NEW CONSTRUCTION OF

FIRE STATION 2 CITY OF SIDNEY

2324 CAMPBELL ROAD

SIDNEY, OH 45365

FREYTAG & ASSOCIATES, INC. ARCHITECTS / ENGINEERS **ARCHITECTURAL**

CONSULTANTS

NAUMAN & ZELINSKI LLC. PLUMBING, HVAC, ELECTRICAL, FIRE PROTECTION - ENGINEERING

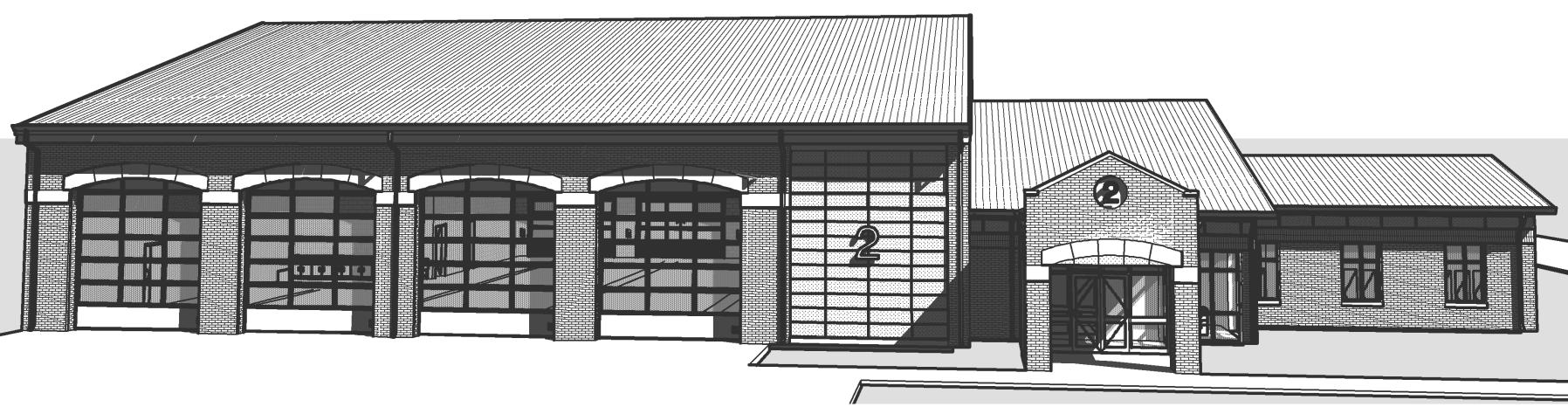
M-ENGINEERING, INC. TECHNOLOGY SYSTEMS DESIGN

JEZERINAC GEERS & ASSOCIATES, INC.

JACCYN DESIGN GROUP LANDSCAPE/SITE DESIGN

STRUCTURAL ENGINEERING

CHOICE ONE ENGINEERING CIVIL ENGINEERING





ABBREVIATIONS

CENTER TO CENTER

DRINKING FOUNTAIN

EXTERIOR INSULATION

GENERAL

MINIMUM MOUNTED

ON CENTER

VENT THRU ROOF

TATION

DANIEL FREYTAG

Expiration Date: 12/31/2025

herein, whether in writing or graphically, a approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

SECOND FLOOR POWER AND SYSTEMS PLAN FIRST FLOOR SYSTEMS PLAN T-100 OVERALL TECHNOLOGY FIRST FLOOR PLAN T-200 OVERALL TECHNOLOGY MEZZANINE PLAN DRAWN BY

T-900 TECHNOLOGY DETAILS T-901 TECHNOLOGY DETAILS

FIRST FLOOR LIGHTING PLAN SECOND FLOOR LIGHTING PLAN FIRST FLOOR POWER PLAN

LEGENDS AND SCHEDULES

VRF SYSTEM SCHEDULE FIRST FLOOR PLAN

ROOF PLAN

DETAILS

CONTROLS

CONTROLS

SCHEDULES

SITE PLAN

MSD&C SCHEDULE PANEL SCHEDULE

DUCTWORK MATERIAL SCHEDULES

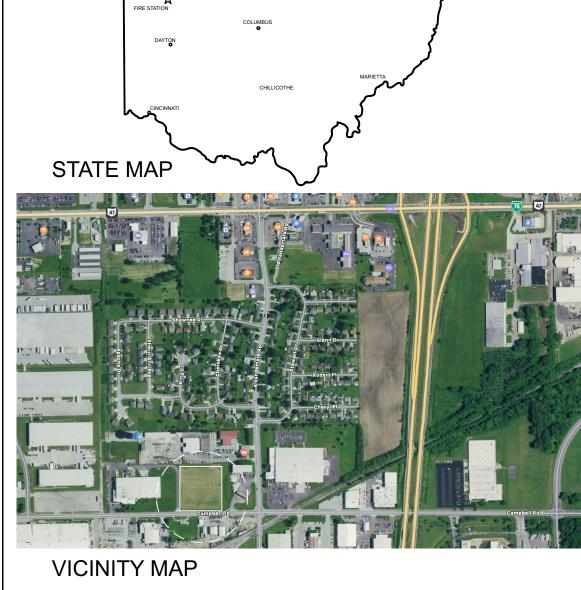
MEZZANINE AND MECHANICAL ROOM PLANS

PIPING MATERIAL SCHEDULES **EQUIPMENT SCHEDULES**

> REVISIONS ORM SHELTER REVIEW AN APPROVAL / BIDDING

> > COMM. NUMBER DATE CHECKED BY

> > > COVER SHEET



ALTERNATES

GENERAL NOTES

- CONTRACTOR(S) ARE TO INVESTIGATE AND VERIFY LOCATION, CONDITION, AND CAPACITY OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF WORK PRIOR TO BEGINNING CONSTRUCTION. SEE UTILITY, MECHANICAL, AND ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
- UNLESS NOTED OTHERWISE, ALL EXTERIOR EQUIPMENT PADS, (CONDENSING UNITS, TRANSFORMERS, ETC.) ARE INSTALLED BY THE GENERAL (LEAD) CONTRACTOR. VERIFY WITH APPROPRIATE CONTRACTOR(S) FOR REQUIRED SIZE, SLEEVES, KNOCK-OUTS, AND LOCATION. VERIFY WITH LOCAL UTILITY COMPANIES FOR ANY ADDITIONAL REQUIREMENTS (KNOCK-OUTS, ETC.) ASSOCIATED WITH
- ENSURE THAT ADJOINING MATERIALS ARE COMPATIBLE

SHEET INDEX

CS	COVER SHEET	A7.1	ROOM AND DOOR SCHEDULE
C1.1	GENERAL NOTES	A7.2	HEAD JAMB AND SILL DETAILS
C1.2	GENERAL NOTES	A7.3	HEAD JAMB AND SILL DETAILS
C1.3	GENERAL NOTES	A7.4	HEAD JAMB AND SILL DETAILS
C1.4	GENERAL NOTES	A8.1	FIRST FLOOR EQUIPMENT PLAN
C1.5	GENERAL NOTES	A8.2	MEZZANINE EQUIPMENT PLAN
C1.6	GENERAL NOTES	A9.1	INTERIOR ELEVATIONS
C2.1	UTILITY PLAN	A9.2	INTERIOR ELEVATIONS
C3.1	GRADING PLAN	A9.3	INTERIOR ELEVATIONS
C3.2	PAVEMENT ELEVATION PLAN	A10.1	CEILING PLAN
C4.1	SWPP-COVER SHEET	A10.2	MEZZANINE REFLECTED CEILING
C4.2	GENERAL NOTES AND DETAILS	S0.0	GENERAL STRUCTURAL NOTES
C4.3	GENERAL NOTES AND DETAILS	S0.1	GENERAL STRUCTURAL NOTES
C4.4	GENERAL NOTES AND DETAILS	S1.1	FOUNDATION PLAN
C4.5	SITE EROSION CONTROL PLAN	S1.2	ROOF FRAMING PLAN
_1.0	SITE PLAN	S1.3	MEZZANINE FRAMING PLAN
_1.1	LAYOUT	S2.1	FOUNDATION DETAILS
_2.0	DETAILS	S2.2	FRAMING DETAILS
_3.0	PLANTING PLAN	S2.3	FRAMING DETAILS
_3.1	TURF SPECIFICATIONS	S2.4	FOUNDATION DETAILS
_3.2 41.1	PLANTING SPECIFICATIONS	S2.5	STRUCTURAL DETAILS
	CODE PLAN STORM SHELTER INFORMATION	S2.6	FRAMING DETAILS
A1.2		S2.7	FRAMING DETIALS
42.0	WALL TYPES	F0.1	LEGENDS AND SCHEDULES
A2.1	FIRST FLOOR PLAN	F0.2	DETAILS
42.2	MEZZANINE FLOOR PLAN	F1.1	FIRST FLOOR FIRE SUPPRESSION
A2.3	ENLARGED RESTROOM PLANS	F1.2	MEZZANINE AND UPPER APPARATUS BAY FIRE SUPPRESS
42.4	PLAN DETAILS	P0.1	LEGENDS AND SCHEDULES
43.1	ROOF PLAN	P0.2	MATERIAL SCHEDULES
43.2	ROOF DETAILS	P0.3	MATERIAL SCHEDULES AND GENERAL DETAILS
43.3	ROOF, GUTTER & LOUVER DETAILS	P1.0	UNDERFLOOR PIPING PLAN

ROOF DETAILS **ROOF DETAILS** EXTERIOR ELEVATIONS

BUILDING SECTIONS WALL CONSTRUCTION DETAILS A6.2 CONSTRUCTION DETAILS A6.3 WALL SECTIONS

A6.5 ENTRY WALL SECTIONS A6.6 WALL SECTIONS

ENTRY WALL SECTIONS

A6.7 STAIR PLAN AND SECTION A6.8 STAIR AND MEZZANINE DETAILS

A6.9 DETAILS

P1.2 UPPER APPARATUS BAY AND MEZZANINE PLAN P3.1 DETAILS P4.1 SOIL, WASTE AND VENT

P1.1 FIRST FLOOR PLAN

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 (ODOT VRS GEOID

GENERAL NOTES AND DETAILS

ALL CONSTRUCTION METHODS, MATERIALS, AND SPECIFICATIONS SHALL COMPLY WITH THE LATEST VERSION OF THE CITY OF SIDNEY STANDARDS AND SPECIFICATIONS AND/OR THE LATEST VERSION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARDS AND SPECIFICATIONS (INCLUDING CURRENT SUPPLEMENTAL SPECIFICATIONS 800 AND 832), WHICHEVER IS MORE RESTRICTIVE AS DETERMINED BY THE CITY OF SIDNEY.

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION.

NON-MEMBERS MUST BE CALLED DIRECTLY.

UTILITY OWNERSHIP

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

STREETS, STORM SEWER, WATER. AND SANITARY CITY OF SIDNEY 201 W. POPLAR STREET SIDNEY, OHIO 45365 (937) 498-8142 ATTN: CHAD ARKENBERG

TELEPHONE **BRIGHTSPEED** 125 N. MAIN STREET SIDNEY, OHIO 45365 (937) 498-5105

ELECTRIC 1900 DRYDEN ROAD DAYTON, OHIO 45439 (937) 331-4521 ATTN: WILLIAM GOURLEY

ATTN: GAGE RYAN

<u>TELEPHONE</u> CHARTER COMMUNICATIONS 3691 TURNER ROAD DAYTON, OHIO 45415 (937) 396-8611 ATTN: JUSTIN TEGTMEYER

<u>CABLE</u> *NKTELCO* 301 W. SOUTH STREET NEW KNOXVILLE, OHIO 45871 (419) 753-5019

<u>GAS</u> CENTERPOINT ENERGY 6500 CLYO ROAD CENTERVILLE, OHIO 45459 (937) 312-2521 ATTN: GREGORY FISHMAN

ATTN: RODNEY HARTINGS

OHIO UTILITIES PROTECTION SERVICE 2 WORKING DAYS BEFORE YOU DIG CALL TOLL FREE 800-362-2764

UTILITY INTERFERENCE

IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY AND COORDINATE AS NEEDED WITH THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PRIVATE UTILITIES SHALL BE COORDINATED WITH AND. IF REQUIRED. DONE BY THEIR RESPECTIVE OWNERS. UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY. AT LEAST 7 DAYS BEFORE BREAKING GROUND. ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS.

EXISTING TILE HOOKUPS

THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ALL TILE REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY OF SIDNEY BEFORE THEY ARE COVERED.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY OF SIDNEY. CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES. UNLESS OTHERWISE APPROVED BY THE CITY OF SIDNEY. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

GEOTECHNICAL ENGINEERING REPORT

CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT FOR THE PROPOSED PROJECT AND PERFORM ALL GEOTECHNICAL WORK IN ACCORDANCE WITH THIS REPORT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT. OR EXISTING APPURTENANCE TO BE CONNECTED. DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, CITY OF SIDNEY SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT THE EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, CITY OF SIDNEY SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

THE TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON PUBLIC STREETS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

EXISTING UTILITY CONFLICT NOTE

IF A CONFLICT ARISES WITH EXISTING UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY TO GET THE CONFLICT RESOL VED.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. CHOICE ONE ENGINEERING CORPORATION FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CAD FILE DISCLAIMER

THE CAD FILE ASSOCIATED WITH THESE CONSTRUCTION PLANS IS A NON-CERTIFIED DOCUMENT. ANY USE OF THE INFORMATION OBTAINED OR DERIVED FROM THE ASSOCIATED CAD FILE WILL BE AT THE RECEIVING PARTY/USER'S RISK. CHOICE ONE ENGINEERING CORP. OFFERS NO WARRANTY AS TO THE ACCURACY OF THE INFORMATION IN THE CAD FILE OR THAT REVISIONS HAVE BEEN ISSUED AFTER THE CAD DRAWING WAS RELEASED. RECEIVING PARTIES/USERS SHALL HOLD HARMLESS TO THE MAXIMUM EXTENT ALLOWED BY LAW CHOICE ONE ENGINEERING CORP. FROM ANY USE OF THE CAD FILE BY THE RECEIVING PARTY/USER. IN ALL CIRCUMSTANCES, AND AT ALL TIMES, THE PUBLISHED PAPER AND/OR PDF DRAWINGS FOR THE PROJECT SHALL SUPERSEDE THE CAD FILES. IN THE CASE OF AN INCONSISTENCY BETWEEN THE PUBLISHED PAPER/PDF DRAWINGS AND THE ASSOCIATED CAD FILE, THE PUBLISHED PAPER/PDF DRAWINGS SHALL GOVERN THE PROJECT AND ALL WORK.

SAFETY

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS. TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MASONRY COLLAR

A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING PIPE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

DEWATERING AND BY-PASS PUMPING

ANY DEWATERING, COFFERDAMS, OR PUMPING NECESSARY FOR THE CONSTRUCTION OF ANY ITEMS SHALL BE INCIDENTAL TO THOSE PARTICULAR CONSTRUCTION ITEMS AND SHALL BE INCLUDED IN THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

CLEAN WATER NOTE

ROOF DRAINS, FOUNDATION DRAINS, AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.

SANITARY SEWER/LATERAL NOTE

ALL SANITARY SEWER LINES AND SANITARY LATERALS MUST BE INSTALLED WITH 40 INCHES MINIMUM OF COVER OR BELOW FROST DEPTH WHICHEVER IS GREATER.

STORM SEWER INSTALLATION

THIS WORK CONSISTS OF CONSTRUCTING STORM SEWER. THE CONTRACTOR SHALL PROVIDE ALL TOOLS AND EQUIPMENT REQUIRED FOR INSTALLING THESE ITEMS. THE WORK ALSO INCLUDES FURNISHING ALL MATERIALS, EXCAVATING, BEDDING, LAYING PIPE, JOINTING, BACKFILLING, REMOVAL AND RESTORATION OF DISTURBED FACILITIES AND SURFACES, CURB REPAIR, SIDEWALK REPAIR, PAVEMENT REPAIR (I.E. PAVEMENT IN STREETS, ALLEYS AND DRIVEWAYS), DISPOSAL OF ALL SURPLUS EXCAVATION AND DISCARDED MATERIALS, AND OTHER WORK NECESSARY TO COMPLETE THE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD LOCATE ALL EXISTING STORM SEWER, AND OTHER UTILITIES, PRIOR TO INSTALLING THE PROPOSED STORM SEWER SYSTEM. THE EXISTING STORM SEWER AND LATERALS SHOWN ON THE PLANS ARE IN THE APPROXIMATE LOCATION AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE PROPOSED TIE-INS TO THE EXISTING STORM PRIOR TO ANY STORM SEWER CONSTRUCTION. ALL TIE-INS SHALL BE THROUGH PREMANUFACTURED TEES OR HOLES INSTALLED USING A CORING MACHINE, PIPE MAY BE ANY OF THE PIPE TYPES LISTED BELOW UNLESS OTHERWISE SPECIFIED ON THE PLANS.

TYPES OF PIPE PERMITTED ODOT MATERIALS NUMBERS CORRUGATED POLYETHYLENE SMOOTH-LINED PIPE (CPSLP) 707.33 POLYPROPYLENE CORRUGATED DOUBLE WALL PIPE (PCDWP) 707.65 POLYVINYL CHLORIDE SOLID WALL PIPE (SDR-35) *707.45* REINFORCED CONCRETE PIPE 706.02

SUBCONTRACTOR SUPERVISION

THE CONTRACTOR IS REQUIRED TO HAVE SOMEONE ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

EXCAVATION AND EMBANKMENT

TOPSOIL SHALL BE REMOVED FROM ALL DISTURBED AREAS AND ALL AREAS TO BE EXCAVATED OR EMBANKED. A MINIMUM OF 6" OF TOPSOIL SHALL BE FINE GRADED ON ALL DISTURBED AREAS.

ALL EMBANKMENT SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. TESTING MAY BE REQUIRED BY THE OWNER.

GENERAL NOTES

1. INSTALL AND TEST ALL UTILITIES PER THE LATEST VERSION OF THE CITY OF SIDNEY STANDARDS.

- 2. ALL DISTURBED AREAS AND ALL NON-PAVEMENT AREAS SHALL HAVE A MINIMUM OF 6" OF TOP SOIL PLACED AND ARE TO BE SEEDED AND MULCHED PER ODOT ITEM 659.
- 3. ALL CONCRETE USED FOR HEAVY DUTY PAVEMENT(S) AND STANDARD DUTY PAVEMENT(S) SHALL BE ODOT QC-1P AND REINFORCED WITH CONCRETE FIBERS AS SPECIFIED IN THE PROPOSED PAVEMENT SECTION(S) OR AS NOTED HERE. ALL OTHER CONCRETE (WALKS, CURBS, ETC.) SHALL ALSO BE ODOT QC-1P. ALL CONCRETE SHALL BE REINFORCED WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF. FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.
- 4. CONTRACTOR TO BE RESPONSIBLE FOR ANY PERMITS OR FFFS THAT MAY BE NECESSARY FOR THE COMPLETION OF THE SITE WORK.
- 5. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE, AND LOCAL ADA REGULATIONS AND STANDARDS.
- 6. ALL ITEMS ON SITE PLAN SHALL BE CONSTRUCTED PER THE LATEST VERSION OF THE CITY OF SIDNEY STANDARDS.

STORM AND SANITARY CONDUITS/STRUCTURES AND RELATED WORK THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 611. PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES,

THE INSTALLATION OF ALL STORM SEWER, SANITARY SEWER, AND ALL CORRESPONDING STRUCTURES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A HIGH STANDARD OF WORK. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. CONTRACTOR SHALL ALSO ENSURE THAT ALL ITEMS ARE FULLY AND PROPERLY FUNCTIONAL, AND TO A QUALITY ACCEPTABLE TO THE OWNER.

ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES (CATCH BASINS. YARD DRAINS. MANHOLES. ETC.) SHALL MEET THE MATERIAL REQUIREMENTS OF THIS ITEM. THE FOLLOWING ITEMS WILL NOT BE REQUIRED UNLESS OTHERWISE NOTED: 1) INSTALLATION PLAN, 2) CONSTRUCTION INSPECTION FORMS, 3) PERFORMANCE INSPECTIONS AND REPORTS, 4) CONDUIT AND DRAINAGE STRUCTURE EVALUATIONS.

THE CONTRACTOR SHALL ENSURE THE CONDUIT BEDDING AND BACKFILL COMPACTION DENSITY MEETS ASTM D698 (98% STANDARD PROCTOR). TESTING MAY BE REQUIRED IF DEEMED NECESSARY BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

SAWCUT PAVEMENT JOINTS

EXCEPT AS HEREIN MODIFIED.

MORE THAN ONE SAWCUT MAY BE NECESSARY TO ENSURE A CLEAN CUT. JUST PRIOR TO ASPHALT OR CONCRETE PLACEMENT, ASPHALT MATERIAL SHALL BE PLACED ON THE VERTICAL FACE OF SAWCUT JOINTS PRIOR TO PAVING AS PER 401.14. AFTER THE ASPHALT WORK IS COMPLETED, THE TRANSVERSE JOINTS SHALL BE SEALED WITH LIQUID ASPHALT.

SSOCIATES NGINE ∞ FREYTAG

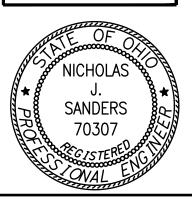
AR

SIDNE < ST 0 CITY FIRE

CONSTRUCTION

S





ese designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY

GENERAL NOTES

MAINTAINING TRAFFIC

MAINTAIN TRAFFIC AS INDICATED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", ALSO THE FOLLOWING REQUIREMENTS SHALL APPLY.

EXCAVATIONS WITHIN PUBLIC RIGHT-OF-WAY LIMITS SHALL BE CLOSED AT TIMES WHEN WORK IS NOT BEING PERFORMED.

LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING THE TIME THAT AN APPROVED CLOSURE AND DETOUR IS ALLOWED BY THE GOVERNING AUTHORITY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING
NECESSARY TRAFFIC CONTROL DEVICES AND PAVEMENT REPAIR
MATERIALS TO MAINTAIN THE TRAVELED PAVEMENT SAFELY.

NO SHUT DOWN OF ANY OWNER FACILITY DRIVE, ROADWAY OR PARKING LOT WILL BE ALLOWED WITHOUT WRITTEN CONSENT FROM THE OWNER. ALL OWNER ROADWAYS MUST HAVE AT LEAST ONE LANE OPEN AT ALL TIMES. NO STAGING OF TRUCKS OUTSIDE OF CONSTRUCTION LIMITS WILL BE PERMITTED WITHOUT CONSENT FROM THE OWNER.

WATER LINE CROSSING SEPARATION

CONTRACTOR SHALL LOWER/DIP ANY EXISTING OR PROPOSED WATER LINES AS NEEDED TO OBTAIN AN 18" MINIMUM SEPARATION DISTANCE FROM THE WATER LINE TO ANY STORM OR SANITARY SEWER. WATER LINE SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY SEWERS. WHENEVER A SANITARY OR STORM SEWER AND WATER LINE MUST CROSS, THE SEWER AND WATER SHALL BE LAID AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. ALSO ONE FULL LENGTH OF WATERLINE SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM AND SANITARY SEWERS AS POSSIBLE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PSI PRESSURE TEST (NOTE: DO NOT PRESSURE TEST SEWER TO 100 PSI). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE *PROJECT.*

PAVEMENT MARKINGS

ALL PAVEMENT MARKINGS SHALL BE PER ODOT ITEM 640 AND 642. ALL PAVEMENT MARKINGS TO BE TYPE 1, UNLESS APPLICATION IS REQUIRED WHEN AIR AND PAVEMENT TEMPERATURES ARE BETWEEN 35 °F AND 50 °F, THEN OBTAIN APPROVAL FROM THE OWNER AND APPLY ONLY PRE-QUALIFIED TYPE 1A COLD WEATHER TRAFFIC PAINT MATERIALS PER ITEM 642 AND 740.

ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

DOWNSPOUTS

THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSLP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

UTILITIES

CONTRACTOR SHALL INSTALL AND/OR COORDINATE THE INSTALLATION OF GAS, ELECTRIC, TELEPHONE, CABLE TELEVISION, FIBER OPTIC, ETC.. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES PRIOR TO INSTALLATION OF ANY FACILITIES. ALL UTILITIES SHALL BE INSTALLED PER EACH PARTICULAR UTILITY COMPANY'S STANDARDS AND PROCEDURES. CONTRACTOR TO VERIFY ACTUAL SIZES, LOCATIONS (POINTS OF ENTRY INTO THE BUILDING) AND INVERTS OF ALL UTILITIES TYING INTO THE BUILDING WITH ALL ARCHITECT PLANS (BUILDING, PLUMBING, ELECTRICAL, ETC.) BEFORE CONSTRUCTION.

ASPHALT PAVEMENT REPLACEMENT NOTE

ANY EXISTING PAVEMENT THAT IS TO BE REMOVED SHALL BE SAWCUT FULL DEPTH AND RESTORED TO MATCH THE EXISTING PAVEMENT CROSS SECTION UNLESS OTHERWISE NOTED IN THE PLANS.

ASPHALT

ALL ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY TO THIS PROJECT EXCEPT FOR ODOT ITEM 401.20 ASPHALT BINDER PRICE ADJUSTMENT (ASPHALT CONCRETE BID ITEMS ARE NOT ELIGIBLE FOR ANY ASPHALT BINDER PRICE ADJUSTMENT).

ALL ASPHALT DELIVERED SHALL BE ACCOMPANIED WITH A LOAD TICKET AS PER ITEM 401.21.

REVIEW OF DRAINAGE FACILITIES

BEFORE FINAL ACCEPTANCE BY THE OWNER, REPRESENTATIVES
OF THE OWNER, AND THE CONTRACTOR, SHALL MAKE AN
INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN
SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. ALL
EXISTING SEWERS INSPECTED BY THE ABOVE MENTIONED
PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION
REASONABLY COMPARABLE TO PRE-EXISTING CONDITION OF THE
SEWER. ANY CHANGE IN THE CONDITION RESULTING FROM THE
CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE
CONTRACTOR TO THE SATISFACTION OF THE CITY OF SIDNEY
AND/OR OWNER.

ALL NEW CONDUITS, UNDERDRAINS (INCLUDING THE STONE BACKFILL ABOVE THE UNDERDRAIN PIPING), INLETS, CATCH BASINS, MANHOLES, SWALES/DITCHES, AND DETENTION/RETENTION BASINS CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER (INCLUDING SEDIMENT) AND IN A CLEAN CONDITION AND FULLY AND PROPERLY FUNCTIONAL BEFORE THE PROJECT WILL BE ACCEPTED BY THE OWNER.

CLEARING AND GRUBBING

CONTRACTOR TO CLEAR THE AREA AS SHOWN ON THE PLANS AND/OR AS NEEDED TO WORK ON THIS PROJECT. UNLESS STATED ELSEWHERE IN THE PLANS, CLEARING AND GRUBBING IS TO BE KEPT TO A MINIMUM IN ORDER TO PRESERVE THE WOODED AREAS.

MODIFICATIONS

ANY MODIFICATIONS TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE OWNER.

RESTORATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DISTURBED AND/OR DAMAGED AREAS, INCLUDING PAVEMENT, TO CONDITIONS EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO CONSTRUCTION OR TO THE SATISFACTION OF THE OWNER.

MISCELLANEOUS

THE INTENT OF THESE DRAWINGS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.

IN THE CASE OF AN INCONSISTENCY BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE OWNER'S REPRESENTATIVE'S INTERPRETATION.

CONTRACTORS SHALL VERIFY ALL GRADES, ELEVATIONS, AND EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

CONTRACTOR'S LUMP SUM BID PRICE SHALL INCLUDE ALL ITEMS AND OPERATIONS NEEDED, REQUIRED AND NECESSARY FOR THE PROPER EXECUTION OF THE PROJECT AND TO COMPLETE ALL WORK.

GRAFFITI AND VANDALISM

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY CONCRETE WORK OR OTHER ITEMS UNDER THIS CONTRACT WHICH IS DEEMED UNACCEPTABLE BY THE OWNER DUE TO GRAFFITI OR VANDALISM DAMAGE.

OWNER COORDINATION NOTES

THE CONTRACTOR SHALL COORDINATE THE PROPOSED WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK ON SITE. IF THE CONTRACTOR IS TO ENGAGE IN ANY OPERATIONS THAT AFFECT THE EXISTING FACILITY OPERATIONS, THE CONTRACTOR SHALL COORDINATE THE SCHEDULING OF SUCH ACTIVITIES WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY SUCH OPERATIONS OR ACTIVITIES.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT, BRACING, AND OTHER DEVICES AS MAY BE REQUIRED OR AS DIRECTED BY OWNER'S REPRESENTATIVE OR THE ENGINEER TO PROTECT THE SAFETY OF THE PUBLIC, ADJACENT STRUCTURES, ROADWAY AND/OR UTILITIES. ALL WORK TO BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.

GENERAL NOTES FOR CIVIL WORK

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND IS TO INCLUDE SUCH COSTS AS A PART OF THE LUMP SUM PRICE ON THE PROJECT.

- 2. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE APPROPRIATE UNDERGROUND UTILITY MARKING SERVICE PRIOR TO THE START OF ANY CONSTRUCTION IN ORDER TO AVOID CONFLICTS WITH EXISTING UTILITIES. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR IS TO NOTIFY THE OWNER PRIOR TO THE START OF ANY WORK THAT WOULD BE IN CONFLICT WITH THE UTILITIES.
- 3. THE CONTRACTOR IS TO VISIT AND INVESTIGATE THE PROJECT SITE, PRIOR TO BIDDING, IN ORDER TO DETERMINE THE EXISTING GROUND AND SITE CONDITIONS. FOR SOIL TYPE AND GROUND WATER TABLE, THE CONTRACTOR IS ENCOURAGED TO UTILIZE ANY AVAILABLE DATA TO ESTIMATE GROUND CONDITIONS. SHOULD THE BIDDING CONTRACTOR REQUIRE ADDITIONAL TEST HOLES PRIOR TO BIDDING IN ORDER TO DETERMINE OR VALIDATE GROUND CONDITIONS, THIS CAN BE COMPLETED AT THE DISCRETION OF THE OWNER. NO TEST HOLES ARE TO BE DUG WITHOUT CONTACTING THE OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION AND WITHOUT RECEIVING WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE TO DO SO.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS WITH REGARD TO EXCAVATION, SAFETY, QUALITY AND WORK PROGRESS. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THESE THROUGHOUT CONSTRUCTION OPERATIONS.
- 5. THE LOCATION OF MATERIALS STORED ON SITE MUST RECEIVE THE APPROVAL OF THE OWNER. IN GENERAL, MATERIALS SHOULD BE STORED SO AS TO MINIMIZE THE INCONVENIENCE TO THE OWNER.
- 6. IF EXCAVATED MATERIALS ARE FOUND TO BE CONTAMINATED, REMEDIATION WILL BE AT THE OWNER'S EXPENSE PRIOR TO REMOVAL FROM THE SITE OR DISPOSAL ON-SITE BY THE CONTRACTOR. THIS PROCESS WILL BE COORDINATED BETWEEN THE OWNER AND CONTRACTOR.
- 7. TRENCH EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH THE BID SPECIFICATIONS AND IN ACCORDANCE WITH ALL APPLICABLE OSHA RULES AND REGULATIONS. IN ADDITION, THE OWNER MAY HAVE ADDITIONAL REQUIREMENTS FOR EXCAVATION AND TRENCHING ON OWNER PROPERTY THAT MAY BE MORE STRINGENT THAN CURRENT LOCAL OR OSHA REQUIREMENTS. IN THIS CASE, THE OWNER'S REQUIREMENTS ARE TO BE FOLLOWED UNLESS THIS ACTION WOULD BE CONSIDERED NON-COMPLIANT WITH CURRENT GOVERNING CODES OR REGULATIONS AS DEFINED BY LOCAL OR GOVERNING AUTHORITIES. WHERE A NON-COMPLIANCE ISSUE IS NOTED, THE CONTRACTOR IS TO MAKE THE OWNER AND ENGINEER AWARE OF THE GOVERNING CODE.

- 8. THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR, REPLACE, AND/OR RECONNECT ANY EXISTING DRAINAGE TILES, NOT SHOWN ON THE PLANS, WHICH CROSS THROUGH THE EXCAVATED TRENCH. ANY DRAINAGE TILES ENCOUNTERED ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND A MEASUREMENT TAKEN FROM THE NEAREST MANHOLE OR INLET STRUCTURE TO THE CENTERLINE OF THE TILE. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER AS PART OF THE RECORD DRAWINGS.
- 9. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRS TO ANY UTILITY LINE(S) THAT THE CONTRACTOR DAMAGES UNLESS OTHERWISE CLEARLY THE RESPONSIBILITY OF THE UTILITY COMPANY.
- 10. THE CONTRACTOR WILL REPLACE ALL DAMAGED OR REMOVED DRIVES AND PAVEMENT WITH THE REQUIRED THICKNESS SHOWN ON THE PLANS OR MATCH EXISTING IF GREATER.
- 11. ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.
- 12. CONTRACTOR SHALL USE PROPER EROSION CONTROL TECHNIQUES TO MAINTAIN GRADE PRIOR TO SEEDING.
- 13. CONTRACTOR TO REFER TO ODOT SPECIFICATION, ITEM 659 FOR SEEDING AND MULCHING UNLESS OTHERWISE SPECIFIED. CONTRACTOR WILL NOT SEED ANY AREA UNTIL OWNER HAS INSPECTED FINAL TOPSOIL GRADING.
- 14. CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ALL FENCES, LAWN DECORATIONS, TREES, SHRUBS, PLANTING, VEGETATION ETC. WHICH IS DAMAGED, DISTURBED OR REMOVED DURING CONSTRUCTION.
- 15. DURING PAVING OPERATIONS, THE CONTRACTOR MUST SUBMIT A WRITTEN PLAN IDENTIFYING DRIVE AREAS WITHIN THE SITE THAT WILL BE SHUT DOWN FOR CONSTRUCTION OPERATIONS PRIOR TO START OF ANY WORK IN THOSE AREAS. CONTRACTOR MUST MAINTAIN A MINIMUM OF ONE LANE FOR TRAFFIC IN ANY AREAS SO DESIGNATED BY THE OWNER THROUGHOUT ALL CONSTRUCTION OPERATIONS.

ITEM 638 WATER MAIN, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 638 WATER MAINS AND SERVICE BRANCHES EXCEPT AS HEREIN MODIFIED.

- ALL WATER SYSTEM WORK, MATERIALS, PROCEDURES, INSTALLATION, TESTING AND DISINFECTION SHALL BE PER THE PROJECT PLANS AND SPECIFICATIONS AND PER CITY OF SIDNEY STANDARDS. ALL JOINTS AND PIPING (TEES, BENDS, ETC.) SHALL BE PROPERLY RESTRAINED PER CITY OF SIDNEY STANDARDS. THERE SHOULD BE NO REASON TO TAKE EXISTING WATER MAINS OUT OF SERVICE DURING THIS PROJECT. ALL CONNECTIONS CAN BE ACCOMPLISHED BY USING PROPER FITTINGS AND LIVE TAP METHODS. PRIOR TO CONNECTING PROPOSED WATER MAINS OR SERVICE LINES TO EXISTING WATER MAINS, THE CONTRACTOR MUST PROVIDE AT LEAST A 48 HOUR NOTICE TO THE CITY.
- IF CONFLICTS ARISE IN MAINTAINING EX. WATER SERVICES, THE CONTRACTOR SHALL COORDINATE WITH THE CITY FOR THE CONTRACTOR TO SUPPLY TEMPORARY WATER SERVICES. THE CITY SHALL TAKE EXISTING WATER MAINS OUT OF SERVICE DURING SHORT PERIODS WHEN CONNECTIONS TO PROPOSED WATER MAINS ARE NECESSARY.
- ALL PROPOSED WATER LINES SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED PER CITY OF SIDNEY STANDARDS. ALL TESTING AND DISINFECTION SHALL BE WITNESSED BY AND APPROVED BY THE OWNER.

SSOCIATES INC. ENGINEERS

FREYTAG & ASSOME ARCHITECTS EN

226 N. MIAMI AVE. PO. BOX 220

226 N. M PO. BOX SIDNEY, C

THAT SIDNEY OH

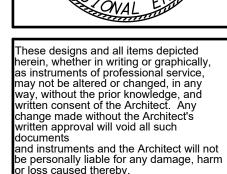
FIRE STATION CITY OF SIDNEY

 \sim

CONSTRUCTION

5





SANDERS

70307

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER	
2207.02	11/13/24
DRAWN BY	CHECKED BY
NJS	JSP

GENERAL NOTES

THIS WORK SHALL CONSIST OF EXCAVATION, BEDDING AND INSTALLING THE NEW WATER MAIN INCLUDING ALL BACKFILL THIS ITEM SHALL ALSO INCLUDE CONNECTION AND NECESSARY SAW CUTTING TO THE EXISTING WATER MAIN. THIS ITEM SHALL ALSO INCLUDE DEWATERING NECESSARY FOR INSTALLATION OF THE WATER MAIN. PAVEMENT RESTORATION, CURB AND GUTTER AND PLAIN CONCRETE PAVEMENT AND SIDEWALK REPLACEMENT SHALL BE INCLUDED IN THIS ITEM. THE WORK SHALL INCLUDE ALL COMPACTION, ALL TESTING AND ALL DISINFECTION PER THE PROJECT PLANS AND SPECIFICATIONS AND PER CITY OF SIDNEY STANDARDS. THIS ITEM SHALL ALSO INCLUDE ALL FITTINGS AND COUPLINGS NECESSARY TO CONNECT TO THE EXISTING WATER MAIN.

PAYMENT FOR ITEM 638 WATER MAIN FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 638 6 -INCH FIRE HYDRANT ASSEMBLY, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 638 WATER MAINS AND SERVICE BRANCHES EXCEPT AS HEREIN MODIFIED.

ALL FIRE HYDRANTS AND ALL RELATED WORK SHALL BE PER THE PROJECT PLANS AND SPECIFICATIONS AND PER CITY OF SIDNEY STANDARDS AND AS DIRECTED BY THE CITY OF SIDNEY FIRE DEPARTMENT. THE FIRE HYDRANT COLOR, THE PUMPER NOZZLE AND STORTZ CONNECTION AND CAP SHALL BE PER CITY STANDARDS. THE ASSEMBLY WILL CONSIST OF THE FIRE HYDRANT AND ALL ASSOCIATED PARTS, PIPE TEE, PIPE BRANCH AND FITTINGS, A GATE VALVE WITH VALVE BOX, THRUST BLOCKING AND RESTRAINING GLANDS.

PAYMENT FOR ITEM 638 6-INCH FIRE HYDRANT ASSEMBLY, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 659 SEEDING AND MULCHING,

CLASS 1 (LAWN MIXTURE), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659, SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

ALL DISTURBED AREAS OR AREAS DESIGNATED FOR SEEDING SHALL BE GRADED AND SEEDED AND SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. TESTING THE PH OF ANY EXISTING OR IMPORTED TOPSOIL PER ODOT 659.02 SHALL BE WAIVED. THE AREA SHALL BE HAND-RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER 1/32 IN SIZE PERMITTED IN THE TOP 6".

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL.

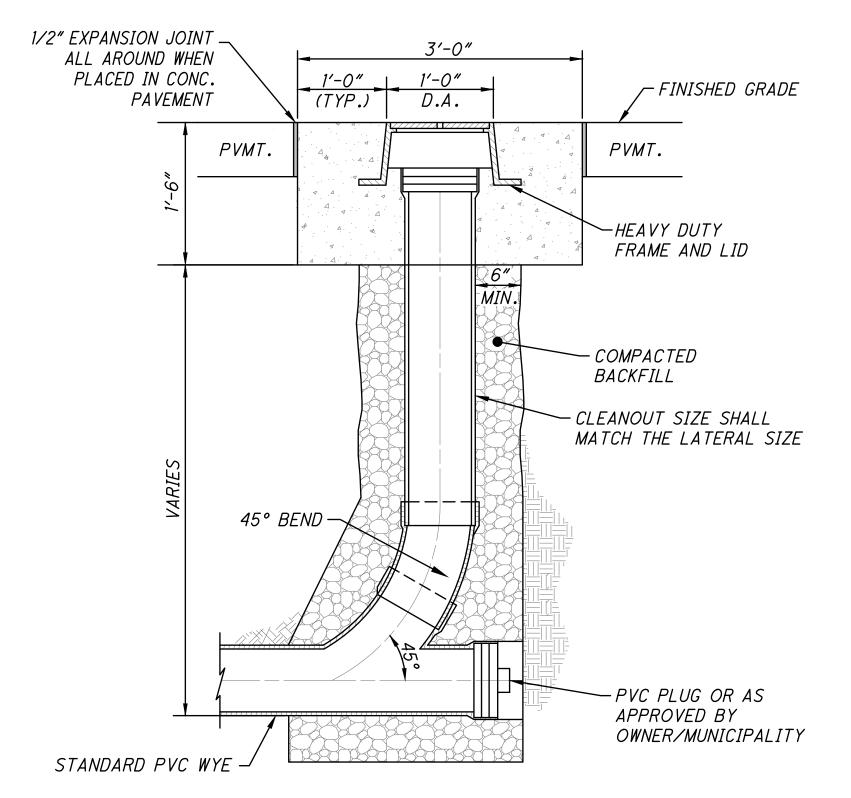
IT'S THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE THE REQUIRED GERMINATION RATES AND ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE OWNER WHICH MAY REQUIRE WATERING. REGRADING/ADDING TOPSOIL AND RESEEDING. ANY AREAS THAT HAVE ERODED OR WHERE NEW GRASS DID NOT GERMINATE SHALL BE ADDRESSED BY THE CONTRACTOR UNTIL THE AREAS ARE STABILIZED, SHAPED, AND DRAINED, AS INDICATED IN THE PLANS.

ANY DISTURBED AREA, OUTSIDE OF THE PROJECT WORK LIMITS, CAUSED BY THE CONTRACTOR'S WORK, SHALL BE RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER AND PROJECT OWNER'S REPRESENTATIVE, AT THE CONTRACTOR'S SOLE EXPENSE. THIS ITEM INCLUDES: TOPSOIL, SEEDING, MULCHING, COMMERCIAL FERTILIZER, WATER, AND REPAIR SEEDING AND MUL CHING.

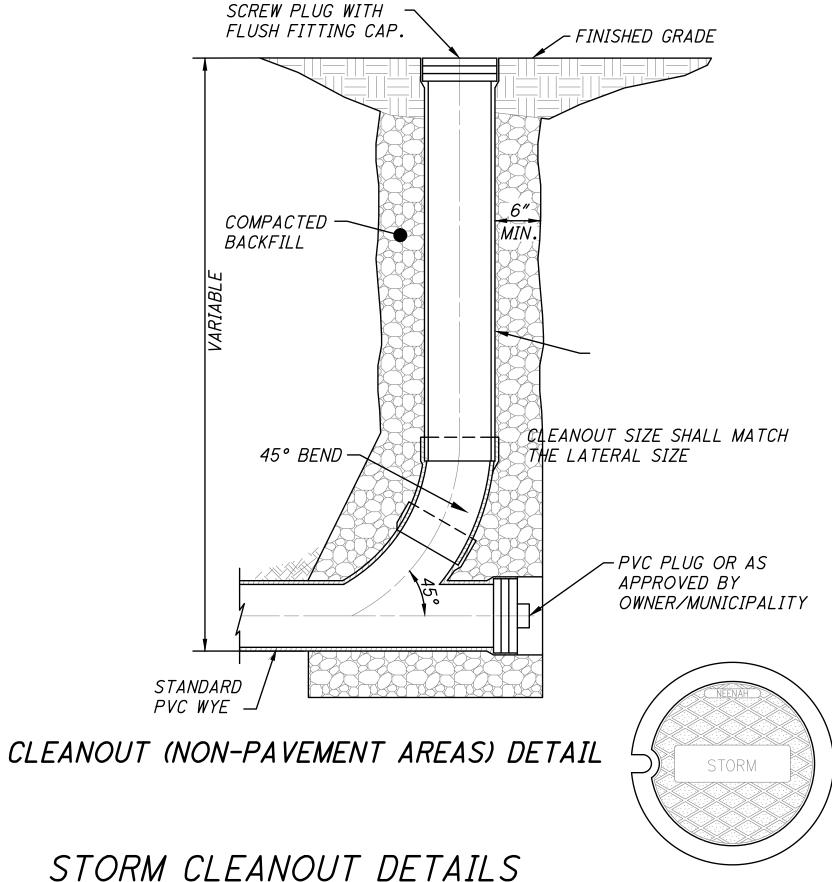
PAYMENT FOR ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN, FOR ALL ABOVE OPERATIONS, SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

NOTES

- A. CLEANOUT REQUIRED AT ALL R/W OR EASEMENT LINES.
- B. CLEANOUT MATERIALS SHALL BE SCHEDULE 40 GLUED JOINTS OR SDR-35 PVC MATCHING THE LATERAL PIPE SIZE DIAMETER.
- C. CLEANOUT FRAME AND LID SHALL BE EQUAL TO NEENAH R-1976 OR EJIW 1578, HEAVY DUTY WITH THE LID MARKED "STORM"

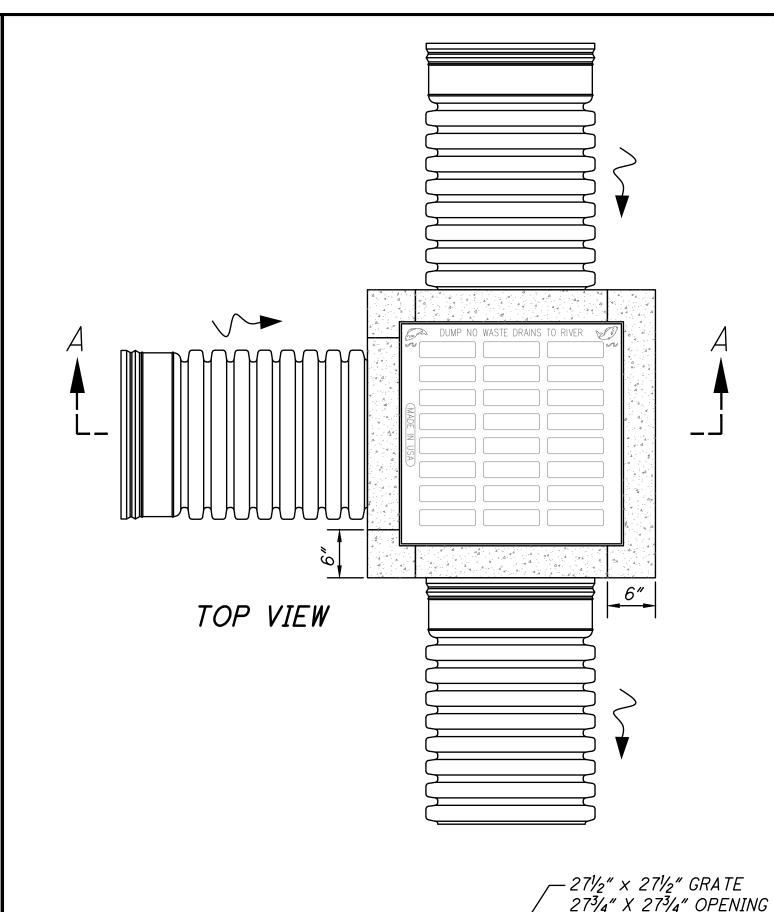


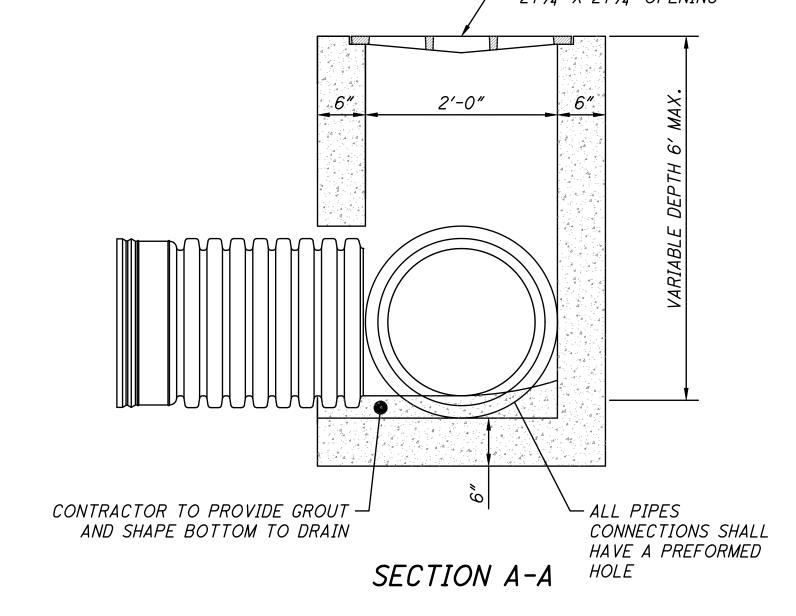
CLEANOUT (IN-PAVEMENT AREAS) DETAIL



STORM CLEANOUT DETAILS

CLEANOUT LID

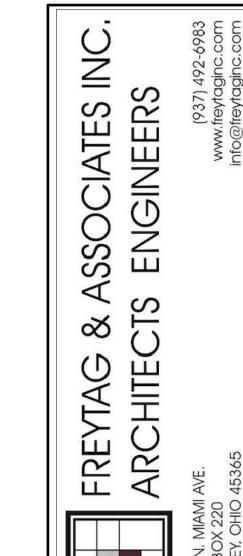




NOTES

- A. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE
- B. CATCH BASINS INSTALLED IN NON-PAVED AREAS SHALL BE PROVIDED WITH A RECESSED GRATE MANUFACTURED BY NEENAH CATALOG NO. R-4859-C (TYPE A) OR EAST JORDAN IRON WORKS 5110 (TYPE M3) OR EQUIVALENT.
- C. CONCRETE, CAST-IN-PLACE, TO BE ODOT QC 1. PRECAST CONSTRUCTION IS PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13.
- D. GRATE ELEVATION TO BE PLACED 4" 6" BELOW THE NORMAL DITCH LINE RETURNING TO NORMAL 10'-0" ON EACH SIDE OF STRUCTURE.
- E. CATCH BASIN SHALL ACCOMMODATE AN 18" OR SMALLER PIPE.
- F. PIPE TO INTRUDE INTO CATCH BASIN 1" MAXIMUM AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. CONTRACTOR TO USE NON-SHRINK GROUT COMPLETELY SEAL AROUND THE PIPE AND CATCH BASIN.

2-2B CATCH BASIN (NON-PAVED AREAS)

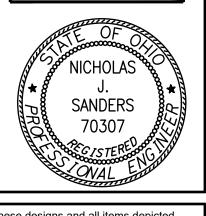


SIDNEY

NOIL S FIRE

CONSTRUCTION

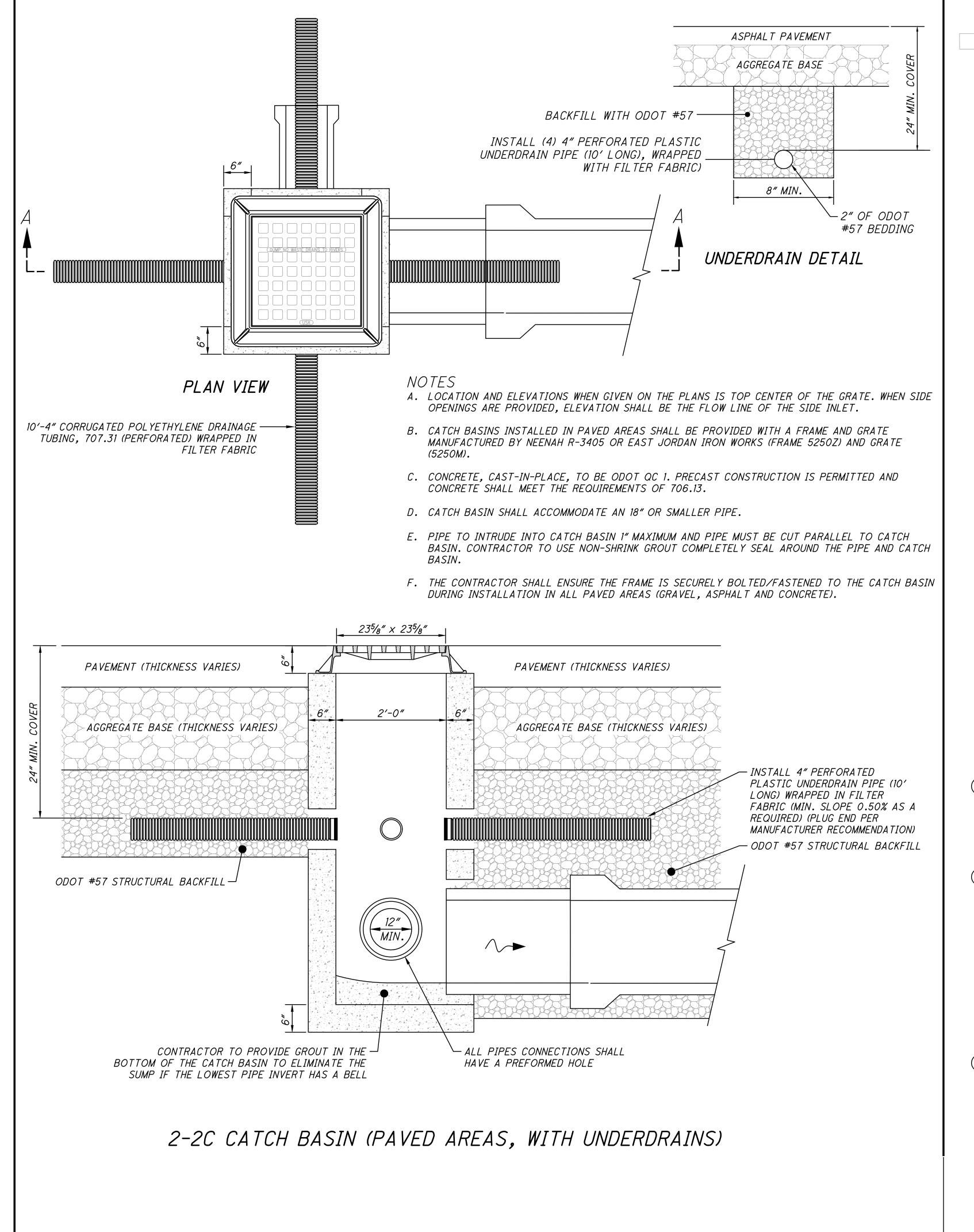


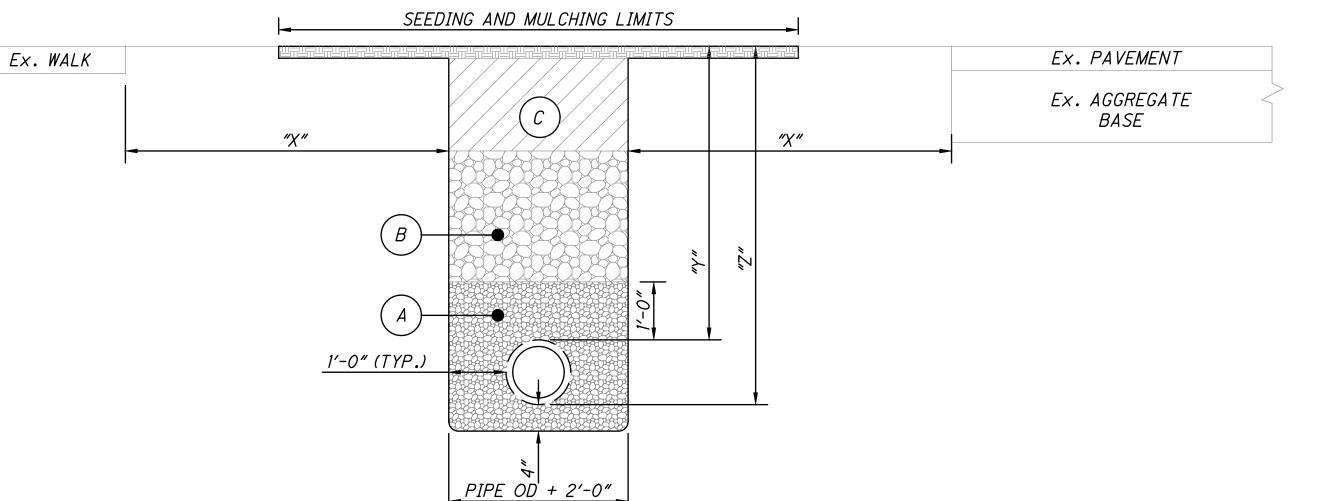


se designs and all items depicted rnese designs and an items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such ocuments nd instruments and the Architect will not e personally liable for any damage, harm PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY **CHECKED BY**

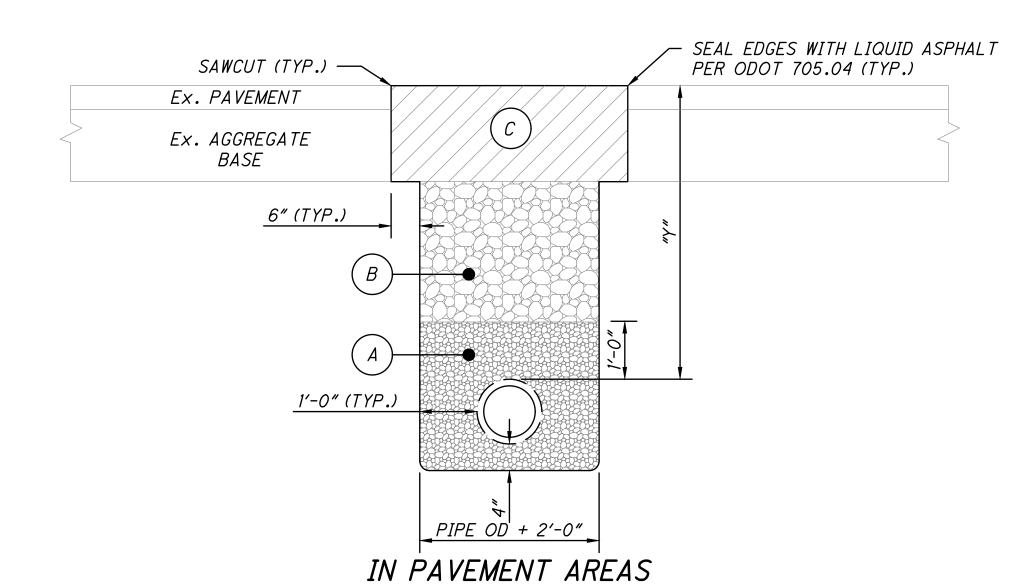
GENERAL NOTES





OUTSIDE PAVEMENT AREAS

- "X"= DISTANCE FROM EDGE OF TRENCH TO EDGE OF CLOSEST PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS.
- "Z"= DISTANCE FROM TOP OF BEDDING TO FINISH SURFACE.
- "Y"= DEPTH OF COVER FOR PROPOSED CONDUIT
 WATER MAINS......4'-6" MIN. (REFER TO PROFILE)
 STORM SEWERS......2'-0" MIN. (REFER TO PROFILE)
 SANITARY SEWERS......4'-0" MIN. (REFER TO PROFILE)



NOTES

- A. BEDDING SHALL BE PER ODOT 703.11 "STRUCTURAL BACKFILL FOR 611 BEDDING AND BACKFILL" TYPE 3 (#57 OR #67 AGGREGATE), OR OTHER APPROVED EQUIVALENT BY THE MUNICIPALITY. THERE SHALL BE 4" MIN. BEDDING BELOW THE PIPE. THE FOLLOWING BEDDING MATERIAL SHALL BE USED PER PROPOSED CONDUIT:
- WATER MAIN, WATER SERVICES, FIRE HYDRANTS AND APPURTENANCES SHALL BE NATURAL CRUSHED STONE OR NATURAL GRAVEL.
 STORM AND SANITARY SEWERS SHALL BE CRUSHED LIMESTONE OR NATURAL CRUSHED STONE.
- B. STRUCTURAL BACKFILL DENSITY TEST TO 95% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED BY MUNICIPALITY TO BE COMPLETED BY A CERTIFIED COMMERCIAL TESTING LABORATORY.

FOR "OUTSIDE PAVEMENT AREAS":

ALL TRENCHES WHERE "X" IS GREATER THAN "Z", THE BACKFILL MATERIAL SHALL BE COMPACTED NATIVE MATERIAL IN 12" MAXIMUM LIFTS OR AS APPROVED BY THE MUNICIPALITY. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 3" DIAMETER.

ALL TRENCHES WHERE "Z" IS GREATER THAN "X", THE BACKFILL MATERIAL SHALL BE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE).
THE AGGREGATE SHALL BE COMPACTED IN 12" MAXIMUM LIFTS AND BE USED UNTIL THE BACKFILL HEIGHT RESULTS IN "X" BEING
GREATER THAN "Z" AT WHICH TIME NATIVE BACKFILL CAN BE USED.

FOR "IN PAVEMENT AREAS":

ALL TRENCHES SHALL HAVE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE) BACKFILL PLACED FROM THE TOP OF THE BEDDING TO THE BOTTOM OF THE ROADWAY BASE.

C. ALL "OUTSIDE PAVEMENT AREAS" SHALL RECEIVE A MIN. OF 6" OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED PER ODOT 659. ALL "IN PAVEMENT AREAS" SHALL FOLLOW THE CORRESPONDING PAVEMENT COMPOSITION PROVIDED IN THE HATCH LEGEND. THE TRENCH DETAIL SHOWS THE PAVEMENT REPAIR LIMITS. ANY PAVEMENT REPAIR BEYOND THIS WILL BE AT THE COST OF THE CONTRACTOR.

TRENCH DETAIL

NTS

FREYTAG & ASSOCIATES INC.

ARCHITECTS ENGINEERS

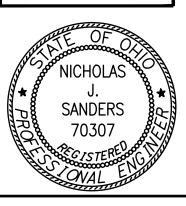
(937) 492-6983
www.fleytaginc.com
info@fleytaginc.com
info@fleytaginc.com

226 N. MIAMI AV P.O. BOX 220 SIDNEY, OHIO 45

A LION Z SIDNEY

FIRE STATIO





These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

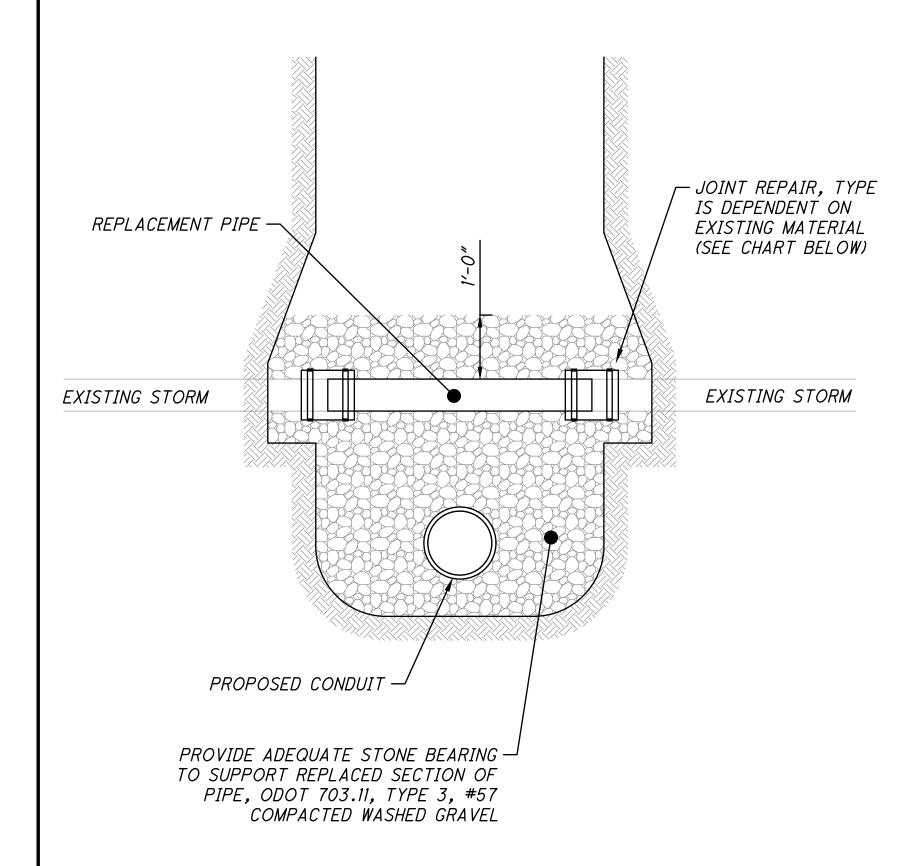
REVISIONS
PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/13/24

DRAWN BY
NJS CHECKED BY
JSP

GENERAL NOTES

SEE TRENCH DETAIL FOR PROPER BACKFILLING



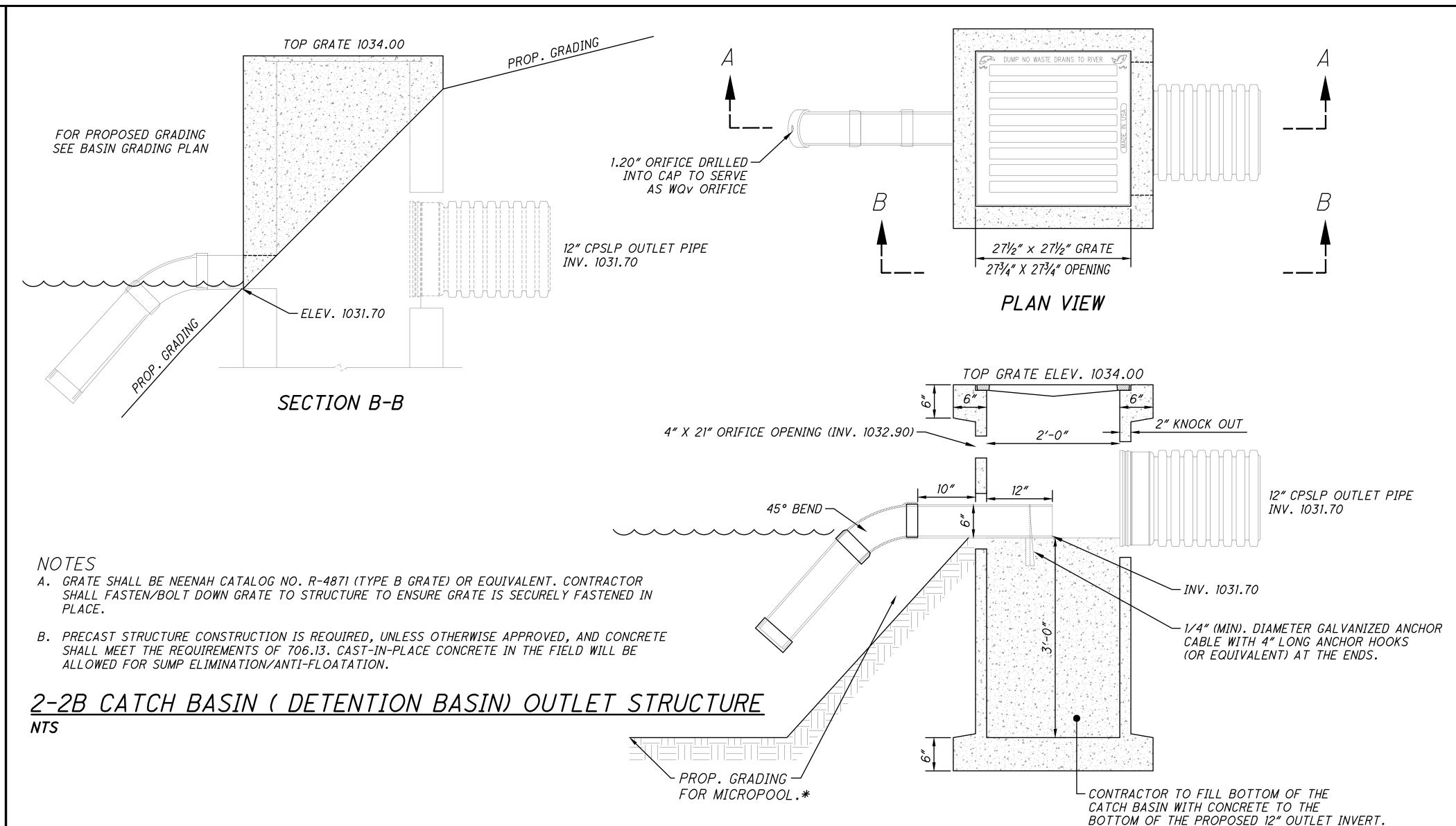
EXISTING PIPE MATERIAL	JOINT REPAIR
PVC	STAINLESS STEEL SOLID SLEEVE PLASTIC TO PLASTIC, PVC COUPLING ASTM D-3034/F-1336PSM OR EQUAL
OTHER THAN PVC (CLAY, DUCTILE, ETC.)	STAINLESS STEEL SOLID SLEEVE COUPLINGS WITH STAINLESS STEEL BANDS, EACH SIDE, OR EQUAL
СМР	CORRUGATED METAL PIPE COUPLING
RCP	CONCRETE COLLAR

NOTES

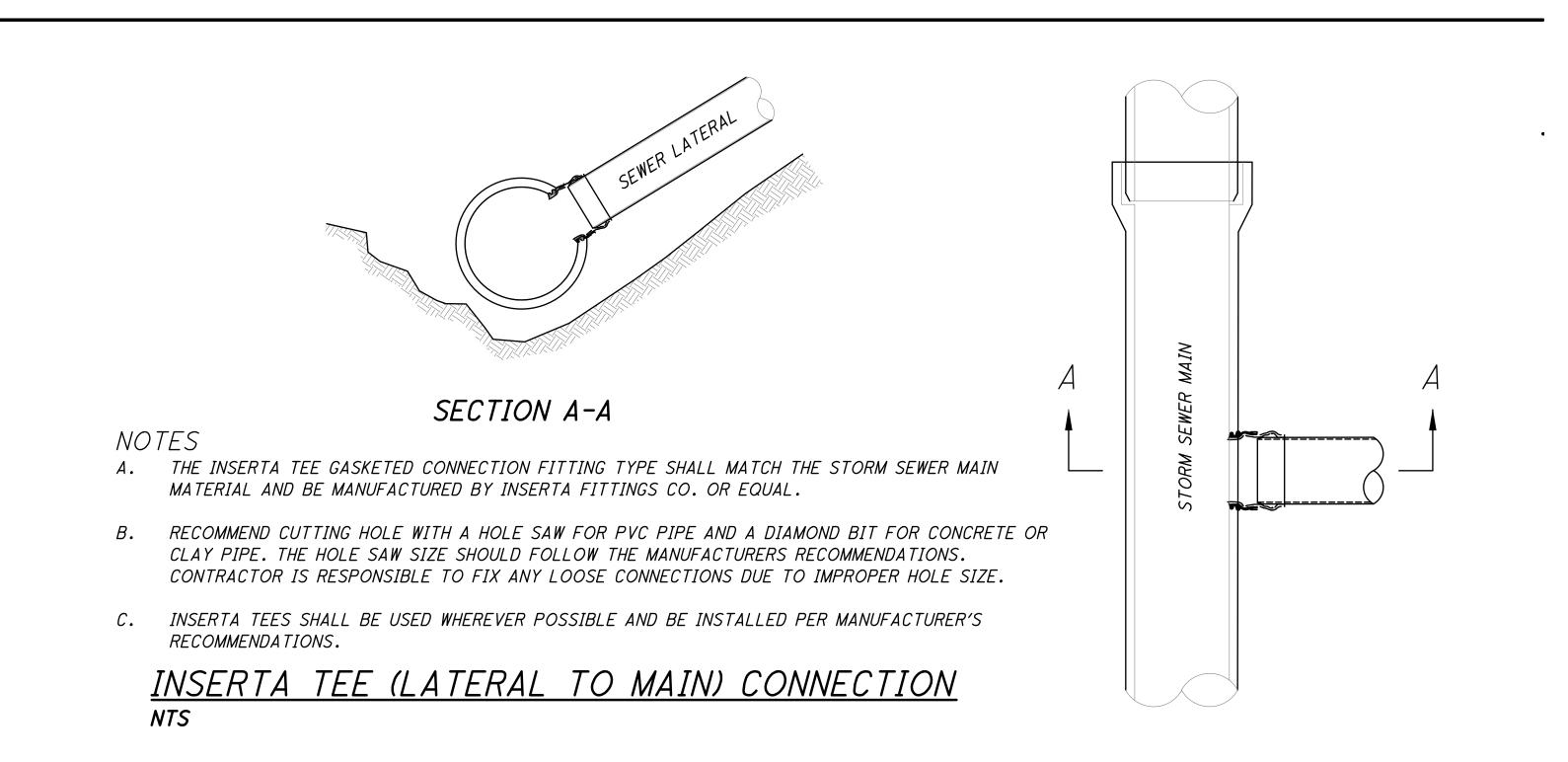
- A. CONCRETE REPAIRS OR PATCHES ARE UNACCEPTABLE.
- B. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR MUST BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ANYTHING REMOVED, REPLACED, AND/OR CONNECTED TO THE STORM SEWER MUST BE NOTED ON THE AS-BUILT DRAWINGS AND MUST BE INSPECTED BY THE INSPECTOR BEFORE THEY A RE-COVERED.
- C. ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION MUST BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE MUNICIPALITY.

REPAIR OF EXISTING FIELD TILE OR STORM PIPE DETAIL

NTS



SECTION A-A



FREYTAG & ASSOCIATES INC ARCHITECTS ENGINEERS

AVE. (937) 492-698

226 N. MIAMI AVE.
P.O. BOX 220
SIDNEY CHIC 45365

IRE STATION 2 CITY OF SIDNEY

Choice One

SIDNEY, OHIO 937.497.0200

LOVELAND, OHIO 937.497.0200

WWW.CHOICEONEENGINEERING, com

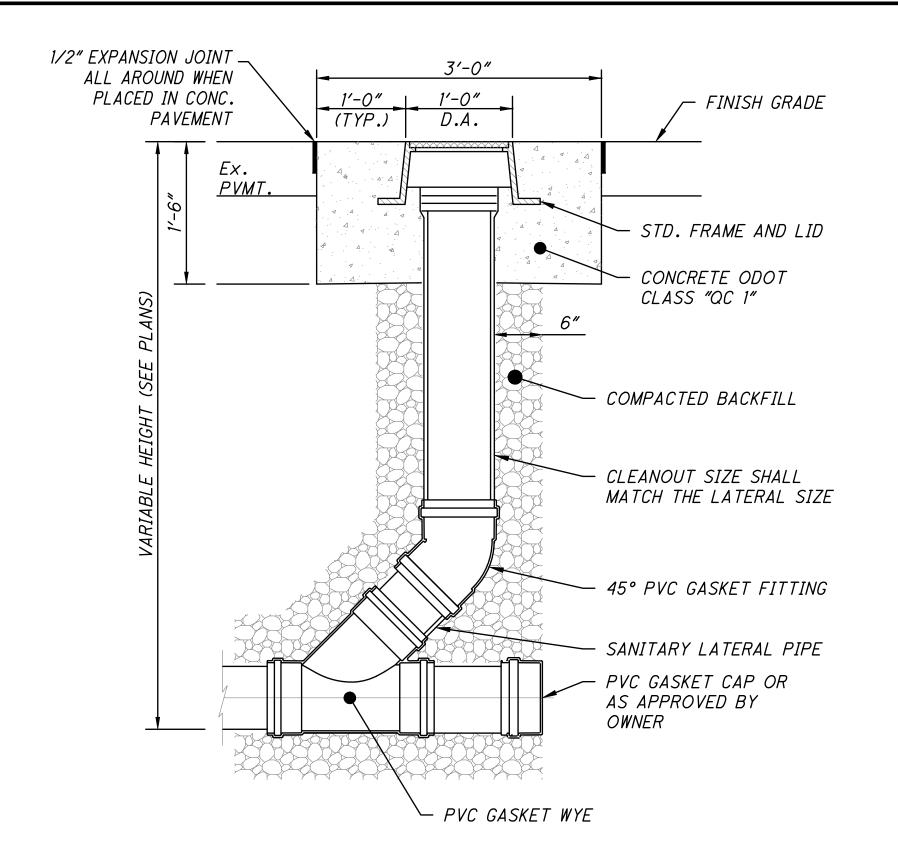
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/13/24

DRAWN BY CHECKED BY
NJS JSP

GENERAL NOTES



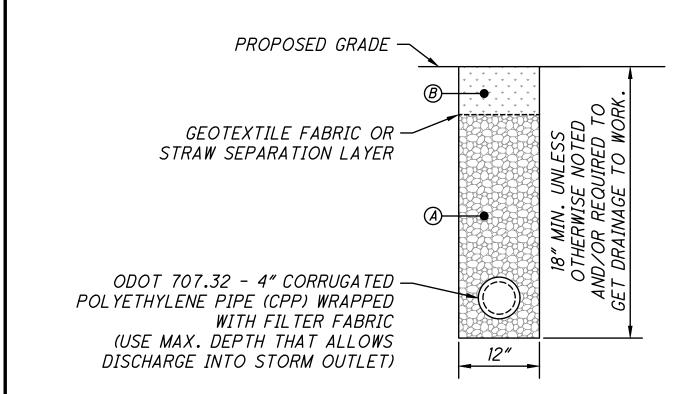
SANITARY ONE-WAY CLEANOUT DETAIL (TRAFFIC AREAS)

SANITARY

CLEANOUT LID

NOTES

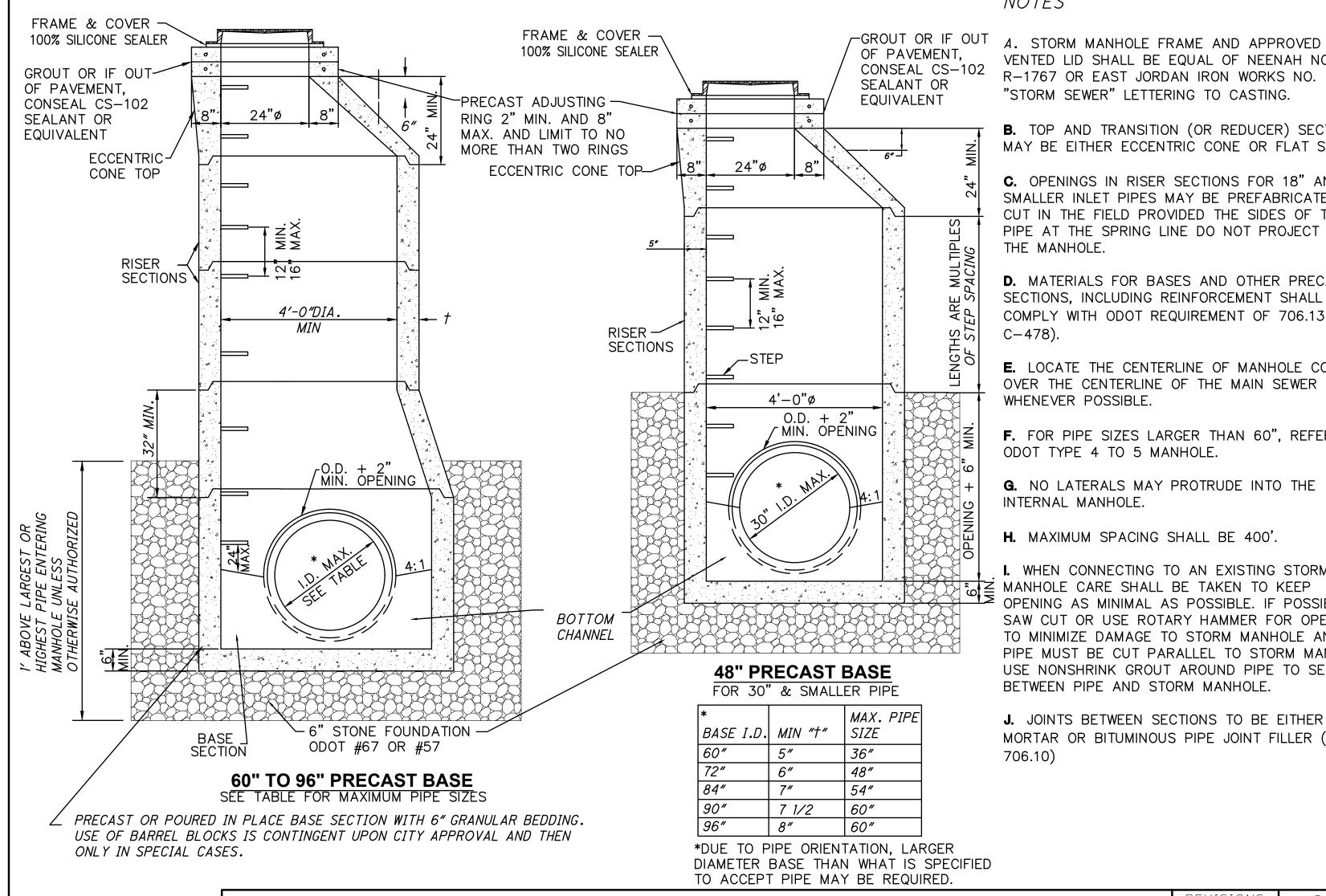
- A. CLEANOUT REQUIRED AT THE R/W OR EASEMENT LINE UNLESS OTHERWISE SHOWN IN THE PLANS.
- B. CLEANOUT MATERIALS SHALL BE SCH. 40 (GLUED JOINTS) OR SDR-35 PVC AND THE DIA. SHALL MATCH THE LATERAL PIPE
- C. TRACER WIRE REQUIRED FOR EACH SANITARY SEWER LATERAL FROM THE MAIN TO THE CLEANOUT. TRACER WIRE SHALL BE EXTENDED UP THE CLEANOUT RISER TO A POINT JUST BELOW CLEANOUT CAP WHERE A 3/16" HOLE SHALL BE DRILLED THROUGH THE WALL OF THE PIPE.
- D. CLEANOUT FRAME AND LID SHALL BE NEENAH R-1976. EJIW 1578ZPT FRAME/1578A LID. OR SIGMA VB2276. LID MARKED "SANITARY"
- E. THE CLEANOUT AND ALL THE COMPONENTS SHOWN IN THE DETAILS SHALL BE INCLUDED IN THE COST OF ITEM 611 SANITARY SEWER LATERALS.



(A) BACKFILL WITH ODOT #57 AGGREGATE

(B) NATIVE SOIL BACKFILL (12" MIN THICKNESS)

UNDERDRAIN TRENCH DETAIL (IN GRASS AREAS)



VENTED LID SHALL BE EQUAL OF NEENAH NO. R-1767 OR EAST JORDAN IRON WORKS NO. 1600. "STORM SEWER" LETTERING TO CASTING.

NOTES

B. TOP AND TRANSITION (OR REDUCER) SECTIONS MAY BE EITHER ECCENTRIC CONE OR FLAT SLAB.

C. OPENINGS IN RISER SECTIONS FOR 18" AND SMALLER INLET PIPES MAY BE PREFABRICATED OR CUT IN THE FIELD PROVIDED THE SIDES OF THE PIPE AT THE SPRING LINE DO NOT PROJECT INTO THE MANHOLE.

D. MATERIALS FOR BASES AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENT SHALL COMPLY WITH ODOT REQUIREMENT OF 706.13 (ASTM C-478).

E. LOCATE THE CENTERLINE OF MANHOLE CONES OVER THE CENTERLINE OF THE MAIN SEWER WHENEVER POSSIBLE.

F. FOR PIPE SIZES LARGER THAN 60", REFER TO ODOT TYPE 4 TO 5 MANHOLE.

G. NO LATERALS MAY PROTRUDE INTO THE INTERNAL MANHOLE.

H. MAXIMUM SPACING SHALL BE 400'.

I. WHEN CONNECTING TO AN EXISTING STORM T≥ MANHOLE CARE SHALL BE TAKEN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE, SAW CUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO STORM MANHOLE AND PIPE MUST BE CUT PARALLEL TO STORM MANHOLE. USE NONSHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND STORM MANHOLE.

J. JOINTS BETWEEN SECTIONS TO BE EITHER MORTAR OR BITUMINOUS PIPE JOINT FILLER (ODOT 706.10)

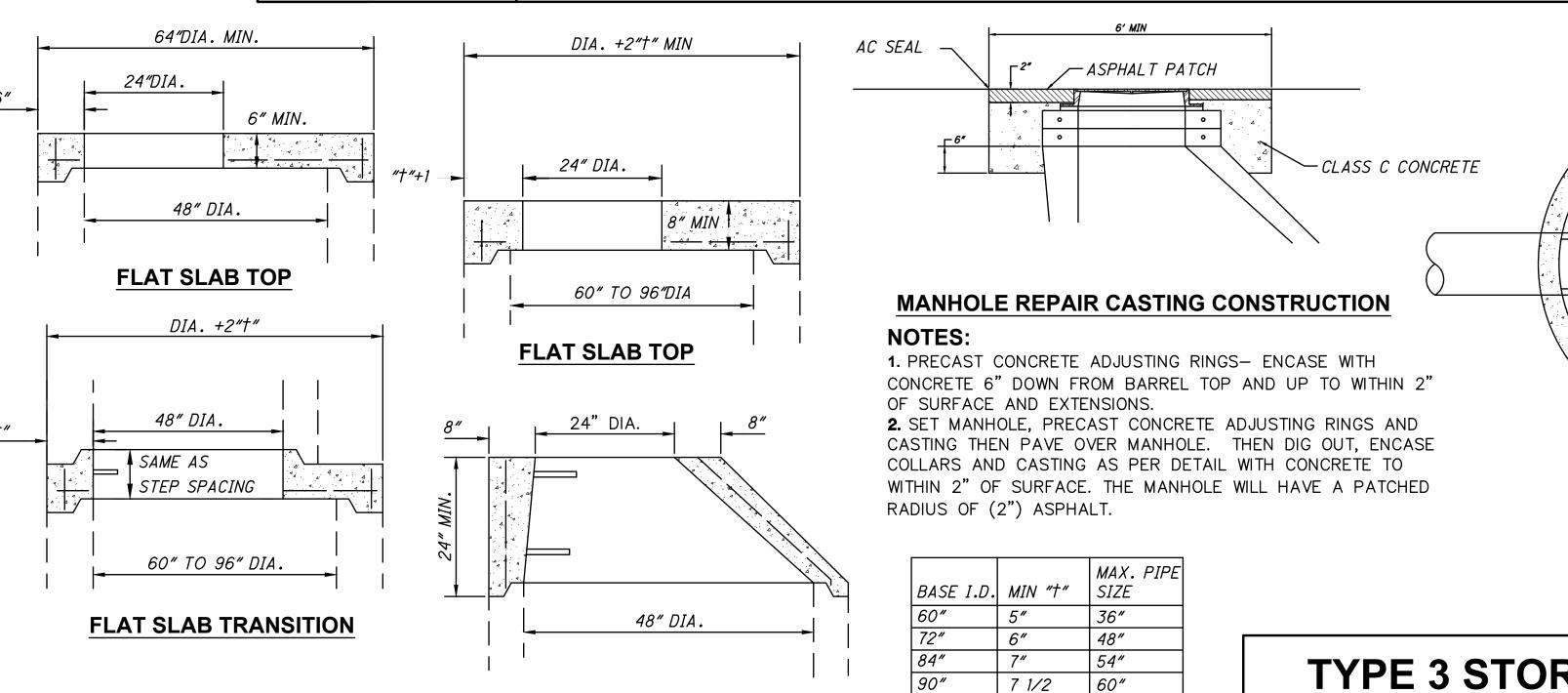
CITY OF **SIDNEY**

TYPE 3 STORM MANHOLE AND DETAILS

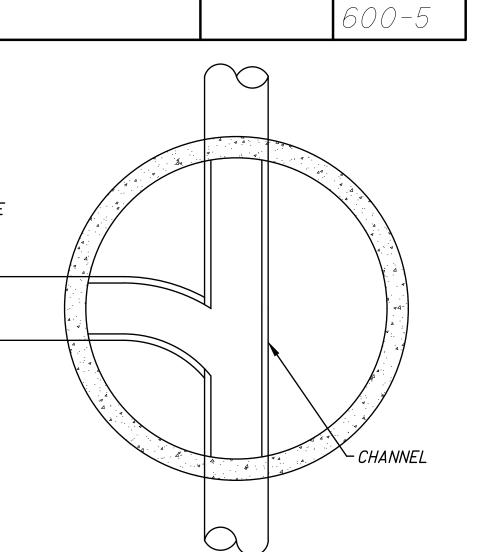
8"

60"

REVISIONS. DATE *APPROVED* 06/03/202 10-12-09 07-22-13 PAGE No.



ECCENTRIC CONE TOP



SECTIONAL PLAN

ALL INVERTS TO BE CHANNELED FOR OPTIMUM FLOW.

TYPE 3 STORM MANHOLE DETAILS 07-22-13 APPROVED: PAGE No.

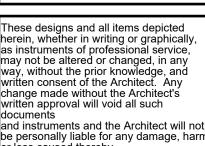
SSOCIATES Ш ∞ FREYTAG

AR

SIDNE

CONSTRUCTION

ChoiceOn

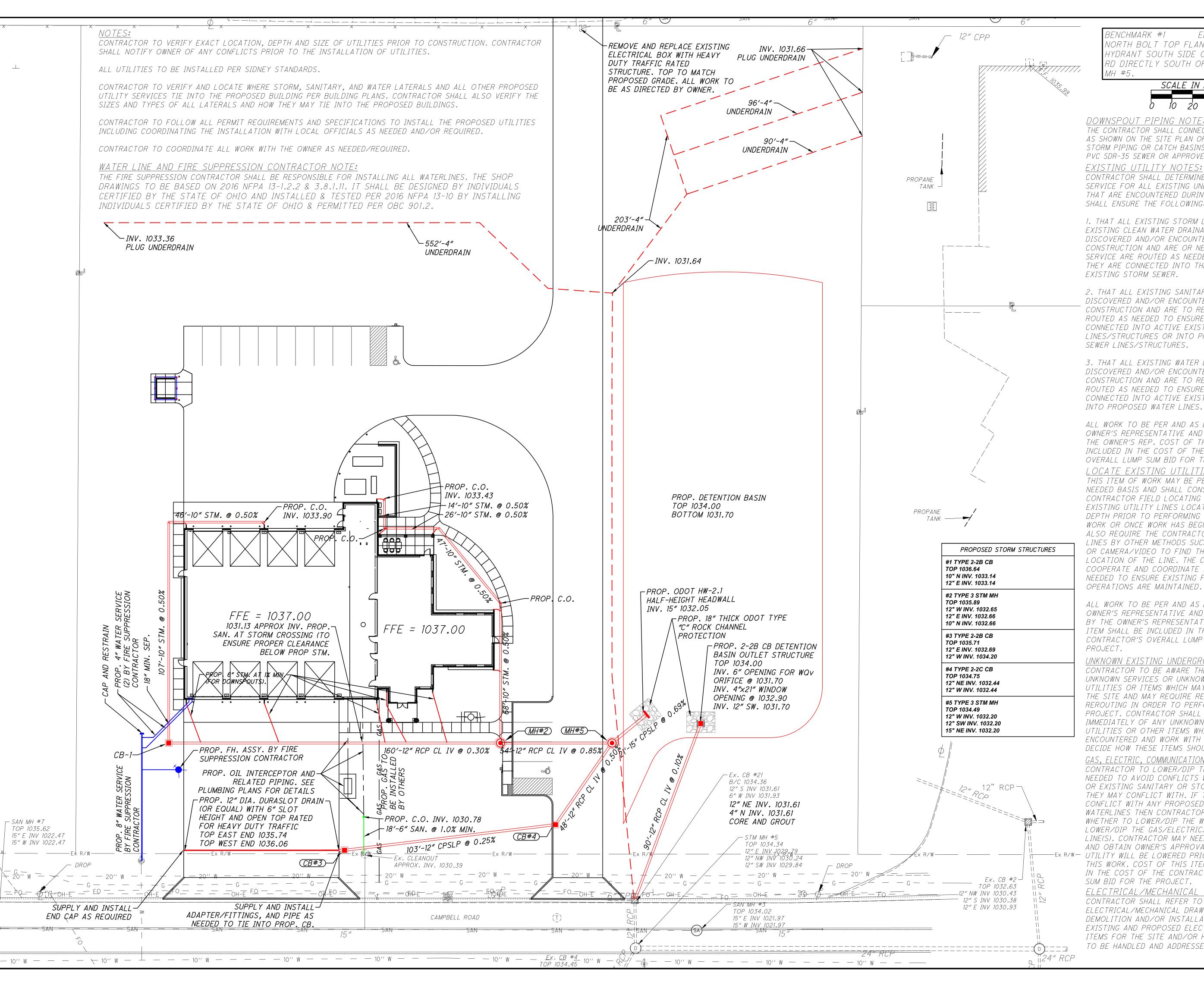


SANDERS

PLAN APPROVAL / BIDDING

11/13/24 RAWN BY CHECKED BY

GENERAL NOTES



BENCHMARK #1 ELEV: 1036.5 NORTH BOLT TOP FLANGE OF FIRE HYDRANT SOUTH SIDE OF CAMPBEL RD DIRECTLY SOUTH OF Ex. STM.

SCALE IN FEET

DOWNSPOUT PIPING NOTE: THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSLP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

CONTRACTOR SHALL DETERMINE THE TYPE OF SERVICE FOR ALL EXISTING UNDERGROUND LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION AND SHALL ENSURE THE FOLLOWING:

1. THAT ALL EXISTING STORM LINES OR ANY OTHER EXISTING CLEAN WATER DRAINAGE LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE OR NEED TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO THE PROPOSED OR EXISTING STORM SEWER.

2. THAT ALL EXISTING SANITARY LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING SANITARY SEWER LINES/STRUCTURES OR INTO PROPOSED SANITARY SEWER LINES/STRUCTURES.

3. THAT ALL EXISTING WATER LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING WATER LINES OR INTO PROPOSED WATER LINES.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REP. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT. LOCATE EXISTING UTILITIES NOTE: THIS ITEM OF WORK MAY BE PERFORMED ON AS NEEDED BASIS AND SHALL CONSIST OF THE CONTRACTOR FIELD LOCATING THE VARIOUS EXISTING UTILITY LINES LOCATION, SIZE, AND DEPTH PRIOR TO PERFORMING ANY PROPOSED WORK OR ONCE WORK HAS BEGUN. THIS WORK MAY ALSO REQUIRE THE CONTRACTOR TO INSPECT THE LINES BY OTHER METHODS SUCH AS DYE TESTING OR CAMERA/VIDEO TO FIND THE ORIGIN AND LOCATION OF THE LINE. THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH THE OWNER AS NEEDED TO ENSURE EXISTING FACILITY OPERATIONS ARE MAINTAINED.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REPRESENTATIVE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE

UNKNOWN EXISTING UNDERGROUND UTILITIES: CONTRACTOR TO BE AWARE THERE MAY BE OTHER UNKNOWN SERVICES OR UNKNOWN UNDERGROUND UTILITIES OR ITEMS WHICH MAY BE LOCATED WITHIN THE SITE AND MAY REQUIRE REMOVAL OR REROUTING IN ORDER TO PERFORM THE PROPOSED PROJECT. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY UNKNOWN UNDERGROUND UTILITIES OR OTHER ITEMS WHICH ARE ENCOUNTERED AND WORK WITH THE OWNER TO DECIDE HOW THESE ITEMS SHOULD BE HANDLED.

GAS. ELECTRIC. COMMUNICATION CONFLICT NOTE: CONTRACTOR TO LOWER/DIP THESE UTILITIES AS NEEDED TO AVOID CONFLICTS WITH ANY PROPOSED OR EXISTING SANITARY OR STORM OR WATER LINES THEY MAY CONFLICT WITH. IF THESE UTILITY LINES CONFLICT WITH ANY PROPOSED OR EXISTING WATERLINES THEN CONTRACTOR TO DETERMINE WHETHER TO LOWER/DIP THE WATERLINE OR LOWER/DIP THE GAS/ELECTRIC/COMMUNICATION LINE(S). CONTRACTOR MAY NEED TO CONSULT WITH AND OBTAIN OWNER'S APPROVAL AS TO WHICH -Ex R/W- UTILITY WILL BE LOWERED PRIOR TO PERFORMING THIS WORK. COST OF THIS ITEM SHALL BE INCLUDE. IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

ELECTRICAL/MECHANICAL NOTE: CONTRACTOR SHALL REFER TO THE ELECTRICAL/MECHANICAL DRAWINGS FOR DEMOLITION AND/OR INSTALLATION INFO. OF ALL EXISTING AND PROPOSED ELECTRICAL/MECHANICAL ITEMS FOR THE SITE AND/OR HOW THESE ITEMS ARE TO BE HANDLED AND ADDRESSED.

CIATES Ш S ∞

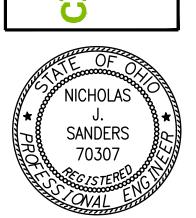
FR

AR

NO NO

CH

On 6

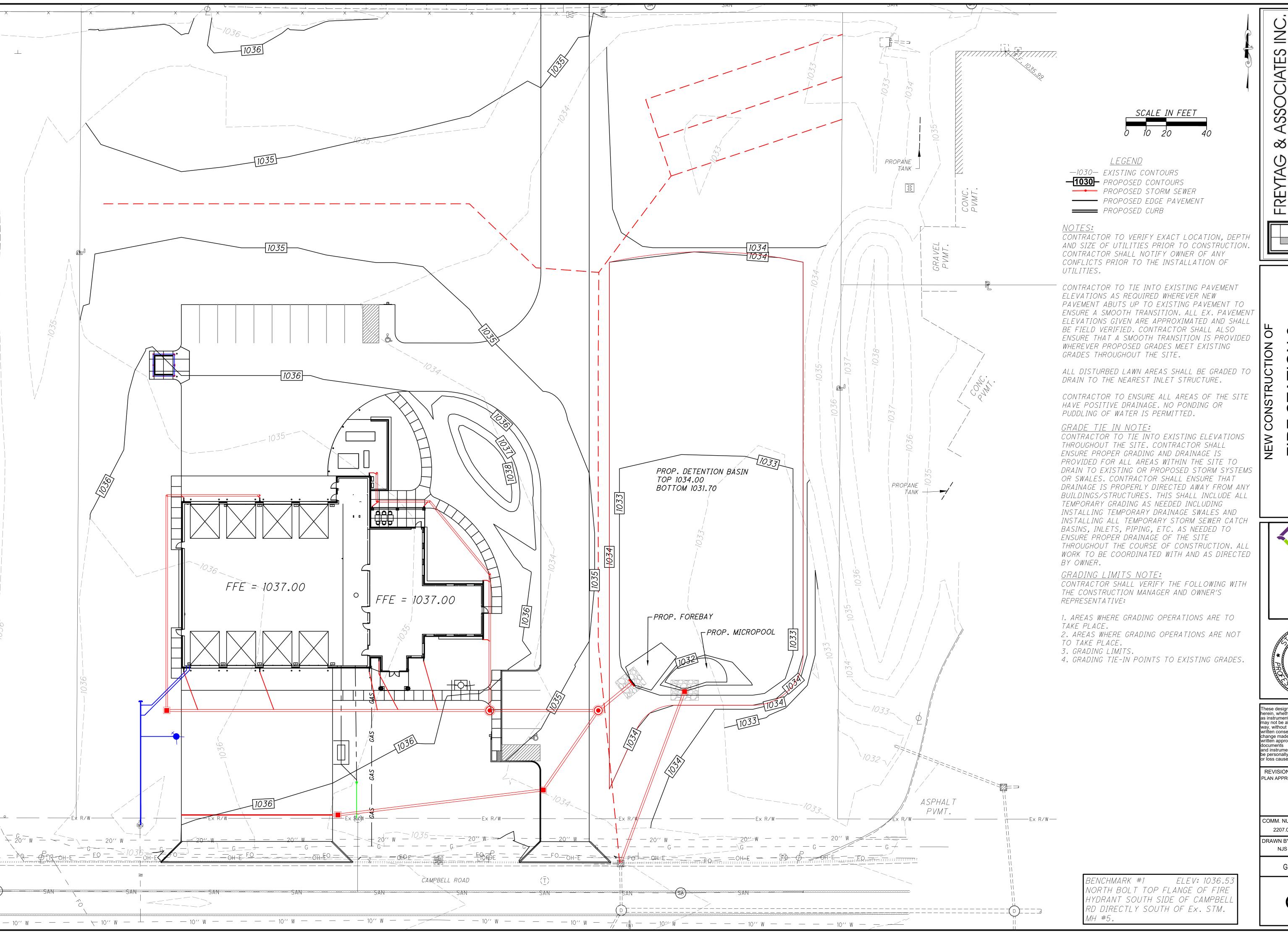


erein, whether in writing or graphically s instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's d instruments and the Architect will not personally liable for any damage, ha

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY JSP UTILITY PLAN

C2.1

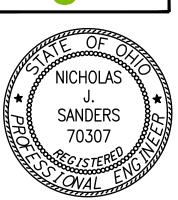


Ш

SS

SIDNE

Choice



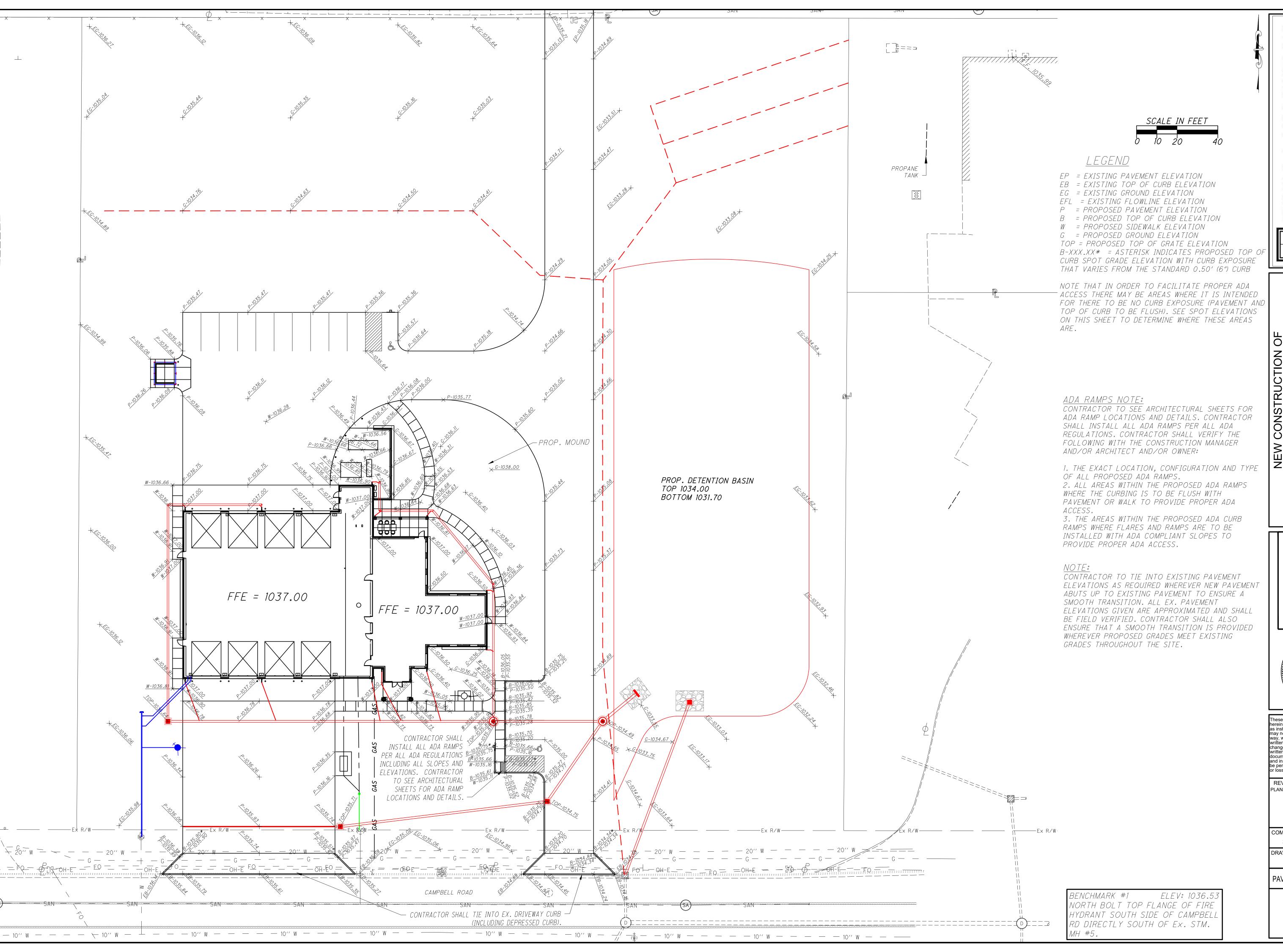
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such tten approval will void all such and instruments and the Architect will not be personally liable for any damage, harm

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY

GRADING PLAN

C3.1



ASSOCIATES INC
S ENGINEERS

(937) 492-698
info@featgainc.con

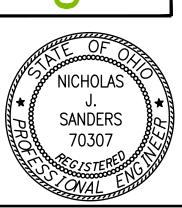
FREYTAG & ASSOC ARCHITECTS ENGI

226 N. MIAMI AVE. P.O. BOX 220 SIDNEY, OHIO 4536!

N _

FIRE STATION 2

Choice One
Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

ANTAL TROVAL / BIBBING

COMM. NUMBER DATE
2207.02 11/13/24

DRAWN BY CHECKED BY
NJS JSP

PAVEMENT ELEVATION PLAN

C3.2



OEE

VICINITY MAP

SWPPP NOTE

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR THE CITY OF SIDNEY FOR THE PERFORMANCE OF THE NEW CONSTRUCTION OF FIRE STATION 2 IN SIDNEY, OHIO. ALL WORK SHALL BE PER AND COMPLY WITH THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHCOOOOO6. THIS INCLUDES FILING A CO-PERMITTEE NOI FORM WITH THE OEPA FOR ALL OPERATORS ENGAGED IN SITE WORK ON THE SITE. CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS, INSTALLATION, MAINTENANCE AND REQUIREMENTS OF ODOT'S CURRENT SUPPLEMENTAL SPECIFICATION 832 "TEMPORARY SEDIMENT AND EROSION CONTROL." COMPLIANCE WITH SUPPLEMENTAL SPECIFICATION 832 SHALL INCLUDE THE STANDARD CONSTRUCTION DRAWING REFERENCES LISTED IN SECTION 832.03, BUT SHALL NOT INCLUDE SECTION 832.11 "INSPECTIONS AND SWPPP UPDATES." ALL INSPECTIONS AND SWPPP UPDATES SHALL BE PER THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHCOOOOOG ALL WORK SHALL ALSO BE PER THE CURRENT ODOT CMS 107.19. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH LOCAL STORMWATER AND EROSION CONTROL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH AND INSTALLING ALL ITEMS NOTED AND AS REQUIRED BY OEPA AND LOCAL AUTHORITIES FOR MEETING ALL STORM WATER POLLUTION PREVENTION REQUIREMENTS. THE CITY OF SIDNEY. OHIO AND THE SELECTED CONTRACTOR SHALL BE THE RESPONSIBLE PARTY IN CHARGE OF THE SWPPP AND ASSOCIATED BMP'S.

SITE DATA

LOCATION SOIL TYPES______BLOUNT SILT LOAM
EARTH DISTURBED AREA______3.11 ACRES
PROPOSED IMPERVIOUS AREA ADDED:_____1.07 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT:___0.30
POST-CONSTRUCTION RUNOFF COEFFICIENT:___0.40
DESCRIPTION OF PRIOR LAND USE______EXISTING GRASS LOT
EXISTING QUALITY OF DISCHARGE FROM SITE__UNTREATED GRASS RUNOFF
IMMEDIATE RECEIVING WATERS:_____ON-SITE DETENTION BASIN
SUBSEQUENT RECEIVING WATERS:_____CITY STORM SEWER
LATITUDE 40.280916° LONGITUDE -84.189274°

WATERS EDGE NOTE

ALL MATERIAL AND EQUIPMENT STAGING OR STORAGE AREAS, DEWATERING AREAS, CONCRETE TRUCK WASH OUT AREAS, CONSTRUCTION ACCESS LOCATIONS, AND VEHICLE FUELING AND REFUELING LOCATIONS MUST BE LOCATED A MINIMUM OF 100' FROM ANY CREEK/RIVER/STREAM WATERS EDGE.

CLEAN STORM SYSTEM NOTE

IMMEDIATELY PRIOR TO FINAL COMPLETION OF THE PROJECT, CONTRACTOR SHALL ENSURE THE ENTIRE STORM SYSTEM, INCLUDING BUT NOT LIMITED TO, THE DETENTION/RETENTION BASIN(S), CATCH BASINS, MANHOLES, PIPING, UNDERDRAINS AND UNDERDRAIN TRENCHES ARE FREE FROM SEDIMENTATION AND OTHER POLLUTANTS AND FOREIGN MATERIALS AND ARE TO BE CLEANED AS NEEDED TO ENSURE MAXIMUM STORMWATER QUALITY AND FULL FUNCTIONALITY.

OFFSITE CONSTRUCTION ACTIVITIES

IT IS EXPECTED ALL CONSTRUCTION ACTIVITIES WILL TAKE PLACE ON SITE.

SPILL REPORTING REQUIREMENTS

IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE, SPECIAL HANDING PROCEDURES MUST BE USED. IN THE EVENT OF A LARGE RELEASE (25 GALLONS OR MORE) OF PETROLEUM WASTE, YOU MUST CONTACT THE OHIO EPA (AT 1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.

VEHICLE FUELING

VEHICLE FUELING AND MAINTENANCE WILL BE PERFORMED VIA A SMALL REFUEL TANK ON THE BACK OF A PICK-UP

OPEN BURNING NOTE

OPEN BURNING IS NOT PERMITTED IN THE CORPORATION LIMIT.

NEW CONSTRUCTION OF FIRE STATION 2 - SWPPP

CITY OF SIDNEY SHELBY COUNTY, OHIO INDEX OF SHEETS

SWPPP TITLE SHEET

SWPPP GENERAL EROSION CONTROL NOTES AND DETAILS

C4.1

SWPPP SITE EROSION CONTROL PLAN

C4.5

CONTACT INFORMATION

FACILITY SITE LOCATION: 2324 CAMPBELL ROAD, SIDNEY, OHIO 45365
OWNER SWPPP CONTACT: CITY OF SIDNEY, CHAD ARKENBERG, 937-498-8140, 201 W. POPLAR STREET,
SIDNEY, OH 45365, CArkenberg@sidneyoh.com
SWPPP CONTRACTOR CONTACT - TBD

SWPPP AND INSPECTION REPORTS LOCATION

NOTE: THE SWPPP AND INSPECTION REPORTS WILL BE KEPT ON-SITE IN THE JOB TRAILER/FOREMAN'S PICK-UP.

WASTE DISPOSAL NOTE

CONTAINERS (e.g. DUMPSTERS, DRUMS) MUST BE AVAILABLE FOR THE DISPOSAL OF DEBRIS, TRASH, HAZARDOUS MATERIAL AND PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF.

CLEAN HARD FILL NOTE

NO CLEAN CONSTRUCTION WASTES SHALL BE DISPOSED OF INTO THE PROPERTY.

FUELING AND STAGING NOTE

CONTRACTOR'S STAGING AND STORAGE AREA WILL BE LOCATED WITHIN CONSTRUCTION LIMITS OF THE PROJECT. FUEL TANKS AND OTHER HAZARDOUS MATERIALS TO BE SAFELY STORED, PROTECTED, AND PROPERLY HANDLED BY CONTRACTOR. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STAGING/STORAGE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ANY WASTE MATERIALS.

SOIL STOCKPILE NOTE

CONTRACTOR'S SHALL LOCATE SOIL STOCKPILE AREAS WITHIN THE PROJECT AREA SO AS NOT TO BE WITHIN THE IMMEDIATE PROXIMITY OF ANY SURFACE WATERS OR STORM INLET STRUCTURES. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STOCKPILE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO INSTALLING FILTER FABRIC FENCE AROUND STOCKPILE, TEMPORARILY COVERING THE STOCKPILE AND/OR TEMPORARILY SEEDING THE STOCKPILE.

DEWATERING NOTE

PUMPING OF SEDIMENT LADEN WATER FROM TRENCHES OR ANY OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, DITCH OR STREAM CORRIDORS, ANY WETLANDS OR STORM SEWERS IS PROHIBITED. ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SOIL PARTICLES PRIOR TO ITS RELEASE. IF AN AREA OF THE SITE OR TRENCH NEEDS DEWATERED, IT SHOULD BE PUMPED FROM A SUMP PIT WITH A SOCK FILTER OR OTHER TYPE OF FILTERING DEVICE ON THE DISCHARGE OF THE HOSE. DO NOT ALLOW DISCHARGED WATER TO PASS OVER DISTURBED GROUND. IF THE DISCHARGE WATER IS BEING PUMPED INTO A SEDIMENT POND THEN NO FILTER IS REQUIRED AT THE END OF THE HOSE. IF THE GROUNDWATER MUST BE LOWERED, THE WATER MAY BE FREELY DISCHARGED AS LONG AS THE WATER REMAINS CLEAN. DO NOT CO-MINGLE CLEAN GROUND WATER WITH SEDIMENT LADEN WATER OR DISCHARGE IT BY ALLOWING IT TO PASS OVER DISTURBED GROUND.

LOG/DOCUMENTATION SHEETS

AS PART OF THE SWPPP, THE CONTRACTOR SHALL MAINTAIN LOG/DOCUMENTATION SHEETS FOR THE FOLLOWING:

1) A SIGNATURE LOG CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE
IMPLEMENTATION OF THE SWPPP AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND
RESPONSIBILITIES OF THE SWPPP.

2) A GRADING AND STABILIZATION LOG DOCUMENTING THE PROJECTS GRADING AND STABILIZATION ACTIVITIES AND
3) A SWPPP AMENDMENT LOG DOCUMENTING CHANGES/AMENDMENTS TO THE SWPPP, WHICH OCCUR AFTER CONSTRUCTION ACTIVITIES COMMENCE.



440 E. HOEWISHER ROAD | SIDNEY, OHIO 45365 | 937.497.0200 8956 GLENDALE MILFORD ROAD, SUITE 1 | LOVELAND, OHIO 46140 | 513.239.8554

www.CHOICEONEENGINEERING.com

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION A NEW FIRE STATION BUILDING AND ASSOCIATED DRIVES AND PARKING. SITE WORK TO INCLUDE STORM SEWER, SANITARY SEWER, WATER, SITE GRADING, PAVEMENT WORK AND BUILDING CONSTRUCTION.

