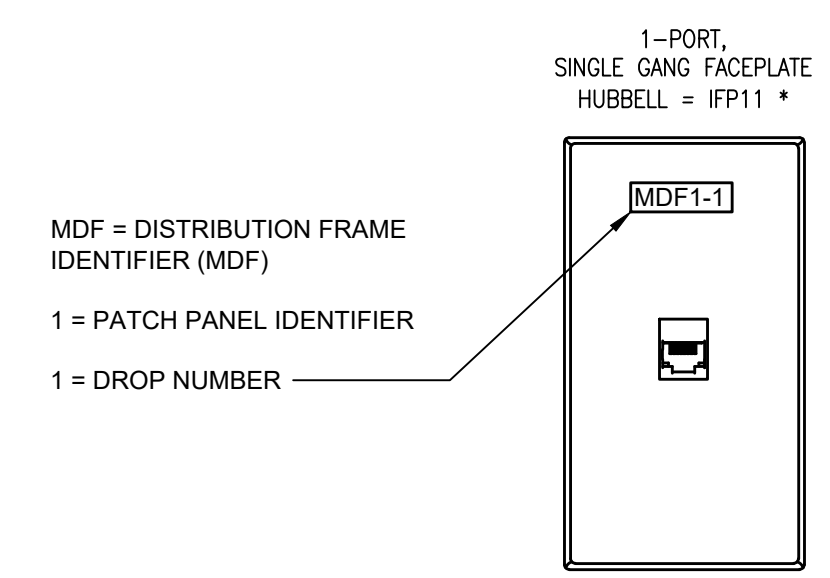
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 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY



1 TRENCH DETAIL FOR EARTH COVER
NOT TO SCALE

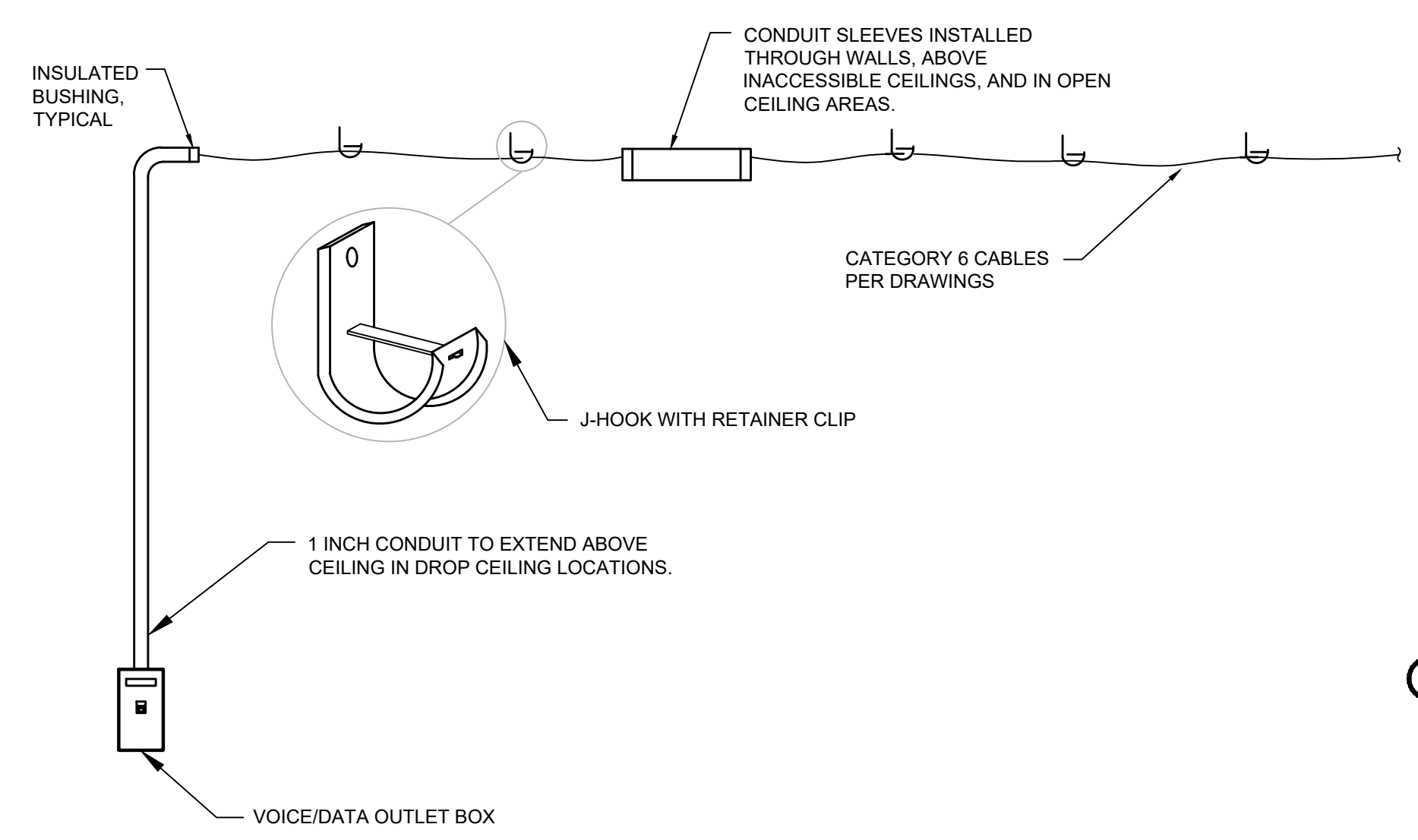


2 TRENCH DETAIL FOR NEW SLAB/PAVEMENT
NOT TO SCALE



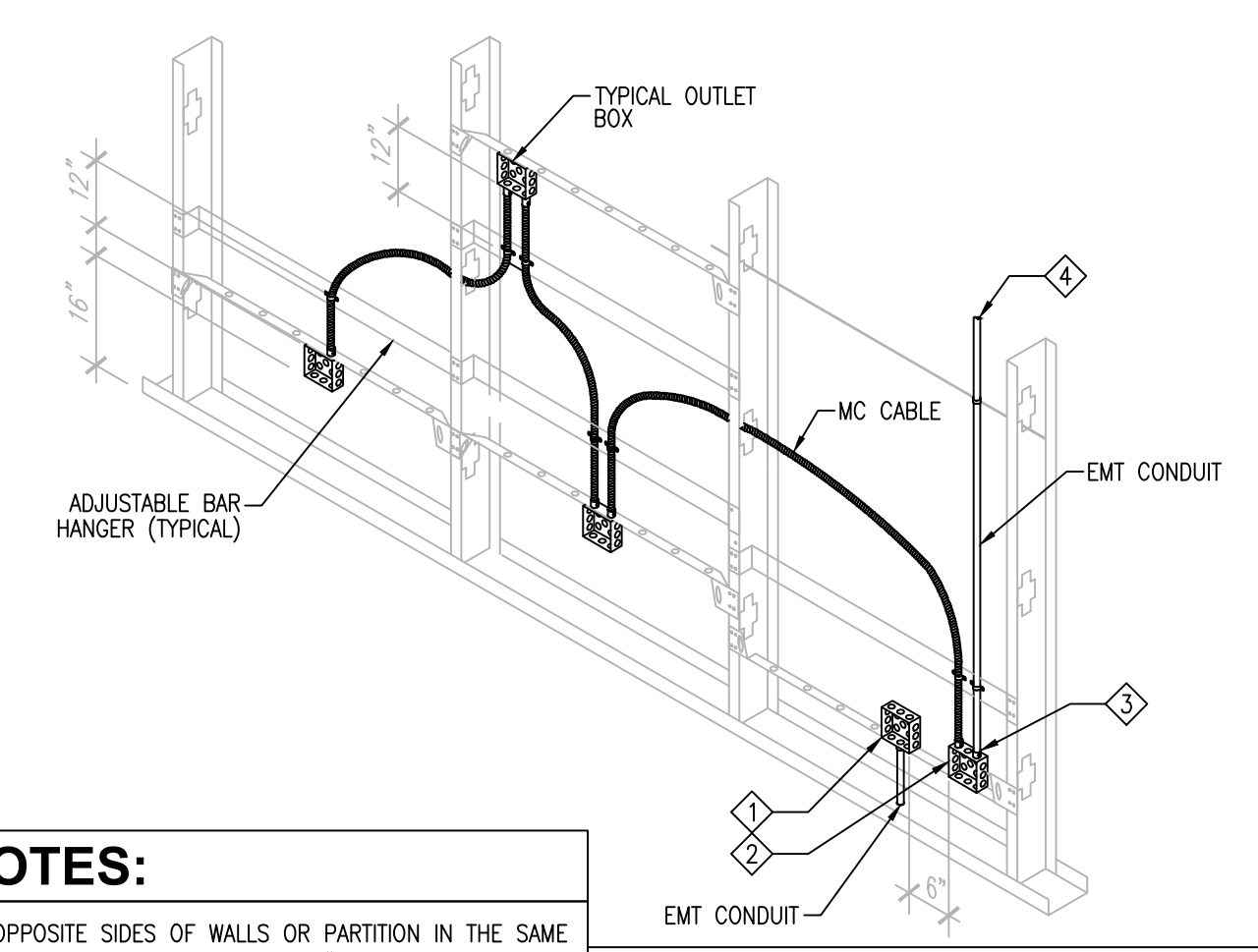
- GENERAL NOTES:**
- THIS LABEL INDICATES THAT THIS CABLE ORIGINATES FROM PATCH PANEL 1 IN THE MAIN DISTRIBUTION FRAME.
 - QUANTITY OF CATEGORY 6 JACKS AND CABLES PER OUTLET AS INDICATED ON DRAWINGS.
 - EACH PATCH PANEL SHALL BE LABELED IN ASCENDING ORDER STARTING AT THE TOP OF THE RACK.
 - PATCH PANEL TERMINATIONS SHALL BE LABELED WITH THE SAME LABELING SCHEME.
 - LABEL THE CABLE ONE INCH BEHIND THE CONNECTORS ON BOTH THE ROOM AND RACK SIDES. LABELS SHALL BE MACHINE GENERATED AND SELF LAMINATING. PATCH CORDS OVER 2 FEET IN LENGTH SHALL BE LABELED AT EACH END.