PROJECT WORK CONSTRUCTION DATES

START: JUNE 2021 ESTIMATED COMPLETION: JUNE 2022

STIMATED COMPLETIONS CONE 2022

EROSION CONTROL NOTES

- NEEDED TO MINIMIZE SEDIMENT LADEN WATER FROM LEAVING THE SITE OR ENTERING ANY STORM SYSTEM, ADJACENT DITCHES, STREAMS ETC. IF STORMWATER RUNOFF CONTAINING SEDIMENTS IS FOUND TO BE LEAVING THE PROJECT SITE IN AN AREA WHERE NO BMP/CONTROL MEASURE IS SHOWN OR IN PLACE, CONTRACTOR SHALL IMMEDIATELY INSTALL THE APPROPRIATE BMP/CONTROL MEASURE AS NEEDED TO REMEDY THE SITUATION (TYP. INLET PROTECTION, FILTER FABRIC FENCE FIC.)
- B. INSTALL INLET PROTECTION ON ALL STORM INLET STRUCTURES (YARD DRAINS, CATCH BASINS, MANHOLES WITH GRATED LIDS, ETC.) AND TO ANY EXISTING STORM STRUCTURES WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE AS NEEDED. INLET PROTECTION MAY CONSIST OF DEVICES SUCH AS SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, FLEXSTORM INLET FILTERS, SEDIMENT FENCE OR OTHER DEVICES WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE.
- C. CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CLEANING UP ANY MUD, DIRT AND DEBRIS WHICH IS TRACKED OR SPILLED ONTO THE ROADWAYS.
- D. PRE CONSTRUCTION CONTRACTOR IS RESPONSIBLE TO INSTALL A CONSTRUCTION ENTRANCE AS NEEDED TO MINIMIZE ANY MUD, DIRT AND DEBRIS TRACKED ONTO THE ROADWAYS.
- E. DURING CONSTRUCTION THE CONTRACTOR MUST MAINTAIN EROSION CONTROL UNTIL AREA IS STABILIZED INCLUDING TEMPORARY SEEDING AS NEEDED. CONTRACTOR SHALL TEMPORARYILY SEED ALL CRITICAL EXPOSED SLOPES TO MINIMIZE SEDIMENT RUNOFF.
- F. FINAL/POST CONSTRUCTION CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. CONTRACTOR SHALL ENSURE GRASS IS PERMANENTLY AND PROPERLY ESTABLISHED IN ALL AREAS WHERE GRASS IS SPECIFIED. ALL SEDIMENT AND EROSION CONTROL STRUCTURES, INCLUDING SEDIMENT FENCE, SHALL REMAIN IN PLACE UNTIL GRASS IS IN PLACE AND SITE IS STABILIZED. ONCE SITE IS STABILIZED AND ALL CONSTRUCTION IS COMPLETE, ALL SEDIMENT FENCE, INLET PROTECTION AND ANY OTHER TEMPORARY BMP'S SHALL BE REMOVED FROM THE SITE.

BMP NOTES

FOR ALL BMP'S INSTALLED, ENSURE THAT THE PONDING OF WATER BEHIND THE BMP WILL NOT DAMAGE PROPERTY OR POSE A SAFETY THREAT. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL MEASURE/BMP HAS BEEN USED INAPPROPRIATELY, THE CONTRACTOR MUST REPLACE AND ADJUST THE CONTROL/BMP TO MEET SITE CONDITIONS AS REQUIRED. THE CONTRACTOR SHALL ADJUST THE SWPPP AND ITS CONTROLS/BMPS AND THEIR QUANTITIES TO MEET FIELD CONDITIONS AND THE OHIO EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION ACTIVITIES GENERAL PERMIT.

MAINTENANCE NOTE

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP-SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE SWP3 SHALL BE DESIGNED TO MINIMIZE MAINTENANCE REQUIREMENTS. THE APPLICANT SHALL PROVIDE A DESCRIPTION OF MAINTENANCE PROCEDURES NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES.

SWPPP AND INSPECTION AVAILABILITY AND UPDATES NOTE

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE THE IMMEDIATE AVAILABILITY OF THE SWPPP AND INSPECTION REPORTS ON-SITE. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE TO PERFORM AND DOCUMENT ALL REQUIRED SWPPP INSPECTIONS AND ALL UPDATES AND AMENDMENTS TO THE SWPPP.

DOCUMENTATION AND GOVERNMENT INSPECTION NOTE

CONTRACTOR(S) SHALL PROVIDE THE OWNER'S REPRESENTATIVE A WRITTEN COPY OF THEIR CO-PERMITTEE APPLICATION AND ANY OTHER DOCUMENTATION THE CONTRACTOR(S) MAY SEND OR RECEIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITIES.

IF AN INSPECTOR OR REPRESENTATIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITY IS ON-SITE, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND NOTIFY THE OWNER'S REPRESENTATIVE.

CITY OF SIDNEY EROSION CONTROL NOTES

A. PRECONSTRUCTION NOTES

GRADING OPERATIONS SHALL NOT BEGIN UNTIL THE CITY APPROVES EROSION CONTROL. CONTRACTOR IS RESPONSIBLE TO INSTALL AND MAINTAIN TIRE SCRUBBERS AT EACH CONSTRUCTION SITE ACCESS, AND TO CLEAN UP MUD AND DEBRIS TRACKED ONTO THE ROADWAY WITHIN 24 HOURS OR SOONER.

B. DURING CONSTRUCTION MAINTENANCE NOTES

THE CONTRACTOR MUST MAINTAIN EROSION CONTROL MEASURES UNTIL AREA IS STABILIZED.

C. POST CONSTRUCTION NOTE

CONTRACTOR SHALL SEED AND MULCH THE ENTIRE SITE WITHIN 30 DAYS OF FINAL GRADING.

REYTAG & ASSOCIAT

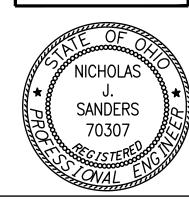
226 N. MIAMI AVE. P.O. BOX 220 SIDNEY, OHIO 45365

22 PC PC SIC SIC SIC

SIDNEY

FIRE STATIC





herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/13/24

DRAWN BY CHECKED BY

SWPPP - COVER SHEET

THE CONTRACTOR OR ITS APPOINTED REPRESENTATIVES WILL ASSUME RESPONSIBILITY FOR INSTALLATION, INSPECTION AND MAINTENANCE OF ALL SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION. THE INSTALLATION OF THE SOIL EROSION CONTROL MEASURES WILL BE COMPLETED, AS FOLLOWS:

A. PRIOR TO ANY GRADING OR EARTHWORK. A-1. SILT FENCE AND INLET PROTECTION (ON EX. STORM STRUCTURES) TO BE INSTALLED AS SHOWN ON SWPPP A-2. INSTALL CONSTRUCTION ENTRANCE(S) IF NEEDED AS SHOWN ON SWPPP. INSTALLATION OF ALL OTHER EROSION AND

SEDIMENT CONTROL MEASURES, E.G. ROCK CHECK DAMS, CONCRETE WASHOUT PIT, SEDIMENT BASIN, ETC. PERFORM ROUGH GRADING, INSTALL UTILITIES, BUILDINGS, PAVEMENT-B-1. CLEAR AND GRUB AREA AS NEEDED

B-2. PERFORM SITE GRADING. INSTALL BUILDING(S) B-3. INSTALL SANITARY, STORM, WATER LINES, OTHER UTILITIES, GRAVEL BASE, AND CURB AND GUTTER, AS PER PLAN(S), INSTALL INLET PROTECTION ON ALL PROPOSED STORM INLET STRUCTURES AS INDICATED ON THE PLANS AS SOON AS THEY ARE INSTALLED. B-4 PERFORM TEMPORARY SEEDING AS NEEDED ON ANY DISTURBED AREAS PER THE TIME REQUIREMENTS FOR TEMPORARY SEEDING SPECIFIED ON THIS DRAWING. B-5 INSTALL PAVEMENT.

C. PERFORM FINAL GRADING. C-1. PLACE TOPSOIL AND PERFORM FINAL RAKING AND GRADING ON ALL DISTURBED AREAS. C-2. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED (SEEDED AND/OR MULCHED).

C-3. CLEAN UP SITE, AND ONCE SITE HAS REACHED FINAL STABILIZATION REMOVE ALL TEMPORARY BMP'S. NOTES: A) CARE WILL BE TAKEN NOT TO DISTURB ANY EXISTING NATURAL VEGETATION NOT INVOLVED IN THE CONSTRUCTION PROCESS, WHENEVER POSSIBLE. B) TIMELY INSPECTIONS OF THE EROSION CONTROL MEASURES WILL BE MADE, BY THE CONTRACTOR, EVERY 7 DAYS, AND/OR AFTER ANY RAINFALL OF AT LEAST 1/2" IN A 24-HOUR PERIOD. REPORTS MUST BE KEPT ON-SITE AND SUPPLIED TO THE GOVERNING AUTHORITY IF REQUESTED.

INSPECTION SCHEDULE

A. THE SITE WILL BE INSPECTED PER OHIO EPA PERMIT No. OHCO00006

INSPECTIONS. THE PERMITTEE SHALL ASSIGN "QUALIFIED INSPECTION PERSONNEL" TO CONDUCT INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE SWP3 IS ADEQUATE AND PROPERLY IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE PROPOSED IN PART III.G.1.G OF THE OHCOOOOOG PERMIT OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. AT A MINIMUM, PROCEDURES IN A SWP3 SHALL PROVIDE THAT ALL CONTROLS ON THE SITE ARE INSPECTED: * AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24-HOUR PERIOD BY THE END OF THE NEXT CALENDAR DAY, EXCLUDING WEEKENDS AND HOLIDAYS UNLESS WORK IS SCHEDULED: AND * ONCE EVERY SEVEN CALENDAR DAYS.

THE INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH FOR DORMANT SITES IF: * THE ENTIRE SITE IS TEMPORARILY STABILIZED OR

* RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME (E.G. SITE IS COVERED WITH SNOW, ICE, OR THE

THE BEGINNING AND ENDING DATES OF ANY REDUCED INSPECTION FREQUENCY SHALL BE DOCUMENTED IN THE SWP3. ONCE A DEFINABLE AREA HAS ACHIEVED FINAL STABILIZATION, THE AREA MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS SHALL APPLY TO THAT PORTION OF THE SITE.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE: THE INSPECTION DATE;

NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION; iii. WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT,

APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED; IV. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION; LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;

LOCATION(S) OF BMPS THAT NEED TO BE MAINTAINED: vii. LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;

viii. LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND ix. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR

EVIDENCE OF OR THE POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THOSE ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE

THE PERMITTEE SHALL MAINTAIN FOR THREE YEARS FOLLOWING THE SUBMITTAL OF A NOTICE OF TERMINATION FORM, A RECORD SUMMARIZING THE RESULTS OF THE INSPECTION, NAMES(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3 AND A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3 AND THE PERMIT AND IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. THE RECORD AND CERTIFICATION SHALL BE SIGNED IN ACCORDANCE WITH PART V.G. OF THIS PERMIT.

i. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, IT SHALL BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION, SEDIMENT SETTLING PONDS SHALL BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION

ii. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 SHALL BE AMENDED AND THE NEW CONTROL PRACTICE SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE CONTAINED IN PART III.G.I.H OF THIS PERMIT, THE CONTROL PRACTICE SHALL BE IMPLEMENTED WITHIN 10 DAYS FROM THE DATE OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

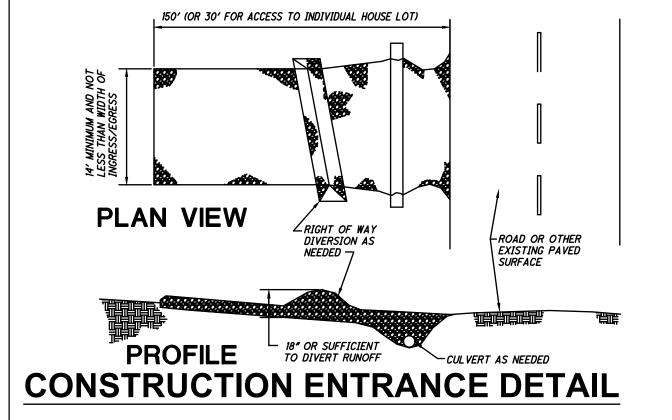
B. VEGETATIVE PLANTINGS - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL. - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES, OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE D. MOWING - DRAINAGE WAYS, DITCHES, AND OTHER AREAS THAT SUPPORT A DESIGNED FLOW OF WATER WILL BE MOWED REGULARLY TO E. FERTILIZATION - SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED AS

CONSTRUCTION ENTRANCE

STONE SIZE - 2" STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS, BUT NOT LESS THAN 150' (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES). THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6" THICK.

WIDTH - THE ENTRANCE SHALL BE AT LEAST 10' WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS BEDDING - A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LBS. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LBS. CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE, IF NEEDED, TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ACROSS A DITCH). G. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE, IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ON A SLOPE). MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFFSITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS. CONSTRUCTION ENTRANCES ARE INSTALLED TO MINIMIZE OFFSITE TRACKING OF SEDIMENTS. A STONE ACCESS DRIVE SHOULD BE INSTALLED AT EVERY POINT WHERE VEHICLES ENTER OR EXIT THE SITE. EVERY INDIVIDUAL LOT SHOULD ALSO HAVE ITS OWN DRIVE ONCE CONSTRUCTION ON THE LOT BEGINS.

NOTE: ALTERNATIVE STABILIZATION METHODS FOR CONSTRUCTION ENTRANCE/EXIT SUCH AS MANUFACTURED STEEL PLATES, GRID PLATES, ETC. OR STEEL PIPES/GRATINGS WILL ALSO BE CONSIDERED BUT WILL REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO THE USE OF SUCH ALTERNATIVE METHODS AS ON-SITE CONSTRUCTION ENTRANCES/EXIT. ANY PROPOSED ALTERNATIVE METHODS SHALL SHALL BE SHOWN TO EFFECTIVELY REMOVE MUD AND DEBRIS FROM VEHICLE WHEELS PRIOR TO EXITING THE SITE.



NON-SEDIMENT POLLUTION CONTROL

A. CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES:

DISPOSAL AND HANDLING OF HAZARDOUS AND OTHER CONSTRUCTION WASTE

* PREVENT SPILLS * USE PRODUCTS UP

* FOLLOW LABEL DIRECTIONS FOR DISPOSAL * REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH * RECYCLE WASTE WHENEVER POSSIBLE

* DON'T POUR INTO WATERWAYS, STORM DRAINS, OR ONTO THE GROUND * DON'T POUR DOWN THE SINK, FLOOR DRAIN, OR SEPTIC TANKS

* DON'T BURY CHEMICALS OR CONTAINERS * DON'T BURN CHEMICALS OR CONTAINERS

OIL AND CATCHING SPILLS.

* DON'T MIX CHEMICALS TOGETHER B. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM, AND ANY HAZARDOUS MATERIALS TO BE USED ON SITE. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT

C. NO WASTE MATERIALS SHALL BE BURIED ON SITE. SITE PERSONNEL, INCLUDING SUBCONTRACTORS, SHALL BE NOTIFIED THAT NO CONSTRUCTION-RELATED MATERIALS ARE TO BE BURIED ON SITE.

D. MIXING, PUMPING, TRANSFERRING, OR OTHERWISE HANDLING CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETÉ DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH, OR STORM DRAIN.

E. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING

F. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER.

G. IF HAZARDOUS SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. CONTACT OHIO

H. SPILLS OF 25 GAL. OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA (1-800-282-9378). THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE. I. STREETS NEED TO BE SWEPT AS OFTEN AS NECESSARY TO KEEP THEM CLEAN AND FREE FROM SEDIMENT. SEDIMENT TO BE SWEPT BACK ONTO THE LOT - NOT DOWN THE STORM SEWER.

J. STOCKPILES OF SOIL AND OTHER MATERIALS SHALL BE STORED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, AND SHALL HAVE EROSION CONTROL MATERIALS PLACED AROUND THEM.

K. ALL STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF NON-ERODIBLE MATERIAL

PROCESS WASTEWATER/LEACHATE MANAGEMENT NOTE ALL PROCESS WASTEWATERS (e.g. EQUIPMENT WASHING, LEACHATE ASSOCIATED WITH ON-SITE WASTE DISPOSAL, AND CONCRETE WASH-OUTS) MUST BE COLLECTED AND DISPOSED OF PROPERLY (e.g. TO A PUBLICLY-OWNED TREATMENT WORKS). THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT ONLY AUTHORIZES THE DISCHARGE OF STORM WATER AND CERTAIN

UNCONTAMINATED NON-STORM WATERS. THE DISCHARGE OF NON-STORM WATERS TO WATERS OF THE STATE MAY BE IN VIOLATION OF LOCAL, STATE, AND FEDERAL LAWS OR REGULATIONS.

HANDLING OF TOXIC OR HAZARDOUS MATERIALS NOTE NO SOLID, SANITARY, OR TOXIC WASTE IS TO BE DISPOSED OF ON THE PROJECT SITE. RECYCLING OF USED OR UNUSED

HAZARDOUS MATERIALS SHALL NOT OCCUR ON SITE EITHER. AREAS DESIGNATED FOR CEMENT TRUCK WASHOUTS, AND VEHICLE FUELING SHALL NOT TAKE PLACE ON PARKING LOT BASE. CONSTRUCTION CHEMICAL COMPOUNDS NOTE

NO MIXING OR STORAGE OF CHEMICAL COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT, OR CONCRETE ARE PERMITTED TO

ARE TO BE USED TO PREVENT STORM WATER FROM COMING INTO CONTACT WITH THE MATERIAL.

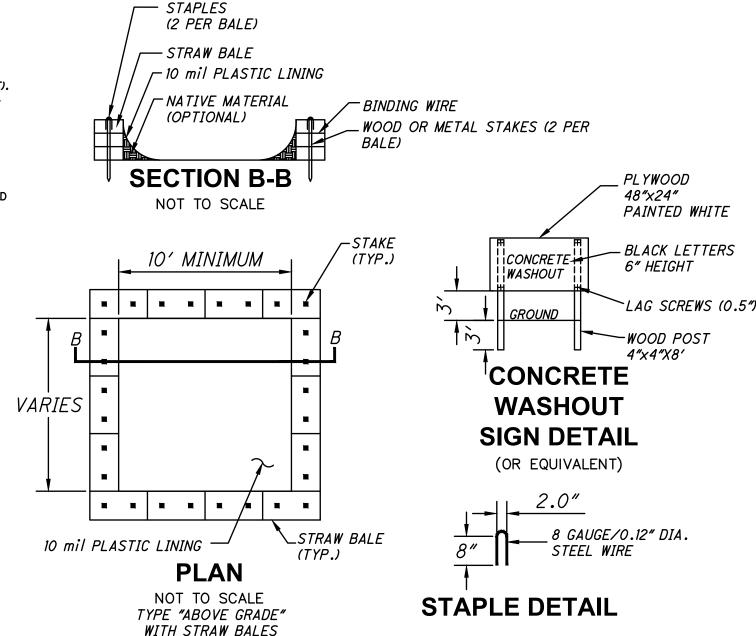
TAKE PLACE ON-SITE. ALL MIXING SHALL TAKE PLACE BEFORE ENTERING THE SITE. **CONSTRUCTION & DEMOLITION DEBRIS NOTE**

ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE 3745-20).

CONTAMINATED SOILS NOTE SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS SHALL BE HANDLED AND DISPOSED OF PROPERLY. ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED OF IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDFs). IF CONTAMINATION HAPPENS TO OCCUR, TARPS

CONCRETE WASHOUT NOTE

CONCRETE WASHOUT OPERATIONS SHALL TAKE PLACE WITHIN THE PROPOSED PROJECT AREA UTILIZING THE CONTRACTOR'S PORTABLE CONCRETE WASHOUT CONTAINER OR WITHIN A BERMED/CONTAINED AREA. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE WASHOUT MATERIAL DOES NOT LEAVE THE WASHOUT AREA OR ENTER THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ALL LEFTOVER WASHOUT MATERIAL



CONCRETE WASHOUT DETAIL

DUST CONTROL

DUST CONTROL SHALL BE PROVIDED AS NEEDED TO PREVENT SEDIMENT FROM BECOMING AIRBORNE. MEASURES SHALL INCLUDE WATERING VIA A WATER TRUCK OR OTHER WATERING DEVICE AS NEEDED TO REDUCE AND/OR ELIMINATE AIRBORNE DUST CREATED BY CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES.

CONSTRUCTION OF A FILTER BARRIER (SILT FENCE) A. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS

B. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

C. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

D. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5' (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FRÓM THE

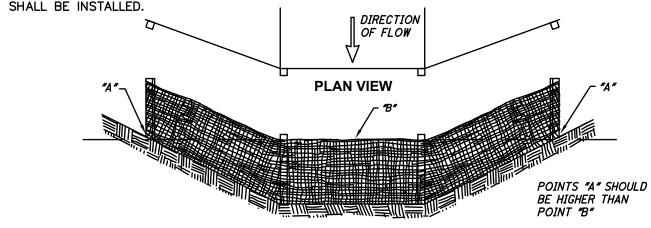
THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16" ABOVE THE ORIGINAL GROUND SURFACE.

THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6" DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

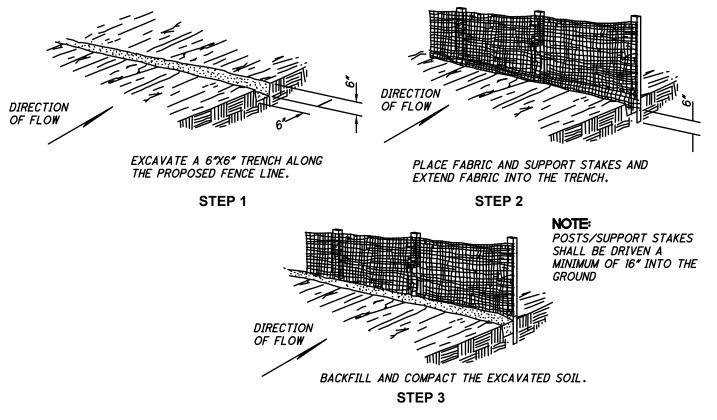
THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8" OF CLOTH IS BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6" DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.

SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.

MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. ALL THE GAPS AND TEARS IN THE FENCE MUST BE ELIMINATED AND REPAIRED. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES



ELEVATION VIEW DITCH CHECK FILTER FABRIC FENCE



DITCH CHECK FILTER FABRIC FENCE FILTER FABRIC FENCE DETAIL

CRITERIA FOR SILT FENCE MATERIAL

A. FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 48" LONG. WOOD POSTS WILL BE 2"-BY-2" HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 5'. POSTS/SUPPORT STAKES SHALL BE DRIVEN A MINIMUM OF 16" INTO THE GROUND.

B. SILT FENCE FABRIC SHALL CONFORM TO THE AASHTO SILT FENCE SPECIFICATION 100X AND SHALL HAVE A MINIMUM 100# GRAB TENSILE. SILT FENCE SHALL ALSO CONFORM TO THE MOST RECENT ODOT STANDARD FOR SEDIMENT/SILT FENCE (TABLE 712.09-1)

C. SILT FENCE SHALL BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

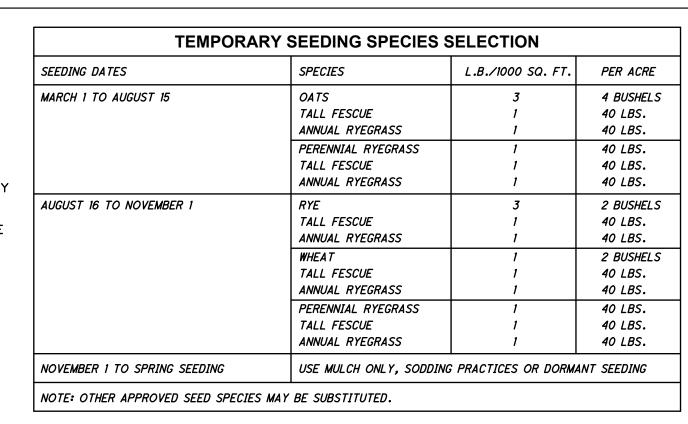
PERMANENT STABILIZATION

ALL AREAS AT FINAL GRADE MUST BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE. THIS IS USUALLY ACCOMPLISHED BY USING SEED AND MULCH, BUT SPECIAL MEASURES ARE SOMETIMES REQUIRED. THIS IS PARTICULARLY TRUE IN DRAINAGE DITCHES/SWALES, LOW AREAS, DETENTION POND BOTTOMS AND SIDES OR ON STEEP SLOPES. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF EROSION CONTROL BLANKETS AND/OR MATTING, ADDITION OF TOPSOIL, OR ROCK RIP-RAP. CONTRACTOR SHALL UTILIZE THESE AND ANY OTHER SPECIAL MEASURES AS NEEDED TO PERMANENTLY STABILIZE THE SITE. PERMANENT SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 AND AUGUST 1 TO SEPTEMBER 30. DORMANT SEEDING CAN BE DONE FROM NOVEMBER 20 TO MARCH 15. AT ALL OTHER TIMES OF THE YEAR, THE AREA SHOULD BE TEMPORARILY STABILIZED UNTIL A PERMANENT SEEDING CAN BE APPLIED.

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREAS WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.) AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

SOILS EXPOSED NOTE

CONTRACTOR SHALL PLAN AND IMPLEMENT CONSTRUCTION AND GRADING ACTIVITIES TO MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITIES.



SPECIFICATIONS FOR TEMPORARY SEEDING

A. TO MINIMIZE COSTS OF TEMPORARY STABILIZATION, LEAVE NATURAL COVER IN PLACE FOR AS LONG AS POSSIBLE. ONLY DISTURB AREAS YOU INTEND TO WORK WITHIN THE NEXT 14 DAYS.

B. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

C. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

D. SOIL AMENDMENTS - APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.

. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER. DRILL. CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY PLACED USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

MULCHING TEMPORARY SEEDING

A. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.

B. MATERIALS:

- STRAW IF STRAW IS USED, IT SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/ACRE OR 90 LBS./1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND SPREAD TWO 45 LBS. BALES OF STRAW IN EACH SECTION.
- HYDROSEEDERS IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB/AC. OR 46 LBS./1,000 SQ. FT. • OTHER - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED
- ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS/AC. • STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR
- WATER. ANCHORING METHODS: -MECHANICAL - A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED, BUT GENERALLY, BE LEFT LONGER

-MULCH NETTINGS - NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATION RUN OFF AND ON CRITICAL SLOPES. -SYNTHETIC BINDERS - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC). DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.

-WOOD CELLULOSE FIBER - WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LBS./AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS./1000 GAL.

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC. AND NOT AT FINAL GRADE.	WITHIN E DATE OF THE WOOT NECESTED DIGITALINGE IN
ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN 1 YEAR, AND NOT WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.)	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST 7 DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S).
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER
	,

WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED.

PERMANENT STABILIZATION

ODOT ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659, SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

ALL DISTURBED AREAS OR AREAS DESIGNATED FOR SEEDING SHALL BE GRADED AND SEEDED AND SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. TESTING THE PH OF ANY EXISTING OR IMPORTED TOPSOIL PER ODOT 659.02 SHALL BE WAIVED. THE AREA SHALL BE HAND-RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER 1" IN SIZE PERMITTED IN THE TOP 6".

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL.

IT'S THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE THE REQUIRED GERMINATION RATES AND ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE OWNER WHICH MAY REQUIRE WATERING, REGRADING/ADDING TOPSOIL AND RESEEDING. ANY AREAS THAT HAVE ERODED OR WHERE NEW GRASS DID NOT GERMINATE SHALL BE ADDRESSED BY THE CONTRACTOR UNTIL THE AREAS ARE STABILIZED, SHAPED, AND DRAINED, AS INDICATED IN THE PLANS.

ANY DISTURBED AREA, OUTSIDE OF THE PROJECT WORK LIMITS, CAUSED BY THE CONTRACTOR'S WORK, SHALL BE RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER AND PROJECT OWNER'S REPRESENTATIVE, AT THE CONTRACTOR'S SOLE EXPENSE.

THIS ITEM INCLUDES: TOPSOIL, SEEDING, MULCHING, COMMERCIAL FERTILIZER, WATER, AND REPAIR SEEDING AND MULCHING.

THE ABOVE SHALL BE INCIDENTAL TO THE PROJECT

S Ш Ш S S ∞

~

Щ

NOIL

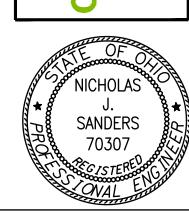
ONSTRUC

 \simeq

SID

CI





nerein, whether in writing or graphically, s instruments of professional service. may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's itten approval will void all such documents and the Architect will not e personally liable for any damage, har loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24

DRAWN BY

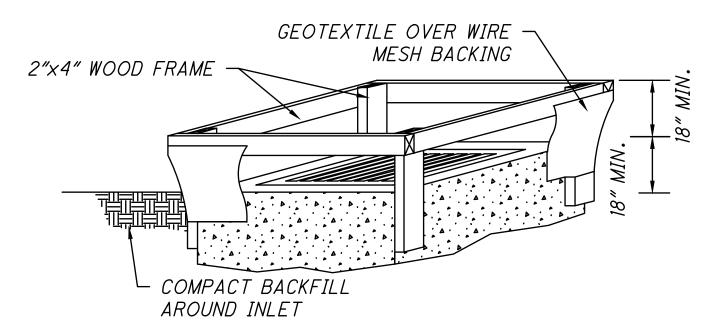
GENERAL NOTES AND DETAILS

CHECKED BY

JSP

INLET PROTECTION FOR STORM STRUCTURES W/ GRATE

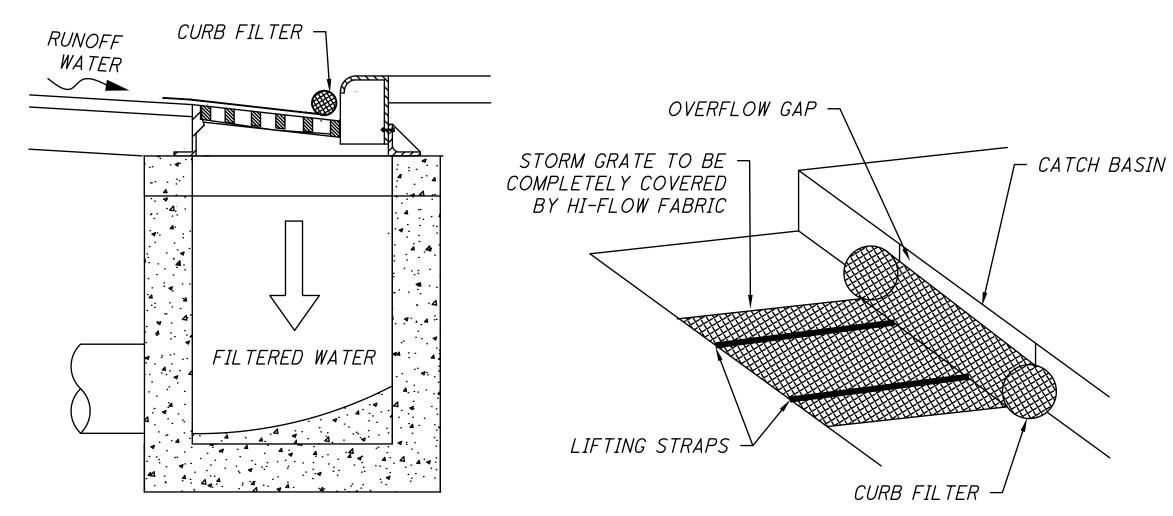
INLET PROTECTION MAY CONSIST OF SEDIMENT FENCE AND/OR DEVICES SUCH AS FLEX STORM INLET FILTERS, SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, OR OTHER DEVICES (ALTERNATE PRODUCTS WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED) WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE. INSTALL INLET PROTECTION ON ALL PROPOSED YARD DRAINS, CATCH BASINS AND MANHOLES WITH GRATED LIDS AND TO ALL EXISTING STORM STRUCTURES WITH GRATED LIDS WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.



NOTE

- A. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
- B. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH OF AT LEAST 18".
- C. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2" BY 4" CONSTRUCTION GRADE LUMBER. THE 2" BY 4" POST SHALL BE DRIVEN 1' INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2" BY 4" FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6" BELOW ADJACENT ROAD, IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
- D. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
- E. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAY ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
- F. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
- G. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION, AND IF RUNOFF BY PASSING THE INLET WILL NOT FLOW TO A SETTING POND, THE TOP OF EARTH DIKES SHALL BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.

INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS

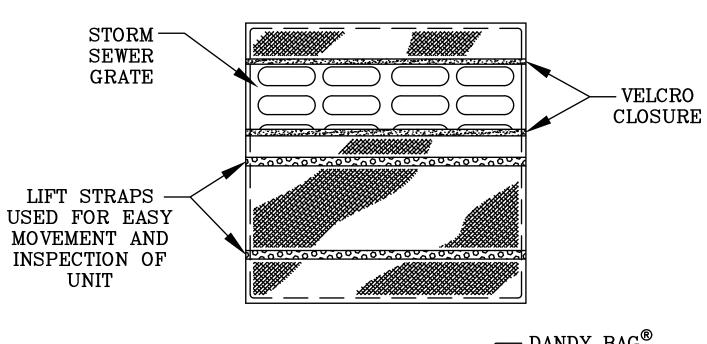


NOTES

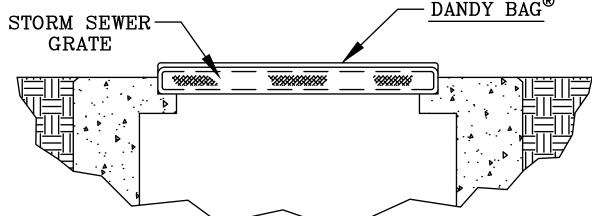
- A. DANDY CURB BAG, SEDIGUARDS, OR ALTERNATE PRODUCT WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED MAY BE USED.
- B. REMOVE SEDIMENT FROM CURB INLET PROTECTION BEFORE IT HINDERS THE FILTERING CAPACITY.

 DANDY CURB BAG: LIFT GRATE AND REMOVE DANDY BAG, CLEAN ACCUMULATED SEDIMENT AND REPLACE BAG AS REQUIRED BY MANUFACTURER.
 - SEDIGUARD: CLEAN SEDIGUARD ONCE IT IS DRY WITH A STIFF BROOM AFTER EVERY RAIN. - ALTERNATE PRODUCTS: CLEAN AS REQUIRED PER MANUFACTURER'S RECCOMENDATIONS
- C. INLET PROTECTION SHOULD NEVER INTERFERE WITH SAFETY OF ACTIVE TRAFFIC.

CURB INLET SEDIMENT FILTER DETAIL



DANDY BAG®



DETAIL OF INLET SEDIMENT CONTROL DEVICE

DANDY BAG® SPECIFICATIONS

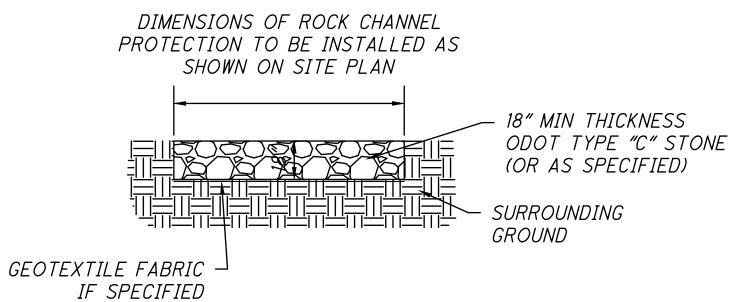
NOTE: THE DANDY BAG® WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HI-FLOW DANDY BAG® (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV	
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)	
Grab Tensile Elongation	ASTM D 4632	%	24 X 10	
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)	
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)	
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)	
UV Resistence	ASTM D 4355	%	90	
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)	
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	5907 (145)	
Permittivity	ASTM D 4491	Sec ⁻¹	2.1	

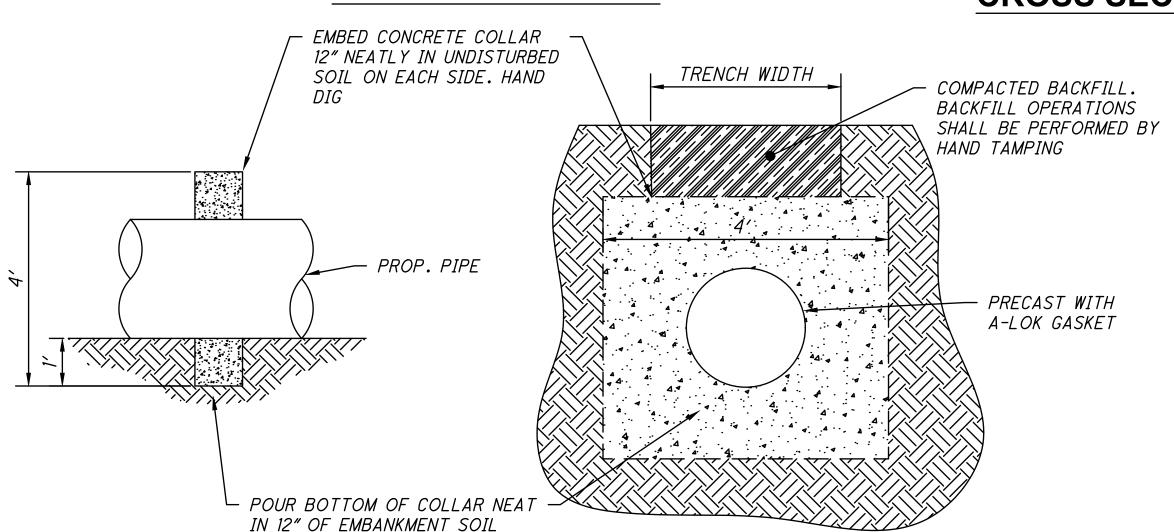
*Note: All Dandy Bags® can be ordered with optional oil absorbent pillows

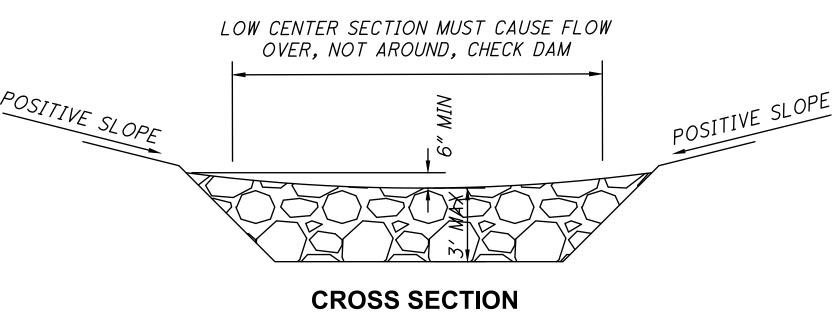
INLET PROTECTION - DANDY BAG

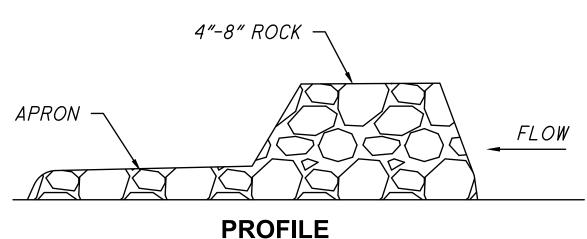


ROCK CHANNEL PROTECTION
DETAIL FOR PIPE OUTLET

ANTI-SEEP COLLAR





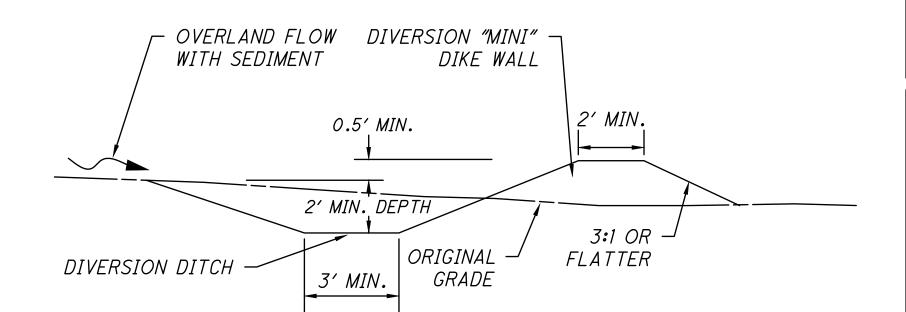


NOTES

- A. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT No. 3 OR 4 OR SUITABLE FILTER FABRIC.
- B. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.
- C. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.
- D. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.
- E. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 INCHES THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
- F. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.

G. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

DITCH ROCK CHECK DAM



NOTES

A. BERM CAN BE CONSTRUCTED AS DITCH OR DIKE WALL

B. PLACE DITCH ON A GRADE TO DRAIN TO SEDIMENT BASIN.

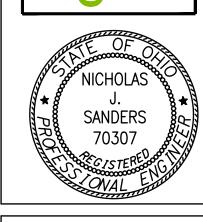
CROSS SECTION OF A DIVERSION BERM



226 N. P.O. BC

EW CONSTRUCTION OF FIRE STATION 2 CITY OF SIDNEY

Choice One
Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS
PLAN APPROVAL / BIDDING

COMM. NUMBER
2207.02

DRAWN BY
NJS

CHECKED BY
NJS

JSP

GENERAL NOTES AND DETAILS

SEDIMENT BASIN

NOTES

A. SEDIMENT BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. SITE PREPARATION -THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT. GULLIES AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE EMBANKMENT MATERIAL.

C. EMBANKMENT -THE FILL MATERIAL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES OVER 6 IN. IN DIAMETER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL SHALL BE BROUGHT UP IN APPROXIMATELY 6 IN. HORIZONTAL LAYERS OR OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN A WAY THAT WILL RESULT IN THE REQUIRED COMPACTION. SPECIAL EQUIPMENT SHALL BE USED WHEN THE REQUIRED COMPACTION CANNOT BE OBTAINED WITHOUT IT. THE MOISTURE CONTENT OF FILL MATERIAL SHALL BE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. THE EMBANKMENTS OF THE SEDIMENT BASIN AND THE AREAS THAT LIE DOWNSTREAM OF THE POND MUST BE STABILIZED.

D. PIPE SPILLWAY -THE PIPE CONDUIT BARREL SHALL BE PLACED ON A FIRM FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. CONNECTIONS BETWEEN THE RISER AND BARREL, THE ANTI-SEEP COLLARS AND BARREL AND ALL PIPE JOINTS SHALL BE WATERTIGHT. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND THE CONDUIT IN LAYERS AND EACH LAYER SHALL BE COMPACTED TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ALL COMPACTION WITHIN 2 FT. OF THE PIPE SPILLWAY WILL BE ACCOMPLISHED WITH HAND-OPERATED TAMPING EQUIPMENT.

- E. RISER PIPE BASE -THE RISER PIPE SHALL BE SET A MINIMUM OF 6 IN. IN THE CONCRETE BASE.
- F. TRASH RACKS -THE TOP OF THE RISER SHALL BE FITTED WITH TRASH RACKS FIRMLY FASTENED TO THE RISER PIPE.
- G. SEED AND MULCH -THE SEDIMENT BASIN SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.
- H. SEDIMENT CLEANOUT -ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT STORAGE ZONE ONCE IT EXCEEDS 50 PERCENT OF THE MINIMUM REQUIRED SEDIMENT STORAGE DESIGN CAPACITY AND PRIOR TO THE CONVERSION TO THE POST-CONSTRUCTION PRACTICE UNLESS SUITABLE STORAGE IS DEMONSTRATED BASED UPON OVER-DESIGN. THIS ELEVATION SHALL BE MARKED ON A CLEANOUT STAKE NEAR THE CENTER OF THE BASIN. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT WILL NOT ERODE.
- I. FINAL REMOVAL SEDIMENT BASINS SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE STABILIZED.

OPERATIONS AND MAINTENANCE

SEDIMENT BASINS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. NECESSARY ACTIVITIES ARE SHOWN AS FOLLOWS:

A. ESTABLISH VEGETATIVE COVER AND FERTILIZE AS NECESSARY TO MAINTAIN A VIGOROUS COVER IN AND AROUND THE SEDIMENT

- B. REMOVE UNDESIRABLE VEGETATION PERIODICALLY TO PREVENT GROWTH OF TREES AND SHRUBS ON THE EMBANKMENT AND SPILLWAY AREAS.
- C. PROMPTLY REPAIR ERODED AREAS. REESTABLISH VEGETATIVE COVER IMMEDIATELY WHERE SCOUR EROSION HAS REMOVED ESTABLISHED SEEDING.
- D. PROMPTLY REMOVE ANY BURROWING RODENTS THAT MAY INVADE AREAS OF THE EMBANKMENT.
- E. REMOVE TRASH AND DEBRIS THAT MAY BLOCK SPILLWAYS AND ACCUMULATE IN THE POND.
- F. CHECK SPILLWAY OUTLETS AND POINTS OF INFLOW TO ENSURE DRAINAGE IS NOT CAUSING EROSION AND THAT OUTLETS ARE NOT CLOGGED. REPLACE DISPLACED RIPRAP IMMEDIATELY.

ROCK PAD NOTE

IT IS VERY IMPORTANT THAT A ROCK PAD BE CONSTRUCTED TO THE HEIGHT OF THE TOP OF THE SEDIMENT STORAGE ZONE. IF THIS IS NOT DONE OR IF THE PAD IS NOT BUILT TO THE SAME HEIGHT AS THE TOP OF THE SEDIMENT STORAGE ZONE. THE SKIMMER WILL NOT FUNCTION PROPERLY .

WHEN COMPLETE THE IAS FLEXIBLE COUPLING SHOULD BE LYING FLAT ON THE ROCK PAD. THE UNIT WILL BE TOUCHING AT TWO POINTS: THE TOP OF THE BARREL/MIDDLE OF THE SKIMMER HEAD AND THE POINT AT WHICH THE BARREL IS ATTACHED TO THE IAS FLEXIBLE COUPLING. SEE MANUFACTURER'S ASSEMBLY INSTRUCTIONS.

SEDIMENT BASIN CALCULATIONS

REQUIRED SEDIMENT STORAGE VOLUME = 37 C.Y./ACRE * 3.11 ACRES = 115 C.Y. TOP OF SEDIMENT STORAGE ZONE ELEVATION = 1032.90 (145 C.Y.). SET TOP OF CLEANOUT STAKE AT THIS ELEVATION. REQUIRED DEWATERING ZONE VOLUME = 67 C.Y./ACRE * 3.47 ACRES = 233 C.Y.

DEWATERING ZONE VOLUME (BETWEEN 1034.00 AND 1032.90) = 582 C.Y. TOTAL BASIN VOLUME REQUIRED TO TOP OF DEWATERING ZONE = 115 C.Y. + 233 C.Y. = 348 C.Y.

TOP OF DEWATERING ZONE ELEVATION = 1034.00 (727 C.Y.)

SEDIMENT BASIN VOLUME PROVIDED TO ELEV. 1034.00 = 727 C.Y. RISER AND BARREL: PROPOSED 12" DETENTION OUTLET AND 2-2B CB ARE TO BE USED AS OUTLET FOR SEDIMENT BASIN.

DEWATERING TIME : 2.62 DAYS 233 C.Y. * 27 = 6291 CF VOLUME TO BE DEWATERED

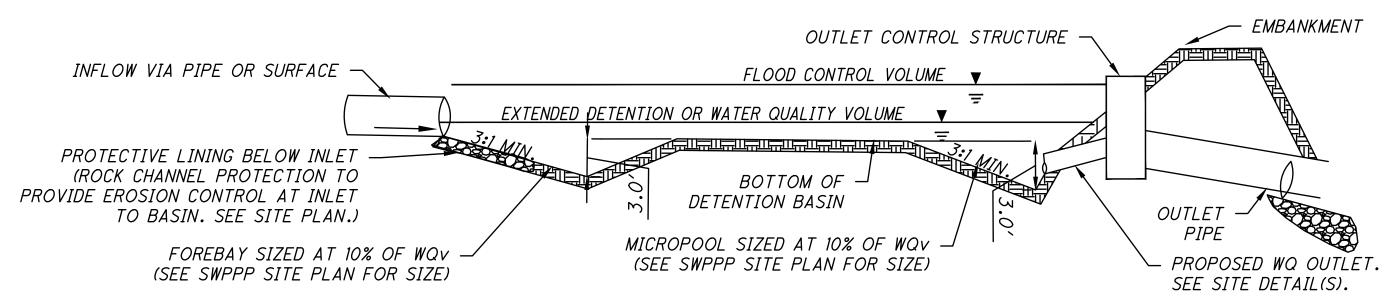
USING A FAIRCLOTH/IAS WATER QUALITY SKIMMER WITH A 1.75" SKIMMER SIZE, IT DISCHARGES 2405 CF PER 24 HOURS THEREFORE IT WILL TAKE 2.62 DAYS TO DEWATER THIS SEDIMENT BASIN

WATER ENTRY UNIT WITH TRASH SCREEN ORIFICE OPENING INSIDE THE HORIZONTAL TUBE WITH A CONSTANT HYDRAULIC HEAD SCHEDULE 40 PVC PIPE (BARREL OR ARM) FLEXIBLE HOSE FLOAT **TOP VIEW** PVC VENT PIPE **WATER ENTRY UNIT END VIEW**

FAIRCLOTH SKIMMER

SEDIMENT BASIN CONVERT TO SITE DETENTION BASIN NOTE

UPON COMPLETION OF THE PROJECT, IF THE SEDIMENT BASIN IS TO SERVE AND FUNCTION AS A SITE DETENTION/RETENTION BASIN, ALL SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN WHICH IS ABOVE ITS PROPOSED FINAL SURFACE GRADES THROUGHOUT THE BASIN AND ALSO AS NEEDED TO PLACE ANY REQUIRED TOPSOIL. UPON PROJECT COMPLETION AND FINAL CLEANING, THE SEDIMENT BASIN SHOULD BE ESTABLISHED TO ITS PROPOSED RETENTION/DETENTION BASIN DESIGN INCLUDING CAPACITY, GRADES, OUTLETS, FOREBAY AND MICROPOOL.



FOREBAY AND MICROPOOL CROSS SECTION

TYPICAL MAINTENANCE ACTIVITIES FOR DETENTION BASINS

POTENTIAL POLLUTANT SOURCES POST CONSTRUCTION THAT SHOULD BE MONITORED INCLUDE: TRASH, FERTILIZERS, GRAINS, HERBICIDES, PESTICIDES, LAWN TREATMENT APPLICATIONS ALONG WITH ASSORTED FUELS, OILS, GREASE, HYDRAULIC FLUID, AND OTHER VEHICULAR FLUIDS ASSOCIATED WITH TRAFFIC THROUGHOUT THE DEVELOPED SITE.

MONTHLY: MOW EMBANKMENT AND CLEAN TRASH AND DEBRIS FROM OUTLET STRUCTURE. ADDRESS ANY ACCUMULATION OF HYDROCARBONS.

ANNUALLY: INSPECT EMBANKMENT AND OUTLET STRUCTURE FOR DAMAGE AND PROPER FLOW. REMOVE WOODY VEGETATION AND FIX ANY ERODING AREAS. MONITOR SEDIMENT ACCUMULATIONS IN FOREBAY AND MAIN POOL.

SEMI-ANNUALLY: INSPECT WETLAND AREAS FOR INVASIVE PLANS

3-7 YEARS: REMOVE SEDIMENT FROM FOREBAYS.

15-20 YEARS: MONITOR SEDIMENT ACCUMULATIONS IN THE MAIN POOL AND CLEAN AS POND BECOMES EUTROPHIC OR POOL VOLUME IS REDUCED SIGNIFICANTLY.

FINAL DETENTION BASIN



herein, whether in writing or graphically as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's tten approval will void all such nd instruments and the Architect will not e personally liable for any damage, h REVISIONS

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY JSP

GENERAL NOTES AND DETAIL

C4.4



CIATES

SS

 ∞

FRE

Q

TRUCTION

NO O

S

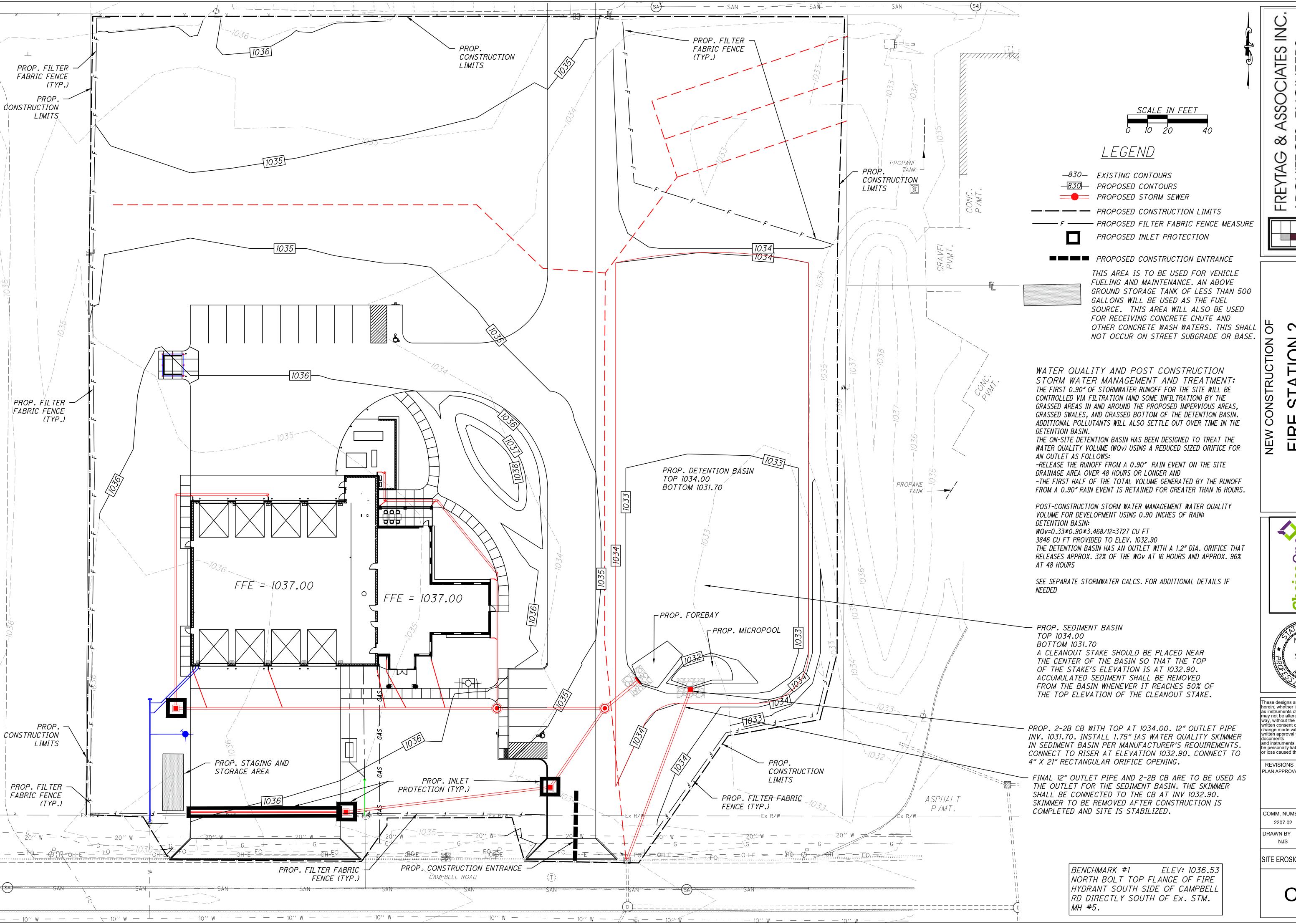
SIDNE

CH

Ш

Ш

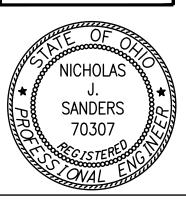
AR



NGINE AR

SIDNEY

On Choice

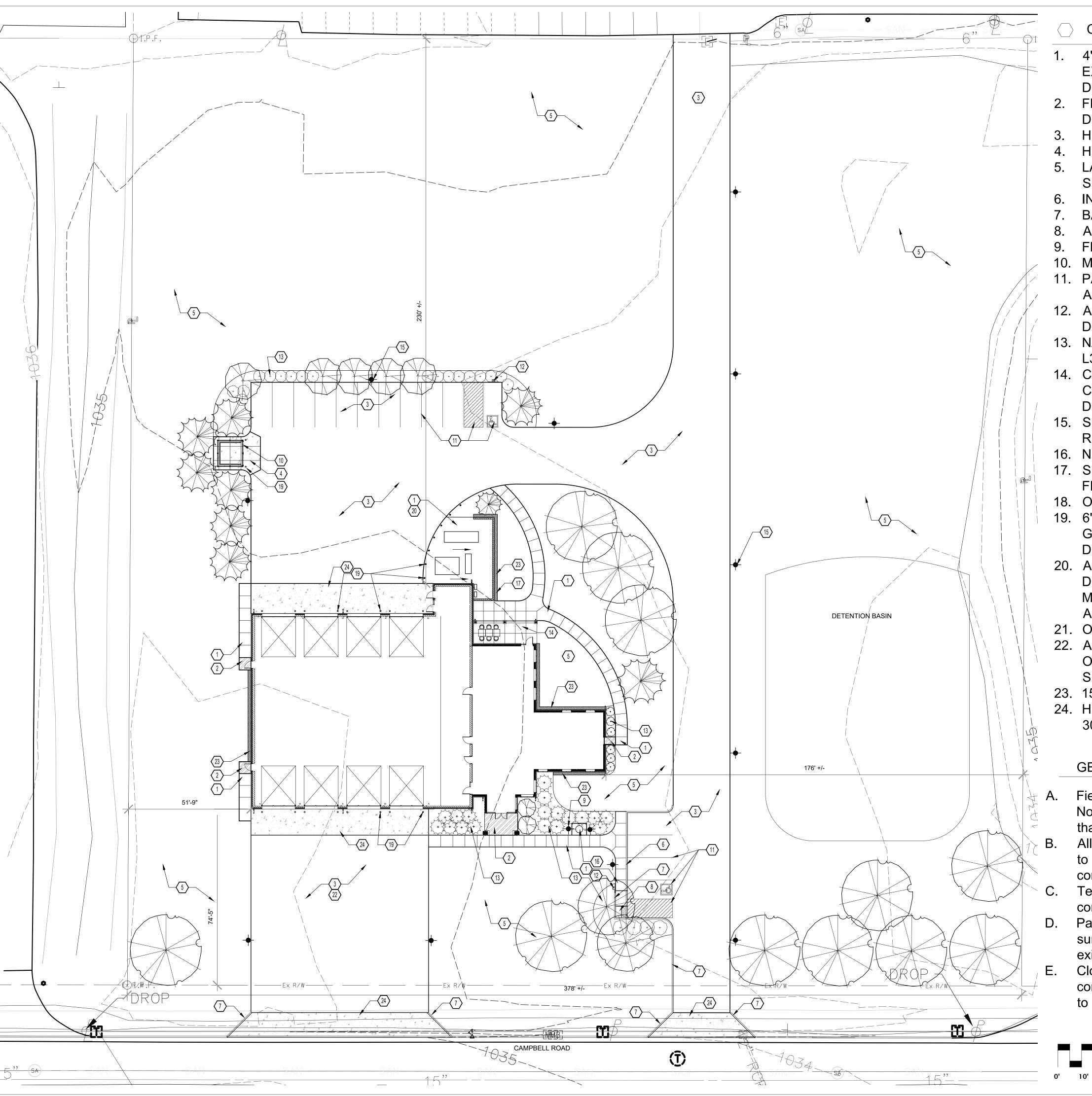


These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such itten approval will void all such and instruments and the Architect will not be personally liable for any damage, harm

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY JSP

SITE EROSION CONTROL PLAN

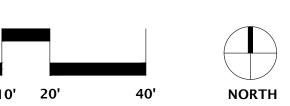


CODED NOTES

- 4" THICK CONCRETE WALK. PROVIDE CONTROL AND EXPANSION JOINTS AS PER INDUSTRY STANDARDS, SEE DETAIL 1/L2.0
- FROST-PROOF SLAB AT ENTRIES, SEE STRUCTURAL **DRAWINGS**
- HEAVY DUTY ASPHALT, SEE DETAIL 3/L2.0
- HEAVY DUTY CONCRETE PAVEMENT, SEE DETAIL 2/L2.0
- LAWN, SEED ALL AREAS DISTURBED BY CONSTRUCTION. SEE TURF SPECIFICATIONS, SHEET L3.1
- INTEGRAL CURB, SEE DETAIL 4/L2.0
- BARRIER CURB, SEE DETAIL 5/L2.0
- ADA COMPLIANT CURB RAMP, SEE DETAIL 6/L2.0
- FLAGPOLE LIGHTS, SEE ELECTRICAL DRAWINGS
- 10. METAL DUMPSTER ENCLOSURE, SEE DETAIL 12/ L2.0
- 11. PAINT PARKING LOT STRIPING AND SYMBOLS ON ASPHAL AS SHOWN ON PLAN, SEE DETAIL 9/L2.0 FOR HC SYMBOL
- 12. ADA COMPLIANT ACCESSIBLE PARKING SIGNAGE, SEE **DETAIL 10/L2.0**
- 13. NATURAL HARDWOOD MULCHED PLANT BED, SEE SHEET L3.0 & L3.2 FOR PLANTING PLAN AND SPECIFICATIONS
- 14. CONCRETE PATIO UNDER CANOPY, SEE DETAIL 1/L2.0 FOR CONCRETE. SEE SHEET A2.1 AND REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL DETAIL.
- 15. SEE ELECTRICAL DRAWINGS FOR INFORMATION REGARDING EXISTING AND NEW POLE LOCATIONS
- 16. NEW FLAGPOLE, SEE DETAIL 7/L2.0
- 17. SEE PLUMBING DRAWINGS FOR GAS LINES FOR FUTURE FIRE PIT
- 18. OMIT NOTE
- 19. 6" DIAMETER BOLLARDS, SEE DETAIL 11/L2.0. PROTECT GARAGE DOOR OPENINGS, MECHANICAL YARD AND DUMPSTER AREA CURBS
- 20. ASSURE PAVEMENT AROUND EQUIPMENT IS SLOPED TO DRAIN. SEE CIVIL DRAWINGS FOR MORE INFORMATION. SEE MEP AND STRUCTURAL DRAWINGS FOR EQUIPMENT PADS AND ADDITIONAL MECHANICAL YARD INFORMATION.
- 21. OMIT NOTE
- 22. ALTERNATE 1: PROVIDE HEAVY DUTY CONCRETE SHOWN ON DETAIL 2/L2.0 IN LIEU OF HEAVY-DUTY ASPHALT, SPECIFICATION SECTION 012300 ALTERNATES
- 23. 15" WIDE MOW STRIP, SEE DETAIL 8/L2.0
- 24. HEAVY DUTY CONCRETE APRON, CITY OF SIDNEY DETAIL 300-6, SEE DETAIL 2/L2.0 FOR PAVEMENT DETAILS

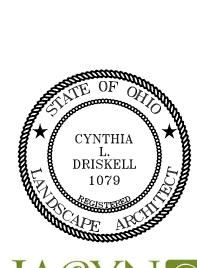
GENERAL NOTES

- Field verify all dimensions & conditions prior to start of construction. Notify owner immediately of any discrepancy or situation discovered that does not conform to construction documents.
- All work performed is subject to approval by the owner. Work found to be unsatisfactory shall be removed and properly replaced by the contractor at no additional cost to the owner.
- Temporarily support all walls, headers, structures, piping, ductwork, conduit, etc., as required until final supports are in place.
- Patch & repair all areas, surfaces & materials to condition of surrounding area where left exposed to view. New walks to meet existing in a smooth and continuous condition.
- Closely coordinate all work with the owner and with all other contractors hired by the owner. Clarify in advance any questions as to scope of work and areas of responsibility.











documents and the Architect will not

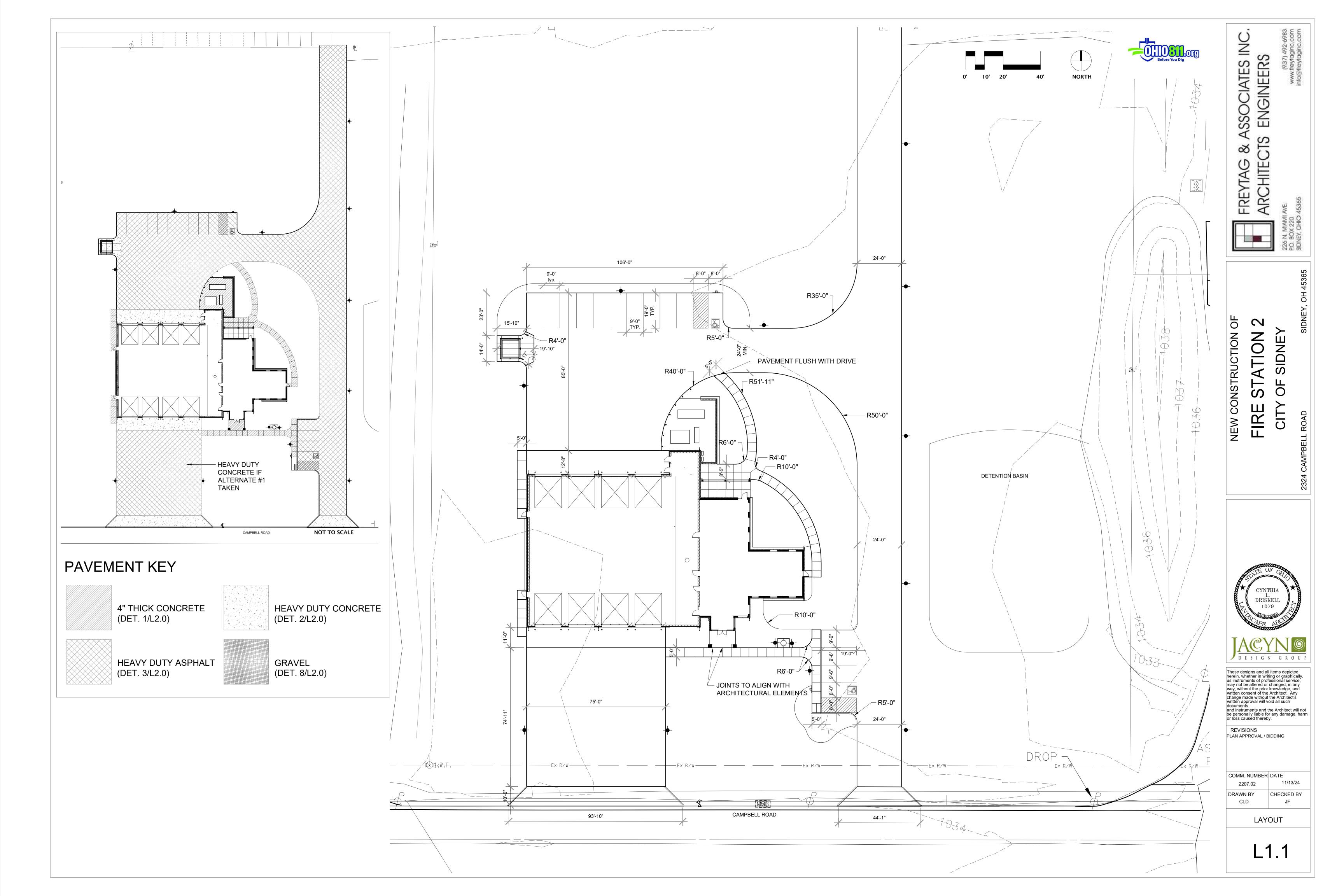
REVISIONS PLAN APPROVAL / BIDDING

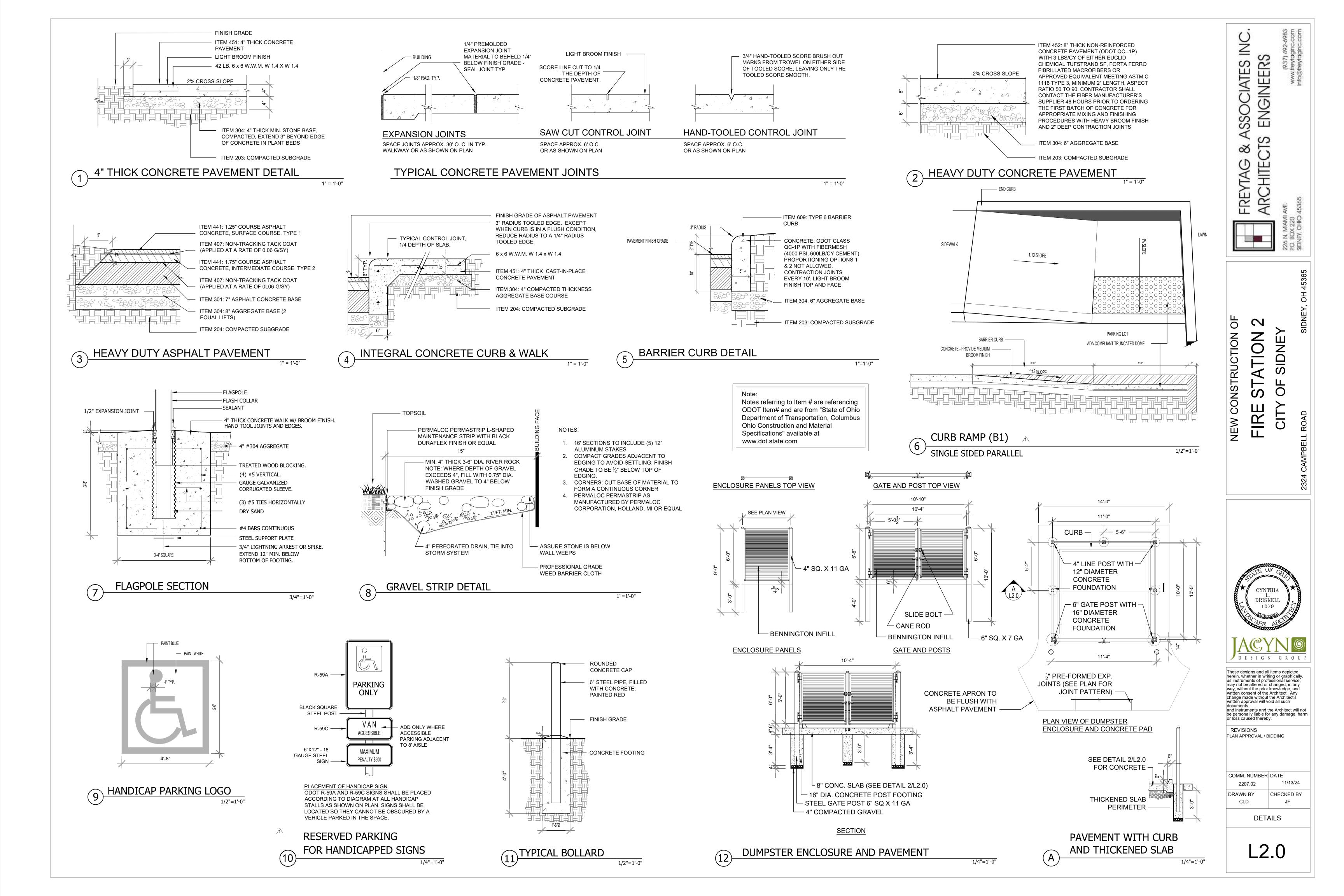
COMM. NUMBER DATE DRAWN BY CHECKED BY

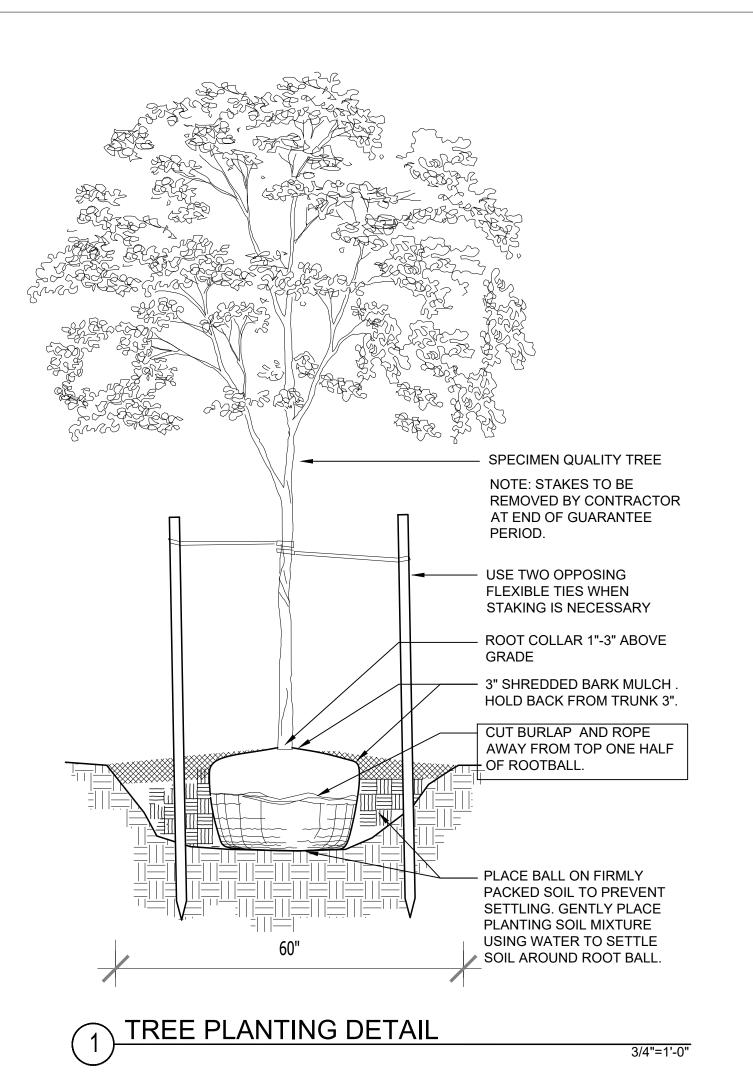
SITE PLAN

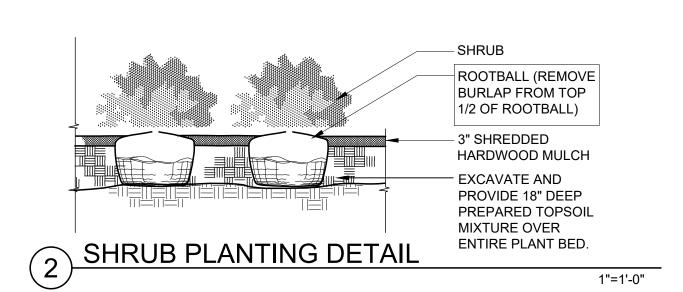
L1.0



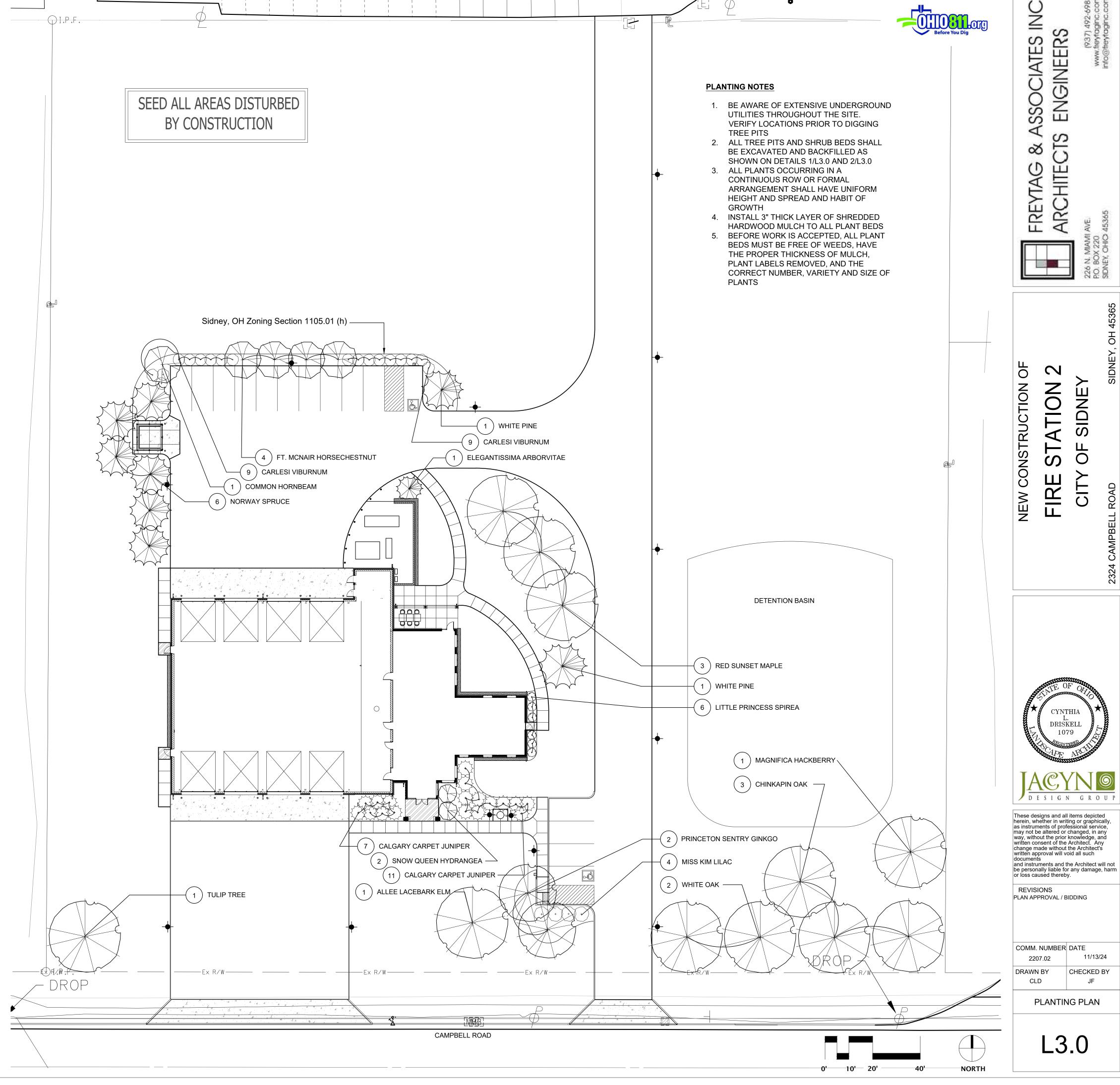








		PLANT LIST			
QUANTITY	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	NOTES
	•	TREES			
3	RED SUNSET MAPLE	ACER R. 'RED SUNSET'	2" CAL.	BB	
4	FT. MCNAIR HORSECHESTNUT	AESCULUS 'CARNEA 'FT. MCNAIR'	2" CAL.	BB	
1	COMMON HORNBEAM	CARPINUS BETULUS	2" CAL.	BB	
1	MAGNIFICO HACKBERRY	CELTIS O. 'MAGNIFICA"	2" CAL.	BB	
2	PRINCETON SENTRY GINKGO	GINKGO PRINCETON SENTRY	2" CAL.	BB	MALE ONLY
1	TULIP TREE	LIRIODENDRON TULIPIFERA	2" CAL.	BB	
6	NORWAY SPRUCE	PICEA ABIES	2" CAL.	BB	
2	WHITE PINE	PINUS STROBUS	2" CAL.	BB	
2	WHITE OAK	QUERCUS ALBA	2" CAL.	BB	
3	CHINKAPIN OAK	QUERCUS MUEHLENBERGII	2" CAL.	BB	
1	ELEGANTISSIMA ARBORVITAE	THUJA O. 'ELEGANTISSIMA'	6' HGT.	BB	
1	ALLEE LACEBARK ELM	ULMUS 'ALLEE LACEBARK'	2" CAL.	BB	
		SHRUBS			
2	SNOW QUEEN HYDRANGEA	HYDRANGEA Q. 'SNOW QUEEN'	#5 CONT		
18	CALGARY CARPET JUNIPER	JUNIPERUS SABINA 'MONNA'	#3 CONT		
6	LITTLE PRINCESS SPIREA	SPIRAEA 'LITTLE PRINCESS'	#3 CONT		
4	MISS KIM LILAC	SYRINGA PATULA 'MISS KIM'	#5 CONT		
18	CARLESI VIBURNUM	VIBURNUM CARLESI	36"	BB	



- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply
- 1.2 SUMMARY

to this Section.

- A. Section Includes: Seeding, Hydroseeding, Erosion control materials
- B. Related Sections:
- 1. Section 311000 "Site Clearing" for topsoil stripping and stockpiling.
- 2. Section 312000 "Earth Moving" for excavation, filling and backfilling, and rough grading.

modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.

- Section 329300 "Plants" for border edgings.
- 1.3 DEFINITIONS
- A. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.

E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

F. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is

- G. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- H. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.
- 1.4 ACTION SUBMITTALS
- A. Product Data: For each type of product indicated.
- 1. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to this Project.
- 1.5 INFORMATIONAL SUBMITTALS
- A. Certification of Grass Seed: From seed vendor for each grass-seed mono stand or mixture stating the botanical and common name, percentage
- by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- B. Qualification Data: For qualified landscape Installer.
- C. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of turf during a calendar year. Submit before expiration of required initial maintenance periods.
- 1.6 QUALITY ASSURANCE
- A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful turf establishment.
- 1. Professional Membership: Installer shall be a member in good standing of either the Professional Land Care Network or the American Nursery and Landscape Association.
- 2. Experience: Three years' experience in turf installation in addition to requirements in Section 014000 "Quality Requirements."
- 3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
- 4. Pesticide Applicator: State licensed, commercial
- B. Pre-installation Conference: Conduct conference at Project Site
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.
- B. Bulk Materials:
- 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
- 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
- 3. Accompany each delivery of bulk fertilizers, lime and soil amendments with appropriate certificates.
- 1.8 PROJECT CONDITIONS
- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.
- 1. Spring Planting: March 15 through April 15
- 2. Fall Planting: August 15 through October 1
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.
- 1.9 MAINTENANCE SERVICE
- A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable turf is established but for not less than the following periods:
- 1. Seeded Turf: Not less than 60 days from date of planting completion.
- a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.
- PART 2 PRODUCTS
- 2.1 SEED
- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and
- B. Seed Species: State-certified seed of grass species as follows: Green Velvet - 3 Seed Sports Mix 5 or equal
 - 80% Elite Turf Type Tall Fescue
 - 10% Elite Kentucky Bluegrass
 - 10% Elite Perennial Ryegrass
- 2.2 TURFGRASS SOD (While seed is specified, any sod used for patching must follow this section)
- A. Turfgrass Sod: Number 1 Quality/Premium, including limitations on thatch, weeds, diseases, nematodes, and insects, complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.
- B. Turfgrass Species: Sod of grass species with same blend of grasses as specified for respective seeded areas, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than .5 percent weed seed. Sod shall be machine cut to supplier's standard width and length and 5/8" thick. Measurement for thickness shall exclude top growth and thatch.

- 2.3 INORGANIC SOIL AMENDMENTS
- A. Lime: Apply ground agricultural limestone if necessary, at the rate determined by Contractor's soil tests to adjust pH of topsoil at no less than 6.5
- 2.4 ORGANIC SOIL AMENDMENTS
- A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through ¾ inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
 - 1. Organic Matter Content: 50-60 percent of dry weight.
- B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or of granular texture, with a pH range of 3.4 to 4.8.
- C. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.
- D. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.
- 2.5 FERTILIZERS
- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
- 1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
- 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.
- B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
- Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
- 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.
- 2.6 PLANTING SOILS
- A. Top Soil: ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 6 percent organic material content; free of stones 3/4 inch or larger in any dimension and other extraneous materials harmful to plant growth. Mix ASTM D 5268 topsoil with soil amendments and fertilizers, as needed to produce
- B. Planting Soil: Existing, native surface topsoil formed under natural conditions with the duff layer retained during excavation process and stockpiled on-site. Verify suitability of native surface topsoil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
 - 1. Supplement with another planting soil when quantities are insufficient.
 - 2. Mix existing, native surface topsoil with soil amendments and fertilizers in to produce planting soil.
- C. Planting Soil: Existing, in-place surface soil. Verify suitability of existing surface soil to produce viable planting soil. Remove stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth. If necessary, mix surface soil with the soil amendments to produce planting soil.
- D. Planting Soil: Imported topsoil or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep.
 - 1. Additional Properties of Imported Topsoil or Manufactured Topsoil: Screened and free of stones 1 inch or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; free of obnoxious weeds and invasive plants including quackgrass, Johnsongrass, poison ivy, nutsedge, nimblewill, Canada thistle, bindweed, bentgrass, wild garlic, ground ivy, perennial sorrel, and bromegrass; not infested with nematodes, grubs, other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration. Continuous, air-filled, pore-space content on a volume/volume basis shall be at least 15 percent when moisture is present at field capacity. Soil shall have a field capacity of at least 15 percent on a dry weight basis.
- 2.7 MULCHES
- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.
- D. Asphalt Emulsion: ASTM D 977, Grade SS-1; nontoxic and free of plant-growth or germination inhibitors.
- 2.8 PESTICIDES
- A. General: Pesticide, registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Non-Selective): Effective for controlling weed growth that has already germinated.
- 2.9 EROSION-CONTROL MATERIALS
- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches long.
- B. Erosion-Control Fiber Mesh: Biodegradable burlap or spun-coir mesh, a minimum of 0.92 lb/sq. yd., with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples. 6 inches long.
- C. Erosion-Control Mats: Cellular, non-biodegradable slope-stabilization mats designed to isolate and contain small areas of soil over steeply sloped surface, of 3-inch nominal mat thickness. Include manufacturer's recommended anchorage system for slope conditions.
- PART 3 EXECUTION
- 3.1 EXAMINATION
- A. Examine areas to be planted for compliance with requirements and other conditions affecting performance.
- 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
- 2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
- 3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
- 4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.
- 3.2 PREPARATION
- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
- 1. Protect adjacent and adjoining areas from hydro-seeding and hydro-mulching overspray.
- 2. Protect grade stakes set by others until directed to remove them. B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent

properties and walkways. In addition, cover seeded slopes where grade is 1:4 or steeper with erosion control fabric. (See Section 3.5: Seeding)

- 3.3 TURF AREA PREPARATION
- A. Limit turf subgrade preparation to areas to be planted.
- B. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
- 1. Spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.

- Delay mixing fertilizer with planting soil if planting will not proceed within a few days
- b. Mix lime with dry soil before mixing fertilizer.
- 2. Spread topsoil to a depth of 4 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
- a. Spread approximately 1/2 the thickness of planting soil over loosened subgrade. Mix thoroughly into top 2 inches of subgrade. Spread remainder of planting soil.
- b. Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Unchanged Subgrades: If turf is to be planted in areas unaltered or undisturbed by excavating, grading, or surface-soil stripping operations, prepare surface soil as follows:
- 1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
- 2. Loosen surface soil to a depth of at least 6 inches Apply soil amendments and fertilizers according to planting soil mix proportions and mix
- thoroughly into top 4 inches of soil. Till soil to a homogeneous mixture of fine texture.

a. Apply fertilizer directly to surface soil before loosening.

- 3. Remove stones larger than 1 inch in any dimension and sticks, roots, trash, and other extraneous matter.
- 4. Legally dispose of waste material, including grass, vegetation, and turf, off Owner's property.
- D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the
- E. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.
- 3.4 PREPARATION FOR EROSION-CONTROL MATERIALS
- A. Prepare area as specified in "Turf Area Preparation" Article
- B. For erosion-control mats, install planting soil in two lifts, with second lift equal to thickness of erosion-control mats. Install erosion-control mat and fasten as recommended by material manufacturer.
- C. Fill cells of erosion-control mat with planting soil and compact before planting.
- D. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.
- E. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- 3.5 SEEDING
- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
- 1. Do not use wet seed or seed that is moldy or otherwise damaged.
- Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 3 to 4 lb/1000 sq. ft.
- C. Rake seed lightly into top 1/4 inch of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blankets and 1:6 with erosion-control fiber mesh installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.
- mixing until uniformly blended into homogeneous slurry suitable for hydraulic application. This slurry shall then be uniformly applied to the prepared seed

3.6 HYDROSEEDING

3.7 TURF MAINTENANCE

A. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish

healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation

A. Hydroseeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue

- the same as those used in the original installation. 1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in
- areas of subsidence.

2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.

- 3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices
- whenever possible to minimize the use of pesticides and reduce hazards. B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly
- moist to a depth of 4 inches. 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid
- walking over muddy or newly planted areas. 2. Water turf with fine spray at a minimum rate of 1 inch per week unless rainfall precipitation is adequate.
- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain 2 ½" grass height:
- D. Turf Post-fertilization: Apply fertilizer after initial mowing and when grass is dry.

1. Use fertilizer that will provide actual nitrogen of at least 1 lb/1000 sq. ft. (but no more than 1-1/2 lb/1000 sq. ft.) to turf area.

- A. Turf installations shall meet the following criteria as determined by Architect: 1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.
- B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.
- 3.9 PESTICIDE APPLICATION A. Apply pesticides and other chemical products and biological control agents in accordance with requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
- B. Post-Emergent Herbicides (Selective and Non-Selective): Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.
- 3.10 CLEANUP AND PROTECTION A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- C. Remove nondegradable erosion-control measures after grass establishment period. END OF SECTION 329200

CIATE ш ш ш

AR R

OF

NOIL

CONS

NEW

S

NOL

SID < IRE

DRISKELL

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY

or loss caused thereby.

PLAN APPROVAL / BIDDING

REVISIONS

CLD

TURF SPECIFICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this

1.2 SUMMARY

A. Section Includes: Plants, Planting soils, Tree stabilization, landscape edging

B. Related Sections:

- 1. Section 015639 "Temporary Tree and Plant Protection" for protecting, trimming, pruning, repairing, and replacing existing trees to remain that interfere with, or are affected by, execution of the Work.
- 2. Section 311000 "Site Clearing" for protection of existing trees and plantings, topsoil stripping and stockpiling, and site clearing.
- 3. Section 312000 "Earth Moving" for excavation, filling, and rough grading and for subsurface aggregate drainage and drainage backfill materials.
- 4. Section 329200 "Turf and Grasses" for turf (lawn) and meadow planting, hydroseeding, and erosion-control materials.
- 5. Section 334600 "Subdrainage" for below-grade drainage of landscaped areas, paved areas, and wall perimeters

1.3 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Balled and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.
- C. Balled and Potted Stock: Plants dug with firm, natural balls of earth in which they are grown and placed, unbroken, in a container.
- Bare-Root Stock: Plants with a well-branched, fibrous-root system developed by transplanting or root pruning, with soil or growing medium removed, and with not less than minimum root spread according to ANSI Z60.1 for type and size of plant required.
- Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.
- Fabric Bag-Grown Stock: Healthy, vigorous, well-rooted plants established and grown in-ground in a porous fabric bag with well-established root system reaching sides of fabric bag. Fabric bag size is not less than diameter, depth, and volume required by ANSI Z60.1 for type and size of plant.
- G. Finish Grade: Elevation of finished surface of planting soil.
- H. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- Pests: Living organisms that occur where they are not desired, or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- K. Planting Area: Areas to be planted.
- L. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- M. Plant; Plants; Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.
- N. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.
- O. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- P. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- Q. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- 1.3 ACTION SUBMITTALS
- Product Data: For each type of product indicated.
- 1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
- 1.4 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For qualified landscape Installer. Include list of similar projects completed by Installer demonstrating Installer's capabilities and experience. Include project names, addresses, and year completed, and include names and addresses of owners' contact persons.
- Product Certificates: For each type of manufactured product, from manufacturer, and complying with the following:
- Manufacturer's certified analysis of standard products.
- C. Material Test Reports: Existing native surface topsoil. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of plants during a calendar year. Submit before start of required maintenance periods.
- D. Warranty: Sample of special warranty.
- 1.5 QUALITY ASSURANCE
- A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful establishment of plants.
- 1. Experience: Three years' experience in landscape installation in addition to requirements in Section 014000 "Quality Requirements."
- 2. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress
- Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1. Plant stock must originate in same hardiness zone as project site.
- Measurements: Measure according to ANSI Z60.1. Do not prune to obtain required sizes.
- 1. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches above the root flare for trees up to 4-inch caliper size
- 2. Other Plants: Measure with stems, petioles, and foliage in their normal position.
- D. Plant Material Observation: Architect may observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
 - 1. Notify Architect of sources of planting materials 7 days in advance of delivery to site.
- 1.6 DELIVERY, STORAGE, AND HANDLING
- E. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.
- Bulk Materials:
- 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants..
- G. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.
 - 1. Heel-in bare-root stock. Soak roots that are in dry condition in water for two hours. Reject dried-out plants.
- 2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material
- 3. Do not remove container-grown stock from containers before time of planting.
- 4. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly-wet condition.

1.7 PROJECT CONDITIONS

- Field Measurements: Verify actual grade elevations, service and utility locations, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.
- Interruption of Existing Services or Utilities: Do not interrupt services or utilities to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary services or utilities according to requirements indicated:
- 1. Notify Owner no fewer than two days in advance of proposed interruption of each service or utility.
- Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.
- Spring Planting: March 1 to June 1
- 2. Fall Planting: Sept 1 to October 15
- Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty
- E. Coordination with Turf Areas (Lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless
- When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

1.8 WARRANTY

- Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty
- 1. Failures include, but are not limited to, the following:

are beyond Contractor's control.

- a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner, or incidents that
- b. Structural failures including plantings falling or blowing over.
- Faulty performance of tree stabilization and/ or edgings
- 2. Warranty Periods from Date of Planting Completion.
- a. Trees, Shrubs, Vines, and Ornamental Grasses 12 months.
- b. Ground Covers, Biennials, Perennials, and Other Plants: 12 months.
- 3. Include the following remedial actions as a minimum:
- a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
- b. Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
- c. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.
- d. Provide extended warranty for period equal to original warranty period, for replaced plant material.
- 1.9 MAINTENANCE SERVICE

maintenance period.

Initial Maintenance Service for Trees and Shrubs: Provide maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than

PART 2 - PRODUCTS

- 2.1 PLANT MATERIAL
- General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant Schedule or Plant Legend shown on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
 - 1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; or with stem girdling roots will be rejected.
 - 2. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated
- Provide plants of sizes, grades, and ball or container sizes complying with ANSI Z60.1 for types and form of plants required. Plants of a larger size may be used if acceptable to Architect, with a proportionate increase in size of roots or balls.
- C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which shall begin at root flare according to ANSI Z60.1. Root flare shall be visible before planting.
- D. Labeling: Label each plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant as shown on Drawings.
- E. If formal arrangements or consecutive order of plants is shown on Drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.
- 2.2 FERTILIZERS
- Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.
- 2.3 PLANTING SOILS
- A. Top Soil: Provide fertile, friable, surface soil, reasonably free of subsoil, clay lumps, brush, weeds and other litter and free of roots, stumps, stones, and other extraneous or toxic matter harmful to plant growth.

2.4 MULCHES

- A. Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
- 1. Type: Shredded hardwood Size Range: No sticks larger than ¼" diameter Color: Natural dark brown no died mulch.
- 2.5 TREE STABILIZATION MATERIALS A. Stakes and Guys:
- 1. Upright and Guy Stakes: Rough-sawn, sound, new hardwood free of knots, holes, cross grain, and other defects, 2" x 2" x 8"
- 2. Wood Deadmen: Timbers measuring 8 inches in diameter and 48 inches long, treated with specified wood pressure-preservative treatment.
- 3. Flexible Ties: Wide rubber or elastic bands or straps of length required to reach stakes or turnbuckles.
- 4. Tree-Tie Webbing: UV-resistant polypropylene or nylon webbing with brass grommets.
- 5. Guy Cables: Galvanized steel, #9 gauge.
- 6. Hose: High quality braided rubber or plastic hose, 3/4" diameter and suitable length
- 2.6 LANDSCAPE EDGINGS
- A. Spade Formed Edge, see section 3.9.
- 2.7 MISCELLANEOUS PRODUCTS
- A. Burlap: Non-synthetic, biodegradable.

PART 3 - EXECUTION

- 3.1 EXAMINATION
- A. Examine areas to receive plants for compliance with requirements and conditions affecting installation and performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

- 3.2 PREPARATION
- A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.
- Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain
- Architect's acceptance of layout before excavating or planting. Make minor adjustments as required. C. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage
 - to protect during digging, handling, and transportation.
 - 1. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.
- D. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.
- 3.3 PLANTING AREA ESTABLISHMENT
- A. Loosen subgrade of planting areas to a minimum depth of 6 inches. Remove stones larger than 3/4 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply fertilizer directly to subgrade before loosening.
 - Spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.
 - 3. Spread planting soil to a depth of 6 inches but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
 - a. Spread approximately one-half the thickness of planting soil over loosened subgrade. Mix thoroughly into top 2 inches of subgrade. Spread
 - Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.
- 3.4 EXCAVATION FOR TREES AND SHRUBS
- Planting Pits and Trenches: Excavate circular planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are not acceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during
- 1. Excavate approximately three times as wide as ball diameter for balled and burlapped stock.
- 2. Excavate at least 12 inches wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
- 3. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
- 4. Maintain required angles of repose of adjacent materials. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
- Maintain supervision of excavations during working hours.
- Keep excavations covered or otherwise protected after working hours.

Fill excavations with water and allow to percolate away before positioning trees and shrubs.

- 7. If drain tile is shown on Drawings or required under planting areas, excavate to top of porous backfill over tile.
- Subsoil and topsoil removed from excavations may be used as planting soil.
- Obstructions: Notify Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations or if unexpected water seepage or retention in tree or shrub planting pits.
- 3.5 TREE, SHRUB, AND VINE PLANTING
- Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.
- Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.
- C. Set balled and burlapped stock plumb and in center of planting pit or trench with root flare 10% of fill depth higher than adjacent finish grades.
- 2. After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken
- 3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water
- thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed 4. Continue backfilling process. Water again after placing and tamping final layer of soil.
- D. Set and support bare-root stock in center of planting pit or trench with root flare 1 inch above adjacent finish grade
 - Use topsoil for backfill.

Use topsoil for backfill.

- 2. Spread roots without tangling or turning toward surface, and carefully work backfill around roots by hand. Puddle with water until backfill layers are completely saturated. Plumb before backfilling, and maintain plumb while working backfill around roots and placing layers above roots.
- 3. Continue backfilling process. Water again after placing and tamping final layer of soil. When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the
- downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.
- 3.6 GROUND COVER AND PLANT PLANTING A. Set out and space ground cover and plants other than trees, shrubs, and 12 inches apart in even rows with triangular spacing.
- Use topsoil for backfill.
- C. Prepare entire plant bed prior to digging holes for individual plants.
- For rooted cutting plants supplied in flats, plant each in a manner that will minimally disturb the root system but to a depth not less than two nodes.
- Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.

Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

- G. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.
- Mulch backfilled surfaces of planting areas and other areas indicated. Within 2 days after planting, cover all tree shrub and ground cover pits and beds

3.8 PLANTING AREA MULCHING

with a minimum 3" layer of mulch. Limit of mulch for trees shall be area of pit, and for shrubs and ground cover in beds, entire area of bed. 3.9 EDGING INSTALLATION

A. Shovel-Cut Edging: Separate mulched areas from turf areas with a 45-degree, 4- to 6-inch deep, shovel-cut edge, maintain smooth curves, no

- 13.10 PLANT MAINTENANCE (SEE GENERAL NOTES FOR MAINTENANCE PERIOD LENGTH SUPERCEDES ANY REFERENCE TO MAINTENANCE
- Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
- B. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management

practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage,

3.11 CLEANUP AND PROTECTION

END OF SECTION 329300

A. During planting, keep adjacent paving and construction clean and work area in an orderly condition

mechanical controls such as traps, and biological control agents.

- Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.
- After installation and inspection, remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.

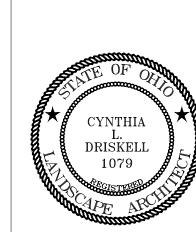
ATE ш

出

FR

OF

Z O



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm

REVISIONS PLAN APPROVAL / BIDDING

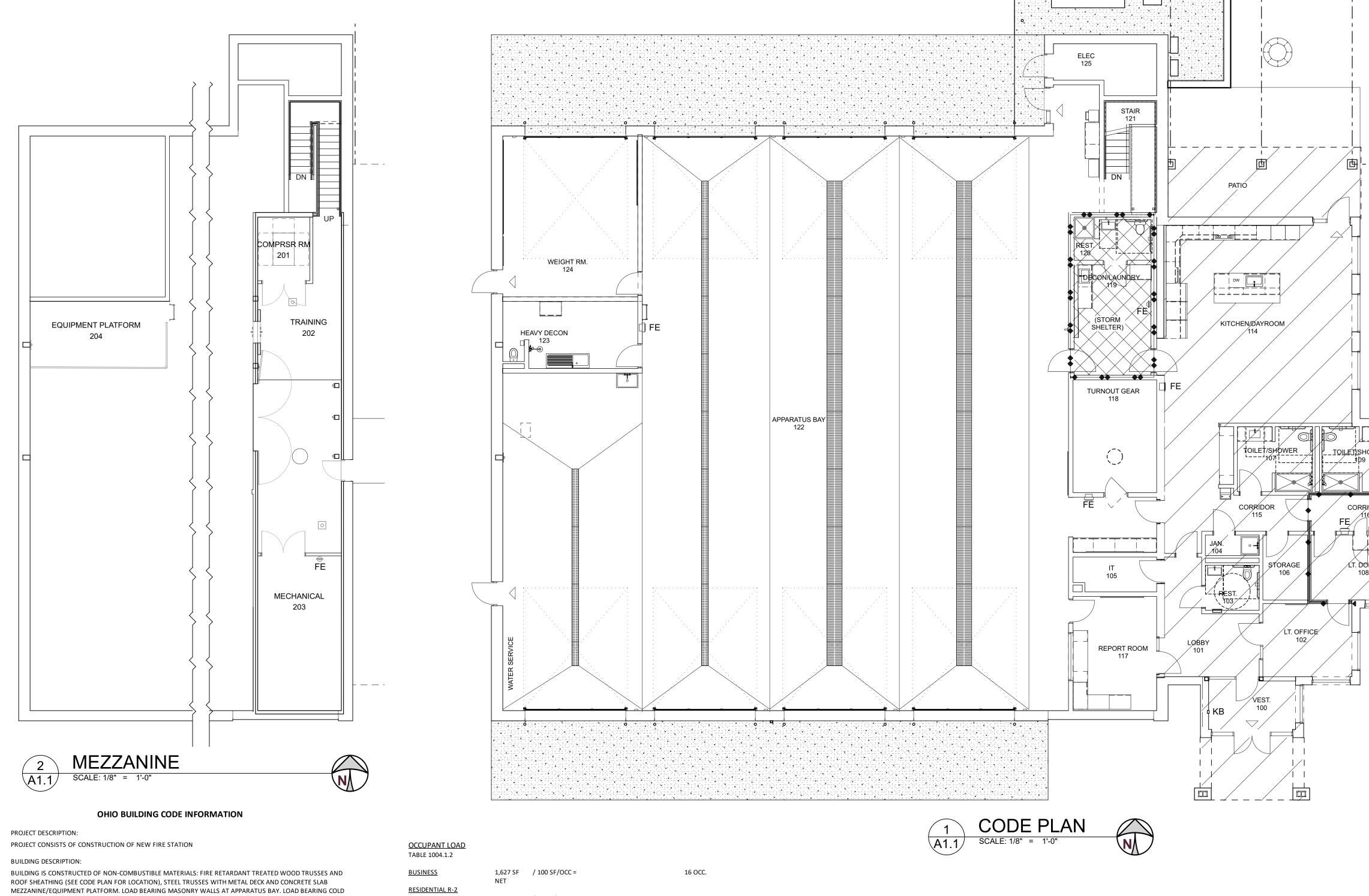
or loss caused thereby.

COMM. NUMBER DATE 11/13/24 2207.02 DRAWN BY CHECKED BY

SPECIFICATIONS

PLANTING





FORMED METAL FRAMING WITH BRICK VENEER AND ACM PANEL SIDING FOR STATION LIVING/DORM/OFFICE AREA.

CLASSIFICATION: REFER TO US	NON SEPARATED MIXE			
	OCCUPANCY (OBC 508.3			
	2	,		
	В	S-2	R-2	
	SPRINKLEREI	D	SPRINKLERED	
<u>STRUCTION</u>	IIB		IIB	
HEIGHT_	75'-0"		75'-0"	
STORIES .	4		5	
AREA	92,000 SF		64,000 SF	
<u>HT</u>	35'		24'-6"	
RIES	1		1	
ACTUAL AREA	ROUND FLOOR NCLUDING ENTRY & ATIO) IEZZANINE QUIPMENT PLATFORM OTAL	10,152 SF 797 SF 188 SF 11,137 SF	834 SF	
ACTUAL AREA	IEZZANINE QUIPMENT PLATFORM DTAL	11,	188 SF	

- * CODE EDITIONS 2017 OBC, 2017 OMC, 2017 OPC, NFPA-13-2016
- * ATTIC SPACE IS NOT USED FOR LIVING PURPOSES, STORAGE OR FUEL FIRED EQUIPMENT AND ROOF CONSTRUCTION CONSISTS OF FIRE RETARDANT WOOD TRUSSES / FRAMING AND SHEATHING. THEREFORE, ATTIC DOES NOT REQUIRE AUTOMATIC FIRE SPRINKLER SYSTEM PER NFPA 101, CHAPTER 32.2.3.5.7.2

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

TYPE II B
PRIMARY STRUCTURAL FRAME
BEARING WALL INTERIOR / EXTERIO
NON BEARING EXTERIOR WALLS
NON DEADING INTEDIOD WALLS

ROOF CONSTRUCTION

0 HRS/ ≥ 30 FT FIRE SEPARATION DISTANCE 0 HRS/ ≥ 30 FT FIRE SEPARATION DISTANCE (TABLE 602) 0 HRS. NON BEARING INTERIOR WALLS FLOOR CONSTRUCTION 0 HRS.

0 HRS.

/ 50 SF/OCC = 17 OCC. GROSS ACTUAL OCC 5 MAX STORAGE: S-2 8,686 SF / 300 sf/occ = 28 occ.

PLUMBING FIXTURE REQUIREMENTS

TABLE 2902.2 NOTE: ALL TOILET ROOMS ARE SINGLE OCCUPANT / NON GENDER SPECIFIC

GROSS

		RE	QUIRED		PROVIDE
	STORAGE (S2)	BUSINESS (B) RESIDENTIAL (R-2)			
			BASED ON OCCUPANT LOAD	OF 31	
	14 FEMALE 14 MALE		16 FEMALE 16 MALE		
WATER CLOSETS					
	FEMALE (1 PER 100)	1	FEMALE (1 PER 50)	1	
	MALE (1 PER 100)	<u>1</u>	MALE (1 PER 50)	<u>1</u>	
TOTAL		2		2	5
LAVATORIES					
	FEMALE (1 PER 200)	<u>1</u>	MALE (1 PER 50)	<u>1</u>	
	MALE (1 PER 200)	<u>1</u>	MALE (1 PER 50)	<u>1</u>	
TOTAL		2		2	4
DRINKING FOUNTAIN	1 PER 500	1	1 PER 100	1	1
SERVICE SINK					2

FIRE PROTECTION OBC SECTION 903.2

BUILDING IS FULLY SUPPRESED WITH AUTOMATIC SPRINKLER SYSTEM

EXCEPTION 2 AND 907.2.2 (USE GROUP B)

FIRE ALARM SYSTEM PROVIDED PER NFPA 72

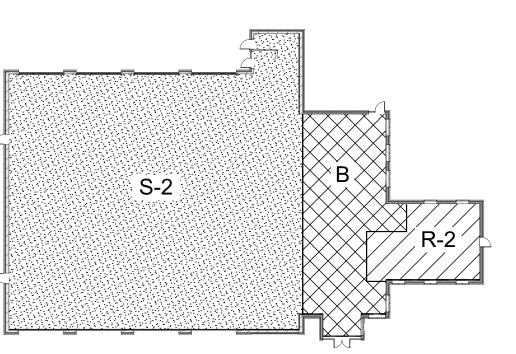
MANUAL FIRE ALARM BOX NOT REQUIRED PER SECTIONS 907.2

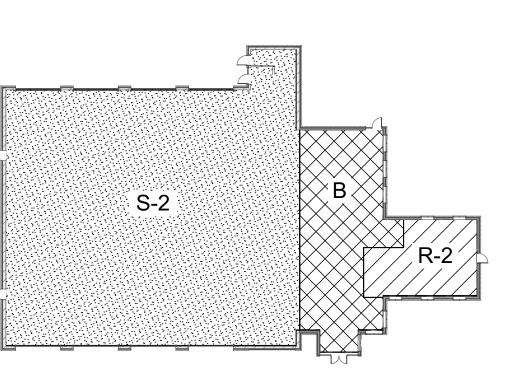
FIRE EXTINGUISHERS: PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED PER OBC 906.

OCCUPANCY IS CONSIDERED ORDINARY HAZARD PER TABLE (906.3 (1))

AN EMERGENCY BACK-UP GENERATOR WILL SUPPLY ALL CRITICAL FUNCTIONS INCLUDING EGRESS LIGHTING

STRUCTURAL DESIGN LOADS: REFER TO SHEET S1.0 FOR STRUCTURAL DESIGN LOADS.







ASSOCIATES INC. ENGINEERS FREYTAG ARCHITE(

ROOM NUMBER

100

101

103

104

105

107

109

111

112

113

115

116

117

119

120

121

122

123

124

125

202

203

DORM 3

LEGEND

EGRESS

FE FIRE EXTINGUISHER, REFER TO FLOOR PLAN A2.1

FIRE RETARDANT TREATED WOOD TRUSSES AND ROOF SHEATHING

STORM SHELTER, 2 HR RATED CEILING

2 HRS FIRE BARRIER - UL U905

0.5 HRS. FIRE RESISTANCE RATED (PER 708.3 EXCEPTION 2) SEE WALL TYPE W3

204

ROOM NAME

VESTIBULE

LT. OFFICE

RESTROOM

JANITOR

STORAGE

LT. DORM

DORM 1

DORM 2

DORM 3

DORM 4

CORRIDOR

CORRIDOR

RESTROOM

STAIR

REPORT ROOM TURNOUT GEAR

DECON/LAUNDRY

APPARATUS BAY

HEAVY DECON

WEIGHT ROOM

COMPRESSOR ROOM 66 SF

EQUIPMENT PLATFORM 193 SF

ELECTRIC

TRAINING

MECHANICAL

TOILET/SHOWER

TOILET/SHOWER

KITCHEN/DAYROOM

AREA

84 SF

158 SF

135 SF

48 SF 26 SF 56 SF

56 SF

88 SF

88 SF

99 SF

99 SF

99 SF

99 SF

718 SF

222 SF

176 SF

187 SF

190 SF 171 SF

67 SF 112 SF

5,844 SF

176 SF

423 SF

473 SF

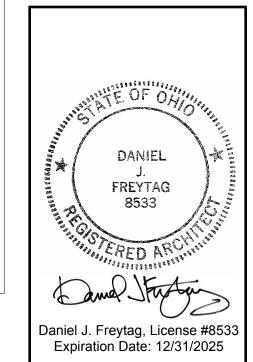
252 SF

91 SF

108 SF

STATION

FIRE



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS TORM SHELTER REVIEW

PLAN APPROVAL / BIDDING

COMM. NUMBER	DATE
2207.02	11/22/24
DRAWN BY	CHECKED BY
AF/RS	DF

CODE PLAN

ICC 500 2014

THIS SHELTER IS CLASSIFIED AS A COMMUNITY TORNADO SHELTER THE SHELTER IS LOCATED ON THE MAIN FLOOR LEVEL OF THE FIRE STATION. THE SHELTER IS DESIGNED TO ACCOMMODATE 19 OCCUPANTS.

ICC 500 2014 CHAPTER 3: STRUCTURAL DESIGN CRITERIA

THE TORNADO SHELTER HAS BEEN DESIGNED PER THE REQUIREMENTS OF ICC 500 - 2014.

 SHELTER DESIGN WIND SPEED. V(ult): 250 mph WIND EXPOSURE CATEGORY INTERNAL PRESSURE COEFFICIENT (GCpi): +/- 0.55 TOPOGRAPHICAL FACTOR: 1.0

 DIRECTIONALITY FACTOR MINIMUM FOUNDATION CAPACITY REQUIREMENTS: REFER TO STRUCTURAL DRAWINGS

REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL STRUCTURAL NOTES AND DETAILS.

SHELTER INSTALLATION REQUIREMENTS: REFER TO STRUCTURAL DRAWINGS

ICC 500.2014 CHAPTER 4: SITING

THE SHELTER IS NOT BEING CONSTRUCTED WITHIN AN AREA SUSCEPTIBLE TO FLOODING

THE SITE IS LOCATED OUTSIDE OF ANY FLOOD PLAINS. THEREFORE, BASE FLOOD ELEVATION IS NOT APPLICABLE.

THE SHELTER FINISHED FLOOR ELEVATION IS 1037

THE SHELTER IS NOT LOCATED IN A PRECAUTIONARY ZONE PER A SEARCH OF SARA TITLE III FACILITY REPORTS BY THE CLARK COUNTY LOCAL EMERGENCY RESPONSE COUNCIL, NO HAZARDOUS SUBSTANCE FACILITIES OR STORAGE WERE DISCOVERED.

ICC 500 2014 SECTION 501 COMMUNITY SHELTERS

- TABLE 501.1.1 (TORNADO) OCCUPANCY DENSITY
- 5 SF/STANDING OR SEATED MINIMUM • 10 SF/WHEELCHAIR SPACE (1:200)
- 501.12.2 ALTERNATIVE CALCULATION OF USABLE FLOOR AREA

GROSS AREA 239 SF WALL AREA 21 SF FIXED OBJECTS 59 SF SINGLE OCC. RESTROOM . 61 SF NET CLEAR AREA

MAXIMUM OCCUPANCY 17 OCCUPANTS + 1 WHEELCHAIR OCCUPANT

+ 1 OCCUPANT RESTROOM

DECLARED BUILDING OCCUPANCY = 19 OCCUPANTS

501.2 - NUMBER OF DOORS

BASED ON SHELTER OCCUPANCY, ONLY ONE MEANS OF EGRESS IS REQUIRED.

501.4 - EMERGENCY ESCAPE OPENING

A SECOND DOOR INTO THE SHELTER IS PROVIDED AS AN EMERGENCY ESCAPE.

501.3 - DIRECTION OF SWING

- DOOR SHALL SWING INTO THE SHELTER SPACE IN ACCORDANCE WITH OBC 2017.
- THE SECOND DOOR SHALL SWING IN.
- BOTH DOOR ASSEMBLIES TO BE TESTED AND LABELED IN ACCORDANCE WITH ICC 500 2014, CHAPTER 8 AND ASTM E361.

504 - SIGNAGE FOR COMMUNITY SHELTERS

REFER TO DRAWINGS 1/A1.2 AND 2/A1.2 ON THIS SHEET FOR SIGNAGE LOCATIONS.

• REFER TO SIGNAGE DETAILS ON THIS SHEET FOR SIGNAGE DETAILS.

ICC 500 2014 CHAPTER 6: FIRE SAFETY

601.1 - FIRE SEPARATION

- ALL SHELTER WALLS ARE 2 HOUR FIRE RATED PARTITIONS. UL DESIGN NO.
- SHELTER HORIZONTAL ASSEMBLY (CEILING/ROOF) IS A 2 HR. RATED ASSEMBLY UL DESIGN NO. D219.

602 - FIRE EXTINGUISHERS

 A WALL HUNG FIRE EXTINGUISHER IS PROVIDED MEETING IBC AND NFPA 10 REQUIREMENTS

ICC 500 2014 CHAPTER 7: SHELTER ESSENTIAL FEATURES AND ACCESSORIES

SECTION 702: TORNADO SHELTERS STORM SHELTER OCCUPANCY IS 19 PEOPLE.

TABLE 7021.1 THE STORM SHELTER UTILIZES A MECHANICAL VENTILATION SYSTEM TO PROVIDE

OUTSIDE AIR TO THE SPACE.

• OMC 2017 REQUIRED VENTILATION RATE TO THE STORM SHELTER IS 53 CFM. • THE STORM SHELTER HAS A CONSTANT EXHUAST RATE OF 100 CFM PROVIDED BY EF-

3. THUS EXCEEDING THE CODE REQUIRED VENTILATION RATE. • VENTILATION AIR IS PROVIDED VIA AN 8X8 TRANSFER AIR DUCT, DUCTED DIRECTLY

FROM THE EXTERIOR OF THE BUILDING. THE FAN IS POWERED THROUGH THE STORM SHELTER UPS AND SHALL HAVE A MINIMUM RUNTIME OF 2 HOURS UPON BUILDING POWER LOSS. AN AUTOMATIC CONTROL DAMPER IS PROVIDED IN THE TRANSFER AIR DUCT THAT IS POWERED CLOSED, SPRING RETURN OPEN, DAMPER FAILS OPEN AND EF-3 WILL DRAW FRESH AIR INTO THE STORM SHELTER. A SECOND AUTOMATIC CONTROL DAMPER IS LOCATED IN THE RETURN AIR TRANSFER DUCT

ALL STORM SHELTER MECHANICAL SYSTEMS ARE AUTOMATIC IN OPERATION AND DO NOT REQUIRE OCCUPANT INTERATION.