 - ALL PATCH CABLES AND WORK STATION CABLES SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. WORK STATION CABLES SHALL BE MINIMUM 5' LONG.
 - ALL PATCHING AND/OR CROSS CONNECTION SHALL BE PERFORMED BY THE CONTRACTOR.

3 VOICE/DATA OUTLET INSTALLATION DETAIL
NOT TO SCALE



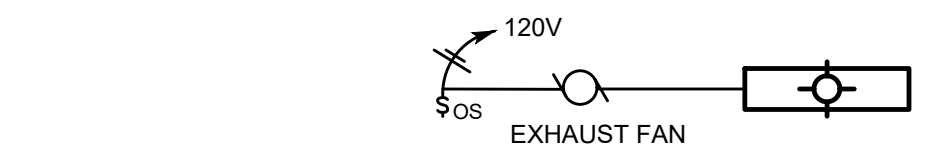
- GENERAL NOTES:**
- ALL VOICE AND DATA CABLING SHALL BE RUN ABOVE THE FINISHED FLOOR.
 - ALL CABLING INCLUDING VOICE, DATA, SECURITY CAMERA, SPEAKER, HVAC CONTROLS, AV, ETC. SHALL BE ROUTED IN THE MANNER SHOWN. NO CABLING SHALL BE ROUTED THROUGH TRUSSES OR SUPPORTED BY CEILING GRID WIRE TIES OR LIGHT FIXTURE WIRE TIES.
 - PROVIDE A COMPLETE UNINTERRUPTED PATHWAY BETWEEN ALL HEADEND EQUIPMENT AND OUTLETS AS SHOWN IN THE DIAGRAM. CONDUIT SLEEVES SHALL BE SIZED TO NOT EXCEED 40% CAPACITY. ANY CABLES THAT PENETRATE A WALL SHALL BE INSTALLED IN A CONDUIT SLEEVE.
 - CABLE STRAPS SHALL BE REUSABLE BLACK VELCRO CABLE WRAPS. NO ZIP TIES WILL BE PERMITTED.
 - EQUIPMENT ORIENTATION (FROM TOP TO BOTTOM) SHALL BE: PATCH PANEL, SWITCH, PATCH PANEL, SWITCH, ETC.
 - ALL LOW-VOLTAGE CABLING ROUTED THRU EXPOSED CEILING AREAS OR IN INACCESSIBLE AREAS ARE TO BE INSTALLED IN EMT CONDUIT. NO EXCEPTIONS.

4 TYPICAL CABLE DISTRIBUTION RISER DIAGRAM
NOT TO SCALE



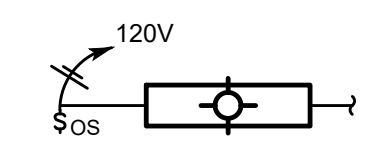
- KEYED NOTES:**
- OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITION IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 6" HORIZONTAL DISTANCE.
 - ELECTRICAL BOXES INSTALLED IN FIRE RESISTANT WALLS OR PARTITIONS SHALL COMPLY WITH IBC 714.3.2 (24" SEPARATION ON OPPOSITE SIDES.)
 - INSULATED THROAT EMT CONNECTOR.
 - HOME RUN TO PANEL MUST BE IN RACEWAY.
- GENERAL NOTES:**
- TYPICAL FOR WOOD AND METAL STUD ROUGH IN.
 - PLASTER RINGS NOT SHOWN. COORDINATE RING DEPTH TO BE FLUSH WITH FINAL FINISH SURFACE.
 - LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.

5 ELECTRICAL ROUGH-IN DETAIL
NOT TO SCALE



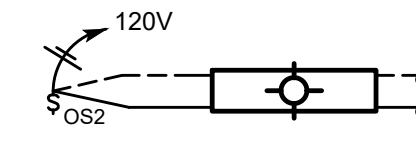
LC-01 RESTROOM - LIGHTING AND FAN CONTROL RISER

- ZONE CONTROL**
- AUTO ON BY OCCUPANCY SENSOR
 - AUTO OFF AFTER NO OCCUPANCY DETECTED FOR 30 MINUTES.



LC-02 COPY ROOM - LIGHTING CONTROL RISER

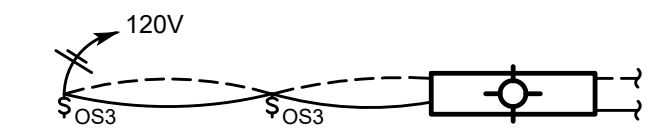
- ZONE CONTROL**
- AUTO ON BY OCCUPANCY SENSOR
 - AUTO OFF AFTER NO OCCUPANCY DETECTED FOR 30 MINUTES.



LC-03 PRIVATE OFFICE/STUDY - LIGHTING CONTROL RISER

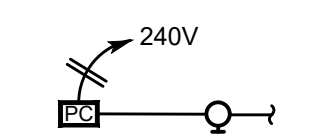
- ZONE CONTROL**
- MANUAL ON/OFF
 - MANUAL RAISE/LOWER
 - AUTO OFF AFTER NO OCCUPANCY DETECTED FOR 30 MINUTES