LOSS OF POWER. BOTH DAMPERS ARE POWERED FROM NORMAL BUILDING POWER.

THAT IS POWERED OPEN, SPRING RETURN, FAIL CLOSED AND WILL CLOSE UPON BUILIND

REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

TABLE 702.2

SHELTER CAPACITY IS 19 PEOPLE

- ONE WATER CLOSET IS REQUIRED. THE LAVATORY IS NOT REQUIRED.
- HAND SANITIZER WILL BE STORED BY THE OWNER.

BASED ON 3 WATER CLOSET USES PER 8HR PERIOD PER OCCUPANT (FROM L.E.E.D.), IN A 2 HR PERIOD THAT WOULD EQUAL 3/4 USES PER PERSON.

FOR 19 PEOPLE, 15 FLUSHES WILL BE REQUIRED. THE TANK WILL BE FILLED ON ENTRY INTO THE SPACE AS A STORM SHELTER, SO ENOUGH WATER FOR 14 FLUSHES IS REQUIRED TO BE STORED IN THE SHELTER.

AT 1.28 GALLONS PER FLUSH THAT WILL REQUIRE 18 GALLONS MINIMUM BE STORED IN THE

DESIGNATED CABINET WITHIN THE STORM SHELTER FOR WATER CLOSET USAGE. ADDITIONAL POTABLE WATER SHALL BE STORED FOR DRINKING. INCLUDE THESE REQUIREMENTS IN THE OWNER'S INSTRUCTIONS.

REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

702.3 EMERGENCY LIGHTING

 LIGHTING FIXTURES WILL BE CONNECTED TO AN EMERGENCY BATTERY BACK-UP TO POWER LIGHTS IN SHELTER FOR A MINIMUM OF 2 HOURS UPON LOSS OF NORMAL

POWER. REFER TO ELECTRICAL DRAWINGS FOR DETAILS A MINIMUM OF (3) FLASHLIGHTS LUMENS EACH ARE TO BE STORED IN THE SHELTER.

STORM EVENT OPERATIONS PLAN

POSITION DESIGNATED PERSONNEL AT DOOR TO ENSURE THAT ONCE ALL OCCUPANTS ARE INSIDE SHELTER, DOOR REMAINS CLOSED AND LOCKED DURING THE ENTIRE STORM

OPENING DOOR DURING HIGH PRE-EVENT OR EVENT WINDS COULD DAMAGE THE DEVICE, REMOVE THE DEVICE, OR MAKE IT WHERE THE DEVICE CANNOT BE RE-CLOSED MAKING ALL SHELTER OCCUPANTS VULNERABLE TO THE WIND EVENT FOR WHICH THEY ARE SEEKING PROTECTION.

SHELTER OCCUPANTS ARE NOT TO PHYSICALLY CONTACT THE EXTERIOR WALLS OR OPENING PROTECTIVE DEVICES OF THE SHELTER.

 VERY LARGE POINT LOADS CREATED BY DEBRIS MAY BE EXERTED ON THE EXTERIOR WALL AND THIS KINETIC ENERGY MAY BE TRANSFERRED THROUGH THE SHELTER WALL WHICH COULD INJURE AN INDIVIDUAL THAT IS CONTACT WITH THE EXTERIOR WALL OF THE SHELTER.

DOOR OPERATION INSTRUCTIONS

- LOCKED/UNLOCKED INDICATOR ON INSIDE OF DOOR
- LATCHBOLTS RETRACTED BY LEVER FROM EITHER SIDE. OUTSIDE LEVER IS MADE RIGID BY KEY OUTSIDE OR BY TURNING INSIDE
- **THUMBTURN**
- KEY OUTSIDE UNLOCKS AND ENABLES OUTSIDE LEVER TO RETRACT ALL THREE LATCHES.
- ROTATING INSIDE LEVER RETRACTS LATCHBOLTS; OUTSIDE LEVER UNLOCKS WHEN THUMBTURN IS RETURNED TO VERTICAL POSITION.
- OUTSIDE LEVER REMAINS RIGID UNTIL THUMBTURN IS RETURNED TO VERTICAL OR UNLOCKED BY KEY.
- FREE EGRESS BY THE INSIDE LEVER.

MECHANICAL VENTILATION

 THE STORM SHELTER IS EQUIPPED WITH A MECHANICAL VENTILATION SYSTEM TO PROVIDE OUTSIDE AIR DURING USE. THE RESTROOM EXHAUST FAN INSIDE OF THE SHELTER WILL PULL OUTSIDE AIR IN AND VENTILATE EXHAUST AIR OUT. THE FAN IS POWERED THROUGH THE STORM SHELTER UPS AND WILL CONTINUE TO OPERATE IF THE BUILDING LOSES NORMAL AND GENERATOR BACKUP POWER UNDER A TORNADO STRIKE. THE STORM SHELTER HAS A DEDICATED OUTSIDE AIR INTAKE DUCT AND CONTROL DAMPER THAT IS MANUALLY CONTROLLED THROUGH A TOGGLE SWITCH. UNDER NORMAL BUILDING OPERATION, THE SWITCH SHALL REMAIN IN THE "DAMPER CLOSED" POSITION TO STOP OUTSIDE AIR INFILTRATION COMING INTO THE CONDITIONED BUILDING. WHEN THE STORM SHELTER IS IN USE DURING A TORNADO EVENT, TURN THE SWITCH TO THE "DAMPER OPEN" POSITION TO PROVIDE OUTSIDE AIR TO THE STORM SHELTER. THE OUTSIDE AIR DAMPER HAS A FAIL-SAFE BUILT INTO AUTOMATICALLY OPEN THE DAMPER IN THE EVENT OF BUILDING NORMAL AND BACKUP POWER LOSS. IF THE CONTROL SWITCH IS NOT ACTUATED PRIOR TO NORMAL AND BACKUP POWER LOSS, THE DAMPER FAIL-SAFE WILL OPEN THE DAMPER.

STORM EVENT OPERATIONS PLAN

- 18 GALLONS OF POTABLE WATER FOR TOILET FLUSHING (TO BE STORED ON
- BOTTOM SHELF)

National Flood Hazard Layer FIRMette

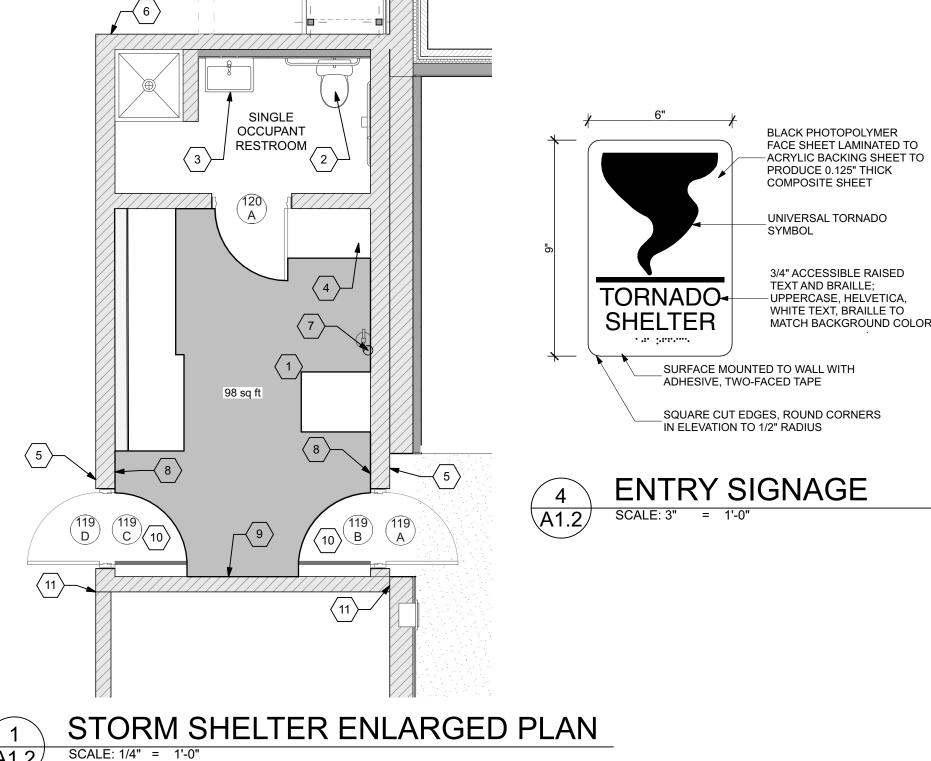
AREA OF MINIMAL FLOOD HAZARI

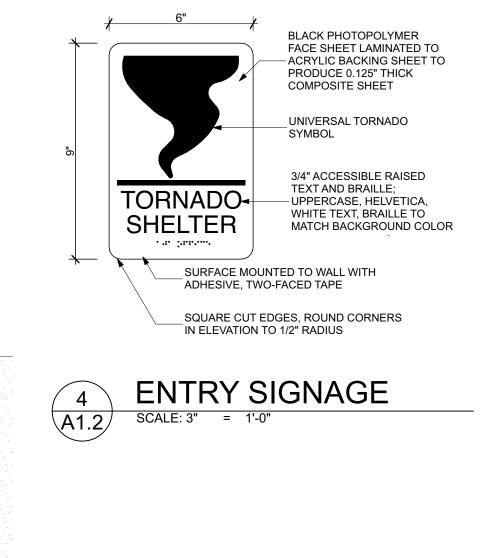
1,500

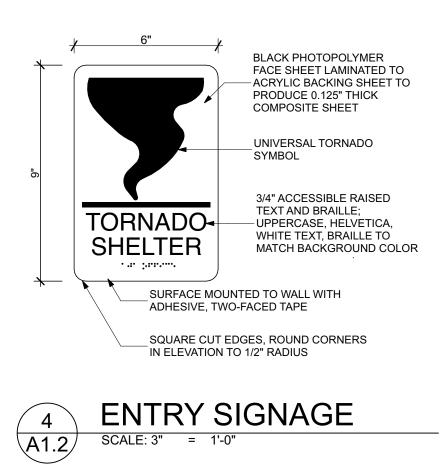
1:6,000

- 2 CASES OF 16 OZ. WATER BOTTLES (EQUALING 3 GALLONS) FOR DRINKING
- HAND SANITIZER
- FIRST AID KIT • (3) FLASHLIGHTS WITH > 20 LUMENS OUTPUT EACH
- EVACUATION TOOLS
 - HAMMER
 - PRY BAR WORK GLOVES

TON ROE







BLACK PHOTOPOLYMER FACE SHEET LAMINATED TO

PRODUCE 0.125" THICK

ACCESSIBLE RAISED TEXT

HELVETICA, WHITE TEXT,

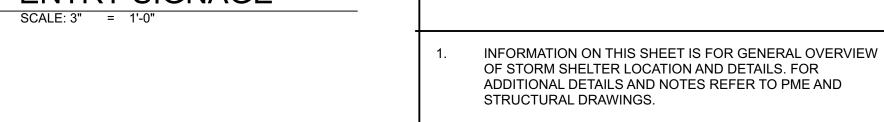
AND BRAILLE; UPPERCASE,

COMPOSITE SHEET

BRAILLE TO MATCH

BACKGROUND COLOR

-ACRYLIC BACKING SHEET TO



REFER TO HVAC DRAWINGS FOR DUCT PENETRATIONS.

STORM SHELTER KEY NOTES

FLOOR SET, TANK TYPE ADA TOILET. REFER TO PLUMBING

STORM SHELTER ENTRY SIGN, REFER TO 4/A1.2. MOUNT

CASEWORK CONTAINING WATER AND EMERGENCY SUPPLIES.

STORM SHELTER LOCATION AND ACCESSWAYS DIRECTIONAL

STORM SHELTER PERIMETER SIGN, REFER TO 5/A1.2. MOUNT

STORM SHELTER DESIGN INFORMATION SIGN, REFER TO 3/A1.2.

10. DOOR ASSEMBLY TO BE TESTED AND LABELED IN ACCORDANCE

ADA LAVATORY. REFER TO PLUMBING DRAWINGS.

WALL MOUNT FIRE EXTINGUISHER LOCATION.

CLEAR FLOOR AREA (100 SF)

CENTERLINE OF SIGN 60" A.F.F.

CENTERLINE OF SIGN 60" A.F.F.

WITH ICC 500-2014, CHAPTER 8.

MOUNT CENTERLINE OF SIGN 60" A.F.F.

SIGN LOCATIONS

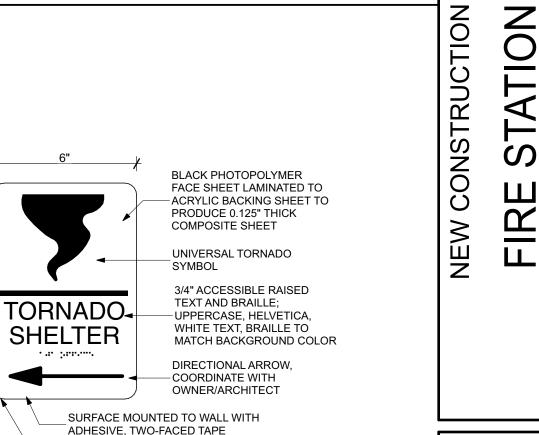
11. CONTROL JOINT

DRAWINGS.

REFER TO STRUCTURAL DRAWINGS FOR SHROUD DETAILS

SQUARE CUT EDGES, ROUND CORNERS

IN ELEVATION TO 1/2" RADIUS



PERIMETER SIGNAGE

NOW LEAVING THE

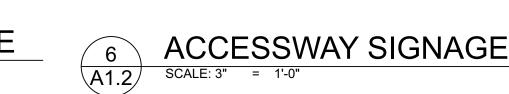
TORNADO SHELTER

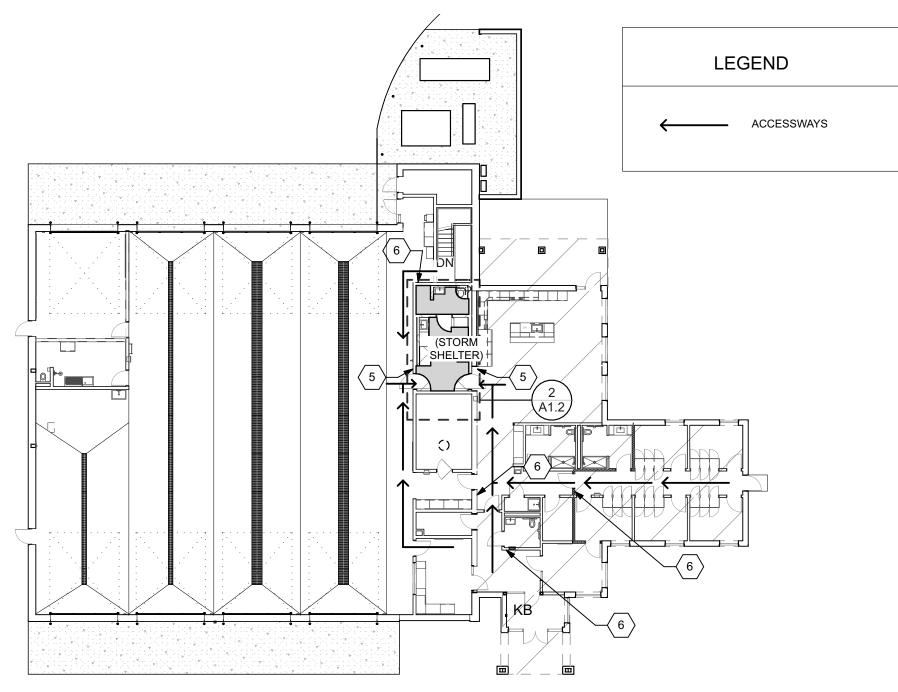
.....

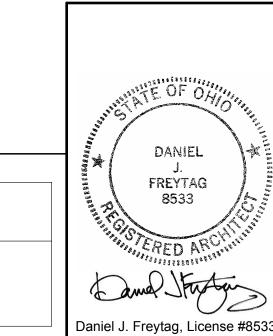
SURFACE MOUNTED TO WALL WITH

SQUARE CUT EDGES, ROUND CORNERS

ADHESIVE. TWO-FACED TAPE







ER

GINE

Ž

Expiration Date: 12/31/2025

hese designs and all items depicted erein, whether in writing or graphically, as struments of professional service, may rithout the prior knowledge, and written onsent of the Architect. Any change approval will void all such documents nd instruments and the Architect will not be personally liable for any damage, harm

REVISIONS ORM SHELTER REVIEW

AN APPROVAL / BIDDING

11/22/24 CHECKED BY

INFORMATION

STORM SHELTER

A1.2

NOTICE TORNADO SHELTER MAX OCCUPANCY **DESIGN WIND SPEED** ICC 500 2014 EDITION TORNADO SHELTER BUILDER: - ALUMINUM SIGNBOARD

DESIGN INFORMATION SIGNAGE

eff. 4/2/2015

T8N R6F S35

\A1.2

FEMA Legend

Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR SPECIAL FLOOD Regulatory Floodway HAZARD AREAS

MECHANICALLY ANCHOR AT

EACH CORNER

Area with Reduced Flood Risk due to Levee. See Notes. Zone X Area with Flood Risk due to Levee Zone D NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs

17.5 Water Surface Elevation - Coastal Transect ատանիցատ Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary --- Coastal Transect Baseline

time. The NFHL and effective information may change or

egend, scale bar, map creation date, community identifiers. inmapped and unmodernized areas cannot be used for

regulatory purposes. Basemap Imagery Source: USGS National Map 2023

Hydrographic Feature Digital Data Available No Digital Data Available The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location. This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. he basemap shown complies with FEMA's basemap The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map eflect changes or amendments subsequent to this date and

ecome superseded by new data over time. his map image is void if the one or more of the following map RM panel number, and FIRM effective date. Map images for

areas of less than one square mile Zone Future Conditions 1% Annual FLOOD HAZARD

GENERAL - - - Channel, Culvert, or Storm Sewer STRUCTURES | LILLIL Levee, Dike, or Floodwall B 20.2 Cross Sections with 1% Annual Chance

0.2% Annual Chance Flood Hazard, Areas depth less than one foot or with drainage

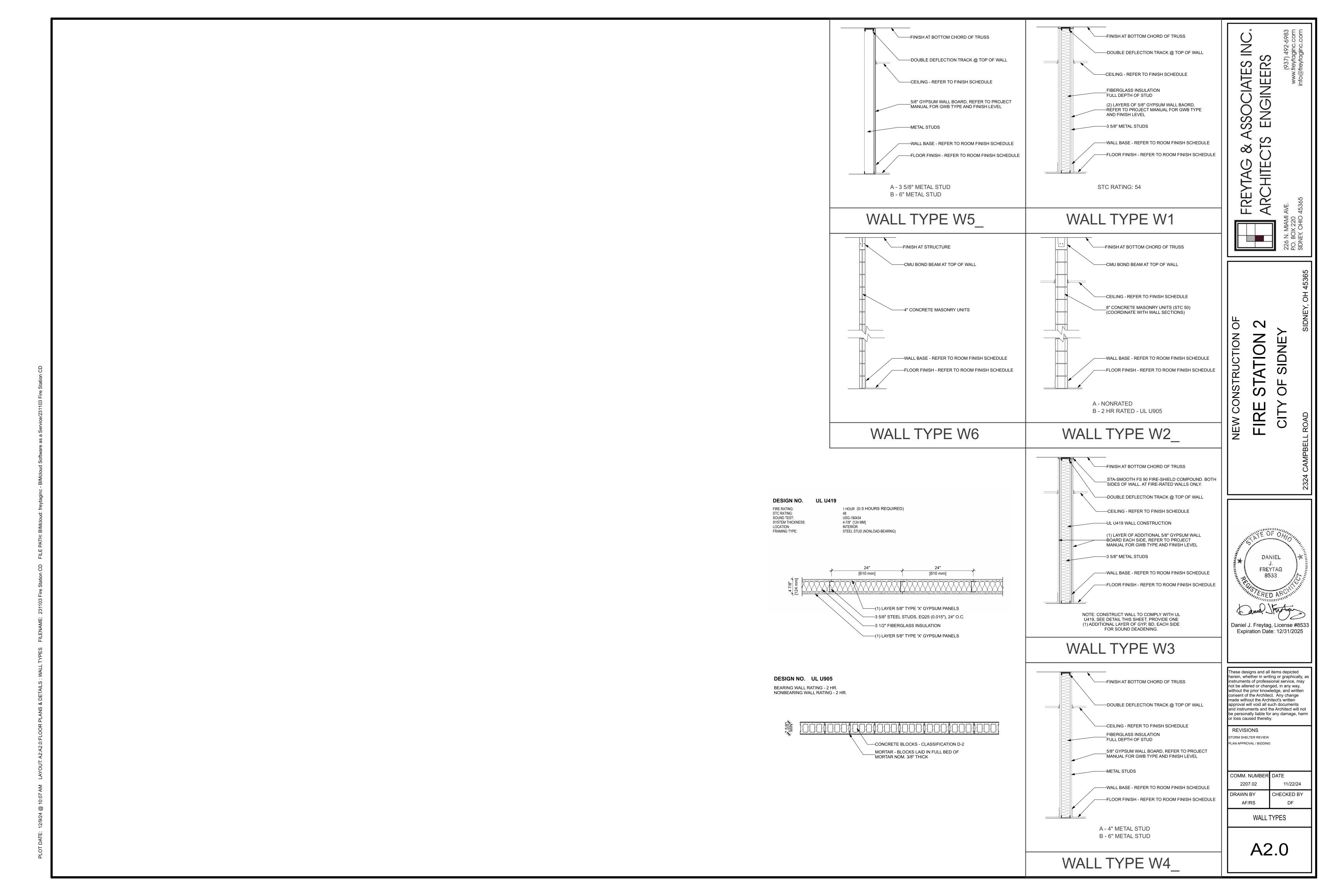
OTHER | Profile Baseline

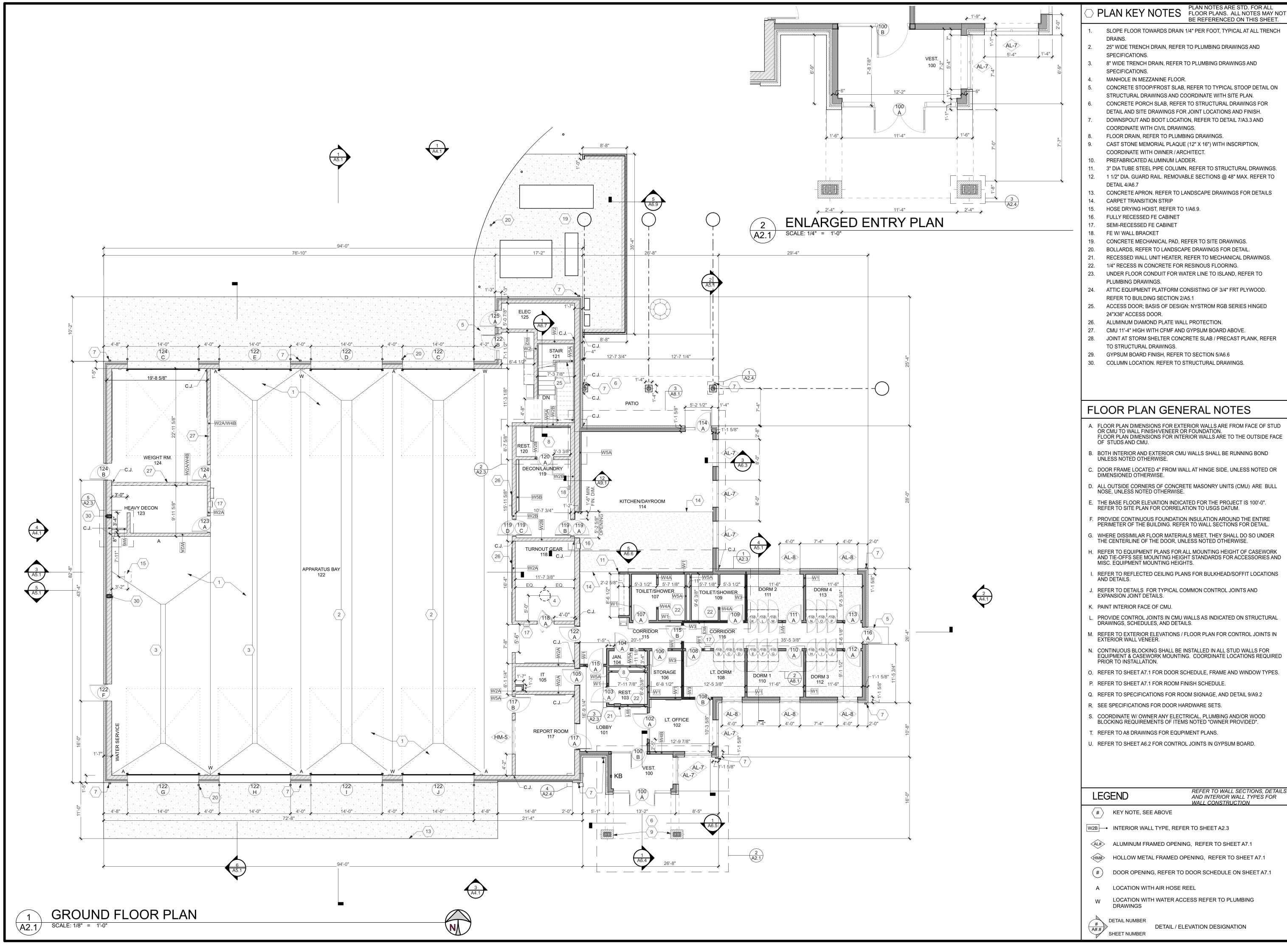
KEY PLAN

not be altered or changed, in any way, nade without the Architect's written

loss caused thereby.

COMM. NUMBER DATE DRAWN BY





ENGINEERS ARCHITE

ATION

IRE

DANIEL FREYTAG

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

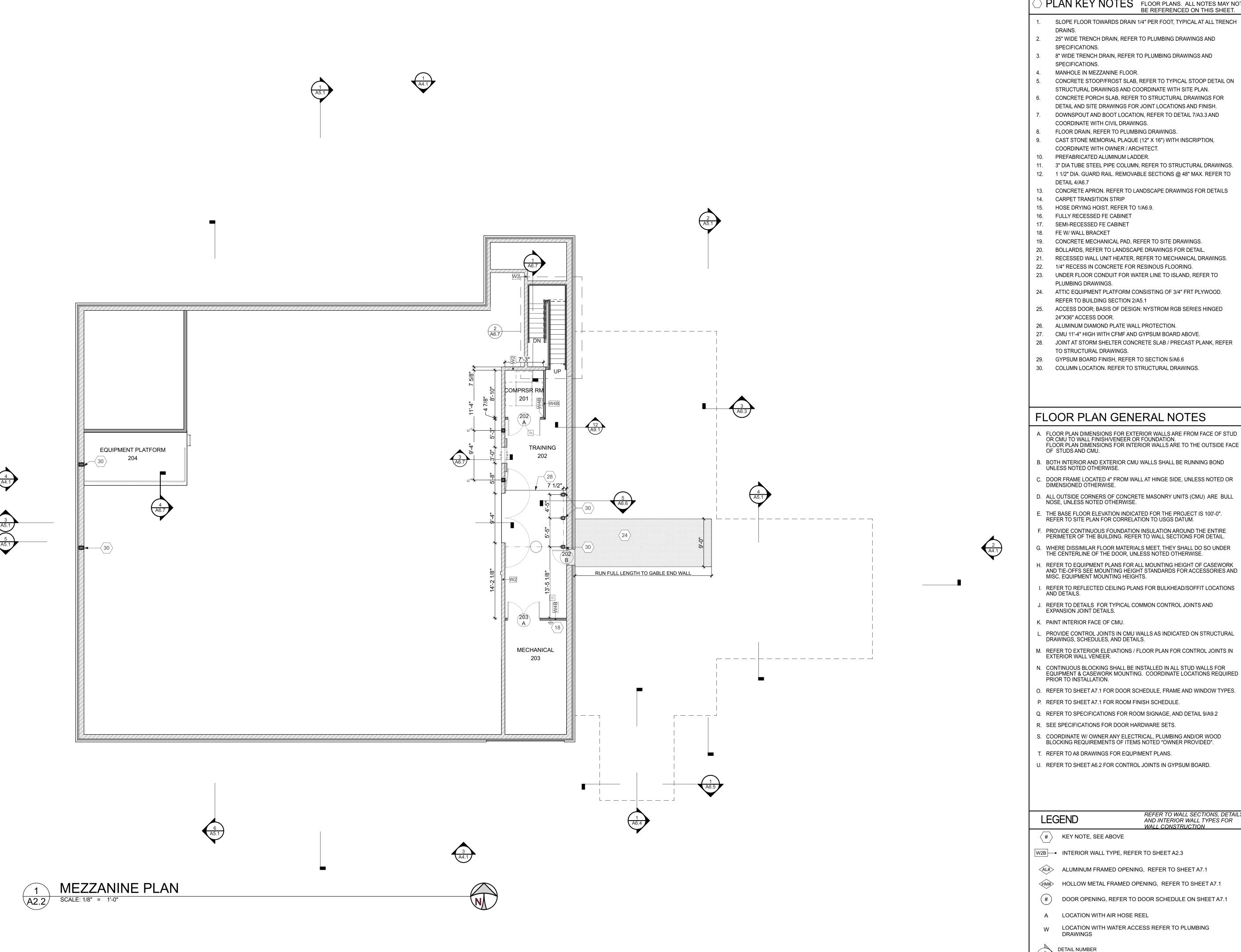
nese designs and all items depicted erein, whether in writing or graphically, as struments of professional service, may not be altered or changed, in any way, thout the prior knowledge, and written nsent of the Architect. Any change nade without the Architect's written approval will void all such documents nd instruments and the Architect will not be personally liable for any damage, harm

r loss caused thereby. REVISIONS

LAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY

FIRST FLOOR PLAN



PLAN KEY NOTES PLAN NOTES ARE STD. FOR ALL FLOOR PLANS. ALL NOTES MAY NOT BE REFERENCED ON THIS SHEET.

SLOPE FLOOR TOWARDS DRAIN 1/4" PER FOOT, TYPICAL AT ALL TRENCH

25" WIDE TRENCH DRAIN, REFER TO PLUMBING DRAWINGS AND

8" WIDE TRENCH DRAIN, REFER TO PLUMBING DRAWINGS AND

CONCRETE STOOP/FROST SLAB, REFER TO TYPICAL STOOP DETAIL ON STRUCTURAL DRAWINGS AND COORDINATE WITH SITE PLAN.

CONCRETE PORCH SLAB, REFER TO STRUCTURAL DRAWINGS FOR DETAIL AND SITE DRAWINGS FOR JOINT LOCATIONS AND FINISH.

DOWNSPOUT AND BOOT LOCATION, REFER TO DETAIL 7/A3.3 AND COORDINATE WITH CIVIL DRAWINGS.

8. FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.

9. CAST STONE MEMORIAL PLAQUE (12" X 16") WITH INSCRIPTION, COORDINATE WITH OWNER / ARCHITECT.

10. PREFABRICATED ALUMINUM LADDER.

11. 3" DIA TUBE STEEL PIPE COLUMN, REFER TO STRUCTURAL DRAWINGS. 12. 1 1/2" DIA. GUARD RAIL. REMOVABLE SECTIONS @ 48" MAX. REFER TO

13. CONCRETE APRON. REFER TO LANDSCAPE DRAWINGS FOR DETAILS

15. HOSE DRYING HOIST, REFER TO 1/A6.9.

17. SEMI-RECESSED FE CABINET

18. FE W/ WALL BRACKET

19. CONCRETE MECHANICAL PAD, REFER TO SITE DRAWINGS.

21. RECESSED WALL UNIT HEATER, REFER TO MECHANICAL DRAWINGS.

23. UNDER FLOOR CONDUIT FOR WATER LINE TO ISLAND, REFER TO

24. ATTIC EQUIPMENT PLATFORM CONSISTING OF 3/4" FRT PLYWOOD. REFER TO BUILDING SECTION 2/A5.1

25. ACCESS DOOR; BASIS OF DESIGN: NYSTROM RGB SERIES HINGED

26. ALUMINUM DIAMOND PLATE WALL PROTECTION.

27. CMU 11'-4" HIGH WITH CFMF AND GYPSUM BOARD ABOVE.

28. JOINT AT STORM SHELTER CONCRETE SLAB / PRECAST PLANK, REFER TO STRUCTURAL DRAWINGS.

29. GYPSUM BOARD FINISH, REFER TO SECTION 5/A6.6

30. COLUMN LOCATION. REFER TO STRUCTURAL DRAWINGS.

FLOOR PLAN GENERAL NOTES

A. FLOOR PLAN DIMENSIONS FOR EXTERIOR WALLS ARE FROM FACE OF STUD OR CMU TO WALL FINISH/VENEER OR FOUNDATION.
FLOOR PLAN DIMENSIONS FOR INTERIOR WALLS ARE TO THE OUTSIDE FACE OF STUDS AND CMU.

B. BOTH INTERIOR AND EXTERIOR CMU WALLS SHALL BE RUNNING BOND UNLESS NOTED OTHERWISE.

C. DOOR FRAME LOCATED 4" FROM WALL AT HINGE SIDE, UNLESS NOTED OR

D. ALL OUTSIDE CORNERS OF CONCRETE MASONRY UNITS (CMU) ARE BULL NOSE, UNLESS NOTED OTHERWISE.

E. THE BASE FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0".

F. PROVIDE CONTINUOUS FOUNDATION INSULATION AROUND THE ENTIRE PERIMETER OF THE BUILDING. REFER TO WALL SECTIONS FOR DETAIL.

G. WHERE DISSIMILAR FLOOR MATERIALS MEET, THEY SHALL DO SO UNDER THE CENTERLINE OF THE DOOR, UNLESS NOTED OTHERWISE. REFER TO EQUIPMENT PLANS FOR ALL MOUNTING HEIGHT OF CASEWORK

REFER TO REFLECTED CEILING PLANS FOR BULKHEAD/SOFFIT LOCATIONS

REFER TO DETAILS FOR TYPICAL COMMON CONTROL JOINTS AND EXPANSION JOINT DETAILS.

.. PROVIDE CONTROL JOINTS IN CMU WALLS AS INDICATED ON STRUCTURAL DRAWINGS, SCHEDULES, AND DETAILS.

M. REFER TO EXTERIOR ELEVATIONS / FLOOR PLAN FOR CONTROL JOINTS IN EXTERIOR WALL VENEER.

N. CONTINUOUS BLOCKING SHALL BE INSTALLED IN ALL STUD WALLS FOR EQUIPMENT & CASEWORK MOUNTING. COORDINATE LOCATIONS REQUIRED PRIOR TO INSTALLATION.

O. REFER TO SHEET A7.1 FOR DOOR SCHEDULE, FRAME AND WINDOW TYPES.

Q. REFER TO SPECIFICATIONS FOR ROOM SIGNAGE, AND DETAIL 9/A9.2

R. SEE SPECIFICATIONS FOR DOOR HARDWARE SETS.

S. COORDINATE W/ OWNER ANY ELECTRICAL, PLUMBING AND/OR WOOD BLOCKING REQUIREMENTS OF ITEMS NOTED "OWNER PROVIDED".

T. REFER TO A8 DRAWINGS FOR EQUPIMENT PLANS.

U. REFER TO SHEET A6.2 FOR CONTROL JOINTS IN GYPSUM BOARD.

)	Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025
	These designs and all items depicted

DANIEL

FREYTAG

ENGINEERS

ATION

struments of professional service, may not be altered or changed, in any way, vithout the prior knowledge, and written onsent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

herein, whether in writing or graphically, as

REVISIONS

REFER TO WALL SECTIONS, DETAILS LAN APPROVAL / BIDDING AND INTERIOR WALL TYPES FOR WALL CONSTRUCTION

KEY NOTE, SEE ABOVE

W2B → INTERIOR WALL TYPE, REFER TO SHEET A2.3

AL# ALUMINUM FRAMED OPENING, REFER TO SHEET A7.1

HOLLOW METAL FRAMED OPENING, REFER TO SHEET A7.1

(#) DOOR OPENING, REFER TO DOOR SCHEDULE ON SHEET A7.1

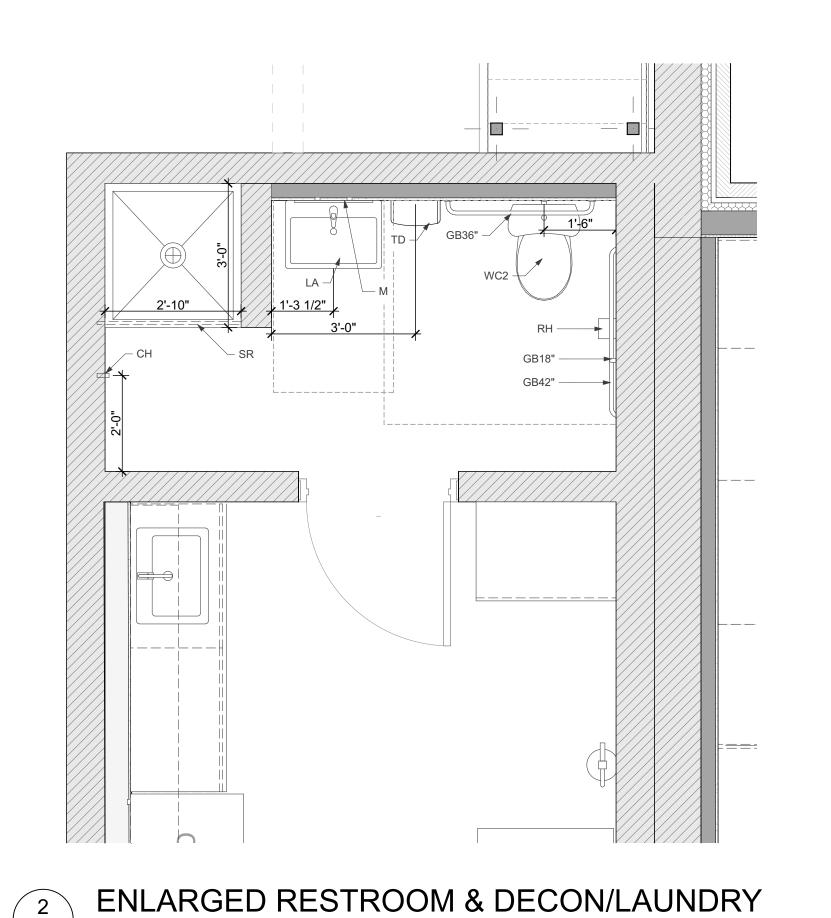
A LOCATION WITH AIR HOSE REEL

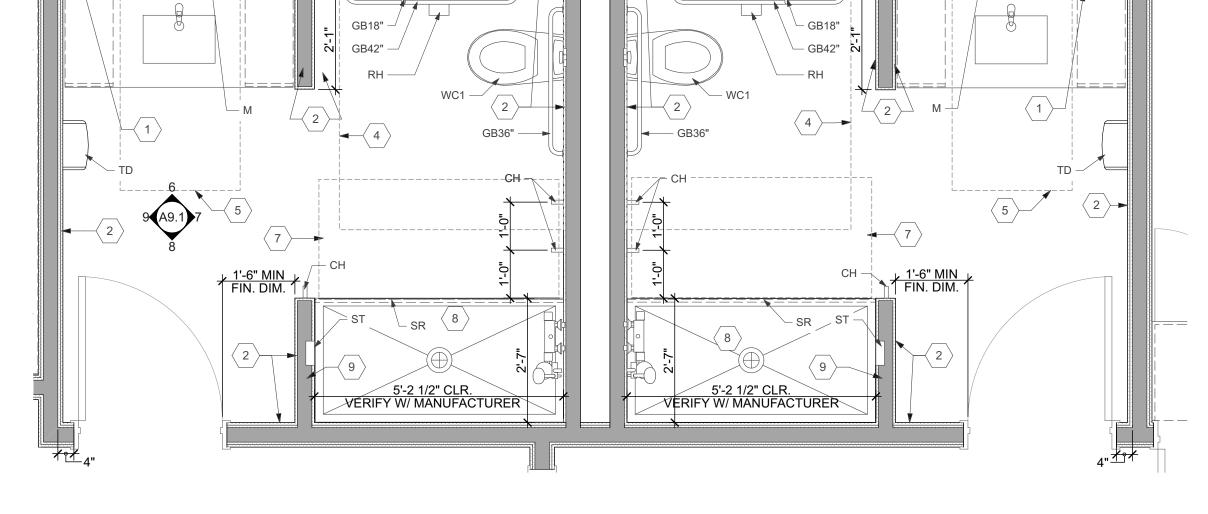
LOCATION WITH WATER ACCESS REFER TO PLUMBING

DETAIL / ELEVATION DESIGNATION SHEET NUMBER

COMM. NUMBER DATE DRAWN BY CHECKED BY

MEZZANINE FLOOR PLAN





ENLARGED SHOWERS

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

A2.3



- WALL TILE, FULL HEIGHT OF WALL.
- WALL TILE WAINSCOT, 5'-0" A.F.F.
- FLOOR DRAIN, SLOPE FLOOR SLAB TO DRAIN 1/4" PER FOOT.
- ADA CLEAR FLOOR SPACE AT WATER CLOSETS.
- ADA CLEAR FLOOR SPACE AT LAVATORIES.
- 5'-0" ADA TURNING RADIUS.
- ADA CLEAR FLOOR SPACE AT SHOWER. MANUFACTURED SHOWER UNIT, VERIFY ROUGH OPENING
- REQUIREMENTS WITH SUBMITTAL DRAWINGS. PROVIDE BLOCKING IN WALL FOR FUTURE SHOWER SEAT.

PLAN ENLARGEMENT GENERAL NOTES

5'-0" MINIMUM, UNLESS NOTED OTHERWISE.

TOILETS SHALL HAVE A CLEAR INSIDE DIMENSION DEPTH OF

FLUSH VALVES SHALL ALWAYS BE LOCATED ON THE CLEAR FLOOR SPACE SIDE OF THE STALL PER ADA GUIDELINES.

ENGINEERS ARCHITE

STATION FIRE

CONSTRUCTION OF

DANIEL FREYTAG

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

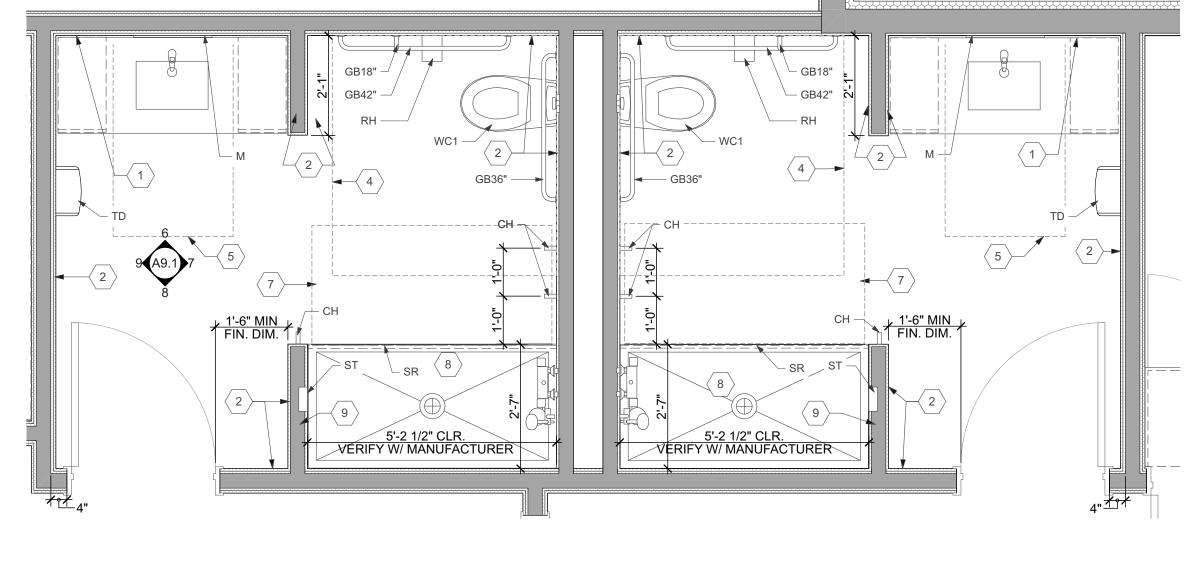
or loss caused thereby. REVISIONS

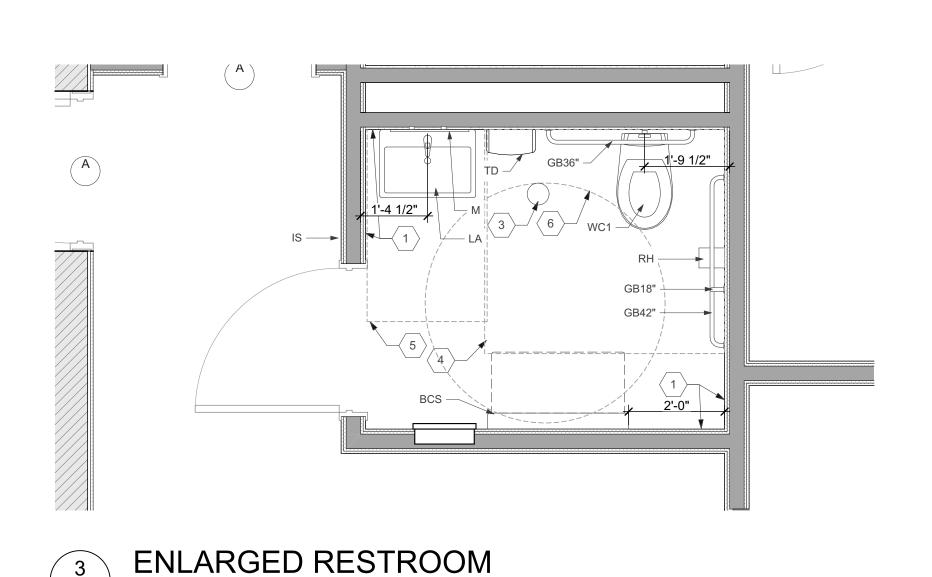
STORM SHELTER REVIEW PLAN APPROVAL / BIDDING

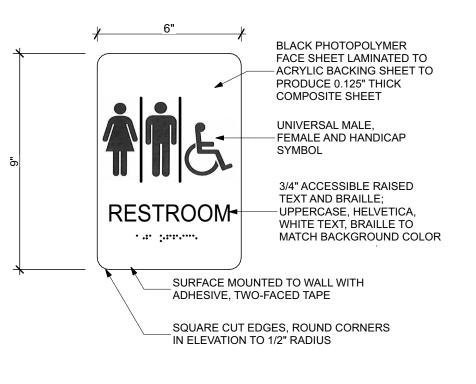
COMM. NUMBER DATE CHECKED BY DRAWN BY

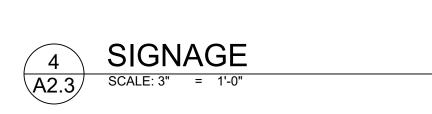
ENLARGED RESTROOM PLANS

A2.3

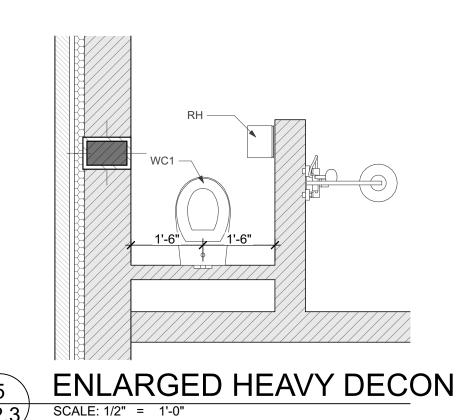


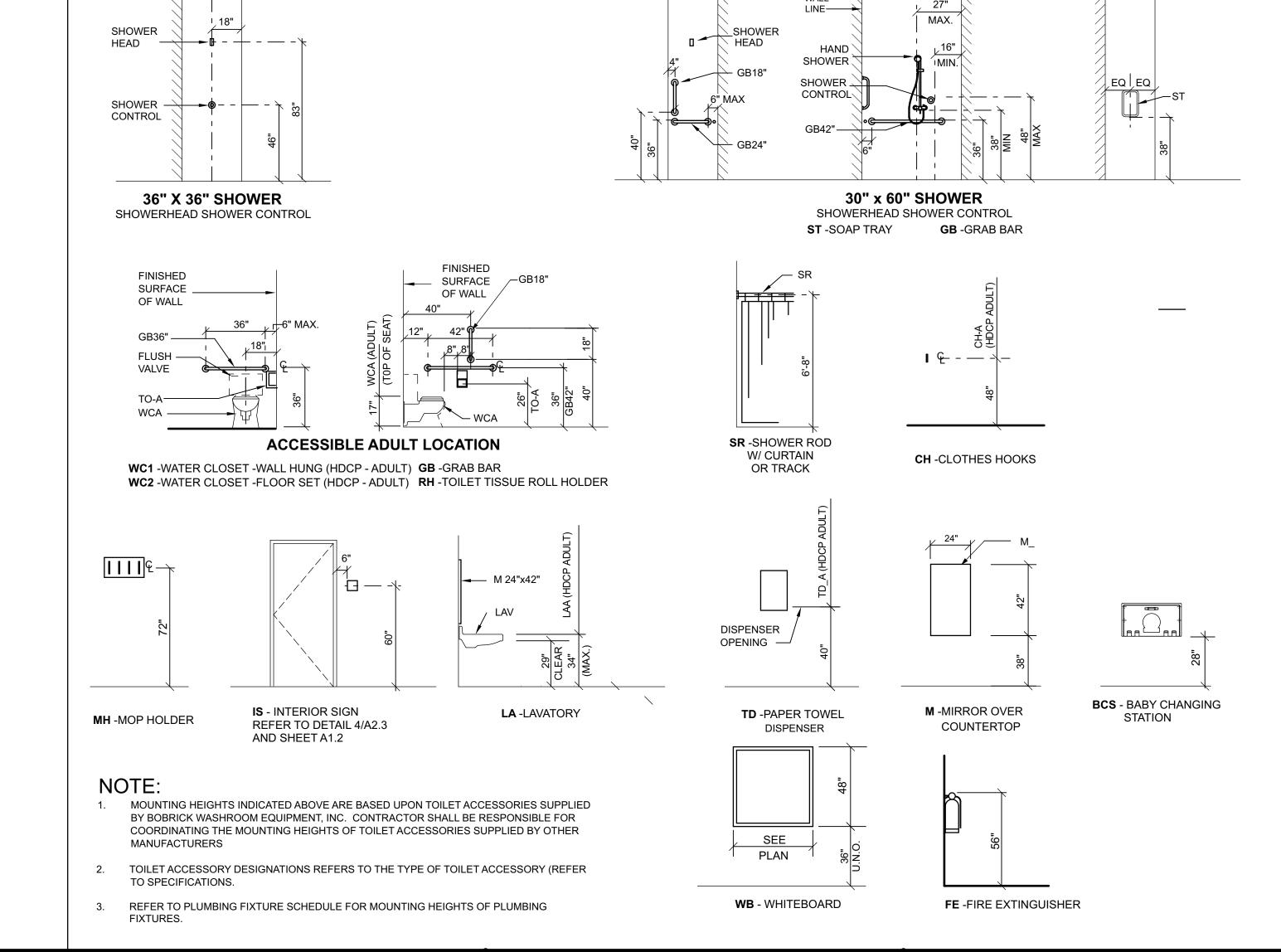


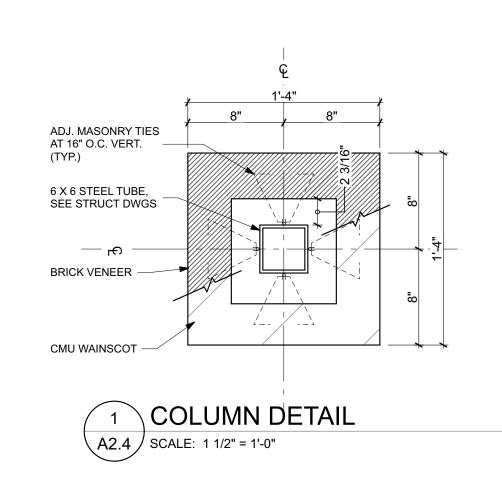




SCALE: 1/2" = 1'-0"







SASH BLOCK

CONTROL JOINT

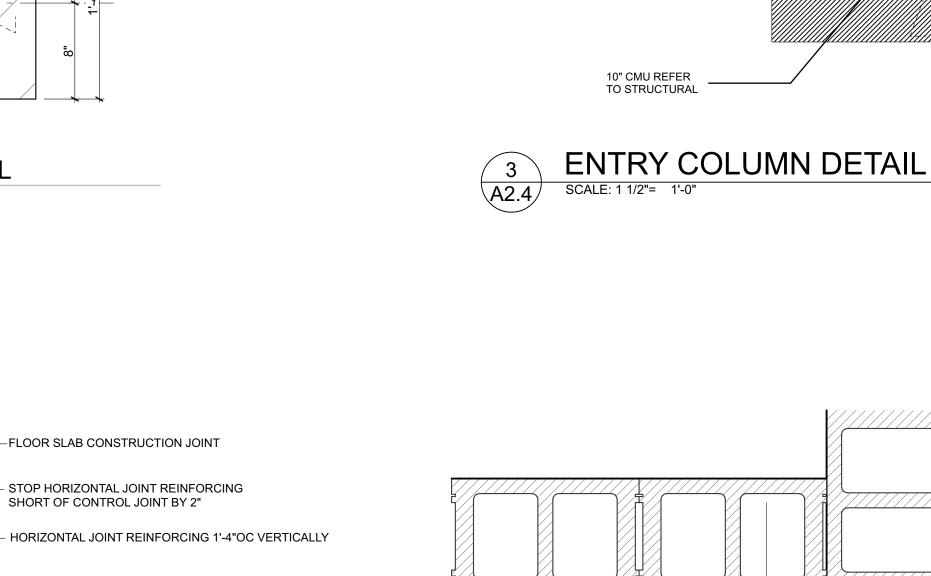
SCALE: 1-1/2" = 1'-0"

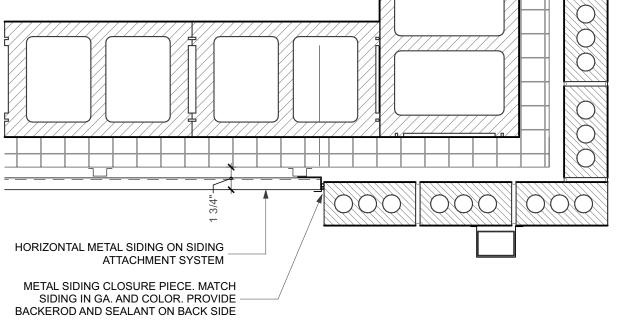
\ A2.4 /

— TYPICAL CONTROL JOINT LOCATION AS CLOSE AS POSSIBLE TO FLOOR SLAB

BACKER ROD AND SEALANT

PVC CONTROL JOINT



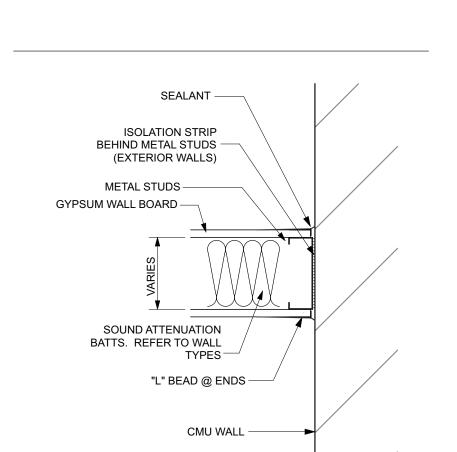


ADJ. MASONRY TIES AT 16" O.C. VERT. (TYP.)

BRICK VENEER -

COLUMN &









6 CONTROL JOINT DIAGRAM

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

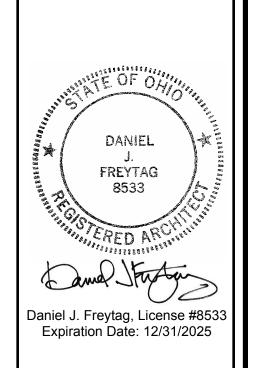
FREYTAG & ASSOCIATES INC.
ARCHITECTS ENGINEERS

226 N. MIAMI AVE. P.O. BOX 220 SIDNEY, OHIO 45365

FIRE STATION CITY OF SIDNEY

NEW CONSTRUCTION OF

CIT 2324 CAMPBELL ROAD



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

or loss caused thereby.

REVISIONS

STORM SHELTER REVIEW

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/22/24

DRAWN BY

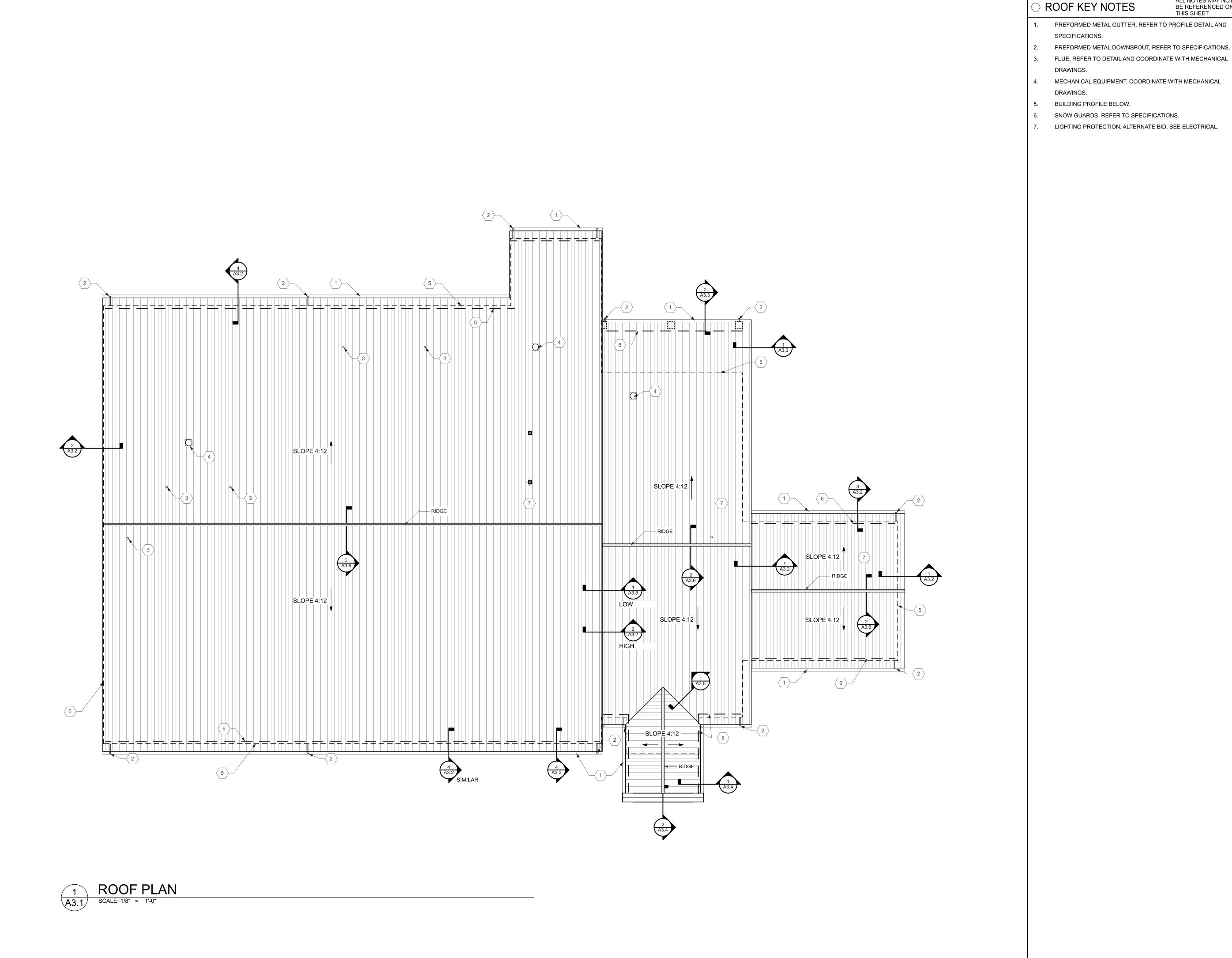
AF/RS

CHECKED BY

DF

PLAN DETAILS

A2.4



ALL NOTES MAY NOT BE REFERENCED ON THIS SHEET.

ASSOCIATES INC.

FREYTAG & A ARCHITECTS

STATION 2 FIRE

NEW CONSTRUCTION OF

FREYTAG

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

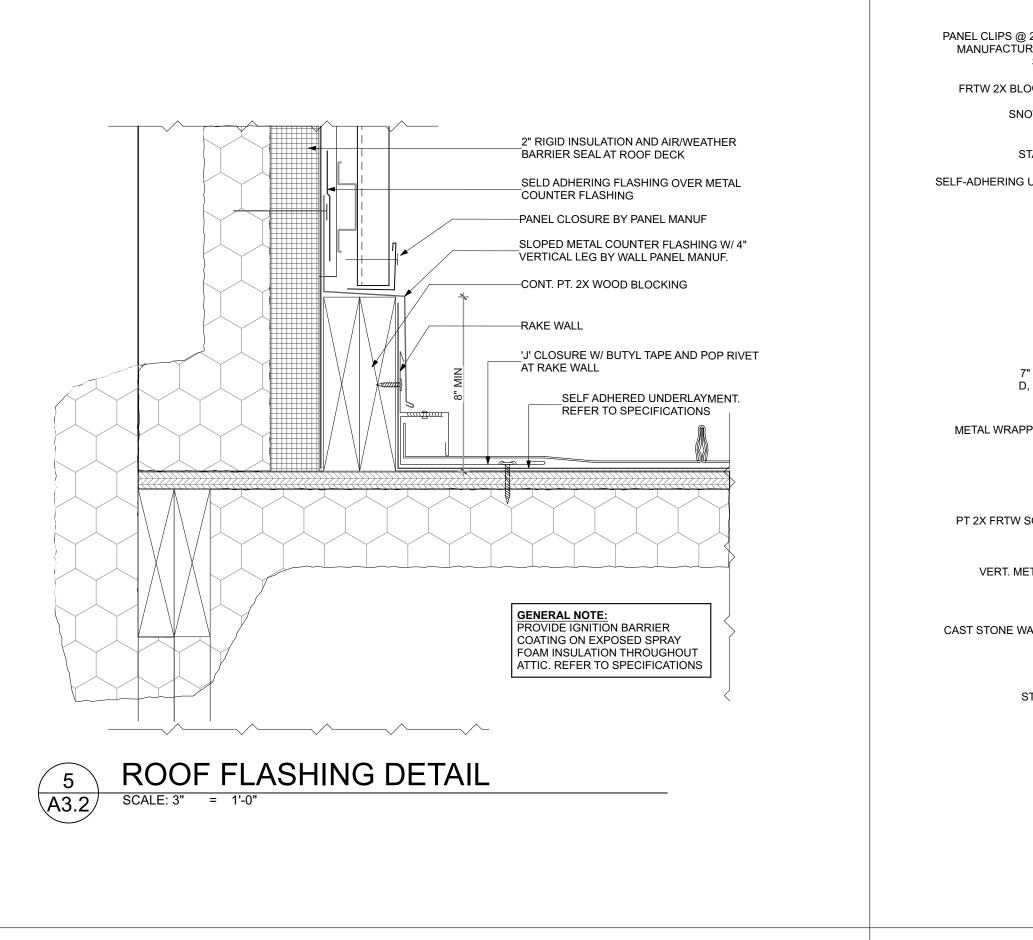
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

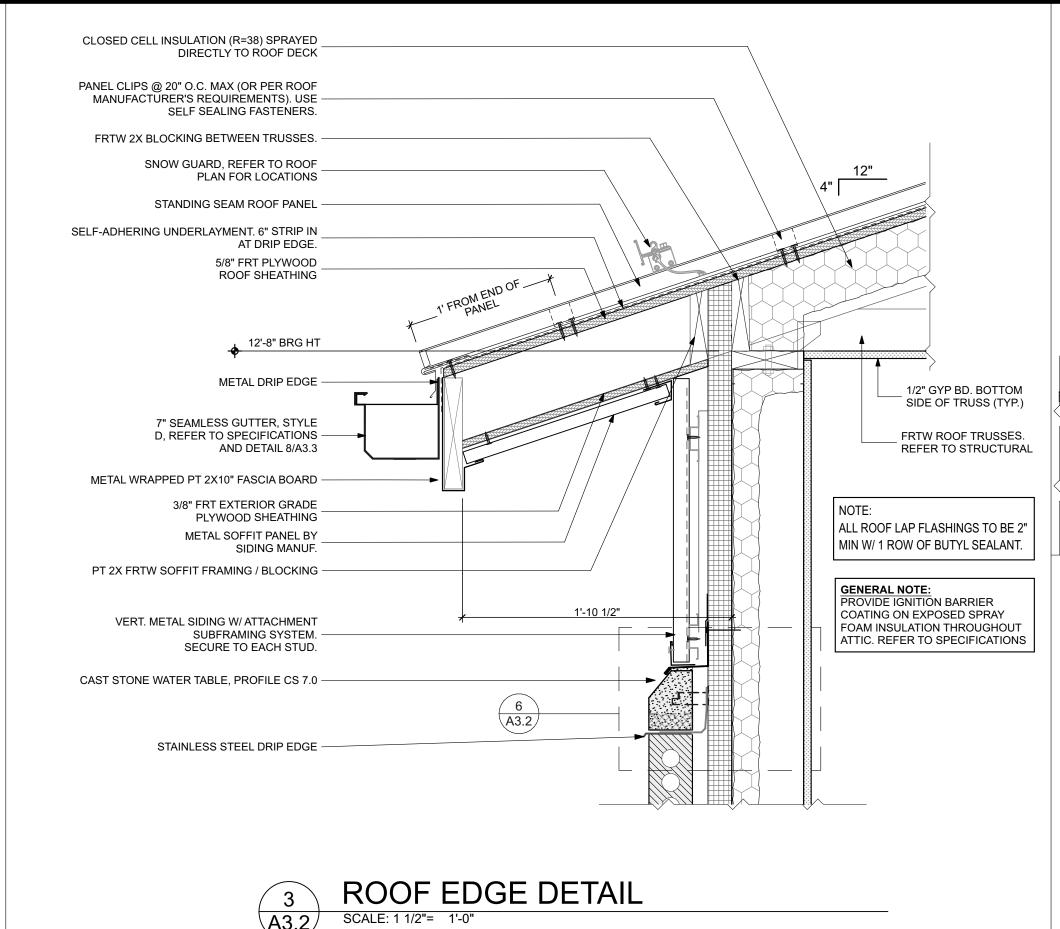
REVISIONS STORM SHELTER REVIEW

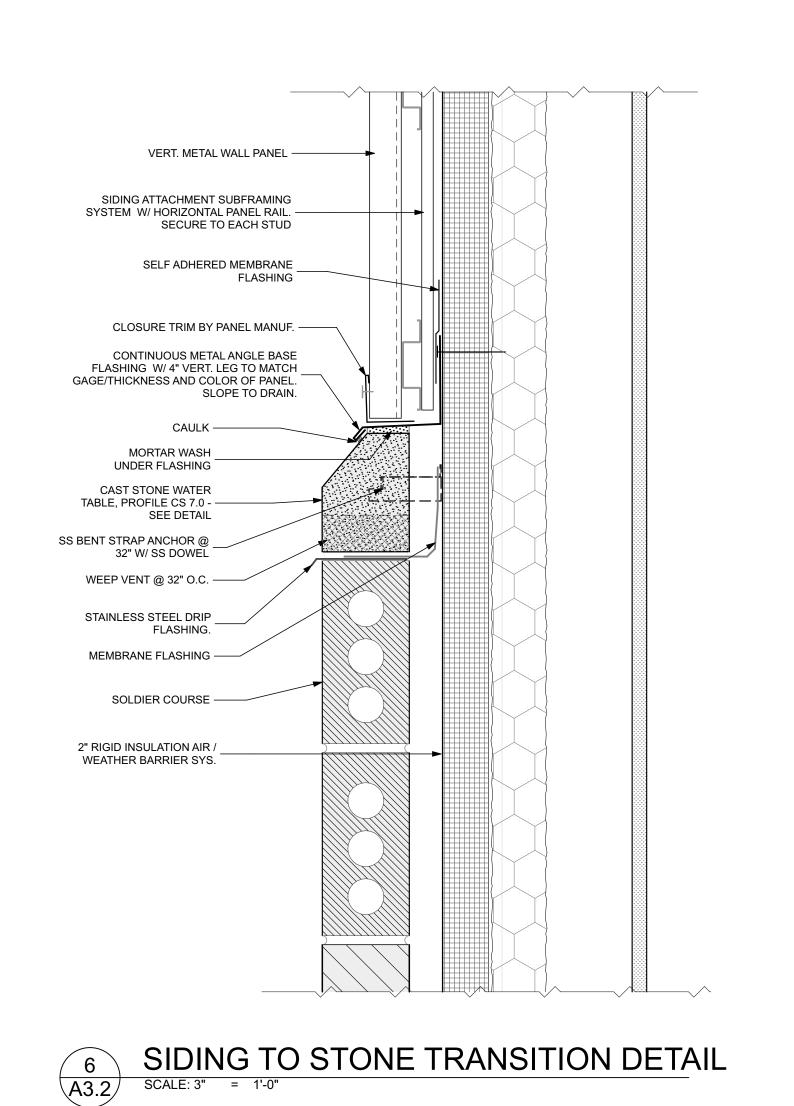
PLAN APPROVAL / BIDDING

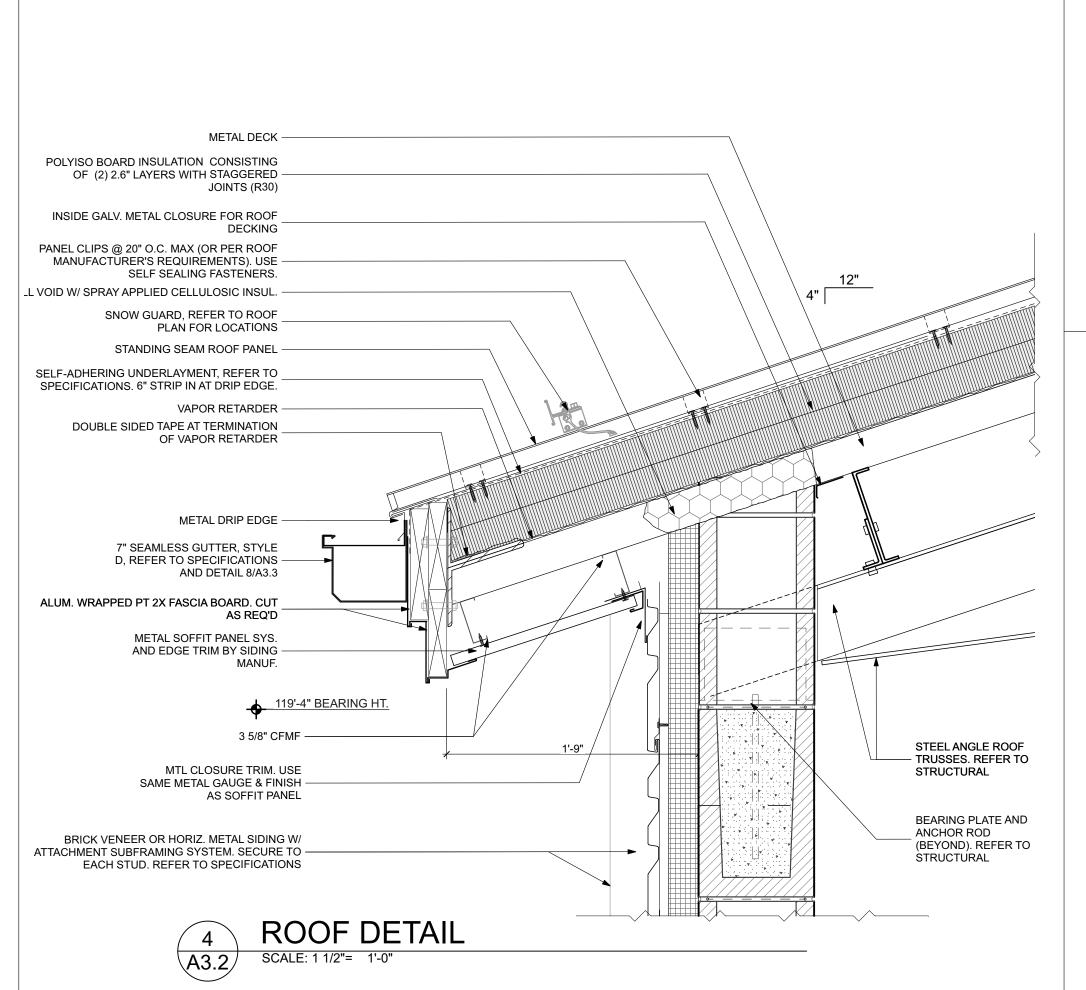
COMM. NUMBER	DATE
2207.02	11/22/24
DRAWN BY	CHECKED BY
AF/RS	DF

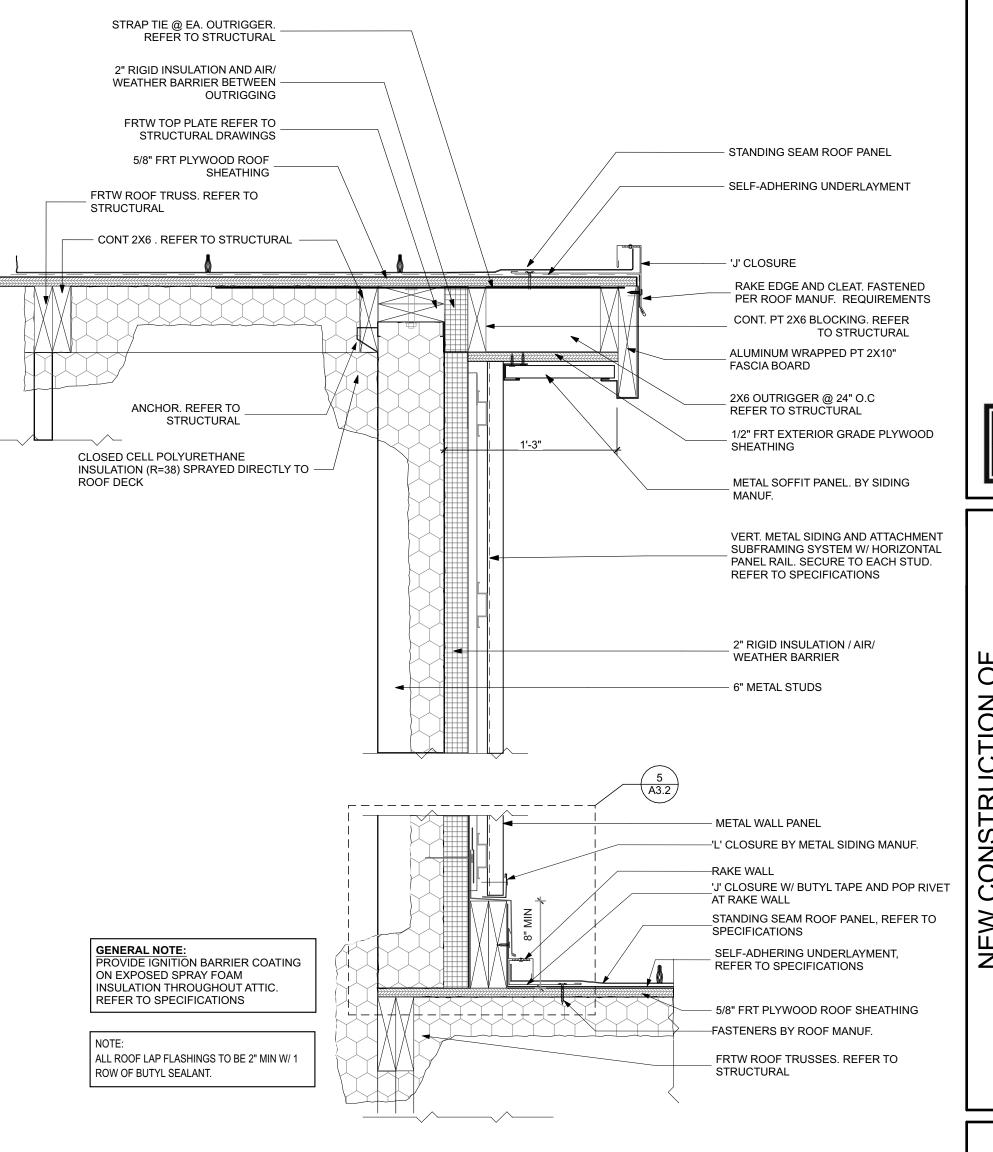
ROOF PLAN



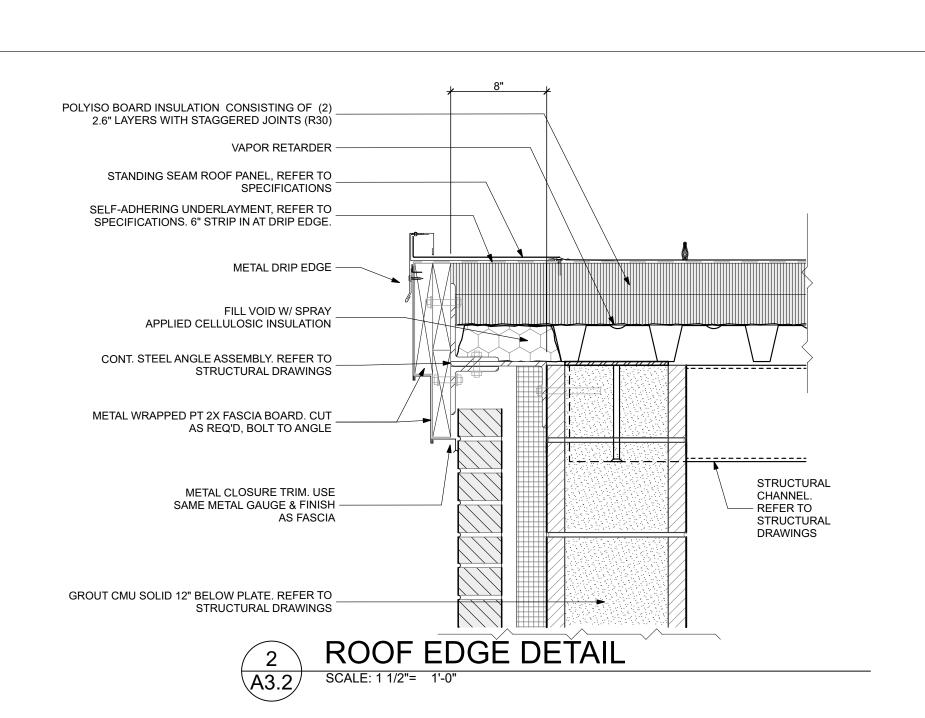


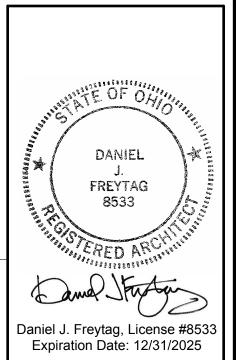












ENGINEERS

ARC

ATION

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

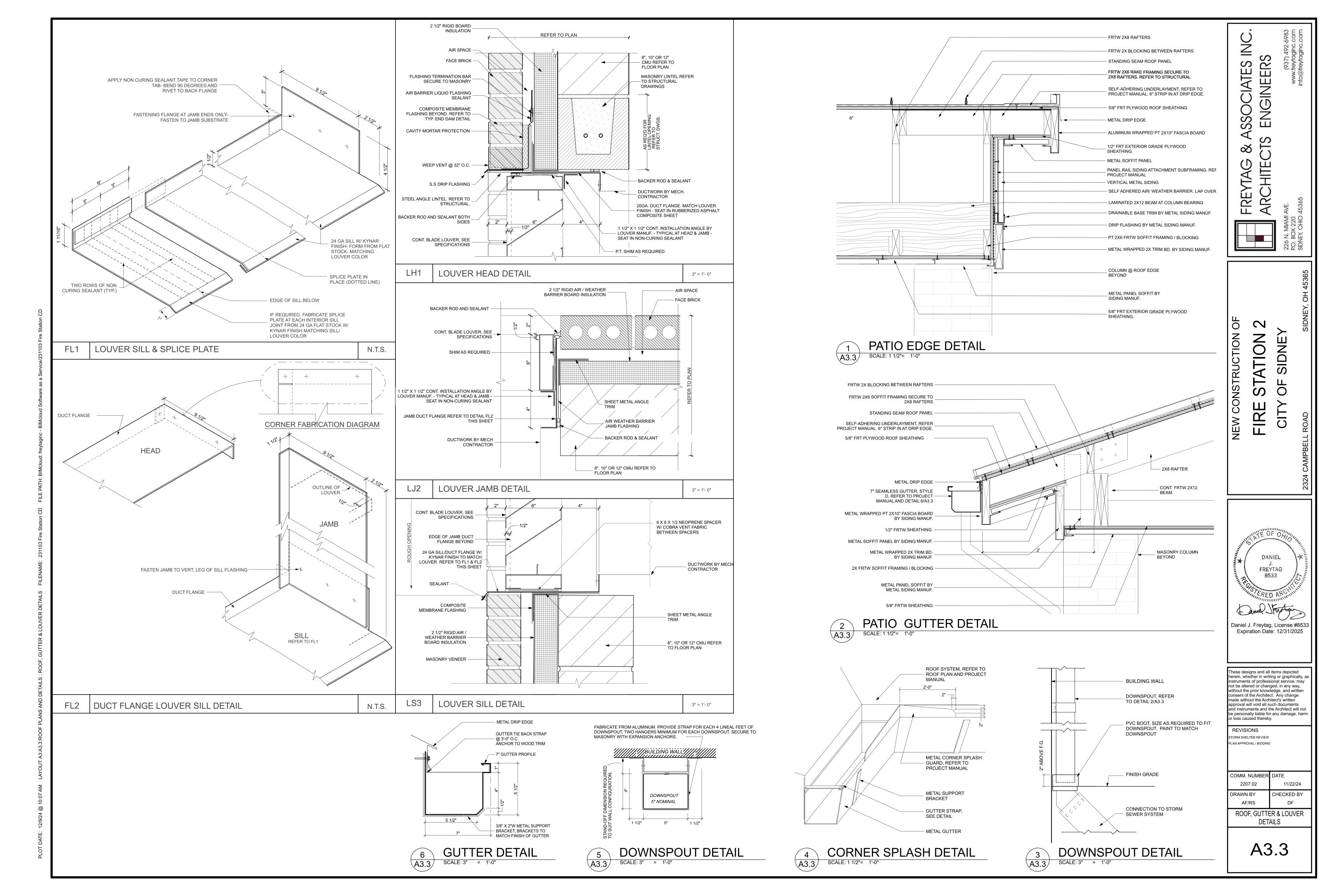
REVISIONS
STORM SHELTER REVIEW

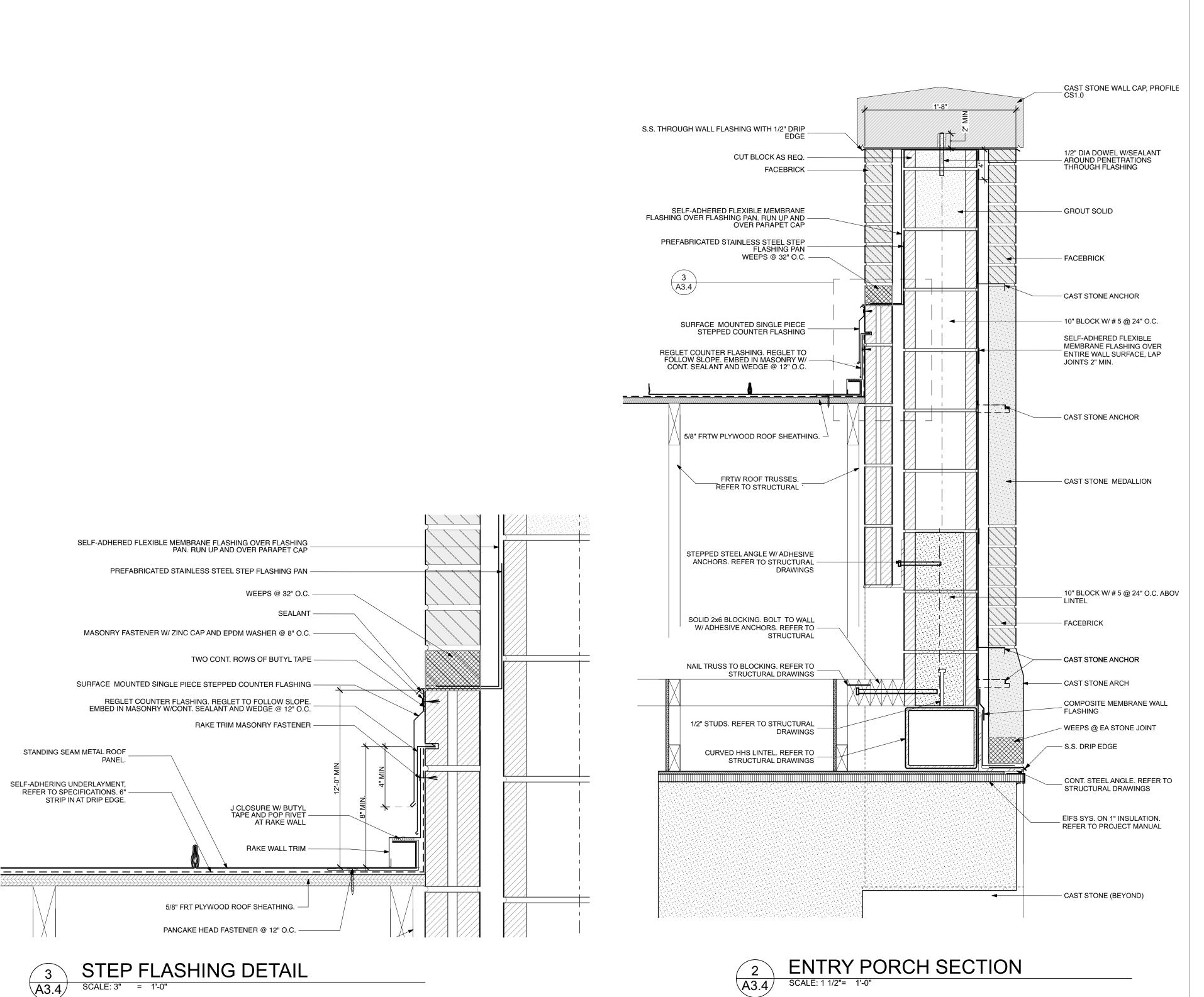
LAN APPROVAL / BIDDING

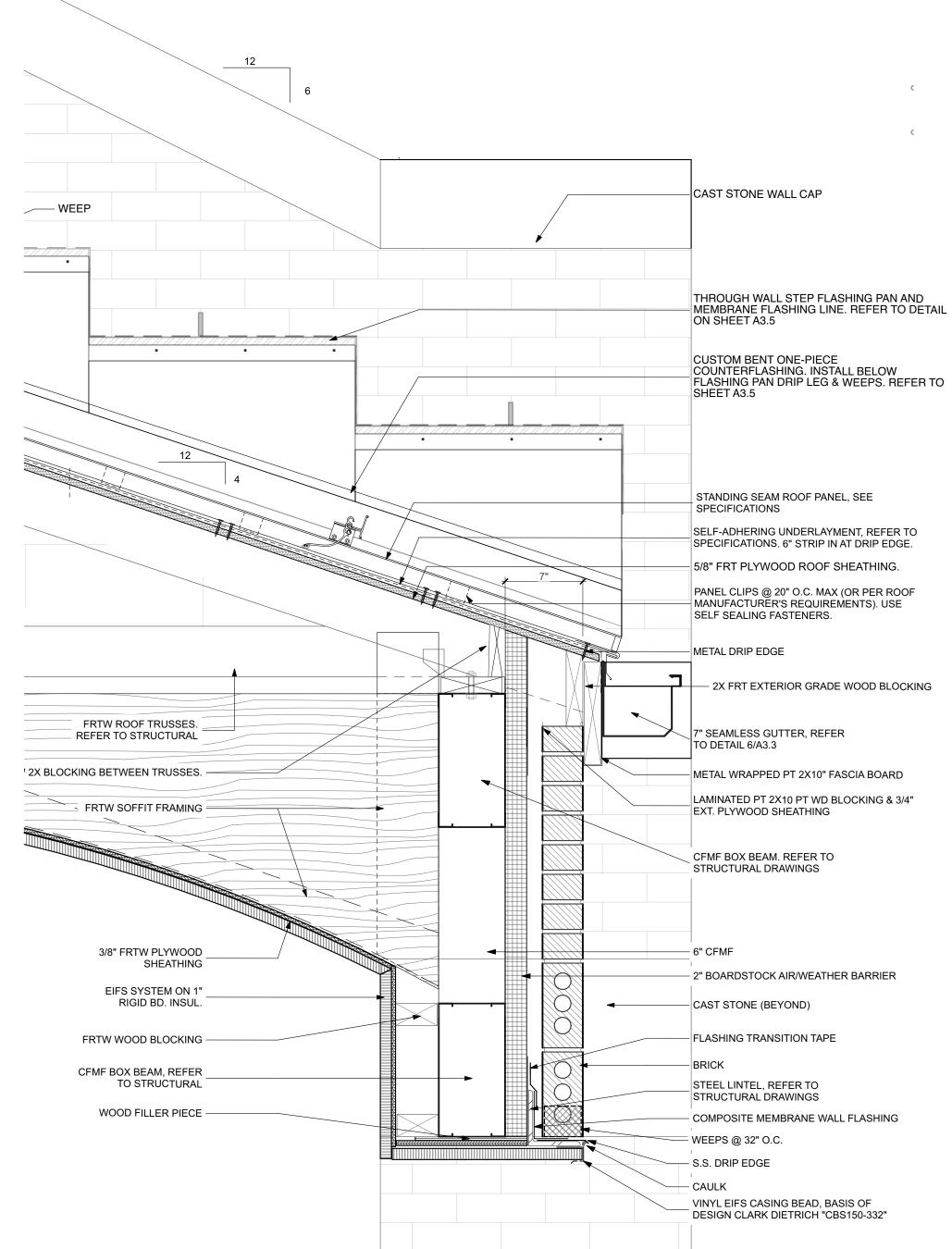
COMM. NUMBER DATE
2207.02 11/22/24

DRAWN BY CHECKED BY
AF/RS DF

ROOF DETAILS







ENTRY GUTTER DETAIL AND SOFFIT SCALE: 1 1/2"= 1'-0"

SCIATES INC ENGINEERS

ARCHITE

TATION FIRE

CONSTRUCTION O

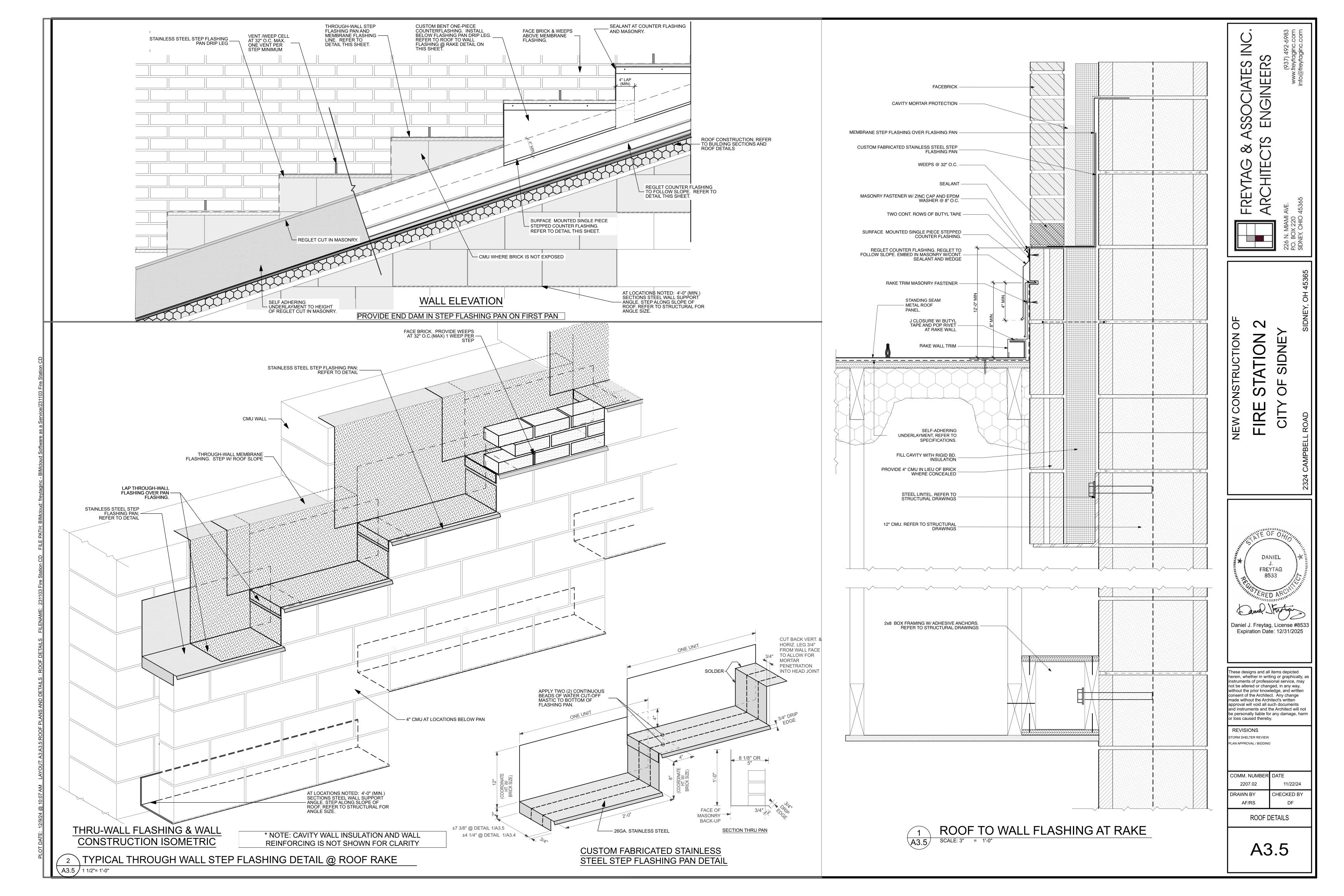
DANIEL FREYTAG 8533 Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

These designs and all items depicted herein, whether in writing or graphically, as nstruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

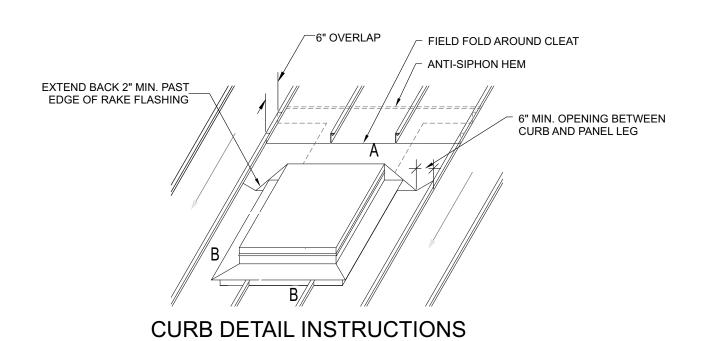
REVISIONS ORM SHELTER REVIEW PLAN APPROVAL / BIDDING

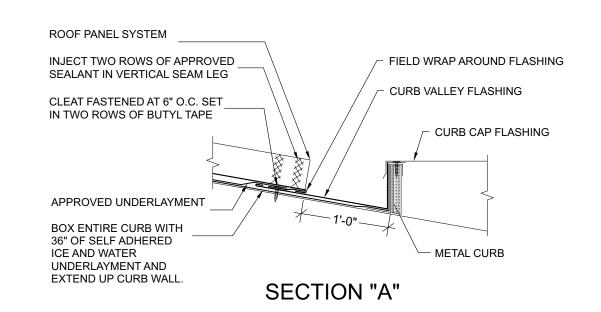
COMM. NUMBER DATE 11/22/24 CHECKED BY DRAWN BY

ROOF DETAILS

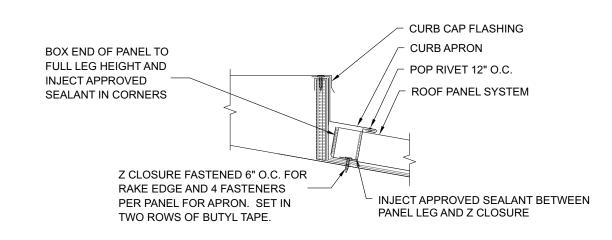






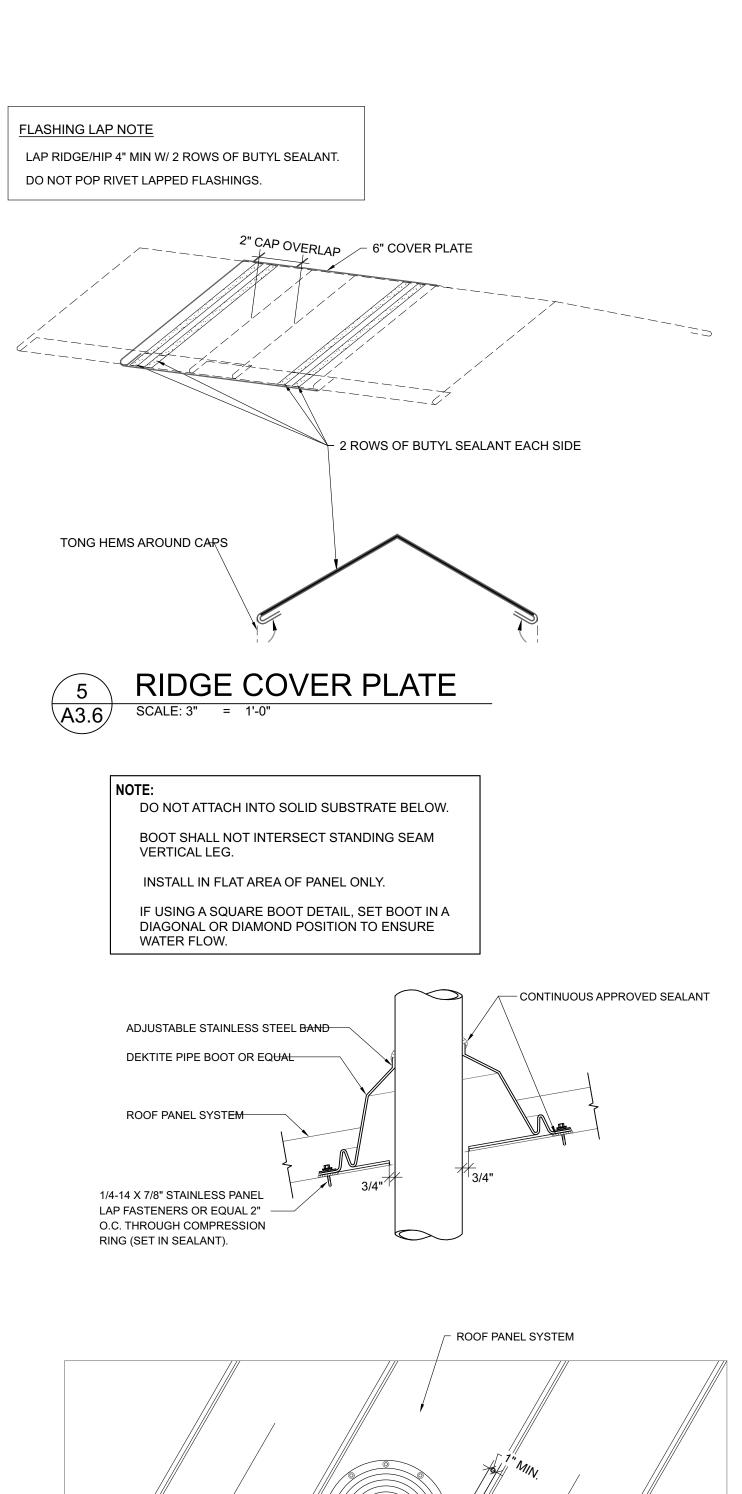


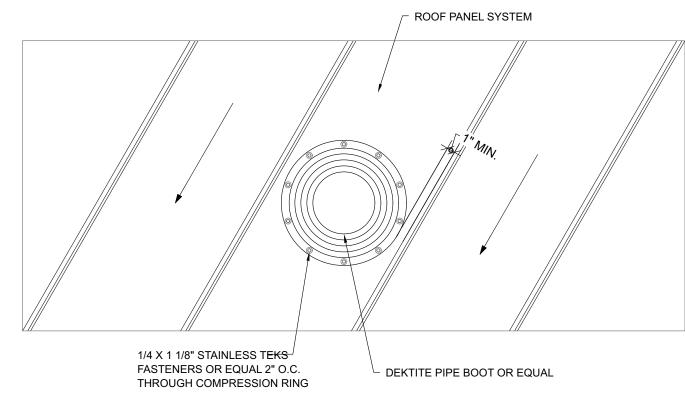
4'-0" WIDTH OR LESS

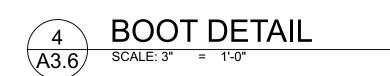


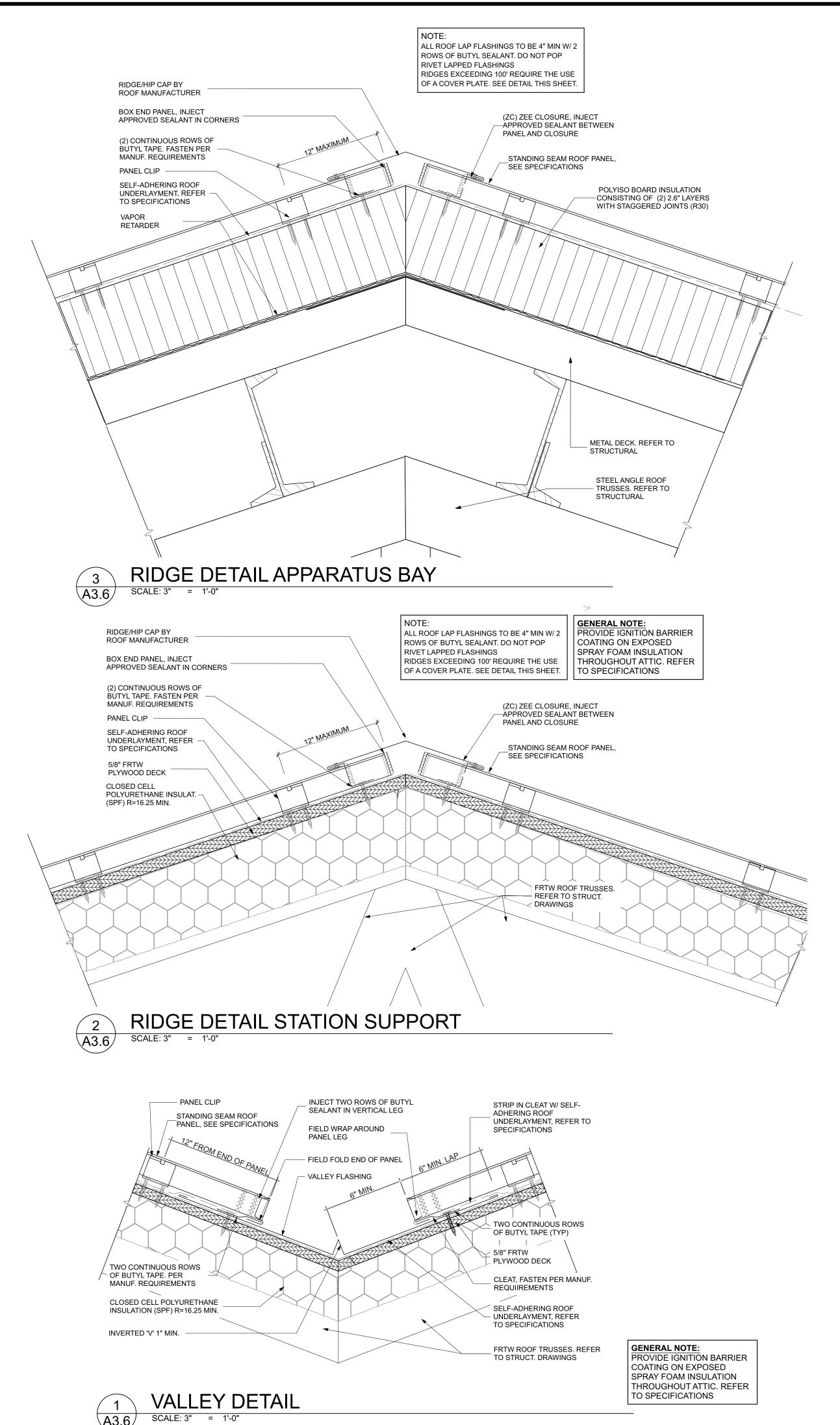
SECTION "B"











ENGINEERS

ARCHITE

TATION S I.RE

DANIEL FREYTAG 8533

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

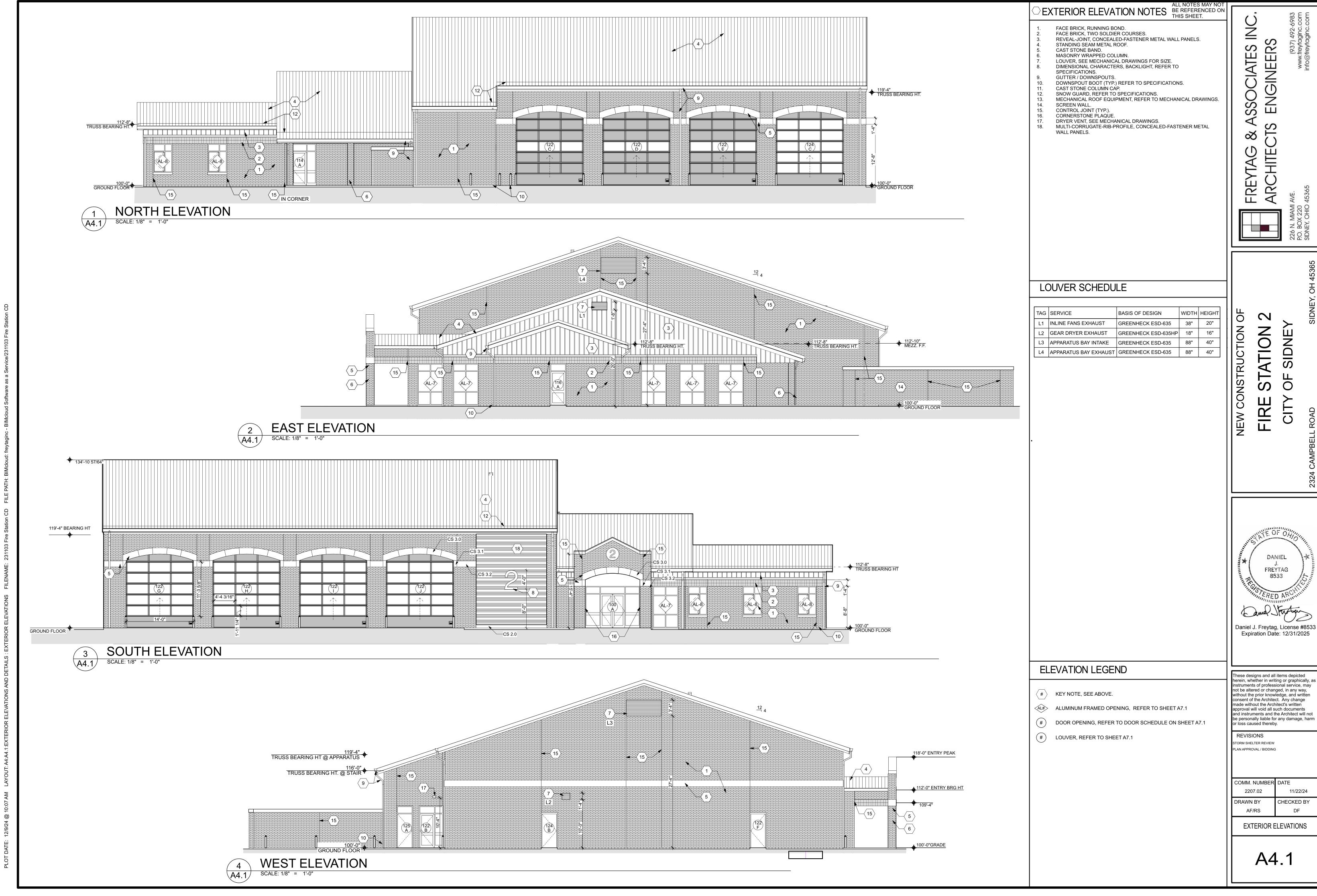
These designs and all items depicted herein, whether in writing or graphically, as nstruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

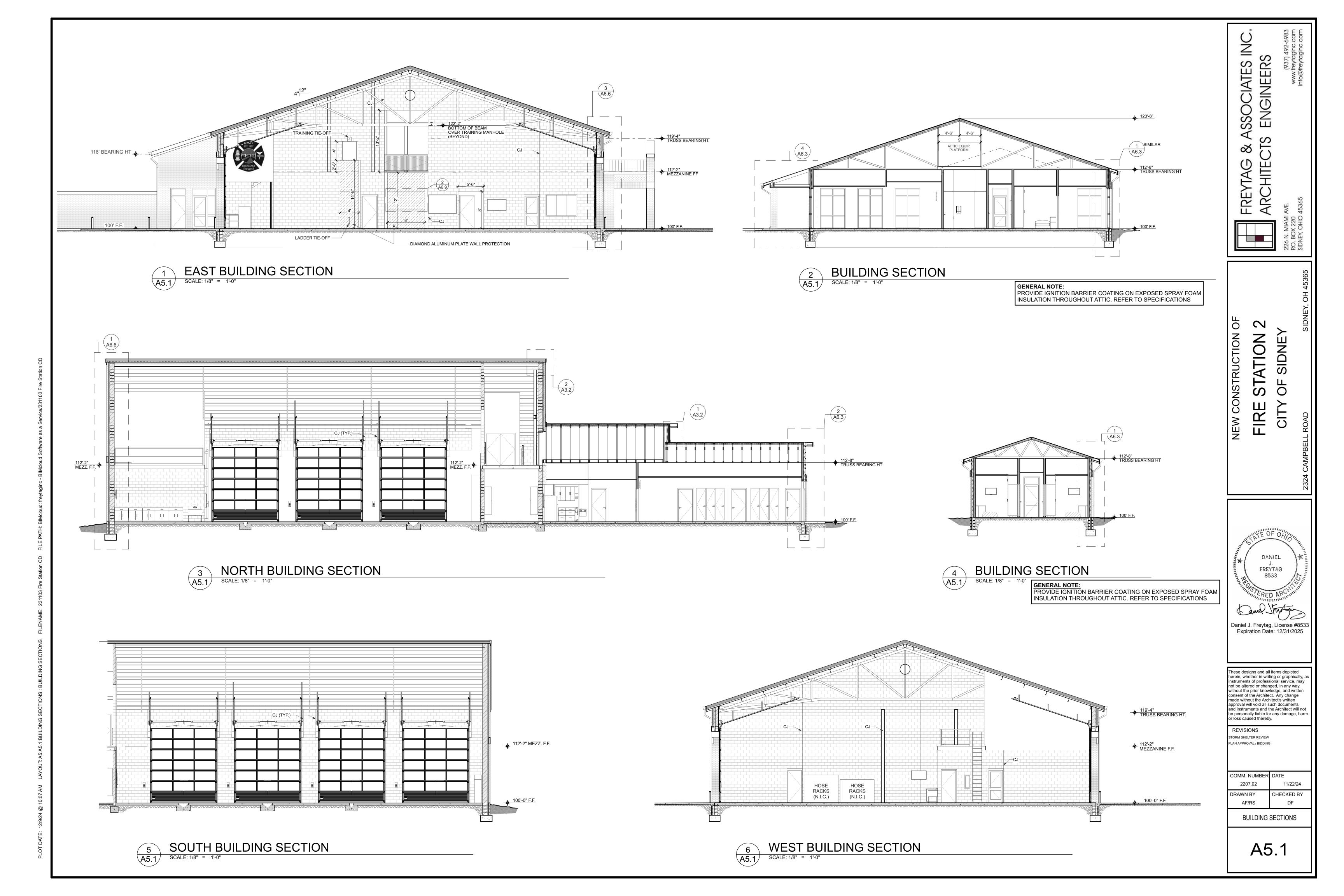
r loss caused thereby. REVISIONS TORM SHELTER REVIEW

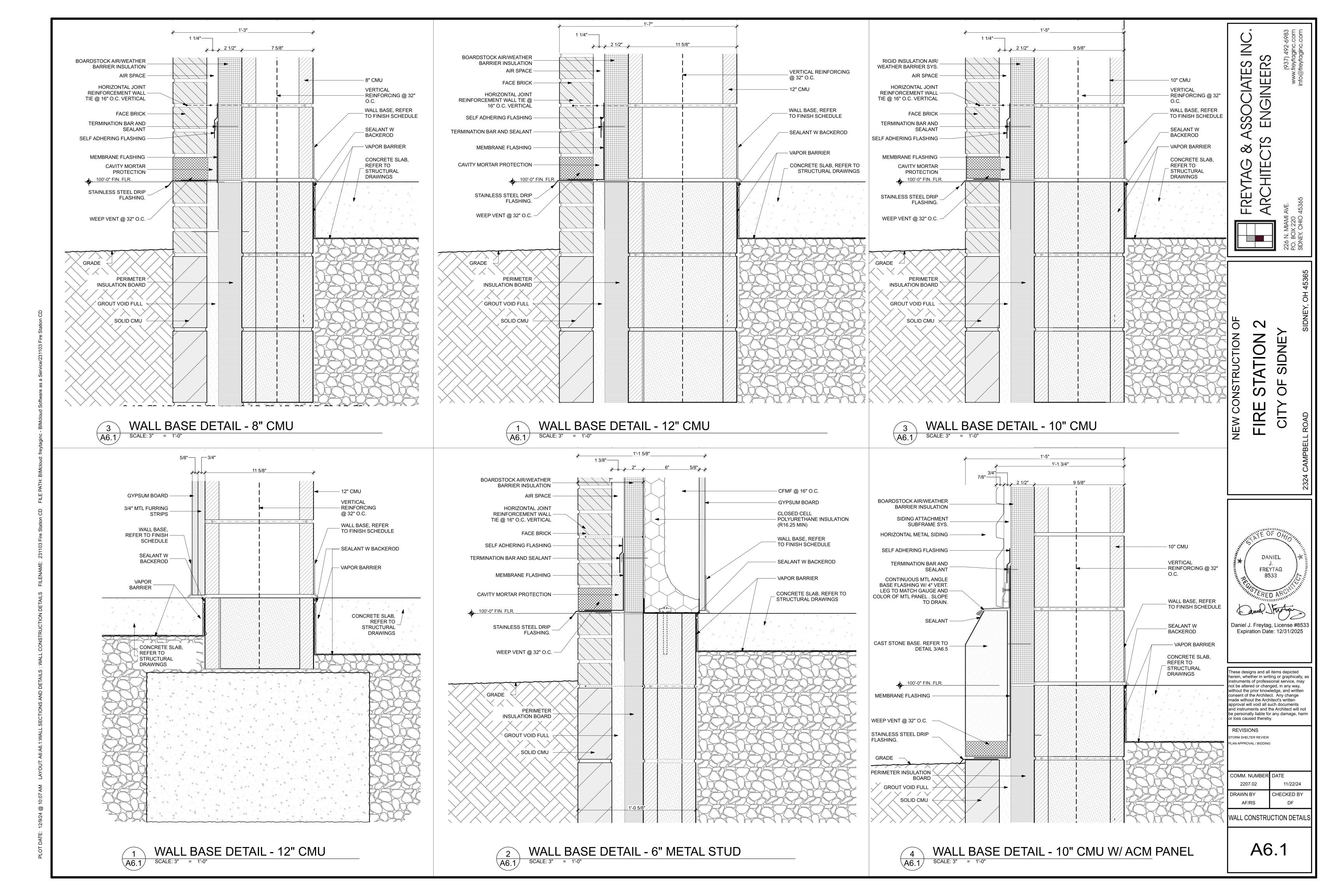
LAN APPROVAL / BIDDING

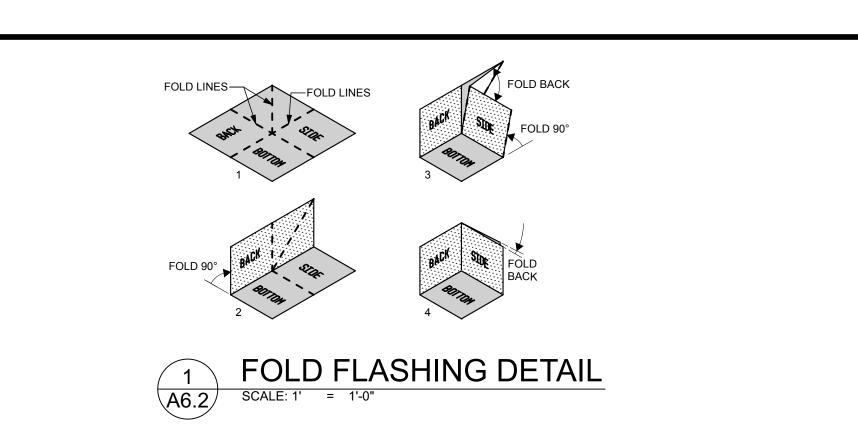
COMM. NUMBER DATE 11/22/24 DRAWN BY CHECKED BY