NOTE: SWITCHES WIRED TO ALLOW MULTI-WAY OPERATION



LC-04 CONFERENCE/BREAK ROOM - LIGHTING CONTROL RISER

- ZONE CONTROL**
- MANUAL ON/OFF
 - MANUAL RAISE/LOWER
 - AUTO OFF AFTER NO OCCUPANCY DETECTED FOR 30 MINUTES



LC-05 EXTERIOR - LIGHTING CONTROL RISER

- ZONE CONTROL**
- AUTO ON/OFF BY PHOTOCELL

LIGHT CONTROL RISER LEGEND

SYMBOL	DESCRIPTION
§ OS	ON/OFF WITH INTEGRAL OCCUPANCY SENSOR (SENSOR SWITCH 'WSX PDT' OR EQUAL)
§ OS2	ON/OFF, RAISE/LOWER, WITH INTEGRAL OCCUPANCY SENSOR (SENSOR SWITCH 'WSXA PDT EZ D SA')
§ OS3	ON/OFF, RAISE/LOWER, WITH INTEGRAL OCCUPANCY SENSOR (SENSOR SWITCH 'WSXA MWO PDT EZ D SA')
-----	2#18 DIMMING CONDUCTOR CABLE
P	PHOTOCELL

DATE	REVISION	BY

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PROJECT NO. 5071-03
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 DRAWN BY JE
 CHECKED BY JE
 REVIEWED BY JE
 DATE: JANUARY 2025
 SCALE: AS NOTED

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GATEWAY DISTRICT HEALTH DEPARTMENT
 ADMINISTRATION BUILDING
 OWINGSVILLE, KENTUCKY

PANEL 'P'												
BRANCH CIRCUIT PANELBOARD												
VOLTAGE		1 PHASE	POLES	MAIN AMPS	MAIN TYPE	A. I. RATING	MOUNTING					
120/240		3 WIRE	54	200	MCB	22,000	SURFACE					
POLE NO.	BREAKER TRIP	P	LOAD SERVED	PHASE LOADS			LOAD SERVED	BREAKER	P	POLE NO.		
				KVA	A	B					KVA	
1	20	1	REC: 100 VEST, 101 CORR	0.5	2.5		1.9	HP-1		30	2	2
3	20G	1	REC: 101 EWC	1.0		2.9	1.9					4
5	20	1	REC: 101 CORRIDOR	0.4	2.3		1.9	HP-2		30	2	6
7	20	1	REC: 102 OFFICE	0.9		2.8	1.9					8
9	20	1	REC: 103 OFFICE	0.9	2.8		1.9	HP-3		30	2	10
11	20	1	REC: 104 OFFICE	0.9		2.8	1.9					12
13	20	1	REC: 105 OFFICE	0.9	1.8		0.9	AHU-1		15	1	14
15	20	1	REC: 106 OFFICE	0.9		1.8	0.9	AHU-2		15	1	16
17	20	1	REC: 107 OFFICE	0.9	1.8		0.9	AHU-3		15	1	18
19	20	1	REC: 108 MECHELEC, ETP	0.4		1.4	1.0	EH-1		20	1	20
21	20	1	REC: 109 OFFICE	0.9	1.0		0.1	CO DETECTORS		20	1	22
23	20	1	REC: 110 OFFICE	0.9		2.2	1.3	LTS: INTERIOR		20	1	24
25	20	1	REC: 111 COPY RM	1.0	1.5		0.5	LTS: EXTERIOR		20	1	26
27	20	1	REC: 111 COPY RM - COUNTER	0.4		1.7	1.3	LTS: INTERIOR, EF-1,2,3,4		20	1	28
29	20	1	REC: 112/113 RFRs	0.4	0.8		0.5	GW/H		15	1	30
31	20	1	REC: 114 STORAGE	0.4		0.9	0.5	ACCESS CONTROL/DOORBELL		20	1	32
33	20	1	REC: COMMUNICATIONS	1.0	1.0		0.0	SPARE		20	1	34
35	20	1	REC: COMMUNICATIONS	1.0		1.0	0.0	SPARE		20	1	36
37	30	2	REC: UPS	2.0	2.0		0.0	SPARE		20	1	38
39	-	-	-	2.0		2.0	0.0	SPARE		20	1	40
41	20	1	REC: 115 CONFERENCE RM	0.9	0.9		0.0	SPARE		20	1	42
43	20	1	REC: 115 CONFERENCE RM	0.9		0.9	0.0	SPARE		20	1	44
45	20	1	REC: 116 BREAK - COUNTER	1.5	2.4		0.9	REC: 117 OFFICE		20	1	46
47	20G	1	REC: 116 MICROWAVE	1.2		2.1	0.9	REC: 118 OFFICE		20	1	48
49	20	1	REC: 116 BREAK- COUNTER	1.5	2.4		0.9	REC: 119 OFFICE		20	1	50
51	20G	1	REC: 116 REFRIGERATOR	1.0		1.4	0.4	REC: EXTERIOR - FRONT		20	1	52
53	20	1	REC: 116 BREAK ROOM	0.9	1.4		0.5	REC: EXTERIOR		20	1	54
PHASE TOTALS:				24.7			23.8	TOTAL:	48.476	KVA		

NOTES:
 1. PANEL SHALL BE SERVICE ENTRANCE RATED
 2. PANEL SHALL HAVE SURGE PROTECTION
 3. FIELD VERIFY REQUIRED PANEL A.I. RATING BASED ON SERVICE ENTRANCE CHARACTERISTICS. CONTRACTOR SHALL LABEL PANEL WITH MAX AVAILABLE FAULT CURRENT

ABBREVIATIONS:
 G - GFCI BREAKER
 A - AFCI BREAKER
 L - LOCKOUT BREAKER
 S - SHUNT TRIP BREAKER
 C - COMBINATION GFCI/AFCI BREAKER
 MCB - MAIN CIRCUIT BREAKER
 MLO - MAIN LUG ONLY

LIGHT FIXTURE SCHEDULE											
FIXTURE TYPE	DESCRIPTION	MOUNTING	VOLTAGE	LAMPS						MANUFACTURER/MODEL NUMBER	NOTES
				TYPE	LUMENS	WATTS	DIMMING	CRI	COLOR TEMP		
A	2x4' FLAT PANEL TROFFER, SELECTABLE WATTAGE AND CCT.	RECESSED	MVOLT	LED	5,600	40	0-10V DIM TO 1%	≥80	4000K	TOPAZ PL24 50W PCTS D	1, 3
B	2x4' FLAT PANEL TROFFER, SELECTABLE WATTAGE AND CCT.	RECESSED	MVOLT	LED	4,200	30	0-10V DIM TO 1%	≥80	4000K	TOPAZ PL24 50W PCTS D	1, 3
C	4' LINEAR STRIP LIGHT, SLIM DESIGN, SEMI-CIRCULAR FROSTED LENS, STEEL CONSTRUCTION, UNIVERSAL MOUNTING, SELECTABLE WATTAGE AND CCT. FIXTURE TO HAVE WHITE COLOR/FINISH.	SURFACE	MVOLT	LED	5,044	34.8	NA	≥80	4000K	NICOR: LSL 1 4 45S U S 8	1, 3
D	6" DOWNLIGHT, GALVANIZED STEEL FRAME, FIELD ADJUSTABLE OPTICS, SET TO 60°, STEEL JUNCTION BOX WITH HINGED DOOR, 2" VERTICAL ADJUSTMENT WITH MOUNTING BRACKET THAT CAN BE USED FOR NEW OR RETROFIT APPLICATIONS. SELECTABLE WATTAGE AND CCT. FIXTURE TO HAVE WHITE FLANGE.	RECESSED	MVOLT	LED	1,295	12	0-10V DIM TO 1%	≥80	4000K	NICOR: CDG4 1 38S U S 9 CL WH MD	1, 3, 5
E1	EMERGENCY EXIT SIGN, 90 MINUTE EMERGENCY BATTERY, ADJUSTABLE TWIN HEADS, REMOTE CAPABLE, SELF DIAGNOSTICS, TEST BUTTON WITH STATUS INDICATOR, DAMP LOCATION LISTED, UNIVERSAL MOUNTING, FIELD SELECTABLE RED/GREEN LETTERS, FIELD SELECTABLE SINGLE OR DOUBLE SIDED.	SURFACE	MVOLT	LED	193	4	NA	NA	NA	NICOR: ECL1 20 UNV WH S 2 R	1, 2
E2	EMERGENCY EXIT SIGN, 90 MINUTE EMERGENCY BATTERY, SELF DIAGNOSTICS, TEST BUTTON WITH STATUS INDICATOR, DAMP LOCATION LISTED, UNIVERSAL MOUNTING, FIELD SELECTABLE RED/GREEN LETTERS, FIELD SELECTABLE SINGLE OR DOUBLE SIDED.	SURFACE	MVOLT	LED	NA	1	NA	NA	NA	NICOR: EXL1 20 UNV WH S 2	1, 2
EM	EMERGENCY LIGHT, 90 MINUTE EMERGENCY BATTERY, ADJUSTABLE TWIN HEADS, SELF DIAGNOSTICS, TEST BUTTON WITH STATUS INDICATOR, DAMP LOCATION LISTED, UNIVERSAL MOUNTING	SURFACE	MVOLT	LED	203	2.5	NA	≥70	NA	NICOR: EML3 10 UNV WH SD	1
F	VANITY WALL SCONCE, BRUSHED NICKEL FINISH, WHITE ALABASTER SWIRLED GLASS DIFFUSER, 2' LENGTH.	SURFACE	MVOLT	LED	1,860	23	NA	≥80	4000K	NICOR: 32103 LED NK 40K	1, 4
OL1	EMERGENCY OUTDOOR TEAR DROP LIGHT FIXTURE, 90 MINUTE EMERGENCY BATTERY, IP65 RATED, DIE-CAST ALUMINUM BODY, INTEGRAL PHOTOCELL TO BE BYPASSED DURING INSTALLATION (DIP SWITCH) TO ALLOW FOR CONTROL FROM SWITCHED CIRCUIT. FIXTURE TO HAVE BRONZE COLOR/FINISH.	SURFACE	MVOLT	LED	1,158	13.4	NA	≥70	5000K	NICOR: EOT 1 MV 5K BZ P S	1
OL2	WALLPACK LIGHT FIXTURE, TYPE 4 DISTRIBUTION, IP65 RATED, ALUMINUM HOUSING, GLASS LENS, SELECTABLE WATTAGE AND CCT. PROVIDE WITH REQUIRED MOUNTING ACCESSORIES, INTEGRAL PHOTOCELL TO BE BYPASSED DURING INSTALLATION. FIXTURE TO HAVE BRONZE COLOR/FINISH.	SURFACE	MVOLT	LED	3,920	28	NA	≥80	5000K	TOPAZ: WP 40W PCTS BZ PC	1, 3

GENERAL
 ALL LIGHT FIXTURES TO MEET THE FOLLOWING CRITERIA UNLESS OTHERWISE NOTED:
 - MINIMUM 5 YEAR WARRANTY
 - RATED L70/50,000HR LIFE
 - UL LISTED

NOTES
 1. ARCHITECT TO SELECT COLOR/FINISH (ANY COLOR MENTIONED IN DESCRIPTION OR MODEL NUMBER IS FOR DESIGN COORDINATION ONLY).
 2. SINGLE OR DOUBLE FACE AND DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS; CENTER ABOVE DOOR WHERE APPLICABLE; REFER TO FLOORPLAN FOR MOUNTING TYPE.
 3. FIXTURE HAS ADJUSTABLE LUMEN OUTPUT AND CCT, SELECT OUTPUT WATTAGE AND CCT INDICATED ON SCHEDULE.
 4. CENTER VANITY FIXTURE ABOVE MIRROR, COORDINATE WITH ARCHITECTURAL ELEVATIONS.
 5. SET FIXTURE OPTIC TO 60°.

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