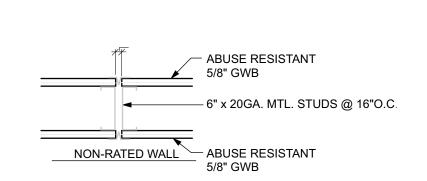
ROOF DETAILS



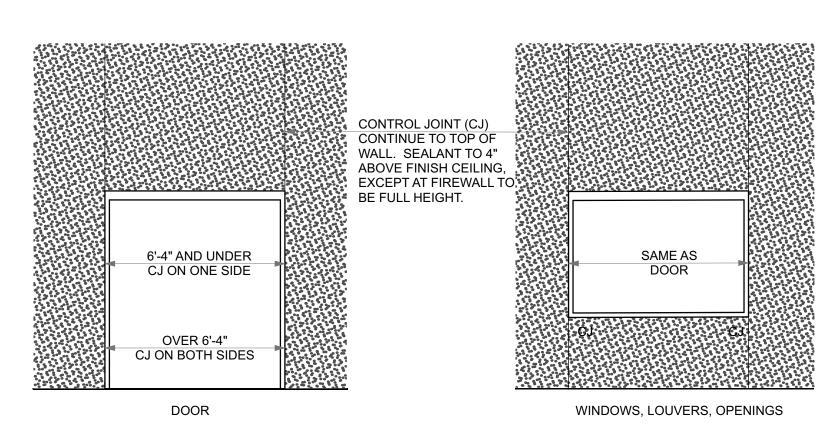




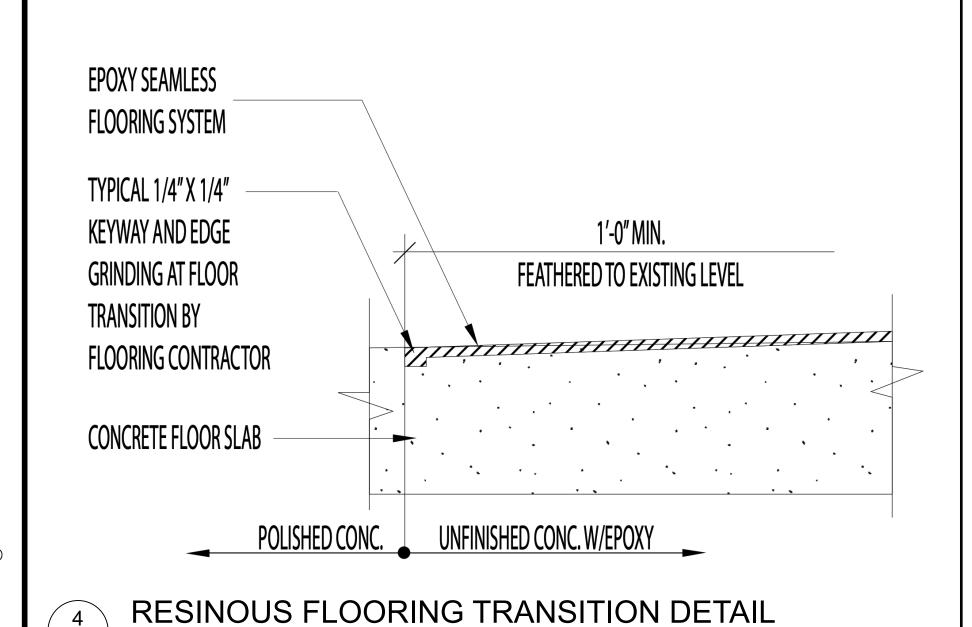




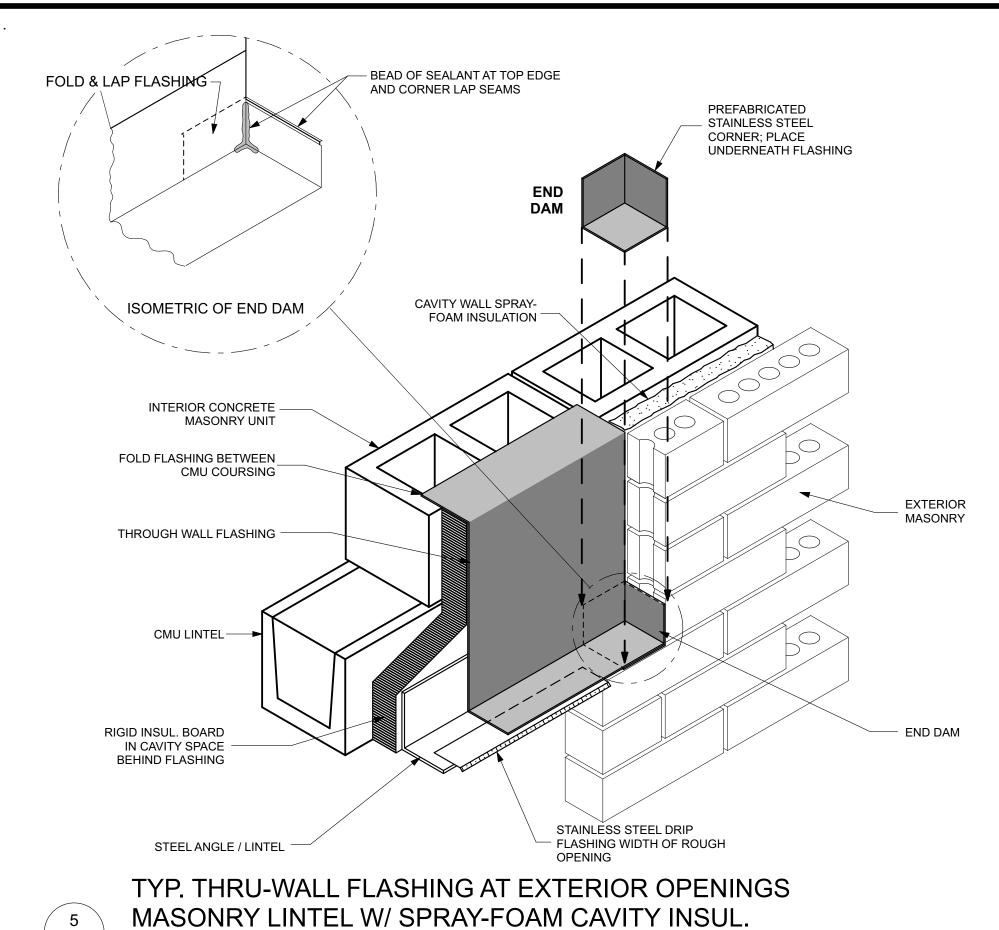
STUD WALL CONTROL JOINT NOT TO SCALE

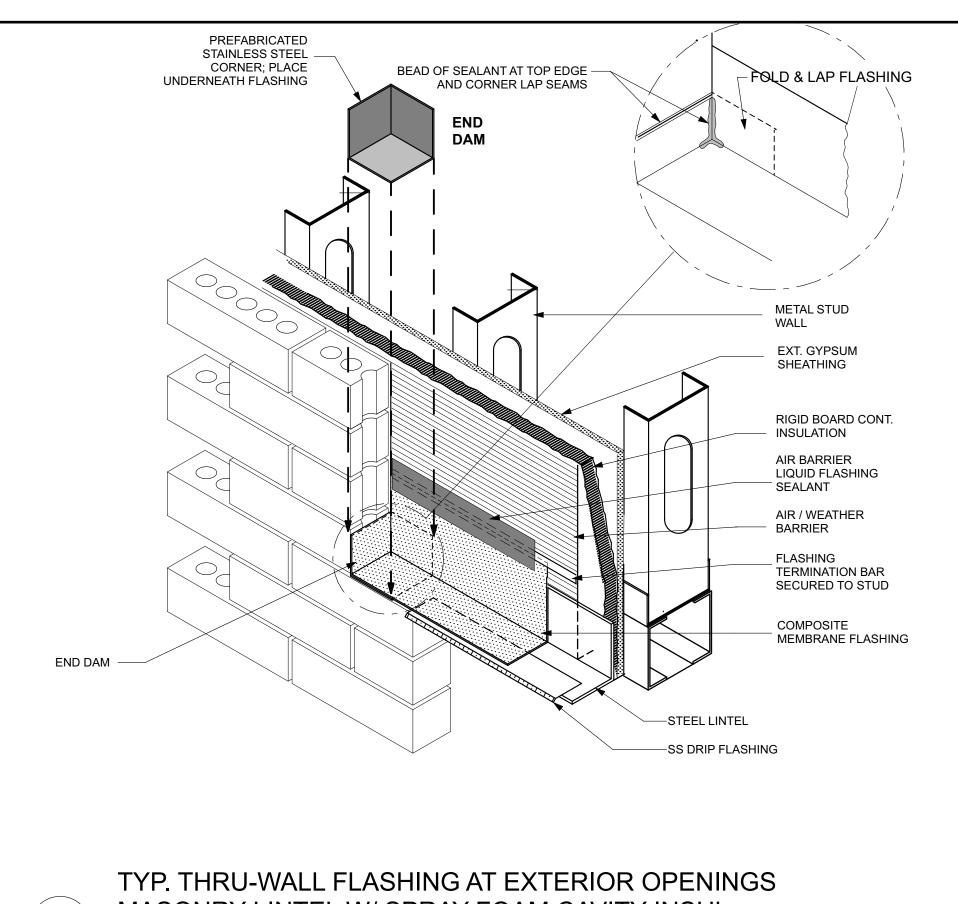






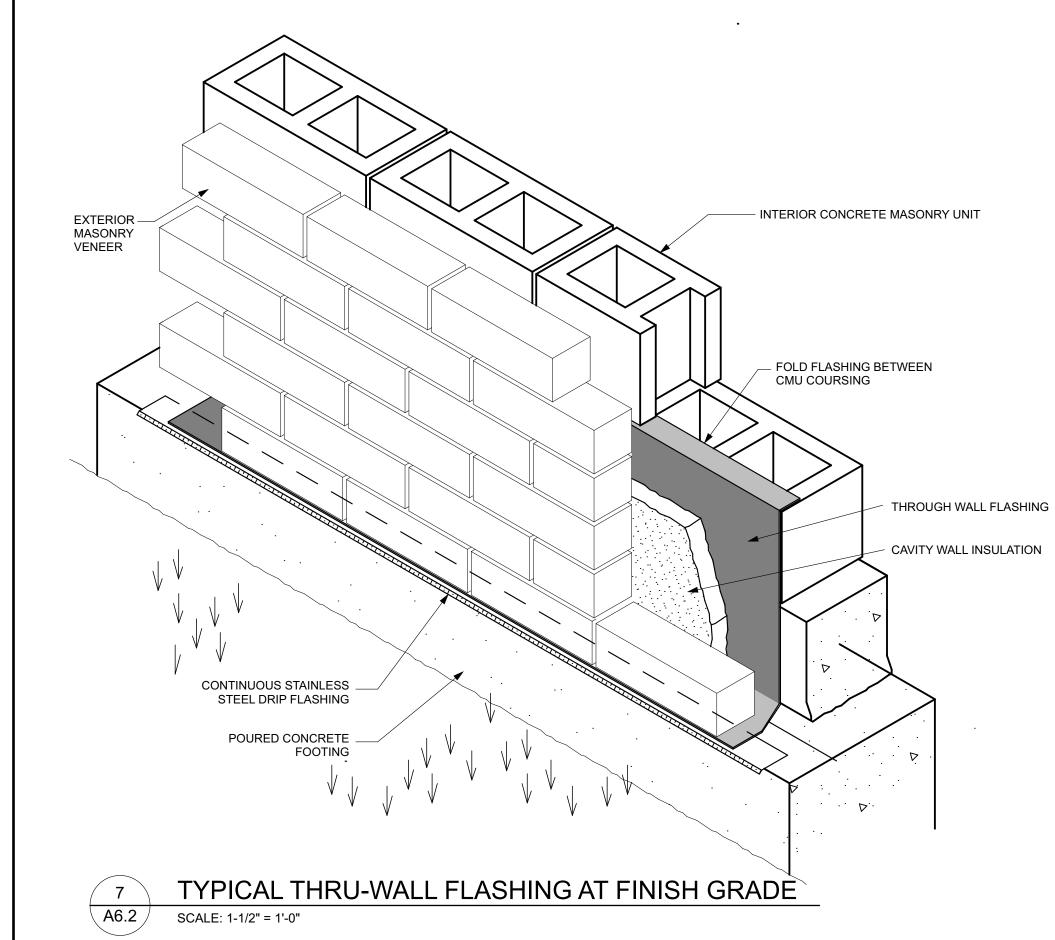
A6.2 SCALE: 1:1.509

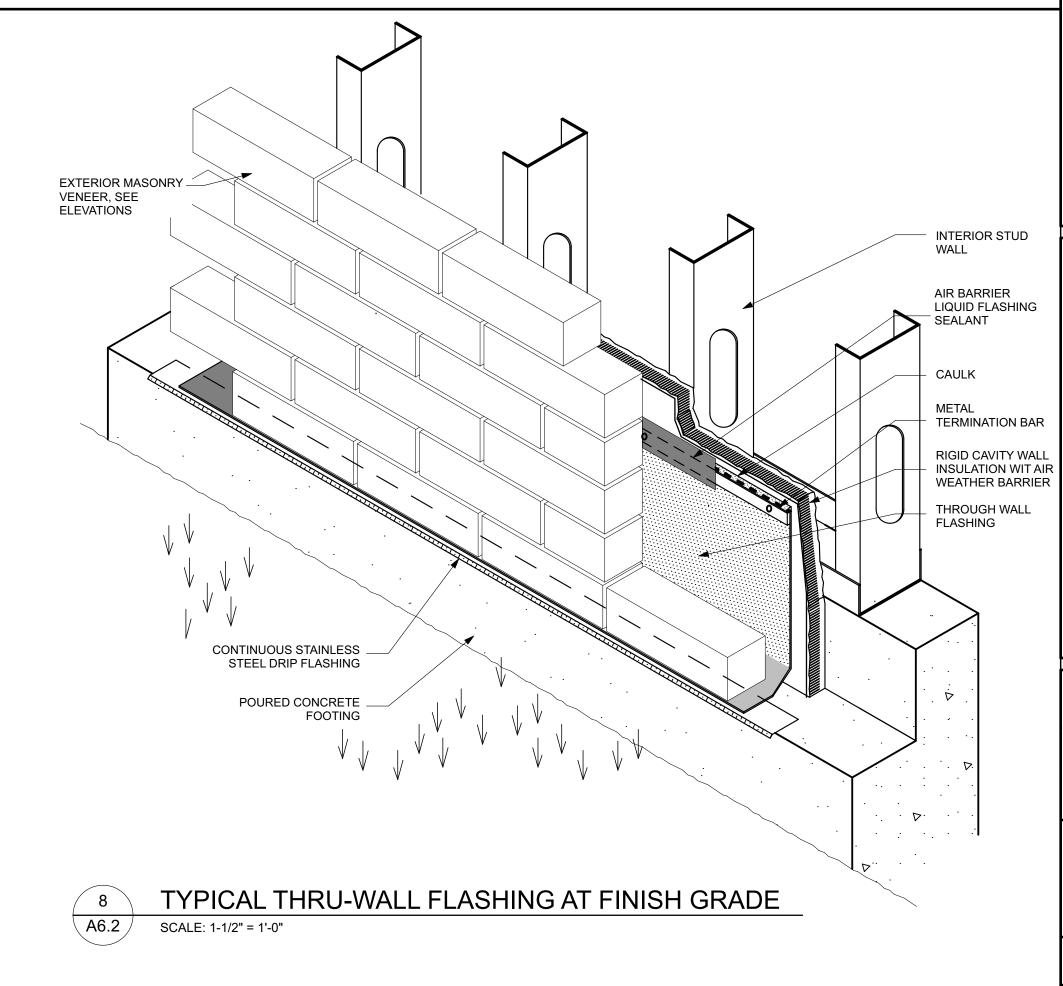




A6.2







ENGINEERS ARCHITE

TATION

FIRE



Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

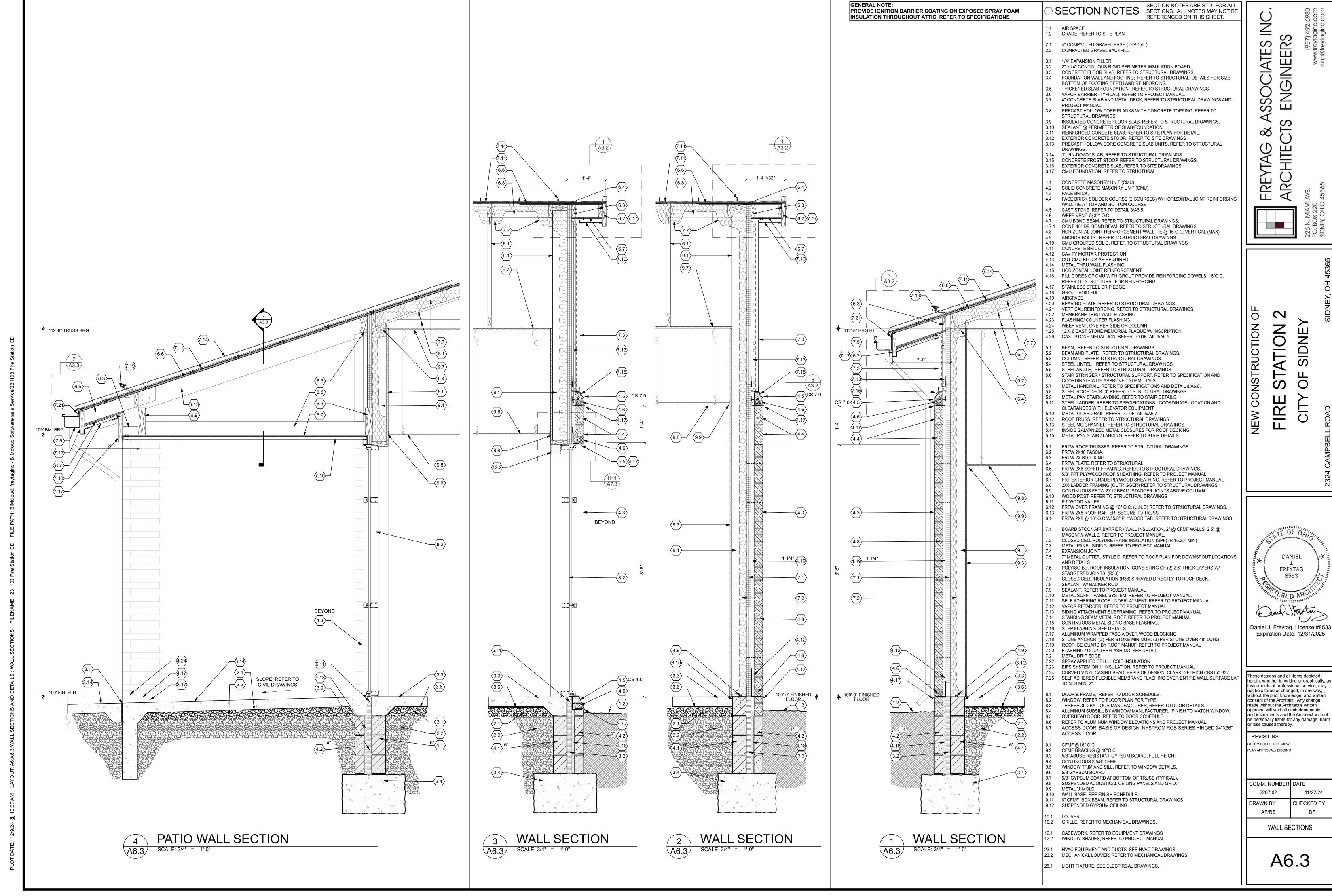
nerein, whether in writing or graphically, as nade without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

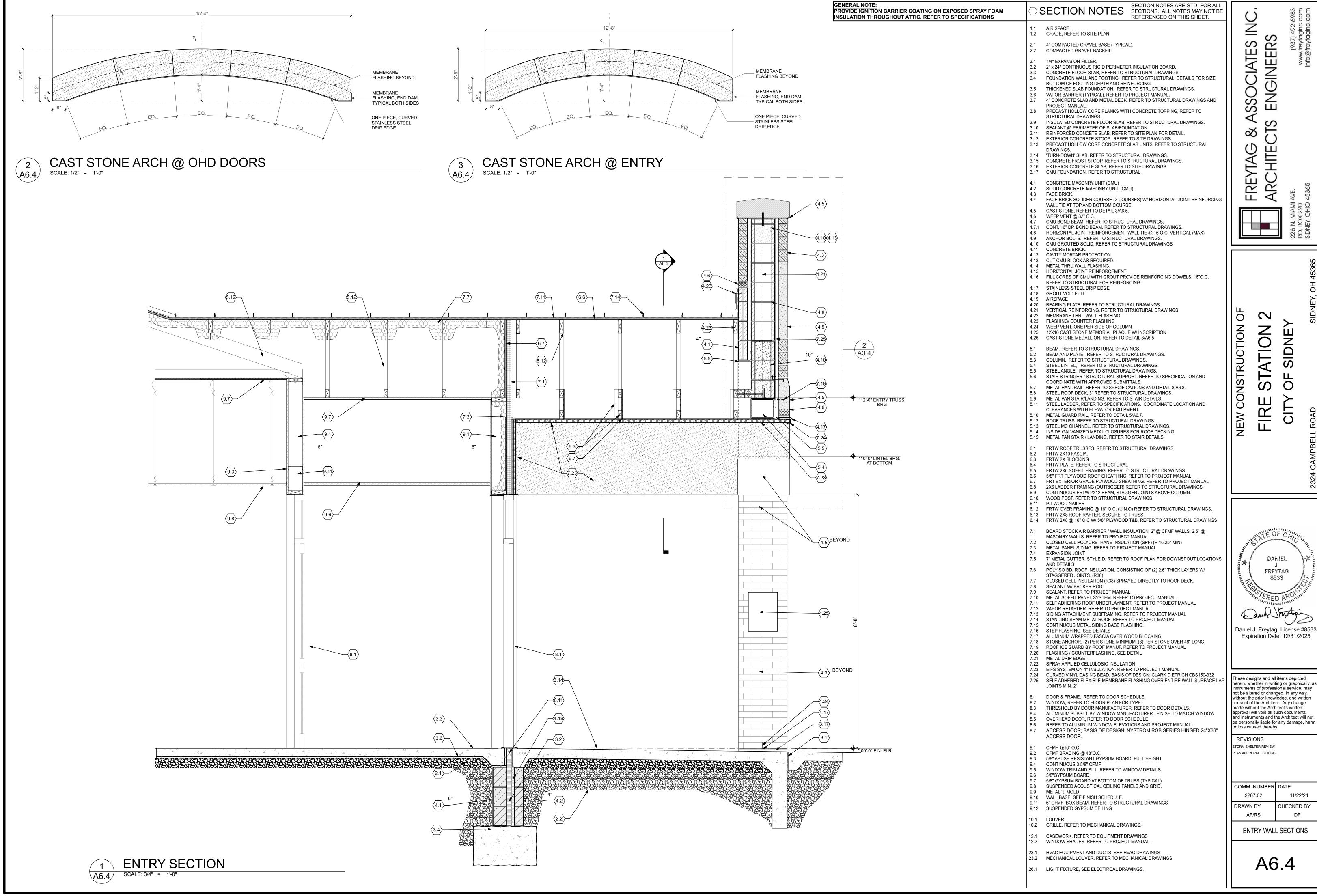
r loss caused thereby. **REVISIONS** TORM SHELTER REVIEW

LAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY

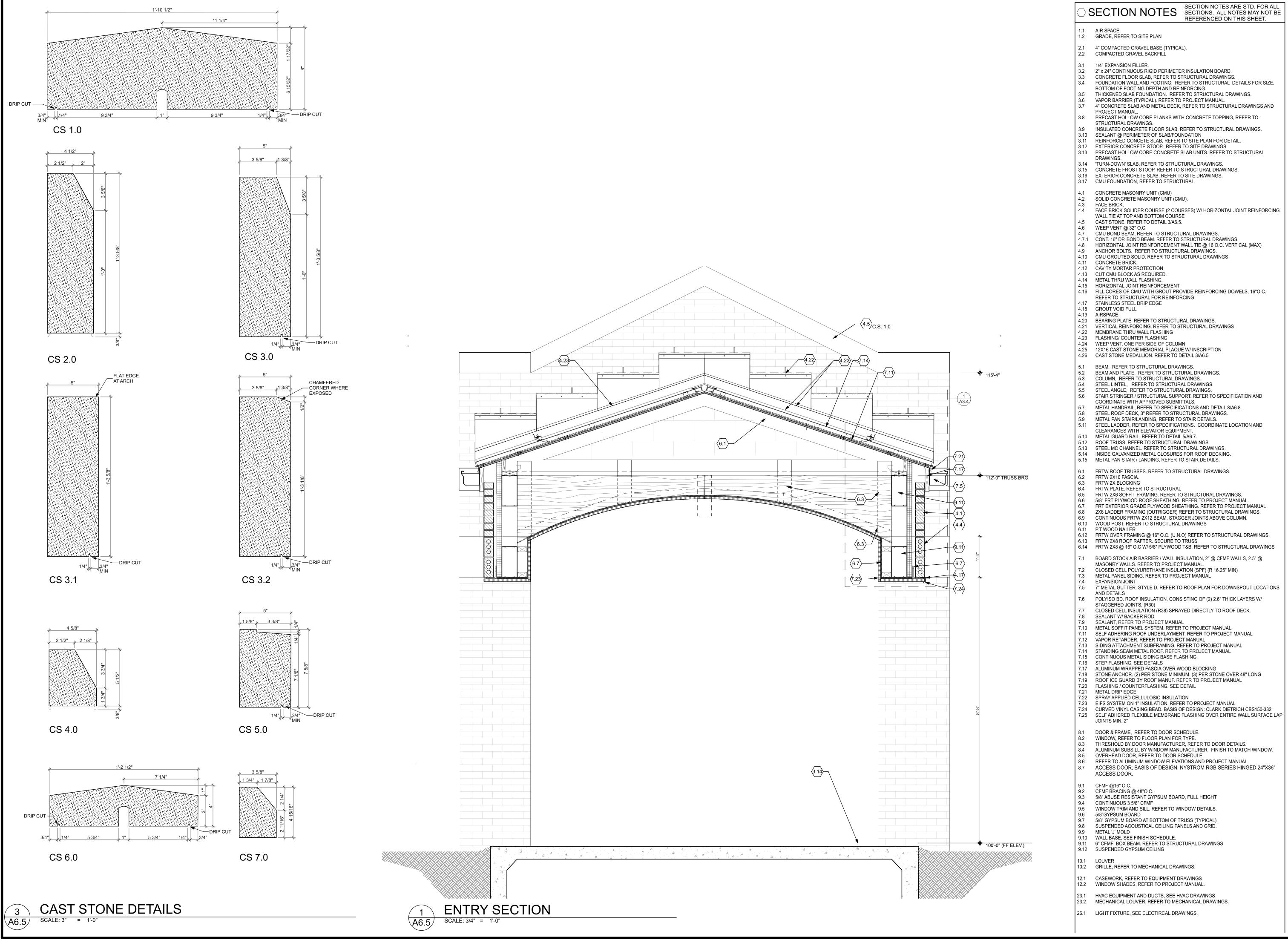
CONSTRUCTION DETAILS





herein, whether in writing or graphically, as instruments of professional service, may without the prior knowledge, and written and instruments and the Architect will not be personally liable for any damage, harm

CHECKED BY



FREYTAG & ASSOCIATES
ARCHITECTS ENGINEERS

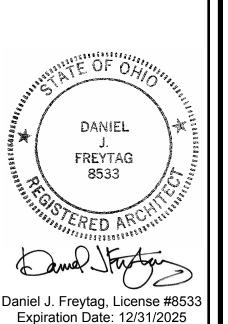
226 N. MIAMI A P.O. BOX 220 SIDNEY, OHIO 4

> . **.** SIDNEY, O

CITY OF SID

'ATION

324 CAMPBE



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

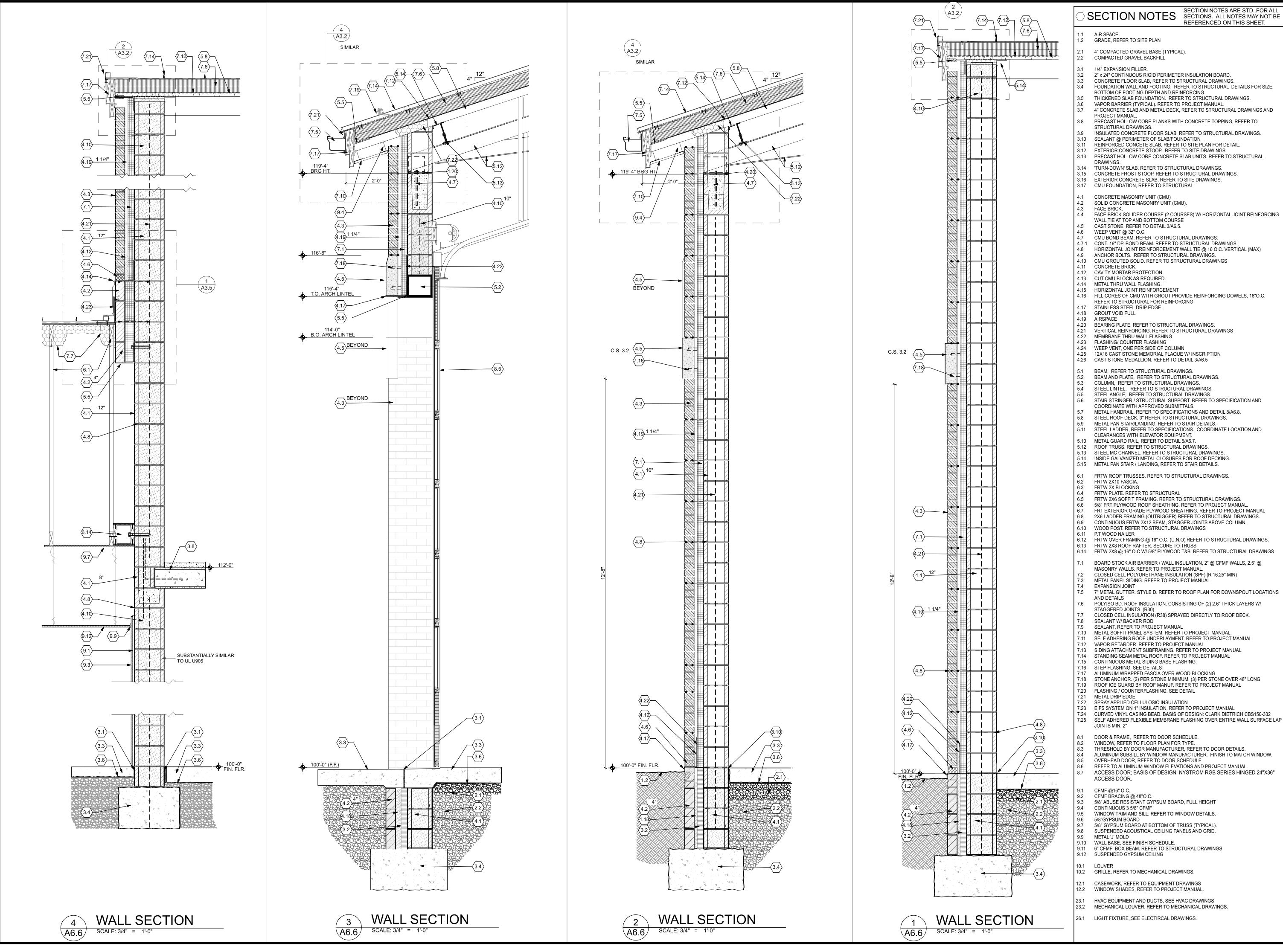
REVISIONS

STORM SHELTER REVIEW PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/22/24

DRAWN BY CHECKED BY
AF/RS DF

ENTRY WALL SECTIONS

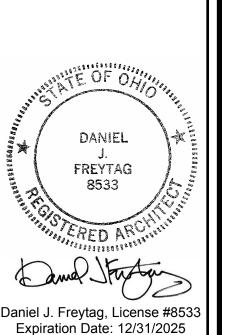


ARCHITE

ENGINEERS

ATION

CONSTRUCTION



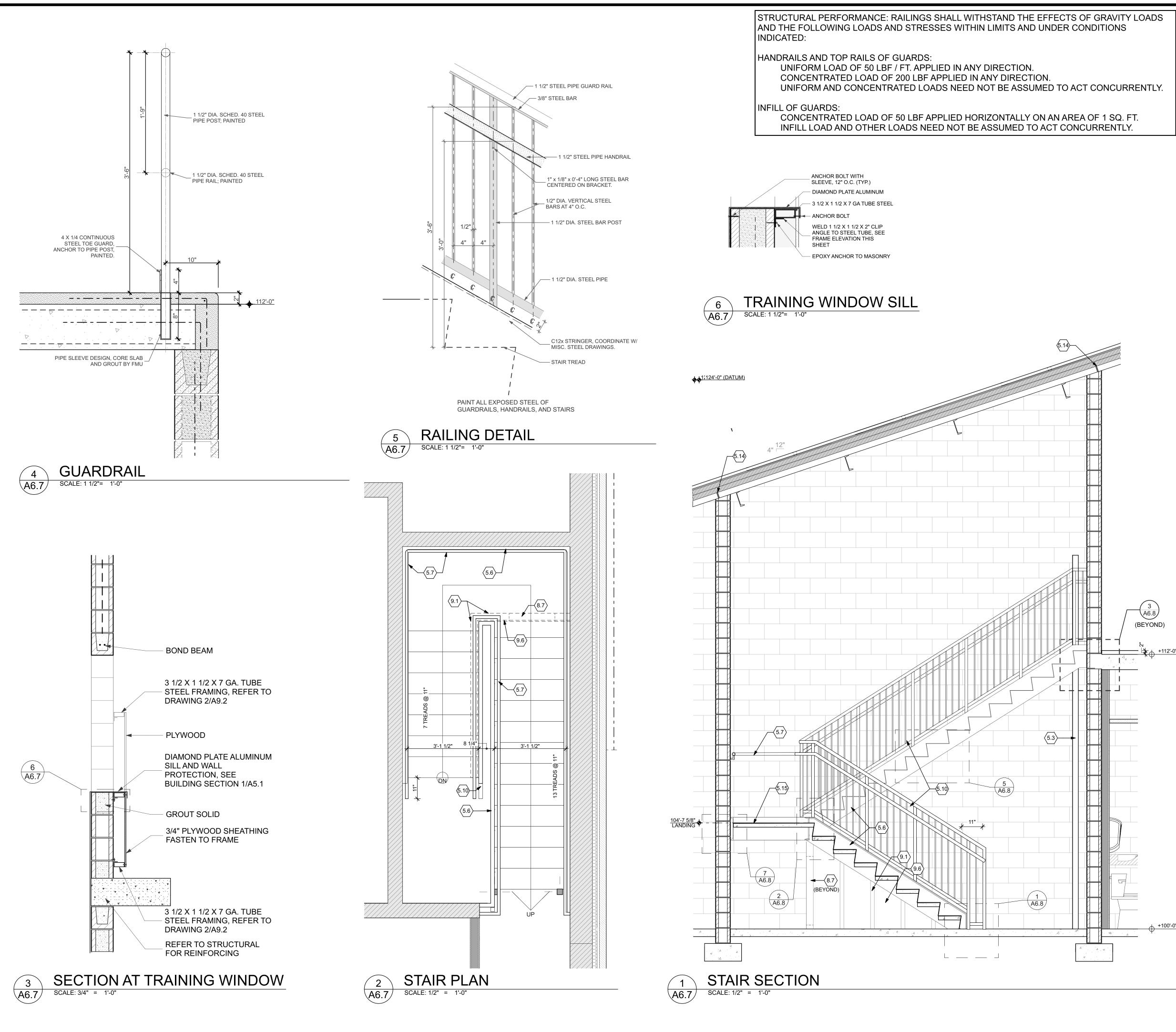
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

r loss caused thereby. REVISIONS

STORM SHELTER REVIEW PLAN APPROVAL / BIDDING

DMM. NUMBER	DATE	
2207.02	11/22/24	
RAWN BY	CHECKED BY	
AF/RS	DF	
		ı

WALL SECTIONS



SECTION NOTES SECTION NOTES ARE STD. FOR ALL SECTIONS. ALL NOTES MAY NOT BE REFERENCED ON THIS SHEET.

1.1 AIR SPACE 1.2 GRADE, REFER TO SITE PLAN

2.1 4" COMPACTED GRAVEL BASE (TYPICAL). COMPACTED GRAVEL BACKFILL

1/4" EXPANSION FILLER.

2" x 24" CONTINUOUS RIGID PERIMETER INSULATION BOARD. CONCRETE FLOOR SLAB, REFER TO STRUCTURAL DRAWINGS. FOUNDATION WALL AND FOOTING; REFER TO STRUCTURAL DETAILS FOR SIZE, BOTTOM OF FOOTING DEPTH AND REINFORCING.

THICKENED SLAB FOUNDATION. REFER TO STRUCTURAL DRAWINGS. VAPOR BARRIER (TYPICAL). REFER TO PROJECT MANUAL. 4" CONCRETE SLAB AND METAL DECK, REFER TO STRUCTURAL DRAWINGS AND

PROJECT MANUAL, PRECAST HOLLOW CORE PLANKS WITH CONCRETE TOPPING, REFER TO

STRUCTURAL DRAWINGS. INSULATED CONCRETE FLOOR SLAB, REFER TO STRUCTURAL DRAWINGS. SEALANT @ PERIMETER OF SLAB/FOUNDATION

REINFORCED CONCETE SLAB, REFER TO SITE PLAN FOR DETAIL. 3.12 EXTERIOR CONCRETE STOOP. REFER TO SITE DRAWINGS

3.13 PRECAST HOLLOW CORE CONCRETE SLAB UNITS. REFER TO STRUCTURAL

3.14 'TURN-DOWN' SLAB, REFER TO STRUCTURAL DRAWINGS. 3.15 CONCRETE FROST STOOP. REFER TO STRUCTURAL DRAWINGS.

3.16 EXTERIOR CONCRETE SLAB, REFER TO SITE DRAWINGS. 3.17 CMU FOUNDATION, REFER TO STRUCTURAL

CONCRETE MASONRY UNIT (CMU)

SOLID CONCRETE MASONRY UNIT (CMU). FACE BRICK,

FACE BRICK SOLIDER COURSE (2 COURSES) W/ HORIZONTAL JOINT REINFORCING WALL TIE AT TOP AND BOTTOM COURSE CAST STONE. REFER TO DETAIL 3/A6.5.

WEEP VENT @ 32" O.C.

CMU BOND BEAM, REFER TO STRUCTURAL DRAWINGS. CONT. 16" DP. BOND BEAM. REFER TO STRUCTURAL DRAWINGS.

HORIZONTAL JOINT REINFORCEMENT WALL TIE @ 16 O.C. VERTICAL (MAX) ANCHOR BOLTS. REFER TO STRUCTURAL DRAWINGS. CMU GROUTED SOLID. REFER TO STRUCTURAL DRAWINGS

CONCRETE BRICK. 4.12 CAVITY MORTAR PROTECTION

4.13 CUT CMU BLOCK AS REQUIRED. 4.14 METAL THRU WALL FLASHING.

4.15 HORIZONTAL JOINT REINFORCEMENT 4.16 FILL CORES OF CMU WITH GROUT PROVIDE REINFORCING DOWELS, 16"O.C.

REFER TO STRUCTURAL FOR REINFORCING

4.17 STAINLESS STEEL DRIP EDGE 4.18 GROUT VOID FULL

4.20 BEARING PLATE. REFER TO STRUCTURAL DRAWINGS.

VERTICAL REINFORCING. REFER TO STRUCTURAL DRAWINGS 4.22 MEMBRANE THRU WALL FLASHING

4.23 FLASHING/ COUNTER FLASHING 4.24 WEEP VENT, ONE PER SIDE OF COLUMN

4.25 12X16 CAST STONE MEMORIAL PLAQUE W/ INSCRIPTION 4.26 CAST STONE MEDALLION. REFER TO DETAIL 3/A6.5

BEAM, REFER TO STRUCTURAL DRAWINGS.

BEAM AND PLATE, REFER TO STRUCTURAL DRAWINGS. COLUMN. REFER TO STRUCTURAL DRAWINGS.

STEEL LINTEL, REFER TO STRUCTURAL DRAWINGS. STEEL ANGLE, REFER TO STRUCTURAL DRAWINGS. STAIR STRINGER / STRUCTURAL SUPPORT. REFER TO SPECIFICATION AND

COORDINATE WITH APPROVED SUBMITTALS. METAL HANDRAIL, REFER TO SPECIFICATIONS AND DETAIL 8/A6.8. STEEL ROOF DECK, 3" REFER TO STRUCTURAL DRAWINGS.

METAL PAN STAIR/LANDING, REFER TO STAIR DETAILS. STEEL LADDER, REFER TO SPECIFICATIONS, COORDINATE LOCATION AND

CLEARANCES WITH ELEVATOR EQUIPMENT. 5.10 METAL GUARD RAIL, REFER TO DETAIL 5/A6.7.

5.12 ROOF TRUSS. REFER TO STRUCTURAL DRAWINGS. 5.13 STEEL MC CHANNEL. REFER TO STRUCTURAL DRAWINGS.

5.14 INSIDE GALVANIZED METAL CLOSURES FOR ROOF DECKING. 5.15 METAL PAN STAIR / LANDING, REFER TO STAIR DETAILS.

FRTW ROOF TRUSSES. REFER TO STRUCTURAL DRAWINGS. FRTW 2X10 FASCIA.

FRTW 2X BLOCKING

FRIW PLATE, REFER TO STRUCTURAL FRTW 2X6 SOFFIT FRAMING. REFER TO STRUCTURAL DRAWINGS.

5/8" FRT PLYWOOD ROOF SHEATHING, REFER TO PROJECT MANUAL FRT EXTERIOR GRADE PLYWOOD SHEATHING. REFER TO PROJECT MANUAL 2X6 LADDER FRAMING (OUTRIGGER) REFER TO STRUCTURAL DRAWINGS. CONTINUOUS FRTW 2X12 BEAM, STAGGER JOINTS ABOVE COLUMN.

WOOD POST. REFER TO STRUCTURAL DRAWINGS 6.11 P.T WOOD NAILER

6.12 FRTW OVER FRAMING @ 16" O.C. (U.N.O) REFER TO STRUCTURAL DRAWINGS. 6.13 FRTW 2X8 ROOF RAFTER. SECURE TO TRUSS

6.14 FRTW 2X8 @ 16" O.C W/ 5/8" PLYWOOD T&B. REFER TO STRUCTURAL DRAWINGS BOARD STOCK AIR BARRIER / WALL INSULATION, 2" @ CFMF WALLS, 2.5" @

MASONRY WALLS. REFER TO PROJECT MANUAL. CLOSED CELL POLYURETHANE INSULATION (SPF) (R 16.25" MIN) METAL PANEL SIDING. REFER TO PROJECT MANUAL EXPANSION JOINT

7" METAL GUTTER. STYLE D. REFER TO ROOF PLAN FOR DOWNSPOUT LOCATIONS

AND DETAILS POLYISO BD. ROOF INSULATION. CONSISTING OF (2) 2.6" THICK LAYERS W/

STAGGERED JOINTS. (R30) CLOSED CELL INSULATION (R38) SPRAYED DIRECTLY TO ROOF DECK. 7.8 SEALANT W/ BACKER ROD

SEALANT, REFER TO PROJECT MANUAL METAL SOFFIT PANEL SYSTEM. REFER TO PROJECT MANUAL. SELF ADHERING ROOF UNDERLAYMENT. REFER TO PROJECT MANUAL

7.12 VAPOR RETARDER. REFER TO PROJECT MANUAL '.13 SIDING ATTACHMENT SUBFRAMING. REFER TO PROJECT MANUAL 7.14 STANDING SEAM METAL ROOF. REFER TO PROJECT MANUAL 7.15 CONTINUOUS METAL SIDING BASE FLASHING. 7.16 STEP FLASHING. SEE DETAILS

7.17 ALUMINUM WRAPPED FASCIA OVER WOOD BLOCKING 7.18 STONE ANCHOR. (2) PER STONE MINIMUM. (3) PER STONE OVER 48" LONG 7.19 ROOF ICE GUARD BY ROOF MANUF. REFER TO PROJECT MANUAL

7.20 FLASHING / COUNTERFLASHING. SEE DETAIL 7.21 METAL DRIP EDGE 7.22 SPRAY APPLIED CELLULOSIC INSULATION

7.23 EIFS SYSTEM ON 1" INSULATION. REFER TO PROJECT MANUAL 7.24 CURVED VINYL CASING BEAD. BASIS OF DESIGN: CLARK DIETRICH CBS150-332 7.25 SELF ADHERED FLEXIBLE MEMBRANE FLASHING OVER ENTIRE WALL SURFACE LAP JOINTS MIN. 2"

DOOR & FRAME, REFER TO DOOR SCHEDULE.

WINDOW, REFER TO FLOOR PLAN FOR TYPE. THRESHOLD BY DOOR MANUFACTURER, REFER TO DOOR DETAILS. ALUMINUM SUBSILL BY WINDOW MANUFACTURER. FINISH TO MATCH WINDOW. OVERHEAD DOOR, REFER TO DOOR SCHEDULE

REFER TO ALUMINUM WINDOW ELEVATIONS AND PROJECT MANUAL ACCESS DOOR; BASIS OF DESIGN: NYSTROM RGB SERIES HINGED 24"X36" ACCESS DOOR.

CFMF @16" O.C.

CFMF BRACING @ 48"O.C. 5/8" ABUSE RESISTANT GYPSUM BOARD, FULL HEIGHT

CONTINUOUS 3 5/8" CFMF WINDOW TRIM AND SILL. REFER TO WINDOW DETAILS.

5/8"GYPSUM BOARD 5/8" GYPSUM BOARD AT BOTTOM OF TRUSS (TYPICAL). SUSPENDED ACOUSTICAL CEILING PANELS AND GRID.

METAL 'J' MOLD 9.10 WALL BASE, SEE FINISH SCHEDULE. 6" CFMF BOX BEAM. REFER TO STRUCTURAL DRAWINGS 9.12 SUSPENDED GYPSUM CEILING

10.2 GRILLE, REFER TO MECHANICAL DRAWINGS.

CASEWORK, REFER TO EQUIPMENT DRAWINGS WINDOW SHADES, REFER TO PROJECT MANUAL

HVAC EQUIPMENT AND DUCTS, SEE HVAC DRAWINGS MECHANICAL LOUVER. REFER TO MECHANICAL DRAWINGS.

26.1 LIGHT FIXTURE, SEE ELECTIRCAL DRAWINGS.

DANIEL FREYTAG

ENGINEER

AR

ATION

herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm r loss caused thereby.

Daniel J. Freytag, License #8533

Expiration Date: 12/31/2025

REVISIONS STORM SHELTER REVIEW

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY

STAIR PLAN AND SECTION

1/8" RADIUS -

2" CONC.

-- 1-1/4" x 1-1/4" x 1/4" L's

WELD TO STRINGERS

STAIR FABRICATOR

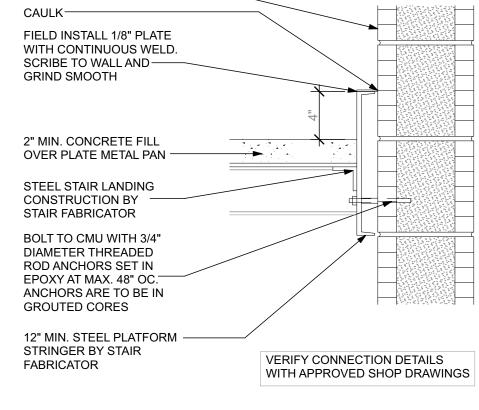
& METAL PANS.

12" MIN. STEEL STRINGER BY

12GA. METAL PAN

TREADS & RISERS.

FILL—

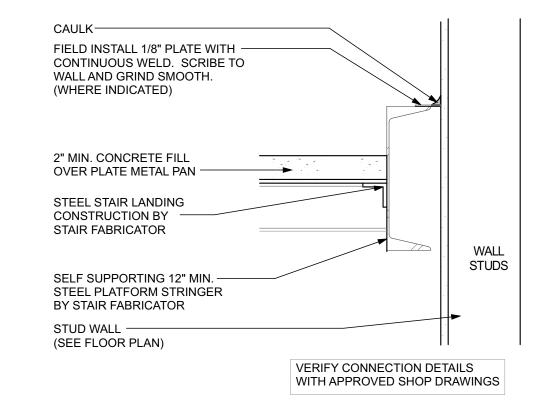


MASONRY

PAINT EXPOSED -

METAL ON STAIRS

(SEE FLOOR PLAN)





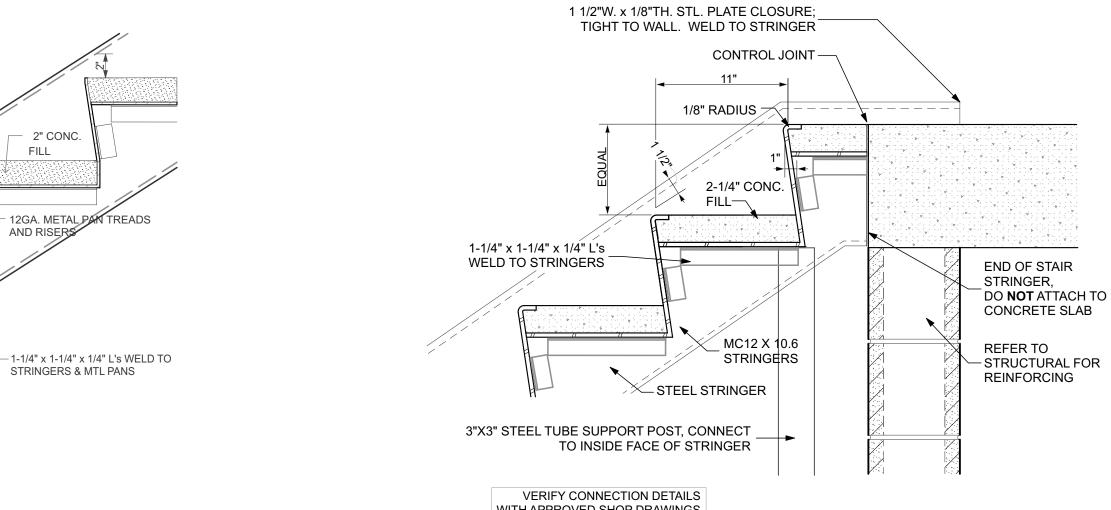
CONNECTION AT MASONRY WALL

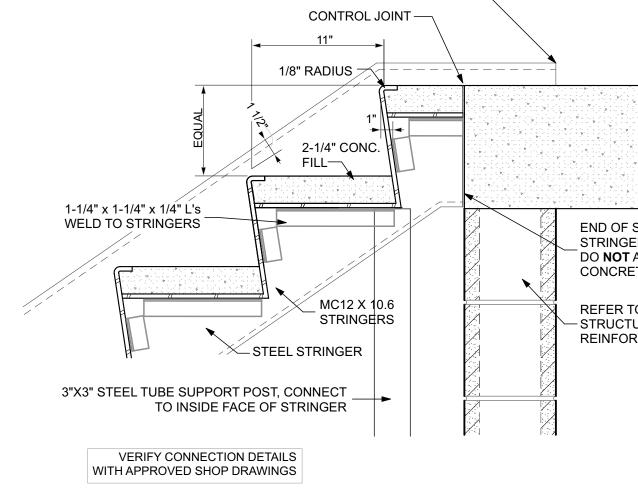
- 2" CONC.

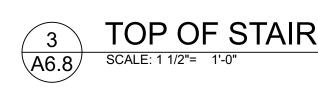
2" CONC.

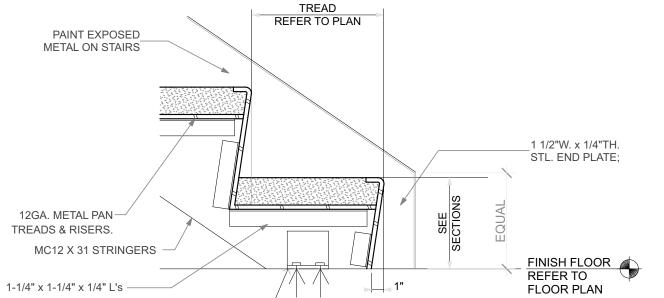
FILL

AND RISERS

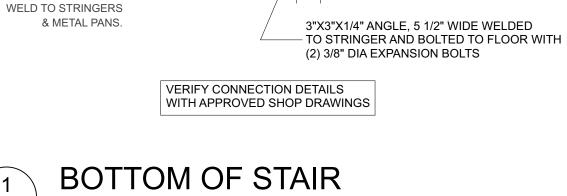


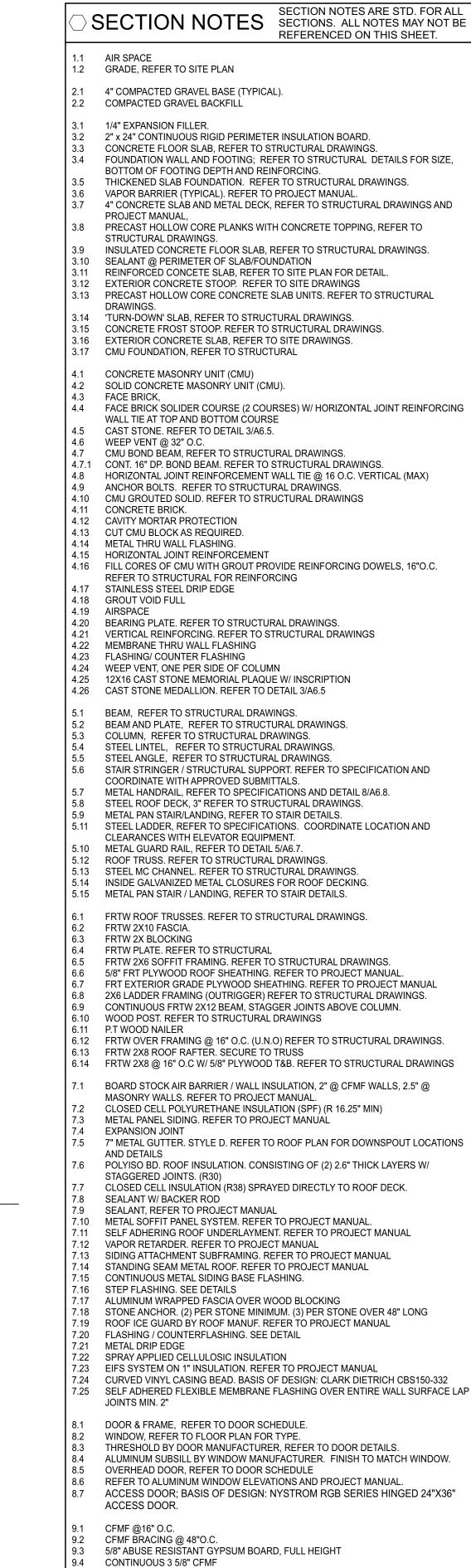












WINDOW TRIM AND SILL. REFER TO WINDOW DETAILS.

5/8" GYPSUM BOARD AT BOTTOM OF TRUSS (TYPICAL).

SUSPENDED ACOUSTICAL CEILING PANELS AND GRID.

6" CFMF BOX BEAM. REFER TO STRUCTURAL DRAWINGS

5/8"GYPSUM BOARD

9.10 WALL BASE, SEE FINISH SCHEDULE.

10.2 GRILLE, REFER TO MECHANICAL DRAWINGS.

26.1 LIGHT FIXTURE, SEE ELECTIRCAL DRAWINGS.

CASEWORK, REFER TO EQUIPMENT DRAWINGS

WINDOW SHADES, REFER TO PROJECT MANUAL

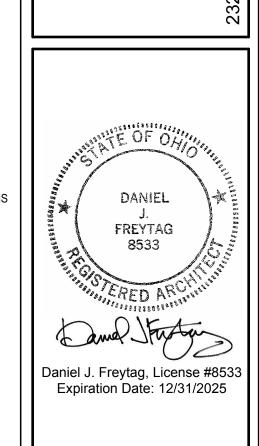
HVAC EQUIPMENT AND DUCTS, SEE HVAC DRAWINGS MECHANICAL LOUVER. REFER TO MECHANICAL DRAWINGS.

9.12 SUSPENDED GYPSUM CEILING

METAL 'J' MOLD

10.1 LOUVER

REFERENCED ON THIS SHEET.



ENGINEER

ARCHITE

ATION

TRUCTION

hese designs and all items depicted herein, whether in writing or graphically, as nstruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

r loss caused thereby. REVISIONS

STORM SHELTER REVIEW PLAN APPROVAL / BIDDING

COMM. NUMBER	DATE
2207.02	11/22/24
DRAWN BY	CHECKED BY
AF/RS	DF

STAIR AND MEZZANINE DETAIL

A6.8

TYP. STAIR DETAIL

1 1/2"W. x 1/8"TH. STL. PLATE CLOSURE;

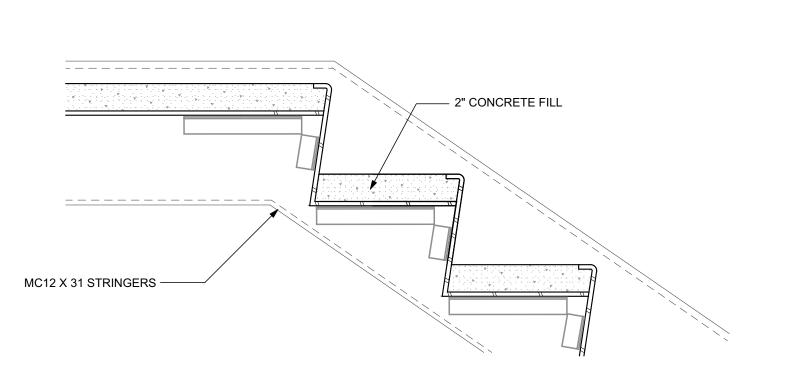
TIGHT TO WALL. WELD TO STRINGER

1/4"R. SANITARY COVE —

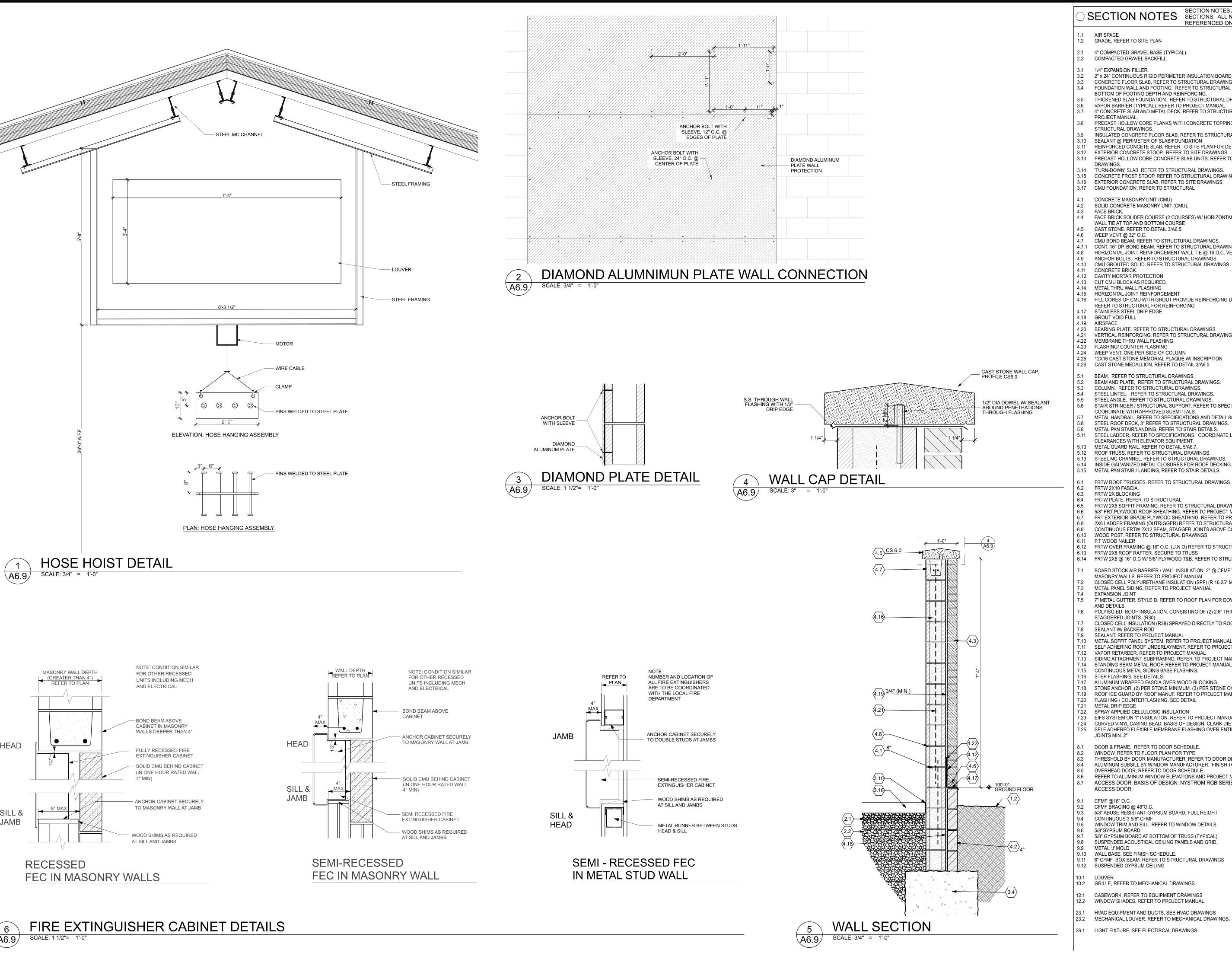
LANDING DETAIL

VERIFY CONNECTION DETAILS WITH

APPROVED SHOP DRAWINGS



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



SECTION NOTES SECTION NOTES ARE STD. FOR ALL SECTIONS. ALL NOTES MAY NOT BE REFERENCED ON THIS SHEET.

1.2 GRADE, REFER TO SITE PLAN

4" COMPACTED GRAVEL BASE (TYPICAL). COMPACTED GRAVEL BACKFILL

1/4" EXPANSION FILLER.

2" x 24" CONTINUOUS RIGID PERIMETER INSULATION BOARD. CONCRETE FLOOR SLAB, REFER TO STRUCTURAL DRAWINGS. FOUNDATION WALL AND FOOTING; REFER TO STRUCTURAL DETAILS FOR SIZE,

BOTTOM OF FOOTING DEPTH AND REINFORCING. THICKENED SLAB FOUNDATION. REFER TO STRUCTURAL DRAWINGS. VAPOR BARRIER (TYPICAL). REFER TO PROJECT MANUAL.

4" CONCRETE SLAB AND METAL DECK, REFER TO STRUCTURAL DRAWINGS AND PRECAST HOLLOW CORE PLANKS WITH CONCRETE TOPPING, REFER TO

STRUCTURAL DRAWINGS. INSULATED CONCRETE FLOOR SLAB, REFER TO STRUCTURAL DRAWINGS. SEALANT @ PERIMETER OF SLAB/FOUNDATION

REINFORCED CONCETE SLAB, REFER TO SITE PLAN FOR DETAIL. 3.12 EXTERIOR CONCRETE STOOP. REFER TO SITE DRAWINGS

3.13 PRECAST HOLLOW CORE CONCRETE SLAB UNITS. REFER TO STRUCTURAL

3.14 'TURN-DOWN' SLAB, REFER TO STRUCTURAL DRAWINGS. 3.15 CONCRETE FROST STOOP. REFER TO STRUCTURAL DRAWINGS. 3.16 EXTERIOR CONCRETE SLAB, REFER TO SITE DRAWINGS.

CONCRETE MASONRY UNIT (CMU) SOLID CONCRETE MASONRY UNIT (CMU).

FACE BRICK SOLIDER COURSE (2 COURSES) W/ HORIZONTAL JOINT REINFORCING WALL TIE AT TOP AND BOTTOM COURSE CAST STONE. REFER TO DETAIL 3/A6.5.

WEEP VENT @ 32" O.C.

CMU BOND BEAM, REFER TO STRUCTURAL DRAWINGS. CONT. 16" DP. BOND BEAM. REFER TO STRUCTURAL DRAWINGS. HORIZONTAL JOINT REINFORCEMENT WALL TIE @ 16 O.C. VERTICAL (MAX)

ANCHOR BOLTS. REFER TO STRUCTURAL DRAWINGS. CMU GROUTED SOLID. REFER TO STRUCTURAL DRAWINGS

4.12 CAVITY MORTAR PROTECTION 4.13 CUT CMU BLOCK AS REQUIRED.

4.14 METAL THRU WALL FLASHING. 4.15 HORIZONTAL JOINT REINFORCEMENT 4.16 FILL CORES OF CMU WITH GROUT PROVIDE REINFORCING DOWELS, 16"O.C.

REFER TO STRUCTURAL FOR REINFORCING 4.17 STAINLESS STEEL DRIP EDGE

4.20 BEARING PLATE. REFER TO STRUCTURAL DRAWINGS. 4.21 VERTICAL REINFORCING. REFER TO STRUCTURAL DRAWINGS

4.22 MEMBRANE THRU WALL FLASHING 4.23 FLASHING/ COUNTER FLASHING

4.25 12X16 CAST STONE MEMORIAL PLAQUE W/ INSCRIPTION 4.26 CAST STONE MEDALLION. REFER TO DETAIL 3/A6.5

BEAM, REFER TO STRUCTURAL DRAWINGS. BEAM AND PLATE, REFER TO STRUCTURAL DRAWINGS.

COLUMN, REFER TO STRUCTURAL DRAWINGS. STEEL LINTEL, REFER TO STRUCTURAL DRAWINGS. STEEL ANGLE, REFER TO STRUCTURAL DRAWINGS.

STAIR STRINGER / STRUCTURAL SUPPORT. REFER TO SPECIFICATION AND COORDINATE WITH APPROVED SUBMITTALS. METAL HANDRAIL, REFER TO SPECIFICATIONS AND DETAIL 8/A6.8. STEEL ROOF DECK, 3" REFER TO STRUCTURAL DRAWINGS.

METAL PAN STAIR/LANDING, REFER TO STAIR DETAILS. STEEL LADDER, REFER TO SPECIFICATIONS. COORDINATE LOCATION AND CLEARANCES WITH ELEVATOR EQUIPMENT.

ROOF TRUSS. REFER TO STRUCTURAL DRAWINGS. STEEL MC CHANNEL. REFER TO STRUCTURAL DRAWINGS.

INSIDE GALVANIZED METAL CLOSURES FOR ROOF DECKING. METAL PAN STAIR / LANDING, REFER TO STAIR DETAILS.

FRTW ROOF TRUSSES. REFER TO STRUCTURAL DRAWINGS. FRTW 2X10 FASCIA. FRTW 2X BLOCKING FRIW PLATE, REFER TO STRUCTURAL

FRTW 2X6 SOFFIT FRAMING. REFER TO STRUCTURAL DRAWINGS. 5/8" FRT PLYWOOD ROOF SHEATHING. REFER TO PROJECT MANUAL FRT EXTERIOR GRADE PLYWOOD SHEATHING. REFER TO PROJECT MANUAL 2X6 LADDER FRAMING (OUTRIGGER) REFER TO STRUCTURAL DRAWINGS. CONTINUOUS FRTW 2X12 BEAM, STAGGER JOINTS ABOVE COLUMN. WOOD POST. REFER TO STRUCTURAL DRAWINGS

6.12 FRTW OVER FRAMING @ 16" O.C. (U.N.O) REFER TO STRUCTURAL DRAWINGS.

6.13 FRTW 2X8 ROOF RAFTER. SECURE TO TRUSS 6.14 FRTW 2X8 @ 16" O.C W/ 5/8" PLYWOOD T&B. REFER TO STRUCTURAL DRAWINGS BOARD STOCK AIR BARRIER / WALL INSULATION, 2" @ CFMF WALLS, 2.5" @

CLOSED CELL POLYURETHANE INSULATION (SPF) (R 16.25" MIN) METAL PANEL SIDING. REFER TO PROJECT MANUAL EXPANSION JOINT 7" METAL GUTTER. STYLE D. REFER TO ROOF PLAN FOR DOWNSPOUT LOCATIONS

POLYISO BD. ROOF INSULATION. CONSISTING OF (2) 2.6" THICK LAYERS W/

STAGGERED JOINTS. (R30) CLOSED CELL INSULATION (R38) SPRAYED DIRECTLY TO ROOF DECK. SEALANT W/ BACKER ROD

SEALANT, REFER TO PROJECT MANUAL

METAL SOFFIT PANEL SYSTEM. REFER TO PROJECT MANUAL. SELF ADHERING ROOF UNDERLAYMENT. REFER TO PROJECT MANUAL 7.12 VAPOR RETARDER. REFER TO PROJECT MANUAL 7.13 SIDING ATTACHMENT SUBFRAMING. REFER TO PROJECT MANUAL 7.14 STANDING SEAM METAL ROOF. REFER TO PROJECT MANUAL

7.16 STEP FLASHING. SEE DETAILS 7.17 ALUMINUM WRAPPED FASCIA OVER WOOD BLOCKING 7.18 STONE ANCHOR. (2) PER STONE MINIMUM. (3) PER STONE OVER 48" LONG

7.19 ROOF ICE GUARD BY ROOF MANUF. REFER TO PROJECT MANUAL 7.20 FLASHING / COUNTERFLASHING. SEE DETAIL 7.21 METAL DRIP EDGE

7.22 SPRAY APPLIED CELLULOSIC INSULATION 7.23 EIFS SYSTEM ON 1" INSULATION. REFER TO PROJECT MANUAL 7.24 CURVED VINYL CASING BEAD. BASIS OF DESIGN: CLARK DIETRICH CBS150-332 7.25 SELF ADHERED FLEXIBLE MEMBRANE FLASHING OVER ENTIRE WALL SURFACE LAP

DOOR & FRAME, REFER TO DOOR SCHEDULE. WINDOW, REFER TO FLOOR PLAN FOR TYPE.

THRESHOLD BY DOOR MANUFACTURER, REFER TO DOOR DETAILS. ALUMINUM SUBSILL BY WINDOW MANUFACTURER. FINISH TO MATCH WINDOW. OVERHEAD DOOR, REFER TO DOOR SCHEDULE

REFER TO ALUMINUM WINDOW ELEVATIONS AND PROJECT MANUAL. ACCESS DOOR; BASIS OF DESIGN: NYSTROM RGB SERIES HINGED 24"X36" ACCESS DOOR.

CFMF BRACING @ 48"O.C.

5/8" ABUSE RESISTANT GYPSUM BOARD, FULL HEIGHT CONTINUOUS 3 5/8" CFMF WINDOW TRIM AND SILL. REFER TO WINDOW DETAILS.

SUSPENDED ACOUSTICAL CEILING PANELS AND GRID. 9.10 WALL BASE, SEE FINISH SCHEDULE.

9.11 6" CFMF BOX BEAM. REFER TO STRUCTURAL DRAWINGS 9.12 SUSPENDED GYPSUM CEILING

10.2 GRILLE, REFER TO MECHANICAL DRAWINGS.

CASEWORK, REFER TO EQUIPMENT DRAWINGS WINDOW SHADES, REFER TO PROJECT MANUAL HVAC EQUIPMENT AND DUCTS, SEE HVAC DRAWINGS

LIGHT FIXTURE, SEE ELECTIRCAL DRAWINGS.

DANIEL FREYTAG Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

ENGINEERS

ARCHITE

CONSTRUCTION O

TATION

herein, whether in writing or graphically, as nstruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm r loss caused thereby.

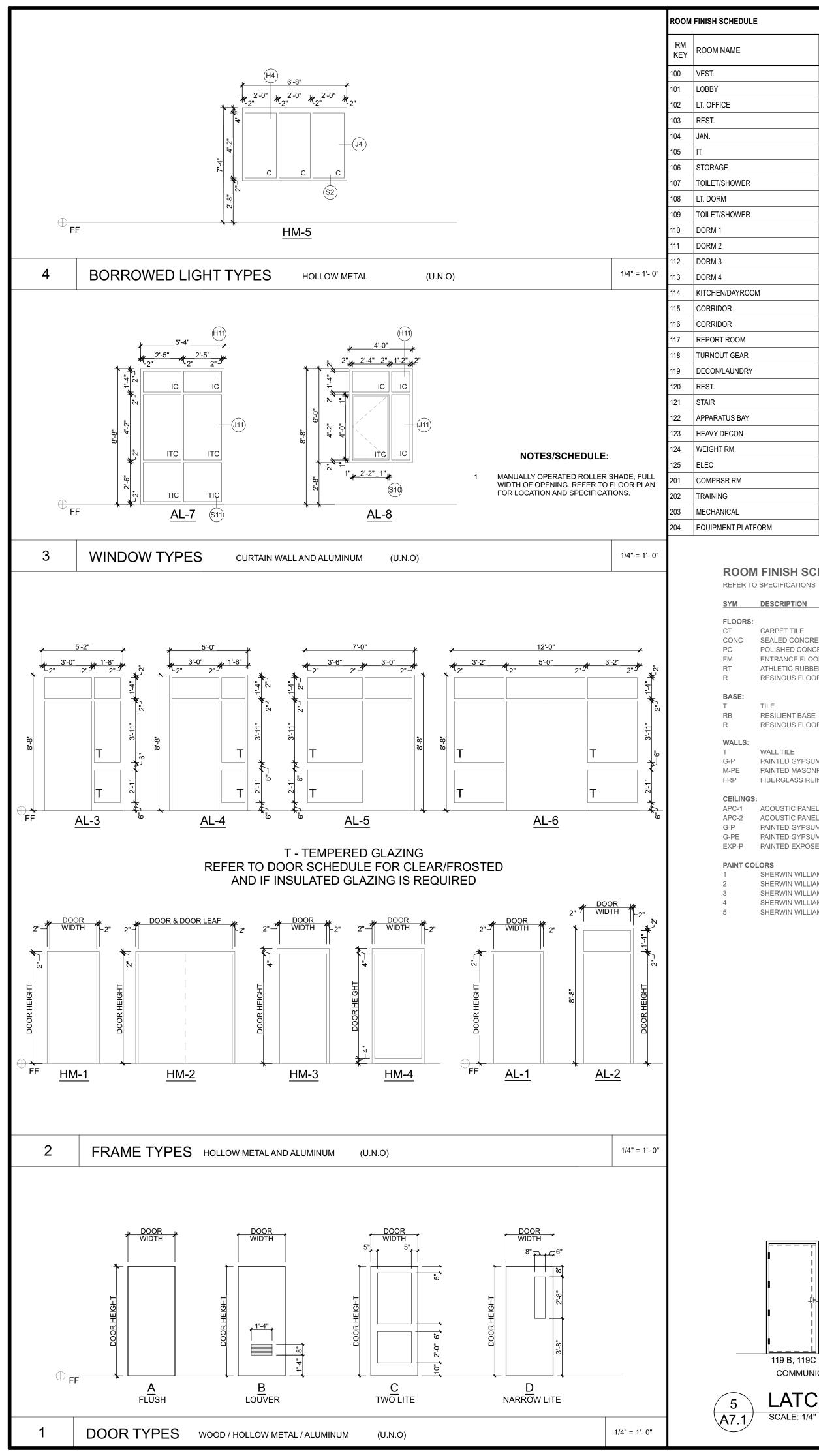
REVISIONS STORM SHELTER REVIEW

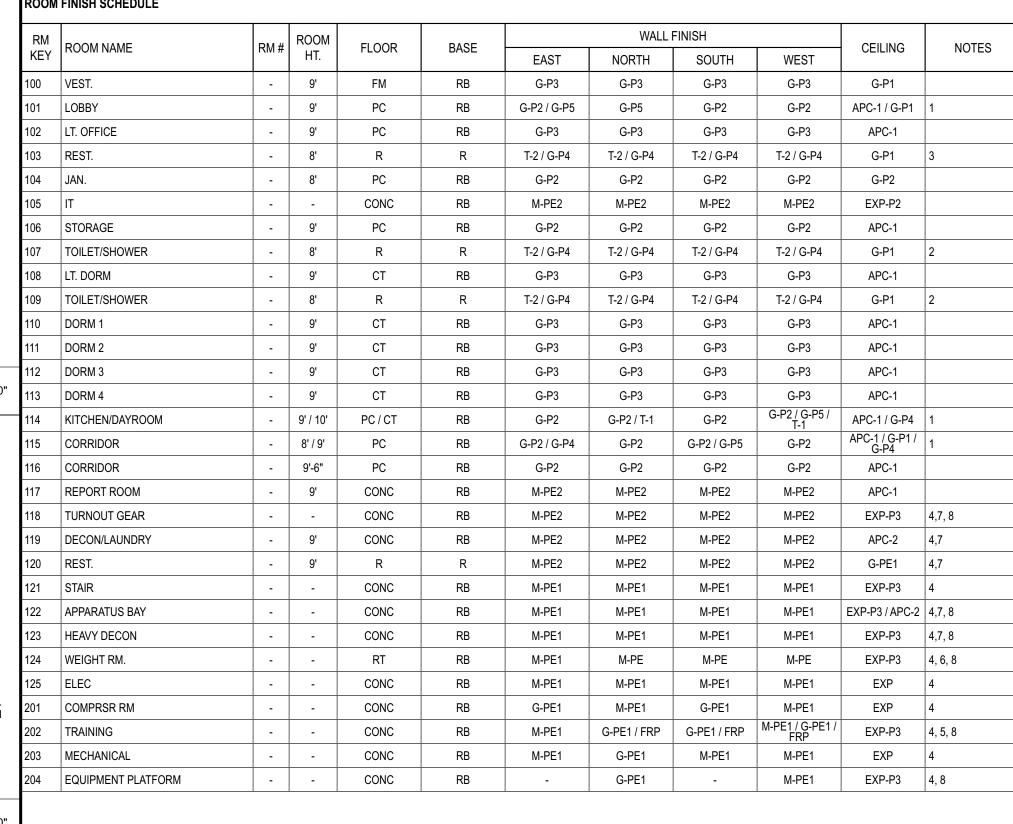
PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/22/24 CHECKED BY DRAWN BY

A6.9

DETAILS





ROOM FINISH SCHEDULE ABBREVIATIONS ROOM FINISH SCHEDULE NOTES:

SYM	DESCRIPTION	SPEC.
FLOORS	: :	
CT	CARPET TILE	096813
CONC	SEALED CONCRETE	033000
PC	POLISHED CONCRETE	033000
FM	ENTRANCE FLOOR MATS	124813
RT	ATHLETIC RUBBER TILE	096519
R	RESINOUS FLOORING	096723
BASE:		
Т	TILE	093000

096513 RESINOUS FLOORING 096723 WALL TILE 093000 PAINTED MASONRY, EPOXY 099123 FIBERGLASS REINF. PANELS 097720

ACOUSTIC PANEL CEILING 095113 ACOUSTIC PANEL CEILING 095113 PAINTED GYPSUM BOARD, ENAMEL 099123 PAINTED GYPSUM BOARD, EPOXY 099123 EXP-P PAINTED EXPOSED STRUCTURE 099123

SHERWIN WILLIAMS EXTRA WHITE SW 7006 SHERWIN WILLIAMS REFLECTION SW 7661 SHERWIN WILLIAMS STEELY GRAY SW 7664 SHERWIN WILLIAMS SLATE TILE SW 7624 SHERWIN WILLIAMS RED BAY SW 6321

SYM DESCRIPTION 1. PAINT NOTED WALL AN ACCENT PAINT COLOR. REFER TO

1/A8.1 FOR ACCENT WALLS LOCATIONS. 2. WALL TILE TO BE INSTALLED TO 5'-0" A.F.F. (TYPICAL FOR ALL WALLS), PAINT REMAINING WALL ABOVE TO CEILING. WALL TILE TO BE INSTALLED FULL WALL HEIGHT BEHIND LAVATORY. 3. WALL TILE TO BE INSTALLED TO 5'-0" A.F.F. (TYPICAL FOR ALL WALLS), PAINT REMAINING WALL ABOVE TO CEILING. WALL EXPOSED STRUCTURE TO BE PAINTED WHITE.

5. FRP OVER GYP. BD. HEIGHT TO EXTEND TO THE TOP OF DOOR 6. MIRRORS INSTALLED TO 7'-4" A.F.F. ON EAST AND WEST

WALLS, REFER TO 1/A8.1 FOR LOCATION AND LENGTH. ADD ALTERNATE: RESINOUS FLOOR FINISH AND BASE 8. ALL EXPOSED DUCTWORK TO BE PAINTED PAINT COLOR 5.

GENERAL NOTES:

SYM DESCRIPTION

WHERE DISSIMILAR FLOOR MATERIALS MEET, THEY SHOULD DO SO UNDER THE CENTERLINE OF THE DOOR, U.N.O. B ALL INTERIOR MASONRY UNITS ARE FINISH MATERIALS AND

MUD, DIRT AND CONCRETE CORE DRILLING SLURRY. MASK OR SCREEN AS NECESSARY TO MAINTAIN CLEANLINESS. C MATERIALS ARE CONSIDERED EXPOSED IF CEILING DOES NOT FULLY EXTEND OR ATTACH TO WALLS.

SHALL BE KEPT CLEAN DURING CONSTRUCTION FROM DUST,

1'-10" 6'-8" WD HM HM-4 6 1/8" H1 S15 1'-10" 6'-8" WD HM HM-4 6 1/8" H1 | J1 S15 6'-8" WD HM 1'-10" Α HM-4 6 1/8" H1 J1 S15 1'-10" 6'-8" WD HM HM-4 6 1/8" H1 J1 S15 HM 1'-10" | 6'-8" | WD | Α HM-4 6 1/8" H1 J1 S15 1'-10" 6'-8" WD HM HM-4 6 1/8" H1 J1 S15 HM 1'-10" 6'-8" WD HM-4 6 1/8" H1 S15 1'-10" 6'-8" WD HM HM-4 6 1/8" H1 | J1 S15 6'-8" WD HM 1'-10" Α HM-4 6 1/8" H1 J1 S15 1'-10" 6'-8" WD HM HM-4 6 1/8" H1 J1 1'-10" | 6'-8" | WD | Α HM HM-4 6 1/8" H1 J1 S15 3'-0" 6'-8" TC AL-3 TC/C 6" H6 7'-0" HM TC HM HM-3 5 3/4" H7 118 A 3'-0" 7'-0" HM TC HM HM-3 5 3/4" H7 J7 WD HM 3'-0" 7'-0" HM-3 8 3/4" H5A J5A S5A 23A 5, 6, 8 3'-0" 7'-0" HM HM HM-3 8 3/4" H5A J5A S5A | 90 MIN | 15 1, 4, 5, 6, 9 119 C HM 3'-0" | 7'-0" | HM | Α HM-3 8 3/4" H7A J7A S5A | 90 MIN | 15 1, 4, 5, 6, 9 6, 7, 8 3'-0" 7'-0" HM HM HM-3 8 3/4" H7A J7A S5A 16A 7'-0" HM HM HM-3 5 3/4" H7 3'-0" 7'-0" HM TC HM HM-3 5 3/4" H5 3'-0" 7'-0" AL ITC AL ITC/IC H13 J13/J14 S13/S14 OHD 14'-0" 16'-0" 122 D OHD 14'-0" 16'-0" H9 OHD 14'-0" 16'-0" H9 J9 7'-0" AL H14 J14 122 G OHD 14'-0" 16'-0" H9 J9 OHD 14'-0" 16'-0" J9 OHD 14'-0" 16'-0" H9 122 J OHD 14'-0" 16'-0" H9 J9 123 A 5 3/4" 7'-0" HM TC HM H7 124 A 7'-0" HM TC HM HM-3 5 3/4" H7 124 B 3'-0" 7'-0" H14 J14 124 C OHD 14'-0" 16'-0" 125 A 3'-0" 7'-0" H13 J13/J14 202 A HM HM 4 7/8" PR 6'-0" 7'-0" HM-2 H3 2'-8" 7'-0" HM HM HM-3 5 3/4" H7 6'-0" | 7'-0" | HM | 4 7/8" PR HM HM-2 H3 J3 GLAZING DOOR SCHEDULE NOTES: Daniel J. Freytag, License #8533 PROVIDE SMOKE SEAL IN DOOR OPENINGS OF ALL CONSTRUCTION Expiration Date: 12/31/2025

ABBREVIATIONS

PR PAIR OF DOORS OHD OVERHEAD DOOR

DOOR AND FRAME SCHEDULE

5'-0"

3'-0"

3'-0"

1'-10"

1'-10"

1'-10"

7'-0"

7'-0"

3'-0" | 7'-0" | WD |

7'-0"

7'-0"

7'-0"

3'-0" 7'-0" WD

7'-0"

7'-0"

6'-8"

1'-10" | 6'-8" | WD |

6'-8"

6'-8" WD

3'-0" | 7'-0" | WD | A

WD

HM

WD

Α

Α

Α

Α

3'-0" 7'-0"

3'-0" 7'-0"

3'-0" 7'-0"

3'-0" 7'-0"

3'-0" 7'-0"

3'-0" 7'-0"

3'-0" 7'-0"

3'-0" 7'-0"

RM TAG

100 B

103 A

104 A

106 A

107 A

108 A

108 B

109 A

MATERIALS

AL ALUMINUM HM HOLLOW METAL WD WOOD

FR FIRE-PROTECTION-RATED GLAZING OF 20 MINUTES ITC INSULATED TEMPERED CLEAR TEMPERED CLEAR INSULATED TEMPERED FROSTED

INSULATED CLEAR CLEAR INSULATED FROSTED

RESISTING THE PASSAGE OF SMOKE AND FIRE RATED WALLS PROVIDE SOUND SEALS AT HEAD / JAMB.

JAMB

H12 J12 S12/S14

J8

J5

H8

H2

H1 |

H1

H5

H1 |

H1

H1

H1 |

H1

H1 |

H1

H1

H1

H1

H1

H1 J1

H1 J1

H1 J1

H1 J1

J1

H10 J10/J11 S12/S14

H11 J10/J11 S12/S14

J1

J1

J1

J1

S15

S15

S15

S15

EL GLZ DEPTH

ITC/IC

TC/C

TC/C

6 1/8"

6 1/8"

5 3/4"

6 1/8"

6 1/8"

6 1/8"

6 1/8"

6 1/8"

6 1/8"

6 1/8"

6 1/8"

6 1/8"

6"

6 1/8"

6 1/8"

6"

6 1/8"

6 1/8"

6 1/8"

6 1/8"

AL-5

HM-1

HM-1

HM-3

HM-1

HM-1

HM-1

HM-1

HM-1

HM-1

HM-1

HM-1

HM-1

AL-3

HM-1

HM-1

HM-4

HM-4

HM-4

HM-4

ITC/IC

HT | MATL | TYPE | GLZ | MATL |

ITC AL

TC AL

HM

ITC AL

FR HM

ITF AL

TC

TC

SILL

20 MIN 7

20 MIN 20

20 MIN | 18

Remarks

ER

ш

Ш

AR

NO O

~

PROVIDE MANUAL OPERATED WINDOW ROLLER SHADES - FULL

WIDTH OF OPENING. REFER TO SPECIFICATIONS. 4. STORM SHELTER DOOR, DOOR AND FRAME SYSTEM TO MEET ICC

500-2014 REQUIREMENTS FOR TORNADO SHELTER. SINGLE COMMUNICATING DOOR FRAME. 6. DOOR TO BE POST-INSTALLED. PRE-CON MEETING REQUIRED BEFORE CONSTRUCTION OF THE ROUGH-OPENING.

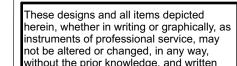
8. TO AVOID INTERFERENCE OF LATCHES IN COMMUNICATING DOOR FRAME, LOCATE CENTERLINE OF LATCH 2" BELOW CENTERLINE OF LATCH ON STORM DOOR.

THUMB PRINT ACCESS CONTROL, BY OTHERS. PROVIDE ROUGH IN.

9. MOUNT DOOR HOLDER 80" A.F.F. MOUNT STRIKE TO WALL AND BODY TO DOOR.

GENERAL NOTE:

REFER TO SPECIFICATIONS FOR DOOR HARDWARE



DANIEL

FREYTAG

8533

vithout the prior knowledge, and written onsent of the Architect. Any change nade without the Architect's written approval will void all such documents nd instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

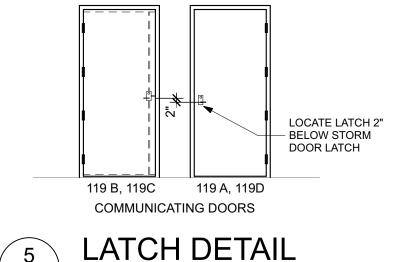
REVISIONS

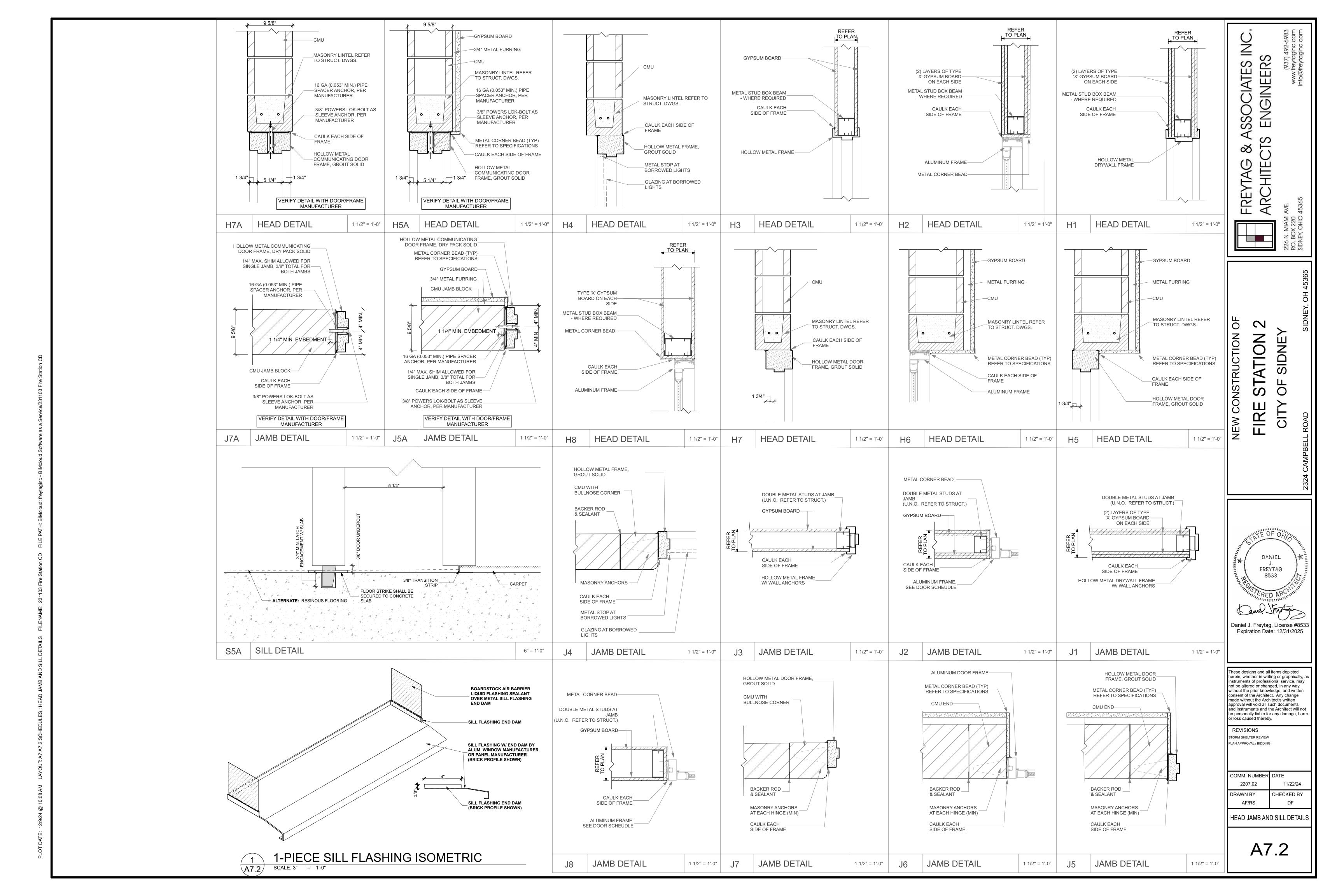
TORM SHELTER REVIEW PLAN APPROVAL / BIDDING

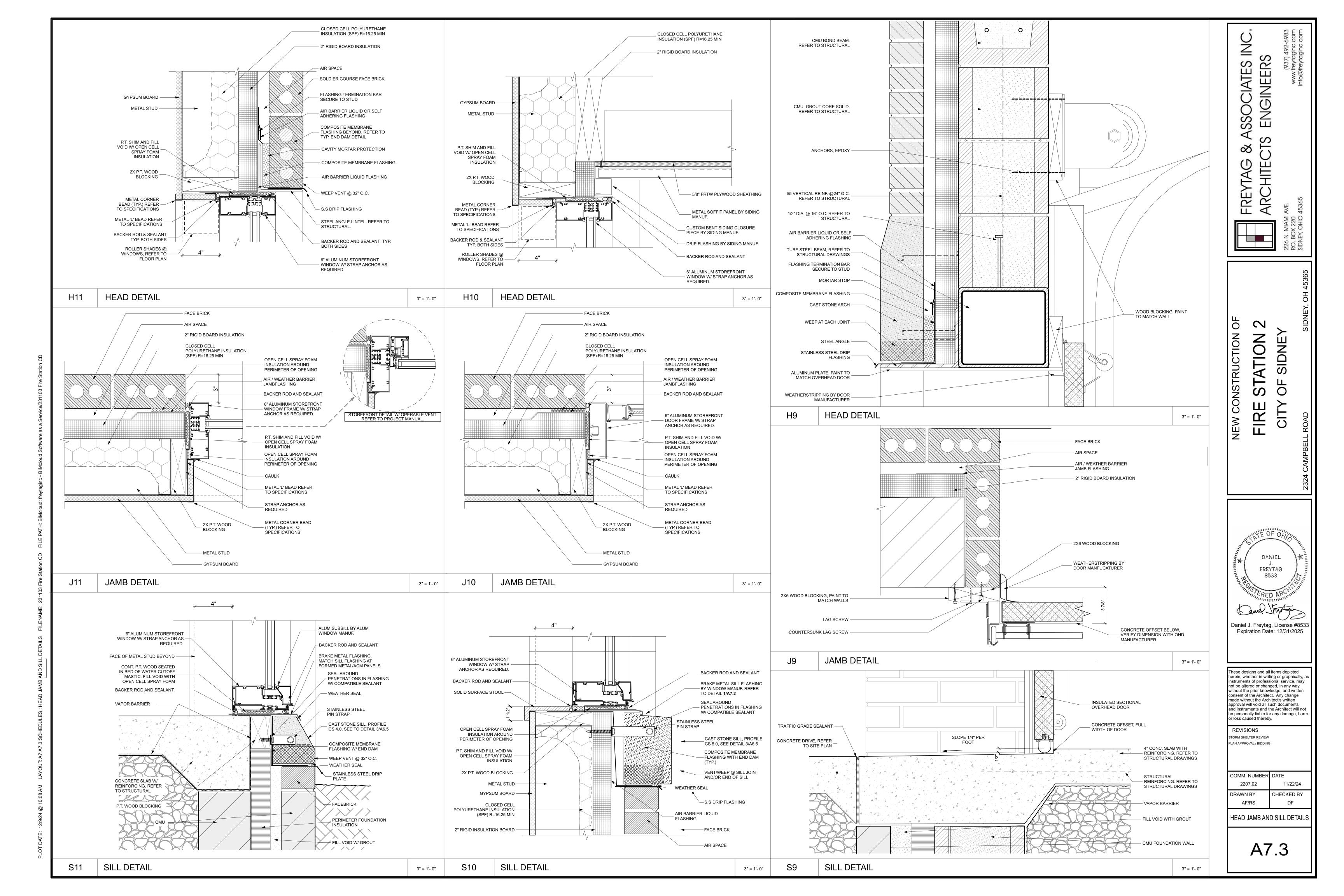
COMM. NUMBER	DATE
2207.02	11/22/24
DRAWN BY	CHECKED BY
AF/RS	DF

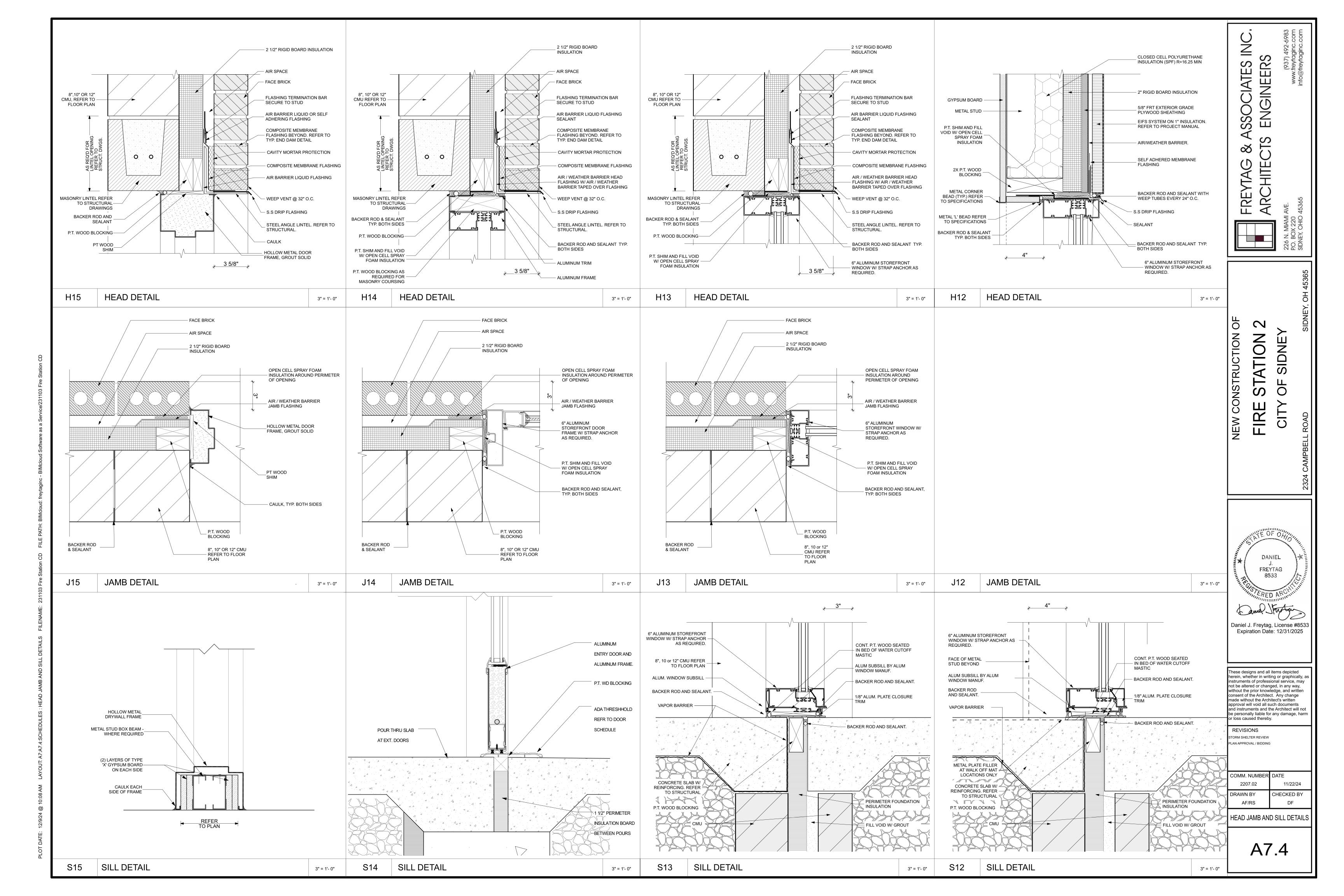
ROOM AND DOOR SCHEDULE

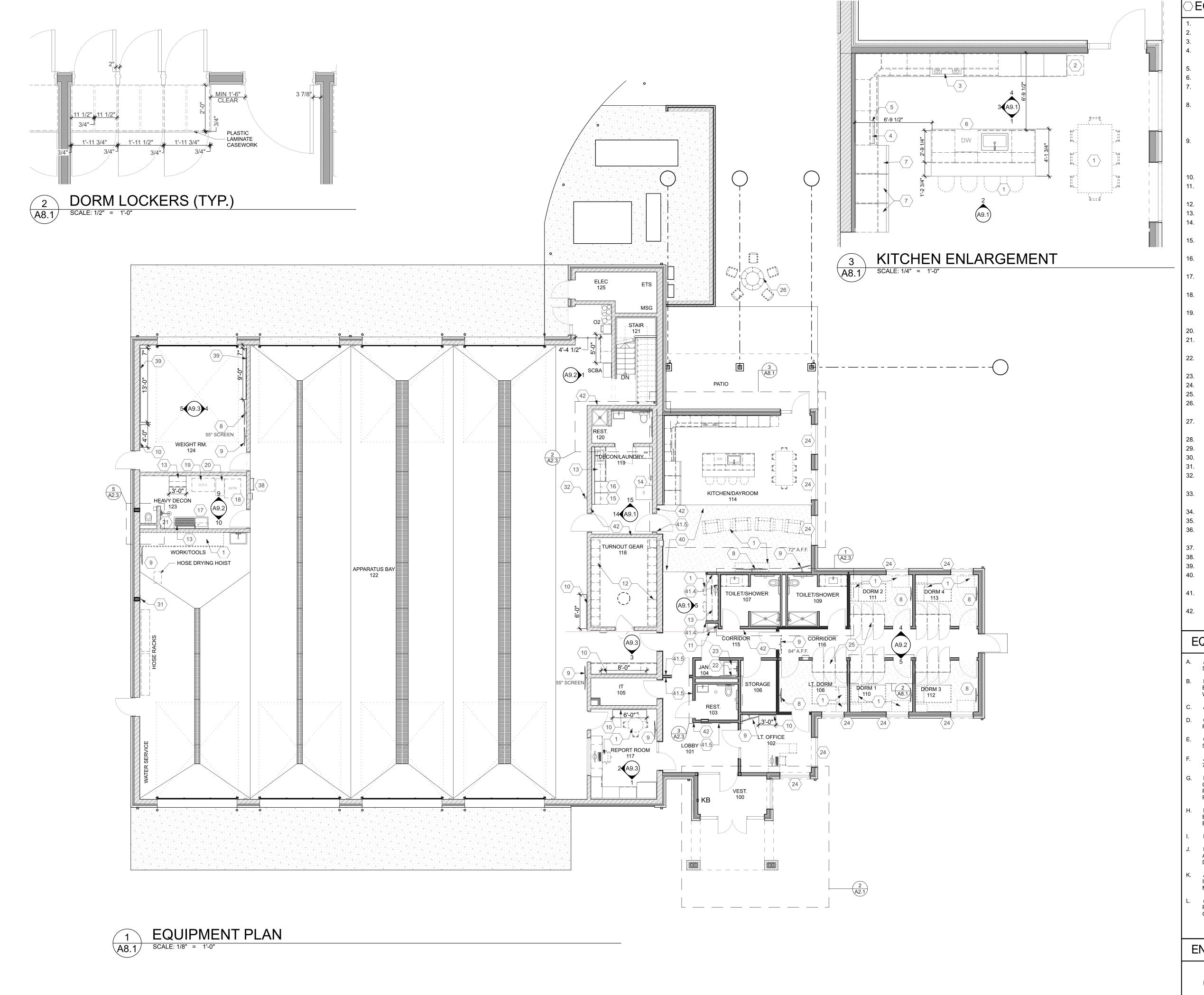
A7.1











EQUIPMENT PLAN NOTES BE REFERENCED ON THIS SHEET.

LOOSE FURNITURE, N.I.C.

TRASH RECEPTACLE, N.I.C. RANGE/OVEN W/ HOOD, REFER TO MEP DRAWINGS.

COFFE MAKER, BY OWNER, PROVIDE NECESSARY CONNECTIONS

FOR PERMANENT WATER CONNECTION. MICROWAVE, BY OWNER, PROVIDE NECESSARY CONNECTIONS.

DISHWASHER, BY OWNER, PROVIDE NECESSARY CONNECTIONS.

REFRIGERATOR, BY OWNER, PROVIDE NECESSARY

WALL-MOUNTED TV, BY OWNER, 60" A.F.F. COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH OWNER/ARCHITECT.

43" STATION MONITOR U.N.O., BY OWNER, COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH OWNER/ARCHITECT. 60" A.F.F. U.N.O.

WHITE BOARD, REFER TO MOUNTING HEIGHTS ON SHEET A2.3. DRINKING FOUNTAIN, REFER TO MOUNTING HEIGHTS ON SHEET

A2.3. AND PLUMBING DRAWINGS. TURN OUT GEAR LOCKERS, N.I.C.

SHELF, REFER TO SHEET A9.1 FOR MOUNTING HEIGHTS. ICE MAKER, BY OWNER PROVIDE NECESSARY CONNECTIONS,

COORDINATE WITH MEP DRAWINGS. WASHING MACHINE, BY OWNER PROVIDE NECESSARY

CONNECTIONS, COORDINATE WITH MEP DRAWINGS. DRYER, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

STAINLESS STEEL SINK, REFER TO SPECIFICATIONS, COORDINATE WITH PLUMBING DRAWINGS.

EXTRACTOR, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

GEAR DRYING CABINET, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

LINT TRAP, REFER TO PLUMBING DRAWINGS.

EMERGENCY EYE WASH AND SHOWER, REFER TO

SPECIFICATIONS, COORDINATE WITH PLUMBING DRAWINGS. MOP HOLDER, REFER TO SPECIFICATIONS AND SHEET A2.3 FOR MOUNTING HEIGHT.

MOP SINK, REFER TO PLUMBING DRAWINGS.

ROLLER SHADES, REFER TO SPECIFICATIONS. PASS-THROUGH LOCKERS, REFER TO 2/A8.1 AND SHEET A9.2.

FIRE PIT BY OWNER, PROVIDE GAS CONNECTION, REFER TO PLUMBING DRAWINGS.

TRAINING TIE-OFF ANCHORS AT 1'-8" A.F.F. AND AT 6'-0" A.F.F. REFER TO STRUCTURAL.

NOT USED.

TRAINING TIE-OFF ANCHOR IN FLOOR, REFER TO STRUCTURAL. TRAINING TIE-OFF ANCHOR 4'-0" A.F.F. REFER TO STRUCTURAL.

TRAINING TIE-OFF ANCHOR 1'-8" A.F.F. REFER TO STRUCTURAL. VERTICAL TRAINING LADDER TIE-OFF BAR, CENTER 1'-8" A.F.F. REFER TO STRUCTURAL.

TRAINING TIE-OFF ANCHOR ABOVE WINDOW, REFER TO STRUCTURAL.

TRAINING WINDOW, REFER TO 3/A6.7 AND 2/A9.2.

STEEL HINGED GATE WITH PIN LOCK IN FLOOR. REMOVABLE GUARD RAIL W/ SECTIONS @ 48" MAX. REFER TO DETAIL 4/A6.7

TRAINING MANHOLE, BARRY PATTERN & FOUNDRY B-6044.

PREFABRICATED ALUM. WALL-MOUNTED LADDER.

MIRROR, REFER TO INTERIOR ELEVATIONS AND SPECIFICATIONS.

CARPET TILE. REFER TO ROOM FINISH SCHEDULE, ALIGN WITH BULKHEAD ABOVE.

41. PAINT WALL ACCENT COLOR. .# INDICATES PAINT COLOR, REFER TO SHEET A7.1 FOR COLORS.

42. REFER TO SHEET A1.2 FOR STORM SHELTER SIGNAGE.

EQUIPMENT PLAN GENERAL NOTES

ALL BASE CABINETS TO HAVE COUNTERTOPS U.N.O. WITH 4" H BACK-SPLASH AND END-SPLASH AS REQUIRED.

PROVIDE FILLER STRIPS BETWEEN CASEWORK UNITS AND WALL OR BETWEEN ANY UNIT AS REQUIRED. EXTEND COUNTER TO FACE OF WALL OR ADJACENT TALL CABINET.

ALL EXPOSED ENDS AND BACKS OF CASEWORK SHALL BE FINISHED.

CASEWORK INSTALLER SHALL CUT CASEWORK AS REQUIRED FOR PLUMBING/ELECTRICAL AND DATA LINES/CONDUITS/OUTLETS.

CASEWORK INSTALLER SHALL CAULK BETWEEN COUNTERS, END-SPLASH, AND WALLS.

ALL WALL-MOUNTED CASEWORK SHALL BE MOUNTED WITH THE TOP AT 7'-0" AFF UNLESS OTHERWISE NOTED.

FIELD VERIFY LENGTH. AFTER FIELD MEASUREMENTS, REDUCE CABINET FILLER AND INCREASE STANDARD CABINET SIZES WHERE POSSIBLE. MAINTAIN MANUFACTURERS RECOMMENDED DESIGN FILLER PLACEMENTS AND SIZES.

REFER TO REFLECTED CEILING PLANS FOR CEILING MOUNTED EQUIPMENT. REFER TO SPECIFICATIONS AND COORDINATE WITH ELECTRICAL DRAWINGS.

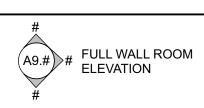
REFER TO A2.3 FOR MOUNTING HEIGHTS.

FOLLOW MANUFACTURER'S RECOMMENDATIONS AND NOTIFY ARCHITECT IN WRITING PRIOR TO SHOP DRAWING SUBMITTAL OF ANY DETAILS IN CONFLICT WITH MANUFACTURER'S RECOMMENDATIONS.

ALL LONG SPAN COUNTERTOPS SHALL HAVE ADDITIONAL INTERMEDIATE SUPPORT AS REQUIRED BY CASEWORK MANUFACTURER.

(-----) INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGÉ OR BY OWNER, NOT INCLUDED IN CONSTRUCTION CONTRACTS.

ENLARGEMENT LEGEND





ENGINEERS

ARCHITE

ATION

DANIEL FREYTAG 8533

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

These designs and all items depicted herein, whether in writing or graphically, as nstruments of professional service, may not be altered or changed, in any way, vithout the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

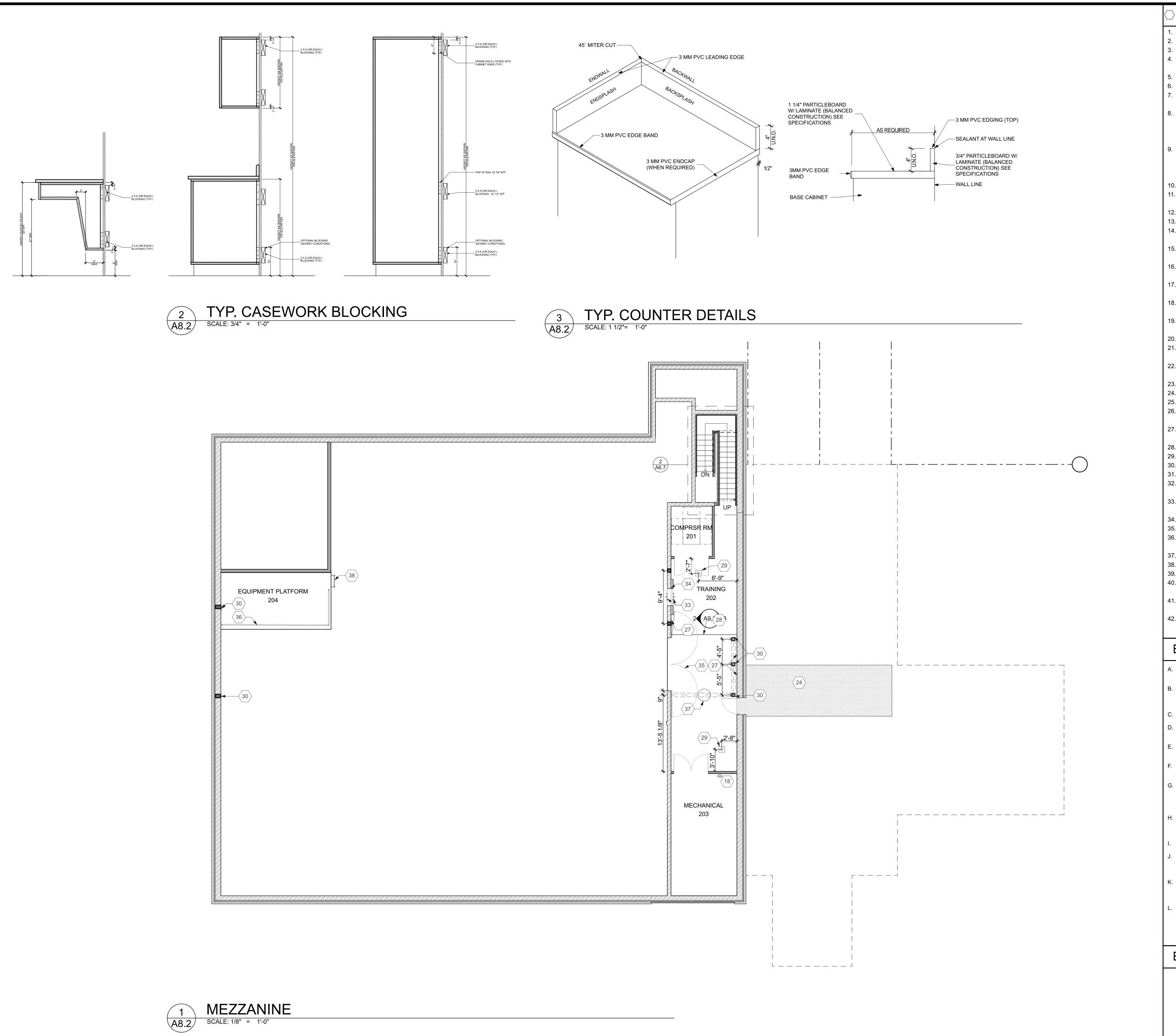
or loss caused thereby. REVISIONS

STORM SHELTER REVIEW PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/22/24 CHECKED BY DRAWN BY AF/RS

FIRST FLOOR EQUIPMENT PLAN

A8.



EQUIPMENT PLAN NOTES BE REFERENCED ON

LOOSE FURNITURE, N.I.C.

TRASH RECEPTACLE, N.I.C. RANGE/OVEN W/ HOOD, REFER TO MEP DRAWINGS.

COFFE MAKER, BY OWNER, PROVIDE NECESSARY CONNECTIONS

FOR PERMANENT WATER CONNECTION. MICROWAVE, BY OWNER, PROVIDE NECESSARY CONNECTIONS.

DISHWASHER, BY OWNER, PROVIDE NECESSARY CONNECTIONS.

REFRIGERATOR, BY OWNER, PROVIDE NECESSARY

CONNECTIONS. WALL-MOUNTED TV, BY OWNER, 60" A.F.F. COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC

CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH OWNER/ARCHITECT. 43" STATION MONITOR U.N.O., BY OWNER, COORDINATE WITH

TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH OWNER/ARCHITECT. 60" A.F.F. U.N.O.

WHITE BOARD, REFER TO MOUNTING HEIGHTS ON SHEET A2.3. DRINKING FOUNTAIN, REFER TO MOUNTING HEIGHTS ON SHEET

A2.3. AND PLUMBING DRAWINGS.

12. TURN OUT GEAR LOCKERS, N.I.C. 13. SHELF, REFER TO SHEET A9.1 FOR MOUNTING HEIGHTS.

14. ICE MAKER, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

15. WASHING MACHINE, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

16. DRYER, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

17. STAINLESS STEEL SINK, REFER TO SPECIFICATIONS, COORDINATE WITH PLUMBING DRAWINGS.

18. EXTRACTOR, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

19. GEAR DRYING CABINET, BY OWNER PROVIDE NECESSARY CONNECTIONS, COORDINATE WITH MEP DRAWINGS.

LINT TRAP, REFER TO PLUMBING DRAWINGS. EMERGENCY EYE WASH AND SHOWER, REFER TO

SPECIFICATIONS, COORDINATE WITH PLUMBING DRAWINGS. 22. MOP HOLDER, REFER TO SPECIFICATIONS AND SHEET A2.3 FOR MOUNTING HEIGHT.

MOP SINK, REFER TO PLUMBING DRAWINGS.

ROLLER SHADES, REFER TO SPECIFICATIONS.

PASS-THROUGH LOCKERS, REFER TO 2/A8.1 AND SHEET A9.2. FIRE PIT BY OWNER, PROVIDE GAS CONNECTION, REFER TO PLUMBING DRAWINGS.

TRAINING TIE-OFF ANCHORS AT 1'-8" A.F.F. AND AT 6'-0" A.F.F. REFER TO STRUCTURAL.

NOT USED.

TRAINING TIE-OFF ANCHOR IN FLOOR, REFER TO STRUCTURAL. TRAINING TIE-OFF ANCHOR 4'-0" A.F.F. REFER TO STRUCTURAL. TRAINING TIE-OFF ANCHOR 1'-8" A.F.F. REFER TO STRUCTURAL.

VERTICAL TRAINING LADDER TIE-OFF BAR, CENTER 1'-8" A.F.F. REFER TO STRUCTURAL.

TRAINING TIE-OFF ANCHOR ABOVE WINDOW, REFER TO STRUCTURAL.

TRAINING WINDOW, REFER TO 3/A6.7 AND 2/A9.2.

STEEL HINGED GATE WITH PIN LOCK IN FLOOR. REMOVABLE GUARD RAIL W/ SECTIONS @ 48" MAX. REFER TO DETAIL 4/A6.7

TRAINING MANHOLE, BARRY PATTERN & FOUNDRY B-6044.

PREFABRICATED ALUM. WALL-MOUNTED LADDER.

MIRROR, REFER TO INTERIOR ELEVATIONS AND SPECIFICATIONS. CARPET TILE. REFER TO ROOM FINISH SCHEDULE, ALIGN WITH

BULKHEAD ABOVE. 41. PAINT WALL ACCENT COLOR. .# INDICATES PAINT COLOR, REFER TO SHEET A7.1 FOR COLORS.

42. REFER TO SHEET A1.2 FOR STORM SHELTER SIGNAGE.

EQUIPMENT PLAN GENERAL NOTES

ALL BASE CABINETS TO HAVE COUNTERTOPS U.N.O. WITH 4" H BACK-SPLASH AND END-SPLASH AS REQUIRED.

PROVIDE FILLER STRIPS BETWEEN CASEWORK UNITS AND WALL OR BETWEEN ANY UNIT AS REQUIRED. EXTEND COUNTER TO FACE OF WALL OR ADJACENT TALL CABINET.

ALL EXPOSED ENDS AND BACKS OF CASEWORK SHALL BE FINISHED.

CASEWORK INSTALLER SHALL CUT CASEWORK AS REQUIRED FOR PLUMBING/ELECTRICAL AND DATA LINES/CONDUITS/OUTLETS.

CASEWORK INSTALLER SHALL CAULK BETWEEN COUNTERS, END-SPLASH, AND WALLS.

ALL WALL-MOUNTED CASEWORK SHALL BE MOUNTED WITH THE TOP AT 7'-0" AFF UNLESS OTHERWISE NOTED.

FIELD VERIFY LENGTH. AFTER FIELD MEASUREMENTS, REDUCE CABINET FILLER AND INCREASE STANDARD CABINET SIZES WHERE POSSIBLE. MAINTAIN MANUFACTURERS RECOMMENDED DESIGN FILLER PLACEMENTS AND SIZES.

REFER TO REFLECTED CEILING PLANS FOR CEILING MOUNTED EQUIPMENT. REFER TO SPECIFICATIONS AND COORDINATE WITH ELECTRICAL DRAWINGS.

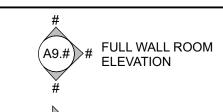
REFER TO A2.3 FOR MOUNTING HEIGHTS.

FOLLOW MANUFACTURER'S RECOMMENDATIONS AND NOTIFY ARCHITECT IN WRITING PRIOR TO SHOP DRAWING SUBMITTAL OF ANY DETAILS IN CONFLICT WITH MANUFACTURER'S RECOMMENDATIONS.

ALL LONG SPAN COUNTERTOPS SHALL HAVE ADDITIONAL INTERMEDIATE SUPPORT AS REQUIRED BY CASEWORK MANUFACTURER.

(-----) INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGÉ OR BY OWNER, NOT INCLUDED IN CONSTRUCTION CONTRACTS.

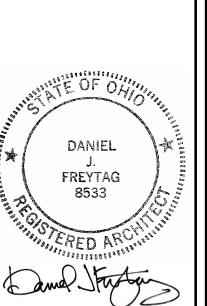
ENLARGEMENT LEGEND



PARTIAL ISLAND **ELEVATION**

ENGINEERS ARCHITE

ATION



Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

herein, whether in writing or graphically, as nstruments of professional service, may not be altered or changed, in any way, vithout the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

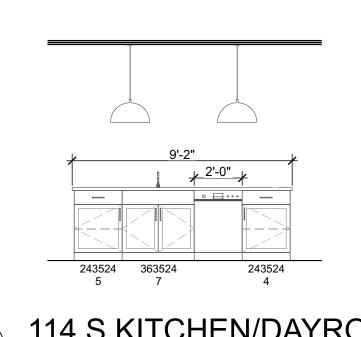
REVISIONS

STORM SHELTER REVIEW PLAN APPROVAL / BIDDING

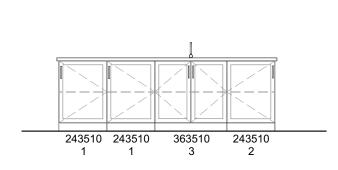
COMM. NUMBER DATE 11/22/24 DRAWN BY CHECKED BY

MEZZANINE EQUIPMENT PLAN

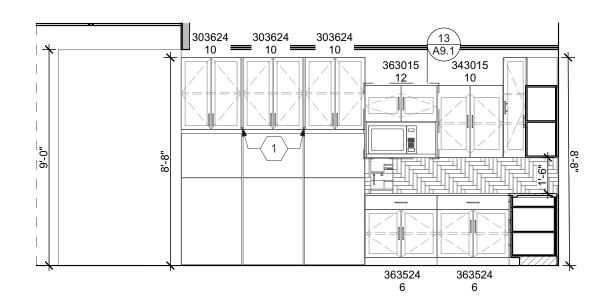
A8.2



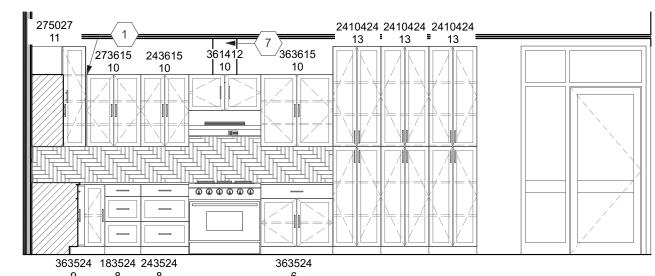




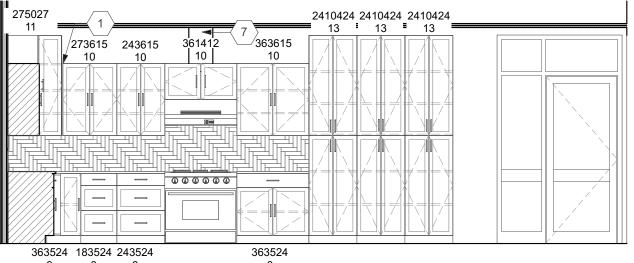
114 N ISLAND SCALE: 1/4" = 1'-0"



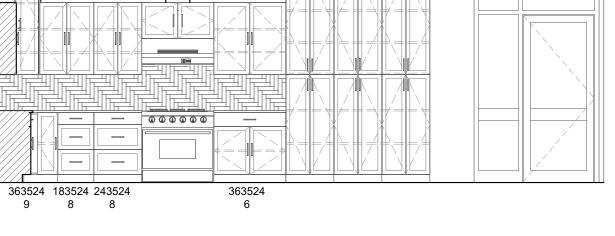
114 W KITCHEN/DAYROOM SCALE: 1/4" = 1'-0"



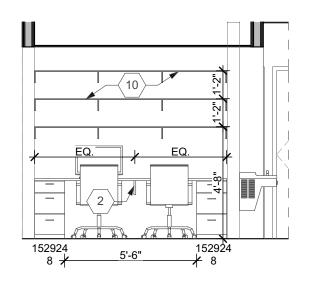




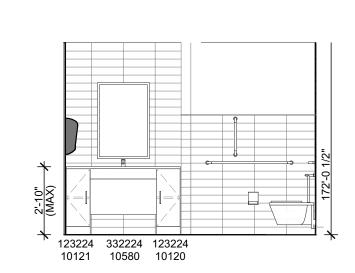






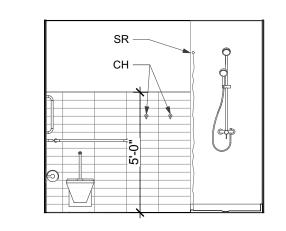




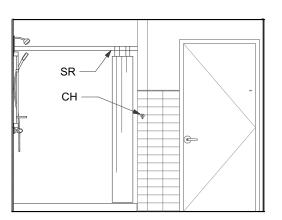


107 N TOILET/SHOWER SCALE: 1/4" = 1'-0" \A9.1/

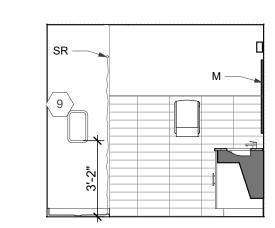
MIRROR FOR 109 TOILET/SHOWER



107 E TOILET/SHOWER A9.1 SCALE: 1/4" = 1'-0"



S 107 S TOILET/SHOWER A9.1 | SCALE: 1/4" = 1'-0"



107 W TOILET/SHOWER A9.1 SCALE: 1/4" = 1'-0"

ELEVATION GENERAL NOTES

OWNER/ARCHITECT. 60" A.F.F. U.N.O. MIRROR, REFER TO SPECIFICATIONS.

INTERIOR ELEVATION NOTES

WHITE BOARD, REFER TO SPECIFICATIONS.

FIELD VERIFY WITH OWNER / ARCHITECT.

TOILETRY NICHE, REFER TO SPECIFICATIONS.

PROVIDE BLOCKING FOR FUTURE SHOWER SEAT.

CHASE AROUND DUCT.

BLOCKING/SUPPORTS.

OWNER/ARCHITECT.

SUPPORTS.

SUPPORTS.

PROVIDE ANY NECESSARY SUPPORTS UNDER COUNTER.

STEEL STRUCTURE FOR TRAINING TIE-OFFS, REFER TO STRUCTURAL FUR OUT WALL AROUND TACTICAL TRAINING WINDOW WITH 2X4 TUBE STEEL. COVER WITH PLYWOOD SHEATHING. REFER TO SECTION 3/A6.7

PROVIDE LOCK ON CASEWORK. REFER TO CASEWORK SCHEDULE.

STAINLESS STEEL SHELF, PROVIDE ANY NECESSARY BLOCKING/

WHITE STEEL WIRE SHELF, PROVIDE ANY NECESSARY BLOCKING/

WALL-MOUNTED TV, BY OWNER, 60" A.F.F. COORDINATE WITH

43" STATION MONITOR U.N.O., BY OWNER, COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH

TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH

WOOD SHELVING WITH METAL BRACKETS, PROVIDE ANY NECESSARY

TACTICAL TRAINING TIE-OFF, REFER TO STRUCTURAL.

CABINET FILLER, SIZE AS REQUIRED.

BE REFERENCED ON

Ž

ENGINEER

ARCHITE

ATION

IRE

CONSTRUCTION

THIS SHEET.

- VERIFY ANY DIMENSIONS FOR OWNER PROVIDED EQUIPMENT WITH OWNER / ARCHITECT PRIOR TO CASEWORK FABRICATION.
- REFER TO MOUNTING HEIGHTS ON SHEET A2.3 FOR ANY RESTROOM NOT SHOWN ON INTERIOR ELEVATIONS.

- CASEWORK NOMINAL WIDTH (SIDE TO SIDE)

—CASEWORK NOMINAL DEPTH (BACK TO FRONT)

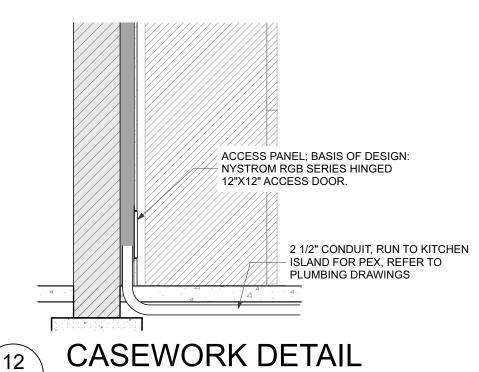
CASEWORK ITEM, SEE SCHEDULE ON A9.1

—CASEWORK NOMINAL HEIGHT (NOT INCLUDING COUNTER)

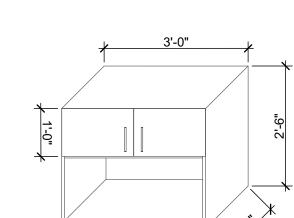
PROVIDE ANY NECESSARY BLOCKING.

ELEVATION LEGEND

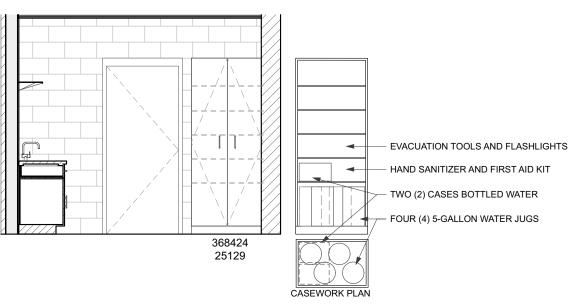
COORDINATE LOCATIONS WITH MECHANICAL, ELECTRICAL, PLUMBING AND TECHNOLOGY DRAWINGS.



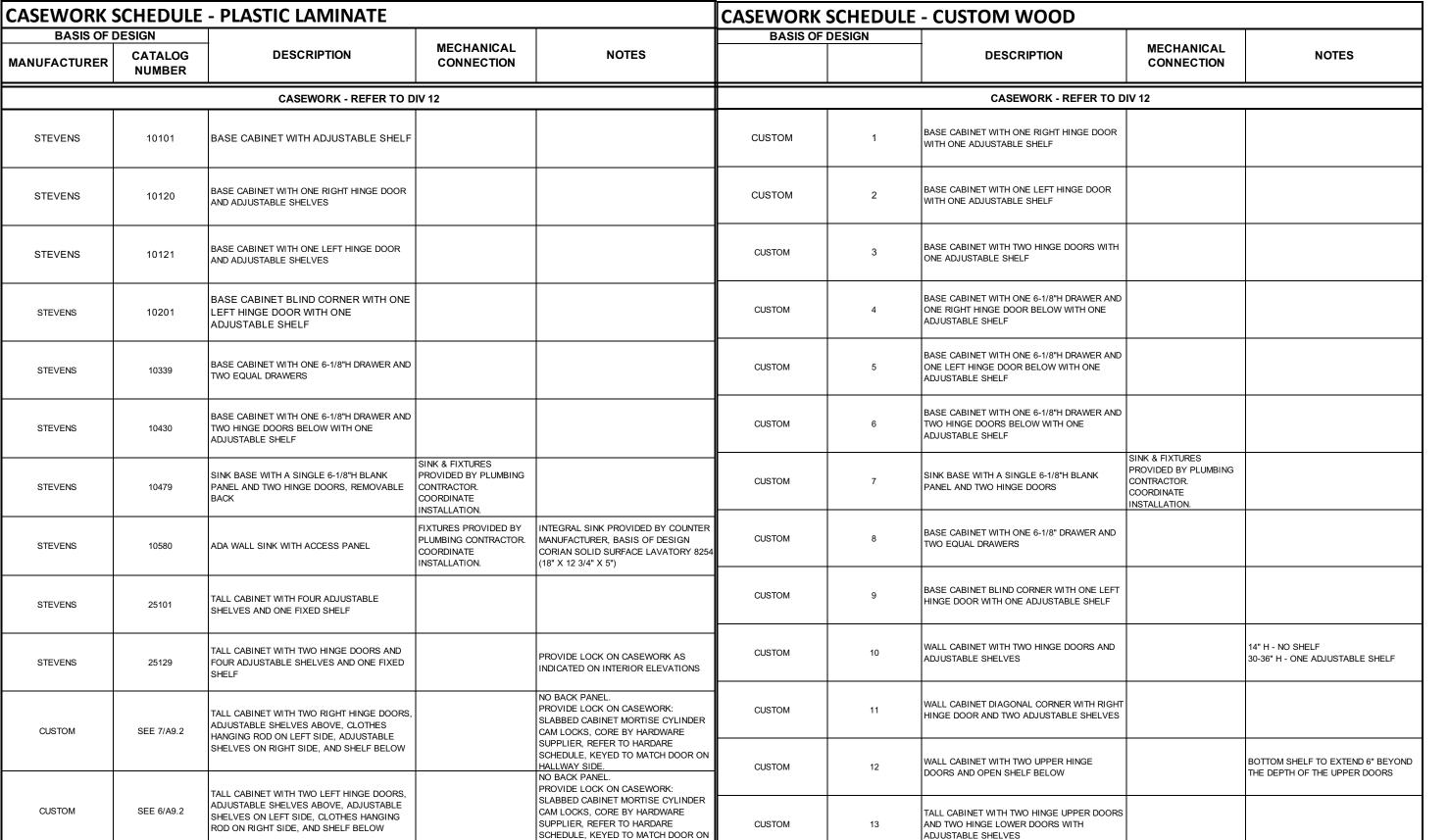






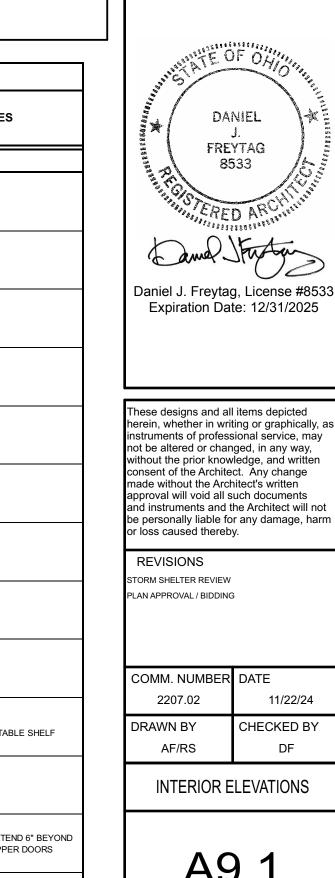






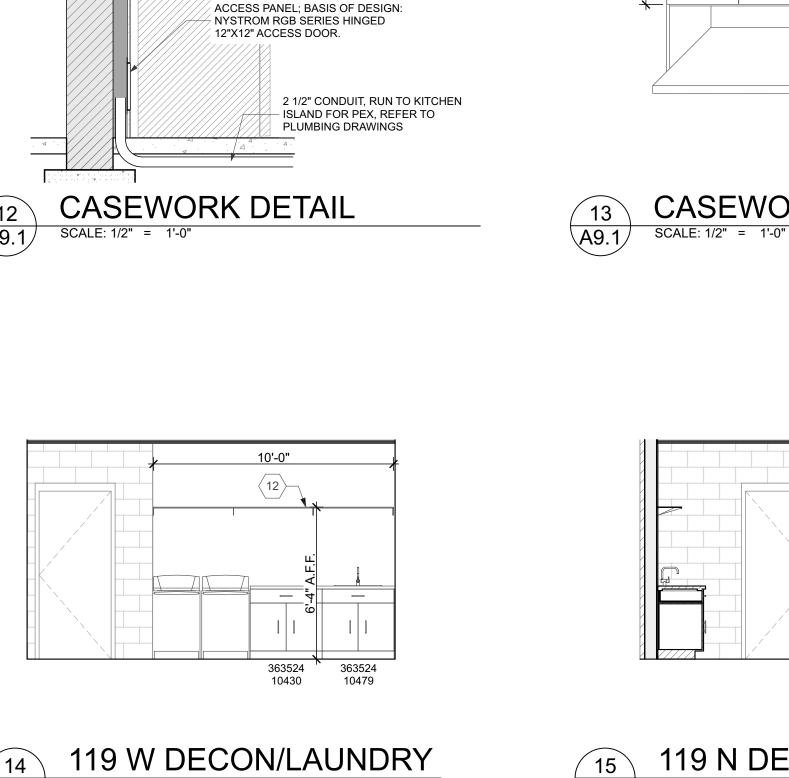
ALLWAY SIDE.

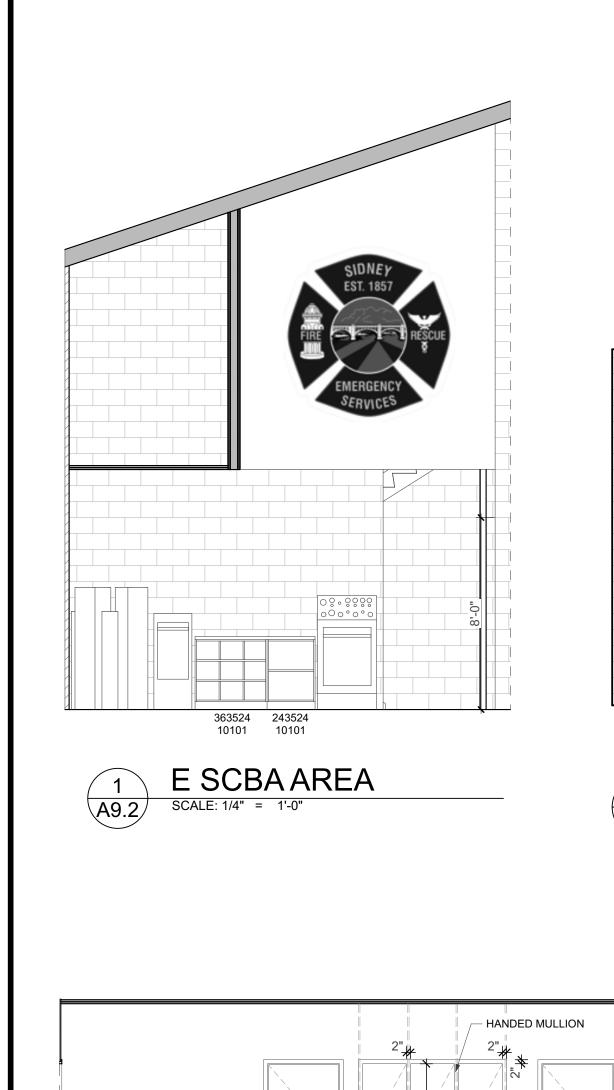
ADJUSTABLE SHELVES

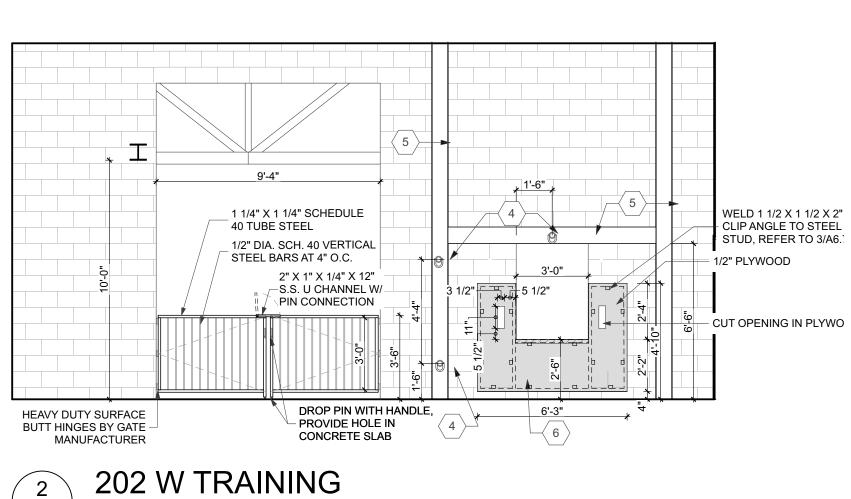


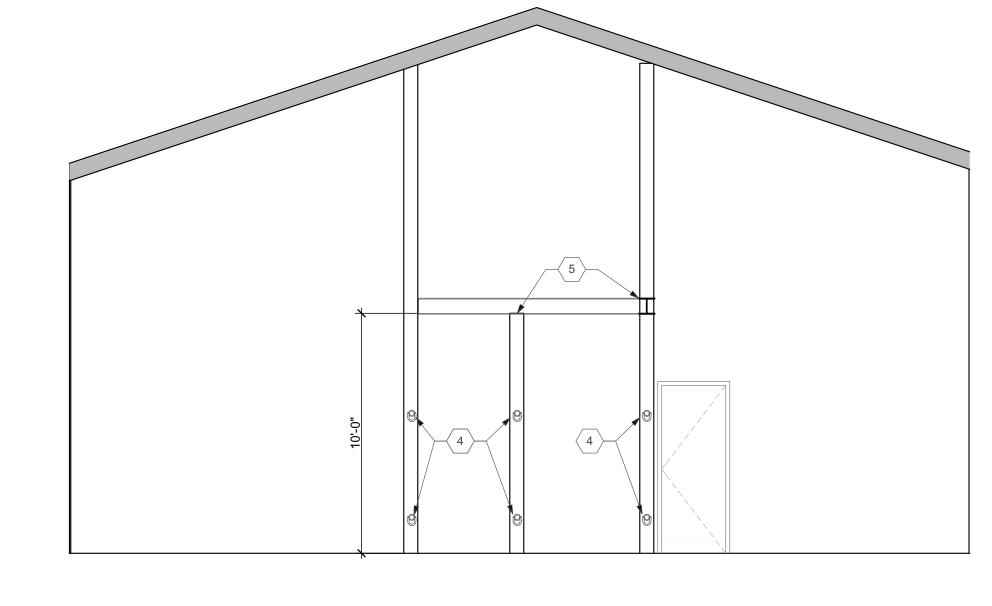
11/22/24

CHECKED BY

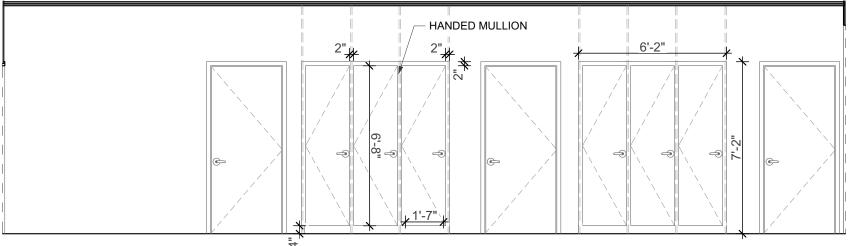


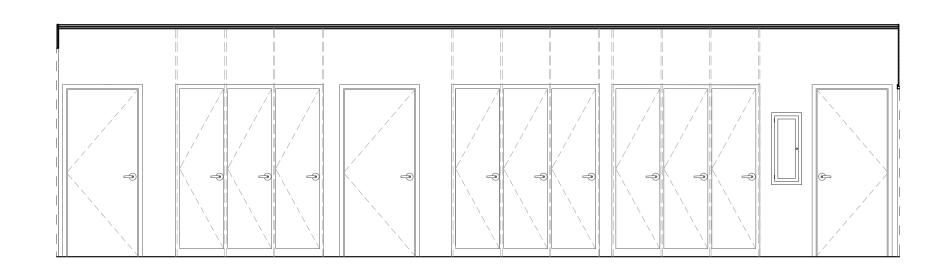


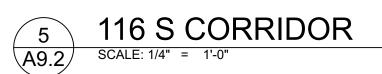


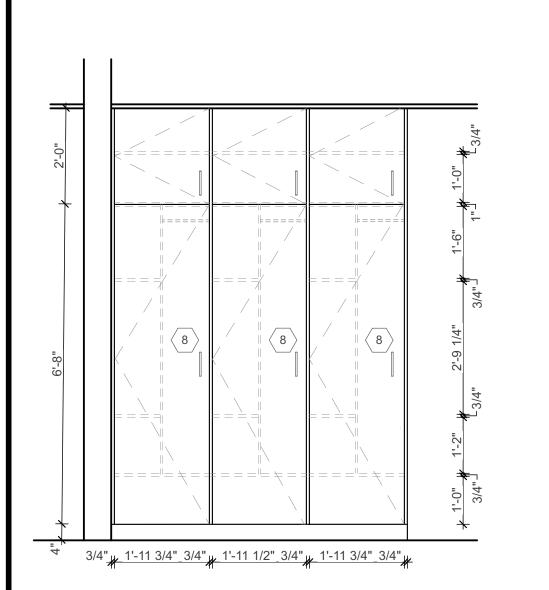








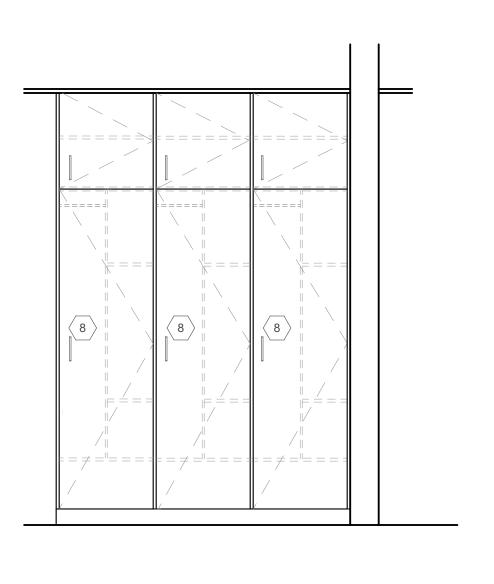


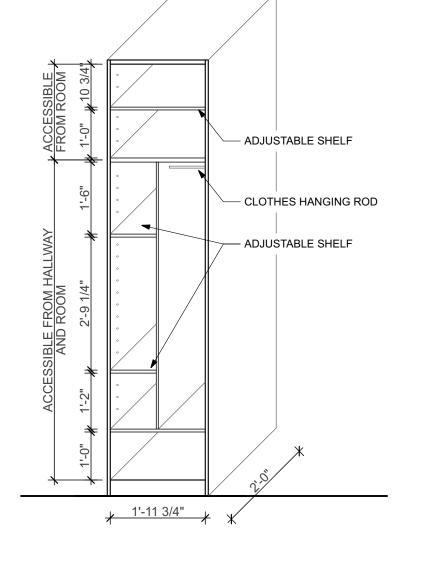


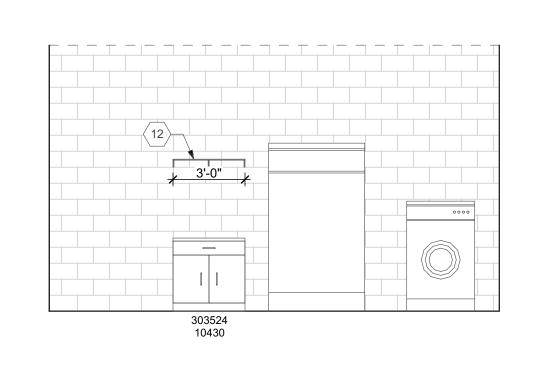
116 N CORRIDOR

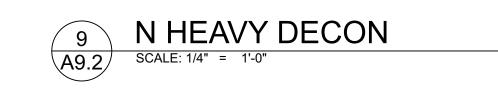
SCALE: 1/4" = 1'-0"

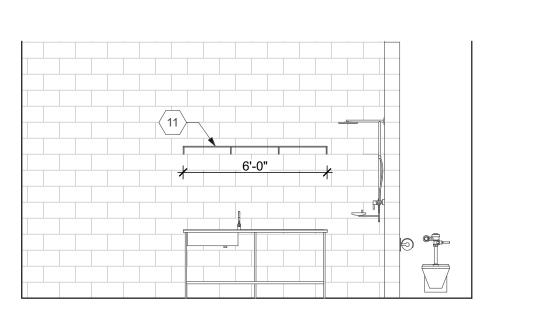
A9.2













INTERIOR ELEVATION NOTES BE REFERENCED ON

CABINET FILLER, SIZE AS REQUIRED.

PROVIDE ANY NECESSARY SUPPORTS UNDER COUNTER. WHITE BOARD, REFER TO SPECIFICATIONS. TACTICAL TRAINING TIE-OFF, REFER TO STRUCTURAL.

STEEL STRUCTURE FOR TRAINING TIE-OFFS, REFER TO STRUCTURAL FUR OUT WALL AROUND TACTICAL TRAINING WINDOW WITH 2X4 TUBE STEEL. COVER WITH PLYWOOD SHEATHING. REFER TO SECTION 3/A6.7. FIELD VERIFY WITH OWNER / ARCHITECT. CHASE AROUND DUCT.

PROVIDE LOCK ON CASEWORK. REFER TO CASEWORK SCHEDULE. TOILETRY NICHE, REFER TO SPECIFICATIONS. WOOD SHELVING WITH METAL BRACKETS, PROVIDE ANY NECESSARY

BLOCKING/SUPPORTS. STAINLESS STEEL SHELF, PROVIDE ANY NECESSARY BLOCKING/

SUPPORTS. WHITE STEEL WIRE SHELF, PROVIDE ANY NECESSARY BLOCKING/

PROVIDE BLOCKING FOR FUTURE SHOWER SEAT. WALL-MOUNTED TV, BY OWNER, 60" A.F.F. COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH

OWNER/ARCHITECT. 43" STATION MONITOR U.N.O., BY OWNER, COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH

OWNER/ARCHITECT. 60" A.F.F. U.N.O. MIRROR, REFER TO SPECIFICATIONS.

SUPPORTS.

ELEVATION GENERAL NOTES

VERIFY ANY DIMENSIONS FOR OWNER PROVIDED EQUIPMENT WITH OWNER / ARCHITECT PRIOR TO CASEWORK FABRICATION.

REFER TO MOUNTING HEIGHTS ON SHEET A2.3 FOR ANY RESTROOM NOT SHOWN ON INTERIOR ELEVATIONS.

PROVIDE ANY NECESSARY BLOCKING.

COORDINATE LOCATIONS WITH MECHANICAL, ELECTRICAL, PLUMBING AND TECHNOLOGY DRAWINGS.

ELEVATION LEGEND

CASEWORK NOMINAL WIDTH (SIDE TO SIDE) CASEWORK NOMINAL HEIGHT (NOT INCLUDING COUNTER)

<u>362924</u>

—CASEWORK NOMINAL DEPTH (BACK TO FRONT)

CASEWORK ITEM, SEE SCHEDULE ON A9.1

DANIEL FREYTAG 8533

ENGINEERS

ARCHITE

TATION

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

or loss caused thereby. REVISIONS

TORM SHELTER REVIEW PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/22/24 DRAWN BY CHECKED BY

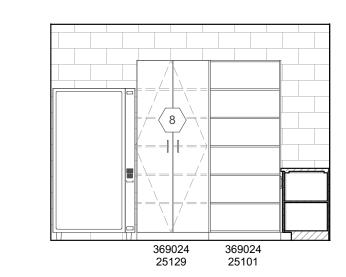
INTERIOR ELEVATIONS

A9.2

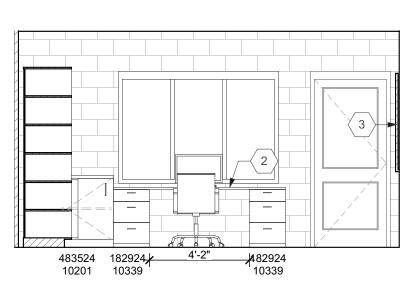
LOCKERS @ 110, 112 A9.2

7 LOCKERS @ 108, 111, 113 A9.2 SCALE: 1/2" = 1'-0"

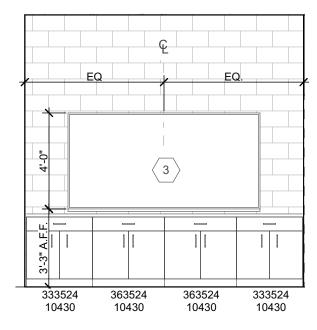






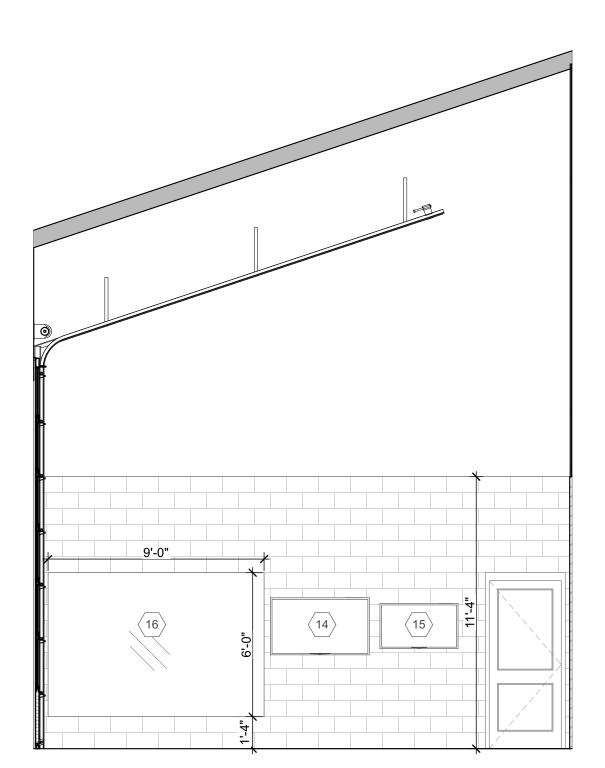


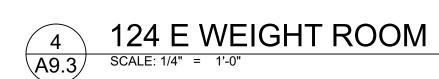


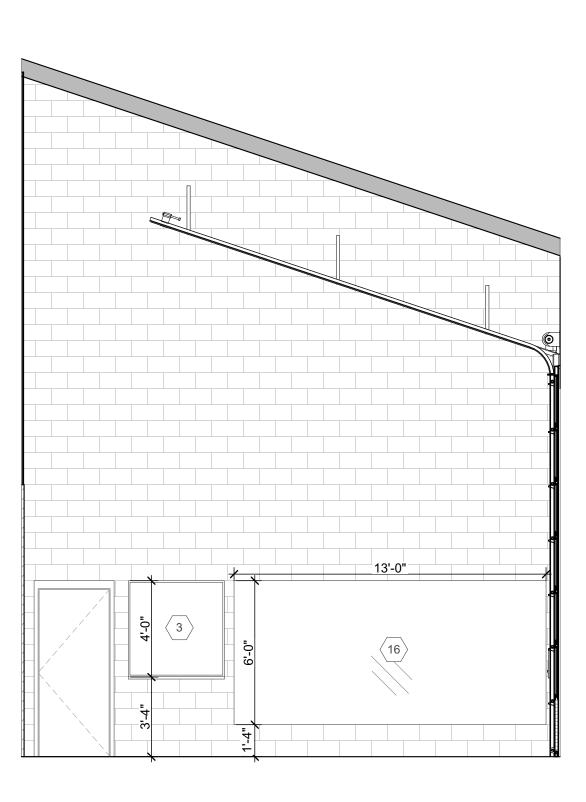


3 SRADIO ALCOVE

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









CABINET FILLER, SIZE AS REQUIRED.

PROVIDE ANY NECESSARY SUPPORTS UNDER COUNTER.
WHITE BOARD, REFER TO SPECIFICATIONS.

4. TACTICAL TRAINING TIE-OFF, REFER TO STRUCTURAL.
5. STEEL STRUCTURE FOR TRAINING TIE-OFFS, REFER TO STRUCTURAL.
6. FUR OUT WALL AROUND TACTICAL TRAINING WINDOW WITH 2X4 TUBE

STEEL. COVER WITH PLYWOOD SHEATHING. REFER TO SECTION 3/A6.7.
FIELD VERIFY WITH OWNER / ARCHITECT.
CHASE AROUND DUCT.

PROVIDE LOCK ON CASEWORK. REFER TO CASEWORK SCHEDULE.
 TOILETRY NICHE, REFER TO SPECIFICATIONS.
 WOOD SHELVING WITH METAL BRACKETS, PROVIDE ANY NECESSARY

BLOCKING/SUPPORTS.

11. STAINLESS STEEL SHELF, PROVIDE ANY NECESSARY BLOCKING/

SUPPORTS.

12. WHITE STEEL WIRE SHELF, PROVIDE ANY NECESSARY BLOCKING/

SUPPORTS.

13. PROVIDE BLOCKING FOR FUTURE SHOWER SEAT.

14. WALL-MOUNTED TV, BY OWNER, 60" A.F.F. COORDINATE WITH

TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH OWNER/ARCHITECT.

15. 43" STATION MONITOR U.N.O., BY OWNER, COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC

15. 43" STATION MONITOR U.N.O., BY OWNER, COORDINATE WITH TECHNOLOGY DRAWINGS. PROVIDE NECESSARY DATA/ELECTRIC CONNECTIONS AND BLOCKING. COORDINATE LOCATION WITH OWNER/ARCHITECT. 60" A.F.F. U.N.O.

16. MIRROR, REFER TO SPECIFICATIONS.

ELEVATION GENERAL NOTES

A. VERIFY ANY DIMENSIONS FOR OWNER PROVIDED EQUIPMENT WITH OWNER / ARCHITECT PRIOR TO CASEWORK FABRICATION.

B. REFER TO MOUNTING HEIGHTS ON SHEET A2.3 FOR ANY RESTROOM NOT SHOWN ON INTERIOR ELEVATIONS.

C. PROVIDE ANY NECESSARY BLOCKING.

D. COORDINATE LOCATIONS WITH MECHANICAL, ELECTRICAL, PLUMBING AND TECHNOLOGY DRAWINGS.

ELEVATION LEGEND

CASEWORK NOMINAL WIDTH (SIDE TO SIDE)

CASEWORK NOMINAL HEIGHT (NOT INCLUDING COUNTER)

362924

—CASEWORK NOMINAL DEPTH (BACK TO FRONT)

CASEWORK ITEM, SEE SCHEDULE ON A9.1

DANIEL J. FREYTAG 8533

CAMP J. C. R. E. D. A. R. C. R

CONSTRUCTION

TATION

ENGINEERS

ARCHITE

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

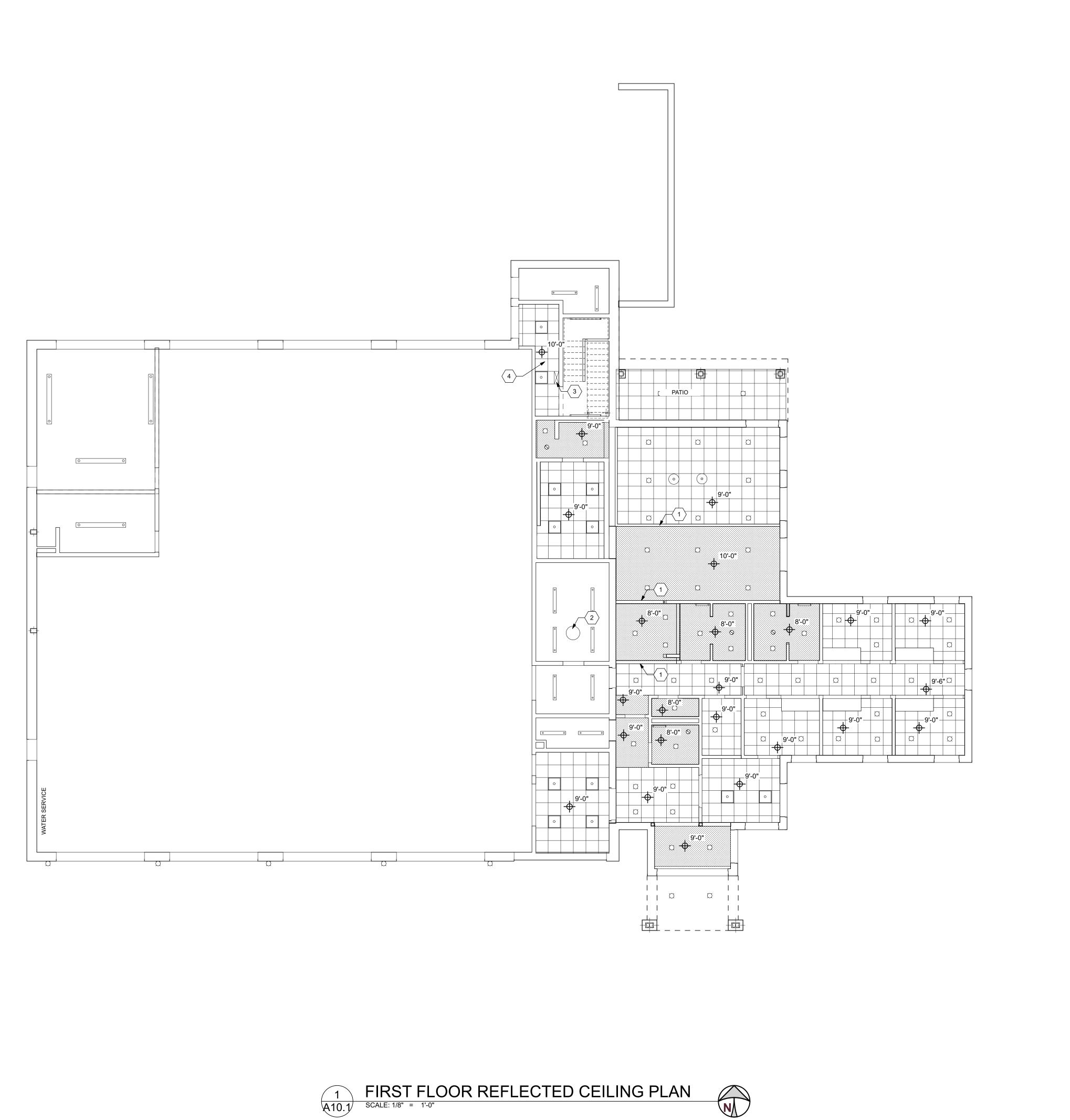
REVISIONS

STORM SHELTER REVIEW
PLAN APPROVAL / BIDDING

COMM. NUMBER	DATE
2207.02	11/22/24
DRAWN BY	CHECKED BY
AF/RS	DF

INTERIOR ELEVATIONS

A9.3



REFLECTED CEILING NOTES ALL NOTES MAY NOT BE REFERENCED ON THIS SHEET.

1. PAINT BULKHEAD ACCENT COLOR.

2. MANHOLE LOCATED IN CEILING.

3. OPENING FOR COMPRESSED AIR DROP.

4. METAL SUSPENSION SYSTEM WITH HIGH HUMIDITY FINISH.

REFLECTED CEILING GENERAL NOTES

COMPONENTS AND HVAC DEVICES.

INSTALLATION OF CEILING SYSTEMS.

CEILING MOUNTED AIR DEVICES.

STRUCTURE MEMBERS.

COORDINATE CEILING INSTALLATION WITH PLACEMENT OF LIGHT FIXTURES AND OTHER CEILING PENETRATIONS OR CEILING MOUNTED EQUIPMENT, INCLUDING FIRE SUPPRESSION SYSTEM

REFER TO H.V.A.C. DRAWINGS FOR LOCATIONS AND SIZES OF

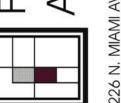
C. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING FIXTURE TYPES.

REFER TO ROOM FINISH SCHEDULE FOR MATERIAL TYPES AND

REFER TO STRUCTURAL DRAWINGS FOR LOCATIONS OF ROOF

FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO

ENGINEERS ARCHITE



TATION

S

FIRE

DANIEL

FREYTAG

8533

WALL SCONCE SUSPENDED PENDANT LIGHT FIXTURE

RECESSED CEILING 2' x 2' FIXTURE

REFLECTED CEILING PLAN LEGEND

9'-2" CEILING HEIGHT TO FINISH SURFACE A.F.F.

C110 ROOM DESIGNATION NUMBER

RECESSED CAN LIGHT

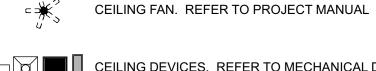
SUSPENDED LIGHT FIXTURE

WALL MOUNTED LIGHT FIXTURE

RECESSED EXHAUST FAN, REFER TO MECHANICAL **DRAWINGS**

2X2 ACOUSTIC CEILING TILE

GYPSUM DRYWALL CEILING, SUSPENDED GYPSUM CEILING, OR GYPSUM BULKHEAD





CEILING DEVICES. REFER TO MECHANICAL DRAWINGS

REFER TO ROOM FINISH SCHEDULE AND PROJECT MANUAL FOR CEILING TYPES.

Daniel J. Freytag, License #8533 Expiration Date: 12/31/2025 These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written

approval will void all such documents and instruments and the Architect will not

be personally liable for any damage, harm

or loss caused thereby. REVISIONS STORM SHELTER REVIEW PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY

CEILING PLAN

A10.1



REFLECTED CEILING NOTES BE REFERENCED ON THIS SHEET.

1. PAINT BULKHEAD ACCENT COLOR.

2. MANHOLE LOCATED IN CEILING.

3. OPENING FOR COMPRESSED AIR DROP.

4. METAL SUSPENSION SYSTEM WITH HIGH HUMIDITY FINISH.

REFLECTED CEILING GENERAL NOTES

COORDINATE CEILING INSTALLATION WITH PLACEMENT OF LIGHT FIXTURES AND OTHER CEILING PENETRATIONS OR CEILING MOUNTED EQUIPMENT, INCLUDING FIRE SUPPRESSION SYSTEM COMPONENTS AND HVAC DEVICES.

REFER TO H.V.A.C. DRAWINGS FOR LOCATIONS AND SIZES OF

C. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING FIXTURE TYPES.

REFER TO ROOM FINISH SCHEDULE FOR MATERIAL TYPES AND

REFER TO STRUCTURAL DRAWINGS FOR LOCATIONS OF ROOF STRUCTURE MEMBERS.

F. FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO INSTALLATION OF CEILING SYSTEMS.

CEILING MOUNTED AIR DEVICES.

ENGINEERS ARCHITE



STATION FIRE

WALL SCONCE SUSPENDED PENDANT LIGHT FIXTURE

REFLECTED CEILING PLAN LEGEND

9'-2" CEILING HEIGHT TO FINISH SURFACE A.F.F.

RECESSED CEILING 2' x 2' FIXTURE

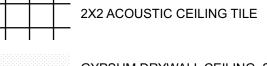
C110 ROOM DESIGNATION NUMBER

RECESSED CAN LIGHT

SUSPENDED LIGHT FIXTURE

WALL MOUNTED LIGHT FIXTURE RECESSED EXHAUST FAN, REFER TO MECHANICAL

DRAWINGS



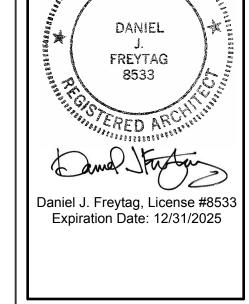
GYPSUM DRYWALL CEILING, SUSPENDED GYPSUM CEILING, OR GYPSUM BULKHEAD



CEILING DEVICES. REFER TO MECHANICAL DRAWINGS

CEILING FAN. REFER TO PROJECT MANUAL

REFER TO ROOM FINISH SCHEDULE AND PROJECT MANUAL FOR CEILING TYPES.



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any written without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written
approval will void all such documents
and instruments and the Architect will not
be personally liable for any damage, harm or loss caused thereby.

REVISIONS STORM SHELTER REVIEW

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY

MEZZANINE REFLECTED CEILING

A10.2

MEZZANINE REFLECTED CEILING PLAN

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



GENERAL STRUCTURAL NOTES

1. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION IS FULLY COMPLETED. IT IS SOLELY THE INTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS, OR DOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL IS TO REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT 2. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF

3. MECHANICAL EQUIPMENT LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF

THE WORK. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR. 4. DO NOT SCALE THE DRAWINGS WHERE DIMENSIONS ARE NOT SPECIFICALLY GIVEN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND LEVATIONS NOT SHOWN. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO AUGMENT, NOR SUPERSEDE THOSE SHOWN ON THE

ARCHITECTURAL DRAWINGS. 5. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY WHERE CONFLICTS EXIST WITHIN THE DRAWINGS OR BETWEEN THE DRAWINGS AND FIELD CONDITIONS

6. THROUGHOUT THESE PLANS, THE TERM "PROVIDE" IS DEFINED AS "SUPPLY AND INSTALL"

7. SHOP DRAWINGS ARE TO BE SUBMITTED BY COMPLETE ERECTION PHASE OR SEQUENCE. LIMITS OF EACH INDIVIDUAL ERECTION PHASE OR SEQUENCE ARE TO BE CLEARLY INDICATED ON THE PLANS. INCOMPLETE OR PIECEMEAL SHOP DRAWINGS WILL BE RETURNED PRIOR TO REVIEW. RESUBMITTALS ARE TO HAVE REVISIONS CLEARLY MARKED OR IDENTIFIED. THE CONTRACTOR SHALL REVIEW AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. ALL SHOP DRAWINGS MUST BEAR THE APPROVAL STAMP OF THE CONTRACTOR PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER.

8. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS

CODE INF

TH EACH OTHER, THE STRICTEST PROVISION WILL GOVERN.	
INFORMATION	
- GOVERNING CODE:	2017 OHIO BUILDING CODE
- BUILDING RISK CATEGORY:	CATEGORY IV
FLOOR LIVE LOADS (WITH ALLOWABLE REDUCTIONS WERE A	APPLICABLE)
- STAIRS & EXITS	100 PSF
- ASSEMBLY	100 PSF
- STORAGE (LIGHT)	125 PSF
ROOF LIVE LOADS	
- ORDINARY FLAT, PITCHED, AND CURVED ROOFS	20 PSF
SNOW LOADS	
- GROUND SNOW LOAD (Pg)	20 PSF
- FLAT ROOF SNOW LOAD (Pf)	20 PSF
- SNOW EXPOSURE FACTOR (Ce)	1.0
- SNOW LOAD IMPORTANCE FACTOR (Is)	1.2
- THERMAL FACTOR (Ct)	1.0
- SNOW DRIFTING	SEE PLAN
WIND LOADS	
- BASIC ULTIMATE WIND SPEED (V ult)	120 MPH
- BASIC ALLOWABLE WIND SPEED (V asd)	93 MPH
- SITE EXPOSURE CATEGORY	С
- INTERNAL PRESSURE COEFFICIENT	+/- 0.18
SEISMIC LOADS:	
- SEISMIC IMPORTANCE FACTOR	1.5
- MAPPED SPECTRAL RESPONSE ACCELERATION (Ss)	0349
- MAPPED SPECTRAL RESPONSE ACCELERATION (S1)	0.081
- SEISMIC SITE CLASS	D
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sds)	0354
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sd1)	0.129
- SEISMIC DESIGN CATEGORY	D
- RESPONSE MODIFICATION COEFFICIENT (R)	
- SEISMIC RESPONSE COEFFICIENT (Cs)	
- SEISMIC DESIGN BASE SHEAR (V)	

SEISMIC DESIGN BASE SHEAR (V)

- ANALYSIS PROCEDURE

EQUIVALENT LATERAL FORCE - BASIC SEISMIC FORCE-RESISTING SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALLS; LIGHT-FRAMED SHEAR WALLS SPECIAL LOADS

- INTERIOR WALLS & PARTITIONS 5 PSF HORIZONTAL - HANDRAIL LOADS (ANY DIRECTION) 50 PLF/200# CONC. GEOTECHNICAL - GEOTECHNICAL ENGINEER: Bowser Morner - REFERENCE REPORT I.D. OR NUMBER: 211079 - REFERENCE REPORT DATE: Oct. 05, 2023 - ALLOWABLE DESIGN BEARING PRESSURE 4.000 PSF

DELEGATED DESIGN ITEMS

- FOUNDATION TYPE:

PREFABRICATED ITEMS SHOWN ON THE STRUCTURAL DRAWINGS ARE REFERENCED FOR GENERAL COORDINATION PURPOSES ONLY. THESE SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS. JEZERINA GEERS WILL REVIEW THE DESIGN METHODOLOGY. LOADS, AND INSTALLATION DETAILS AS PART OF THE SHOP DRAWING REVIEW PROCESS AN MAY REQUEST A SEALED CALCULATION PACKAGE FOR REVIEW. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE ENGINEER RESPONSIBLE FOR THE DESIGN OF THE DESIGNED ITEMS. DELEGATED DESIGN ITEMS FOR THIS PROJECT INCLUDE THE FOLLOWING.

SHALLOW SPREAD FOOTING

PRECAST HOLLOW CORE FLOOR PLANKS B. DIVISION 5:

3. STRUCTURAL STEEL CONNECTIONS (SEE STRUCTURAL STEEL SECTION/SPECIFICATIONS FOR FURTHER DETAIL) 4. STAIRS, HANDRAILS, AND THEIR CONNECTIONS

5. PREFABRICATED CANOPIES, AWNINGS, AND THEIR CONNECTIONS 6. PRE-ENGINEERED WOOD TRUSSES

REINFORCED CONCRETE

1. SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI-301-16, "SPECIFICATIONS FOR STRUCTURAL CONCRETE".

MATERIALS: A. STRUCTURAL CONCRETE:

MIX USAGE	f'c (PSI)	MAX w/cm	AIR CONTENT
LEAN CONCRETE	1,500		
FOOTINGS	3,500	0.55	
INTERIOR SLABS ON GRADE	3,500	0.50	
INTERIOR SLABS ON GRADE WHICH RECEIVE MOISTURE-SENSITIVE FLOOR COVERINGS	4,000	0.45	
TOPPING OVER PRECAST PLANK & STAIR PAN FILL (W/ #8 AGGR & FIBER REINF)	3,500	0.45	
STORM SHELTER CAP	5,000	0.42	
EXTERIOR COLUMN PIERS	4,500	0.45	5%-7%
EXTERIOR UNREINFORCED SLABS ON GRADE & EXTERIOR CONCRETE NOT SUBJECT TO DEICERS	4,500	0.45	5%-7%
EXTERIOR REINFORCED SITE CONCRETE SUBJECT TO DEICERS & PARKING STRUCTURES	5,000	0.40	5%-7%

ALL DEFORMED REINFORCING BARS: FY = 60,000 PSI.

CEMENT: PORTLAND CEMENT, ASTM C150: TYPE I OR TYPE II; ASTM C1157: TYPE LH OR GU; OR ASTM C595: TYPE IL. ALL CEMENT FOR

CONCRETE EXPOSED TO VIEW IS TO BE FROM THE SAME MILL. AGGREGATES: ASTM C33, USE SIZE NO. 57 FOR ALL MIXES UNLESS NOTED OTHERWISE

ADMIXTURES:
1. WATER-REDUCING, LOW AND MID RANGE: ASTM C494, TYPE A OR D. 2. HIGH-RANGE WATER REDUCING, SUPERPLASTICIZER: ASTM C494, TYPE F OR G.

AIR-ENTRAINING: ASTM C260. G. FLY-ASH: ASTM C618, TYPE C OR F.

EXTERIOR SLABS - BROOM FINISH

C. DETERMINE SLUMP FOR EACH STRENGTH TEST.

H. NON-CHLORIDE, NON-CORROSIVE ACCELERATOR: ASTM C494, TYPE C OR E. VAPOR RETARDER SHALL CONFORM TO ASTM E1745 "STANDARD SPECIFICATION FOR PLASTIC WATER VAPOR RETARDERS USED IN CONTACT WITH SOIL OR GRANULAR FILL UNDER CONCRETE SLABS". CLASS A. VAPOR RETARDER SHALL BE INSTALLED IN ACCORDANCE WITH ASTM E1643 "STANDARD PRACTICE FOR INSTALLATION OF WATER VAPOR

MINIMUM OF 10 MILS THICK AND PLACED DIRECTLY ON THE GRANULAR FILL, BELOW THE CONCRETE FLOOR SLAB. LAP JOINTS A MINIMUM

OF 6 INCHES AND SEAL WITH MANUFACTURER'S RECOMMENDED TAPE OR ADHESIV FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, SP-15 IN THE FIELD OFFICE AT ALL TIMES.

ETARDERS USED IN CONTACT WITH EARTH OR GRANULAR FILL UNDER CONCRETE SLABS. THE VAPOR RETARDEI

SUBMITTALS: A. SUBMIT A MIX DESIGN FOR EACH MIXTURE USAGE REQUIRED FOR THE PROJECT. CONCRETE PROPORTIONS ARE TO BE ESTABLISHED ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL MIXTURES.

SUBMIT PLACING DRAWINGS FOR ALL REINFORCING. INDICATE STRENGTH, SIZE, AND DETAILS OF ALL BAR REINFORCING. SUBMIT PRODUCT LITERATURE FOR ADMIXTURES AND CURING COMPOUNDS PROPOSED FOR USE. SUBMIT REPORTS OF ALL REQUIRED TESTING AND INSPECTIONS.

A. PROVIDE 1/2 TON OF REINFORCING BARS TO BE USED AS DIRECTED BY THE ARCHITECT/ENGINEER. COLD BEND IN THE FIELD, IF

B. PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR ACCIDENTAL OVER EXCAVATION, SOFT SPOTS, AND UTILITY TRENCHES.

A. OPENINGS SHOWN ARE FOR BIDDING PURPOSES ONLY. RECONCILE THEIR EXACT SIZE AND LOCATION WITH ARCHITECTURAL, MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH WORK.

FOOTINGS, PIERS, WALLS:

DOWELS IN FOOTINGS TO MATCH VERTICAL PIER OR WALL REINFORCING PROVIDE CORNER BARS AT FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING.

LAP BARS AS INDICATED IN THE CONCRETE REINFORCING LAP SCHEDULE

A. LAP SPLICE REINFORCING BARS AS SCHEDULED. MINIMUM LAP = 36 DIAMETERS CONSTRUCTION JOINTS: A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER.

A. PER ACI 117, SURFACES OF INTERIOR SLABS ON GRADE ARE TO BE FINISHED TO THE FOLLOWING TOLERANCES: FLOOR FLATNESS F(f)=30

AND LEVELNESS F(I)=20 UNLESS NOTED OTHERWISE IN SPECIFICATIONS TYPICAL INTERIOR FLOOR AREAS TO RECEIVE CARPET, RESILIENT FLOOR COVERING, OR TO REMAIN EXPOSED - TROWELED FINISH. INTERIOR FLOOR AREAS TO RECEIVE QUARRY TILE OR CERAMIC TILE - FLOATED FINISH.

A. CURING IS TO COMMENCE IMMEDIATELY AFTER CONCRETE PLACEMENT AND CONTINUE FOR AT LEAST 7 DAYS. DO NOT ALLOW CURING TO

INTERIOR SLABS TO RECEIVE QUARRY TILE OR CERAMIC TILE ARE TO BE MOIST-CURED WITHOUT THE USE OF A CURING COMPOUND. ALL OTHER SLABS MAY BE EITHER MOIST-CURED OR RECEIVE AN APPLICATION OF CURING COMPOUND.

OBTAIN CONCRETE FOR REQUIRED TESTS AT POINT OF PLACEMENT. IF CONCRETE IS PLIMPED, OBTAIN CONCRETE AT DISCHARGE FOR B. FOR EACH CLASS OF CONCRETE, OTHER THAN LEAN CONCRETE, PERFORM ONE STRENGTH TEST FOR EACH 50 YARDS, OR FRACTION

DETERMINE AIR CONTENT FOR EACH STRENGTH TEST OF EXTERIOR EXPOSED CONCRETE. MAINTAIN RECORDS OF ALL TESTS INDICATING EXACT LOCATION OF THE STRUCTURE REPRESENTED BY EACH TEST

PRECAST CONCRETE PLANK

SPECIFICATIONS: UNLESS SPECIFICALLY SHOWN OTHERWISE, THE DESIGN, FABRICATION, AND ERECTION TO BE GOVERNED BY THE LATEST ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.

PCI MNL 116; MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF PRECAST PRESTRESSED PRODUCTS. THE LOCAL BUILDING CODE. UNDERWRITERS LABORATORY FOR FIRE RESISTANCE RATED ASSEMBLIES.

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT INITIAL PRESTRESS AND 5000 PSI AT 28 DAYS. PORTLAND CEMENT AND AGGREGATES ARE TO BE EQUIVALENT OF ASTM C150 AND ASTM C33 OR C330 RESPECTIVELY B. PRESTRESSING STEEL: UNCOATED SEVEN WIRE STRESS RELIEVED STRAND EQUIVALENT OR ASTM A416. DEFORMED REINFORCING BARS:

STRUCTURAL STEEL SHAPES AND PLATES: ASTM A36. BEARING STRIPS: NEOPRENE, TEMPERED HARDBOARD, OR HIGH-DENSITY PLASTIC.

GROUT: PORTLAND CEMENT AND SAND WITH A MAXIMUM SAND TO CEMENT RATIO OF 3:1.

SUBMIT ERECTION SHOP DRAWINGS WHICH LOCATE AND DEFINE ALL MATERIAL FURNISHED, INCLUDING MANUFACTURER'S STANDARD SLAB DESIGNATIONS. PLANS TO INCLUDE SECTIONS AND DETAILS SHOWING CONNECTIONS AND CAST-IN ITEMS. INDICATE ALL DEAD AND 'E LOADS USED IN THE DESIGN OF THE PLANKS.

PROVIDE MANUFACTURER'S STANDARD PUBLISHED LITERATURE AND LOAD TABLES. SUBMIT DESIGN CALCULATIONS FOR SPECIAL UNITS WHICH HAVE CONDITIONS NOT COVERED BY THE STANDARD LOAD TABLES. THIS INCLUDES, BUT NOT LIMITED TO, OPENINGS WHICH CUT PRESTRESSING STRANDS, CONCENTRATED LOADS, HEADERS, ETC.

CUT NO TENDONS WITHOUT APPROVAL OF MANUFACTURER AND ARCHITECTS. HOLES AND OPENINGS NOT REQUIRING CUTTING OF ENDONS ARE TO BE FIELD CUT, PER MANUFACTURER'S DIRECTIONS B. HOLES AND OPENINGS REQUIRING CUTTING OF TENDONS ARE TO BE LOCATED PRIOR TO CASTING UNITS. MANUFACTURER TO DESIGN AND PROVIDE NECESSARY ADDITIONAL REINFORCING, IN UNIT WITH OPENING, AND IN ADJACENT UNITS.

ALL OPENINGS LARGER THAN ONE SLAB WIDTH ARE TO BE FRAMED WITH CONCRETE OR STRUCTURAL STEEL HEADERS. ADJACENT UNITS O BE DESIGNED TO SUPPORT ADDITIONAL LOAD. D. BETWEEN SLAB EDGES: FILL GROUT KEY FULL AND STRIKE OFF FLUSH WITH TOP SURFACE. REMOVE ANY GROUT WHICH SEEPS THROUGH TO UNDERSIDE OF UNITS, BEFORE IT HARDENS. CLEAN EXCESS FROM FACES OF SUPPORTS AND FLOORS BELOW.

AT SLAB ENDS: WHERE END GROUTING IS SHOWN ON THE DRAWINGS, PROVIDE SUITABLE END CAP OR DAM IN VOIDS.

WELD TO SUPPORTS, AS SHOWN ON THE DRAWINGS. COOPERATE WITH OTHER TRADES IN PERMITTING INSERTION OF ANCHORS, HANGERS, ELECTRICAL OUTLETS, ETC. APPLY CAULKING UNIFORMLY WHERE UNDERSIDE IS TO BE PAINTED, USING NO MORE THAN NECESSARY TO FILL THE JOINTS. SMOOTH WITH FINGER, LEAVING 1/8 INCH DEPRESSION.

PROVIDE 3/8" DIAMETER WEEP HOLES IN THE UNDERSIDE OF ALL PRECAST PLANK UNITS. WEEPS ARE TO BE LOCATED 12" FROM EACH END

MASONRY

A. CONCRETE BLOCK: ASTM C90 (HOLLOW AND SOLID), MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS = 2,600

. MORTAR: ASTM 270 TYPE S, MINIMUM COMPRESSIVE STRENGTH = 1,800 PSI GROUT FOR BOND BEAM AND CORE FILL: ASTM C476, COARSE TYPE WITH fc = 2,500 PSI MIN.

SET BEARING STRIPS WHERE REQUIRED, SMOOTH SIDE UP.

OF THE UNIT AND SPACED AT EACH OPEN CORE.

DESIGN COMPRESSIVE STRENGTH OF MASONRY SYSTEM: fm = 2,250 PSI ALL DEFORMED REINFORCING BARS: FY = 60.000 PSI, LAP BARS AS INDICATED IN THE CONCRETE MASONRY REINFORCING LAP SCHEDULE. HORIZONTAL JOINT REINFORCING: STANDARD LADDER TYPE, 9 GA., HOT-DIPPED GALVANIZED FINISH, PROVIDE AT 8" O.C. BELOW GRADE.

PROVIDE CONTROL JOINTS IN ALL MASONRY WALLS AT A SPACING NOT TO EXCEED THREE TIMES THE WALL HEIGHT OR 24 FEET ON CENTER, WHICHEVER IS SMALLER. IN ADDITION, PROVIDE CONTROL JOINTS AT THE ENDS OF LINTELS, CHANGES IN WALL HEIGHT HANGES IN WALL THICKNESS, WITHIN 2 FEET OF WALL CORNERS AND INTERSECTIONS, TRANSITIONS FROM INTERIOR WALL TO EXTERIOR WALL, AND TRANSITIONS FROM WALL BEARING ON FOUNDATION TO WALL BEARING ON FLOOR SLAB.

MISCELLANEOUS: PROVIDE 100% SOLID CMU BEARING, MINIMUM 3 COURSES UNDER BEAMS, UNLESS DETAILED OTHERWISE.

PROVIDE SOLID OR GROUT-FILLED CMU FOR ALL BELOW-GRADE FOUNDATION WALLS. FILL CORE SOLID AROUND CAST-IN ANCHOR RODS.
PROVIDE SOLID CMU OR SOLIDLY FILLED HOLLOW CMU AT ALL EPOXY ANCHOR AND WEDGE ANCHOR LOCATIONS. EXTEND SOLID AREA AT

LEAST 8" IN ALL DIRECTIONS FROM CENTER OF ANCHOR. SET WELD PLATES IN BOND BEAMS AFTER THE GROUT IS PLACED, BUT WHILE IT IS STILL PLASTIC. FILL ALL BEARING POCKETS AROUND BEAM WITH SOLID CMU. HOLLOW MASONRY UNITS TO BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS ARE TO ALSO BE BEDDED IN ALL COURSES OF PIERS, PILASTERS, THE STARTING COURSE ON FOOTINGS, AND WHEN ADJACENT TO CELLS OR CAVITIES

TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT. SOLID UNITS TO BE LAID WITH FULL HEAD AND BED JOINTS.

H. PROVIDE APPROPRIATE MASONRY ANCHORS AT 16" O.C. MAX. TO TIE MASONRY TO ABUTTING STEEL COLUMNS, STEEL BEAM WEBS, AND ALL ABUTTING CONCRETE SURFACES.

WHERE HOLLOW MASONRY UNITS ARE USED ABOVE HOLLOW MASONRY UNITS OF A DIFFERENT THICKNESS, PROVIDE A CONTINUOUS OURSE OF SOLID MASONRY AT LEAST 8" HIGH BELOW THE TRANSITION.

LAP SPLICE REINFORCING BARS AS SCHEDULED. ALL GROUTING OF MASONRY WALLS IS TO BE BY THE LOW-LIFT GROUTING METHOD (MAXIMUM LIFT HEIGHT 5'-0"), UNLESS CLEAN-OUTS AND INSPECTIONS ARE PROVIDED.

STRUCTURAL STEEL

MISCELLANEOUS:

 MATERIALS: STRUCTURAL STEEL WIDE FLANGE SHAPES: ASTM A992, Fy = 50 KSI

STRUCTURAL STEEL CHANNELS, ANGLES, ETC.: ASTM A36, Fy = 36 KSI STRUCTURAL STEEL PLATES: UNLESS NOTED OTHERWISE - ASTM A36, Fy = 36 KSI; ASTM A529 OR A572, Fy = 50 KSI, WHERE NOTED HIGH STRENGTH BOLTS: ASTM A325

ANCHOR RODS: ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE ELECTRODES: SERIES E70 RECTANGULAR HSS: ASTM A500, GRADE C, FY = 50 KSI

ROUND HSS: ASTM A500, GRADE C, FY = 46 KSI STRUCTURAL PIPES: ASTM A53, GRADE B, FY = 35 KSI SHEAR STUDS: ASTM A108, FY = 60 KSI DEFORMED BAR ANCHORS: ASTM A1064, Fy = 70 KSI

WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION TO BE GOVERNED BY THE LATEST REVISIONS OF:

1. AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

AISC CODE OF STANDARD PRACTICE. STRUCTURAL WELDING CODE, AWS D1.1 OF THE AMERICAN WELDING SOCIETY. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL WHICH INCLUDE ERECTION PLANS, CONNECTION DETAILS, AND SHOP DETAILS INDICATING CUTS, COPES, CAMBERS, CONNECTIONS, HOLES, THREADED FASTENER TYPES AND SIZES, AND SIZES AND LENGTHS OF

B. INDICATE MATERIAL SPECIFICATIONS, STRENGTHS, AND FINISHES. FIELD CONNECTIONS ARE TO BE BOLTED, EXCEPT AS INDICATED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED.

CONNECTIONS ARE TO BE DESIGNED BY THE FABRICATOR TO DEVELOP EITHER 100% OF THE FULL UNIFORM LOAD CAPACITY OF THE MEMBER, OR THE FORCES SHOWN ON THE PLANS. MINIMUM CONNECTION CAPACITY TO BE 15 KIPS. FOLLOW INSTRUCTIONS ON DRAWINGS FOR GENERAL ARRANGEMENT OR PARTICULAR DETAILS. MISCELLANEOUS STEEL MEMBERS (ANGLES, CHANNELS, ETC.) THAT SUPPORT DECK AROUND THE PERIMETER OF A FLOOR OR ROOF SHALL BE CONTINUOUS. WHERE SPLICES IN THESE MEMBERS MUST OCCUR TO FACILITATE ERECTION. PROVIDE PARTIAL PENETRATION QUARE GROOVE WELD (BUTT JOINT) W/3/16" EFFECTIVE THROAT ON ONE SIDE, EACH LEG.

DO NOT PAINT STEEL OR ANCHOR RODS WHICH WILL BE ENCASED IN CONCRETE OR MASONRY, NOR ANY STEEL WHICH IS SCHEDULED TO RECEIVE SPRAY-APPLIED OR INTUMESCENT-MASTIC FIREPROOFING. PAINT ALL INTERIOR EXPOSED STEEL (INCLUDING INTERIOR LINTELS) WITH TWO COATS OF RED-OXIDE PRIMER.

HOT-DIP GALVANIZE ALL EXTERIOR STEEL (INCLUDING LINTELS AND BRICK SHELF ANGLES). PROVIDE A FIELD-APPLIED COAT OF ASPHALT-MASTIC PAINT FOR ALL BELOW-GRADE STEEL (INCLUDING ANCHOR RODS, NUTS, WASHERS, BASE PLATES, AND THE BELOW-GRADE PORTION OF COLUMNS) WHICH IS NOT FULLY ENCASED IN CONCRETE. E. INTERIOR NON-EXPOSED STEEL NEED NOT BE PRIME PAINTED.

PROVIDE HOLES FOR OTHERS. IF OPENING IS NOT SHOWN ON THE STRUCTURAL DRAWINGS, OBTAIN PRIOR APPROVAL. B. STEEL SUPPORTING OR CONNECTING TO MECHANICAL AND OTHER EQUIPMENT AND ROOF OPENINGS AS SHOWN ON ARCHITECTURAL MECHANICAL AND/OR ON STRUCTURAL DRAWINGS IS SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO RECONCILE EXACT SIZE ND LOCATION WITH MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THIS WORK. GROUT UNDER BEARING PLATES TO BE NON-METALLIC, NON-SHRINKING TYPE.

D. STEEL BELOW GRADE TO BE PROTECTED BY A MINIMUM OF 3" OF CONCRETE, 4" OF SOLID MASONRY, OR A FIELD-APPLIED COAT OF E. PROVIDE 1/4* THICK SETTING PLATES FOR ALL BEAMS AND BEAM LINTELS BEARING ON MASONRY OR CONCRETE WHICH DO NOT REQUIRE PROVIDE HEAVY PLATE WASHERS AT ALL ANCHOR RODS.

FINISH ENDS OF ALL COLUMNS, STIFFENERS AND ALL OTHER MEMBERS IN DIRECT BEARING. PROVIDE BOLT HOLES FOR WOOD NAILERS.
STEEL IN CONTACT WITH PRESSURE-TREATED LUMBER IS TO BE PROTECTED FROM CORROSION FROM PRESERVATIVE CHEMICALS WITH A 20 MIL (MIN.) VAPOR BARRIER. BOLTS AND SCREWS THROUGH PRESSURE-TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. PROVIDE MISCELLANEOUS ANGLES OR CHANNELS TO SUPPORT DECK EDGES AROUND COLUMNS THAT EXTEND THROUGH THE DECK.

PROVIDE ADDITIONAL SUPPORT FOR ALL DECK OPENINGS THAT ARE EQUAL TO OR GREATER THAN 12" IN WIDTH OR DIAMETER. NOT ALL DECK OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE SIZE AND LOCATION WITH ARCHITECTURAL, MECHANICAL, L. SEE ARCHITECTURAL SECTIONS AND DETAILS FOR ALL MISCELLANEOUS STRUCTURAL STEEL NOT OTHERWISE INDICATED IN THE TRUCTURAL DRAWINGS.

INSPECTION AGENCY IS TO PERFORM INSPECTION OF BOLTED CONNECTIONS PER THE REQUIREMENTS OF AISC SPECIFICATION FOR

A. PROVIDE AND ERECT 1/2 TON OF STRUCTURAL AND/OR MISCELLANEOUS STEEL (STRUCTURAL SHAPES, ANGLES, PLATES, ETC.) TO BE USED AS DIRECTED BY THE ARCHITECT/ENGINEER. CONNECTIONS TO BE FIELD-WELDED IF REQUIRED. METAL DECK

 MATERIALS: GALVANIZED SHEET STEEL: ASTM A653

B. ROOF DECK: 3" DEEP, 20 GAGE, GALVANIZED. ROOF DECK: BEAM/JOIST SPACINGS SHOWN ON FRAMING PLANS INDICATE MAXIMUM SPACINGS TO SUPPORT ROOF LIVE. SNOW LOADS (INCLUDING DRIFTING), AND WIND LOADS. DECK MANUFACTURER TO SUPPLY DECK CAPABLE OF SUPPORTING MAXIMUM LOADING INDICATED AT BEAM/JOIST SPACINGS PROVIDED. SEE GENERAL STRUCTURAL NOTES, ROOF FRAMING PLAN NOTES, AND ROOF FRAMING PLAN OR SNOW DRIFT PLAN TO OBTAIN THESE VALUES.

WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS. DESIGN, FABRICATION, AND ERECTION TO BE GOVERNED BY THE LATEST REVISIONS OF:

AISI "SPECIFICATION OF THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."
STRUCTURAL WELDING CODE, AWS D1.3 OF THE AMERICAN WELDING SOCIETY. SDI "DESIGN MANUAL FOR FLOOR DECK AND ROOF DECKS".

DECK TO STRUCTURAL STEEL: 5/8" DIAMETER PUDDLE WELDS. SIDE LAP FASTENING: #10 SCREWS ROOF DECK FASTENING TO RESIST A GROSS UPLIFT OF 30 PSF MINIMUM.

A. GALVANIZED: CONFORM TO ASTM A653, G60.

6. MISCELLANEOUS: UNITS ARE TO BE CONTINUOUS OVER AT LEAST THREE SPANS. WHERE FEWER THAN THREE SPANS ARE NEEDED, GAGE IS TO BE INCREASED AS REQUIRED TO OBTAIN THE SAME DESIGN STRENGTH AS THE THREE-SPAN CONDITION. END LAPS ARE ONLY BE LOCATED OVER SUPPORTS.

FIELD CUTTING TO BE PERFORMED WITH A SAW. C. METAL DECK SHOULD BE PROTECTED FROM CORROSION FROM PRESERVATIVE CHEMICALS IN PRESSURE-TREATED LUMBER WITH A MINIMUM 20 MIL VAPOR BARRIER. ALL FASTENERS AND CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 AND ASTM A123 WITH A MINIMUM G185 COATING. PROVIDE ADDITIONAL SUPPORT FOR ALL DECK OPENINGS THAT ARE EQUAL TO OR GREATER THAN 12" IN WIDTH OR DIAMETER. NOT ALL

DECK OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE SIZE AND LOCATION WITH ARCHITECTURAL, MECHANICAL

STRUCTURAL LUMBER

STRUCTURAL LUMBER: ALL DESIGN VALUES PER 2015 NFPA NATIONAL DESIGN SPECIFICATION. ANY SUBSTITUTIONS ARE TO MEET MINIMUM DESIGN VALUES OF ABOVE MEMBERS. UNLESS NOTED OTHERWISE FRAMING MATERIALS SHALL BE: BEAMS, HEADERS, JOISTS, AND RAFTERS - SPRUCE-PINE-FIR NO.1/NO.2 AS GRADED BY NLGA

WALL STUDS 2x4 OR 2x6 - SPRUCE-PINE-FIR NO.1/NO.2 AS GRADED BY NLGA MICRO=LAM (M=L) OR LAMINATED VENEER LUMBER (LVL): Fb = 2,600 PSI, Fv = 285 PSI, Fc (PERP.) = 750 PSI, E = 1,900 KSI. 4) PARALLAM OR PARALLEL STRAND LUMBER (PSL) a. BEAMS: Fb = 2.900 PSI, Fv = 290 PSI, Fc (PERP.) = 750 PSI, E = 2.000 KSI

COLUMNS: Fb = 2,400 PSI, Fv = 190 PSI, Fc (PERP.) = 545 PSI, E = 1,800 KSI. 5) ENGINEERED WOOD RIM BOARD — SHALL CONFORM TO APA PRR-410

DECKING AND SHEATHING (OSB OR PLYWOOD):

ROOFS: 19/32 (5/8" NOMINAL) APA RATED SHEATHING, 40/20, EXPOSURE 1 WALL SHEATHING: 7/16" APA RATED SHEATHING, WALL-24, EXPOSURE 1 B. ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY, GROUND/SOIL, OR USED IN CONDITIONS WITH MOISTURE PRESENT, IS TO BE RESSURE-TREATED TO RESIST DECAY. PRESERVATIVES USED FOR PRESSURE TREATMENT ARE TO BE ALKALINE COPPER QUAT, ACQ-C OR ACQ-D. OTHER PRESERVATIVES PROPOSED FOR USE ARE TO BE SUBMITTED FOR REVIEW PRIOR TO ERECTION OR INSTALLATION ON C. FIRE-RETARDANT-TREATED WOOD PRODUCTS — MUST CONFORM TO ASTM D5664 FOR LUMBER AND ASTM D5516 FOR PLYWOOD.

A. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION ARE TO BE GOVERNED BY THE LATEST REVISIONS OF: NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. U.S. PRODUCT STANDARD PS-1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD. APA PS 2-18, PERFORMANCE STANDARD FOR WOOD STRUCTURAL PANELS.

APA DESIGN/CONSTRUCTION GUIDE - RESIDENTIAL AND COMMERCIAL. CONNECTIONS FOR WOOD MEMBERS SHALL BE MINIMALLY FASTENED AS PRESCRIBED IN TABLE 2304.10.1 OF THE REFERENCED BUILDING CODE UNLESS DETAILED OTHERWISE. ALL NAILS ARE TO BE COMMON WIRE NAILS, UNLESS SPECIFICALLY NOTED OTHERWISE. FOUNDATION PLATES ON CONCRETE OR MASONRY WALLS SHALL BE PRESSURE TREATED LUMBER, SOUTHERN PINE #2 GRADE MINIMUM. SILLS SHALL BE ANCHORED TO CONCRETE OR MASONRY WITH 1/2" DIAMETER x 12" LONG ANCHOR RODS SPACED AT 48" O.C. MAXIMUM. UNLESS NOTED OTHERWISE. THERE SHALL BE A MINIMUM OF 3 BOLTS PER SILL PIECE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END

OF EACH PIECE. DO NOT PROVIDE A SILL PLATE SPLICE UNDER ANY POST OR STUD. SEE SHEARWALL SCHEDULE AND DETAILS FOR C. ALL HANGERS, STRAPS, CAPS, BASES, HOLDOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE BATCH/POST HOT DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. D. ALL FASTENERS INCLUDING NAILS, ANCHOR RODS, POWDER ACTUATED FASTENERS, SCREWS, BOLTS, AND THREADED RODS, IN CONTACT

WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT DIPPED GALVANIZED, DO NOT MIX MATERIALS. ALL MECHANICAL ANCHORS INCLUDING WEDGE ANCHORS AND SLEEVE ANCHORS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. ROOFS - USE 10d NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (UNO).

STUD WALLS - USE 8d COMMON OR GALVANIZED BOX NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (UNO). SEE SHEARWALL SCHEDULES FOR ADDITIONAL FASTENING REQUIREMENTS. TRUSS TO WALL OR RAFTERS TO WALL - STANDARD HURRICANE ANCHORS AT EACH BEARING POINT. ADDITIONAL ANCHORS MAY BE REQUIRED BASED UPON FINAL LAYOUT AND DESIGN BY THE TRUSS MANUFACTURER DURING THE SHOP DRAWING PROCESS

PROVIDE ONE LINE OF SOLID BLOCKING OR CROSS BRIDGING AT 8'-0" O/C MAX. FOR ALL FLOOR JOISTS. USE SOLID BLOCKING AT ALL JOIST B. PROVIDE SOLID BLOCKING AT MID-HEIGHT OF WALLS FOR EACH OF THE FOLLOWING CONDITIONS: EXTERIOR STUD WALLS, INTERIOR BEARING PARTITIONS, AND ALL WALL FRAMING WHICH IS NOT SHEATHED ON EACH SIDE WITH GYPSUM OR WOOD SHEATHING. C. LISE SINGLE JACK STUDS LINDER BEAM AND HEADER BEARINGS FOR ROUGH OPENINGS UP AND INCLUDING 4'-0" AND DOUBLE JACK STUDS NDER BEAM AND HEADER BEARINGS FOR SPANS GREATER THAN 4'-0", UNLESS SHOWN OTHERWISI

PROVIDE TEMPORARY CONSTRUCTION EXPANSION JOINTS IN ALL WOOD STRUCTURAL PANEL FLOOR AND ROOF DIAPHRAGMS IN 80'-0" MAXIMUM INTERVALS IN ACCORDANCE WITH AMERICAN PLYWOOD ASSOCIATION'S (APA) TECHNICAL DOCUMENT U425. F. BEFORE APPLYING FINISH FLOORING, SET NAILS 1/8" BUT DO NOT FILL, AND LIGHTLY SAND ANY SURFACE ROUGHNESS, PARTICULARLY AT G. EACH MEMBER OF MULTIPLE MEMBER BEAMS AND COLUMNS ARE TO BE NAILED TOGETHER WITH 2 ROWS OF 10d NAILS AT 6" ON CENTER, STAGGERED, THE FULL LENGTH OF THE MEMBER. FOR MULTIPLE MEMBER LVL OR LSL PRODUCTS, FOLLOW MINIMUM FASTENING

ENGINEERED WOOD TRUSSES

A. LUMBER: AS REQUIRED BY THE TRUSS MANUFACTURE. KD 19 PERCENT MAXIMUM MOISTURE CONTENT (15 PERCENT MAXIMUM MOISTURE CONTENT FOR SOUTHERN PINE MEMBERS). ALL WOOD FOR TRUSSES SHALL BE FRTW. B. CONNECTIONS: ALL INTERNAL TRUSS CONNECTIONS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER. CONNECTORS ARE TO BE DEFORMED PLATE TYPE, OF MINIMUM 20 GAUGE GALVANIZED STEEL SHEET. ALL JOINTS ARE TO BE DESIGNED USING METHODS AS SET C. ALL HANGERS, STRAPS, CAPS, BASES, HOLDOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO

BE BATCH/POST HOT DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. ALL FASTENERS INCLUDING NAILS, ANCHOR RODS, POWDER ACTUATED FASTENERS, SCREWS, BOLTS, AND THREADED RODS, IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME

MATERIAL, STAINLESS STEEL OR HOT DIPPED GALVANIZED, DO NOT MIX MATERIALS SPECIFICATIONS AND REFERENCE STANDARDS: UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION, ERECTION, HANDLING AND BRACING REQUIREMENTS ARE TO BE GOVERNED BY THE LATEST REVISIONS OF: NATIONAL DESIGN SPECIFICATIONS FOR STRESS-GRADE LUMBER AND ITS FASTENINGS. TIMBER CONSTRUCTION STANDARDS.

DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES. TRUSS PLATE INSTITUTE PUBLICATION-BTW BRACING WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS EXCEPT AS NOTED

A. ALL TRUSSES ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER FOR THE FOLLOWING LOADS:

APPLY CONTINUOUS BEAD OF GLUE ON JOISTS AND GROOVE OF TONGUE-AND-GROOVE PANELS.

- TOP CHORD DEAD LOAD - TOP CHORD LIVE LOAD: 24 PSF - BOTTOM CHORD DEAD LOAD: 10 PSF - BOTTOM CHORD LIVE LOAD: 0 PSF LIVE LOAD DEFLECTION LIMIT: TOTAL LOAD DEFLECTION LIMIT

TRUSS DESIGNER SHALL INCLUDE ADDITIONAL WEIGHT OF DEAD LOADS APPLIED TO TRUSSES FROM OVER-FRAMED AREAS INDICATED ON PLANS. WHERE TRUSSES ARE INDICATED TO SUPPORT BRICK VENEER. LIMIT TRUSS DEFLECTION TO L/600

IN ACCORDANCE WITH ASCE 7-10 USING THE CRITERIA DEFINED IN THE "DESIGN LOADS" SECTION OF THE GENERAL STRUCTURAL NOTES. SNOW LOADS ARE TO INCLUDE THE EFFECTS OF "UNBALANCED SNOW LOADS FOR HIP AND GABLE ROOFS" IN ACCORDANCE WITH ASCE 7-10 USING THE CRITERIA DEFINED IN THE "DESIGN LOADS" SECTION OF THE GENERAL STRUCTURAL NOTES.

SEE PLANS AND DETAILS FOR DRAG STRUT LOCATIONS AND LOADING REQUIREMENTS.

TRUSSES ARE TO BE DESIGNED FOR "COMPONENTS AND CLADDING" WIND LOADS UNLESS NOTED OTHERWISE

SEE PLANS AND ELEVATIONS FOR ADDITIONAL LOADS TO BE CONSIDERED IN THE TRUSS DESIGN. B. WHERE TRUSSES ARE REQUIRED TO FRAME INTO OTHER TRUSSES, DESIGN OF THE CONNECTIONS ARE TO BE THE RESPONSIBILITY OF THE TRUSS SUPPLIER. THE TRUSS SUPPLIER IS TO MAKE NECESSARY PROVISIONS IN THE SUPPORTING TRUSS TO ACCEPT THE TYPE OF C. THE DESIGN OF ALL WEB MEMBER PERMANENT BRACING REQUIRED FOR THE STRUCTURAL ADEQUACY OF THE TRUSSES, IS TO BE THE

SOLE RESPONSIBILITY OF THE TRUSS SUPPLIER.

ADDITIONAL PERMANENT BRACE SIZES AND CONNECTIONS, NOT PROVIDED BY THE SHEATHING SHOWN ON THE CONSTRUCTION DRAWINGS, ARE TO BE THE SOLE RESPONSIBILITY OF THE TRUSS SUPPLIER. THIS BRACING CAN INCLUDE, BUT IS NOT LIMITED TO, TOP CHORD BRACING FOR TRUSSES WITH PIGGY-BACKS, AND INTERMEDIATE BRACES FOR GABLE TRUSS WEB MEMBERS.

TRUSS DESIGNS ARE TO BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. TRUSS SUBMITTAL IS TO INCLUDE THE FOLLOWING DESIGN INFORMATION FOR EACH TYPE OF TRUSS SUPPLIED. LAYOUT DRAWING INDICATING LOCATION OF EACH SPECIFIC TRUSS TYPE AND ANY PERMANENT HORIZONTAL BRACING MEMBERS.

PERMANENT MEMBER BRACE LOCATIONS, BRACE SIZES, AND CONNECTIONS TRUSS HANGER TYPE AND LOCATION, FOR ALL TRUSSES FRAMING INTO TRUSSES TRUSS DESIGNS AND LAYOUT DRAWING STAMPED BY A REGISTERED PROFESSIONAL ENGINEER, IN THE STATE OF PROJECT SUBMITTALS WHICH DO NOT INCLUDE THE ABOVE LISTED INFORMATION WILL BE RETURNED TO THE CONTRACTOR PRIOR TO REVIEW.

FINAL APPROVED SUBMITTALS SHALL BE SUBMITTED TO THE GOVERNING BUILDING DEPARTMENT FOR RECORD MISCELLANEOUS:

MANUFACTURER TRAINING PROGRAMS.

ALL GIRDER TRUSSES ARE TO BE 2-PLY MINIMI IM B. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE APPROVED TRUSS SHOP DRAWINGS, ALL MEMBERS OF MULTIPLE TRUSSES ARE TO BE AILED TOGETHER WITH 10d COMMON NAILS AT 8" O.C., FOR DOUBLE TRUSSES, OR WITH 16d COMMON NAILS AT 8" O.C. FROM EACH SIDE

POST-INSTALLED ANCHOR SYSTEMS

A. LISTED ANCHOR PRODUCTS PROVIDED BELOW ARE NOT TO BE USED AS INTERCHANGEABLE PRODUCTS. EACH ANCHOR HAS DEFINED CAPACITIES BASED UPON TESTED PERFORMANCE WITH APPLICABLE SAFETY FACTORS AND WILL VARY ACROSS MANUFACTURERS. TYPES OF ANCHORS INDICATED THROUGHOUT THE DESIGN DOCUMENTS ARE DETAILED FOR THEIR SPECIFIC PURPOSE AND CAPACITY.
SUBSTITUTION OF ANCHORS FROM THOSE SPECIFIED ARE ONLY ALLOWED AFTER ENGINEER REVIEW AND APPROVAL OR AMENDMENT

B. PROVIDE ANCHORAGE MATCHING MANUFACTURER, TYPE, DIAMETER, EMBEDMENT, AND BASE MATERIAL AS INDICATED IN THE ALL POST-INSTALLED ANCHORS TO BE HAMMER DRILLED. FOLLOW ALL HOLE CLEANING AND INSTALLATION INSTRUCTIONS AS STIPULATED BY THE ANCHOR MANUFACTURER. FOLLOW ALL OSHA GUIDELINES FOR CONCRETE DRILLING AS IT PERTAINS TO SILICA DUST. INSTALLATION OF ADHESIVE ANCHORS MUST BE PERFORMED BY PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS THROUGH

INSTALLATION OF ADHESIVE ANCHORS IN THE HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND WHERE SUPPORTING SUSTAINED TENSION LOADS SHALL BE INSTALLED BY CERTIFIED PERSONNEL BY ACI/CRSI INSTALLATION PROGRAMS. MINIMUM CONCRETE AGE FOR POST-INSTALLED ADHESIVE ANCHORS SHALL BE NOT LESS THAN 28 DAYS. G. ALL ANCHORS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT DIPPED GALVANIZED, DO NOT MIX MATERIALS.

MINIMUM EMBEDMENT FOR MECHANICAL EXPANSION ANCHORAGE SYSTEMS IS TO BE 7 BOLT DIAMETERS. MINIMUM EMBEDMENT FOR CREW ANCHORAGE AND ADHESIVE ANCHORAGE SYSTEMS IS TO BE 9 BOLT DIAMETERS.

2. ANCHORAGE TO CONCRETE MASONRY OR BRICK MASONRY AS INDICATED: A. FOLLOW ALL MANUFACTURERS INSTALLATION INSTRUCTIONS IN REGARD TO LOCATION OF ANCHORS AWAY FROM HEAD JOINTS, MINIMUM

EDGE DISTANCES, AND MINIMUM ANCHOR SPACING. B. ACCEPTABLE MECHANICAL EXPANSION ANCHORAGE SYSTEMS: DEWALT POWER STUD +SDI, SD4/SD6 WEDGE EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY HILTI KWIK BOLT 3 EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY

SIMPSON STRONG-BOLT 2 WEDGE EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
 ACCEPTABLE MECHANICAL SLEEVE ANCHORAGE SYSTEMS: (MAY NOT BE USED TO SECURE MAIN BUILDING FRAME COMPONENTS)

DEWALT LOK-BOLT AS SLEEVE ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY, AND SOLID BRICK MASONRY HILTI HLC SLEEVE ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY, AND SOLID BRICK MASONRY SIMPSON SLEEVE-ALL SLEEVE ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY ACCEPTABLE MECHANICAL SCREW ANCHORAGE SYSTEMS: HILTI KWIK HUS-EZ SCREW ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY

DEWALT SCREW-BOLT+ SCREW ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY AND BRICK MASONRY SIMPSON TITEN HD SCREW ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY ACCEPTABLE ADHESIVE ANCHORAGE SYSTEMS: DEWALT AC100+ GOLD FOR THREADED ROD AND REINFORCING BAR IN GROUT FILLED MASONRY CONSTRUCTION. USE WITH SCREEN

2. HILTI HIT-HY 270 ADHESIVE FOR THREADED ROD, REINFORCING BAR, AND HILTI SPECIFIC ROD AND INSERT SYSTEMS IN GROUT

LLED OR SOLID CONCRETE MASONRY CONSTRUCTION. USE WITH SCREEN TUBES IN HOLLOW MASONRY, MULIT-WYTHE MASONRY, 3. SIMPSON SET-XP ADHESIVE FOR THREADED ROD AND REINFORCING BAR IN GROUT FILLED, SOLID, AND HOLLOW CONCRETE

IN ACCORDANCE WITH CHAPTER 17 OF THE REFERENCE BUILDING CODE, THE OWNER SHALL EMPLOY INSPECTION AGENCIES TO PERFORM SPECIAL INSPECTIONS DURING CONSTRUCTION INCLUDING INSPECTIONS OF SHOP-FABRICATED ITEMS WHEN APPLICABLE. ALL INSPECTION AGENCIES, INCLUDING FABRICATION FACILITIES, WHEN REQUIRED, SHALL BE QUALIFIED AND APPROVED BY THE BUILDING OFFICIAL. REFER TO OTHER DISCIPLINES FOR SPECIAL INSPECTIONS OF NON-STRUCTURAL SYSTEMS.

REQUIRED SPECIAL INSPECTIONS AND TESTS FOR SOILS

STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL DISCIPLINE

TYPE	SPECIAL INSPECTION	SPECIAL INSPECTION	INSPECTION OR EXECUTION TASKS PRIOR TO D
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		Х	A. VERIFY COMPLIANCE OF MATERIALS (D PROFILES, MATERIAL PROPERTIES, ANI
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		Х	B. DOCUMENT ACCEPTANCE OR REJECTION
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		Х	2. INSPECTION OR EXECUTION TASKS AFTER DEC
VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	Х		A. VERIFY COMPLIANCE OF DECK AND ALI B. VERIFY DECK MATERIALS ARE REPRES
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		Х	DOCUMENTS. C. DOCUMENT ACCEPTED OR REJECTION
			3. INSPECTION OR EXECUTION TASKS PRIOR TO V
			A. WELDING PROCEDURE SPECIFICATION
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTR	RUCTION		B. MANUFACTURER CERTIFICATIONS FOR
ТҮРЕ	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	C. MATERIAL IDENTIFICATION (TYPE/GRAD
INSPECT REINFORCEMENT AND VERIFY PLACEMENT.		Х	CHECK WELDING EQUIPMENT: 4. INSPECTION OR EXECUTION TASKS DURING WE
2. INSPECT ANCHORS CAST IN CONCRETE.		Х	A. USE OF QUALIFIED WELDERS.
3. VERIFY USE OF REQUIRED DESIGN MIX.		Х	B. CONTROL AND HANDLING OF WELDED
 PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. 	Х		C. ENVIRONMENTAL CONDITIONS (WIND S
5. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	Х		D. WPS FOLLOWED
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X	INSPECTION OR EXECUTION TASKS AFTER WEL A. VERIFY SIZE AND LOCATION OF WELDS
			B. WELDS MEET VISUAL ACCEPTANCE CR
'LEVEL A' QUALITY ASSURANCE REQUIRED SPECIAL INSPECTIONS AND TESTS OF MA			C. VERIFY REPAIR ACTIVITIES.
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	D. DOCUMENT ACCEPTANCE OR REJECTION
1. PRIOR TO CONSTRUCTION, VERIFY CERTIFICATES OF COMPLIANCE USED IN MASONRY CONSTRUCTION.		Х	STEEL DECK INSPECTION NOTES:
			 "PERFORM" — SHALL MEAN TO PERFORM THES
'LEVEL B' QUALITY ASSURANCE REQUIRED SPECIAL INSPECTIONS AND TESTS OF MA	SONRY CONSTRUCTION		2. "OBSERVE" — SHALL MEAN TO INSPECT THESE

MINIMUM TESTS		
VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED		
IN ACCORDANCE WITH ARTICLE 1.5.B.1.b.3 FOR SELF CONSOLIDATING	GROUT	
VERIFICATION OF f_m AND f_{MC} IN ACCORDANCE WITH ARTICLE 1.4B PRIOR TO (CONSTRUCTION,	
EXCEPT WHERE SPECIFICALLY EXEMPTED BY THE CODE.		
MINIMUM SPECIAL INSPECTION		
ТУРЕ	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTI
VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.		Х
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:		
A. PROPORTIONS OF SITE-PREPARED MORTAR.		Х
B. CONSTRUCTION OF MORTAR JOINTS.		Х
C. LOCATION OF REINFORCEMENT AND CONNECTORS.		Х
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:		
A CROUT SPACE		v

 A. GROUT SPACE. B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS. C. PLACEMENT OF REINFORCEMENT AND CONNECTORS. D. PROPORTIONS OF SITE-PREPARED GROUT. E. CONSTRUCTION OF MORTAR JOINTS 4. VERIFY DURING CONSTRUCTION: A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS. B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONR TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION. C. WELDING OF REINFORCEMENT. D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F)

'LEVEL C' QUALITY ASSURANCE REQUIRED SPECIAL INSPECTIONS AND TESTS OF MASONRY CONSTRUCTION

MINIMUM TESTS

VERIFICATION OF $f_{\scriptscriptstyle m}$ AND $f_{\scriptscriptstyle AGC}$ IN ACCORDANCE WITH ARTICLE 1.4B PRIOR TO CONSTRUCTION AND FOF

E. PLACEMENT OF GROU

5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS.

3 ORSERVE PREPARATION OF CROLLT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS

RESTRAINT/BRACING INSTALLED

EVERY 5,000 SQ. FT. DURING CONSTRUCTION. VERIFICATION OF PROPORTIONS OF MATERIALS IN PREMIXED OR PREBLENDED MORTAL VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH ARTICLE 1.5.B.1.b.3 FOR SELF CONSOLIDATING GROUT MINIMUM SPECIAL INSPECTION SPECIAL INSPECTION SPECIAL INSPECTION VERIEY COMPLIANCE WITH THE APPROVED SUBMITTALS VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE A. PROPORTIONS OF SITE-MIXED MORTAR AND GROUT. B. GRADE, TYPE, AND SIZE OF REINFORCEMENT. C. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS. D. PLACEMENT OF REINFORCEMENT AND CONNECTORS E. GROUT SPACE PRIOR TO GROUTING F. PLACEMENT OF GROUT. G. SIZE AND LOCATION OF STRUCTURAL ELEMENTS. H. TYPE, SIZE, AND LOCATIONS OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURIN (TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F)

5. OBSERVE FREFARATION OF GROOT SECUNIENS, MORTAR SECUNIENS, AND/OR FRISMS.	^	
4. OBSERVE PLACEMENT OF POST-INSTALLED ANCHORS FOR DOOR FRAMES.	Х	
REQUIRED SPECIAL INSPECTIONS AND TESTS OF COLD-FORMED STEEL — LIGHT FR	RAME CONSTRUCTION	
ТҮРЕ	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
WELDING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM		Х
 SCREW ATTACHMENT, BOLTING, ANCHORING, AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE- RESISTING SYSTEM, INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLD-DOWNS. 		Х
3. COLD-FORMED STEEL TRUSSES SPANNING 60 FEET OR GREATER.		
A VEDICY TEMPORARY RESTRAINT/RRACING AND PERMANENT INDIVIDITAL TRUSS MEMBER		

STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL DISCIPLINE

TYPE	PERFORM	OBS
INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT:	1 214 31411	050
A. VERIFY COMPLIANCE OF MATERIALS (DECK AND DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS.	x	-
B. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES.	x	
2. INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT:		
A. VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS.	X	,
B. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS.	X	
C. DOCUMENT ACCEPTED OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES.	x	
3. INSPECTION OR EXECUTION TASKS PRIOR TO WELDING		
A. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE.		
B. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.		
C. MATERIAL IDENTIFICATION (TYPE/GRADE).		
D. CHECK WELDING EQUIPMENT.		
4. INSPECTION OR EXECUTION TASKS DURING WELDING:		
A. USE OF QUALIFIED WELDERS.		
B. CONTROL AND HANDLING OF WELDED CONSUMABLES		
C. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE).		
D. WPS FOLLOWED		
5. INSPECTION OR EXECUTION TASKS AFTER WELDING:		
A. VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS.	X	.
B. WELDS MEET VISUAL ACCEPTANCE CRITERIA.	X	.
C. VERIFY REPAIR ACTIVITIES.	x	.
D. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	X	

HESE TASKS PRIOR TO FINAL ACCEPTANCE FOR EACH ITEM OR ELEMENT. ESE ITEMS ON AN INTERMITTENT BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. FREQUENCY OF OBSERVATIONS SHALL BE ADEQUATE TO CONFIRM THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE APPLICABLE DOCUMENTS. IN THE EVENT THAT OBSERVATIONS DETERMINE THAT THE MATERIALS AND/OR WORKMANSHIP ARE NOT IN CONFORMANCE WITH THE APPLICABLE DOCUMENTS, ADDITIONAL INSPECTIONS SHALL BE PERFORMED TO DETERMINE THE EXTENT OF NON-CONFORMANCE.

TYPE	PERFORM	
1. INSPECTION TASKS PRIOR TO WELDING:	FLNFURIVI	
A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.		1
B. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE.	X	
C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	X	
D. MATERIAL IDENTIFICATION (TYPE/GRADE)		
E. WELDER IDENTIFICATION SYSTEM.		
F. FIT-UP OF FILLET WELDS:		
 DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL. 		
CLEANLINESS (CONDITION OF STEEL SURFACES). TACKING (TACK MELD CHALITY AND LOCATION).		
TACKING (TACK WELD QUALITY AND LOCATION).		<u> </u>
2. INSPECTION TASKS DURING WELDING:		
A. CONTROL AND HANDLING OF WELDING CONSUMABLES.		
PACKAGING EXPOSIRE CONTROL		
24 00012 00111102		
B. NO WELDING OVER CRACKED TACK WELDS.		
C. ENVIRONMENTAL CONDITIONS:		
WIND SPEED WITHIN LIMITS PROPRIETATION AND TEMPERATURE		
PRECIPITATION AND TEMPERATURE PROMOTE AN		
D. WPS FOLLOWED:		
SETTINGS ON WELDING EQUIPMENT TRAVEL SPEED		
SELECTED WELDING MATERIALS		
SHIELDING GAS TYPE/FLOW RATE		
PREHEAT APPLIED NITERPROCE TEMPERATURE MAINTAINER (MIN. MAAY)		
INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) PROPER POSITION (F, V, H, OH)		
TRAVEL SPEED		
E. WELDING TECHNIQUES		
INTERPASS AND FINAL CLEANING		1
EACH PASS WITHIN PROFILE LIMITATIONS		
EACH PASS MEETS QUALITY REQUIREMENTS		
F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	Х	
3. INSPECTION TASKS AFTER WELDING:		
A. WELDS CLEANED.		
B. SIZE, LENGTH, AND LOCATION OF WELDS	Х	
C. WELDS MEET VISUAL ACCEPTANCE CRITERIA:		
CRACK PROHIBITION	X	
WELD /BASE-METAL FUSION CRATER CROSS SECTION	X	
CRATER CROSS SECTION WELD PROFILES	X X	
WELD SIZE	Х	
UNDERCUT POROCITY	X	
POROSITY A LIBORITY OR AND	X	
D. ARC STRIKES.	X	
E. K-AREA	X	
F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES.	Х	
G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	х	
H. REPAIR ACTIVITIES.	Х	
I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER.	х	
J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.		
K. NON-DESTRUCTIVE TESTING FOR COMPLETE-JOINT-PENETRATION (CJP) WELDS:		1
UT SHALL BE PERFORMED ON ALL CJP JOINTS IN MATERIAL 5/16" AND GREATER.	x	
4. INSPECTION TASKS AFTER BOLTING:		t
A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	x	
5. ANCHOR ROD PLACEMENT		
A. INSPECTION DURING PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS (ANCHOR DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE) PRIOR TO PLACEMENT OF CONCRETE.		
6. INSPECTION OF THE FABRICATED STEEL OR ERECTED STEEL FRAME IN COMPLIANCE WITH THE DETAILS SHOWN ON THE		

1 "PERFORM" — THESE TASKS SHALL RE PERFORMED FOR EACH WELDED/BOLTED JOINT OR MEMBER 2. "OBSERVE" — THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE. <

NO E

GINEER

ш

AR

Jezerinac Geers & Associates, Inc. 5640 Frantz Road, Dublin, OH 43017

614.766.0066, fax 614.766.1223

www.jgaeng.com

Jezerinac Geers

Structural Engineering



These designs and all items depicted herein, whether in writing or graphically, a instruments of professional service, may not be altered or changed, in any way, lwithout the prior knowledge, and written consent of the Architect. Any change lmade without the Architect's written approval will void all such documents land instruments and the Architect will not be personally liable for any damage, harm

or loss caused thereby REVISIONS PLAN APPROVAL / BIDDING

DRAWN BY

Jezerinac Geers PROJECT # 23.02.009 REG DESIGNED BY CAD DRAWN BY

CHECKED BY REG

DOCUMENT STATUS

PROGRESS X BIDDING PERMIT

CONSTRUCTIO

COMM. NUMBER DATE

11/13/2024

REG

CHECKED BY

GENERAL STRUCTURAL NOTES

GENERAL STORM SHELTER NOTE

ADDITIONAL

ARCHITECTURAL

BOTTOM FLANGE BRACE

COLD-FORMED METAL FRAMING COLD-FORMED METAL TRUSS

CONSTRUCTION MANAGER

CONCRETE MASONRY UNIT

DEMOLISH OR DEMOLITION

CONTROL OR CONSTRUCTION JOINT

AI UMINUM

BOTTOM OF

BUILDING

BEAM

BOTTOM

COLUMN

DETAIL

DIAMETER

DIAGONAL

DIMENSION

DRAWING

ENGINEER

EACH WAY

EXPANSION

FLOOR

FOOTING

GAGE

FOUNDATION

FIELD VERIFY

GALVANIZE

HOLLOW CORE

HORIZONTAL

INTERIOR

KICKER BRACE

LIGHT GAGE METAL FRAMING

LONG LEG BACK-TO-BACK

LONG LEG HORIZONTAL

LONG LEG VERTICAL

JOIST

JOINT

ANGLE

MAXIMUM

MINIMUM

METAL

NORTH NOT APPLICABL

NOMINAL

NOT TO SCALE

OVERHEAD

OPPOSITE

PRECAST

REINFORCING

REQUIRED

SQUARE FOOT

SPECIFICATION

STAINLESS STEEL

STANDARD

SQUARE YARD

SYMMETRICAL

TOP AND BOTTOM

UNLESS NOTED

VAPOR BARRIEF

WIDE FLANGE

WELDED WIRE FABRIC

VERICAL

WITH

WITHOUT

WEIGHT

TONGUE AND GROOVE

UNLESS NOTED OTHERWISE

TEMPORARY OR TEMPERATURE

SHORT LEG BACK-TO-BACK

SLOPED

SQUARE

PERPENDICULAR

NOT IN CONTRACT

OUTSIDE DIAMETER

ORIENTED STRAND BOARD

POUNDS PER SQUARE INCH POUNDS PER SQUARE FOOT

POWDER ACTUATED FASTENERS

PRE-ENGINEERED METAL BUILDING

STRUCTURAL ENGINEER OF RECORD

INSIDE DIMENSION INSIDE FACE

FINISH OR FINISHED

GENERAL CONTRACTOR

FIRE-RETARDANT TREATED WOOD

EXPANSION JOINT

EACH

CONCRETE

CONTINUOUS

COORDINATE CUBIC YARD

ADD'L

ALUM

ARCH

B/ or BO

BFB

BLDG

BM

BOT

CONC

CONT

DEMO

DET

DWG

ENG

FTG

GA

HORIZ

INT

MAX

MIN

MTL

NOM

NTS

OPP

PEMB

PERP

REINF

REQ'D

T/ or TO

OPNG

FRTW

COORD

	GENERAL STORM SHELTER NOTES
DESIGN CRITERIA: TYPE OF STORM SHELTER:	COMMUNITY TORNADO
MINIMUM SOIL BEARING PRESSURE:	4,000 PSF
DESIGN RAINFALL RATE:	3.23 IN/HR
ROOF LIVE LOADS: - SHELTER ROOF - COLLAPSE / LAYDOWN	100 PSF +110 PSF
WIND LOADS: - BASIC WIND SPEED (Vu) - EXPOSURE CATEGORY - INTERNAL PRESSURE COEFF. (Gcpi) - TOPOGRAPHIC FACTOR (Kzt)	250 MPH EXPOSURE C +/- 0.55 1.0
- TOFOGNAFIIG FACTOR (RZI)	1.0

2. THE STORM SHELTER AREA HAS BEEN DESIGNED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF ICC 500-2014, "STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS

- A. WALL AND ROOF SYSTEMS HAVE BEEN SELECTED FOR DEBRIS IMPACT RESISTANCE TESTED IN ACCORDANCE WITH ASTM E 1886. SEE THE "SUMMARY ON DEBRIS IMPACT TESTING OF BUILDING ASSEMBLIES" BY TEXAS TECH UNIVERSITY (et al.). DATED AUGUST 2006 FOR REFERENCED TEST SPECIMEN NUMBERS.
- B. WALL SYSTEM IS TO BE 8 INCH MINIMUM REINFORCED CONCRETE MASONRY WITH #4 MIN. VERT. REINFORCING BARS GROUTED INTO EVERY CELL. ASSEMBLY HAS BEEN TESTED FOR A 15-POUND 2x4 TRAVELING AT 100 MPH PER TTU TABLE
- A 5 TEST NO 1 C. ROOF SYSTEM IS TO BE 4-INCH MINIMUM REINFORCED CONCRETE WITH #4 MIN. REINFORCING BARS AT 12 INCHES O.C EACH WAY. ASSEMBLY HAS BEEN TESTED FOR A 15-POUND 2x4 TRAVELING AT 67 MPH PER TTU TABLE A.6, TEST NO. 37.

4. OPENINGS AND WALL JOINTS:

- DIRECTIONALITY FACTOR (Kd)

- A. WINDOWS, DOORS, AND LOUVERS ARE TO BE SELECTED TO WITHSTAND THE DESIGN WIND LOADS SPECIFIED ABOVE AND FOR DEBRIS IMPACT RESISTANCE TESTED IN ACCORDANCE WITH ASTM E 1886 FOR A 15-POUND 2x4 TRAVELING AT
- B. PROVIDE PLATE SHROUDS AS INDICATED AT ALL OPENINGS (MECHANICAL, ELECTRICAL, PLUMBING, ETC.) IN THE STORM SHELTER ENVELOPE EXCEEDING 3-1/2 SQUARE INCHES OR 2-1/16 INCH DIAMETER.
- C. CONTROL JOINTS IN MASONRY CONSTRUCTION MAY NOT EXCEED 3/8 INCH AND MUST BE SEALED IN ACCORDANCE WITH TMS 602, SECTION 2.5 A

STORM SHELTER QUALITY ASSURANCE PLAN

JGA PROJECT NAME: SIDNEY FIRE STATION No.2

JGA PROJECT NUMBER: 23.02.009

- THE REQUIREMENTS SPECIFIED IN THIS QUALITY ASSURANCE PLAN ARE APPLICABLE TO ALL ELEMENTS WITHIN THE IDENTIFIED "STORM SHELTER" PORTION OF THE PROJECT. THESE REQUIREMENTS ARE EXTENDED TO ALL REFERENCED DETAILS AND ALL NOTED COMPONENTS THEREOF. SEE THE PLANS FOR AREA(S) DESIGNATED AS THE "STORM SHELTER"
- 2. PRIOR TO CONSTRUCTION OF THE STORM SHELTER PORTION OF THE PROJECT, THE OWNER IS TO RETAIN AN INDEPENDENT AGENCY TO PERFORM THE SPECIAL INSPECTIONS, TESTING, AND STRUCTURAL OBSERVATIONS REQUIRED IN THIS QUALITY ASSURANCE PLAN. WHERE APPLICABLE. INDIVIDUALS PERFORMING SPECIAL INSPECTIONS AND TESTING ARE TO BE QUALIFIED THROUGH RECOGNIZED INDUSTRY CERTIFICATION. INDIVIDUALS PERFORMING STRUCTURAL OBSERVATIONS ARE TO REGISTERED DESIGN PROFESSIONALS IN THE JURISDICTION OF THE PROJECT.
- 3 ON A REGULAR BASIS THE SPECIAL INSPECTION AND STRUCTURAL OBSERVATION AGENCY SHALL SUBMIT WRITTEN REPORTS IDENTIFYING DEFICIENCIES IN THE STORM SHELTER CONSTRUCTION. THE CONTRACTOR/CM SHALL BE RESPONSIBLE FOR PROMPTLY CORRECTING ALL DEFICIENCIES INDICATED IN THESE WRITTEN REPORTS. AT THE COMPLETION OF THE STORM SHELTER CONSTRUCTION, THE AGENCY SHALL SUBMIT A STATEMENT INDICATING THAT ALL DEFICIENCIES IDENTIFIED DURING CONSTRUCTION HAVE BEEN PROPERLY ADDRESSED, AND THAT STRUCTURAL OBSERVATIONS HAVE BEEN REGULARLY PERFORMED. ALL REPORTS ARE TO BE SUBMITTED TO THE OWNER, ARCHITECT, CONSTRUCTION MANAGER, AND THE AUTHORITY HAVING JURISDICTION.
- 4. EACH CONTRACTOR RESPONSIBLE FOR CONSTRUCTING ELEMENTS OF THE STORM SHELTER SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER, ARCHITECT, CONSTRUCTION MANAGER, AND THE AUTHORITY HAVING JURISDICTION. PARTIES RESPONSIBLE FOR THIS STATEMENT INCLUDE. BUT ARE NOT LIMITED TO. THE SITE GRADING CONTRACTOR CAST-IN-PLACE CONCRETE SUPPLIER AND CONTRACTOR STRUCTURAL STEEL FARRICATOR AND ERECTOR MASONRY CONTRACTOR, REINFORCING STEEL FABRICATOR AND IRON WORKERS, PRECAST MANUFACTURER AND ERECTOR DOOR MANUFACTURER AND INSTALLER, AND OPENING PROTECTIVE DEVICE FABRICATOR AND ERECTOR. THIS STATEMENT IS
- A. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS IN THE QUALITY ASSURANCE PLAN. B. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN COMPLIANCE WITH THE CONSTRUCTION
- DOCUMENTS. C. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR 'S ORGANIZATION, THE METHOD AND FREQUENCY
- OF REPORTING AND THE DISTRIBUTION OF REPORTS D. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE
- 5. THE FOLLOWING SPECIAL INSPECTIONS AND TESTING OF THE STORM SHELTER CONSTRUCTION ARE TO BE PERFORMED AS PART OF THIS QUALITY ASSURANCE PLAN. THESE REQUIREMENTS ARE IN ADDITION TO THE TESTING AND INSPECTIONS REQUIRED FOR THE REMAINDER OF THE BUILDING

- PERIODICALLY INSPECT SOILS BELOW FOOTINGS FOR ADEQUATE BEARING CAPACITY AND CONSISTENCY WITH GEOTECHNICAL REPORT. INSPECT REMOVAL OF UNSUITABLE MATERIAL AND PREPARATION OF SUBGRADE PRIOR TO PLACEMENT OF CONTROLLED FILL.
- ii. PERIODICALLY VERIFY DEPTH AND WIDTH OF FOUNDATION EXCAVATIONS.
- B. CONCRETE (FOOTINGS, SLABS ON GRADE, CAPS/ROOFS) i. PERIODICALLY INSPECT SIZE, SPACING, COVER, POSITIONING, AND GRADE OF REINFORCING STEEL. VERIFY THAT REINFORCING BARS ARE FREE OF FORM OIL OR OTHER DELETERIOUS MATERIALS. INSPECT BAR LAPS AND MECHANICAL SPLICES. VERIFY THAT BARS ARE ADEQUATELY TIED AND SUPPORTED ON CHAIRS OR BOLSTERS.
- III PERIODICALLY INSPECT SIZE POSITIONING AND EMBEDMENT OF ANCHOR RODS, WELD PLATES, AND ALL OTHER CAST-IN EMBEDDED ITEMS. INSPECT CONCRETE PLACEMENT AND CONSOLIDATION AROUND ANCHORS. iii. CONTINUOUSLY INSPECT SIZE, POSITIONING, EMBEDMENT, AND INSTALLATION OF POST-INSTALLED CHEMICAL AND
- MECHANICAL ANCHORS. VERIFY INSTALLATION PROCEDURE IS IN ACCORDANCE WITH MANUFACTURER 'S RECOMMENDATIONS. PULL-TEST ANCHORS THAT ARE DEEMED SUSPECT DUE TO IMPROPER TORQUE AND/OR INADEQUATE EMBEDMENT DEPTH.
- iv. PERIODICALLY VERIFY USE OF PROPER MIX DESIGN. v. PERIODICALLY VERIFY FORM WORK FOR SHAPE, LOCATION, AND DIMENSIONS OF CONCRETE BEING FORMED. vi. PERIODICALLY INSPECT PLACEMENT OF CONCRETE. VERIFY THAT CONCRETE CONVEYANCE AND DEPOSITING
- AVOIDS SEGREGATION OR CONTAMINATION. VERIFY THAT CONCRETE IS PROPERLY CONSOLIDATED. INSPECT CURING, COLD-WEATHER PROTECTION, AND HOT-WEATHER PROTECTION PROCEDURES.
- vii. PERIODICALLY SAMPLE AND TEST CONCRETE FOR COMPRESSIVE STRENGTH, SLUMP, AIR CONTENT, AND TEMPERATURE. SAMPLE EACH 50 CUBIC YARDS OF CONCRETE, OR FRACTION THEREOF, PLACED IN ANY ONE DAY.

- i. CONTINUOUSLY INSPECT PROPORTIONING, MIXING, AND RETEMPERING OF MORTAR AND GROUT. INSPECT CONSTRUCTION OF MORTAR JOINTS INCLUDING TOOLING AND FILLING OF HEAD JOINTS. ii. CONTINUOUSLY INSPECT SIZE, LAYOUT, BONDING, GROUT SPACE, AND PLACEMENT OF MASONRY UNITS.
- iii. CONTINUOUSLY INSPECT PLACEMENT, SIZE, GRADE, POSITIONING, AND LAPPING OF REINFORCING STEEL.
- iv. CONTINUOUSLY INSPECT PLACEMENT AND CONSOLIDATION OF GROUT. INSPECT MASONRY CLEAN-OUTS FOR HIGH-LIFT GROUTING.
- v. CONTINUOUSLY INSPECT SIZE, POSITIONING, AND EMBEDMENT OF ANCHOR RODS, WELD PLATES, AND ALL OTHER CAST-IN EMBEDDED ITEMS. INSPECT CONCRETE PLACEMENT AND CONSOLIDATION AROUND ANCHORS. vi. CONTINUOUSLY INSPECT SIZE, POSITIONING, EMBEDMENT AND INSTALLATION OF POST-INSTALLED CHEMICAL AND MECHANICAL ANCHORS. VERIFY INSTALLATION PROCEDURE IS IN ACCORDANCE WITH MANUFACTURER 'S

RECOMMENDATIONS. PULL-TEST ANCHORS THAT ARE DEEMED SUSPECT DUE TO IMPROPER TORQUE AND/OR

- INADEQUATE EMBEDMENT DEPTH vii. CONTINUOUSLY INSPECT COLD-WEATHER PROTECTION AND HOT-WEATHER PROTECTION PROCEDURES. VERIFY
- THAT WALL CAVITIES ARE PROTECTED AGAINST PRECIPITATION. viii. CONTINUOUSLY SAMPLE AND TEST COMPRESSIVE STRENGTH OF MORTAR AND GROUT CUBE SAMPLES. TEST

COMPRESSIVE STRENGTH OF ASSEMBLED MASONRY PRISMS.

- D. OPENING PROTECTIVE DEVICES CONTINUOUSLY INSPECT SHOP-FABRICATED OPENING PROTECTIVE BAFFLES PRIOR TO INSTALLATION TO VERIFY
- THAT COMPONENT SIZES AND WELDS MATCH DRAWINGS AND SPECIFICATIONS. ii. CONTINUOUSLY INSPECT INSTALLATION OF DOOR ANCHORAGES AND ANCHORAGE OF PROTECTIVE BAFFLES FOR
- iii. UPON COMPLETION, VERIFY THE PROPER OPERATION OF DOORS AND SHUTTERS. CONFIRM MAXIMUM ALLOWABLE GAPS AT THRESHOLDS, SILLS, JAMBS, AND HEADS OF OPENING LEAVES.
- 6. THE FOLLOWING STRUCTURAL OBSERVATIONS OF THE STORM SHELTER CONSTRUCTION ARE TO BE PERFORMED AS PART OF THIS QUALITY ASSURANCE PLAN. THESE OBSERVATIONS ARE TO VISUALLY VERIFY THAT THE IDENTIFIED ASSEMBLIES ARE BEING BUILT IN GENERAL CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. ADDITIONAL OBSERVATIONS OF THE

CONSTRUCTION ARE TO BE PERFORMED AT THE OBSERVER 'S DISCRETION. A. FOUNDATIONS

- VERIFY THAT FOUNDATIONS HAVE BEEN BUILT INDEPENDENTLY OF HOST BUILDING AND THAT PROPER BOND BREAK MATERIAL HAS BEEN PLACED BETWEEN CONCRETE POURS. iii. VERIFY THAT ANCHOR BOLTS HAVE BEEN PROVIDED WITH SUFFICIENT LENGTHS TO RECEIVE FURTHER
- CONSTRUCTION. VERIFY THAT ANCHORS HAVE NOT BEEN BENT OR OTHERWISE MODIFIED.

VERIFY THAT DOWEL BARS IN FOUNDATIONS AND SLABS ARE BEING PROVIDED WHERE INDICATED.

- i. VERIFY THAT OPENINGS ARE BEING BUILT AS INDICATED.
- ii. VERIFY THAT SUFFICIENT LAP LENGTHS ARE BEING PROVIDED BETWEEN SEQUENCES OF CONSTRUCTION. iii. VERIFY THAT CAST-IN AND POST-INSTALLED ANCHORS HAVE SUFFICIENT LENGTH TO RECEIVE FURTHER
- CONSTRUCTION. VERIFY THAT ANCHORAGES HAVE NOT BEEN BENT OR OTHERWISE MODIFIED. iv. VERIFY THAT PROPER CAST-IN ITEMS FOR DOORS AND SHUTTERS ARE BEING PROVIDED.
- v. VERIFY THAT VERTICAL CONTROL JOINTS ARE 3/8" OR LESS IN WIDTH AND HAVE BEEN FILLED ACCORDING TO TMS 602 FOR MASONRY OR ASTM C920 FOR CONCRETE.

VERIFY THAT ANCHORAGES BETWEEN THE STORM SHELTER WALLS AND CAPS ARE BEING PROVIDED AS INDICATED.

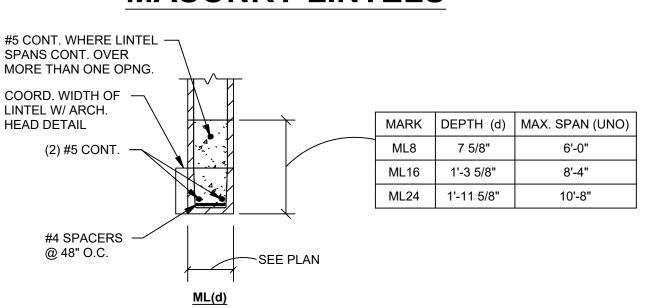
vi. VERIFY THAT BOND PATTERN AT CORNERS HAS BEEN CONSTRUCTED AS INDICATED.

iii. VERIFY FILLING OF GAPS AND JOINTS BETWEEN ROOF FRAMING MEMBERS, AND AT BEARING LOCATIONS. D. OPENINGS

i. VERIFY THAT POST-INSTALLED ANCHORAGES OF OPENING PROTECTIVE DEVICES HAVE BEEN INSTALLED. ii. VERIFY THAT PROTECTIVE BAFFLES HAVE BEEN PROVIDED FOR ALL PENETRATIONS THROUGH THE STORM SHELTER ENVELOPE.

VERIFY THAT MEMBER BRACING, CONFIGURATION, AND CONNECTIONS HAVE BEEN PROVIDED AS INDICATED.

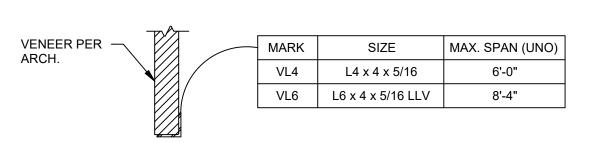
MASONRY LINTELS



MASONRY LINTEL NOTES

- 1. FILL IS 2500 PSI (MINIMUM) GROUT. USE FINE GROUT FOR WALLS 6 INCHES AND LESS.
- 2. FOR TYPE OF CMU AND TYPE OF BOND, SEE SPECIFICATION SECTION 042000.
- 3. LINTELS SHALL BEAR ON SOLID CMU OR ON 2 FILLED COURSES.
- 4. MAXIMUM SPANS DO NOT APPLY TO LOAD BEARING WALLS.
- 5. BOND PATTERN OF LINTEL TO MATCH THAT OF SURROUNDING WALL.
- 6. BOTTOM OF LINTEL SHALL BE SMOOTH MASONRY WITH NO CORES EXPOSED.
- 7. 14" LINTELS MAY BE MADE-UP OF TWO PIECES IF 14" BOND BEAM UNITS ARE NOT AVAILABLE.
- 8. PROVIDE 8" MINIMUM BEARING EACH END FOR 8" AND 16" DEEP LINTELS. USE 16" MINIMUM BEARING FOR 24" (AND DEEPER) LINTELS.
- 9. PROVIDE SCORED BLOCK AS REQUIRED TO MATCH ADJACENT WALL FINISH. REFER TO INTERIOR FINISH SCHEDULE FOR LOCATION OF ALL SCORED BLOCK.
- 10. PROVIDE TWO LAYERS OF 15-MIL PLASTIC VAPOR BARRIER BELOW ALL LINTEL BEARINGS AND CAULK FACE JOINT.

VENEER LINTELS



VENEER LINTEL NOTES

- 1. FURNISH AND INSTALL ALL LOOSE LINTELS REQUIRED FOR ALL OPENINGS IN MASONRY INCLUDING MECHANICAL AND ELECTRICAL WORK, WHETHER SPECIFICALLY NOTED ON DRAWINGS OR NOT.
- 2. ALL LINTELS AT EXTERIOR LOCATIONS OR OTHERWISE SUBJECT TO WEATHER OR CORROSIVE ATMOSPHERE SHALL BE GALVANIZED
- 3. PROVIDE 6" MINIMUM BEARING EACH END.
- 4. PROVIDE TWO LAYERS OF 15-MIL PLASTIC VAPOR BARRIER BELOW ALL LINTEL BEARINGS AND CAULK FACE JOINT.

COMPONENTS AND CLADDING WIND LOAD SCHEDULE

WALL ELEMENTS			
TRIB AREA	POSITIVE PRESSURE	NEGATIVE PRESSURE	NEGATIVE WITHIN 7 FT. OF CORNERS
10 SQ. FT.	36 PSF	46 PSF	49 PSF
20 SQ. FT.	35 PSF	38 PSF	46 PSF
50 SQ. FT.	33 PSF	36 PSF	41 PSF
100 SQ. FT.	31 PSF	34 PSF	38 PSF
500 SQ. FT.	27 PSF	30 PSF	30 PSF

ROOF	ELEMENTS
------	-----------------

TRIB AREA	UPLIFT PRESSURE	UPLIFT WITHIN 10 FT. OF EDGES	UPLIFT WITHIN 10 FT. OF CORNERS
10 SQ. FT.	33 PSF	60 PSF	86 PSF
20 SQ. FT.	32 PSF	53 PSF	80 PSF
50 SQ. FT.	31 PSF	47 PSF	73 PSF
100 SQ. FT.	30 PSF	44 PSF	67 PSF
	-	-	

LINEAR INTERPOLATION IS ACCEPTABLE FOR TRIBUTARY AREAS BETWEEN THOSE SHOWN.

2. LOADS GIVEN ARE ULTIMATE LOADS OBTAINED FROM ASCE 7-10. MULTIPLY VAULES BY 0.6 TO OBTAIN SERVICE-LEVEL LOADS.

LAP SPLICE SCHEDULE FOR

CONCRETE REINFORCING 3,000 psi & 3,500 psi CONCRETE **UNCOATED REINFORCING BARS**

BAR SIZE	3/4" CLR.	1 1/2" CLR. AND GREATER
#4	3'-1" 2'-4"	3'-1" 2'-4"
#5	3'-10" 3'-0"	3'-10" 3'-0"
#6	4'-8" 3'-7"	4'-8" 3'-7"
#7	7'-6" 5'-9"	6'-9" 5'-2"
#8	9'-3" 7'-1"	7'-9" 5'-11"
#9	11'-2" 8'-7"	8'-8" 6'-8"
#10	13'-6" 10'-4"	9'-10" 7'-6"
	451.401	101 111

	4,000 psi & 4,500 psi CONCRETE UNCOATED REINFORCING BARS			
	BAR SIZE	3/4" CLR.	1 1/2" CLR. AND GREATER	
."	#4	2'-8" 2'-1'	, 2'-8" 2'-	
)"	#5	3'-4" 2'-7'	, 3'-4" 2'-	
, "	#6	4'-0" 3'-1'	, 4'-0" 3'-	
	#7	6'-6" 5'-0'	, 5'-10" 4'-	
"	#8	8'-0" 6'-2'	, 6'-8" 5'-	
=	#9	9'-8" 7'-6'	, 7'-6" 5'-1	
;"	#10	11'-8" 9'-0'	, 8'-6" 6'-	
."	#11	13'-8" 10'-6'	7'-	

LAP SPLICE SCHEDULE FOR

CONCRETE REINFORCING

TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH

- 2. BAR SPACING TO BE A MINIMUM OF THREE DIAMETERS UNLESS NOTED OR SCHEDULED OTHERWISE
- 3. APPLICABLE ONLY FOR 60 KSI STEEL AND NORMAL WEIGHT CONCRETE.
- 4. IN LIEU OF LAP SPLICING, BARS MAY BE SPLICED BY MECHANICAL MEANS

WHICH DEVELOP AT LEAST 125% OF THE BAR'S SPECIFIED YIELD STRENGTH

REINFORCING COVER/TOLERANCE (#3 - #11 BARS)			
EXPOSURE CONDITION	MIN. COVER (U.N.O.)	PLACEMENT TOLERANCE	
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"	0", +3"	
EXPOSED TO EARTH OR WEATHER - #5 AND SMALLER BARS: - #6 AND LARGER BARS:	1-1/2" 2"	-1/4", +1/2" -1/4", +1/2"	
NEITHER EXPOSED TO WEATHER, NOR IN CONTACT WITH GROUND - SLABS AND WALLS: - BEAMS, COLUMNS, & PIERS: (TO TIES OR STIRRUPS)	3/4" 1-1/2"	-1/4", +3/8" -1/4", +1/2"	

"-" INDICATES TOLERANCE TOWARDS MEMBER FACE

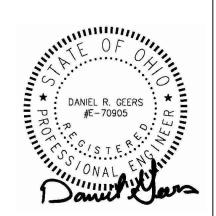
NO L RUCTION \triangleleft "+" INDICATES TOLERANCE AWAY FROM MEMBER FACE. FIRE



NGINEER

ш

AR

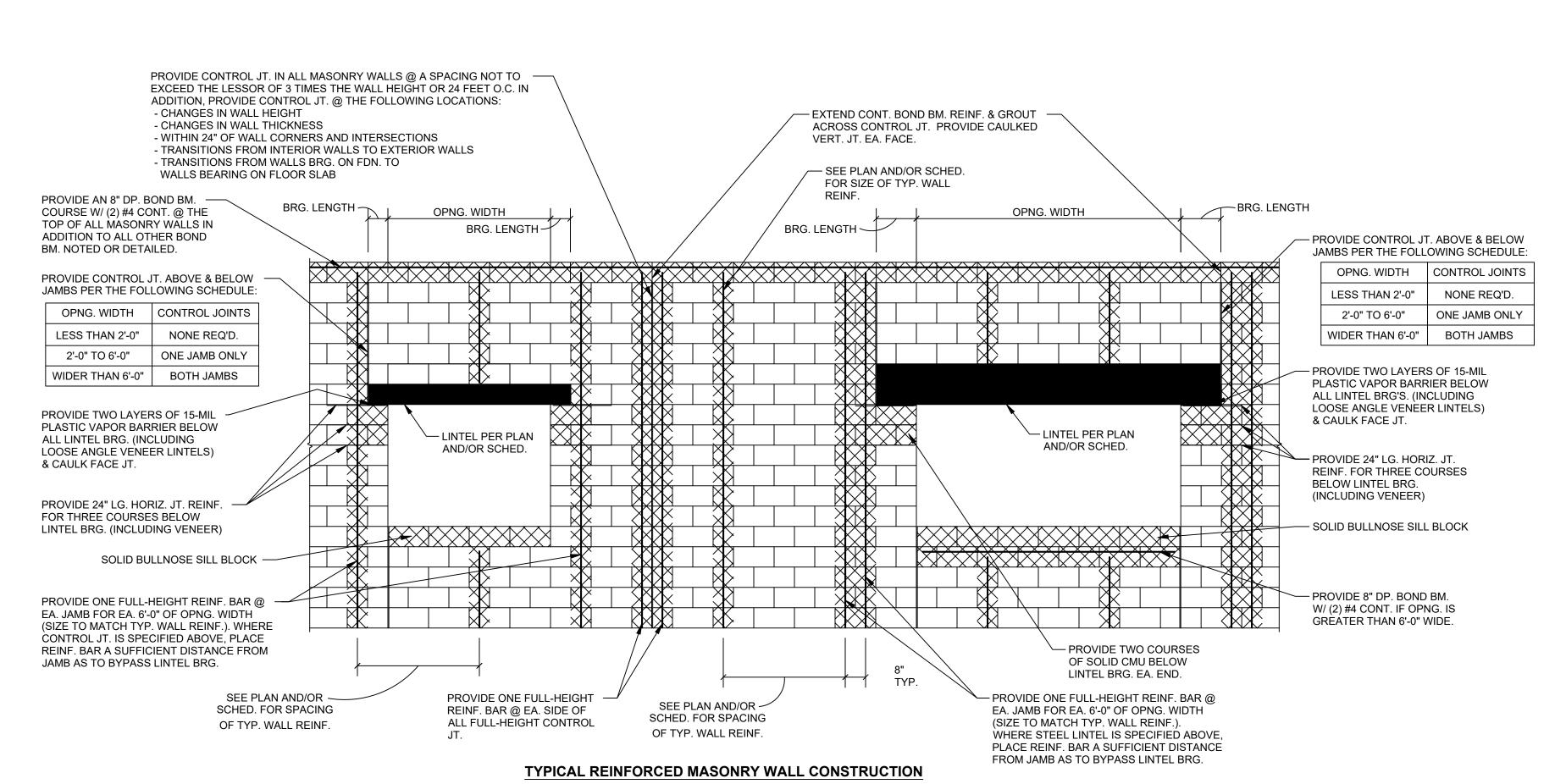


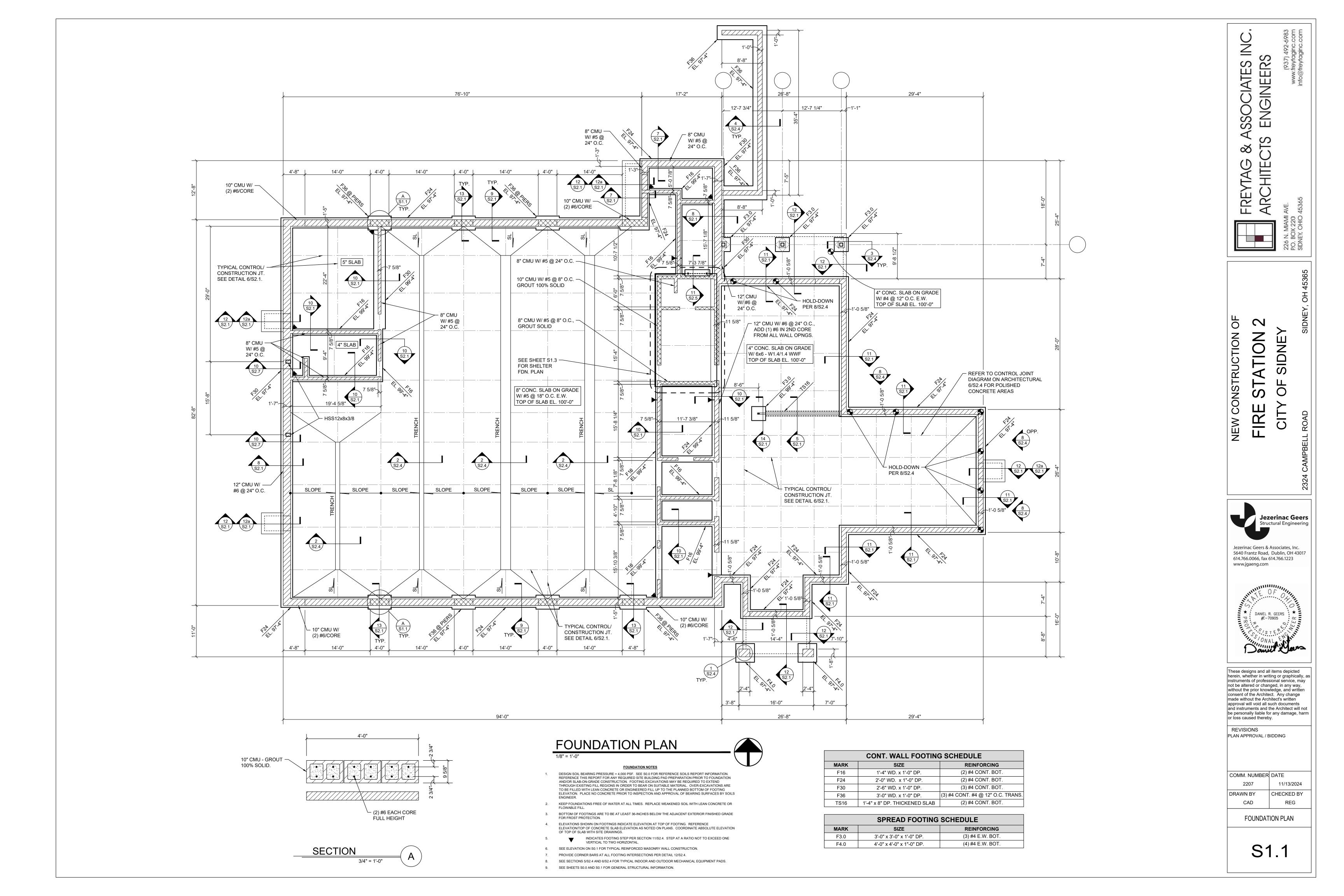
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change lmade without the Architect's written lapproval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby

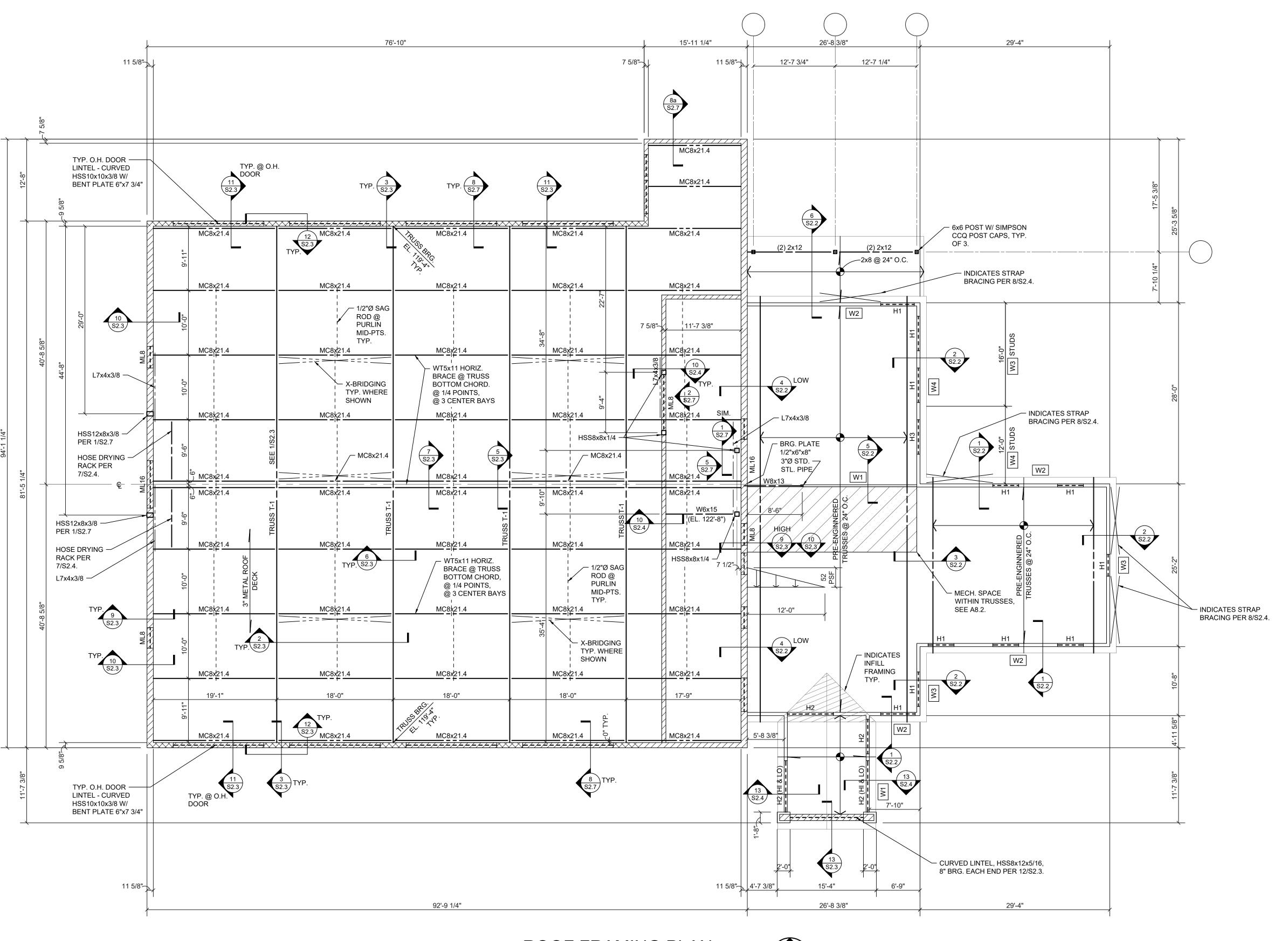
REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER	DATE
2207	11/13/2024
DRAWN BY	CHECKED BY

GENERAL STRUCTURAL NOTES









	ROOF FRAMING I
DECICAL IVE LOADS.	

FLAT ROOF SNOW 24 PSF + DRIFT 16.5 PSF

WIND (ASD NET UPLIFT)

2. ROOF CONSTRUCTION:

3" x 20 GAGE METAL ROOF DECK ON PURLINS; OR 5/8" NOMINAL APA RATED SHEATHING ON PRE-ENGINEERED WOOD TRUSSES OR 2x FRAMING. UNLESS NOTED OTHERWISE, FASTEN SHEATHING TO SUPPORTS AS INDICATED IN THE GENERAL STRUCTURAL NOTES.

INDICATES SNOW DRIFT ROOF LOADING. JOISTS HAVE BEEN SIZED FOR THE LOAD SHOWN UNLESS NOTED OR SCHEDULED OTHERWISE. WOOD TRUSSES ARE TO BE DESIGNED TO ACCOMMODATE ADDITIONAL LOADING. PRE-ENGINEERED METAL BUILDING STRUCTURE IS TO BE DESIGNED TO ACCOMMODATE ADDITIONAL LOADING.

4. INDICATES CFMF HEADER. SEE 12/S2.2 & HEADER SCHEDULE.

INDICATES WOOD FRAMED SHEARWALL HOLDOWN. HOLDOWNS INDICATED ARE TO BE INSTALLED AT THE BASE OF WALL FRAMING.

6. SEE ARCHITECTURAL DRAWINGS FOR ANY DIMENSIONS NOT INDICATED HEREIN. 7. SEE SHEET S0.0 FOR GENERAL STRUCTURAL INFORMATION AND LINTELS.

HEADER SCHEDULE - CFMF			
MARK	SIZE	JAMB STUDS	#10 CONNECTION SCREWS
H1	(2) 600S162-54	(2) 600\$162-43	8
H2	(2) 800S162-54	(2) 600\$162-43	8
H3	(2) 600\$162-54	(4) 600\$162-43	8

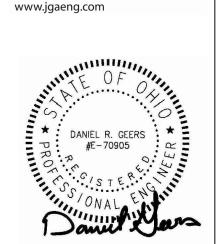
CFMF WALL SCHEDULE	
MARK	SIZE
W1	362S162-33 @ 16" O.C.
W2	600S162-33 @ 16" O.C.
W3	600S162-43 @ 16" O.C.
W4	(2) 600S162-43 @ 16" O.C.
	_

ENGINEERS **ARCHITE**

STATION FIRE

CONSTRUCTION OF

Jezerinac Geers Structural Engineering Jezerinac Geers & Associates, Inc. 5640 Frantz Road, Dublin, OH 43017 614.766.0066, fax 614.766.1223



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm

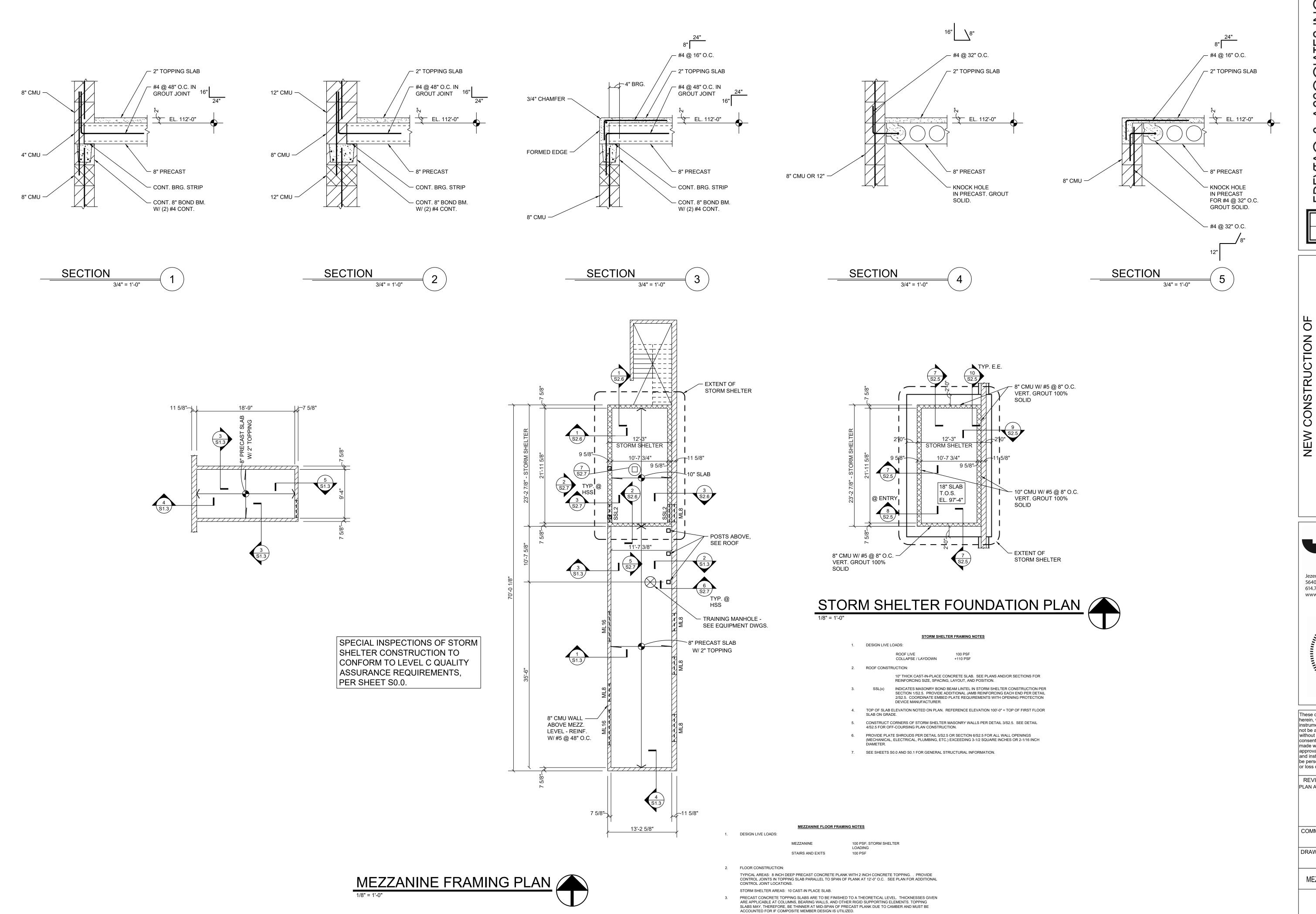
or loss caused thereby. REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE

11/13/2024 CHECKED BY DRAWN BY REG

ROOF FRAMING PLAN

S1.2



REFERENCE ELEVATION IS 100'-0" = TOP OF FIRST FLOOR SLAB ON GRADE. TOP OF MEZZANINE SLAB

ELEVATION = 112'-2".

SEE SHEETS S0.0 AND S0.1 FOR GENERAL STRUCTURAL INFORMATION.

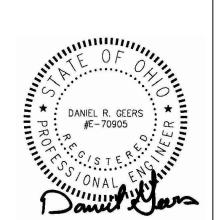
ASSOCIATES INC. ENGINEERS **ARCHITECTS**

STATION 2 SIDNE FIRE

Jezerinac Geers Structural Engineering

Jezerinac Geers & Associates, Inc. 5640 Frantz Road, Dublin, OH 43017

614.766.0066, fax 614.766.1223 www.jgaeng.com



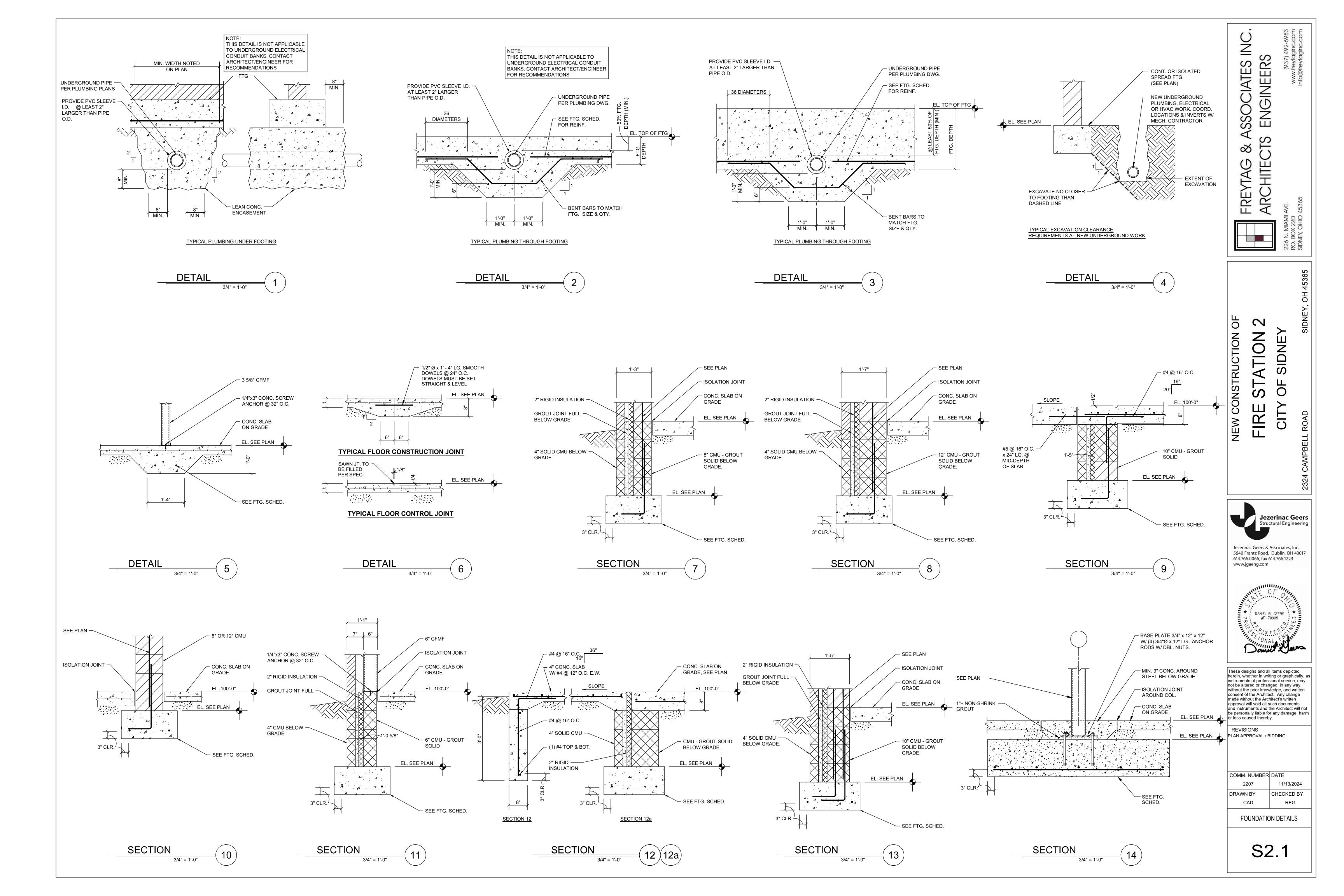
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

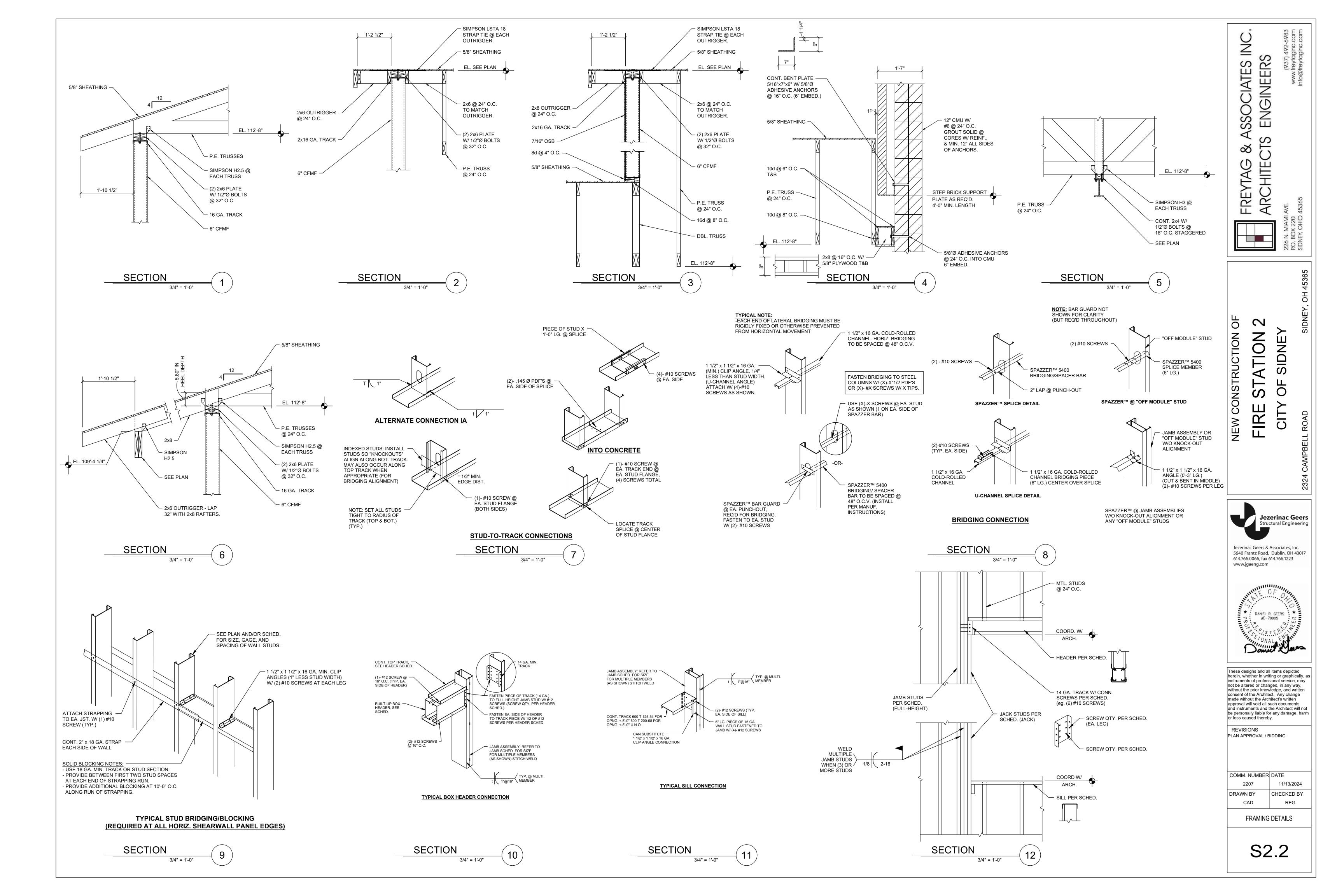
REVISIONS PLAN APPROVAL / BIDDING

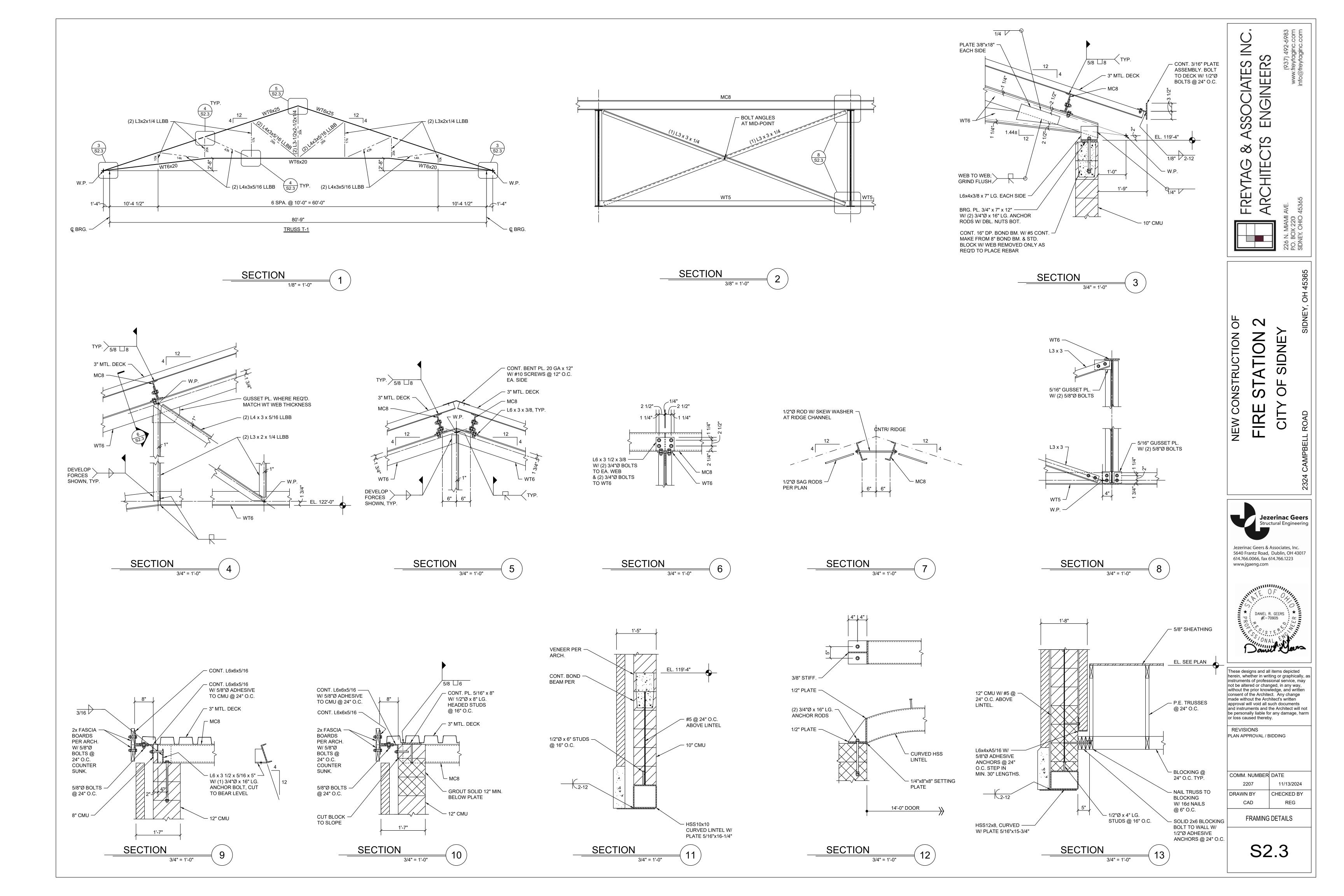
COMM. NUMBER DATE 11/13/2024 DRAWN BY CHECKED BY

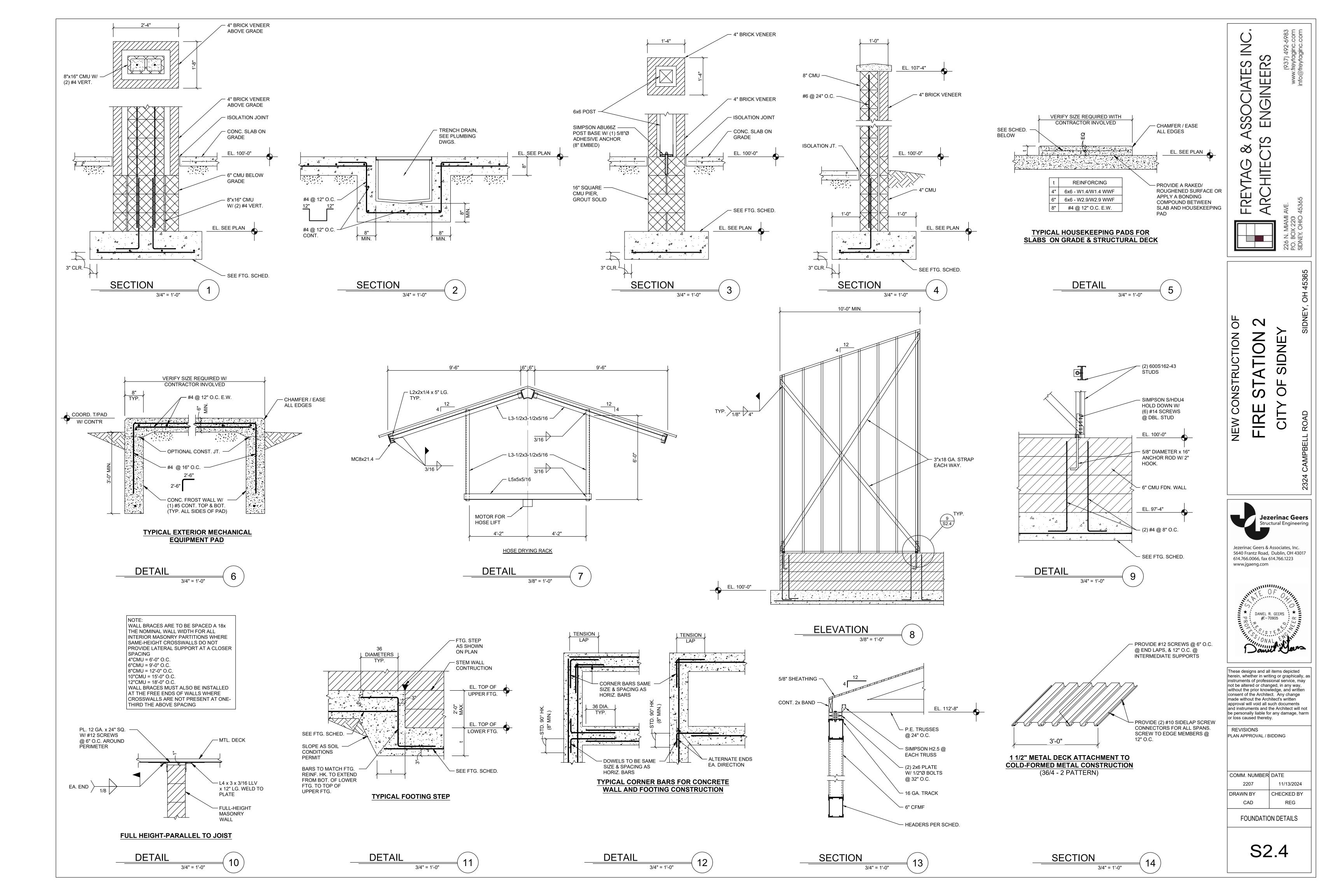
MEZZANINE FRAMING PLAN

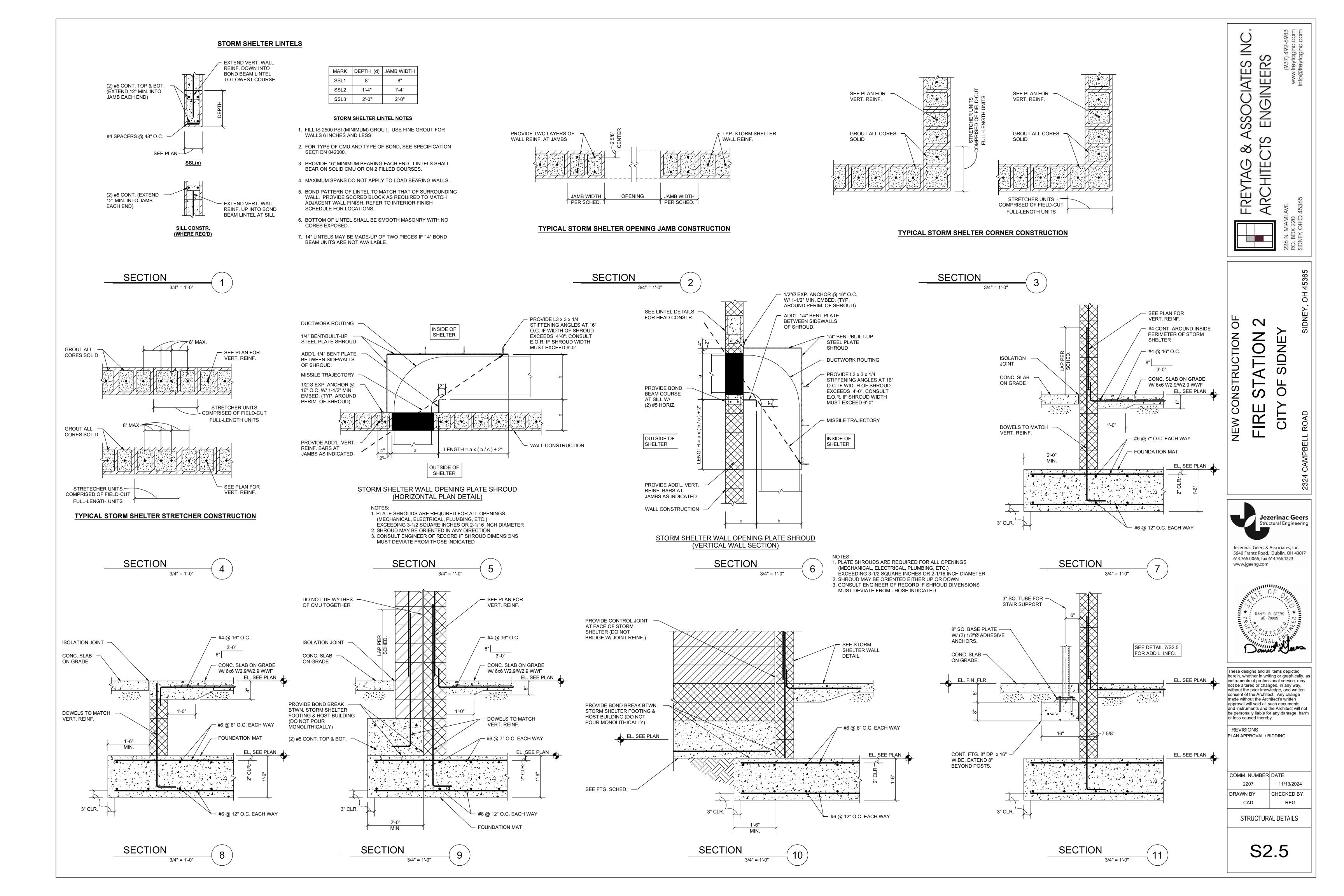
S1.3

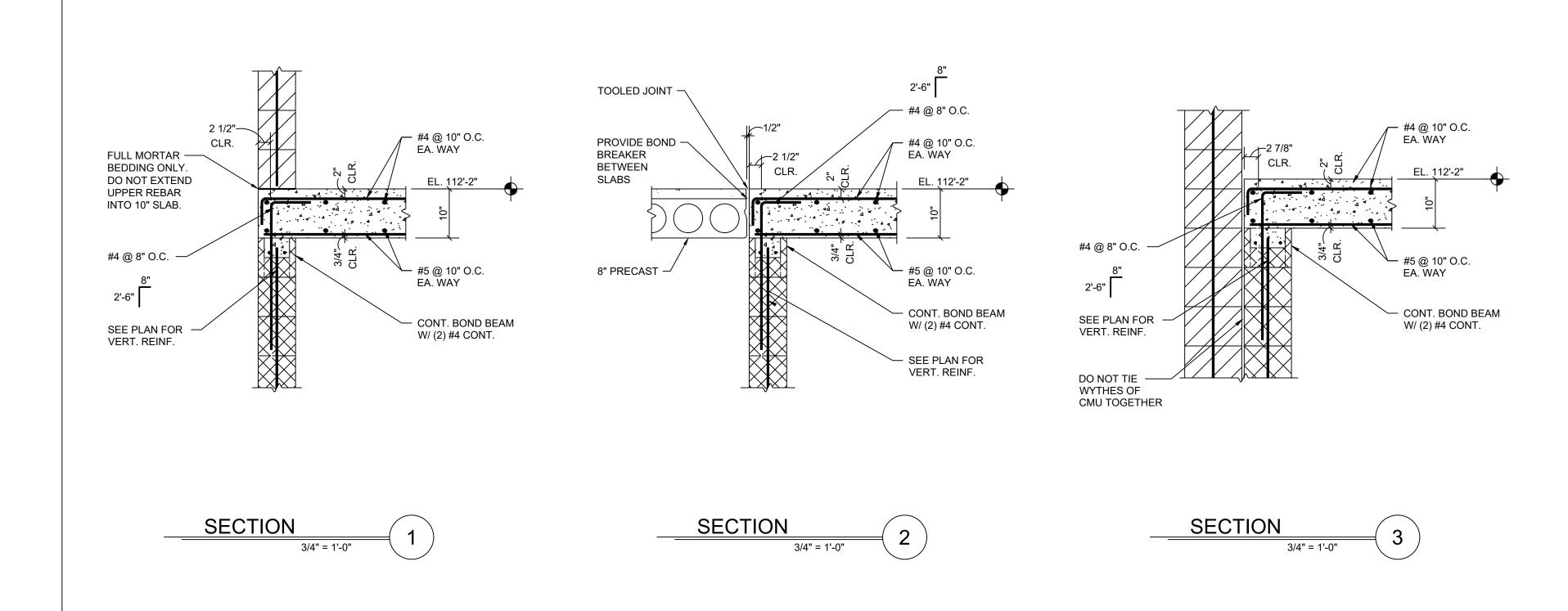














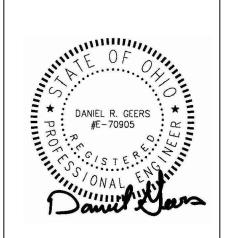
SIDNEY

STATION 2 FIRE

NEW CONSTRUCTION OF

Jezerinac Geers Structural Engineering

Jezerinac Geers & Associates, Inc. 5640 Frantz Road, Dublin, OH 43017 614.766.0066, fax 614.766.1223 www.jgaeng.com



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents. approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

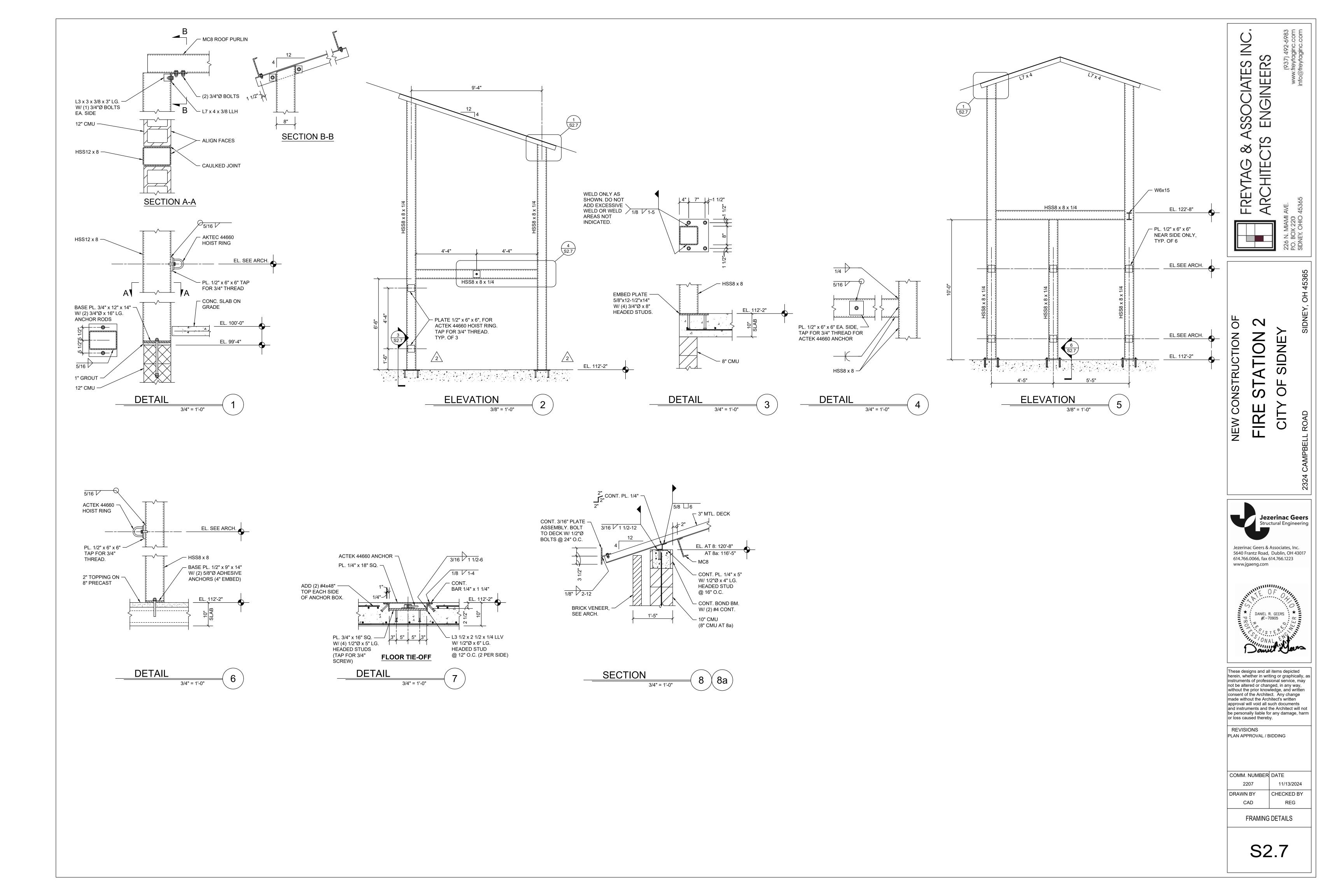
DRAWN BY

COMM. NUMBER DATE 11/13/2024

FRAMING DETAILS

CHECKED BY REG

S2.6



FIRE SUPPRESSION PIPING

GENERAL NOTES:

PIPING SHALL CONFORM TO OBC REQUIREMENTS.

PROVIDE PIPING SLEEVES AT WALLS IN NEW CONSTRUCTION.

PIPING INSTALLATION AND TESTING SHALL COMPLY WITH NFPA 13 (2016 EDITION).

PIPING SHALL BE PITCHED FOR DRAINAGE.

PROVIDE DIELECTRIC FITTINGS FOR TRANSITIONS BETWEEN FERROUS AND NON-FERROUS PIPING SYSTEMS.

CLOSE OPEN ENDS OF PIPING DURING CONSTRUCTION.

PIPE AND TUBING SHALL BE CUT AND FABRICATED TO FIELD MEASUREMENTS AND RUN PARALLEL TO NORMAL BUILDING LINES. PIPE INTERIOR SHALL BE CLEANED OF FOREIGN MATTER AND BURRS BEFORE ERECTION OF PIPE.

FLEXIBLE SPRINKLER HOSE CONNECTIONS MAY ONLY BE USED TO CONNECT PIPING LOCATED ABOVE A CEILING TO A SPRINKLER IN THE CEILING AND SHALL NOT BE USED IN ANY EXPOSED SITUATION.

FLEXIBLE HOSES SHALL BE CONSTRUCTED WITH ANNULAR CORRUGATIONS. HELICAL CORRUGATIONS ARE NOT ACCEPTABLE.

PIPING SHALL NOT BE RUN ABOVE ELECTRICAL SWITCHGEAR OR PANELBOARDS, NOR ABOVE THE ACCESS SPACE OF SUCH EQUIPMENT - NEC ARTICLE 384.

PIPING SYSTEM	TYPE
FIRE SUPPRESSION PIPING	S2, S3
WET PIPE SPRINKLER 2.5" AND LARGER	S1, S2, S3
WET DIDE CODINIZI ED	

WET PIPE SPRINKLER 2" AND SMALLER			S2
FINAL CONNECTION TO SPRINKLER HEADS			F1, S2
TYPE	DESCRIPTION	TYPE	DESCRIPTION
S1	ROLL GROOVED BLACK STEEL SCHEDULE 10, ASTM A135 OR ASTM A795 MALLEABLE/DUCTILE FITTINGS NITRILE /EPDM GASKETS ASTM A47/A47M OR A536	S 3	ROLL/CUT GROOVED BLACK STEEL SCHEDULE 40, ASTM A53 OR ASTM A795 MALLEABLE/DUCTILE FITTINGS NITRILE /EPDM GASKETS ASTM A47/A47M OR A536
S2	THREADED BLACK STEEL SCHEDULE 40, ASTM A53 OR ASTM A795, 150 LB. MALLEABLE OR C.I. SCREWED FITTINGS	F1	FLEXIBLE SPRINKLER HOSE FITTING 36" LENGTH MAXIMUM FULLY STAINLESS STEEL FLEXIBLE HOSE WITH CEILING BRACKET UL 2443 AND FM 1637 175 PSI RATING FOLLOW UL STANDARDS FOR BEND RADIUS AND NUMBER OF BENDS

GENERAL REQUIREMENTS

- PROVIDE COMPLETE AND FUNCTIONAL FIRE SUPPRESSION SYSTEMS PER FIRE PLANS INCLUDING FURNISHING, INSTALLING, TESTING AND WARRANTY OF ALL WORK.
- WORK SHALL BE IN ACCORDANCE WITH THE 2017 OHIO BUILDING AND MECHANICAL CODES INCLUDING REFERENCED CODES AND STANDARDS, ALL FEDERAL AND LOCAL CODES AND ALL APPLICABLE LAWS, ORDINANCES AND REGULATIONS.
- BIDDERS ON FIRE SUPPRESSION WORK SHALL BE REGULARLY ENGAGED IN SPRINKLER SYSTEM WORK AND BE CERTIFIED BY THE
- WORK SHALL BE PERFORMED USING BEST QUALITY INSTALLATION PRACTICE BY A QUALIFIED TRADE CONTRACTOR AND THEIR QUALIFIED SUBCONTRACTORS. ALL CONTRACTORS SHALL BE LICENSED AND BE BONDED FOR THE WORK.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA AND OWNER SAFETY STANDARDS AND PRACTICES. ALL ON SITE PERSONNEL SHALL BE SAFETY TRAINED AND OWNER CERTIFIED.
- OBTAIN REQUIRED PERMITS RELATED TO THE WORK AND PAY ALL PERMIT AND INSPECTION FEES.
- THE AUTHORITY HAVING JURISDICTION SHALL INSPECT AND APPROVE ALL WORK. PROVIDE A FINAL CERTIFICATE OF APPROVAL FROM THE AUTHORITY HAVING JURISDICTION AND PRESENT TO THE OWNER BEFORE REQUESTING FINAL PAYMENT AND RELEASE OF
- PERFORM A FLOW TEST TO SERVE AS THE BASIS FOR HYDRAULIC CALCULATIONS. DEVELOP HYDRAULIC CALCULATIONS AND INSTALLATION DRAWINGS NEEDED TO OBTAIN APPROVAL FROM AUTHORITY HAVING JURISDICTION. CALCULATIONS SHALL INCLUDE A 10% SAFETY FACTOR.
- PROTECT ALL FURNISHED MATERIAL AND EQUIPMENT FROM THEFT AND DETERIORATION OR CONTAMINATION DUE TO WEATHER OR CONSTRUCTION ACTIVITIES.
- PROTECT OWNER'S PROPERTY AND PROPERTY OF OTHER CONTRACTORS.
- REMOVE ALL CONSTRUCTION DEBRIS FROM SITE. RECYCLE DEBRIS WHERE POSSIBLE. DISPOSE OF ALL HAZARDOUS MATERIAL IN ACCORDANCE WITH ENVIRONMENTAL LAWS.
- 2. PROVIDE ALL CUTTING AND PATCHING REQUIRED TO INSTALL MATERIAL AND EQUIPMENT.
- PROVIDE APPROPRIATE FIRESTOPPING SYSTEM FOR ANNULAR SPACE OPENINGS AROUND PIPE PENETRATIONS THROUGH FIRE RESISTANCE RATED CONSTRUCTION. ANNULAR SPACE OPENINGS AT PIPE PENETRATIONS IN NON RATED CONSTRUCTION TO BE CLOSED AIR AND WATER TIGHT.
- . MATERIALS AND EQUIPMENT SHALL BE ONE OF THE BRAND OR MANUFACTURERS LISTED OR AN APPROVED EQUAL.
- . ELECTRONIC SHOP DRAWINGS SHALL BE PROVIDED IN .PDF FORMAT FOR THE ENGINEER'S APPROVAL FOR ALL MATERIALS AND EQUIPMENT. SHOP DRAWINGS SHALL BE SPECIFICALLY EDITED TO ELIMINATE SUPERFLUOUS INFORMATION AND SHALL CLEARLY SHOW SPECIFICS FOR THE MATERIAL AND EQUIPMENT PROVIDED.
- 6. COORDINATE INSTALLATION OF ACTUAL EQUIPMENT AND SYSTEMS PROVIDED WITH OTHER TRADES AND NEW OR EXISTING CONDITIONS.
- . INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
- B. INSTALL ALL MATERIAL AND EQUIPMENT TO PROVIDE REQUIRED CLEARANCES TO MEET CODE REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS AND MAINTENANCE SERVICE.
- 19. ALL WORK AREAS SHALL BE CLEANED TO MATCH ORIGINAL CONDITION.
- 20. MAINTAIN RECORD DRAWINGS AND PROVIDE TO THE OWNER OR HIS
- 1. PROVIDE TWO (2) BOUND, PAPER COPIES OF ALL OPERATING AND MAINTENANCE MANUALS. PROVIDE AN ELECTRONIC COPY OF THE OPERATING AND MAINTENANCE MANUAL.
- 22. PROVIDE WARRANTY FOR ALL WORKMANSHIP, EQUIPMENT AND MATERIAL. WARRANTY SHALL BE 1 YEAR FOR PARTS AND LABOR, PROVIDE EXTENDED WARRANTY PERIOD FOR PARTS AND/OR LABOR AS IDENTIFIED OR AS STANDARD FOR CERTAIN ITEMS OF EQUIPMENT.

GENERAL NOTES

- A. PROVIDE A COMPLETE SPRINKLER SYSTEM THROUGHOUT THE BUILDING. BUILDING SHALL BE CONSIDERED FULLY SUPPRESSED AT COMPLETION OF PROJECT.
- B. ALL FIRE SUPPRESSION EQUIPMENT SHALL BE UL LISTED FOR FIRE SUPPRESSION SERVICE.
- . PROVIDE A FIRE WATCH IN ACCORDANCE WITH "AHJ" REQUIREMENTS.
- D. ALL FIRE SUPPRESSION SYSTEMS (SERVICE MAIN, FIRE DEPT. CONNECTION, SPRINKLER SYSTEM, INSPECTOR TEST, DRAIN, ETC.) SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HOURS WITH NO VISIBLE LEAKAGE. ALL CONCEALED PIPING SHALL BE AIR TESTED, WITH NO LEAKAGE, PRIOR TO FILLING SYSTEM WITH WATER. THE FIRE PROTECTION CONTRACTOR SHALL NOTIFY ALL AUTHORITIES HAVING JURISDICTION 24 HOURS PRIOR TO THE TEST TO ALLOW AHJ TO WITNESS ALL TESTS.
- ALL VALVES CONTROLLING WATER SUPPLIES SHALL BE PROVIDED WITH TAMPER SWITCHES (SEE NOTE E).
- THE FIRE SPRINKLER SYSTEM SHALL BE SUPERVISED BY AN APPROVED CENTRAL STATION FIRE ALARM SYSTEM IN ACCORDANCE WITH O.B.C. AND N.F.P.A. 72.
- THE FIRE SUPPRESSION CONTRACTOR SHALL COORDINATE WIRING OF ELECTRICAL FIRE SUPPRESSION DEVICES AND EQUIPMENT WITH THE ELECTRICAL AND/OR FIRE ALARM CONTRACTOR. ALL FIRE ALARM WIRING BY ELECTRICAL CONTRACTOR. ALL DEVICES SHALL BE FURNISHED AND INSTALLED BY THE FIRE SUPPRESSION CONTRACTOR.
- THE FIRE SUPPRESSION CONTRACTOR SHALL COORDINATE THE LAYOUT OF THE FIRE SUPPRESSION SYSTEM WITH ALL TRADES PRIOR TO INSTALLATION.
- THE FIRE SUPPRESSION CONTRACTOR SHALL CENTER (WITHIN 1") ALL CONCEALED SPRINKLER HEADS INSTALLED IN ACOUSTICAL LAY-IN CEILING TILES. ALL PENDENT SPRINKLER HEADS IN CEILINGS SHALL BE SYMMETRICAL WITH LIGHTING AND AIR DEVICES.
- VERIEY THE LOCATION AND TYPE OF FIRE DEPARTMENT CONNECTION WITH THE FIRE DEPARTMENT.
- K. LOCAL SPRINKLER ALARM AND REMOTE ALARM AND SUPERVISION SHALL BE THRU THE FIRE ALARM SYSTEM PROVIDED BY THE E.C.
- CONCEALED, NONCOMBUSTIBLE ATTIC SPACES DO NOT REQUIRE SPRINKLERS.
- M. FINAL APPROVAL IS SUBJECT TO ACCEPTANCE AND TESTING BY ALL

DESIGN CRITERIA

- DESIGN AND INSTALLATION OF SERVICE MAIN AND WET PIPE SPRINKLER SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE 2017 OHIO BUILDING CODE, N.F.P.A. 13 (2016 EDITION), AND ALL AUTHORITIES HAVING JURISDICTION (AHJ).
- WORKING PLANS AND HYDRAULIC CALCULATIONS SHALL BE PREPARED. SUBMITTED. AND APPROVED PRIOR TO INSTALLATION. BY THE FIRE SUPPRESSION CONTRACTOR. PLANS SHALL INCLUDE ALL ITEMS LISTED IN N.F.P.A. 13.
- WATER SUPPLY DATA: THE FIRE SUPPRESSION CONTRACTOR IS RESPONSIBLE FOR CONDUCTING A FLOW TEST TO OBTAIN CURRENT WATER SUPPLY DATA FROM THE NEW WATER DISTRIBUTION SYSTEM FOR USE IN THE HYDRAULIC CALCULATIONS.
- ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE
- SPRINKLER HEADS IN AREAS WITH FINISHED CEILINGS SHALL BE TO MATCH THE ADJACENT CEILING COLOR OR FINISH. / WHITE
- SPRINKLER HEADS IN AREAS WITH NO CEILINGS SHALL BE BRASS/ CUSTOM COLOR UPRIGHTS. SIDEWALL SPRINKLER HEADS MAY ALSO BE USED IN STAIRWELLS WHERE PROPER COVERAGE CAN BE PROVIDED.

GENERAL LEGEND

ELECTRICAL CONTRACTOR. FIRE PROTECTION CONTRACTOR. GENERAL CONTRACTOR. HVAC CONTRACTOR.

PLUMBING CONTRACTOR. TEMPERATURE CONTROLS CONTRACTOR.

NOT IN CONTRACT.

ABOVE FINISHED FLOOR - TO BOTTOM OF ITEM UNLESS INDICATED OTHERWISE IN DRAWING.

EQUIPMENT SUPPLIER. NOTE SYMBOL - APPLIES ONLY TO SHEET ON WHICH IS SHOWN.

DETAIL NOTE SYMBOL - APPLIES ONLY TO DETAIL ON WHICH IS SHOWN.

EQUIPMENT REFERENCE SYMBOL. ELECTRICAL CONNECTION REQUIRED.

DETAIL "1" SHOWN ON SHEET F2.1. SECTION SYMBOL SECTION "1" DESIGNATION, SHOWN ON SHEET F2.1.

ROOM NUMBER.

DETAIL SYMBOL

FIRE SUPPRESSION SYSTEM SPRINKLER SYSTEM VALVE

CHECK VALVE

FLOW SWITCH

CONNECTION, TOP

ELBOW, 45°.

CONCEALED PENDENT TYPE WITH FLAT PLATE AND CUSTOM COLOR

FIRE SUPPRESSION LEGEND

VALVE ON RISER

SUPERVISED VALVE

CONNECTION, BOTTOM

ELBOW, 90°., LONG RADIUS

ELBOW, TURNED UP ELBOW TURNED DOWN

REDUCER UNION

PRESSURE GAUGE UPRIGHT SPRINKLER CONCEALED SPRINKLER

SEISMIC REQUIREMENTS

THIS PROJECT HAS SEISMIC REQUIREMENTS. REFER TO HVAC

SIDEWALL SPRINKLER

FIRE SUPPRESSION

INDEX OF DRAWINGS SHEET DRAWING TITLE F0.1 LEGENDS AND SCHEDULES F0.2 DETAILS FIRST FLOOR FIRE SUPPRESSION

MEZZANINE AND UPPER APPRATUS BAY FIRE SUPPRESSION

These designs and all items depicted herein. whether in writing or graphically, as instruments of professional service, may not e altered or changed, in any way, without e prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm or oss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY JDZ

LEGENDS AND SCHEDULES

F0.1

Nauman & Zelinski llc 204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

~

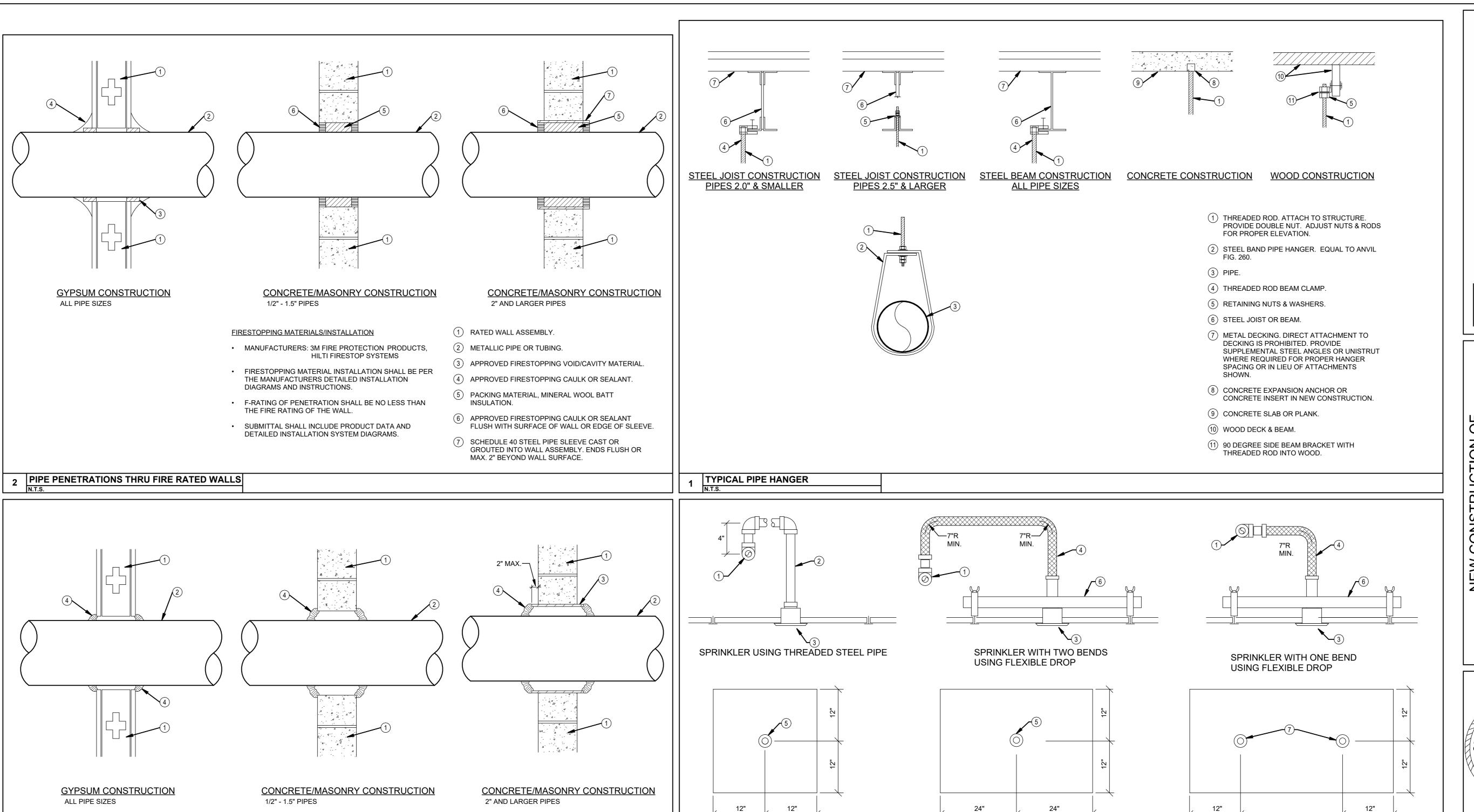
ш

S

 \simeq

SZ

9





TYPICAL 2'x4' CEILING TILE

CENTER INSTALLATION

FLEXIBLE HOSES SHALL BE CONSTRUCTED WITH ANNULAR CORRUGATIONS. HELICAL CORRUGATIONS ARE NOT ACCEPTABLE.

FLEXIBLE SPRINKLER PIPING SHALL BE 36" MAXIMUM AND MEET UL STANDARDS FOR MINIMUM BEND RADIUS AND MAXIMUM NUMBER OF BENDS.

ONE BEND IS EQUAL TO ONE 90° DEGREE CHANGE IN PIPING DIRECTION. TWO BENDS ARE EQUAL TO TWO 90° DEGREE, TOTAL OF 180° CHANGE

TYPICAL 2'x4' CEILING TILE

QUARTER POINT INSTALLATION

THE FIRE SUPPRESSION CONTRACTOR IS RESPONSIBLE FOR COORDINATING SPRINKLER PIPING BRANCH RUNS TO ALLOW FOR INSTALLATION OF FLEXIBLE HOSES TO UL STANDARDS.

SPRINKLER HEAD FINAL CONNECTIONS

IN PIPE DIRECTION.

REFER TO FLEXIBLE HOSE MANUFACTURERS SPECIFICATION FOR THE ALLOWABLE NUMBER OF BENDS IN PROVIDED LENGTHS OF FLEXIBLE HOSES.

TYPICAL 2'x2' CEILING TILE INSTALLATION

(2) THREADED STEEL PIPE.

(3) CONCEALED SPRINKLER HEAD.

(5) SPRINKLER HEAD MOUNTED IN CENTER

(6) MOUNTING BRACKET PROVIDED WITH

(7) SPRINKLER HEAD MOUNTED AT EITHER

QUARTERPOINT OF CEILING TILE.

(4) FLEXIBLE SPRINKLER HOSE.

OF CEILING TILE.

FLEXIBLE HOSE.

(1) FULL HEIGHT INTERIOR WALL.

(3) SCHEDULE 40 STEEL PIPE SLEEVE CAST OR

MAX. 2" BEYOND WALL SURFACE.

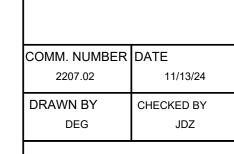
PREVENT THE PASSAGE OF SMOKE.

GROUTED INTO WALL ASSEMBLY. ENDS FLUSH OR

(4) CAULK TO FILL VOID AT WALL/SLEEVE OPENING TO

(2) PIPE OR TUBING.

PIPE PENETRATIONS THRU NON-RATED WALLS



Nauman & Zelinski llc. 204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015

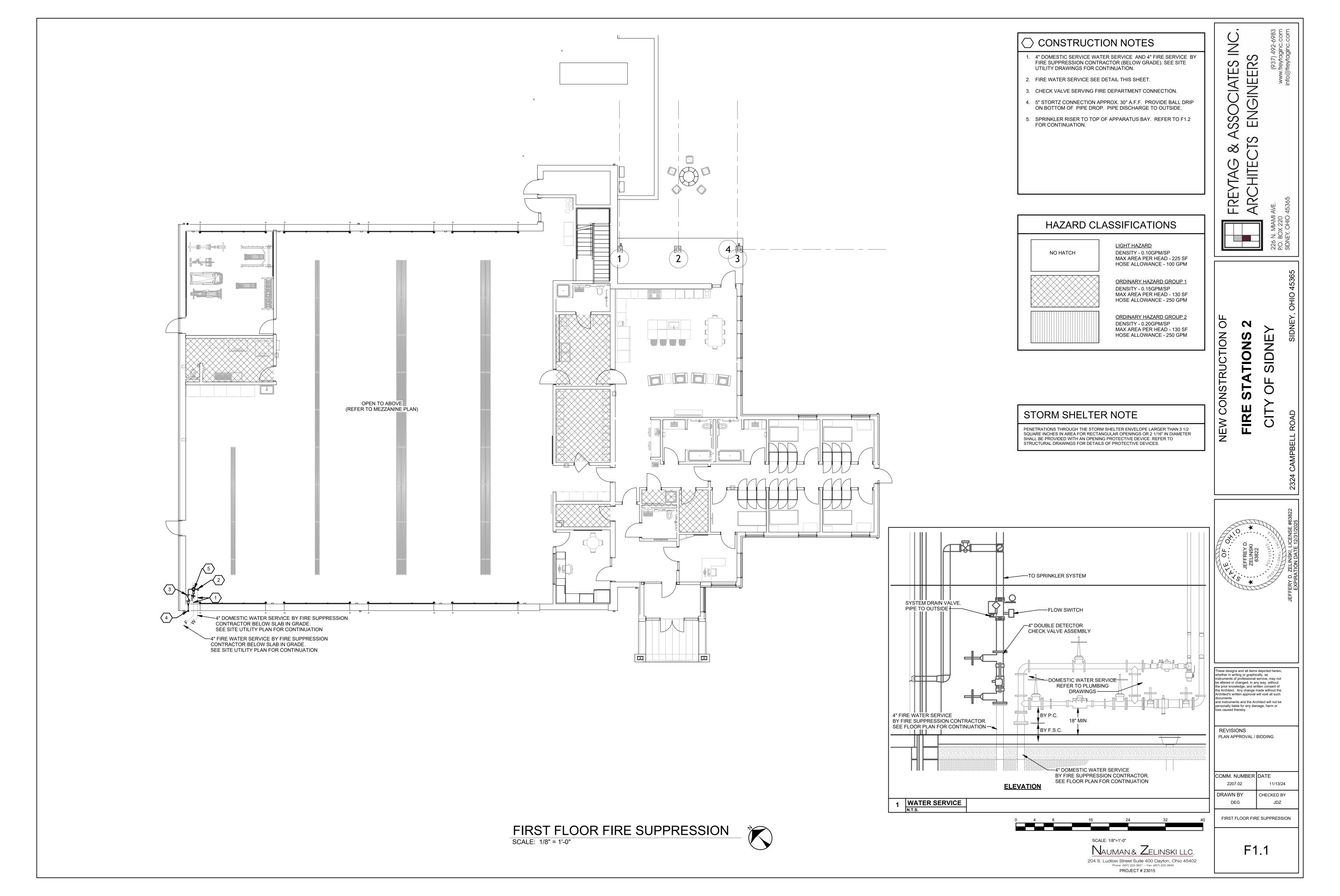
TIONS

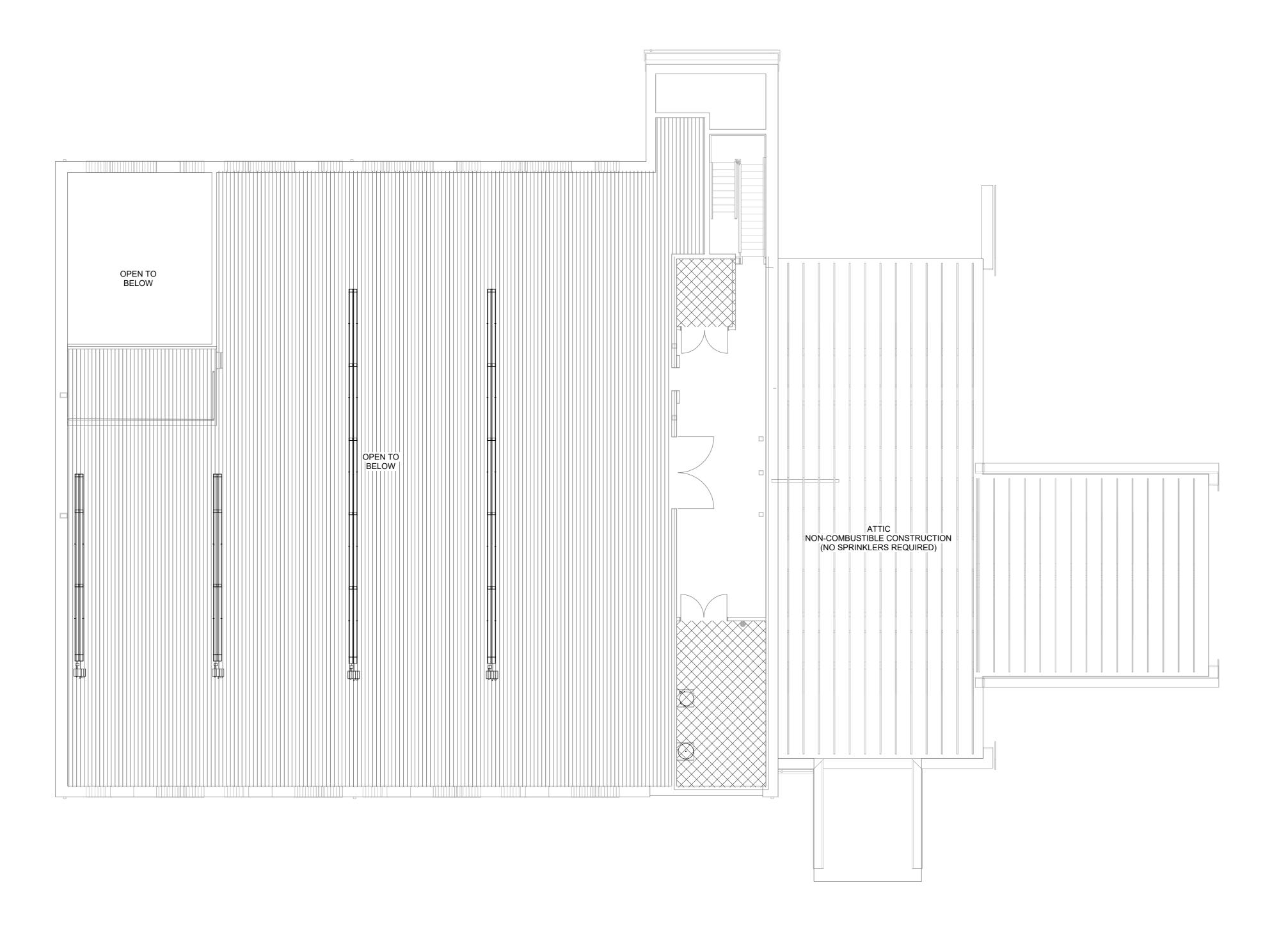
ENGINE

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such decimants. documents
and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

DETAILS





SECOND FLOOR FIRE SUPPRESSION

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



CONSTRUCTION NOTES

1. DRY STANDPIPE.

- PROVIDE 2 1/2" FIRE HOSE VALVE ON DRY STANDPIPE APPROX. 30" ABOVE LANDING FLOOR.
- 3. SPRINKLER PIPING UP AND DOWN.
- 4. PROVIDE DRY SIDE WALL SPRINKLER.
- ROOM TO BE PROVIDED WITH A CHEMICAL CLEAN AGENT SUPPRESSION SYSTEM (FM 200 OR EQUAL) NO SPRINKLERS
- 6. TRAINING WINDOW. KEEP SPRINKLERS AND PIPING OUT OF AREA

HAZARD CLASSIFICATIONS

NO HATCH

LIGHT HAZARD DENSITY - 0.10GPM/SP MAX AREA PER HEAD - 225 SF HOSE ALLOWANCE - 100 GPM

ORDINARY HAZARD GROUP 1 DENSITY - 0.15GPM/SP MAX AREA PER HEAD - 130 SF HOSE ALLOWANCE - 250 GPM

ORDINARY HAZARD GROUP 2 DENSITY - 0.20GPM/SP MAX AREA PER HEAD - 130 SF HOSE ALLOWANCE - 250 GPM

FREYTAG

ENGINEERS

STATIONS

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such decuments. documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY

MEZZANINE AND UPPER APPRATUS BAY FIRE SUPPRESSION

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

Nauman & Zelinski llc.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

DR	AIN SCHEDULE															
		MANUEACTURER			FE	ATUF	RES			STRA	INER/	GRAT	E			
TAG	DESCRIPTION	MANUFACTURER MODEL NUMBER	OUTLET SIZE	ANCHOR FLANGE	FLASHING CLAMP	UNDERDECK CLAMP	DBL/ DRAINAGE	SEDIMENT BUCKET	TOP/STRAINER SIZE	FLAT	SEDIMENT BUCKET	OPEN (NO GRATE)	HALF OPEN	ADJUSTABLE	FUNNEL	NOTES
FD1	FLOOR DRAIN/ CAST IRON BODY/ NICKEL BRONZE ROUND TOP/ ADJUSTABLE	ZURN # ZN415-B7	3"	•			•		7" DIA.	•				•	_	1.
FD2	FLOOR DRAIN/ CAST IRON BODY AND TOP/ MEDIUN DUTY/ LOOSE GRATE	1 ZURN # Z550	3"	•					9" DIA	•						
FD3	FLOOR DRAIN/ PVC BODY/APPROX 6" DEEP/ HALF TOP PVC FLAT/ FLAT GRATE/ FLAT STRAINER IN BOTTOM/ MEDIUM DUTY	SIOUX CHIEF # 8614P26	4"	•					11" SQ.	•			•			
FD4	FLOOR DRAIN/ CAST IRON BODY AND TOP/ MEDIUN DUTY/ LOOSE GRATE/ OVAL FUNNEL	1 ZURN # Z550 & # Z329	3"	•					9" DIA.	•					•	
FD5	FLOOR DRAIN/ CAST IRON BODY/ NICKEL BRONZE TOP/ ADJUSTABLE/ FUNNEL	ZURN # Z415E	3"	•					7" DIA 4" DIA FUNNEL	•				•	•	
FD6	FLOOR DRAIN/ PVC BODY/ APPROX 6" DEEP/ HALF TOP PVC FLAT GRATE/ FLAT STRAINER IN BOTTOM MEDIUM DUTY	/ SIOUX CHIEF # 8614P26	3"	•					11" SQ	•			•			
<u>CB-1</u>	21" X40" CATCHBASIN/ HDPE CONSTRUCTION/ HEAVY DUTY DUCTILE IRON FRAME AND SLOTTED GRATE/ PERFORATED ST.ST. SEDIMENT BUCKET/ SIDE OUTLET		4"						21" (I.D.) X 40"	•	•					
CB2	12" X40" CATCHBASIN/ HDPE CONSTRUCTION/ HEAVY DUTY DUCTILE IRON FRAME AND SLOTTED GRATE/ PERFORATED ST.ST. SEDIMENT BUCKET/ SIDE OUTLET		4"						12" (I.D.) X 40"	•	•					
<u>TD1</u>	21" TRENCH DRAIN/ HDPE CONSTRUCTION/ HEAVY DUTY DUCTILE IRON FRAME AND SLOTTED GRATE/ 80" SECTIONS/ ALL SECTIONS SLOPED	_	INTO CB-1						21" WIDE (I.D.) 66.67'± LONG (10 - 80" LONG SECTIONS)	•						
TD2	12" TRENCH DRAIN/ HDPE CONSTRUCTION/ HEAVY DUTY DUCTILE IRON FRAME AND SLOTTED GRATE/ 80" SECTIONS/ ALL SECTIONS SLOPED	_	INTO CB-2						12" WIDE (I.D.) 66.67'± LONG (10 - 80" LONG SECTIONS)	•						
TD3	12" TRENCH DRAIN/ HDPE CONSTRUCTION/ HEAVY DUTY DUCTILE IRON FRAME AND SLOTTED GRATE/ 80" SECTIONS/ ALL SECTIONS SLOPED		INTO CB-2						12" WIDE (I.D.) 26.67'± LONG (4 - 80" LONG SECTIONS)	•						
FCO	EXTRA HEAVY DUTY CLEANOUT/ FLOOR SET/ NICKEL-BRONZE TOP/ CAST IRON BODY/ MIP THREADED CONNECTION/ ABS PLUG	ZURN # ZN1400-K	SAME AS PIPE UP TO 4"		•					•				•		
DT1	DRAIN TROUGH W/ LINT TRAP/ 36"X18"X12"H/ POLYPROPYLENE/ DUAL FILTERS/ 4" SIDE OUTLET IN FRONT. RECESS FLUSH WITH FLOOR.	STRIEM # TT-3 W/ # IBK-3 & GUSSETS	4" W/ FCO	•						•						
NOTES																

1. PROVIDE ASSE 1072 TRAP MAINTENANCE DEVICE ON DRAIN.

IIITEN	FIXTURE DESCRIPTION	FIXTURE		SER	VICES		MTG.			TRIM REC	QUIREMENTS			NOTES
	I INTONE DESCRIPTION	FIATURE	H.W.	C.W.	SAN.	VENT	HGT.	SUPPLY	STOPS	WASTE	TRAP	CARRIERS	ACCESSORIES	NOTES
<u>W1</u>	WATER CLOSET/ VIT. CHINA/ WALL HUNG/ MANUAL FLUSH VALVE/ 1.6 GPF/ ELONGATED BOWL/ 16 1/2" RIM HEIGHT/ 1,000 MG MaP SCORE/ OPEN FRONT SEAT WITH LID/ ACCESSIBLE	AM. STANDARD # 2257.101		1"	4"	2"	17"	SLOAN # SLOAN 111-1.6	UNIT	UNIT	INTEGRAL	SEE SOIL, WASTE AND VENT	SEAT BEMIS # 1950SS	
<u>W2</u>	WATER CLOSET/ VIT. CHINA/ FLOOR SET/ TANK TYPE/ HANDLE ON LEFT/ 1.28 GPF/ ELONGATED BOWL/ 16 1/2" RIM HEIGHT/ 1,000 MG MaP SCORE/ OPEN FRONT SEAT WITH LID/ ACCESSIBLE	AM. STANDARD # 211AA.104		1/2"	4"	2"		UNIT	MCGUIRE # LFBV2166	UNIT	INTEGRAL		SEAT BEMIS # 1950SS	
<u>L1</u>	LAVATORY/ SOLID SURFACE/ INTEGRAL WITH COUNTERTOP/ SINGLE LEVER CAST BRASS FAUCET/ 0.5 GPM/ PROTECTIVE WRAP/ ACCESSIBLE	BY OTHERS	1/2"	1/2"	1 1/4"	1 1/2"		AM. STANDARD # 6114.116	MCGUIRE # LFBV2165	WITH TRAP	MCGUIRE # PW2150WC		POWERS # LFE480	
<u>L2</u>	LAVATORY/ VIT, CHINA/ WALL HUNG/ SINGLE LEVER CAST BRASS FAUCET/ 0.5 GPM/ PROTECTIVE WRAP/ ACCESSIBLE	AM. STANDARD # 0355.012	1/2"	1/2"	1 1/4"	1 1/2"	34" TO RIM	AM. STANDARD # 6114.116	MCGUIRE # LFBV2165	WITH TRAP	MCGUIRE # PW2150WC	MI-FAB # MC-41	POWERS # LFE480	
<u>L3</u>	LAVATORY/ VIT, CHINA/ WALL HUNG/ METERING CAST BRASS FAUCET W SINGLE TEMP/ 0.5 GPM/ PROTECTIVE WRAP/ ACCESSIBLE	AM. STANDARD # 0355.012	1/2"	1/2"	1 1/2"	1 1/2"	34" TO RIM	CHICAGO # 3600-E2805AB	MCGUIRE # LFBV2165	UNIT	MCGUIRE # PW2150WC	MI-FAB # MC-41	POWERS # LFE480	
<u>S1</u>	SINK/ DROP-IN/ SINGLE BOWL/ 28" x16" x 12" DEEP BOWL/ SINGLE LEVER FAUCET W PULL DOWN SPRAY W COIL/ DISPOSAL	ELKAY # DLR312212	1/2"	1/2"	1 1/2"	1 1/2"		AM. STANDARD STUDIO S # 4803350	MCGUIRE # LFBV2165	MCGUIRE # 151A	MCGUIRE # 8912		INSINKERATOR # EVOLUTION .75 HP	
<u>S2</u>	SINK/ ST. ST./ INTEGRAL W C'TOP/ SINGLE BOWL/ SINGLE LEVER FAUCET W PULL DOWN SPRAY W COIL/ BASKET STRAINER/ EMERG. DRENCH HOSE WITH MIXING VALVE	BY OTHERS	(2) 1/2"	(2) 1/2"	(2) 1 1/2"	1 1/2"		AM. STANDARD STUDIO S # 4803350	MCGUIRE # LFBV2165	MCGUIRE # 151A (2 REQ'D)	MCGUIRE # 8912 & # 111		GUARDIAN # G5022-HG & G3600LF	
<u>S3</u>	SINK/ ST. ST./ DROP-IN/ SINGLE BOWL/ 21" X 15 3/4" X 12" DEEP BOWLS/ SINGLE LEVER FAUCET WITH SIDE SPRAY	ELKAY # DLR252212	1/2"	1/2"	1 1/2"	1 1/2"	-	AM. STANDARD # 7074.040	MCGUIRE # LFBV2165	MCGUIRE # 151A	MCGUIRE # 8912			
<u>SH1</u>	SHOWER/ SOLID SURFACE ENCLOSURE/ CENTER DRAIN W NO THRESHHOLD/ PRESSURE BALANCING MIXING VALVE WITH FIXED HEAD AND HAND HELD ON SLIDE BAR/ DIVERTER VALVE IN WALL/ ACCESSIBLE	BY OTHERS	1/2"	1/2"	2"	1 1/2"	VALVE 46" HEAD 83"	POWERS # P902-M4-N-B-W	UNIT	UNIT	SAME AS SANITARY PIPING			
SH2	SHOWER/ SOLID SURFACE ENCLOSURE/ CENTER DRAIN W THRESHHOLD/ PRESSURE BALANCING MIXING VALVE WITH FIXED HEAD	BY OTHERS	1/2"	1/2"	2"	1 1/2"	VALVE 46" HEAD 83"	POWERS #P902-M4	UNIT	UNIT	SAME AS SANITARY PIPING			
<u> </u>	DRINKING FOUNTAIN/ WALL MOUNTED/ SINGLE LEVEL WITH BOTTLE FILLER/ FILTERED/ REFRIGERATED/ ACCESSIBLE	ELKAY # LZSG8WSLK	-	1/2"	1 1/4"	1 1/2"	32 7/8" TO BUBBLER	UNIT	BALL VALVE	UNIT	CAST BRASS	MI-FAB # MC-32		
<u>E1</u>	EMERGENCY SHOWER AND EYEWASH/ FREESTANDING/ ST. ST. SHOWER HEAD AND BOWL / THERMOSTATIC MIXING	GUARDIAN # G1994	1"	1"	1 1/4" TO FD			UNIT		FLOOR DRAIN			GUARDIAN # G6040	2.
<u>M1</u>	MOP SINK/ FLOOR SET/ 24" SQ. 12" DEEP/ MOLDED STONE/ ST. ST. CAPS/ ST.ST. WALL PANELS/ WALL MOUNTED ROUGH CHROME FAUCET WITH INTEGRAL CHECK STOPS	FIAT # TSB-100	1/2"	1/2"	3"	1 1/2"	36" FAUCET	ZURN # Z843M1-RC-CS	UNIT	UNIT	SAME AS SANITARY PIPING		FIAT, # MSG2424	
<u>M2</u>	MOP SINK/ FLOOR SET/ 24" X 36" 12" DEEP/ TERRAZZO/ ST. ST. CAPS/ ST. ST. WALL PANEL / WALL MOUNTED FAUCET WITH INTEGRAL CHECK STOPS AND HOSE AND SPRAY	FIAT # TSB-700	1/2"	1/2"	3"	1 1/2"	36" FAUCET	CHICAGO # 512-GC90LABCP					FIAT # MSG 36 (1 36" PANEL)	
∃ WB1	WASHER UTILITY CONNECTION BOX/ 1/4 TURN BALL VALVES WITH WATER HAMMER ARRESTOR/ WASTE CONNECTION	OATEY # 38574	3/4"	3/4"	2"	1 1/2"	30"	UNIT	BALL VALVES ABOVE CEILING	UNIT	SAME AS SANITARY PIPING			
WB2	ICE MAKER CONNECTION BOX/ 1/4 TURN BALL VALVE/ 6' ST. ST. HOSE	OATEY # 38623		1/2"			36"	UNIT	BALL VALVE ABOVE CEILING					
WB3	COFFEE MAKER CONNECTION BOX/ 1/4 TURN BALL VALVE/ 6' ST. ST. HOSE	OATEY # 38623		1/2"			42"	UNIT	BALL VALVE ABOVE CEILING					
HB1	HOSE BIBB/ ENCASED/ NON-FREEZE/ ANTI-SIPHON/ AUTOMATIC DRAINING/ 1/2 TURN CERAMIC DISC/ WALL	ZURN # Z1320XL-EZ-WC		3/4"	-	-	APPROX. 24"							1.

AMERICAN STANDARD CHINA - KOHLER, ZURN, SLOAN AMERICAN STANDARD FAUCETS - KOHLER, ZURN, CHICAGO

OATEY SUPPLY BOXES - IPS, GUY GRAY, SIOUX CHIEF

SLOAN FLUSH VALVES - ZURN, DELANEY ELKAY SINKS - JUST, ADVANCED TABCO

MCGUIRE - WATTS, BRASS CRAFT MCGUIRE "PROWRAP" - TRUEBRO "LAV GUARD", PLUMBEREX "PROEXTREME"

V.R.

V.T.R.

S.S.

V.S.

VENT RISER

SOIL STACK

VENT STACK

VENT THRU ROOF

1. COORDINATE EXACT MOUNT HEIGHT WITH MASONARY COURSING. 2. MOUNT MIXING VALVE ON WALL NEXT TO EMERGENCY SHOWER AND RUN 1 1/4" TEMPERED WATER FROM MIXING VALVE TO FIXTURE INLET.

GENERAL NOTES - PLUMBING

- A. ALL WORK SHALL BE N ACCORDANCE WITH THE 2017 VERSION OF THE OHIO BUILDING AND PLUMBING CODES, INCLUDING REFERENCED CODES AND STANDARDS.
- 3. OBTAIN A PLUMBING PERMIT AND SECURE INSPECTION AND APPROVAL OF THE CODE OFFICIAL.
- . COORDINATE EACH ROUGH-IN INSTALLATION REQUIREMENTS AND LOCATIONS WITH OTHER TRADES, ACTUAL EQUIPMENT OR CABINETRY PROVIDED AND FIELD CONDITIONS BEFORE PERFORMING WORK.
- D. REFER TO ARCHITECTURAL CODE PLANS FOR LOCATIONS OF FIRE WALLS AND SMOKE PARTITIONS. IN SMOKE PARTITIONS FILL SPACE AROUND PENETRATIONS WITH AN APPROVED MATERIAL TO LIMIT THE FREE PASSAGE OF SMOKE. IN FIRE WALLS SEAL ALL PENETRATIONS WITH AN APPROVED FIRE STOPPING PRODUCT, SEE SPECIFICATIONS.
- . REFER TO DIAGRAMS, DETAILS, AND SCHEDULES FOR PIPING AND PIPE SIZES NOT SHOWN ON PLAN OR ON DIAGRAMS.
- ALL PIPING IS ABOVE THE CEILING (AT THE CEILING IN EXPOSED STRUCTURE AREAS) UNLESS OTHERWISE INDICATED ON PLAN.
- 6. ALL EQUIPMENT AND MATERIAL REQUIRED FOR COMPLETE AND FUNCTIONAL PLUMBING SYSTEMS ARE INCLUDED IN THE CONTRACT .THE WORK SCOPE IN THE PROJECT MANUAL DEFINES THE FINAL CONTRACTUAL RESPONSIBILITY TO PROVIDE SUPPORTING EQUIPMENT, MATERIALS, FINISHING, UTILITY COST, ETC (EXAMPLES: CONCRETE PADS, PAINTING, TEMPORARY ELECTRIC/GAS COSTS) FOR PRECEDENCE OVER OTHER SPECIFICATION SECTIONS OR DRAWING REQUIREMENTS.

PLUMBIN	IG LEGEND	GENERAL	LEGEND
	SANITARY DRAIN ABOVE FLOOR OR GRADE	EC	ELECTRICAL CONTRACTOR.
	VENT	FC	FIRE PROTECTION CONTRACTOR.
	COLD WATER	GC	GENERAL CONTRACTOR.
	HOT WATER	нс	HVAC CONTRACTOR.
	HOT WATER RETURN	PC	PLUMBING CONTRACTOR.
—— G——	NATURAL GAS	тс	TEMPERATURE CONTROLS CONTRACTOR.
A	COMPRESSED AIR	NIC	NOT IN CONTRACT.
C.O.	CLEAN OUT	AFF	ABOVE FINISHED FLOOR - TO BOTTOM OF ITEM
	SHUT-OFF VALVE, SEE SCHEDULE FOR TYPE		UNLESS INDICATED OTHERWISE IN DRAWING.
	CHECK VALVE	ES	EQUIPMENT SUPPLIER.
	BALANCING VALVE	3	NOTE SYMBOL - APPLIES ONLY TO SHEET ON WHICH IS SHOWN.
比一	VALVE ON RISER	(2)	DETAIL NOTE SYMBOL - APPLIES ONLY TO DETAIL ON WHICH IS SHOWN.
	UNION, SCREWED		EQUIPMENT REFERENCE SYMBOL. ELECTRICAL
®	REGULATOR	H-1	CONNECTION REQUIRED.
®	PRESSURE GAUGE	123	ROOM NUMBER.
T T	TEMPERATURE GAUGE		
	CONNECTION, BOTTOM	(FD1)	UP TO SYMBOL UP TO "FD1", SHOWN ON FLOOR ABOVE.
- ↑-	CONNECTION, TOP		
	DIRECTION OF FLOW		
│	CAP		

SEISMIC REQUIREMENTS

THIS PROJECT HAS SEISMIC REQUIREMENTS. REFER TO HVAC DRAWINGS

PLUMBING INDEX OF DRAWINGS

- 1		
-	SHEET	DRAWING TITLE
	P0.1	LEGEND & SCHEDULES
	P0.2	MATERIAL SCHEDULES
	P0.3	MATERIAL SCHEDULES AND GENERAL DETAILS
	P1.0	UNDERFLOOR PIPING PLAN
	P1.1	FIRST FLOOR PLAN
	P1.2	UPPER APPARATUS BAY AND MEZZANINE PLAN
	P3.1	DETAILS
-	P4.1	SOIL, WASTE, AND VENT

COMM. NUMBER DATE

LEGEND & SCHEDULES

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

NEW CONSTRUCTION OF

STATIONS

ENGINEERS

These designs and all items depicted herein, These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby. REVISIONS PLAN APPROVAL / BIDDING

11/13/24 DRAWN BY CHECKED BY DEG JDZ

QUALITY ASSURANCE

VALVES ON DOMESTIC WATER SYSTEMS SHALL BE "LEAD FREE" IN ACCORDANCE WITH THE FEDERAL SAFE WATER ACT (S3874) DEFINITION AND CONFORM TO NSF 61.

GROOVED END VALVES SHALL CONFORM TO ANSI/AWWA C-606.

VALVES SHALL COMPLY WITH ANSI, ASTM AND ASME.

WORKING PRESSURES SHALL EXCEED THOSE IMPOSED BY THE SERVICE APPLIED.

VALVES WHICH ARE INSULATED SHALL HAVE EXTENDED SHAFTS.

PROVIDE FLOW MEASURING GAUGES WITH COCKS, HOSES & CONNECTORS FOR BALANCING VALVES. PROVIDE METERING TOOL.

PROVIDE HOSE ADAPTORS ON DRAIN VALVES.

SWEAT END VALVES OF EQUAL CONSTRUCTION ARE ACCEPTABLE IN LIEU OF SCREWED ENDS.

IN MECHANICALLY JOINED SYSTEMS, VALVES OF EQUAL CONSTRUCTION WITH COMPATIBLE ENDS ARE ACCEPTABLE AND MAY BE MANUFACTURED BY THE COUPLING MANUFACTURER.

VALVE MANUFACTURERS:

BALL VALVES - NIBCO, WATTS, MILWAUKEE, APOLLO, CONBRACO, CRANE. BALANCING VALVES - BELL & GOSSETT, ARMSTRONG, WATTS.

CHECK VALVES - NIBCO, STOCKHAM, WATTS.

BODY, 316 STAINLESS STEEL

BALL AND STEM. STANDARD

HANDLE, NSF/ASME 61

NIBCO T-580-CS-R-66

NIBCO T-FP-600A,

HANDLE.

PORT, TEFLON SEAT AND SEAL,

1500 W.O.G., TWO-PIECE CARBON

STEEL BODY, SCREWED ENDS,

STAINLESS STEEL BALL AND

600 PSI NON-SHOCK COLD., 2

PIECE, BRASS BODY, SCREWED ENDS. FULL PORT. BRASS BALL.

TFE SEAT, HANDLE. UL LISTED

FOR GAS. ASME B16.44

NIBCO T-585(OR 580)-70-UL,

FOR GAS. ASME B16.33

600 PSI NON-SHOCK COLD, 2

PIECE, BRONZE BODY, SCREWED

ENDS, FULL PORT, BRASS BALL,

TFE SEAT, HANDLE. UL LISTED

STEM, TFE SEAT AND SEAL,

EXECUTION

VALVES SHALL BE INSTALLED WITH STEM ABOVE CENTERLINE OF PIPE

VALVES	S SHALL BE INSTALLED WITH STEM A	BOVE CEN	TERLI	NE OF PIPE.							
PIPING SYSTEM					VALVI	E TYPE					
		BUTTER	RFLY	BALL	CHECK	GAT	Έ	BALANCING	LUB. PLUG		
	DOMESTIC WATER SERVICE 2" AND LARGER					D18	3				
DOM	MESTIC WATER (CW, HW, & HWR) 2" AND SMALLER			B11, B14	C11, C13			E11			
DOM	MESTIC WATER (CW, HW, & HWR) 2.5" AND LARGER			B14	C12, C14 C16						
СОМІ	PRESSED AIR (150 PSI AND LESS) 2" AND SMALLER			B15							
	INTERIOR NATURAL GAS 4" AND SMALLER			B17							
	INTERIOR NATURAL GAS 4" AND LARGER								P11		
	EXTERIOR NATURAL GAS 3" AND SMALLER			B18					P11		
TYPE	DESCRIPTION	TYPE		DESCRIP	ΓΙΟΝ	TYPE		DESCRIP	TION		
B11	NIBCO T-585-80-LF, 150 W.S.P., TWO-PIECE BRONZE BODY, SCREWED ENDS, BRONZE BALL AND BRONZE STEM, TFE SEAT AND SEAL, HANDLE. NSF/ASME 61	C11	125 W.S.P., BRO SCREWED END		I25 W.S.P., BRONZE BODY, SCREWED ENDS, RENEWABLE BRONZE SWING DISC WITH TFE SEAT RING.				KENNEDY KS-FW 8068A, 200 PSI, NSF 61 EPOXY COA CAST IRON BODY, RESILIEN WEDGE, O.S.& Y., FLANGED		XY COATED ESILIENT
B14	APOLLO 70LF-240, 150 WSP TWO-PIECE, LEAD-FREE BRONZE	C12	250 F	CO T-938-33, PSI WORKING W SSURE., DUCTIL		E11	400 F	& GOSSETT CE PSI, BRONZE BC SS BALL, SCRE\	DY WITH		

STAINLESS STEEL TRIM,

AND SEAT RING.

NSF/ANSI 61-8

NIBCO F-910-LF

C13 NIBCO T-480-Y-LF.

FLANGED ENDS. RENEWABLE

125 W.S.P., IN-LINE SPRING

SEAT RING, NSF/ASME 61

125 W.O.G., IN-LINE SPRING

ACTUATED CENTER GUIDED

SILENT CHECK, GLOBE STYLE

IRON BODY FOR INSTALLATION

BETWEEN FLANGES, BRONZE

SEAT AND DISC. NSF/ASME 61

SCREWED ENDS, BRONZE SWING

125 W.S.P. BRONZE BODY,

WATTS SERIES LFWCV.

NSF/ASME 61

ACTUATED CENTER GUIDED SILENT CHECK, BRONZE BODY,

SCREWED ENDS, TFE DISC AND

STAINLESS STEEL SWING DISC

BUILDING DRAIN SYSTEMS SCHEDULE STORM, SANITARY, & VENT

GENERAL NOTES:

QUALITY ASSURANCE PIPING SHALL CONFORM TO OBC REQUIREMENTS.

PIPING SHALL COMPLY WITH ASME B31.9 "BUILDING SERVICES PIPING".

INSTALL CAST-IRON SOIL PIPING ACCORDING TO CISPI'S "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK," CHAPTER IV, "INSTALLATION OF CAST IRON SOIL PIPE AND

ON PIPING 5" AND LARGER PROVIDE BRACING AT EVERY BRANCH OPENING OR CHANGE IN DIRECTION AS REQUIRED BY CISPI'S "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK," CHAPTER IV, "INSTALLATION OF CAST IRON SOIL PIPE AND

INSTALL PVC SOIL AND WASTE DRAINAGE AND VENT PIPING ACCORDING TO

PVC PIPING SHALL NOT BE USED IN SPACES USED AS PLENUMS

PIPE AND TUBING SHALL BE CUT AND FABRICATED TO FIELD MEASUREMENTS AND RUN PARALLEL TO NORMAL BUILDING LINES. PIPE INTERIOR SHALL BE CLEANED OF FOREIGN MATTER AND BURRS BEFORE ERECTION OF PIPE.

ANNULAR SPACE AROUND PIPING THRU ALL WALLS SHALL BE SEALED OFF WITH PERMANENT PLIABLE CAULKING OR APPROVED PATCHING SEALANT.

PROVIDE PIPING SLEEVES AT FLOORS, WALLS & ROOFS IN NEW CONSTRUCTION. EXISTING WALLS TO BE SAW CUT TO PASS NEW PIPING.

PIPING SHALL NOT BE RUN ABOVE ELECTRICAL SWITCHGEAR OR PANELBOARDS. NOR ABOVE THE ACCESS SPACE OF SUCH EQUIPMENT - NEC ARTICLE 384.

LAY BURIED BUILDING DRAINAGE PIPING BEGINNING AT LOW POINT OF EACH SYSTEM. INSTALL TRUE TO GRADES AND ALIGNMENT INDICATED, WITH UNBROKEN

SUPPORT PIPING FROM BUILDING STRUCTURE WITH RODS, ANGLES & CLAMPS ATTACHED TO STRUCTURE. HANG PIPING WITH CLEVIS HANGER OR ROLLER. SUPPORTS. HANGERS SHALL BE INSTALLED ON CENTERS AS RECOMMENDED BY

SLOPE DRAINAGE PIPING AT 1/4" PER FOOT (2%) FOR PIPING SMALLER THAN 3" AND 1/8" PER FOOT (1%) FOR PIPING 3" AND LARGER.

VENT PIPING SHALL BE PITCHED FOR DRAINAGE.

CLOSE OPEN ENDS OF PIPING DURING CONSTRUCTION.

COUPLINGS AND GASKETS SHALL BE INSTALLED IN ACCORDANCE WITH

MANUFACTURER'S RECOMMENDATIONS. MAKE CHANGES IN DIRECTION FOR SOIL AND WASTE DRAINAGE AND VENT PIPING

USING APPROPRIATE BRANCHES, BENDS, AND LONG-SWEEP BENDS. SANITARY TEES AND SHORT-SWEEP 1/4 BENDS MAY BE USED ON VERTICAL STACKS IF CHANGE IN DIRECTION OF FLOW IS FROM HORIZONTAL TO VERTICAL

DO NOT ENCLOSE, COVER, OR PUT PIPING INTO OPERATION UNTIL IT IS INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION.

CONNECTION, READOUT & DRAIN

NAMEPLATE. HANDLE WITH

P11 | NORDSTROM NO. 143. 200 PSI.

IRON BODY, ST. ST. STEM,

FLANGED ENDS. WRENCH

MEMORY STOP, NSF/ASME 61

PORTS, TFE SEATS, CALIBRATED

PIPING SHALL BE TESTED IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

		PIPING SYSTEM	TYPE		
- 1	SANI	TARY PIPING BELOW FLOOR SLAB IN G	P1		
\dashv	SA	NITARY & VENT PIPING ABOVE THE FLO	CI1, CI2		
- 1	STO	RM DRAINAGE BELOW THE FLOOR IN S	P1		
- 1		STORM DRAINAGE ABOVE FLOOR	CI1, CI2		
	IND	IRECT DRAINS/CONDENSATE DRAIN LI 1" & SMALLER	C1, C5, C8		
	TYPE	DESCRIPTION	TYPE	DESCRIPTION	
	CI1	NO-HUB CAST IRON (STD) SERVICE WEIGHT ASTM A888 OR CISPI 301 SHIELDED COUPLINGS ASTM C1277 OR CISPI 310 RUBBER SLEEVE ASTM C564	C1	SOLDERED COPPER TYPE "L" HARD COPPER ASTM B88 WROUGHT COPPER OR CAST BRONZE FITTINGS 95-5 SOLDER	
	CI2 HUB & SPIGOT CAST IRON ASTM A74, SERVICE CLASS DWV FITTING RUBBER GASKET ASTM C564		C5	PRESS-FIT COPPER TYPE "L" HARD COPPER ASTM B88 COPPER OR BRONZE FITTINGS ASTM B16.18 OR B16.22 250 DEG. F. EPDM SEALS	
	P1	PVC SCHEDULE 40 PVC ASTM D2665 AND D2321 DWV FITTINGS, ASTM D3311 GLUED JOINTS	C8	TYPE "K" SOFT COPPER ASTM B88 WROUGHT COPPER OR CAST BRONZE FITTINGS 95-5 SOLDER	

IN ABOVE CEILINGS SPACES USED AS RETURN AIR PLENUMS, SANITARY AND VENT PIPING SHALL BE CAST IRON TYPE C1 OR C2. COORDINATE WITH H.C. FOR RETURN AIR PLENUMS LOCATIONS

SANITARY AND VENT PIPING ABOVE THE FLOOR SLAB AND WITHIN WALLS MAY BE PVC TYPE P1, ONLY IF ALL (ALL TRADES) WALL PENETRATIONS ARE SEALED TO PREVENT THE PASSAGE OF SMOKE INTO RETURN AIR PLENUMS. TRANSITION TO CAST IRON SHALL OCCUR WITHIN THE WALL.

BUILDING SUPPLY SYSTEMS SCHEDULE | WATER, COMPRESSED AIR. & GAS

GENERAL NOTES:

QUALITY ASSURANCE PIPING SHALL CONFORM TO OBC REQUIREMENTS.

PIPING SHALL COMPLY WITH ASME B31.9 "BUILDING SERVICES PIPING".

ALL COMPONENTS OF DOMESTIC WATER SYSTEMS (CW, HW, & HWR) SHALL BE "LEAD FREE" IN ACCORDANCE WITH THE FEDERAL SAFE WATER ACT (\$3874) DEFINITION AND CONFORM TO NSF 61.

DIELECTRIC CONNECTORS SHALL BE PROVIDED AT CONNECTIONS BETWEEN FERROUS & COPPER PIPING.

GAS PRESSURE REGULATORS SHALL BE CAST IRON SELF-OPERATING SPRING LOADED TYPE. VALVE 125 PSI. SPRING AND DIAPHRAGM CASINGS SHALL BE ALUMINUM. REGULATOR SHALL HAVE AN INTERNAL RELIEF VALVE ASSEMBLY. TAPPED VENT CONNECTION WITH REMOVABLE SCREEN ON THE SPRING CASING AND AN EXTERNAL PILOT OPERATOR TO AFFORD A 5% MAXIMUM DROOP. OVER-PRESSURE PROTECTION SHALL BE TEN TIMES THE INLET PRESSURE (OR HIGHER AS MAY BE REQUIRED BY THE GAS COMPANY). FISHER TYPE S102 OR S202 OR EQUAL BY SPRAGUE OR EQUIMETER.

UNIONS

COPPER TUBING - WROUGHT OR CAST COPPER, CLASS 150, SOLDERED ENDS THREADED STEEL PIPE - MALLEABLE IRON W/GROUND SEAT, 300 LB SCREWED

MECHANICALLY FORMED TEES AND COUPLINGS (T-DRILL) ARE NOT PERMITTED.

PIPE AND TUBING SHALL BE CUT AND FABRICATED TO FIELD MEASUREMENTS AND RUN PARALLEL TO NORMAL BUILDING LINES. PIPE INTERIOR SHALL BE CLEANED OF FOREIGN MATTER AND BURRS BEFORE ERECTION OF PIPE.

ANNULAR SPACE AROUND PIPING THRU ALL WALLS SHALL BE SEALED OFF WITH PERMANENT PLIABLE CAULKING OR APPROVED PATCHING SEALANT.

PROVIDE PIPING SLEEVES AT FLOORS, WALLS & ROOFS IN NEW CONSTRUCTION. EXISTING WALLS TO BE SAW CUT TO PASS NEW PIPING.

PIPING SHALL NOT BE RUN ABOVE ELECTRICAL SWITCHGEAR OR PANELBOARDS, NOR ABOVE THE ACCESS SPACE OF SUCH EQUIPMENT - NEC ARTICLE 384.

PIPING SHALL BE PITCHED FOR DRAINAGE.

CLOSE OPEN ENDS OF PIPING DURING CONSTRUCTION.

MECHANICAL JOINT PIPING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

GAS PRESSURE REGULATORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE VALVED GAUGE TAPS UPSTREAM AND DOWNSTREAM OF THE REGULATOR VENT PIPING SHALL BE EXTENDED INDIVIDUALLY FROM EACH REGULATOR AND GAS VENTING DEVICE TO OUTSIDE THE BUILDING IN AN APPROVED LOCATION.

SUPPORT PIPING FROM BUILDING STRUCTURE WITH RODS, ANGLES & CLAMPS ATTACHED TO STRUCTURE. HANG PIPING WITH CLEVIS HANGER OR ROLLER SUPPORTS. HANGERS SHALL BE INSTALLED ON CENTERS AS RECOMMENDED BY MANUFACTURER.

CLEAN INTERIOR WATER PIPING AFTER INSTALLATION BY FLUSHING WITH CLEAN POTABLE WATER TO CLEAR ALL INTERNAL DEBRIS.

ALL NEW AND EXISTING DOMESTIC WATER PIPING SHALL BE DISINFECTED IN CONFORMANCE WITH AWWA C651-86. DOMESTIC WATER PIPING SHALL BE SANITIZED PRIOR TO PUTTING SYSTEM IN OPERATION BY A COMPANY OR PERSONNEL REGULARLY ENGAGED IN THE PERFORMANCE OF THIS SERVICE.

EXTERIOR NATURAL GAS PIPING SHALL BE PAINTED WITH 2 COATED OF EXTERIOR GRADE PAINT FOR PROTECTION.

TYPE

D1

C1, C4, C5

DOMESTIC WATER PIPING - 125 PSI FOR MIN. 6 HOURS AT THE LOW POINT IN THE

COMPRESSED AIR PIPING - 200 PSI FOR 6 HOURS.

PIPING SYSTEM

DOMESTIC WATER SERVICE PIPING 3" & LARGER

DOMESTIC HOT. COLD AND RECIRCULATING WATER

NATURAL GAS PIPING - 100 PSI COMPRESSED AIR FOR 6 HOURS.

l	INCIDE	NTAL DOMESTIC COLD WATER BELOW	GRADE	C8, PX1
۱	NATU	JRAL GAS AT PRESSURES LESS THAN	2 PSI	S1, S2, S6
	NAT	URAL GAS AT PRESSURES 2 PSI & HIG	HER	S1, S2
l	MISC	ELLANEOUS UNDERGROUND NATURAL (OUTSIDE OF BUILDING)	GAS	PE1
l		COMPRESSED AIR 2.5" & SMALLER		S3
l	TYPE	TYPE DESCRIPTION		DESCRIPTION
	C1	SOLDERED COPPER TYPE "L" HARD COPPER ASTM B88 WROUGHT COPPER OR CAST BRONZE FITTINGS 95-5 SOLDER	PE1	POLYETHYLENE PE 2306, 2406 TYPE II GRADE 3, PE 3406, 3408 TYPE III, ASTM D2513 HEAT FUSION JOINTS
	C4	GROOVED COPPER TYPE "L" HARD COPPER ASTM B88 COPPER ASTM B75 UNS C12200 FITTINGS VICTAULIC STYLE 807N WITH FLUOROELASTOMER GASKET	PX1	PEX TUBING CROSSLINKED POLYETHYLENE TUBING, SDR 9, ASTM F877 METAL INSERT FITTINGS WITH COPPER OR STEEL CRIMP RING
	C5	PRESS-FIT COPPER TYPE "L" HARD COPPER ASTM B88 COPPER OR BRONZE FITTINGS ASTM B16.18 OR B16.22 250 DEG. F. EPDM SEALS	S1	WELDED BLACK STEEL SCHEDULE 40, ASTM A53 TYPE E WROUGHT-STEEL WELDING FITTINGS: ASTM A 234/A 234M 150 LB. C.I. FITTINGS
	C8	TYPE "K" SOFT COPPER ASTM B88 WROUGHT COPPER OR CAST BRONZE FITTINGS 95-5 SOLDER	S2	THREADED BLACK STEEL SCHEDULE 40, ASTM A53 TYPE F 150 LB. C.I. FITTINGS
	D1	DUCTILE IRON ANSI A21.51 & AWWA CLASS 53 OR 51 250 LB. FITTINGS FLANGED FITTINGS	S 3	THREADED GALVANIZED STEEL SCHEDULE 40, ASTM A53 TYPE E OR F CLASS 300 FITTINGS W/ PTFE TAPE ASME B16.3
			S6	PRESS-FIT BLACK STEEL SCHEDULE 40, ASTM A53 TYPE E CARBON STEEL FITTINGS: ASTM A420 OR ASTM B16.3, ANSI LC-4/CSA 6.32, & ASTM F3226

GENERAL REQUIREMENTS

- PROVIDE COMPLETE AND FUNCTIONAL PLUMBING SYSTEMS PER PLANS INCLUDING FURNISHING, INSTALLING, TESTING AND WARRANTY OF ALL WORK.
- WORK SHALL BE IN ACCORDANCE WITH THE 2017 OHIO BUILDING AND OHIO PLUMBING CODES INCLUDING REFERENCED CODES AND STANDARDS, ALL FEDERAL AND LOCAL CODES AND ALL APPLICABLE LAWS, ORDINANCES AND REGULATIONS.
- WORK SHALL BE PERFORMED USING BEST QUALITY INSTALLATION PRACTICE BY A QUALIFIED TRADE CONTRACTOR AND THEIR QUALIFIED SUBCONTRACTORS. ALL CONTRACTORS SHALL BE LICENSED AND BE BONDED FOR THE WORK.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA AND OWNER SAFETY STANDARDS AND PRACTICES. ALL ON SITE PERSONNEL SHALL BE SAFETY TRAINED AND OWNER CERTIFIED.
- OBTAIN REQUIRED PERMITS RELATED TO THE WORK AND PAY ALL PERMIT AND INSPECTION FEES.
- THE AUTHORITY HAVING JURISDICTION SHALL INSPECT AND APPROVE ALL WORK. PROVIDE A FINAL CERTIFICATE OF APPROVAL FROM THE AUTHORITY HAVING JURISDICTION AND PRESENT TO THE OWNER BEFORE REQUESTING FINAL PAYMENT AND RELEASE OF RETAINAGE.
- PROTECT ALL FURNISHED MATERIAL AND EQUIPMENT FROM THEFT AND DETERIORATION OR CONTAMINATION DUE TO WEATHER OR CONSTRUCTION ACTIVITIES.
- PROTECT OWNER'S PROPERTY AND PROPERTY OF OTHER CONTRACTORS.
- REMOVE ALL CONSTRUCTION DEBRIS FROM SITE. RECYCLE DEBRIS WHERE POSSIBLE. DISPOSE OF ALL HAZARDOUS MATERIAL IN ACCORDANCE WITH ENVIRONMENTAL LAWS.
- 10. PROVIDE ALL CUTTING AND PATCHING REQUIRED TO INSTALL MATERIAL AND EQUIPMENT.
- 1. EXCAVATE FOR ALL IN GRADE UNDERFLOOR PIPING. PUMP WATER FROM EXCAVATIONS AND TRENCHES DURING CONSTRUCTION. PIPE SHALL BE LAID ON A 6" MINIMUM SAND BED. BACKFILLING OF TRENCHES SHALL BE WITH GRADED PEA GRAVEL OR GRADED COURSE SAND. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.
- RESISTANCE RATED CONSTRUCTION. ANNULAR SPACE OPENINGS AT PIPE PENETRATIONS IN NON RATED CONSTRUCTION TO BE CLOSED AIR AND WATER TIGHT.

12. PROVIDE APPROPRIATE FIRESTOPPING SYSTEM FOR ANNULAR

SPACE OPENINGS AROUND PIPE PENETRATIONS THROUGH FIRE

- 13. MATERIALS AND EQUIPMENT SHALL BE ONE OF THE BRAND OR MANUFACTURERS LISTED OR AN APPROVED EQUAL.
- 14. ELECTRONIC SHOP DRAWINGS SHALL BE PROVIDED IN .PDF FORMAT FOR THE ENGINEER'S APPROVAL FOR ALL MATERIALS AND EQUIPMENT. SHOP DRAWINGS SHALL BE SPECIFICALLY EDITED TO ELIMINATE SUPERFLUOUS INFORMATION AND SHALL CLEARLY SHOW SPECIFICS FOR THE MATERIAL AND EQUIPMENT PROVIDED.
- 15. COORDINATE INSTALLATION OF ACTUAL EQUIPMENT AND SYSTEMS PROVIDED WITH OTHER TRADES AND NEW OR EXISTING CONDITIONS.
- 16. INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
- . INSTALL ALL MATERIAL AND EQUIPMENT TO PROVIDE REQUIRED CLEARANCES TO MEET CODE REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS AND MAINTENANCE
- 18. ALL WORK AREAS SHALL BE CLEANED TO MATCH ORIGINAL CONDITION.
- 19. MAINTAIN RECORD DRAWINGS AND PROVIDE TO THE OWNER OR HIS AGENT.
- 20. PROVIDE TWO (2) BOUND, PAPER COPIES OF ALL OPERATING AND MAINTENANCE MANUALS. PROVIDE AN ELECTRONIC COPY OF THE OPERATING AND MAINTENANCE MANUAL.
- 1. PROVIDE WARRANTY FOR ALL WORKMANSHIP, EQUIPMENT AND MATERIAL. WARRANTY SHALL BE 1 YEAR FOR PARTS AND LABOR. PROVIDE EXTENDED WARRANTY PERIOD FOR PARTS AND/OR LABOR AS IDENTIFIED OR AS STANDARD FOR CERTAIN ITEMS OF EQUIPMENT.
- 22. PROVIDE TRAINING AND MAINTENANCE INSTRUCTION FOR SYSTEMS AND EQUIPMENT TO THE OWNER. TRAINING SHALL BE 8 HOURS OF TIME WITH MAXIMUM TRAINING PERIOD OF 2 HOURS.

ш ш \simeq ~

~

Z 0

S

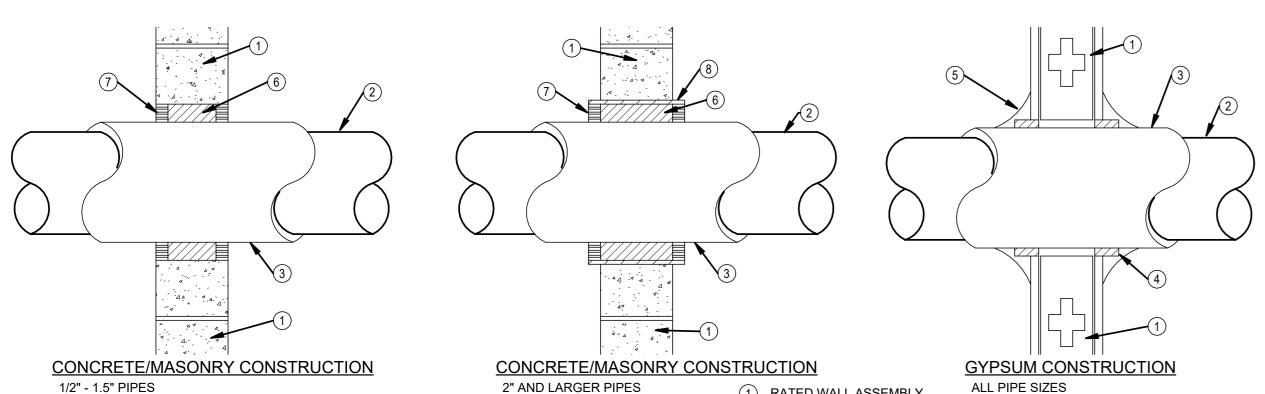
These designs and all items depicted herein, instruments of professional service, may not be altered or changed, in any way, without ne prior knowledge, and written consent o the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm or oss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY JDZ

MATERIAL SCHEDULES

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015



FIRESTOPPING MATERIALS INSTALLATION

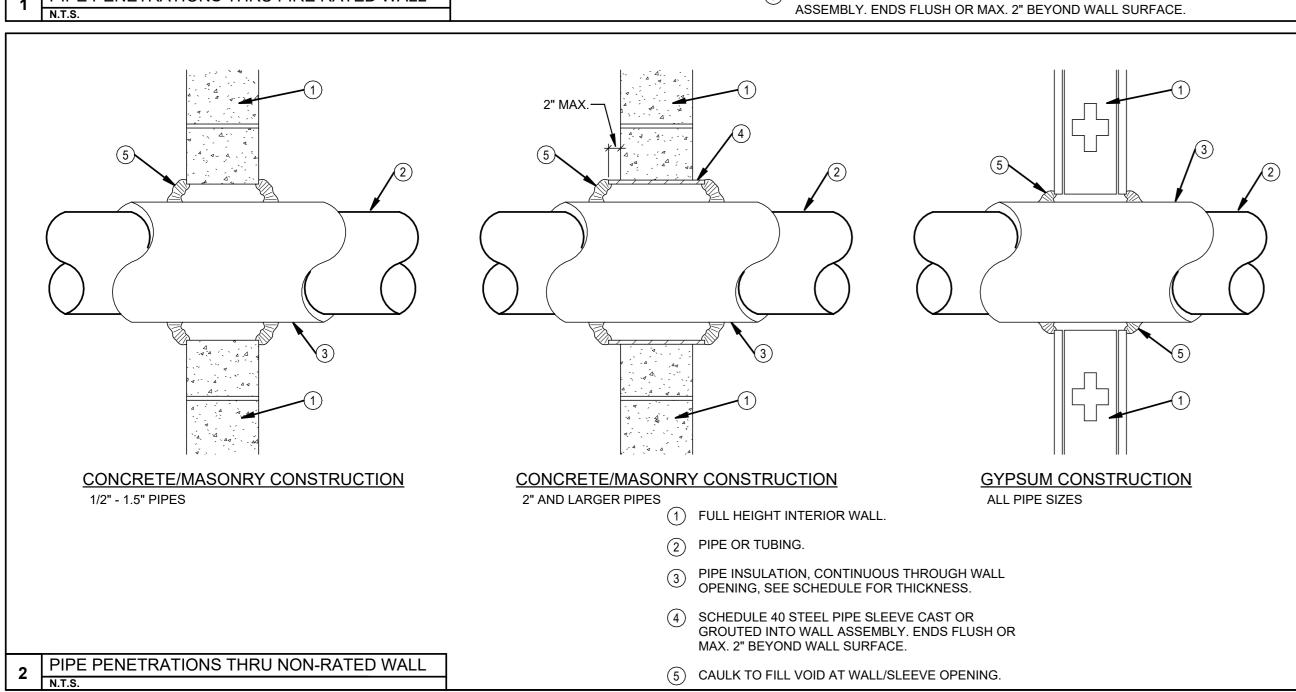
- MANUFACTURERS: 3M FIRE PROTECTION PRODUCTS HILTI FIRESTOP SYSTEMS
- FIRESTOPPING MATERIAL INSTALLATION SHALL BE PER THE MANUFACTURERS DETAILED INSTALLATION DIAGRAMS AND INSTRUCTIONS.
- F-RATING OF PENETRATION SHALL BE NO LESS THAN THE FIRE RATING OF THE WALL.
- SUBMITTAL SHALL INCLUDE PRODUCT DATA AND DETAILED INSTALLATION SYSTEM DIAGRAMS.

PIPE PENETRATIONS THRU FIRE RATED WALL

| PIPE HANGERS

2" AND LARGER PIPES (1) RATED WALL ASSEMBLY.

- (2) METALLIC PIPE OR TUBING.
- (3) PIPE INSULATION, CONTINUOUS THROUGH WALL OPENING, SEE SCHEDULE FOR THICKNESS.
- (4) APPROVED FIRESTOPPING VOID/CAVITY MATERIAL.
- (5) APPROVED FIRESTOPPING CAULK OR SEALANT.
- (6) PACKING MATERIAL, MINERAL WOOL BATT INSULATION.
- (7) APPROVED FIRESTOPPING CAULK OR SEALANT FLUSH WITH SURFACE OF
- WALL OR EDGE OF SLEEVE.
- 8 SCHEDULE 40 STEEL PIPE SLEEVE CAST OR GROUTED INTO WALL



(1) GALVANIZED THREADED ROD. ADJUST NUTS & RODS FOR PROPER ELEVATION. (2) STEEL CLEVIS PIPE HANGER. EQUAL TO ANVIL FIG. 260. (3) PIPE INSULATION. (4) PIPE. (5) 12" LONG, 18 GA. GALVANIZED INSULATION SHIELD. EQUAL TO ANVIL FIG. 168. CONTINUOUS INSULATION. (6) 18" LONG INSULATED PIPE SADDLES. BUCKAROOS TRU-BALANCE 3300E OR EQUAL. PROVIDE WITH 3.75 LB. DENSITY PNENOLIC FOAM INSULATION WITH VAPOR RETARDER JACKET & BOTTOM GALVANIZED METAL INSULATION SHIELD. SADDLES TO MEET 25/50 FLAME/SMOKE RATING. PIPE INSULATION AND SADDLE INSULATION SHALL BE TIGHTLY ABUTTED TOGETHER. SEAL WITH 4" WIDE VAPOR RETARDER TAPE WITH FACTORY APPLIED JACKET WITH ACRYLIC ADHESIVE TO ASSURE VAPORTIGHT SEAL. PIPING 2.5" & LARGER PIPING 2.0" & SMALLER

PIPE HANGER SCHEDULE - PLUMBING

GENERAL NOTES FOR PIPE HANGERS:

DESIGN SUPPORTS FOR MULTIPLE PIPES CAPABLE OF SUPPORTING COMBINED WEIGHT OF SUPPORTED SYSTEMS, SYSTEM CONTENTS, AND TEST WATER.

DESIGN SEISMIC-RESTRAINT HANGERS AND SUPPORTS FOR PIPING AND OBTAIN APPROVAL FROM AUTHORITIES HAVING JURISDICTION.

WELDING: QUALIFY PROCEDURES AND PERSONNEL ACCORDING TO ASME BOILER AND PRESSURE VESSEL

- ATTACHMENT OF PIPE HANGER RODS TO THE STRUCTURE SHALL BE WITH:
- 1. PRE-SET CONCRETE INSERTS.
- 2. AFTER-SET STEEL EXPANSION TYPE CONCRETE INSERTS. 3. SIDE BEAM BRACKET FOR WOOD CONSTRUCTION EQUAL TO ANVIL FIG. 206. 4. CHANNEL SUPPORT SYSTEM EQUAL TO UNISTRUT OR HILTI.
- ATTACHMENT TO MANUFACTURED TRUSSES AND OTHER ENGINEERED STRUCTURAL MEMBERS AND SUPPORTS SHALL BE DONE IN ACCORDANCE WITH THE STRUCTURAL MANUFACTURER'S RECOMMENDATIONS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR TYPE OF ENGINEERED STRUCTURAL SYSTEMS BEING USED. CONNECTIONS TO THESE STRUCTURAL MEMBERS SHALL BE MADE WITH CONNECTION DEVICES AND METHODS APPROVED BY THE STRUCTURAL MANUFACTURER. PROVIDE ADDITIONAL SUPPORTS WITH SUPPLEMENTAL STEEL SHAPES WHEN SPACING BETWEEN STRUCTURAL MEMBERS EXCEEDS SPECIFIED DISTANCES.
- ADJUST PIPE HANGERS TO PROPER ELEVATION AND SET HANGER RODS IN A VERTICAL POSITION BEFORE PIPE INSULATION IS INSTALLED.
- THE FIRST TWO HANGERS ON PIPING CONNECTING TO MOTOR DRIVEN EQUIPMENT SHALL BE FITTED WITH A

STEEL SPRING AND NEOPRENE VIBRATION ISOLATION SECTION SIMILAR TO MASON INDUSTRIES, NO. 30N.

TRAPEZE HANGERS FOR NUMEROUS PIPES RUN IN PARALLEL MAY BE UTILIZED. HORIZONTAL SUPPORT MEMBERS SHALL BE UNISTRUT TYPE SECTION WITH PIPE ROLLERS (TO ALLOW FOR EXPANSION TRAVEL) AND SPRING AND NUT CONNECTORS, SUSPENDED WITH HANGER RODS AND ATTACHMENTS SIMILAR TO INDIVIDUAL PIPE HANGER SUSPENSION.

SHORTENED EXTENDED LEGS OF PIPE RISER CLAMPS AS NEEDED TO MAINTAIN CONCEALMENT OF THE CLAMP WITHIN THE PIPE CHASE. INSURE THAT ADEQUATE SUPPORT IS STILL MAINTAINED.

HANGER ASSEMBLIES EXPOSED ON COMPLETION OF THE PROJECT SHALL BE PAINTED BEFORE INSTALLATION.

PIPE SUPPORTS FOR PIPE RUNNING ACROSS THE ROOF SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND AS DETAILED. INSTALL PROTECTIVE SLIP SHEETS OF ROOFING MEMBRANE UNDER THE BASES TO SATISFY REQUIREMENTS OF BOTH THE ROOFING MANUFACTURER AND THE SUPPORT SYSTEM MANUFACTURER.

IN PIPING SYSTEMS WITH MECHANICAL JOINT COUPLINGS, PIPE HANGERS SHALL BE PROVIDED ON HORIZONTAL PIPING AT NORMAL SPECIFIED INTERVALS AND, IN ADDITION, SO THAT NO PIPE SHALL BE LEFT UNSUPPORTED BETWEEN ANY TWO COUPLINGS NOR LEFT UNSUPPORTED WHENEVER A CHANGE IN DIRECTION TAKES PLACE. VERTICAL PIPING SHALL BE SUPPORTED AT NORMAL SPECIFIED INTERVALS OR EVERY OTHER PIPE LENGTH, WHICH EVER IS MORE FREQUENT. THE BASE OF THE RISER OR BASE FITTING SHALL BE SUPPORTED.

717.EE BE 0011 0111EB	•					
SYSTEM & SIZE	ORIENTATION & SIZE	SPACING				
STEEL PIPING	VERTICAL	AT BASE AND 15 FT MAXIMUM				
	HORIZONTAL 2" & SMALLER	8 FT.				
	HORIZONTAL 2.5" - 6"	10 FT.				
	HORIZONTAL 8" & LARGER	12 FT.				
CAST IRON	VERTICAL	AT BASE AND 15 FT MAXIMUM				
	HORIZONTAL	AT 10 FT. INTERVALS. SUPPORT EACH LENGTH OF PIPE NOT MORE THAN 18" FROM THE JOINT. SUPPORT TERMINAL ENDS OF HORIZONTAL RUNS AND BRANCHES AND EACH CHANGE IN DIRECTION. 5" AND LARGER PROVIDE BRACING TO PREVENT HORIZONTAL MOVEMENT IN ACCORDANCE WITH CISPI "SOIL PIPE AND FITTINGS HANDBOOK"				
COPPER TUBING	VERTICAL	AT BASE AND 15 FT MAXIMUM				
	HORIZONTAL 1.25" & SMALLER	6 FT.				
	HORIZONTAL 1.5" - 2"	8 FT.				
	HORIZONTAL 2.5" & LARGER	10 FT.				
PLASTIC PIPING	VERTICAL	PER MANUFACTURER'S RECOMMENDATION				
	HORIZONTAL	PER MANUFACTURER'S RECOMMENDATION				

PIPE INSULATION SCHEDULE - PLUMBING

GENERAL NOTES:

QUALITY ASSURANCE

FIRE, SMOKE RATINGS: FLAME SPREAD RATING OF 25 OR LESS, SMOKE DEVELOPED RATING OF 50 OR LESS.

THICKNESSES SHALL CONFORM TO ASHRAE 90.1-2010 MINIMUMS.

GREEN GUARD INDOOR AIR QUALITY CERTIFIED.

INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

SYSTEM & SIZE

AEROFLEX - AEROCEL EPDM

COLD SERVICE PIPE INSULATION AND VAPOR BARRIER/JACKET TO BE CONTINUOUS THRU FLOOR AND WALL SLEEVES AT ALL PIPE DEVICES AND PUMP CASINGS.

INSULATION AND VAPOR BARRIER TO BE CONTINUOUS AT PIPE HANGERS AND SUPPORTS ON HORIZONTAL PIPING. PROVIDE HARDWOOD INSERT SUPPORT FOR PIPES 2.5" AND LARGER.

VERTICAL PIPE SUPPORTS SHALL ATTACH DIRECTLY TO PIPE. INSULATE SUPPORT AND OTHER SURFACES WITH FLEXIBLE CLOSED CELL INSULATION, SAME THICKNESS AS SYSTEM INSULATION ON COLD SERVICE PIPES TO PREVENT CONDENSATION.

INSULATION MAY BE OMITTED ON HOT WATER VALVES AND DEVICES 2" AND SMALLER PIPE SIZE.

PRIMARY AND SECONDARY ROOF DRAIN SUMPS SHALL BE INSULATED WITH 1" THICK INSULATION.

THE FIRST 10 FEET OF SECONDARY STORM PIPING AFTER THE DRAIN SHALL BE INSULATED.

ABOVE GRADE SANITARY DRAINAGE RECEIVING CONDENSATE SHALL BE INSULATED AS INDICATED BELOW FOR CONDENSATE DRAINAGE. WHERE THE DRAIN SUMP IS EXPOSED ON THE FLOOR BELOW, IT TOO SHALL BE INSULATED WITH 1" INSULATION.

INSULATION THICKNESS TYPE

LOCATION

<u> </u>				
DOME	ESTIC COLD WATER 1.5" & SMALLER	0.5"	F1, P1	INTERIOR
DOM	MESTIC COLD WATER 2" & LARGER	1"	F1, P1	INTERIOR
DOMESTIC HOT WATER, TEMPERED WATER, & HOT AFTER RETURN 1.25" AND SMALLER		1"	F1, P1	INTERIOR
DOMESTIC HOT WATER, TEMPERED WATER, & HOT AFTER RETURN 1.5" AND SMALLER		1.5"	F1, P1	INTERIOR
INTERIOR HORIZONTAL STORM DRAINAGE		1"	F1, P1	INTERIOR
CONDENSATE DRAINAGE		1"	F1, P1	INTERIOR
		<u>'</u>	,	INTERIOR
TYPE	BASIS OF DESIGN	APPROVED EQUALS	,	DESCRIPTION
TYPE F1		<u> </u>	* INORGAN * K=0.24 @ * 3.5 - 5.5 F * PREFORI * WHITE FS * LONGITU * ELBOWS PIECE, PR WITH HIGH	DESCRIPTION NIC GLASS FIBER WITH RESIN BONDING. 2 100 DEG. F.

RUBATEX

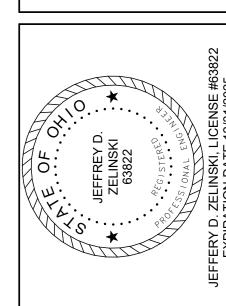
* K=0.25 @ 75 DEG. F.

PRIOR TO INSULATING.

* CLEAN PIPE SURFACE WITH DENATURED ALCOHOL

ENGINE AR \simeq

TIONS



These designs and all items depicted herein instruments of professional service, may not be altered or changed, in any way, without ne prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or loss caused thereby.

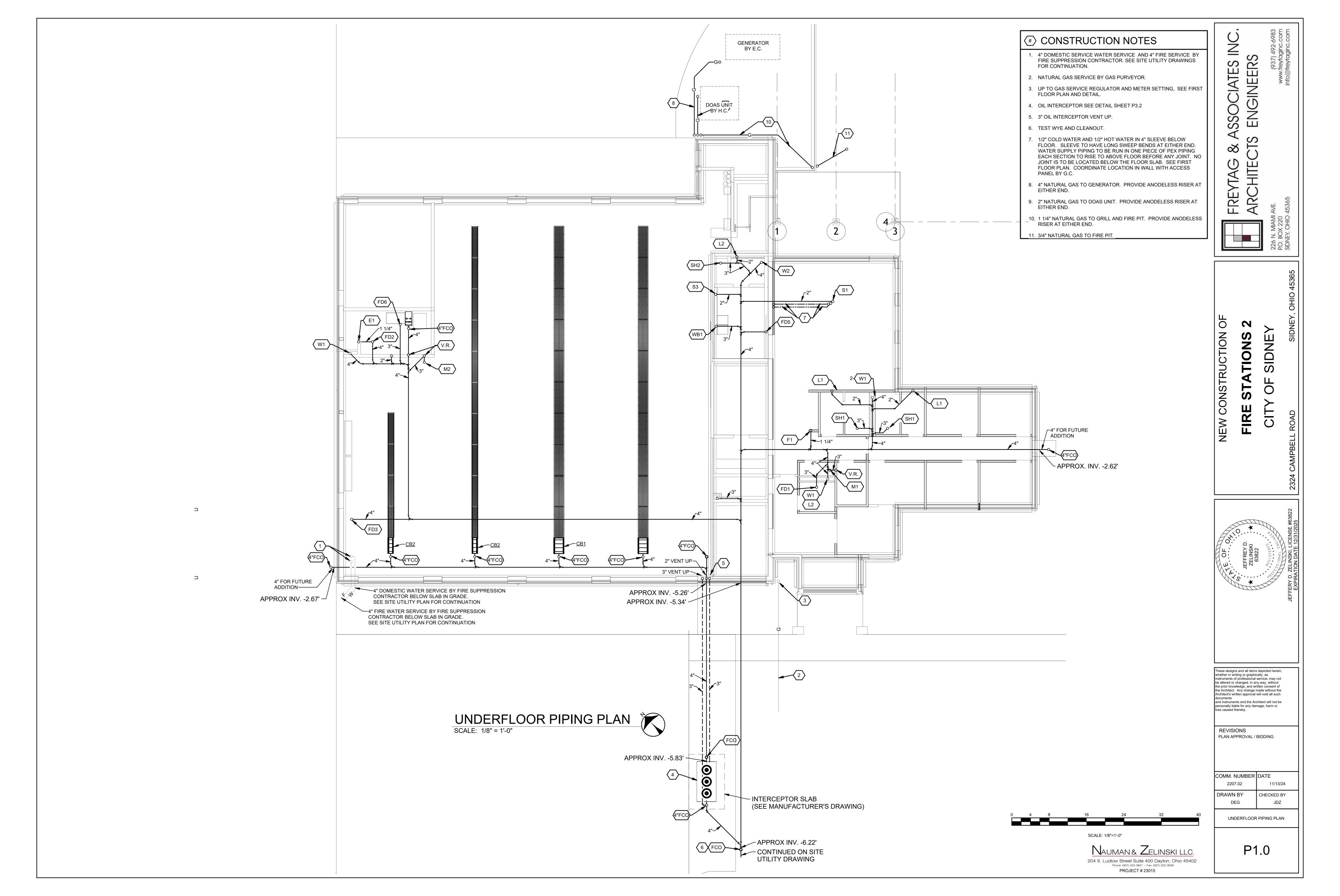
REVISIONS PLAN APPROVAL / BIDDING

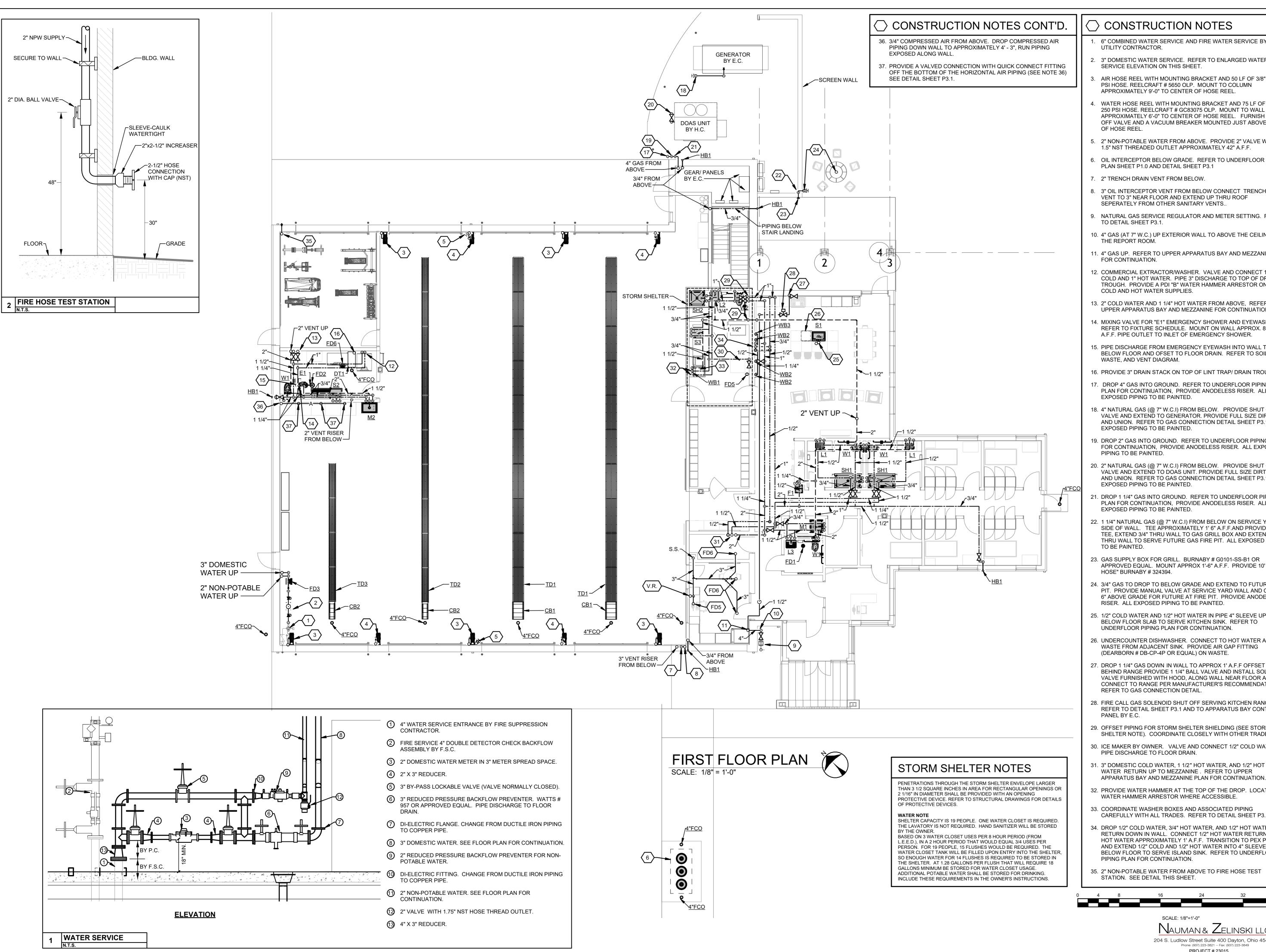
COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY

MATERIAL SCHEDULES AND GENERAL DETAILS

 $N_{\text{AUMAN \& }}Z_{\text{ELINSKI LLC}}$ 204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015





CONSTRUCTION NOTES

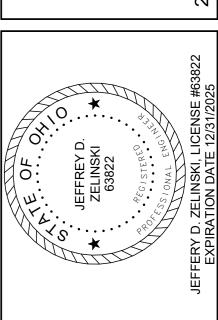
- 6" COMBINED WATER SERVICE AND FIRE WATER SERVICE BY SITE
- UTILITY CONTRACTOR.
- . 3" DOMESTIC WATER SERVICE. REFER TO ENLARGED WATER SERVICE ELEVATION ON THIS SHEET.
- AIR HOSE REEL WITH MOUNTING BRACKET AND 50 LF OF 3/8" 300 PSI HOSE. REELCRAFT # 5650 OLP. MOUNT TO COLUMN
- WATER HOSE REEL WITH MOUNTING BRACKET AND 75 LF OF 3/4" 250 PSI HOSE. REELCRAFT # GC83075 OLP. MOUNT TO WALL APPROXIMATELY 6'-0" TO CENTER OF HOSE REEL. FURNISH SHUT-OFF VALVE AND A VACUUM BREAKER MOUNTED JUST ABOVE TOP
- 5. 2" NON-POTABLE WATER FROM ABOVE. PROVIDE 2" VALVE WITH 1.5" NST THREADED OUTLET APPROXIMATELY 42" A.F.F.
- 6. OIL INTERCEPTOR BELOW GRADE. REFER TO UNDERFLOOR PIPING PLAN SHEET P1.0 AND DETAIL SHEET P3.1
- 7. 2" TRENCH DRAIN VENT FROM BELOW.
- 8. 3" OIL INTERCEPTOR VENT FROM BELOW CONNECT TRENCH DRAIN VENT TO 3" NEAR FLOOR AND EXTEND UP THRU ROOF SEPERATELY FROM OTHER SANITARY VENTS..
- . NATURAL GAS SERVICE REGULATOR AND METER SETTING. REFER TO DETAIL SHEET P3.1.
- 10. 4" GAS (AT 7" W.C.) UP EXTERIOR WALL TO ABOVE THE CEILING OF
- 11. 4" GAS UP. REFER TO UPPER APPARATUS BAY AND MEZZANINE
- 12. COMMERCIAL EXTRACTOR/WASHER. VALVE AND CONNECT 1" COLD AND 1" HOT WATER. PIPE 3" DISCHARGE TO TOP OF DRAIN TROUGH. PROVIDE A PDI "B" WATER HAMMER ARRESTOR ON BOTH COLD AND HOT WATER SUPPLIES.
- 13. 2" COLD WATER AND 1 1/4" HOT WATER FROM ABOVE, REFER TO UPPER APPARATUS BAY AND MEZZANINE FOR CONTINUATION.
- 14. MIXING VALVE FOR "E1" EMERGENCY SHOWER AND EYEWASH. REFER TO FIXTURE SCHEDULE. MOUNT ON WALL APPROX. 8' -6" A.F.F. PIPE OUTLET TO INLET OF EMERGENCY SHOWER.
- 15. PIPE DISCHARGE FROM EMERGENCY EYEWASH INTO WALL TO BELOW FLOOR AND OFSET TO FLOOR DRAIN. REFER TO SOIL, WASTE, AND VENT DIAGRAM.
- 16. PROVIDE 3" DRAIN STACK ON TOP OF LINT TRAP/ DRAIN TROUGH.
- 17. DROP 4" GAS INTO GROUND. REFER TO UNDERFLOOR PIPING PLAN FOR CONTINUATION, PROVIDE ANODELESS RISER. ALL EXPOSED PIPING TO BE PAINTED.
- 18. 4" NATURAL GAS (@ 7" W.C.I) FROM BELOW. PROVIDE SHUT OFF VALVE AND EXTEND TO GENERATOR. PROVIDE FULL SIZE DIRT LEG AND UNION. REFER TO GAS CONNECTION DETAIL SHEET P3.1. ALL EXPOSED PIPING TO BE PAINTED.
- 19. DROP 2" GAS INTO GROUND. REFER TO UNDERFLOOR PIPING PLAN FOR CONTINUATION, PROVIDE ANODELESS RISER. ALL EXPOSED PIPING TO BE PAINTED.
- 20. 2" NATURAL GAS (@ 7" W.C.I) FROM BELOW. PROVIDE SHUT OFF VALVE AND EXTEND TO DOAS UNIT. PROVIDE FULL SIZE DIRT LEG AND UNION. REFER TO GAS CONNECTION DETAIL SHEET P3.1. ALL EXPOSED PIPING TO BE PAINTED.
- 21. DROP 1 1/4" GAS INTO GROUND. REFER TO UNDERFLOOR PIPING EXPOSED PIPING TO BE PAINTED.
- 22. 1 1/4" NATURAL GAS (@ 7" W.C.I) FROM BELOW ON SERVICE YARD SIDE OF WALL. TEE APPROXIMATELY 1' 6" A.F.F.AND PROVIDE A TEE, EXTEND 3/4" THRU WALL TO GAS GRILL BOX AND EXTEND 3/4" THRU WALL TO SERVE FUTURE GAS FIRE PIT. ALL EXPOSED PIPING TO BE PAINTED.
- 23. GAS SUPPLY BOX FOR GRILL. BURNABY # G0101-SS-B1 OR APPROVED EQUAL. MOUNT APPROX 1'-6" A.F.F. PROVIDE 10' "BBQ HOSE" BURNABY # 324394.
- 24. 3/4" GAS TO DROP TO BELOW GRADE AND EXTEND TO FUTURE FIRE PIT. PROVIDE MANUAL VALVE AT SERVICE YARD WALL AND CAP AT 6" ABOVE GRADE FOR FUTURE AT FIRE PIT. PROVIDE ANODELESS RISER. ALL EXPOSED PIPING TO BE PAINTED.
- 25. 1/2" COLD WATER AND 1/2" HOT WATER IN PIPE 4" SLEEVE UP FROM BELOW FLOOR SLAB TO SERVE KITCHEN SINK. REFER TO UNDERFLOOR PIPING PLAN FOR CONTINUATION.
- 26. UNDERCOUNTER DISHWASHER. CONNECT TO HOT WATER AND WASTE FROM ADJACENT SINK. PROVIDE AIR GAP FITTING (DEARBORN # DB-CP-4P OR EQUAL) ON WASTE.
- 27. DROP 1 1/4" GAS DOWN IN WALL TO APPROX 1' A.F.F OFFSET TO BEHIND RANGE PROVIDE 1 1/4" BALL VALVE AND INSTALL SOLENOID VALVE FURNISHED WITH HOOD, ALONG WALL NEAR FLOOR AND CONNECT TO RANGE PER MANUFACTURER'S RECOMMENDATIONS. REFER TO GAS CONNECTION DETAIL.
- 28. FIRE CALL GAS SOLENOID SHUT OFF SERVING KITCHEN RANGE. REFER TO DETAIL SHEET P3.1 AND TO APPARATUS BAY CONTROL
- 29. OFFSET PIPING FOR STORM SHELTER SHIELDING (SEE STORM SHELTER NOTE). COORDINATE CLOSELY WITH OTHER TRADES.
- 30. ICE MAKER BY OWNER. VALVE AND CONNECT 1/2" COLD WATER. PIPE DISCHARGE TO FLOOR DRAIN.
- 31. 3" DOMESTIC COLD WATER, 1 1/2" HOT WATER, AND 1/2" HOT WATER RETURN UP TO MEZZANINE . REFER TO UPPER
- 32. PROVIDE WATER HAMMER AT THE TOP OF THE DROP. LOCATE
- 33. COORDINATE WASHER BOXES AND ASSOCIATED PIPING CAREFULLY WITH ALL TRADES. REFER TO DETAIL SHEET P3.1.
- 34. DROP 1/2" COLD WATER, 3/4" HOT WATER, AND 1/2" HOT WATER RETURN DOWN IN WALL. CONNECT 1/2" HOT WATER RETURN TO HOT WATER APPROXIMATELY 1' A.F.F. TRANSITION TO PEX PIPING AND EXTEND 1/2" COLD AND 1/2" HOT WATER INTO 4" SLEEVE TO BELOW FLOOR TO SERVE ISLAND SINK. REFER TO UNDERFLOOR PIPING PLAN FOR CONTINUATION.
- 35. 2" NON-POTABLE WATER FROM ABOVE TO FIRE HOSE TEST STATION. SEE DETAIL THIS SHEET.

Nauman & Zelinski llc 204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

ш

9

SN



ese designs and all items depicted herein. nether in writing or graphically, as nstruments of professional service, may not e altered or changed, in any way, without e prior knowledge, and written consent of rchitect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

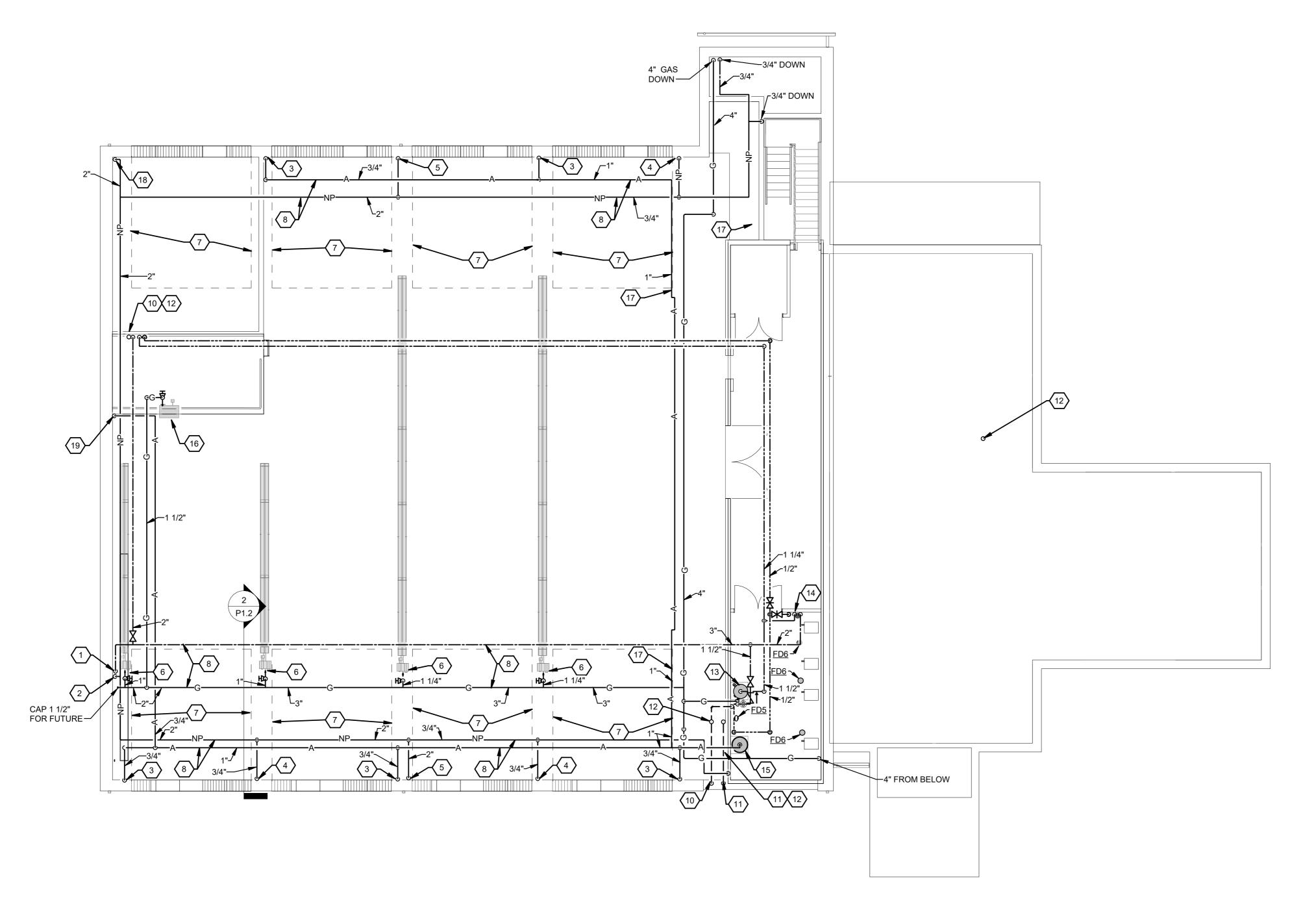
COMM. NUMBER DATE

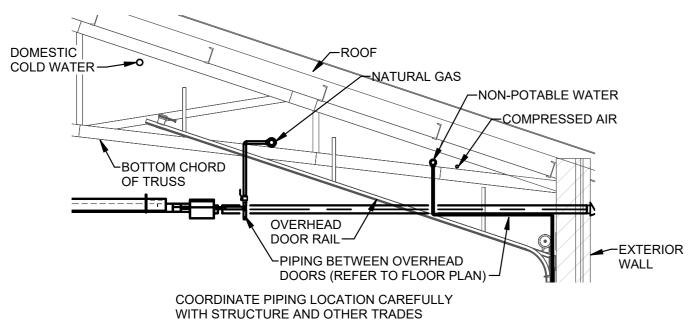
11/13/24

CHECKED BY

FIRST FLOOR PLAN

DRAWN BY





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

UPPER APPARATUS BAY AND MEZZANINE PLAN SCALE: 1/8" = 1'-0"

PLAN FOR CONTINUATION.

BLOCK WALL. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.

TO BLOCK WALL. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.

TO BLOCK WALL. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.

6. GAS FIRED RADIANT HEATER BY H.C. DROP GAS DOWN TO UNIT VALVE AND CONNECT TO UNIT. PROVIDE VALVE, FULL SIZE DIRT LEG AND UNION. REFER TO GAS CONNECTION DETAIL.

8. PIPING ABOVE BOTTOM CHORD OF TRUSS (KEEP NEAR UNDERSIDE OF ROOF) AND ABOVE OVERHEAD DOOR RAILS. REFER SECTION THIS SHEET AND TO ARCHITECTURAL DRAWINGS.

10. 2" VENT RISER FROM BELOW.

11. 3" OIL INTERCEPTOR VENT.

12. 3" VENT THRU ROOF.

14. 2" DOMESTIC COLD WATER, 1 1/2" HOT WATER, 1/2" HOT WATER RETURN, TO FIRST FLOOR . REFER TO FIRST FLOOR PLAN FOR CONTINUATION.

15. AIR COMPRESSOR. REFER TO DETAIL SHEET P3.1.

16. GAS FIRED UNIT HEATER BY H.C. DROP 1 1/4" GAS DOWN TO UNIT REFER TO GAS CONNECTION DETAIL

17. PIPING NEAR UNDERSIDE OF ROOF FOLLOWING PITCH OF ROOF. PROVIDE DOUBLE OFFSET WHERE SHOWN TO TRANSITION TO FLAT RUN PIPING.

PIPING TO BLOCK WALL. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.

19. DROP 3/4" COMPRESSED AIR DOWN. SEE FIRST FLOOR FOR CONTINUATION.

○ CONSTRUCTION NOTES

- 1. 3" DOMESTIC COLD WATER, FROM BELOW. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
- 2. 2" NON-POTABLE WATER, FROM BELOW. REFER TO FIRST FLOOR

3. 3/4" COMPRESSED AIR DOWN TO HOSE REEL. SECURE PIPING TO

4. 3/4" NON-POTABLE WATER DOWN TO HOSE REEL. SECURE PIPING

5. 2" NON-POTABLE WATER DOWN TO HOSE VALVE. SECURE PIPING

7. OUTLINE OF OVERHEAD DOOR IN OPEN POSITION.

9. 4" GAS DOWN TO FIRST FLOOR

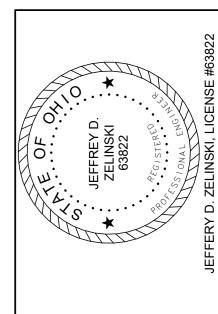
13. WATER HEATER REFER TO DETAIL SHEET P3.1

VALVE AND CONNECT TO UNIT. PROVIDE FULL SIZE DIRT LEG.

18. 2" NON-POTABLE WATER DOWN TO HOSE TEST STATION. SECURE

TIONS

ENGINE



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents
and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

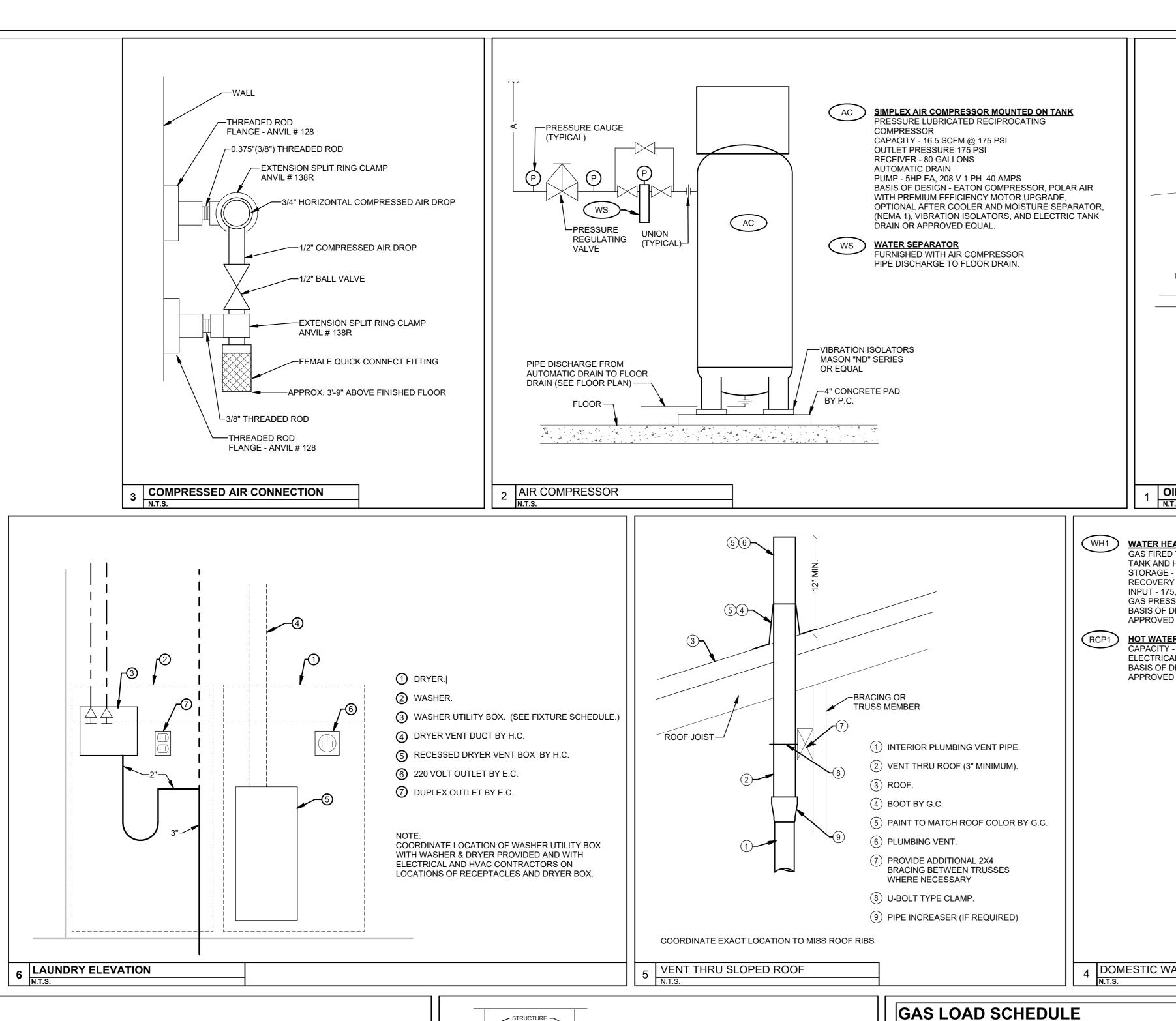
COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY JDZ

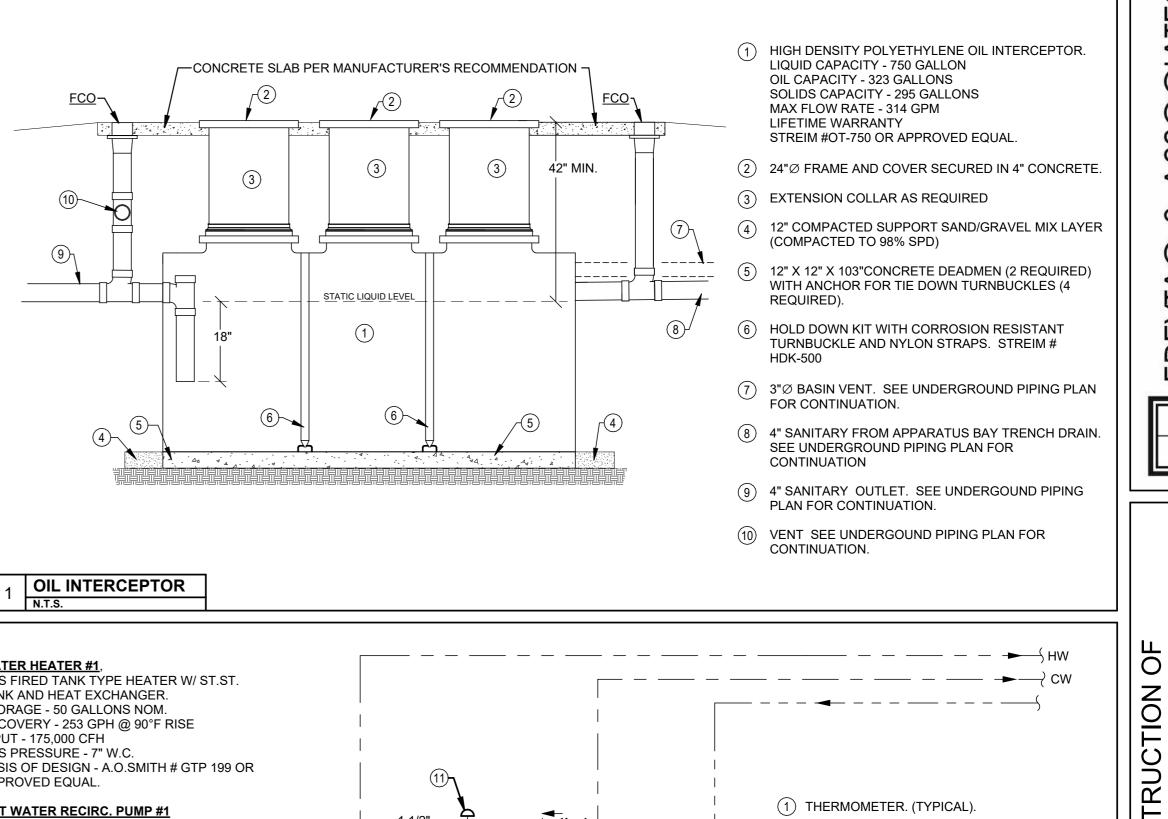
UPPER APPARATUS BAY AND MEZZANINE PLAN

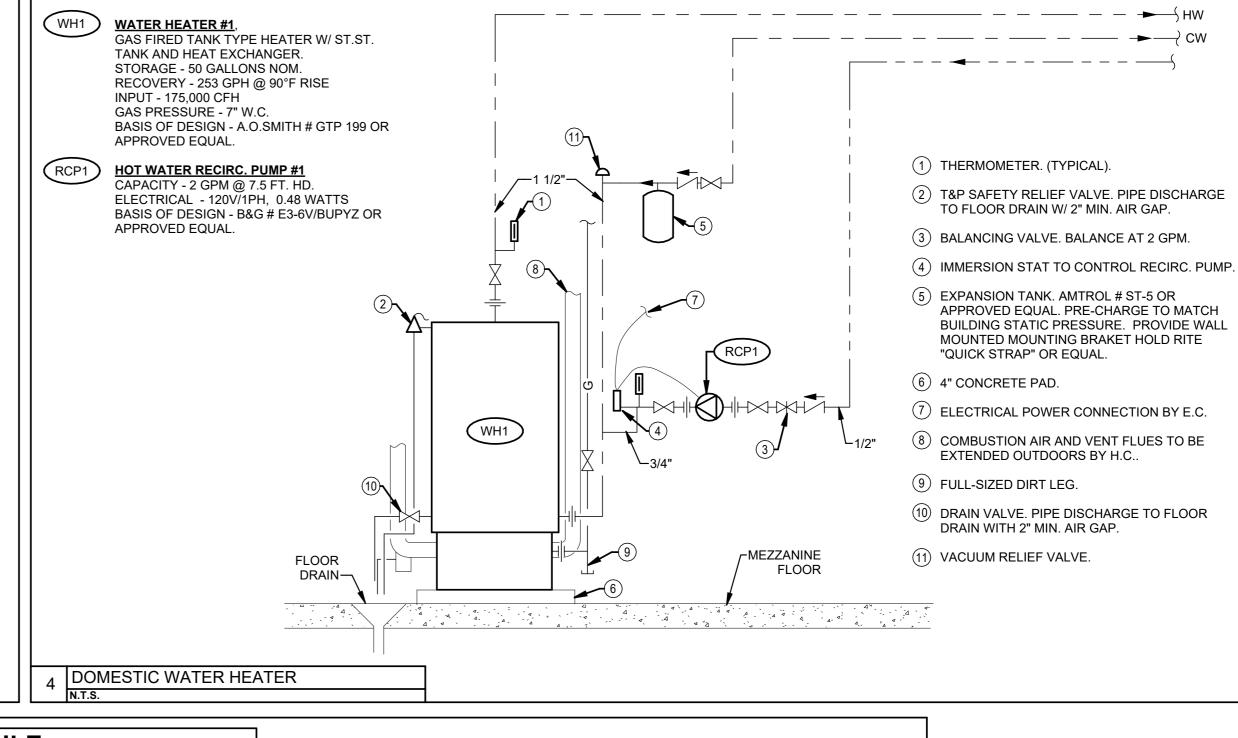
P1.2

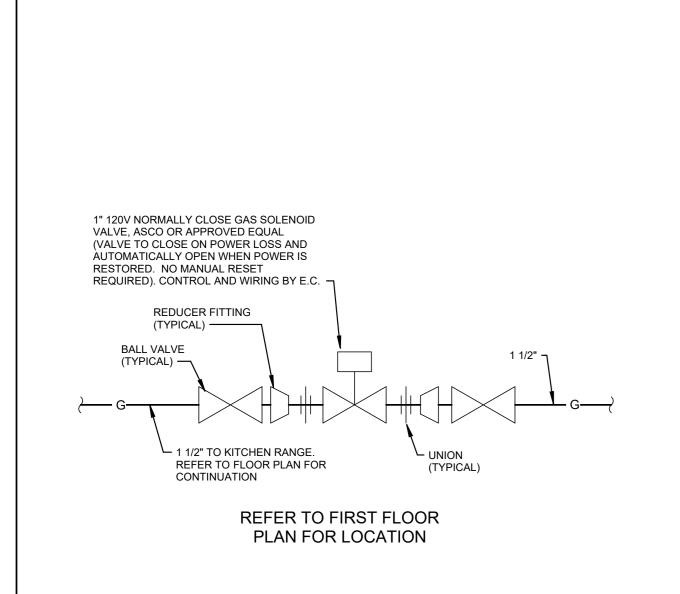
Nauman & Zelinski llc.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

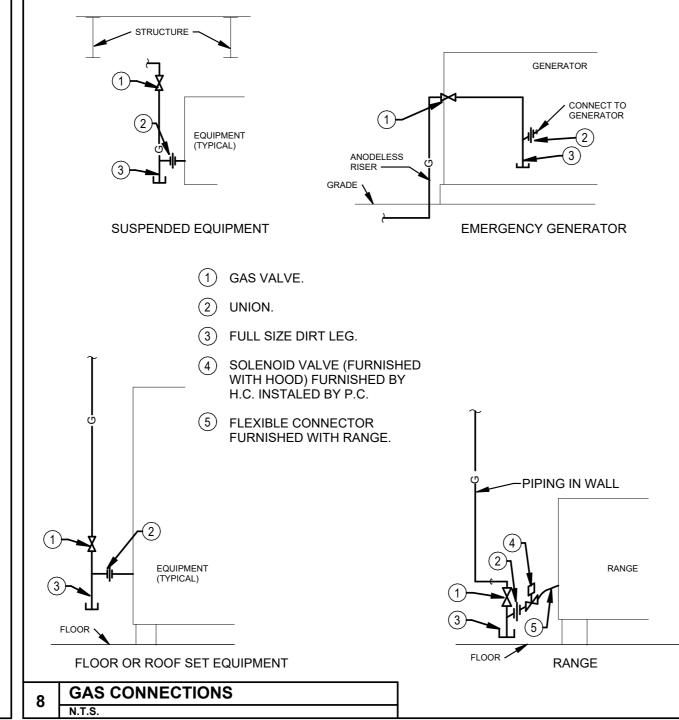


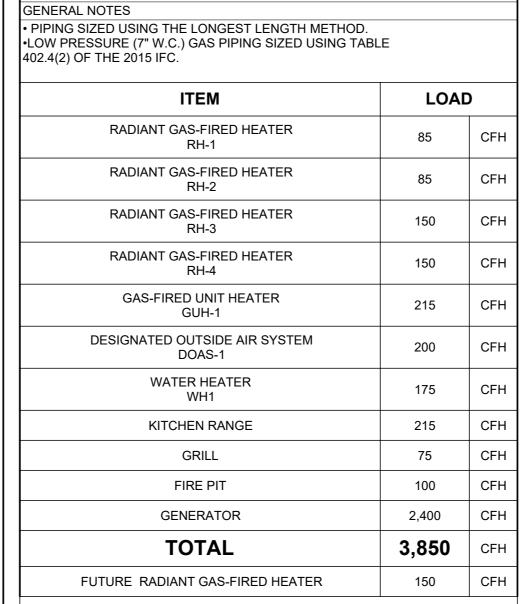




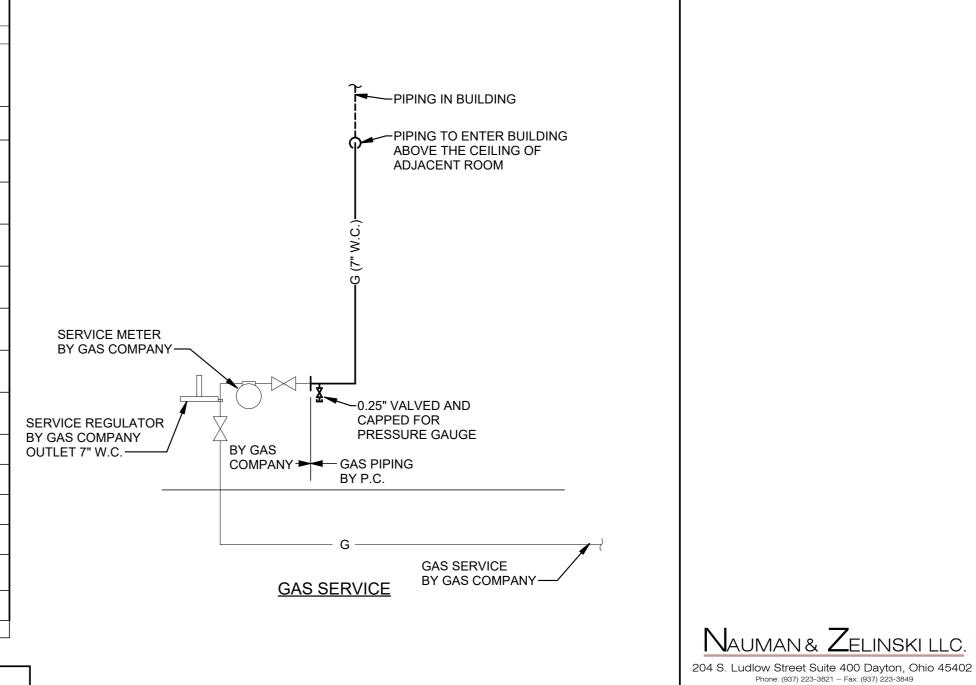


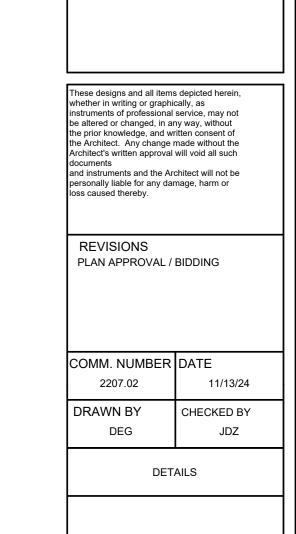
FIRE CALL GAS SHUTOFF SOLENOID VALVE





GAS SERVICE RISER





E

ENGINE

2

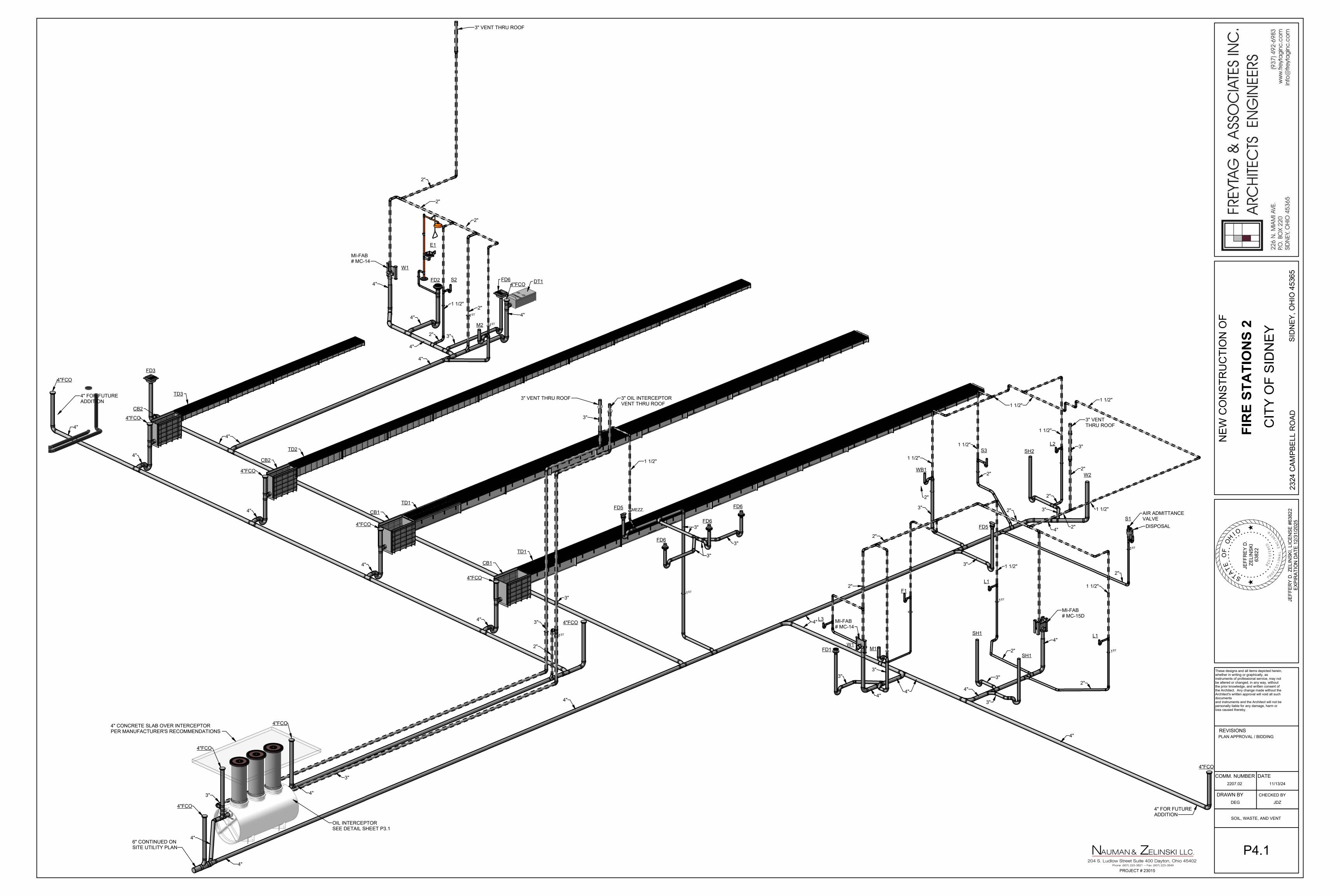
TIONS

~

P3.1

Nauman & Zelinski llc

PROJECT # 23015



SEISMIC CONTROL SPECIFICATIONS

PART 1 - GENERAL

A. THIS SECTION INCLUDES THE FOLLOWING: 1. SEISMIC CONTROL REQUIREMENTS.

1.2 PERFORMANCE REQUIREMENTS

- A. SEISMIC CERTIFICATION AND ANALYSIS: 1. EACH TRADE CONTRACTOR SHALL RETAIN A SPECIALTY CONSULTANT OR EQUIPMENT MANUFACTURER TO DEVELOP A SEISMIC RESTRAINT SYSTEM AND PERFORM SEISMIC CALCULATIONS IN ACCORDANCE WITH THE OBC AND ASCE 7, AND ADDITIONAL REQUIREMENTS SPECIFIED IN THIS SECTION. A PROFESSIONAL ENGINEER EXPERIENCED IN SEISMIC RESTRAINT DESIGN AND INSTALLATION AND LICENSED IN THE STATE OF OHIO SHALL BE RESPONSIBLE FOR CALCULATIONS, RESTRAINT SELECTIONS AND INSTALLATION DETAILS.
- 2. THE SEISMIC RESTRAINT DESIGN SHALL CLEARLY INDICATE THE ATTACHMENT POINTS TO THE BUILDING STRUCTURE AND DESIGN FORCES IN ALL HORIZONTAL AND VERTICAL AXES AT THE ATTACHMENT POINTS. THE SEISMIC RESTRAINT ENGINEER SHALL COORDINATE ALL ATTACHMENTS WITH THE BUILDING'S STRUCTURAL ENGINEER OF RECORD, WHO SHALL VERIFY THE ATTACHMENT METHODS AND THE ABILITY OF THE BUILDING STRUCTURE TO ACCEPT THE LOADS IMPOSED.
- 3. THE SEISMIC RESTRAINT DESIGN SHALL BE BASED ON ACTUAL EQUIPMENT DATA (DIMENSIONS, WEIGHT, CENTER OF GRAVITY, ETC.) OBTAINED FROM SUBMITTALS OR THE MANUFACTURERS. THE EQUIPMENT MANUFACTURER SHALL VERIFY THAT THE ATTACHMENT POINTS ON THE EQUIPMENT CAN ACCEPT THE COMBINATION OF SEISMIC, WEIGHT, AND OTHER LOADS IMPOSED. FOR LIFE SAFETY SYSTEMS AND OTHER SYSTEMS THAT MUST REMAIN OPERATIONAL DURING AND AFTER AN EARTHQUAKE, THE MANUFACTURER SHALL PROVIDE CERTIFICATION THAT THE EQUIPMENT CAN ACCEPT THE LOADS IMPOSED AND REMAIN OPERATIONAL.
- 4. ANALYSIS SHALL INCLUDE CALCULATED DEAD LOADS, STATIC SEISMIC LOADS, AND CAPACITY OF MATERIALS UTILIZED FOR THE CONNECTION OF THE EQUIPMENT OR SYSTEM TO THE STRUCTURE. ANALYSIS SHALL DETAIL ANCHORING METHODS, BOLT DIAMETER, EMBEDMENT AND/OR WELDED LENGTH. ALL SEISMIC RESTRAINT DEVICES SHALL BE DESIGNED TO ACCEPT. WITHOUT FAILURE, THE FORCES DETAILED IN THE CODE ACTING THROUGH THE EQUIPMENT OR SYSTEM'S CENTER OF GRAVITY.

1.3 SUBMITTALS

- A. DELEGATED-DESIGN SUBMITTAL: THE SEISMIC RESTRAINT DESIGN, CONSISTING OF CALCULATIONS, RESTRAINT SELECTION, INSTALLATION DETAILS, AND OTHER DOCUMENTATION, SHALL BE SUBMITTED. THIS SUBMITTAL SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, AS STATED ABOVE. THIS SUBMITTAL WILL BECOME PART OF THE PROJECT DESIGN CALCULATIONS, INCLUDED IN THE PROJECT RECORDS, AND WHEN REQUIRED, WILL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION.
- B. SEISMIC RESTRAINT DEVICES: PRODUCT DATA, VERIFICATION OF SEISMIC CAPABILITIES AND INSTALLATION DETAILS.
- C. WELDING CERTIFICATES.
- D. FIELD QUALITY-CONTROL TEST REPORTS.
- 1.4 QUALITY ASSURANCE
 - A. COMPLY WITH SEISMIC-RESTRAINT REQUIREMENTS IN THE OBC UNLESS REQUIREMENTS IN THIS SECTION ARE MORE STRINGENT
- B. WELDING: QUALIFY PROCEDURES AND PERSONNEL ACCORDING TO AWS D1.1/D1.1M, "STRUCTURAL WELDING CODE - STEEL."
- C. ALL SEISMIC RESTRAINTS AND COMBINATION ISOLATOR / CAPABILITIES. MANUFACTURERS MAY VERIFY THEIR CAPABILITIES BY TESTING THAT IS WITNESSED BY AN INDEPENDENT PROFESSIONAL ENGINEER OR AN ASSOCIATION THAT HAS DEVELOPED A UNIFORM SET OF TEST STANDARDS. INDEPENDENT APPROVAL CAN ALSO BE OBTAINED BY AGENCIES SUCH AS OSHPD (OFFICE OF STATEWIDE HEALTH, PLANNING AND DEVELOPMENT) FROM THE STATE OF CALIFORNIA, NES, ICBO ES, FACTORY MUTUAL, UNDERWRITERS LAB, RECOGNIZED INDUSTRY STANDARDS ORGANIZATIONS SUCH AS VISCMA, ETC.

PART 2 - PRODUCTS

- 2.1 SEISMIC-RESTRAINT DEVICES
 - A. SEISMIC RESTRAINT DEVICES MAY INCLUDE ANY MANUFACTURER'S SYSTEM(S) SUITABLE FOR THE BUILDING CONSTRUCTION APPLICATION.
 - B. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
 - 1. THE VMC GROUP (VIBRATION MOUNTING AND CONTROLS)
 - 2. MASON INDUSTRIES
 - 3. KINETICS NOISE CONTROL

SEISMIC GENERAL REQUIREMENTS

- 1. THE PROJECT HAS SEISMIC LOAD SUPPORT REQUIREMENTS BASED ON THE SEISMIC USE GROUP (OCCUPANCY) DESIGNATION OF THE FACILITY OF "IV" AND SEISMIC DESIGN CATEGORY "D". REFER TO DRAWING S0.0 FOR ADDITIONAL INFORMATION.
- SEISMIC DESIGN REQUIREMENTS FOR MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE PROVIDED AS REQUIRED BY 2017 OHIO BUILDING CODE CHAPTER 16, SECTION 1613 EARTHQUAKE LOADS AND BY REFERENCE, THE AMERICAN SOCIETY OF STRUCTURAL ENGINEERS (ASCE) STANDARD 7-10 "MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES" (2010).
- CHAPTER 13 OF ASCE 7-10 DEFINES THE REQUIREMENTS FOR THE MECHANICAL AND ELECTRICAL COMPONENTS.
- THE COMPONENT IMPORTANCE FACTOR, Ip SHALL BE 1.5 FOR ALL COMPONENTS PER ASCE 7-10. 13.1.3 SINCE THE COMPONENTS ARE REQUIRED TO FUNCTION FOR LIFE SAFETY PURPOSES AFTER AN EARTHQUAKE AS WELL AS THE COMPONENTS ARE ALL LOCATED WITHIN AN OCCUPANCY CATEGORY "IV" STRUCTURE.
- ASCE 7-10, TABLE 13.6-1 DEFINES THE SEISMIC AMPLIFICATION FACTOR Ap AND RESPONSE FACTOR Rp FOR EACH COMPONENT THAT SHALL BE USED IN DETERMINING THE ATTACHMENT REQUIREMENTS
- CERTAIN COMPONENTS TO BE SEISMICALLY BRACED AND SUPPORTED ARE TO ALSO INCLUDE VIBRATION ISOLATION WHERE INDICATED.
- COMPONENTS OR SYSTEMS CAN BE INSTALLED IN A MANNER TO REDUCE SEISMIC BRACING OR SUPPORT REQUIREMENTS. ALL MECHANICAL AND ELECTRICAL SYSTEMS MUST FUNCTION AFTER AN EARTHQUAKE, EQUIPMENT, COMPONENTS, PIPING, DUCTWORK, CONDUIT, COMMUNICATION CABLING, ETC. SHALL BE SEISMICALLY BRACED. GENERAL GUIDELINES OR APPROACH FOR PROJECT SYSTEMS:
- A. DUCTWORK IS DESIGNED TO BE LESS THAN 6 SQ. FT., NO SEISMIC BRACING.
- B. PIPING SHOULD BE HUNG TIGHT TO STRUCTURE WITH THREADED ROD LESS THAN 12", NO SEISMIC BRACING IF INSTALLED IN THIS MANNER.
- C. FLOOR OR GRADE SET EQUIPMENT, TO BE ANCHORED TO EQUIPMENT PAD AND IN TURN SECURED TO THE FLOOR.
- D. FIRE SUPPRESSION PIPING SHALL BE SEISMIC BRACED PER THE REQUIREMENTS OF NFPA 13.
- E. FLOOR/WALL MOUNTED ELECTRICAL EQUIPMENT, PANELBOARDS, AUTOMATIC TRANSFER SWITCHES, ETC.

SHALL BE SEISMICALLY BRACED/SUPPORTED.

- F. LIGHTING FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF SUSPENDED CEILING SYSTEMS.
- G. CEILING FANS SHALL BE SEISMICALLY BRACED/SUPPORTED.
- H. CONDUITS 2.5" AND LARGER SHALL BE SEISMICALLY BRACED/SUPPORTED.

GENERAL NOTES - HVAC

- PROVIDE COMPLETE AND FUNCTIONAL HVAC SYSTEMS PER HVAC PLANS INCLUDING FURNISHING, INSTALLING, TESTING AND WARRANTY OF ALL WORK.
- WORK SHALL BE IN ACCORDANCE WITH THE 2017 OHIO BUILDING AND MECHANICAL CODES INCLUDING REFERENCED CODES AND STANDARDS, ALL FEDERAL, STATE, AND LOCAL CODES AND ALL APPLICABLE LAWS, ORDINANCES AND REGULATIONS.
- WORK SHALL BE PERFORMED USING BEST QUALITY INSTALLATION PRACTICE BY A QUALIFIED TRADE CONTRACTOR AND THEIR QUALIFIED SUBCONTRACTORS. ALL CONTRACTORS SHALL BE LICENSED AND BE BONDED FOR THE WORK
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA AND OWNER SAFETY STANDARDS AND PRACTICES. ALL ON SITE PERSONNEL SHALL BE SAFETY TRAINED AND OWNER CERTIFIED.
- OBTAIN REQUIRED PERMITS RELATED TO THE WORK AND PAY ALL PERMIT AND INSPECTION FEES.
- THE AUTHORITY HAVING JURISDICTION SHALL INSPECT AND APPROVE ALL WORK. PROVIDE A FINAL CERTIFICATE OF APPROVAL FROM THE AUTHORITY HAVING JURISDICTION AND PRESENT TO THE OWNER BEFORE REQUESTING FINAL PAYMENT AND RELEASE OF RETAINAGE.
- ALL EQUIPMENT AND MATERIAL REQUIRED FOR COMPLETE AND FUNCTIONAL HVAC SYSTEMS ARE INCLUDED IN THE

GENERAL REQUIREMENTS - HVAC

- PROTECT ALL FURNISHED MATERIAL AND EQUIPMENT FROM THEFT AND DETERIORATION OR CONTAMINATION DUE TO WEATHER OR CONSTRUCTION ACTIVITIES.
- PROTECT OWNERS PROPERTY AND PROPERTY OF OTHER CONTRACTORS.
- REMOVE ALL CONSTRUCTION DEBRIS FROM SITE. RECYCLE DEBRIS WHERE POSSIBLE. DISPOSE OF ALL HAZARDOUS MATERIAL IN ACCORDANCE WITH ENVIRONMENTAL LAWS.
- PROVIDE ALL CUTTING AND PATCHING REQUIRED TO INSTALL MATERIAL AND EQUIPMENT.
- PROVIDE APPROPRIATE FIRESTOPPING SYSTEM FOR ANNULAR SPACE OPENINGS AROUND DUCT AND PIPE PENETRATIONS THROUGH FIRE RESISTANCE RATED CONSTRUCTION. ANNULAR SPACE OPENINGS AT DUCT OR PIPE PENETRATIONS IN NON RATED CONSTRUCTION TO BE CLOSED AIR AND WATER TIGHT.
- MATERIALS AND EQUIPMENT SHALL BE ONE OF THE BRAND OR MANUFACTURERS LISTED OR AN APPROVED EQUAL
- ELECTRONIC SHOP DRAWINGS SHALL BE PROVIDED IN .PDF FORMAT FOR THE ENGINEER'S APPROVAL FOR ALL MATERIALS AND EQUIPMENT. SHOP DRAWINGS SHALL BE SPECIFICALLY EDITED TO ELIMINATE SUPERFLUOUS INFORMATION AND SHALL CLEARLY SHOW SPECIFICS FOR THE MATERIAL AND EQUIPMENT PROVIDED.
- COORDINATE INSTALLATION OF ACTUAL EQUIPMENT AND SYSTEMS PROVIDED WITH OTHER TRADES.
- INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS. PROVIDE REQUIRED CLEARANCES TO MEET CODE REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS AND MAINTENANCE SERVICE.
- 10. ALL WORK AREAS SHALL BE CLEANED TO MATCH ORIGINAL CONDITION.
- I. PROVIDE TESTING, ADJUSTING AND BALANCING (TAB) REPORTS FOR AIR AND WATER SYSTEMS. A CERTIFIED AABC OR NEBB FIRM SHALL PROVIDE THE BALANCE.
- 12. MAINTAIN RECORD DRAWINGS AND PROVIDE TO THE OWNER OR HIS AGENT.
- 13. PROVIDE TWO (2) BOUND, PAPER COPIES OF ALL OPERATING AND MAINTENANCE MANUALS. PROVIDE AN ELECTRONIC COPY OF THE OPERATING AND MAINTENANCE MANUAL
- 14. PROVIDE WARRANTY FOR ALL WORKMANSHIP, EQUIPMENT AND MATERIAL, WARRANTY SHALL BE 1 YEAR FOR PART AND LABOR, PROVIDE EXTENDED WARRANTY PERIOD FOR PARTS AND/OR LABOR AS IDENTIFIED OR AS STANDARD FOR CERTAIN ITEMS OF EQUIPMENT.

DUCTWORK LEGEND 20/12 RECTANGULAR DUCT FIRST FIGURE IS SIDE SHOWN 20/12 10"Ø **ROUND DUCT** DIAMETER INDICATED 10"Ø STAINLESS STEEL DUCT FLEXIBLE FABRIC STEEL DUCT INSULATED FLEXIBLE DUCT CHANGE OF ELEVATION \longrightarrow R = RISE, D = DROP **ELBOW WITH TURNING VANES** ROUND RUNOUT DUCT TAP TO RECTANGULAR DUCT WITH SPIN-IN FITTING, SEE DETAIL ROUND RUNOUT DUCT FITTING IN ROUND DUCT **VOLUME DAMPER** ____ FIRE DAMPER SUPPLY DUCT SECTION - RISE, DROP RETURN DUCT SECTION - RISE, DROP SUPPLY AIR DEVICE S1 SEE SCHEDULE AND DETAIL 8" NECK SIZE 300 = REQUIRED AIR FLOW (CFM) TRANSFER AIR DEVICE R1 DEVICE TAG, SEE SCHEDULE AND DETAIL RETURN/EXHAUST DEVICE TAG: R=RETURN, E=EXHAUST 300 = REQUIRED AIR FLOW (CFM) DEVICE SIZE AS INDICATED IN AIR DEVICE SCHEDULE SIDEWALL AIR DEVICE SEE AIR DEVICE SCHEDULE 24/12 = DEVICE SIZE 300 = AIR FLOW (CFM)8' 6" = MOUNTING HEIGHT (AFF) LINEAR SLOT PLENUM S3 - DEVICE TAG, SEE AIR DEVICE SCHEDULE 6" = ROUND DUCT CONNECTION SIZE 150 = AIR FLOW (CFM)2 = NO. OF SLOTS EXISTING AIR DEVICE REBALANCE TO AIR FLOW INDICATED ROOM TEMPERATURE SENSOR CO/NO₂ SENSOR **PUSHBUTTON** PRESSURE MONITOR

HVAC INDEX OF DRAWINGS

LEGENDS AND SCHEDULES

EQUIPMENT SCHEDULES

VRF SYSTEM SCHEDULE

DUCTWORK MATERIAL SCHEDULES

MEZZANINE & MECHANICAL ROOM PLANS

PIPING MATERIAL SCHEDULES

DRAWING TITLE

1ST FLOOR PLAN

ROOF PLAN

SECTIONS

SECTIONS DETAILS

DETAILS

DETAILS

DETAILS

DETAILS

DETAILS

CONTROLS

CONTROLS

CONTROLS

VENTILATION

H0.1

H0.2

H0.3

H0.4

H0.5 H1.1

H1.2

H1.3

H2.1

H2.2

H3.1

H3.2

H3.3

H3.4

H3.5

H3.6

H4.1

H4.2

H4.3

H5.1

NEW ITEM PIPING LEGEND —— CD —— CONDENSATE DRAIN —S/L—— —S/L/HPG— 0.875"S 0.75"HPG GAS SIZE. 0.625"S SELECTOR SCHEDULE CHECK VALVE BALANCING VALVE PIPE HOSE THREAD CONNECTION $\overline{}$ CONNECTION, BOTTOM

 \bigcirc

CONNECTION, TOP

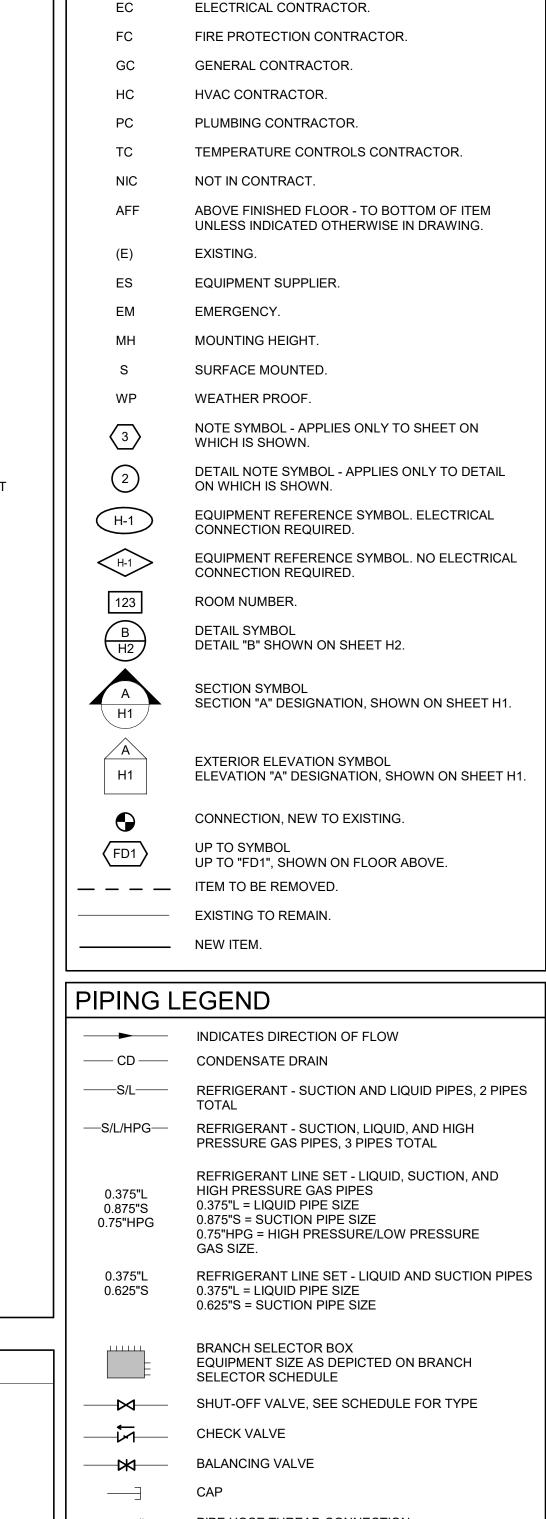
CONNECTION, SIDE

ELBOW, TURNED UP

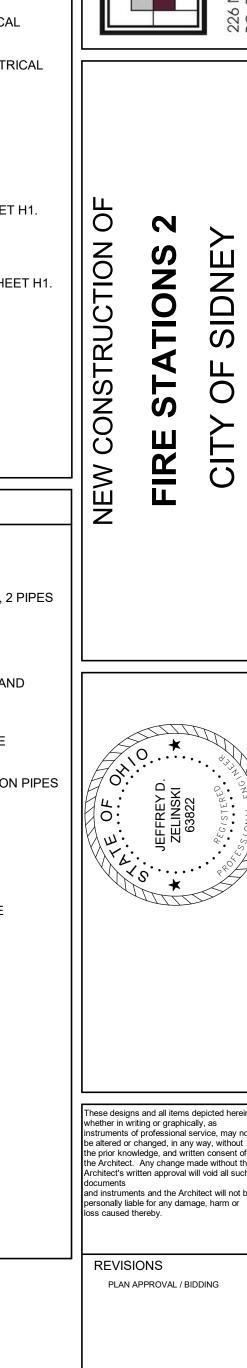
ELBOW, TURNED DOWN

ELBOW, 90°, LONG RADIUS

ELBOW, 45°, LONG RADIUS



GENERAL LEGEND



S

ш

S

 \simeq

Щ

ш

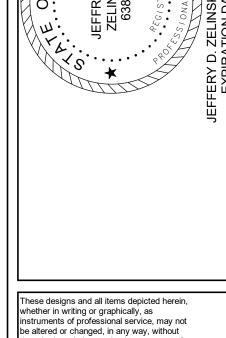
JOINE

Ш

Ш

븦

AR



the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be

OMM. NUMBER	DATE
2207.02	11/13/24
DRAWN BY	CHECKED BY
DJZ	JDZ

LEGENDS AND SCHEDULES

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

PROJECT # 23015

DUCT INSULATION SCHEDULE

QUALITY ASSURANCE

INSULATION SHALL MEET NFPA 255, 25 FLAME SPREAD & 50 SMOKE DEVELOPMENT, UL 181, NFPA 90A/90B, ASTM 1136, AND ASTM

MINIMUM INSULATION THICKNESS SHALL COMPLY WITH ASHRAE 90.1-2010

PRODUCTS

- PROTECTIVE METAL JACKET COVERS - 0.016" ALUMINUM.

EXECUTION

- INSULATION SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

- DUCTWORK SHALL BE SEALED PRIOR TO INSTALLATION OF INSULATION.

- ALL EXTERIOR DUCT INSULATION SHALL BE SEALED WATERTIGHT.

- REINSULATE DUCTWORK WHERE EXISTING INSULATION IS DAMAGED IN CONNECTION OF NEW DUCTWORK

- ALL INSULATION VAPOR BARRIERS SHALL BE MAINTAINED. - ADHESIVE SHALL BE APPLIED TO AID INSTALLATION.

- REQUIRED INTERNAL DUCT LINING IS INDICATED ON DRAWINGS. LINED DUCTWORK NEED NOT BE FURTHER INSULATED.

- DUCT COILS, REHEAT BOX COILS, CONTROL DAMPER, FIRE DAMPERS & SMOKE DAMPERS SHALL BE INSULATED IF SYSTEM INSULATION IS INDICATED.

ALL INSULATION SHALL BE MARKED WITH MANUFACTURER, "R" VALUE, FLAME SPREAD & SMOKE DEVELOPMENT.

SYSTEM	INSULATION THICKNESS	TYPE	LOCATION	NOTES
SUPPLY AIR DUCT	1.5"	1	CONCEALED	
SUPPLY AIR DUCT	2"	2	EXPOSED	
SUPPLY AIR DUCT	2"	1	IN ATTIC	
SUPPLY AIR DUCT	INTEGRAL W/ DUCT	4	EXTERIOR	2
OUTDOOR AIR DUCT & PLEMUNS	1.5"	1	CONCEALED	
OUTDOOR AIR DUCT & PLEMUNS	2"	2	EXPOSED	
OUTDOOR AIR SUPPLY	INTEGRAL W/ DUCT	4	EXTERIOR	2
RETURN AIR DUCT	-	-	CONCEALED	
RETURN AIR DUCT	-	-	EXPOSED	
RETURN AIR DUCT	1.5"	1	IN ATTIC	
RETURN AIR DUCT	1"	3	FC-1, FC-3, FC-4, FC-5	
RELIEF AIR DUCT & PLENUMS	-	-	ALL	
		1		
EXHAUST AIR DUCT & PLENUMS	1.5"	1	IN ATTIC	
TYPE PAGE OF PEGIGN	ADDDOVED FOULL		DECODIDATION	

	RETURN AIR DUCT	I .	3	FG-1, FG-3, FG-4, FG-3		
REL	IEF AIR DUCT & PLENUMS	-	-	ALL		
EVU/	AUST AIR DUCT & PLENUMS	1.5"	1	IN ATTIC		
TYPE	BASIS OF DESIGN	APPROVED EQUALS	1	DESCRIPTION		
1	OWENS-CORNING SOFTR TYPE 75	KNAUF JM CERTAIN TEED	MATERIAL FIBERGLASS DUCT WRAP ON DUCT K = 0.30 @ 75 DEG. F. DENSITY - 0.75 PCF JACKET - FOIL REINFORCED JOINTS - OVERLAPPING STAPLE ALL JOINTS AT 6" CENTERS. FASTENERS - MECHANICAL ON 24" & WIDER DUCT. ADHESIVE - NONE TAPE - 3" WIDE			
2	OWENS-CORNING TYPE 703	KNAUF JM CERTAIN TEED	MATERIAL FIBERGLASS BOARD ON DUCT K = 0.23 @ 75 DEG. F. DENSITY - 3.0 PCF JACKET - ASJ JOINTS - BUTT FASTENERS - METAL PINS & CLIPS ON 12" CENTERS ADHESIVE - NONE TAPE - 3" WIDE VAPOR PATCHED			
3	OWENS-CORNING QUIET R ROTARY DUCT LINER	KNAUF JM CERTAIN TEED JOHNS MANVILLE	MATERIAL FIBERGLASS DUCT LINER K = 0.23 @ 75 DEG. F JACKET - NONE JOINTS - BUTT FASTENERS - METAL PINS & CLIPS ON 12" CENTERS ADHESIVE - COMPLIES WITH ASTM C916 TAPE - NONE LEADING EDGES - METAL NOSING			
4	THERMADUCT	PRO-R DUCT TUFF DUCT	HIGH EFFICIENCY PRE-INSULATED OUTDOOR AIR DUCT R = 8.1 WEATHER PROOF OUTDOOR CLADDING VAPOR BARRIER; BONDED ALUMINUM FOIL WITH ZERO PERMABILITY			

NOTES:

1. PROVIDE TWO LAYERS OF FIRE BARRIER WRAP ON ALL INTERIOR TYPE I KITCHEN HOOD GREASE DUCT.

2. DUCT SIZE INDICATED ON PLAN IS INTERIOR DIMENSION.

DUCT CONSTRUCTION MATERIAL SCHEDULE

			SMACN	A CLASS.	
DUCTWORK SYSTEMS	LOCATION	MATERIAL	SP. CONSTR.	SEAL CLASS	NOTES
RETURN AIR	CONCEALED	G1	-2"	С	
RETURN AIR	EXPOSED	G2	-2"	С	1
OUTDOOR RETURN/EXHAUST AIR	ALL	G1	-2"	С	
OUTDOOR SUPPLY AIR	ALL	G1	+4"	А	
EXHAUST AIR	CONCEALED	G1	-2"	С	
EXHAUST AIR	EXPOSED	G2	-2"	С	1
AIR TRANSFER	ALL	G1	-1"	NOT REQ'D.	
SUPPLY AIR - VAV UPSTREAM	CONCEALED	G1	+4"	А	
SUPPLY AIR - VAV UPSTREAM	EXPOSED	G2	+4"	А	1
SUPPLY AIR - VAV DOWNSTREAM	CONCEALED	G1	+1"	С	
SUPPLY AIR - VAV DOWNSTREAM	EXPOSED	G2	+1"	С	1
SUPPLY AIR - CONSTANT VOLUME	CONCEALED	G1	+3"	В	
SUPPLY AIR	EXTERIOR	T1			
FLEXIBLE DUCTWORK - SUPPLY	CONCEALED OR UNCONDITIONED	C1	+10" -5"	N.A.	
FLEXIBLE DUCTWORK - RET./EXH./TRANSFER	CONCEALED	C2	+10" -5"	N.A.	
KITCHEN HOOD EXHAUST	ALL	SS1	-2"	С	
DOMESTIC WATER HEATER INTAKE	ALL	P1	-2"	А	
DOMESTIC WATER HEATER FLUE	ALL	P1	+4"	А	
GAS FIRED UNIT HEATER INTAKE	ALL	G1	-2"	А	
GAS FIRED UNIT HEATER FLUE	ALL	D1	+4"	Α	

ALL

ALL

G1

D1

A1

SS1

-2" A

+2" A

Α

Α

+4"

+/-2"

TYPE	MATERIAL	DESCRIPTION
A1	ALUMINUM	22 GA. MIN., SPIRAL ALUMINUM. JOINTS FASTENED BY SCREWS/RIVETS - SCREWS SHALL NOT PROTUDE FURTHUR THAN 1/8" INTO AIR STREAM - OMC 504.8.2. SUPPORT AT 4' INTERNVALLS
C1	CHLORINATED POLYETHYLENE	BLACK INNER FABRIC WITH GALVANIZED STEEL HELIX REINFORICING, R = 6.0 (MIN.) FIBERGLASS INSULATION, REINFORCED METALIZED VAPOR BARRIER, 0.05 PERM, UL 181, CLASS 1 DUCT, MEET NFPA 90A & 90B, 25/50 FLAME/SMOKE SPREAD
C2	CHLORINATED POLYETHYLENE	BLACK INNER FABRIC WITH GALVANIZED STEEL HELIX REINFORCING, R = 4.2 (MIN.) FIBERGLASS INSULATION, REINFORCED METALIZED VAPOR BARRIER, 0.05 PERM, UL 181, CLASS 1 DUCT, MEET NFPA 90A & 90B, 25/50 FLAME/SMOKE SPREAD.
D1	DOUBLE WALL FLUE	REFER TO SPECIFICATION 235100.
G1	GALVANIZED STEEL	24 GA. MIN., HOT DIPPED, GALVANIZED BOTH SIDES, G90 PER ASTM A653.
G2	GALVANIZED STEEL	24 GA. MIN., HOT DIPPED, HEAT TREATED GALVANNEALED BOTH SIDES PE ASTM A653, PAINT UNIFORM GRAY MATTE APPEARANCE, A40 PER ASTM A653.
P1	POLYPROPYLENE	SCHEDULE 40 POLYPROPYLENE PIPE AND FITTINGS PER UL 1738
SS1	STAINLESS STEEL EXHAUST DUCT	FACTORY BUILT SYSTEM - SELKIRK MODEL G OR EQUAL BY CAPTIVE AIRE O METALFAB TYPE 304 STAINLESS STEEL SHEET - SINGLE WALL CONSTRUCTION: 18 GA. MIN ASTM A480. JOINTS & SEAMS: VEE BANDS AND SEALANT FINISH: CONDITION A, NO ADDITIONAL FINISH. DUCT ACCESSORIES: CLEANOUT AT BOTTOM OF RISER TO FAN AND 90 CHANGE IN DIRECTION.
T1	THERMADUCT	REFER TO INSULATION SCHEDULE.

RADIANT HEATER INTAKE

RADIANT HEATER FLUE

DOMESTIC DRYER VENT

GEAR DRYER

NOTES: 1. DUCTWORK SYSTEMS ARE TO MATCH BASE MATERIALS FOR EXPOSED INSTALLATIONS.

2. FLUE REQUIRES 1" MINIMUM CLEARANCE TO COMBUSTABLES IN ATTIC. PROVIDE ATTIC INSULATION SHIELD AND INSTALL PER MANUFACTURER'S RECOMMENDATION.

DUCT CONSTRUCTION GENERAL REQUIREMENTS

QUALITY ASSURANCE

COMPLY WITH GENERAL WELDING PERSONNEL & PROCEDURES UNDER AWS D1.1/D1.1M, AWS D1.2/D1.2M &

COMPLY WITH GENERAL DUCT CONSTRUCTION STANDARDS UNDER SMACNA HVAC DUCT CONSTRUCTION

• SLIP CONNECTIONS; GASKETED FLANGES ARE NOT ACCEPTABLE.

• USE 45 DEG. LATERAL TEES WHEREVER POSSIBLE.

• 90 DEG. TEES SHALL BE CONICAL SPIN-IN TYPE.

• DIE STAMPED ELBOWS, r/D = 1.5 (MIN.)

• ECCENTRIC TRANSITIONS, 0 = 30° MAX.

ROUND OR FLAT OVAL DOUBLE WALL DUCTWORK - 2" S.P. AND HIGHER (SAME AS ABOVE EXCEPT:)

• INSULATION THICKNESS PER INSULATION SCHEDULE FOR INTENDED SERVICE.

• PERFORATED INNER LINER/SOLID INNER LINER.

• OUTER PRESSURE SHELL.

STANDARD TEES ALLOWED.

SEGMENTED ELBOWS ALLOWED.

FLAT SLIP, STANDING DRIVE OR GASKETED FLANGE DUCT SYSTEM CONNECTIONS.

• RADIUS OR SQUARE THROAT WITH DOUBLE WALL TURNING VANES ELBOW.

• 45 DEG. ENTRY OR CONICAL SPIN-IN BRANCH CONNECTIONS.

• RADIUSED, ANGLED (15° MAX.) OR MITERED (15° MAX.) OFFSETS.

CONCENTRIC TRANSITIONS, 0 = 45° MAX.

• ECCENTRIC TRANSITIONS, 0 = 30° MAX.

• BRANCH DUCTS SHALL BE CONICAL TEE FITTINGS.

TURNING VANES IN ELBOWS NOT REQUIRED FOR AIR VELOCITIES LESS THAN 800 FPM.

• STRAIGHT TAP AND STANDARD SPIN-IN BRANCH CONNECTIONS PERMITTED.

• PROVIDE MANUFACTURED DUCT SUPPORTS AT 90 DEGREE ELBOWS TO CEILING AIR DEVICES.

DUCT SEALANT & GASKETS

GALVANIZED DUCT SEALANT - WATER BASED SYNTHETIC LATEX EMULSION, GRAY IN COLOR.

• FLANGE GASKETS - BUTYL RUBBER, NEOPRENE, OR EPDM POLYMER W/ POLYISOBUTYLENE PLASTICIZER.

• PVC COATED DUCT SEALANT - PVS SEALANT OR CAULK/MINERAL IMPREGNATED FIBER TYPE.

DUCT HANGER SUPPORTS

ANGLE OR UNISTRUT SUPPORTS SHALL BE INSULATED A MINIMUM OF 4" BEYOND DUCT BEARING POINT TO

DRAWINGS INDICATE GENERAL LOCATION OF DUCTWORK. COORDINATE DUCT LAYOUT CAREFULLY WITH OTHER

• SPAN DUCTWORK FROM STRUCTURAL CONCRETE/STEEL MEMBERS OR SUPPLEMENTARY STEEL SHAPES.

FOR EXPOSED DUCTWORK, GRIND WELDS SMOOTH AND POLISH AND TRIM SEALANTS FLUSH WITH DUCT

PROTECT DUCTWORK DURING CONSTRUCTION AND CLEAN PRIOR TO SYSTEM OPERATION.

PANELBOARDS PER NEC REQUIREMENTS.

SEAL DUCTS ACCORDING TO SMACNA SEAL CLASS NOTED IN SCHEDULE.

WET DUCT SYSTEMS SHALL BE PITCHED FOR DRAINAGE. PROVIDE TRAPPED DRAIN AT SYSTEM LOW POINTS AND PIPE TO LOCAL DRAIN POINT.

• THE G.C. SHALL PAINT ALL EXPOSED DUCTWORK TO MATCH BASE MATERIAL COLORS.

AWS D9.1/D9.1M.

STANDARDS METAL AND FLEXIBLE - THIRD EDITION AND MOST CURRENT VERSION OF APPLICABLE ASHRAE 90.1 SECTION 6.4.4 AND ASHRAE 62.1 SECTIONS 5 & 7.

COMPLY WITH SEISMIC REQUIREMENTS PRESCRIBED UNDER SMACNA DUCT CONSTRUCTION STANDARDS -METAL AND FLEXIBLE THIRD EDITION & ASCE/SEI 7.

PRODUCTS

ROUND OR FLAT OVAL SINGLE WALL DUCTWORK - 2" S.P. AND HIGHER

• CONTINUOUS HELICAL (SPIRAL) LOCK SEAM CONSTRUCTION.

• RADIUSED, ANGLED (15° MAX.) OR MITERED (15° MAX.) OFFSETS.

CONCENTRIC TRANSITIONS, 0 = 45° MAX.

ROUND DUCTWORK - 1" S.P. OR LESS (SAME AS ABOVE EXCEPT:)

• LONGITUDINAL SEALED SEAM CONSTRUCTION ACCEPTABLE AT FINAL AIR DEVICE ONLY.

RECTANGULAR DUCTWORK - 2" S.P. AND HIGHER

• SQUARE THROAT, RADIUS HEEL 90° ELBOWS ARE NOT PERMITTED.

RECTANGULAR DUCTWORK - 1" S.P. OR LESS (SAME AS ABOVE EXCEPT:)

FLEXIBLE DUCTWORK - SUPPLY/RETURN/TRANSFER/EXHAUST

• FLAME SPREAD LESS THAN 25, SMOKE DEVELOPMENT LESS THAN 50.

• ALUMINUM DUCT SEALANT - ALUMINUM SILICONE, GRAY IN COLOR.

• DUCT HANGER SUPPORTS SHALL DIRECTLY ATTACH TO DUCTWORK.

EXTERIOR DUCT INSULATION WRAP SHALL BE APPLIED OVER DUCT AND HANGER SUPPORTS.

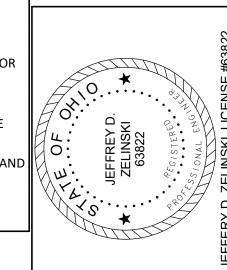
PREVENT CONDENSATION.

XECUTION

TRADES TO AVOID CONFLICT. PROVIDE OFFSETS AS REQUIRED.

ROUTE DUCTWORK TO AVOID PASSING THRU TRANSFORMER VAULTS OR ABOVE ELECTRICAL SWITCHGEAR OR

SYSTEMS OPERATING AT 3" S.P. OR HIGHER AND ALL EXTERIOR DUCTWORK SHALL REQUIRE DUCT PRESSURE



(IATES

SSO

 ∞

YTAG

FRE

ENGINEEL

Ĭ H

ARC

TIONS

SIDNE

Ш

0

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm or

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 2207.02 11/13/24 CHECKED BY **DRAWN BY**

DUCTWORK MATERIAL SCHEDULES



PIPING SYSTEMS - HVAC

GENERAL NOTES:

QUALITY ASSURANCE

PIPING SHALL CONFORM TO OBC REQUIREMENTS. PIPING SHALL COMPLY WITH ASME B31.9 "BUILDING SERVICES PIPING".

WELDING PROCEDURES & TESTING SHALL COMPLY WITH ANSI STANDARD B31.1.0.

REINFORCED FORGED WELDING OUTLETS EQUAL TO BONNET WELDOLET AND THREADOLET MAY BE USED WHERE BRANCH IS TWO SIZES SMALLER THAN THE MAIN. DIELECTRIC CONNECTORS SHALL BE PROVIDED AT CONNECTIONS BETWEEN FERROUS & COPPER PIPING.

PIPING WITHIN 2'-0" OF SMALL HEATING/COOLING UNITS MAY BE TYPE "C3" PIPING. MECHANICALLY FORMED TEES AND COUPLING (T-DRILL) ARE NOT PERMITTED MECHANICAL JOINT PIPING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURED RECOMMENDATIONS.

COPPER TUBING - WROUGHT OR CAST COPPER, CLASS 150, SOLDERED ENDS THREADED STEEL PIPE - MALLEABLE IRON W/GROUND SEAT, 300 LB SCREWED ENDS

COPPER TUBING - CLASS 150 CAST COPPER ALLOY, SOLDERED

STEEL PIPE - CLASS 150 SLIP-ON OR WELD NECK

GASKETS - 1/16" THICK FULL FACE COMPRESSED SHEET GASKET SUITABLE FOR PRESSURE AND TEMPERATURE RANGES OF THE APPLICATION

BULB WELLS FOR TEMPERATURE SENSING SPECIFIED IN THE CONTROLS AND INSTRUMENTATION SECTION SHALL BE FURNISHED BY THE CONTROL SUBCONTRACTOR AND INSTALLED BY THE PIPING CONTRACTOR. OTHER TYPES OF CONTROL DEVICES (DIFFERENTIAL PRESSURE SWITCHES, FLOW METERS, ETC.) SHALL ALSO BE INSTALLED BY THE PIPING CONTRACTOR, DEVICES, FITTINGS (TEES, WELDOLETS, THREADOLETS). LOCATIONS AND INSTALLATION DETAILS SHALL BE CLOSELY COORDINATED WITH THE CONTROLS SUBCONTRACTOR AND DEVICE MANUFACTURER'S INSTRUCTIONS.

AUTOMATIC CONTROL VALVES SHALL BE FURNISHED BY THE CONTROLS SUBCONTRACTOR FOR INSTALLATION BY THE HVAC PIPING CONTRACTOR. FLARE FITTINGS FOR FLARE END VALVES SHALL BE PROVIDED BY THE HVAC PIPING CONTRACTOR.

EXECUTION

PIPE AND TUBING SHALL BE CUT AND FABRICATED TO FIELD MEASUREMENTS AND RUN PARALLEL TO NORMAL BUILDING LINES. PIPE INTERIOR SHALL BE CLEANED OF FOREIGN MATTER AND BURRS BEFORE ERECTION OF PIPE.

SUPPORT PIPING FROM BUILDING STRUCTURE WITH RODS, ANGLES & CLAMPS ATTACHED TO STRUCTURE. HANG PIPING WITH CLEVIS HANGER OR ROLLER SUPPORTS HANGERS SHALL BE INSTALLED ON CENTERS AS RECOMMENDED BY MANUFACTURER.

PIPING SHALL BE PITCHED FOR DRAINAGE. THE LOW POINTS SHALL BE FITTED WITH A 3/4" BALL DRAIN VALVE WITH HOSE THREAD ADAPTOR.

PROVIDE PIPING SLEEVES AT FLOORS, WALLS & ROOFS IN NEW CONSTRUCTION. EXISTING WALL TO BE SAW CUT TO PASS NEW PIPING.

PIPING SHALL NOT BE RUN ABOVE ELECTRICAL SWITCHGEAR OR PANELBOARDS, NOR ABOVE THE ACCESS SPACE OF SUCH EQUIPMENT - NEC ARTICLE 384. ANNULAR SPACE AROUND PIPING THRU ALL WALLS SHALL BE SEALED OFF WITH PERMANENT PLIABLE CAULKING OR APPROVED PATCHING SEALANT.

CLOSE OPEN ENDS OF PIPING DURING CONSTRUCTION. CLEAN INTERIOR PIPING AFTER INSTALLATION BY FLUSHING WITH CLEAN POTABLE WATER TO CLEAR ALL INTERNAL DEBRIS.

PIPING SHALL BE AIR TESTED AT 50% HIGHER THAN MAXIMUM SYSTEM OPERATING PRESSURE FOR EIGHT (8) HOURS BEFORE FLUSHING

IDENTIFICATION & MARKING PLASTIC SNAP-ON PIPE MARKERS SHALL BE INSTALLED ON PIPING INDICATING SERVICE

AND DIRECTION OF FLOW.

	PIPING SYSTEM		TYPE
С	OIL CONDENSATE DRAINAGE		C3
F	REFRIGERANT PIPING - TUBE		C1
F	REFRIGERANT PIPING - COIL		C1
TYPE	DESCRIPTION	TYPE	DESCRIPTION
C1	BRAZED COPPER REFER TO SPECIFICATION FOR INFORMATION	C3	SOLDERED COPPER TYPE "DWV" HARD COPPER ASTM B88 CAST DWV COPPER FITTINGS 95-5 SOLDER

PIPE INSULATION SCHEDULE

QUALITY ASSURANCE

PRODUCTS SHALL COMPLY WITH ASTM E84 FIRE, SMOKE RATINGS:

- INDOORS - FLAME SPREAD RATING OF 25 OR LESS, SMOKE DEVELOPED RATING OF 50 OR LESS. - OUTDOORS - FLAME SPREAD RATING OF 75 OR LESS, SMOKE DEVELOPED RATING OF 150 OR LESS.

GREEN GUARD INDOOR AIR QUALITY CERTIFIED.

THICKNESSES SHALL COMPLY WITH MOST CURRENT VERSION OF ASHRAE 90.1. <u>PRODUCTS</u>

REQUIREMENTS ARE FOR BOTH SUPPLY & RETURN SYSTEMS.

FIBERGLASS - JOHNS MANVILLE, OWENS CORNING, KNAUF, MANSON INSULATION

CALCIUM SILICATE - PABCO, CALSILITE, JOHNS MANVILLE (IIG) FLEXIBLE ELASTOMERIC - AEROFLEX, ARMACELL, RUBATEX

POLYISOCYANURATE - ITW

MANUFACTURERS:

EXECUTION

INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. COLD SERVICE PIPE INSULATION AND VAPOR BARRIER/JACKET TO BE CONTINUOUS THRU FLOOR AND WALL SLEEVES AT ALL

PIPE DEVICES AND PUMP CASINGS. INSULATION AND VAPOR BARRIER TO BE CONTINUOUS AT PIPE HANGERS AND SUPPORTS ON HORIZONTAL PIPING.

VERTICAL PIPE SUPPORTS SHALL ATTACH DIRECTLY TO PIPE. INSULATE SUPPORT AND OTHER SURFACES WITH FLEXIBLE CLOSED CELL INSULATION, SAME THICKNESS AS SYSTEM INSULATION ON COLD SERVICE PIPES TO PREVENT...

	SYSTEM & SIZE	INSULATION THICKNESS	TYPE	LOCATION
R	EFRIGERANT LIQUID	0.75"	E1, E2	INTERIOR (E1) / EXTERIOR (E2)
RE	FRIGERANT HOT GAS	0.75"	E1, E2	INTERIOR (E1) / EXTERIOR (E2)
RE	FRIGERANT SUCTION	0.75"	E1, E2	INTERIOR (E1) / EXTERIOR (E2)
COOL	ING COIL CONDENSATE	0.5"	F1	INTERIOR
TYPE	BASIS OF DESIGN	APPROVED EQUALS		DESCRIPTION
F1	OWENS CORNING #ALL SERVICE JACKET	- KNAUF #1000° PIPE, - JOHNS MANVILLE #MICRO-LOK HP	BONDING. K=0.24 @ 100 3.5 - 5.5 PCF. WHITE FSRK J LONGITUDINA ELBOWS, TEE PREMOLDED 2 DENSITY FIBE	
E1	AEROFLEX #AEROCEL EPDM	- ARMACELL - RUBATEX	TUBULAR INSI K=0.25 @ 75 D	E-FORMED, CLOSED CELL, EPDM ELASTOMERIC ULATION, OR SHEET INSULATION. IEG. F. URFACE WITH DENATURED ALCOHOL PRIOR TO
E2	ARMACELL #AP ARMAFLEX FS	- AEROFLEX - RUBATEX	INSULATION. CLEAN PIPE S INSULATING. K=0.25 @ 75 D 25/50 FLAME/S PROVIDE 0.20' SEAM SIDE DO	E-FORMED, CLOSED CELL, ELASTOMERIC TUBULAR URFACE WITH DENATURED ALCOHOL PRIOR TO EG. F. BMOKE RATING. " ROLL ALLOY ALUMINUM EMBOSSED JACKET, DWN WITH 0.50" WIDE, 0.015" S.S. STRAP AND SEALS BCO-CHILDERS METALS/GERRARD.

NGINEEL Ш

S Ĭ ARC FR

ONS SIDN

0

RE

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER	DATE
2207.02	11/13/24
DRAWN BY	CHECKED BY
DJZ	JDZ

PIPING MATERIAL SCHEDULES



AIR DEVICE SCHEDULE

GENERAL NOTES

AIR DEVICES BASED ON PRICE. EQUAL BY: REFER TO SPECIFICATION.

MAXIMUM SOUND LEVEL AT NC-25 AT INDICATED AIR FLOW. BALANCING DAMPER GENERALLY PROVIDED IN DUCT, NOT AT DEVICE.

STANDARD WHITE BAKED ACRYLIC FINISH UNLESS NOTED OTHERWISE. PC-12 FINISH SHALL HAVE COLOR SELECTED BY ARCHITECT, FINAL PAINTING BY THE G.C. DIFFUSERS SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED OR INDICATED ON DRAWINGS. VERIFY CEILING TYPE AND PROVIDE APPROPRIATE MOUNTING FRAME WHERE REQUIRED.

TAG	DESCRIPTION	MODEL NO.	MATERIAL	ACCESSORIES	NOTES
S1 & S1A	2'X2' SQUARE PLAQUE DIFFUSER ROUND DUCT CONNECTION	SPD (ASPD)	STEEL (A) = ALUMINUM	INSULATED BACKPAN (STYLE 31)	
S2 & S2A	12"X12"SQUARE PLAQUE DIFFUSER ROUND DUCT CONNECTION	SPD (ASPD)	STEEL (A) = ALUMINUM	INSULATED BACKPAN (STYLE 31)	1
S 3	12"X12"SQUARE PLAQUE DIFFUSER ROUND DUCT CONNECTION SURFACE MOUNTED	SPD	STEEL	SURFACE MOUNT FRAME INSULATED BACKPAN (STYLE 31)	1
S4	SPIRAL DUCT GRILLE DOUBLE DEFLECTION BLADES	SDGE	STEEL	BALANCING DAMPER AIR SCOUP	
R1	RETURN GRILLE DEVICE SIZE - 24" X 24" 45° HORIZONTAL BLADES 1/2" SPACING BLADES PARALLEL TO LONG DIMENSION	635	ALUMINUM	RETURN AIR CANOPY (RAC)	
R2	RETURN GRILLE DEVICE SIZE - 24" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM	RETURN AIR CANOPY (RAC)	
R3	RETURN GRILLE DEVICE SIZE - 12" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM	RETURN AIR CANOPY (RAC)	1
R4	RETURN GRILLE DEVICE SIZE - 24" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM	RETURN AIR CANOPY (RAC) SURFACE MOUNT FRAME	
E1	EXHAUST GRILLE DEVICE SIZE - 24" X 24" 45° HORIZONTAL BLADES 1/2" SPACING BLADES PARALLEL TO LONG DIMENSION	635	ALUMINUM		
E2	EXHAUST GRILLE DEVICE SIZE - 24" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM		
E3	EXHAUST GRILLE DEVICE SIZE - 12" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM		1
E4	EXHAUST GRILLE DEVICE SIZE - REFER TO DRAWING 45° HORIZONTAL BLADES 1/2" SPACING BLADES PARALLEL TO LONG DIMENSION	635	ALUMINUM	SURFACE MOUNT FRAME PC-12 BALANCING DAMPER	2
E5	EXHAUST GRILLE DEVICE SIZE - 12" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM	SURFACE MOUNT FRAME	

NOTES:

- DEVICE TO BE SURFACE MOUNTED IN CENTER OF ACOUSTIC CEILING PAD FOR LAY-IN APPLICATION.
- 2. DEVICE SURFACE MOUNTED TO END OF DUCTWORK.

FAN & ROOF VENTILATOR SCHEDULE

BASIS OF DESIGN - GREENHECK REFER TO SPECIFICATIONS FOR OTHER MANUFACTURERS

VFD DRIVEN MOTORS SHALL BE PROVIDED WITH SHAFT GROUNDING RINGS, VFD DUTY MOTORS.

REFER TO INSTALLATION DETAILS.

TAG	SERVICE	DESCRIPTION	MODEL NUMBER & SIZE	ROOF OPENING	CAPA	CITY	ELECTR	RICAL	ONNEC			CURB	FLOOF	<u></u>	GRE/		NOISC	ATION	MAL C	D ROC	ER CC	ONNE	ALON/ SPEED	ONTR	RIZEU ITY DA	
IAG	SERVICE	DESCRIPTION	MODEL NUMBER & SIZE	(L x W)	AIRFLOW (CFM)	E.S.P. (IN. W.C.)	MOTOR HP	V/PH		VFD	DIREC	BELT	BASE/ SUSPE	WALL	UL 762	HOH	EXPL(INSUL	THER	HINGE	POWD		MANU DIAL S	HOA C	GRAVITY NOTES	
EF-1	APPARATUS BAY	INLINE CENTRIFUGAL	SQ-18-M2-VG	-	5,875	1	3	208 / 3	•		•		•				•							• (1, 5	
EF-2	APPARATUS BAY	INLINE CENTRIFUGAL	SQ-90-VG	-	400	0.25	1/10	120 / 1	•				•				•								1	
EF-3	STORM SHELTER	INLINE CENTRIFUGAL	SQ-97-VG	-	100	0.5	1/4	120 / 1	•				•				•								1	
EF-4	TOG	INLINE CENTRIFUGAL	SQ-90-VG	12.5" x 12.5"	300	0.5	1/6	120 / 1	•				•				•							•	1, 6	
EF-5	LIVING QUARTERS	INLINE CENTRIFUGAL	SQ-99-VG	12.5" x 12.5"	525	0.75	1/4	120 / 1					•				•							•	1	
EF-6	HEAVY DECON	UPBLAST CENTRIFUGAL	CUE-080-VG	12.5" x 12.5"	225	0.5	1/10	120 / 1	•			•							•						1, 4,	
EF-7	KITCHEN HOOD	UPBLAST CENTRIFUGAL	CUE-100HP-VG	15.5" x 15.5"	500	1.5	1/2	120 / 1	•		•	•							•					• (1, 4	
IF-1	GEAR DRYER INTAKE	INLINE CENTRIFUGAL	SQ-95-VG	-	600	0.5	1/6	120 / 1					•				•							•	1	
IH-1	SCBA	ROOF HOOD	CRSI-8	10.5" x 10.5"	250	-	-	-				•							•						2, 3,	

3400

ELECTRIC

APPLICATION

ACCESSORIES & OPTIONS

CONTROLS

1. REFER TO HOA CONTROLLER DETAILS 1 & 2, H3.5 FOR INSTALLATION INFORMATION.

KITCHEN HOOD - KH-1 SCHEDULE

EXHAUST FAN POWERED THROUGH HOOD.

INTEGRATED FIRE SUPPRESSION SYSTEM

HOOD TO INCLUDE TEMPERATURE SENSOR WHICH WILL AUTOMATICALLY START EF-7 (REMOTE KITCHEN EF) WHEN

REFER TO DETAIL 3, SHEET H3.4 FOR INSTALLATION DIAGRAM.

INTEGRATED SYSTEM CONTROLS (INTERLOCK WITH

DRY CONTACTS FOR EXTERNAL DOAS UNIT CONTROL.

TOUCHSCREEN USER INTERFACE

REMOTE MANUAL PULL STATION

FIRÉ PIPING, GREASE FILTER

HOOD BY GREENHECK GRRS-W-36-T-G-O-N OR EQUAL BY DENLAR.

- 2. MAXIMUM 500 FPM THROAT
- 3. PROVIDE INSULATED, LOW VOLTAGE CONTROL DAMPER.

FIRE READY RESIDENTIAL FAN HOOD.

EXHAUST COLLAR

TEMPERATURE EXCEEDS 125° (ADJ)

HOOD POWERS EXHAUST FAN. 120V/1PH/8MCA/15MOCP

500 CFM EXHAUST RATE.

RECESSED LED LIGHTS

 3/4" GAS SOLENOID VALVE RANGE GAS SHUT OFF

- 4. FAN CURB COLOR SELECTED BY ARCHITECT.
- 5. FAN SIZED FOR FUTURE EXPANSION.
- 6. PROVIDE CONSTANT PRESSURE MONITOR.

FEATURES:

RADIANT HEATER SCHEDULE - GAS

GENERAL NOTES

BASIS OF DESIGN: RE-VERBER-RAY

EQUAL BY: REFER TO SPECIFICATION

UNIT NO.	MODEL#	SERVICE	MOUNTING	MODULATING RANGE	AMPS	VOLT/PH	DIMENSIONS	WEIGHT	MOUNTING	NOTES
ONIT NO.	WODEL#	SERVICE	WIOONTING	(MBH)	AWIFS	VOLITEII	L	(LBS)	HEIGHT	NOTES
RH-1	MP3-25-80	APPARATUS BAY	CEILING SUSPENDED	65 - 80	5	120 / 1	25' - 5"	145	16'-6"	1, 2, 3
RH-2	MP3-25-80	APPARATUS BAY	CEILING SUSPENDED	65 - 80	5	120 / 1	25' - 5"	145	16'-6"	1, 3
RH-3	MP3-50-150	APPARATUS BAY	CEILING SUSPENDED	110 - 150	5	120 / 1	50' - 9"	235	16'-6"	1, 3
RH-4	MP3-50-150	APPARATUS BAY	CEILING SUSPENDED	110 - 150	5	120 / 1	50' - 9"	235	16'-6"	1, 3

- 1. PROVIDED WITH MICROPROCESSOR BASED THERMOSTAT, MODEL #TH-PC-M.
- 2. PROVIDE SIDE SHIELD TO PROJECT HEAT AWAY FROM WALL.

GAS FIRED UNIT HEATER SCHEDULE

GENERAL NOTES

	BASIS OF DESIGN: MODINE										
LINIT NO	MODEL #	MOUNTING	(MBH)	CEM	AMDO	VOLT/DU		DIMENSIONS	3	WEIGHT	NOTES
UNIT NO.	MODEL#	MOUNTING	INPUT/OUTPUT	CFM	AMPS	VOLT/PH	L (IN.)	D (IN.)	H (IN.)	WEIGHT	NOTES
GUH-1	PTC-215	CEILING SUSPENDED	215 / 202	3,865	9.15	120 / 1	42.5	22	31	265	1, 2, 3
NOTES:											

- 1. CONDENSATE NEUTRALIZING KIT.
- 2. STANDARD CONVENIENCE PACKAGE WITH DISCONNECT SWITCH, CONDENSATE PUMP, AND LOW VOLTAGE THERMOSTAT CONTACTS.
- 3. STAINLESS STEEL HEAT EXCHANGER.

ELECTRIC UNIT HEATER SCHEDULE

GENERAL NOTES

	BASIS OF DESIGN: RAYWALL										
	DECODIDEION	MANUE ACTURED / MORE	MOUNTING	104	MDII	AIR FLOW	I	DIMENSIONS	3	VOLTAGE /	NOTES
UNIT NO.	DESCRIPTION	MANUFACTURER / MODEL	MOUNTING	KW	MBH	(CFM)	L (IN.)	D (IN.)	H (IN.)	PHASE	NOTES
EUH-1	MIDSIZED FAN FORCED WALL HEATER	RAYWALL 305 SERIES #E3055T2DWB	WALL RECESSED	1.5	5	100	9-1/4"	3-5/8"	12-1/8"	120 / 1	2, 3
EUH-2	VERTICAL MOUNTED FAN FORCED UNIT HEATER	RAYWALL 5100 SERIES #F2F5105N	WALL HUNG	5	17.1	400	14-15/32"	6-1/2"	17-3/4"	208 / 3	1, 2, 3
EUH-3	FAN FORCED WALL HEATER	RAYWALL AFA # AFA840D	WALL RECESSED	4	13.6	175	14-1/8"	4"	19-1/2"	208 / 3	2, 3

- NOTES:
- 1. WALL MOUTING BRACKET #A5105.
- 2. DISCONNECT SWITCH WITH UNIT. 3. INTEGRAL THERMOSTAT.

ELECTRIC DUCT REHEAT COIL SCHEDULE

GENERAL NOTES

	BASIS OF DESIGN: RAYWALL													
			DUGT	DUGT				AID EL OW		ı	DIMENSIONS	5	WEIGHT	
UNIT NO.	DESCRIPTION	MANUFACTURER / MODEL	DUCT WIDTH	DUCT HEIGHT	eat (°F)	LAT (°F)	KW	AIR FLOW (CFM)	VOLT / PH	L (IN.)	D (IN.)	H (IN.)	WEIGHT (LBS)	NOTES
DH-1	DUCT MOUNTED HEATER	RAYWALL # 8PD10-1810-1-3	18"	10"	0	50	15	600	208 / 3	11-1/2"	9-1/8"	11"	27	1, 2

1. INTEGRAL DISCONNECT SWITCH.

2. UNIT MOUNTED THERMOSTAT AND DUCT PROBE.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

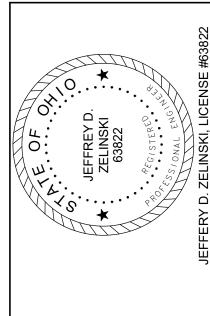
SSOCIATES IN ENGINEERS SSO ∞ FREYTAG ARCHITE(

SIDNE

TIONS FIRE

CONSTRUCTION

0



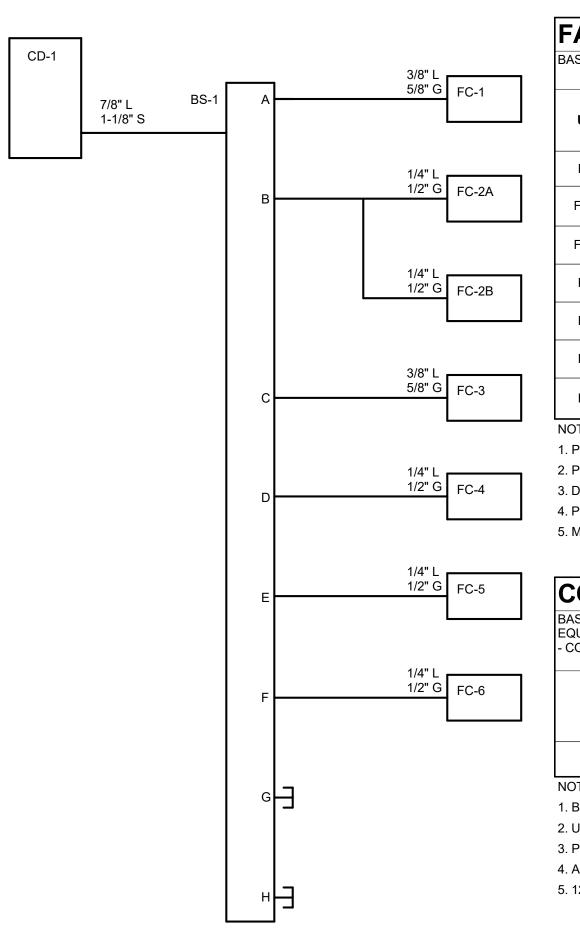
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or

REVISIONS

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY

EQUIPMENT SCHEDULES



FAN COIL UNIT SCHEDULE

BASIS OF DESIGN: MITSUBISHI/TRANE
- COOLING CAPACITIES BASED ON 90°F DB / 74°F WB OUTDOOR AIR TEMP., HEATING BASED UPON -1°F OUTDOOR AIR TEMP.

	- COOLING CAPACITI			1 22.2001(7		,	1025 01 (I					
			CONDENSING	BRANCH				COOLIN	G CAPACIT	Υ	HEATING	CAPACITY	REFRIGER	RANT PIPING	EL	ECTRICA	L	CABI	NET DIMEN	ISIONS	UNIT WEIGHT		
UNIT	DESCRIPTION	MOUNTING	UNIT	SELECTOR	CFM	E.S.P.	SENS. MBH	TOTAL MBH	EAT (DB/WB)	LAT (DB/WB)	МВН	EAT / LAT	GAS	LIQUID	V/PH	MCA	МОСР	WIDTH [IN]	DEPTH [IN]	HEIGHT [IN]	(LBS)	MODEL NO.	NOTES
FC-1	MULTI-POSITION AHU	VERTICAL	CD-1	BS-1	735	0.8	17	21.6	75 / 62.4	52.6 / 52	26	70 / 104	5/8	3/8	208 / 1	3	15	17	21 - 5/8	50 - 1/4	113	TPVFYP024AM141A	1, 3
FC-2A	CEILING CASSETTE	WALL	CD-1	BS-1	297	-	8	10.9	75 / 62.4	52 / 52	12.9	70 / 107	1/2	1/4	208 / 1	0.2	15	30 - 7/16	9 - 11/32	11 - 25/32	25	TPKFYP012NLMU-E	1, 2, 3, 4, 5
FC-2B	CEILING CASSETTE	WALL	CD-1	BS-1	297	-	8	10.9	75 / 62.4	52 / 52	12.9	70 / 107	1/2	1/4	208 / 1	0.2	15	30 - 7/16	9 - 11/32	11 - 25/32	25	TPKFYP012NLMU-E	1, 2, 3, 4, 5
FC-3	MULTI-POSITION AHU	VERTICAL	CD-1	BS-1	735	0.8	17	21.6	75 / 62.4	52.6 / 52	26	70 / 104	5/8	3/8	208 / 1	3	15	17	21 - 5/8	50 - 1/4	113	TPVFYP024AM141A	1, 3
FC-4	MULTI-POSITION AHU	VERTICAL	CD-1	BS-1	585	0.8	13.5	16	75 / 62.4	52.7 / 52	19	70 / 101	1/2	1/4	208 / 1	3	15	17	21 - 5/8	50 - 1/4	113	TPVFYP018AM141A	1, 3
FC-5	MULTI-POSITION AHU	VERTICAL	CD-1	BS-1	400	0.8	9	10.8	75 / 62.4	52.2 / 52	13	70 / 101	1/2	1/4	208 / 1	3	15	17	21 - 5/8	50 - 1/4	113	TPVFYP012AM141A	1, 3
FC-6	CEILING CASSETTE	CEILING	CD-1	BS-1	335	-	8	10.8	75 / 62.4	52 / 52	13	70 / 101	1/2	1/4	208 / 1	0.3	15	22 - 7/16	22 - 7/16	8 - 3/16	36	TPLFYP012FM140A	1, 2, 3

NOTES:

1. PROVIDE FLUSH MOUNT REMOTE THERMOSTAT.

2. PROVIDE CONDENSATE PUMP.

3. DISCONNECT WITH UNIT.

4. PROVIDE WHITE, WALL COVER RACEWAY FOR REFRIGERANT AND CONDENSATE PIPING.

5. MOUNT 9'-0" A.F.F.

CONDENSING UNIT SCHEDULE

BASIS OF DESIGN: MITSUBISHI/TRANE

EQUAL BY: REFER TO SPECIFICATION - COOLING CAPACITIES BASED ON 90°F DB / 74°F WB OUTDOOR AIR TEMP., HEATING BASED UPON -1°F OUTDOOR AIR TEMP.

U	UNIT	BRANCH SELECTOR	AREA SERVED	COOLING CAPACITY	HEATING CAPACITY	REF	RIGERANT P	PIPING	MAX PIPING LENGTH		REFRIGERANT	ı	ELECTRIC	AL	Ι	DIMENSION	S	UNIT WEIGHT	MODEL NO.	NOTES
	UNIT	SERVED	AREA SERVED	MBH @ 91°F	MBH @ -1°F	GAS	LIQUID	H/L PRESSURE	FROM BS-1 [FT]	TYPE	ADDITIONAL CHARGE (LBS)	V/PH	MCA	МОСР	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)	(LBS)	MODEL NO.	NOTES
	CD-1	BS-1	LIVING QUARTERS	131	149	1 - 1/8	7/8	NOTE 1	100	R-410a	36.2	208/3	54 / 54	90 / 90	98 - 1/2	29 - 3/8	71 - 5/8	1218	TURYH1443BN40AN	1, 2, 3, 4, 5
	LOTE O			•	•		•		•				,			•		· · · · · · · · · · · · · · · · · · ·		•

1. BASIS OF DESIGN UNIT DOES NOT REQUIRE A HOT GAS REHEAT PIPE FROM THE OUTDOOR UNIT TO BS-1. THE NON-BASIS OF DESIGN SYSTEM MAY REQUIRE THIS PIPE; HC SHALL PROVIDE ALL REQUIRED PIPING COMPONENTS IF A NON-BASIS OF DESIGN UNIT IS PROVIDED.

2. UNIT REQUIRES 2 POWER CONNECTIONS AND TWINNING KIT.

3. PROVIDE HAIL GUARD.

4. ADDITIONAL REFRIGERANT CHARGE BY H.C.

5. 12" SUPER STAND PROVIDED WITH UNIT.

VRF SYSTEM - PIPING DIAGRAM

BRANCH SELECTOR BOX SCHEDULE

BASIS OF DESIGN: MITSUBISHI/TRANE

EQUAL BY	REFER TO SPECIFICATI	ON															
	CONDENSINGUAL	CONDENSING UNIT		ELECTRICAL CABINET DIMENSIONS				ELECTRICAL CABINET DIMENSIONS							UNIT		
UNIT	SERVED	AREA SERVED	# OF CIRCUITS	V/PH	MCA	МОСР	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)	WEIGHT (LBS)	MODEL NO.	NOTES					
BS-1	CD-1	LIVING QUARTERS	8	208 / 1	0.8	15	35 - 7/8	21 - 1/2	9-7/8	106	TCMBM0108JA11N4						

GENERAL NOTES UNITS ARE VARIABLE AIR VOLUME CV - CONSTANT VOLUME VV - VARIABLE VOLUME DESIGN BASIS- PRICE MODLE SDV

UNITS WITH REHEAT SHALL HAVE SCR CONTROL & DISCONNECT

AIR TERMINAL UNITS SCHEDULE

HEATING CONDITIONS BASED ON 55 DEG F. EAT, 95 DEG F. LAT.

	COIL PRESS	DINCE DINOF.	. U.J W.G.				
UNIT. NO.	INLET SIZE	TYPE	MIN. AIRFLOW [CFM]	MAX. AIRFLOW [CFM]	kW	VOLTAGE / PHASE	SEE NOTES
1-1	5	CV	225	225	2.8	208 / 3	
1-2	5	CV	85	85	1.1	208 / 3	
1-3	7	VV	0	500	6.3	208 / 3	1
1-4	10	CV	825	825	-	-	
1-5	6	CV	300	300	3.8	208 / 3	

NOTES:

DOAS UNIT SCHEDUL	E
UNIT TAG	DOAS-1
BASIS OF DESIGN	MITSUBISHI
SERVICE	LIVING QUARTE
DESCRIPTION	PACKAGED DC UNIT
MOUNTING	GROUND
EVAPORATOR FAN	
AIRFLOW (CFM)	1,935
ESP. (" W.G.)	1.5"
FAN TYPE	DIRECT DRIV
VARIABLE FREQUENCY DRIVE	YES
DISCHARGE LOCATION	SIDE
FILTER	
PRE-FILTER	2" MERV 8
FINAL FILTER	4" MERV 13
COOLING - BASED ON 90 / 74 (DB/WB) O.A.	
TOTAL (MBH)	131
SENSIBLE (MBH)	76
ENTER. AIR (DB/WB)	90 / 74
SUPPLY AIR (DB/WB)	54.4 / 54.3
ISMRE	8.4
HOT GAS REHEAT	
TOTAL (MBH)	67
ENTER. AIR (DB/WB)	54.4 / 54.3
LEAV. AIR (DB)	86.2
HEATING - REQ. NATURAL GAS INPUT PRES MIN./14" W.C. MAX. -BASED ON 0°F O.A.	SURE: 4.5" W.C.
GAS INPUT (MBH)	200
OUTPUT (MBH)	162
ENTER. AIR DB	0
SUPPLY AIR (DB)	77.5
ELECTRIC	
MCA	53.8
MOCP	60
VOLTAGE/HZ/PHASE	208 / 3
PHYSICAL UNIT DATA	
LENGTH (IN.)	98.6"
WIDTH (IN.)	86.4"
HEIGHT - NOT INCLUDING CURB (IN.)	69.5"
MAX UNIT OP. WEIGHT (LBS)	2,172
UNIT OPTIONS	
ECONOMIZER HOOD	
MIN. O.A. HOOD	•
CONSTANT AIR VOLUME	
VARIABLE AIR VOLUME	•
SINGLE SPEED / STAGED COMPRESSORS	
DIGITAL SCROLL COMPRESSORS	
INVERTER DUTY COMPRESSOR	•
STAINLESS STEEL HEAT EXCHANGER	•
RETURN AIR SMOKE DETECTOR	
CO2 SENSOR D.V.C.	
14" ROOF CURB ADAPTER	
POWERED RELIEF FAN	

NOTES:

- 1. SEE ROOFTOP UNIT MOUNTING DETAIL, DETAIL 1, SHEET H3.6.
- 2. COOLING COIL CONDENSATE TRAP PER DETAIL 4, SHEET H3.1
- 3. REFER TO H4.1 FOR UNIT CONTROLS.

DISCHARGE AIR TEMP. CONTROL

ASSOCIATES INC

 ∞

FREYTAG ARCHITE(

SIDNEY

OF

 \Box

VIIONS

FIRE

ENGINEERS

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS
PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/13/24

DRAWN BY CHECKED BY
DJZ JDZ

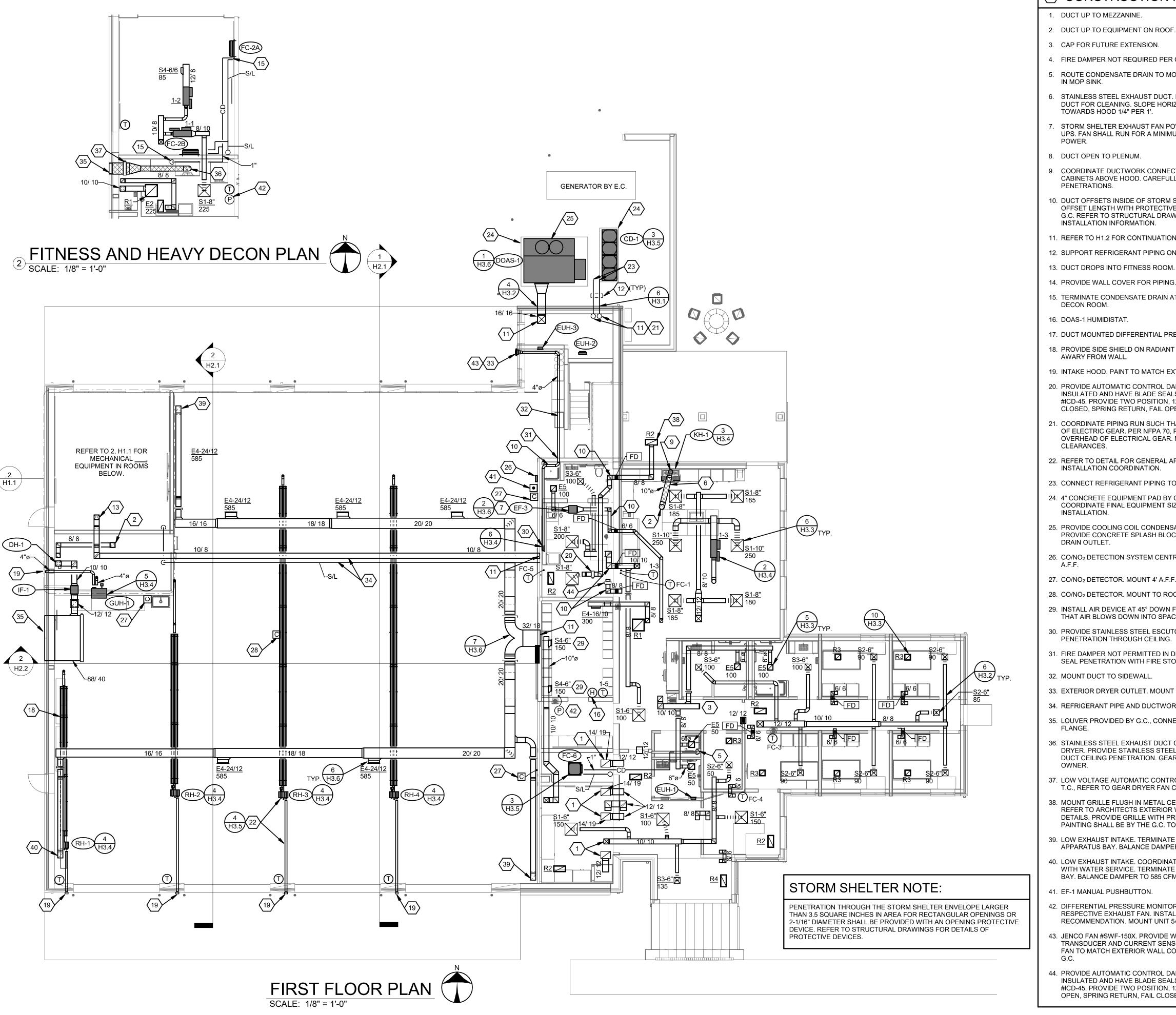
VRF SYSTEM SCHEDULE

NAUMAN & ZELINSKI LLC.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015

^{1.} UNIT SERVES KITCHEN HOOD. REFER TO CONTROL DIAGRAM FOR ADDITIONAL INFORMATION.



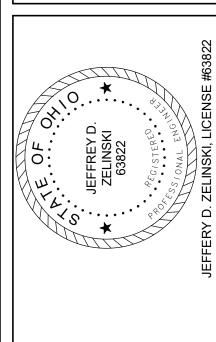
(#) CONSTRUCTION NOTES

- 1. DUCT UP TO MEZZANINE.
- 3. CAP FOR FUTURE EXTENSION.
- 4. FIRE DAMPER NOT REQUIRED PER OBC.
- 5. ROUTE CONDENSATE DRAIN TO MOP SINK. TERMINATE DRAIN IN MOP SINK.
- 6. STAINLESS STEEL EXHAUST DUCT. PROVIDE ACCESS DOOR IN DUCT FOR CLEANING. SLOPE HORIZONTAL RUN BACK TOWARDS HOOD 1/4" PER 1'.
- STORM SHELTER EXHAUST FAN POWERED THROUGH LIGHT UPS. FAN SHALL RUN FOR A MINIMUM OF 2 HOURS ON UPS
- 8. DUCT OPEN TO PLENUM.
- 9. COORDINATE DUCTWORK CONNECTION TO HOOD THROUGH CABINETS ABOVE HOOD. CAREFULLY COORDINATE ALL DUCT PENETRATIONS.
- 10. DUCT OFFSETS INSIDE OF STORM SHELTER. COORDINATE OFFSET LENGTH WITH PROTECTIVE SHROUD PROVIDED BY G.C. REFER TO STRUCTURAL DRAWINGS FOR SHROUD INSTALLATION INFORMATION.
- 11. REFER TO H1.2 FOR CONTINUATION.
- 12. SUPPORT REFRIGERANT PIPING ON GRADE AS REQUIRED.
- 13. DUCT DROPS INTO FITNESS ROOM.
- 14. PROVIDE WALL COVER FOR PIPING.
- 15. TERMINATE CONDENSATE DRAIN AT FLOOR DRAIN IN HEAVY
- 16. DOAS-1 HUMIDISTAT.
- 17. DUCT MOUNTED DIFFERENTIAL PRESSURE SENSOR.
- 18. PROVIDE SIDE SHIELD ON RADIANT HEATER TO DEFLECT HEAT AWARY FROM WALL.
- 19. INTAKE HOOD. PAINT TO MATCH EXTERIOR WALL COLOR.
- 20. PROVIDE AUTOMATIC CONTROL DAMPER. DAMPER SHALL BE INSULATED AND HAVE BLADE SEALS, EQUAL TO GREENHECK #ICD-45. PROVIDE TWO POSITION, 120V ACTUATOR; POWERED CLOSED, SPRING RETURN, FAIL OPEN.
- 21. COORDINATE PIPING RUN SUCH THAT PIPE IS NOT OVERHEAD OF ELECTRIC GEAR. PER NFPA 70, PIPING SHALL NOT BE RUN OVERHEAD OF ELECTRICAL GEAR. MAINTAIN ALL REQUIRED CLEARANCES.
- 22. REFER TO DETAIL FOR GENERAL APPARATUS BAY EQUIPMENT INSTALLATION COORDINATION.
- 23. CONNECT REFRIGERANT PIPING TO CONDENSING UNIT.
- 24. 4" CONCRETE EQUIPMENT PAD BY G.C. H.C. SHALL COORDINATE FINAL EQUIPMENT SIZE WITH G.C. PRIOR TO PAD INSTALLATION.
- 25. PROVIDE COOLING COIL CONDENSATE TRAP FOR DOAS-1. PROVIDE CONCRETE SPLASH BLOCK BELOW CONDENSATE DRAIN OUTLET.
- 26. CO/NO₂ DETECTION SYSTEM CENTRAL CONTROLLER. MOUNT 4'
- 27. CO/NO₂ DETECTOR. MOUNT 4' A.F.F.
- 28. CO/NO₂ DETECTOR. MOUNT TO ROOF GIRDER TRUSS.
- 29. INSTALL AIR DEVICE AT 45° DOWN FROM HORIZONTAL SUCH THAT AIR BLOWS DOWN INTO SPACE.
- 30. PROVIDE STAINLESS STEEL ESCUTCHEON AT DUCT PENETRATION THROUGH CEILING.
- 31. FIRE DAMPER NOT PERMITTED IN DRYER DUCT PER OMC 504.2. SEAL PENETRATION WITH FIRE STOPPING SYSTEM.
- 32. MOUNT DUCT TO SIDEWALL.
- 33. EXTERIOR DRYER OUTLET. MOUNT 10'-6" MIN. A.F.F.
- 34. REFRIGERANT PIPE AND DUCTWORK RUN TIGHT TO DECK.
- 35. LOUVER PROVIDED BY G.C., CONNECT DUCTWORK TO DUCT FLANGE.
- 36. STAINLESS STEEL EXHAUST DUCT CONNECTION TO GEAR DRYER. PROVIDE STAINLESS STEEL ESCUTCHEON AROUND DUCT CEILING PENETRATION. GEAR DRYER FURNISHED BY
- 37. LOW VOLTAGE AUTOMATIC CONTROL DAMPER PROVIDED BY T.C., REFER TO GEAR DRYER FAN CONTROL DIAGRAM.
- 38. MOUNT GRILLE FLUSH IN METAL CEILING OF PATIO CANOPY. REFER TO ARCHITECTS EXTERIOR WALL PENETRATION DETAILS. PROVIDE GRILLE WITH PRIME COAT OF PAINT. FINAL PAINTING SHALL BE BY THE G.C. TO MATCH CEILNIG COLOR.
- 39. LOW EXHAUST INTAKE. TERMINATE DUCT 1' A.F.F. OPEN TO APPARATUS BAY. BALANCE DAMPER TO 585 CFM.
- 40. LOW EXHAUST INTAKE. COORDINATE TERMINATION HEIGHT WITH WATER SERVICE. TERMINATE DUCT OPEN TO APPARATUS BAY. BALANCE DAMPER TO 585 CFM.
- 41. EF-1 MANUAL PUSHBUTTON.
- 42. DIFFERENTIAL PRESSURE MONITOR PROVIDED WITH RESPECTIVE EXHAUST FAN. INSTALL PER MANUFACTURERS RECOMMENDATION. MOUNT UNIT 54" A.F.F.
- 43. JENCO FAN #SWF-150X. PROVIDE WITH PRESSURE TRANSDUCER AND CURRENT SENSOR ACCESSORIES. PAINT FAN TO MATCH EXTERIOR WALL COLOR, COORDINATE WITH
- 44. PROVIDE AUTOMATIC CONTROL DAMPER. DAMPER SHALL BE INSULATED AND HAVE BLADE SEALS, EQUAL TO GREENHECK #ICD-45. PROVIDE TWO POSITION, 120V ACTUATOR, POWERED OPEN, SPRING RETURN, FAIL CLOSED.

ENGINEERS CIATES SSO **FREYTAG** 出 ARC

TIONS SIDNE

0 CH



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or

REVISIONS

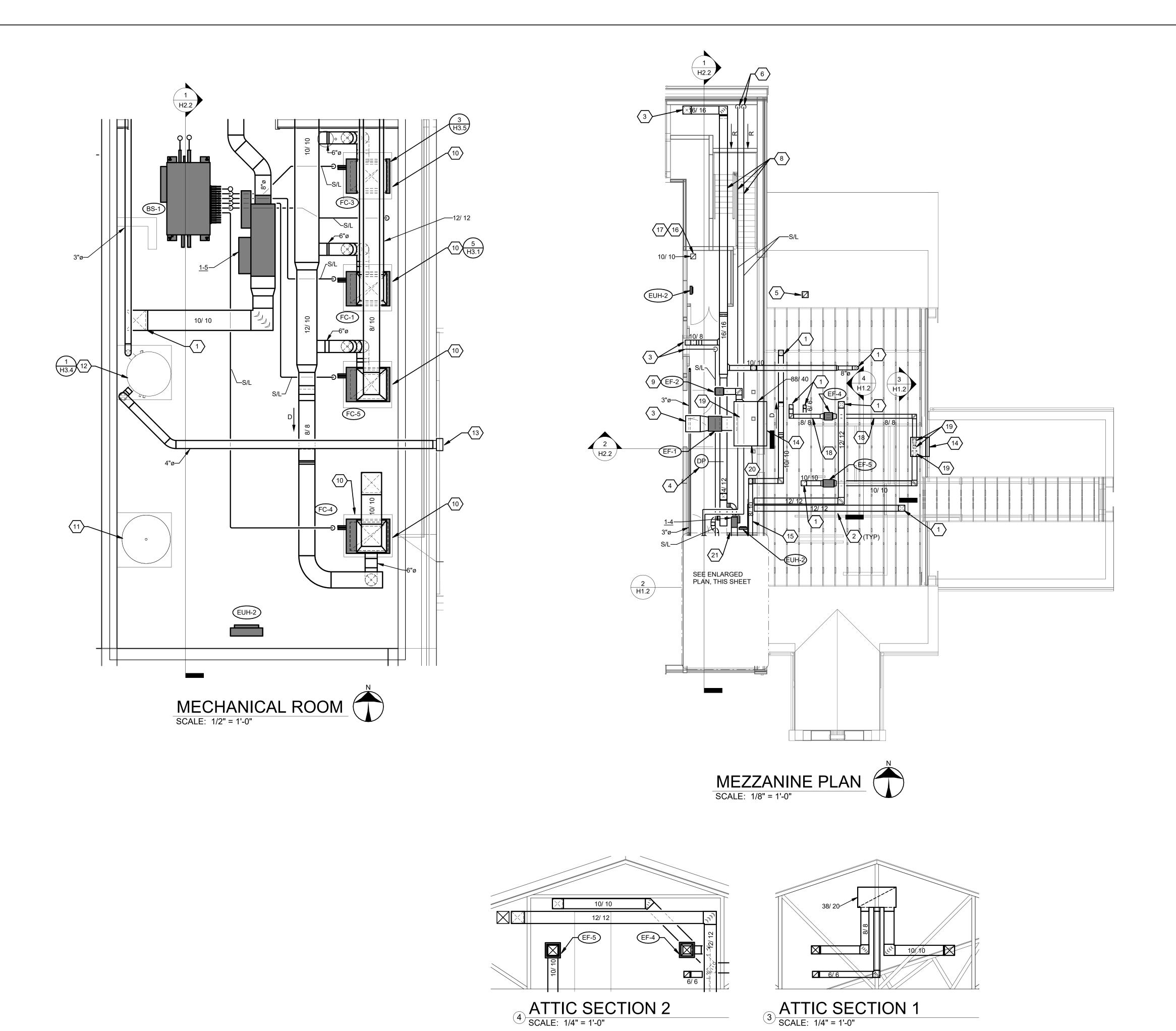
		COMM. NUMBER	DATE
		2207.02	11/13/24
		DRAWN BY	CHECKED B
_	ı	DJZ	JDZ

PLAN APPROVAL / BIDDING

1ST FLOOR PLAN

H1.1

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 SCALE: 1/8"=1'-0" PROJECT # 23015



CONSTRUCTION NOTES

- 1. DUCT DROPS DOWN TO FIRST FLOOR.

- 7. REFRIGERANT LINESET TO FAN COIL UNIT. ONE PIPE SHOWN FOR CLARITY, TWO PIPES TOTAL.
- 8. DUCT AND PIPE RISE PARALLEL WITH ROOF SLOPE.
- 9. FAN INTAKE OPEN TO MEZZANINE.
- 11. AIR COMPRESSOR BY P.C.
- 13. INTAKE HOOD. PAINT TO MATCH EXTERIOR WALL COLOR.
- 14. LOUVER PROVIDED BY G.C., CONNECT DUCTWORK TO DUCT
- 15. DUCTS RUN TIGHT TO WALL FACE. DUCT TURN AND
- 16. SCBA COMPRESSOR INTAKE DUCT. PROVIDE INSULATED CONTROL DAMPER IN DUCT. REFER TO CONTROL DIAGRAM FOR ADDITIONAL INFO.
- 17. DUCT OPEN TO ROOM. TERMINATE 2' A.F.F.
- 18. 6 / 6 EXHAUST DUCT RUNS BELOW EF-4 DUCTWORK.
- 19. EXHAUST DUCT TAPS INTO BOTTOM OF PLENUM.
- 20. PLENUM INSTALLED BETWEEN RAPELLING STEEL FRAMING.

- 2. COORDINATE DUCTWORK THROUGH TRUSS WEBBING.
- 3. REFER TO H1.1 FOR CONTINUATION.
- 4. DUCT MOUNTED STATIC PRESSURE SENSOR.
- UP TO ROOF.
- 6. REFRIGERANT PIPING FROM CONDENSING UNIT.

- 10. 4" CONCRETE EQUIPMENT PAD BY H.C.
- 12. HOT WATER HEATER BY P.C. INTAKE AND FLUE BY H.C., REFER TO DETAIL.

- PENETRATE INTO ADJACENT ATTIC.

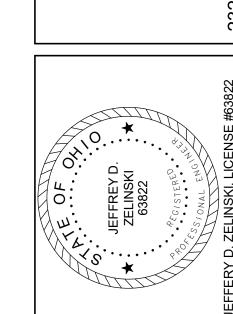
- 21. MOUNT EF-1 & EF-2 HOA CONTROLLER ON WALL, 5' A.F.F. PROVIDE PROTECTIVE CAGE OVER EACH CONTROLLER.

ENGINEERS SSOCIATES Ĭ H **FREYIAG**

ARC

TIONS SIDNE

0



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or loss caused thereby.

PLAN APPROVAL / BIDDING

REVISIONS

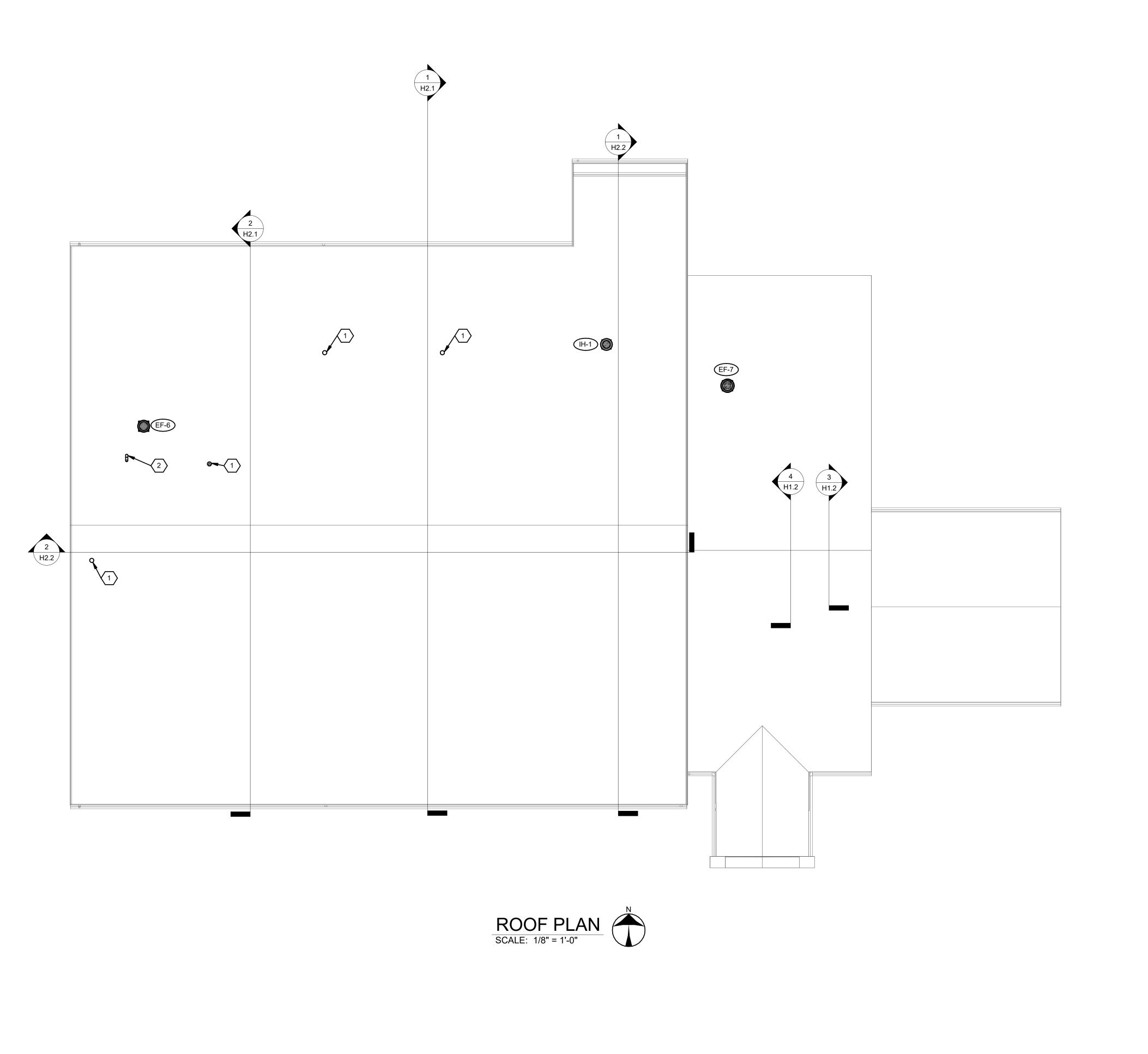
COMM. NUMBER DATE 2207.02 11/13/24 CHECKED BY DRAWN BY

MEZZANINE & MECHANICAL ROOM PLANS

H1.2

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

SCALE: 1/2"=1'-0" SCALE: 1/4"=1'-0" SCALE: 1/8"=1'-0"



(#) CONSTRUCTION NOTES

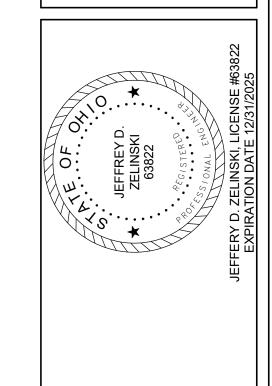
1. RADIANT HEATER FLUE.

2. GAS FIRED UNIT HEATER FLUE.

FREYTAG & ASSOCIATES INC. ARCHITECTS ENGINEERS

FIRE STATIONS 2 SIDNEY ОЕ CITY

NEW CONSTRUCTION OF



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents documents
and instruments and the Architect will not be
personally liable for any damage, harm or
loss caused thereby.

> REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY JDZ

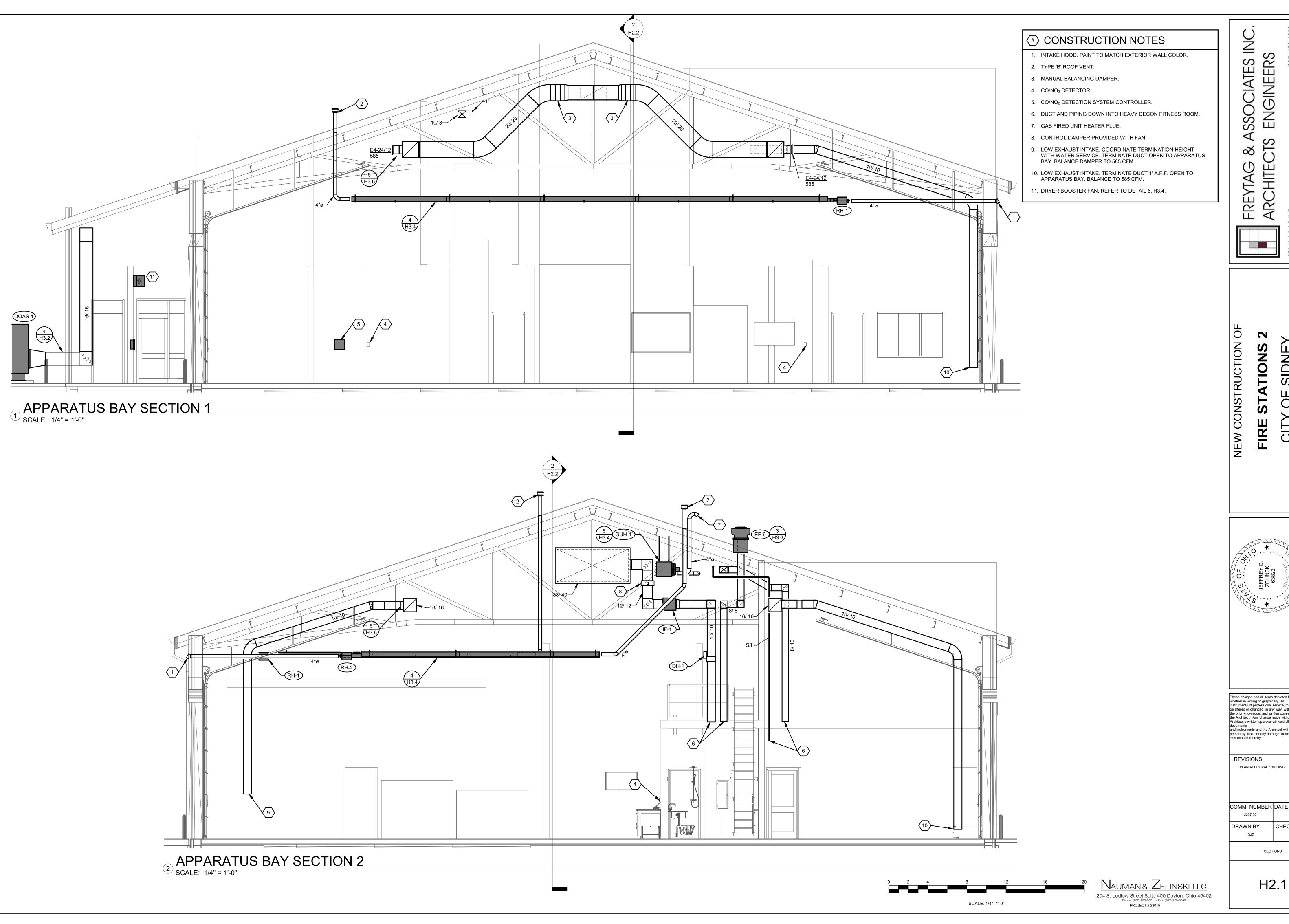
ROOF PLAN

H1.3

NAUMAN & ZELINSKI LLC.

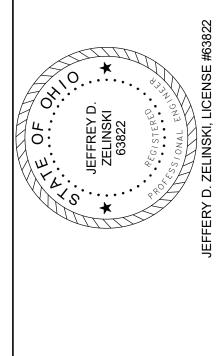
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821 ~ Fax: (937) 223-3849
PROJECT # 23015

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



SIDNEY OF

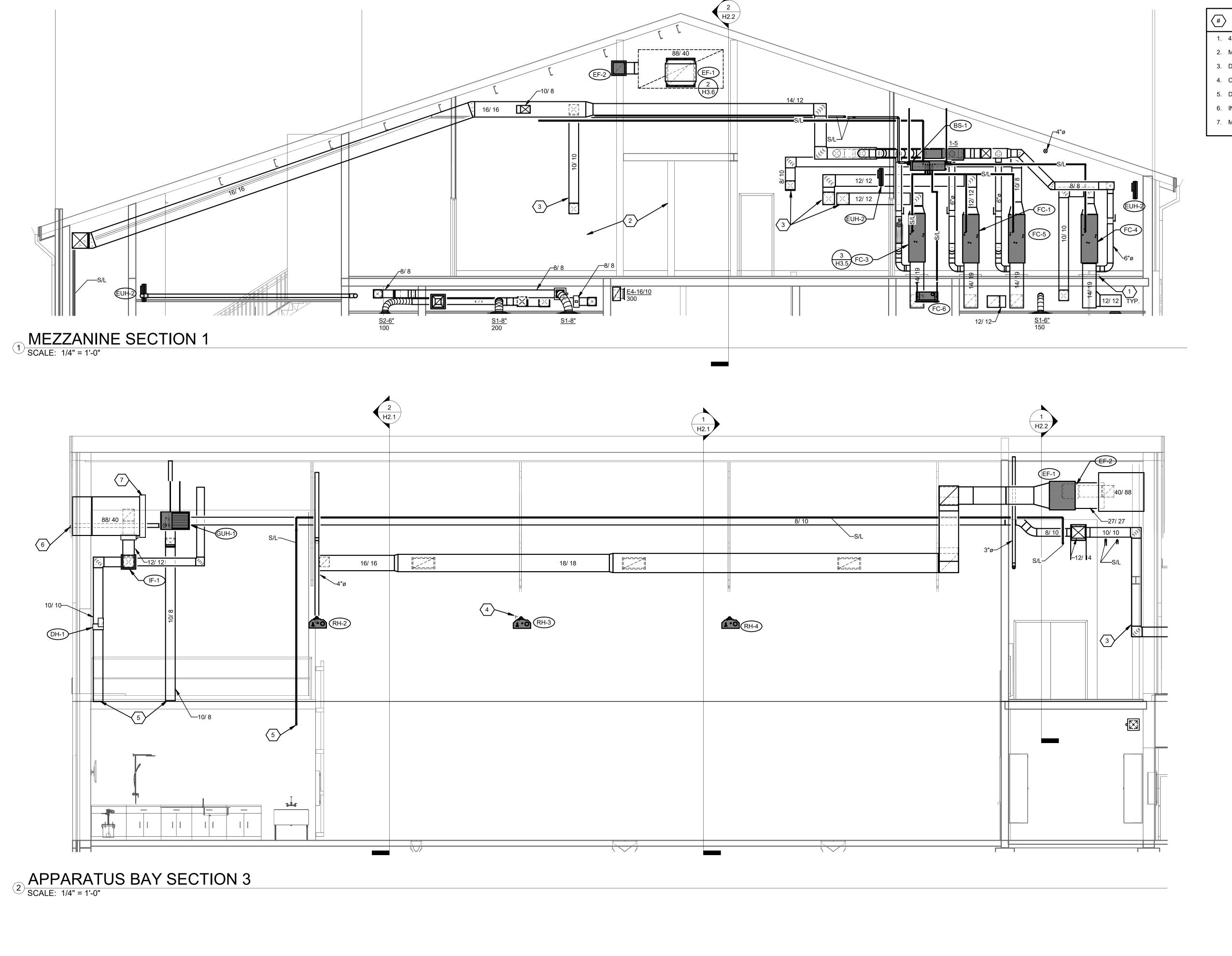
CH



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents. documents
and instruments and the Architect will not be
personally liable for any damage, harm or
loss caused thereby.

COMM. NUMBER	DATE
2207.02	11/13/24
DRAWN BY	CHECKED BY
DJZ	JDZ

SECTIONS



(#) CONSTRUCTION NOTES

- 1. 4" CONCRETE EQUIPMENT PAD BY H.C.
- 2. MAINTAIN 14' OVERHEAD CLEARANCE ON MEZZANINE LEVEL.
- 3. DUCTS RUN TIGHT TO WALL.
- 4. CO/NO₂ SENSOR. MOUNT TO BOTTOM OF TRUSS.
- 5. DUCT & PIPING DOWN INTO HEAVY DECON AND FITNESS ROOM.
- 6. INTAKE HOOD.
- 7. MOTORIZED CONTROL DAMPER.

FREYTAG & ASSOCIATES INC. ARCHITECTS ENGINEERS

226 N. MIAMI AVE. PO. BOX 220 SIDNEY, OHIO 45365

226 N. MIA PO. BOX 22 SIDNEY, OH

ONS 2 DNEY

FIRE STATIONS ?
CITY OF SIDNEY

NEW CONSTRUCTION OF

JEFFERY D. ZELINSKI, LICENSE #63822

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS

PLAN APPROVAL / BIDDING

COMM. NUMBER	DATE
2207.02	11/13/24
DRAWN BY	CHECKED BY
DJZ	JDZ

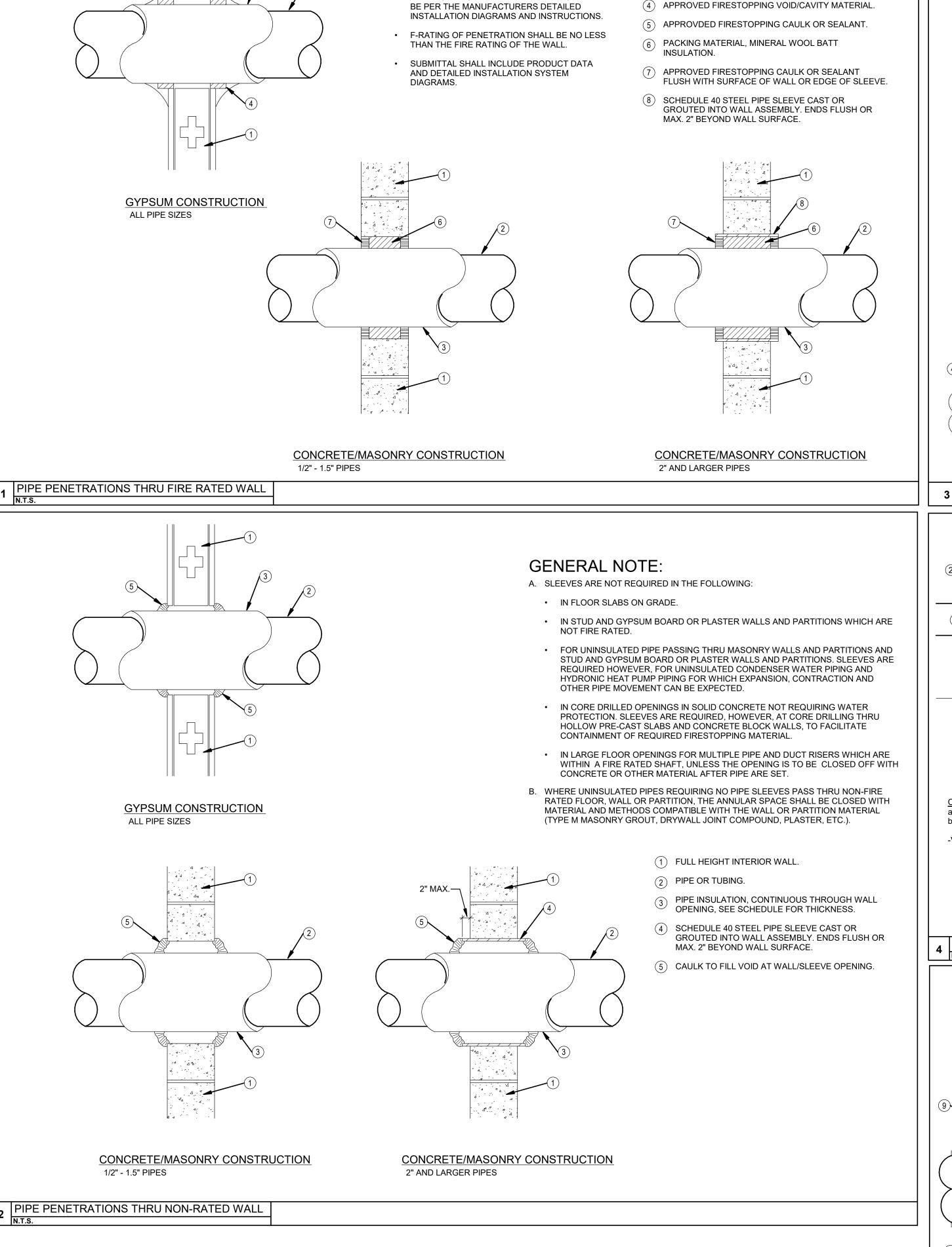
SECTIONS

H2.2

0 2 4 8 12 16 20

AUMAN & ZELINSKI LLC.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821 ~ Fax: (937) 223-3849
PROJECT # 23015



FIRESTOPPING MATERIALS/INSTALLATION

MANUFACTURERS: 3M FIRE PROTECTION

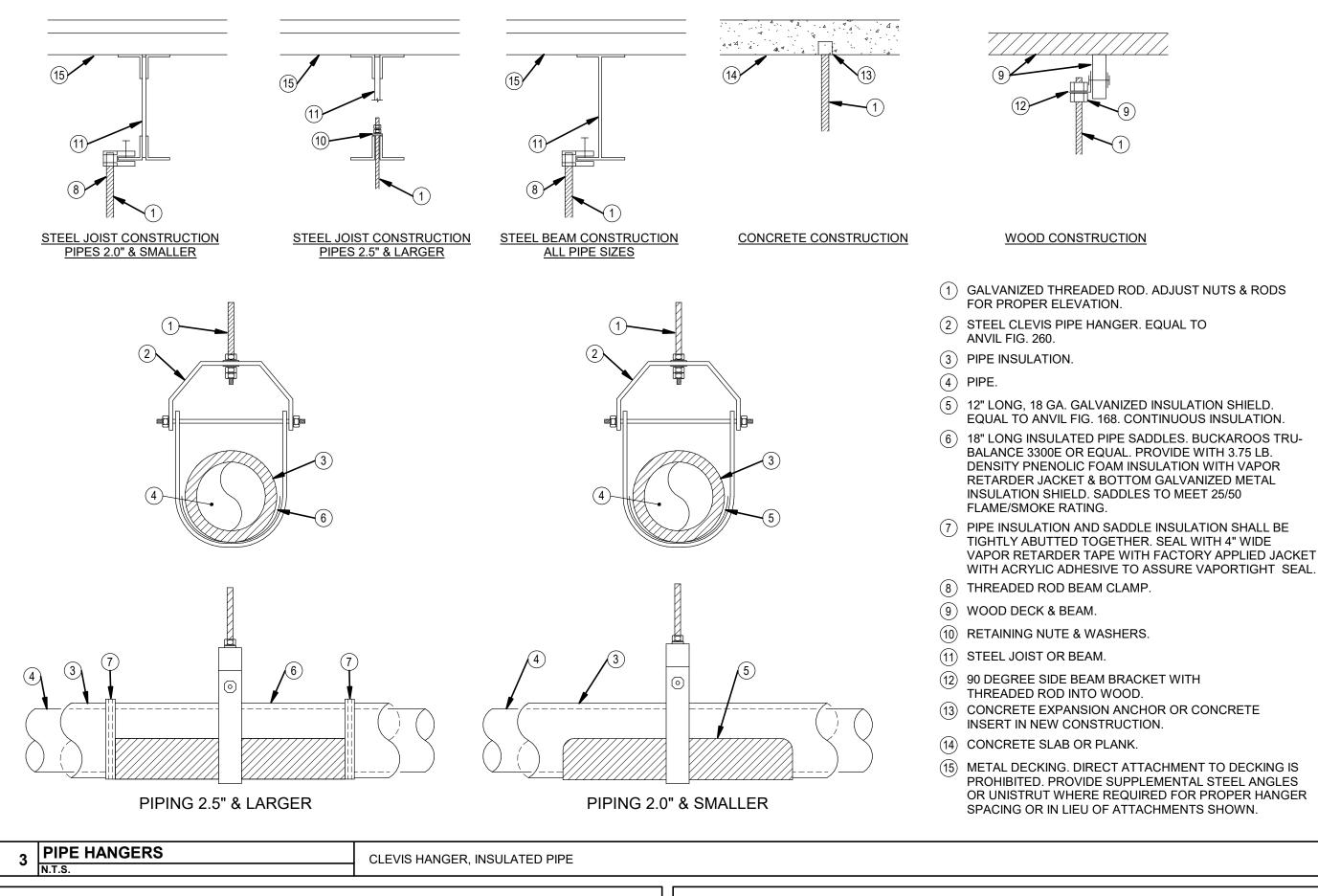
PRODUCTS OR HILTI FIRESTOP SYSTEMS

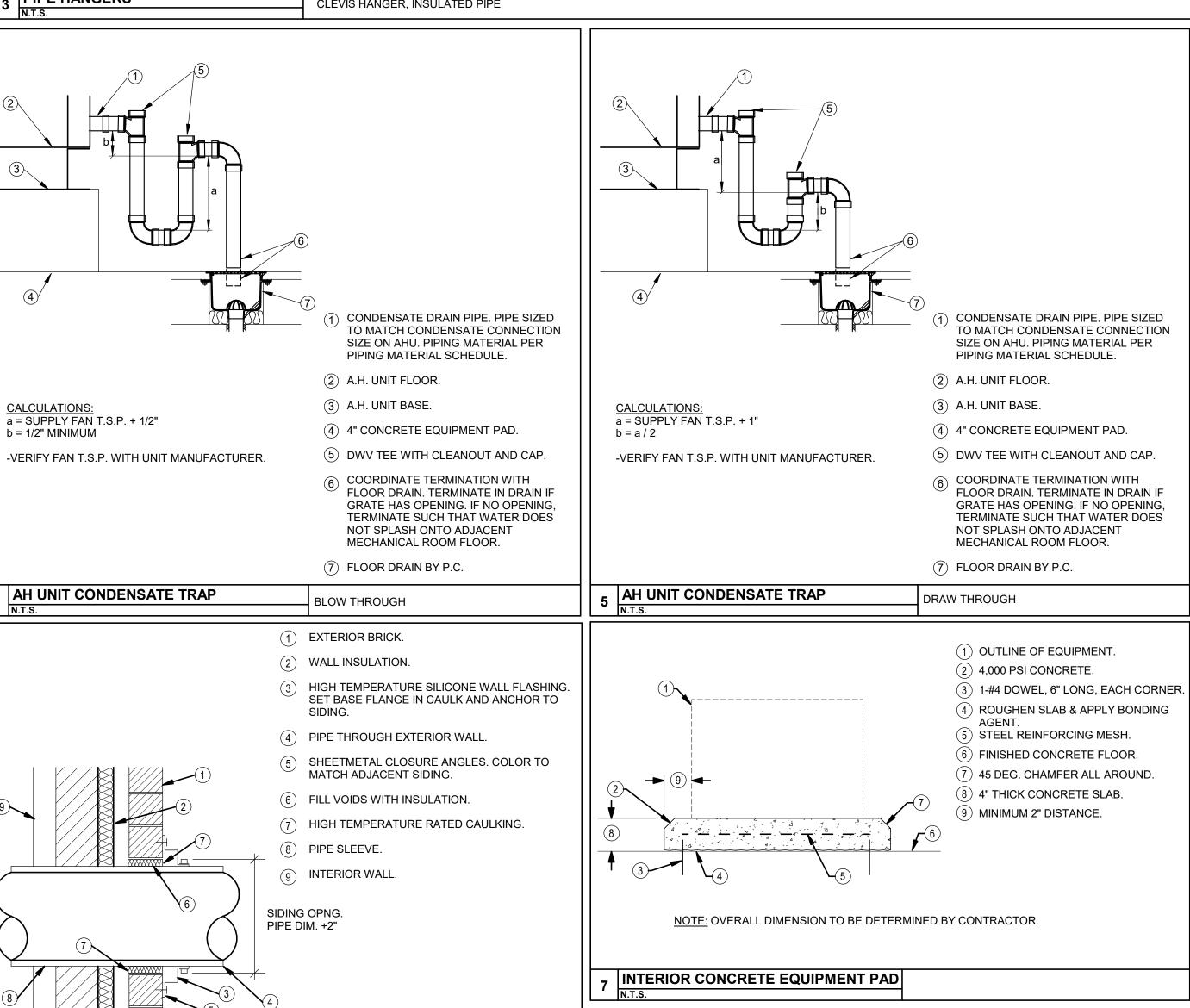
FIRESTOPPING MATERIAL INSTALLATION SHALL

1) RATED WALL ASSEMBLY.

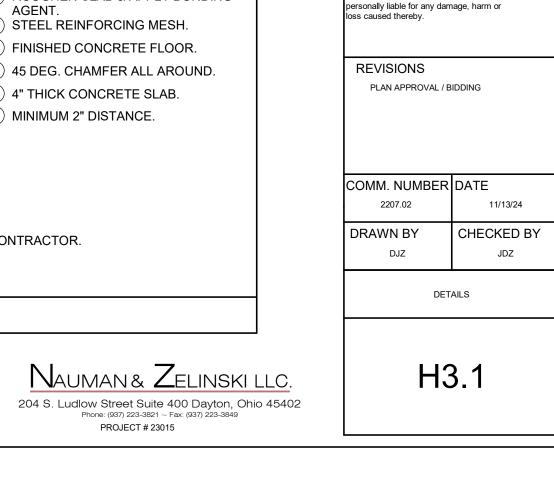
METALLIC PIPE OR TUBING.

3 PIPE INSULATION, CONTINUOUS THROUGH WALL OPENING, SEE SCHEDULE FOR THICKNESS.





PIPE PENETRATIONS EXTERIOR WALL



CIATES

SSO

FR

NGINEE

Ш

出出

AR

TIONS

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not

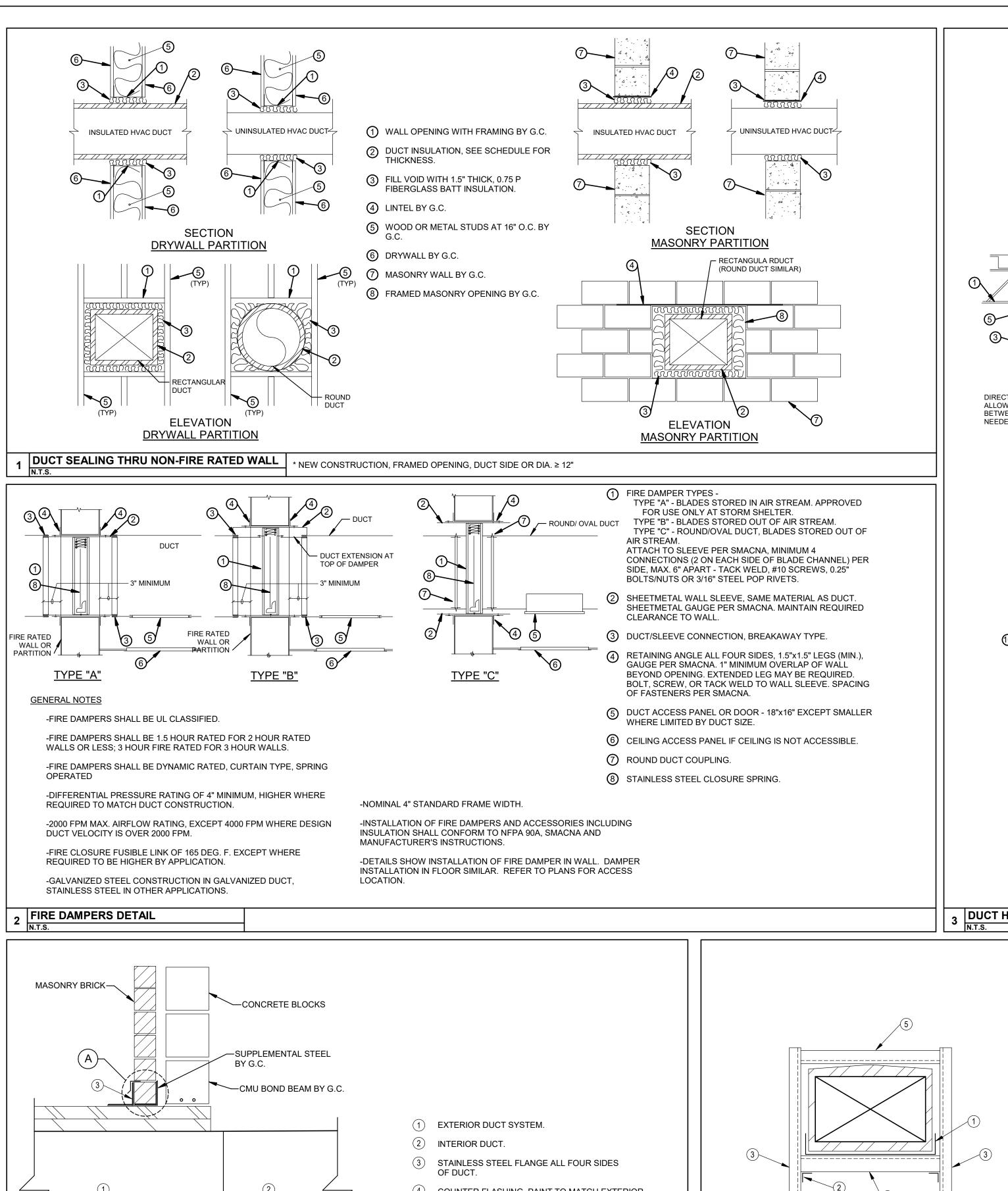
be altered or changed, in any way, without the prior knowledge, and written consent of

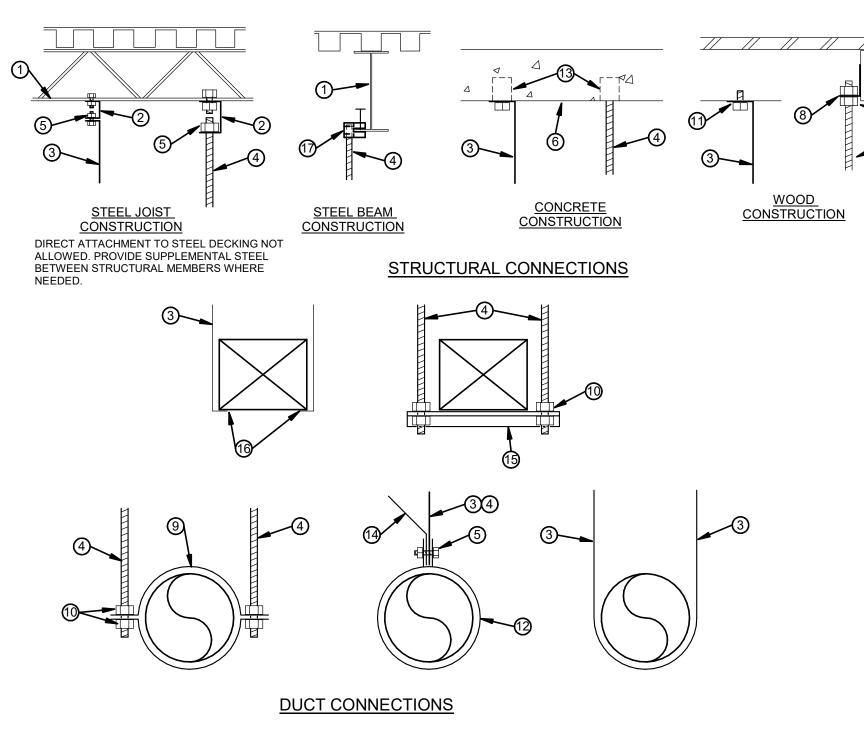
the Architect. Any change made without the Architect's written approval will void all such

and instruments and the Architect will not be

SIDNE

0





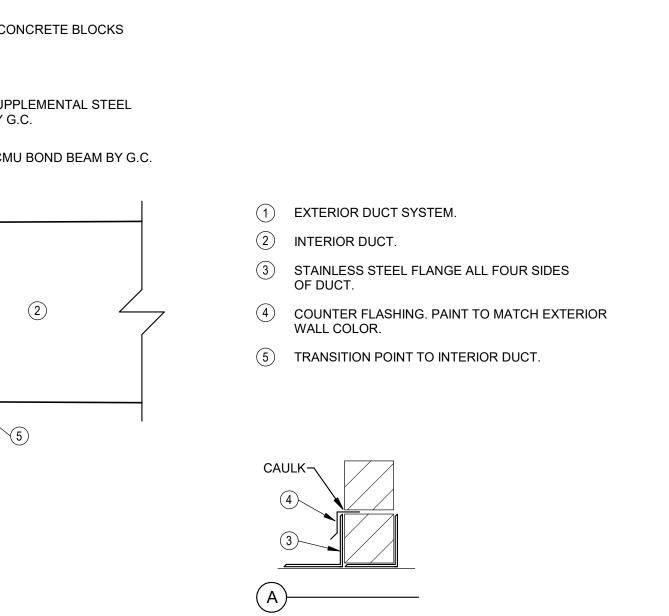
1 STEEL JOIST OR BEAM.

② UNISTRUT CHANNEL SPANNING TWO JOIST OR BEAMS. ATTACH TO BOTTOM CHORDS OF TWO BEAMS OR JOIST WITH "C"

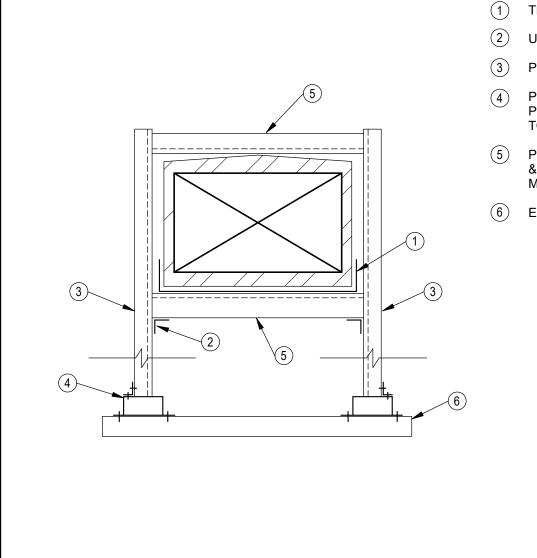
- 3 GALVANIZED SHEETMETAL STRAP HANGER.
- (4) GALVANIZED THREADED ROD.
- ⑤ GALVANIZED BOLT & NUT.
- 6 CONCRETE SLAB.
- 7 WOOD DECK & BEAM.
- 8 STEEL ANGLE CLIP ENGINEERED FASTENER FOR THREADED ROD INTO WOOD.
- TWO GALVANIZED BAND HANGERS.
- RETAINING NUTS & WASHERS.
- ATTACH TO BOTTOM OF WOOD BEAM OR JOIST WITH LAG BOLT.
- 12 ONE PIECE GALVANIZED STEEL BAND HANGER.
- (3) CONCRETE EXPANSION ANCHOR OR CONCRETE INSERT IN NEW CONSTRUCTION.
- 14 SEISMIC SWAY BRACE ATTACHED TO STRUCTURE.
- (5) PAINTED STEEL UNISTRUT CHANNEL.
- (16) GALVANIZED STEEL RESTRAINT PER SMACNA REQUIREMENTS.
- (7) THREADED ROD BEAM CLAMP.

ALL HANGERS & SUPPORT OF DUCT SHALL BE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS SECOND ADDITION - 1995.

DUCT HANGERS & SUPPORTS METAL STRAP & ROD HANGERS



THERMADUCT EXTERIOR WALL PENETRATION



THERMADUCT SUPPORT ON GRADE

- (1) THERMADUCT W/12" LONG SADDLE.
- UNISTRUT 90 DEGREE SUPPORT CLIP.
- (3) PVC-COATED UNISTRUT SUPPORT.
- 4 PVC-COATED UNISTRUT POST BASE. PROVIDE ATTACHMENT CLIP. FASTEN TO CURB, CAP & SEAL WATERTIGHT.
- 5 PVC-COATED UNISTRUT SUPPORT TOP & BOTTOM. DUCT MOUNTING HEIGHT
 - MIN. 48".
- (6) EXTERIOR EQUIPMENT PAD BY G.C.

WHERE DUCTS PENETRATE FIRE RATED ASSEMBLIES AND FIRE DAMPERS ARE NOT INDICATED THE PENETRATION SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRE STOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479

CONTRACTOR SHALL SUBMIT PENETRATION DETAIL FROM FIRE STOP SYSTEM

6 DUCT PENETRATIONS - FIRE RATED WALLS -NEW AND EXISTING CONSTRUCTION N.T.S.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849

TIONS

ENGINEERS

<u>H</u>H

AR

CIATES

SSO

FRE

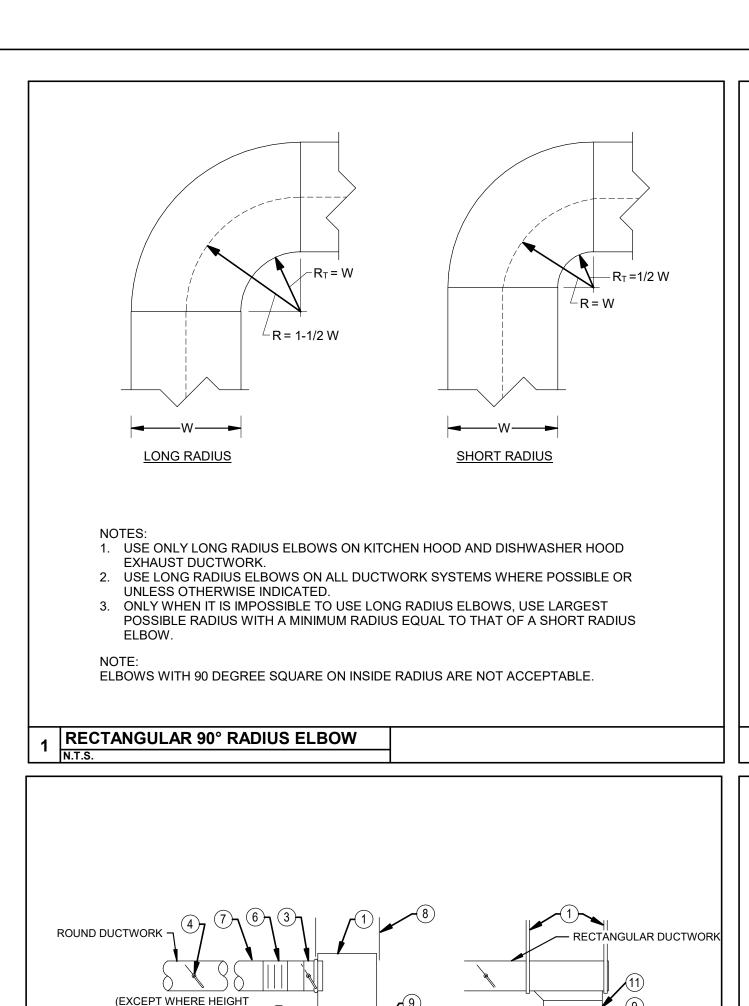
SIDNE 0 $\overline{\mathbf{C}}$

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be ersonally liable for any damage, harm or oss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 CHECKED BY DRAWN BY JDZ

DETAILS



PLENUM - SIZE TO MATCH GRILLE. PAINT INTERIOR OF FLEXIBLE DUCT ACCEPTABLE ABOVE ACCESSIBLE

RETURN

CEILING ONLY. MAX. 1 FT., REFER TO CEILING

(7) SHEETMETAL DUCT.

DEVICE, EACH SIDE.

DUCT STRAP HANGER.

DIFFUSER DETAIL FOR INSTALLATION REQUIREMENTS.

SUPPORT PLENUM FROM STRUCTURE WITH DUCT

FASTEN SHEETMETAL PLENUM OR DUCT TO AIR

VIEWABLE PORTION OF DUCT INTERIOR TO BE PAINTED FLAT BLACK.

1) LOUVER PROVIDED BY G.C.

(2) INSULATION. REFER TO SCHEDULE.

RESTRICTED BY EXISTING

CEILING —

EXHAUST/RETURN GRILLE FRAME TO MATCH CEILING

3) SPIN-IN FITTING WITH BALANCING DAMPER, USE FOR ALL

GRILLE IS INSTALLED ABOVE INACCESSIBLE CEILING.

EXHAUST/RETURN GRILLE - DUCTED

PROVIDE REMOTE BALANCING DAMPER IN BRANCH DUCT

PROVIDE BALANCING DAMPER AT DEVICE ONLY WHERE 10

DUCT MOUNTED DAMPER CANNOT BE PROVIDED DUE TO

ABOVE ACCESSIBLE CEILING FOR EACH GRILLE WHERE (9)

CONDITIONS)

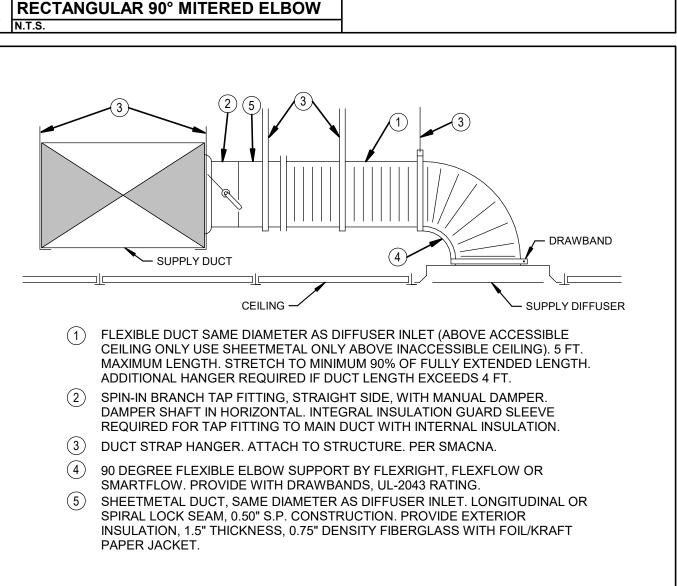
PLENUM FLAT BLACK.

ACCESSIBLE CEILINGS.

INACCESSIBLE CEILING.

CONDITION.

WALL LOUVER



-DOUBLE WALL TURNING VANES

[∠]R = 2.25"

LARGE ELBOW TURNING VANE

(W≥36")

1. ALL VANES SHALL BE SECURE AND STABLE IN OPERATING POSITION.

3. INSTALL VANES IN SECTIONS OR USE TIE RODS TO LIMIT THE UNBRACED

VANES SHALL BE SECURELY FASTENED TO RUNNERS.

4. VANES ARE NOT TO HAVE TRAILING EDGES.

3.25"

∤∤ EQ.−

MINIMUM 20-

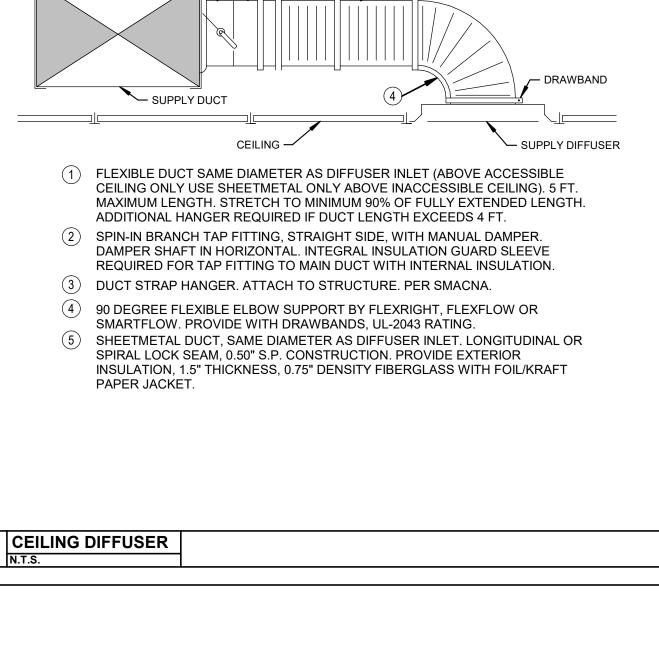
LENGTH TO 60".

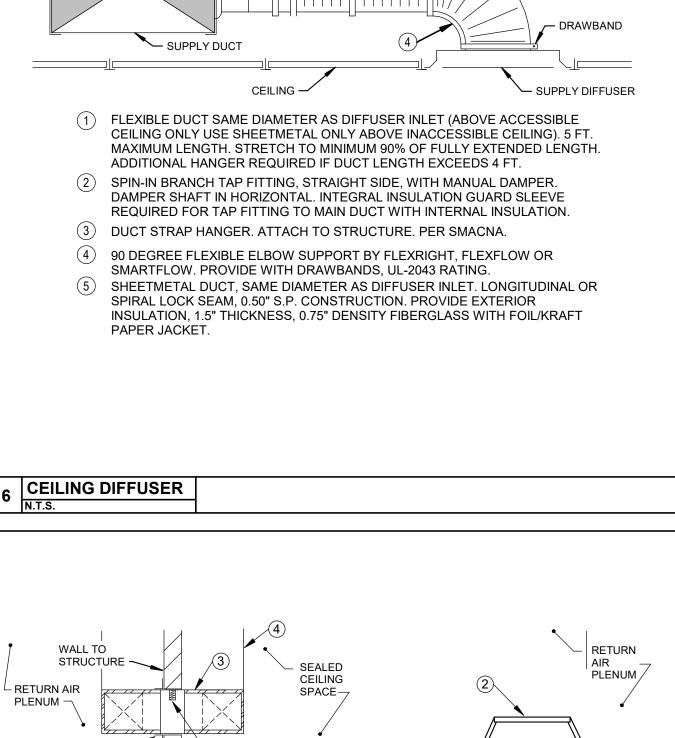
GAUGE VANES

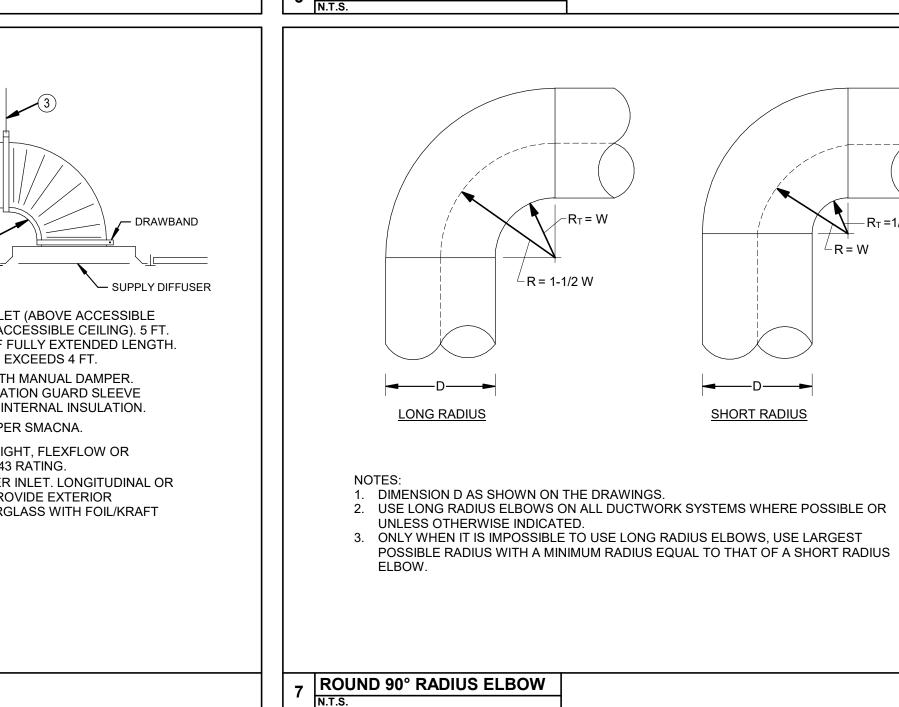
---W≥36"-

LARGE ELBOW

TYP.







45°

| RECTANGULAR 90° SIDE TAP

6" MIN.

1. DIMENSIONS A, B, C, D, E, AND F AS INDICATED ON THE DRAWINGS.

TRANSITIONS MAY BE FLAT ON TOP, FLAT ON BOTTOM OR CONCENTRIC.

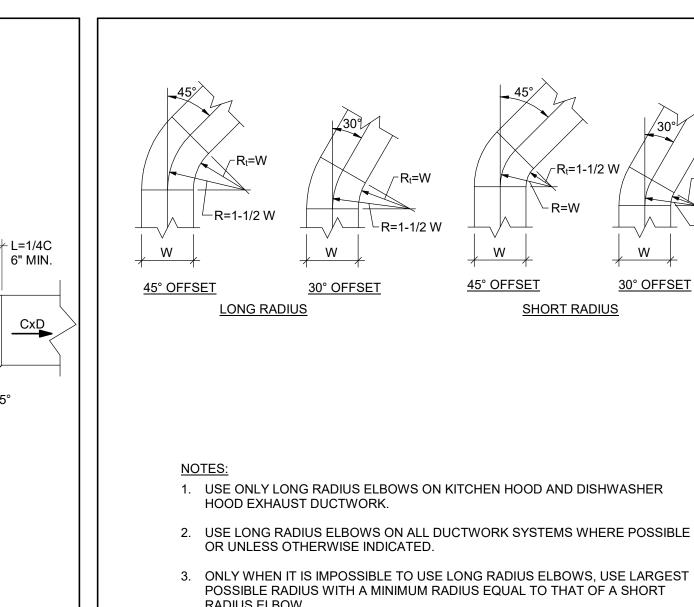
4. TAP HEIGHT DIMENSION SHOULD BE 2" SMALLER THAN MAIN DUCT HEIGHT.

SAME FOR RETURN AND EXHAUST DUCTS EXCEPT AIRFLOW IS REVERSED.

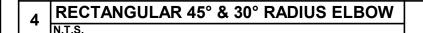
→ L=1/4D

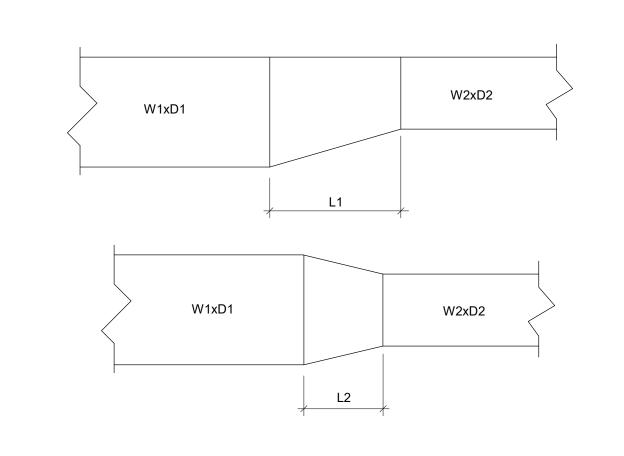
6" MIN.

^{_}R=W



3. ONLY WHEN IT IS IMPOSSIBLE TO USE LONG RADIUS ELBOWS, USE LARGEST POSSIBLE RADIUS WITH A MINIMUM RADIUS EQUAL TO THAT OF A SHORT RADIUS ELBOW.

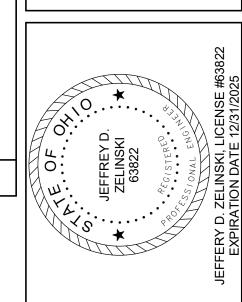




1. DIMENSIONS W1, W2, D1, AND D2 AS INDICATED ON THE DRAWINGS. 2. FOR LOW VELOCITY DUCTWORK (1800 FPM OR LESS) L1 = 4 x (W1-W2) OR 4 x (D1-D2) WHICHEVER IS GREATER

 $L2 = 2 \times (W1-W2) OR 2 \times (D1-D2) WHICHEVER IS GREATER.$ 3. FOR MEDIUM AND HIGH VELOCITY DUCTWORK (OVER 1800 FPM) $L1 = 7 \times (W1-W2) OR 7 \times (D1-D2) WHICHEVER IS GREATER.$ $L2 = 3.5 \times (W1-W2) OR 3.5 \times (D1-D2) WHICHEVER IS GREATER.$

RECTANGULAR TRANSITION



ENGINEERS

HH

ARC

TIONS

FIRE

SIDNE

0

<u>.</u>

CIATES

SSO

FRE

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or ss caused thereby.

COMM. NUMBER DATE 2207.02 11/13/24 CHECKED BY DRAWN BY JDZ

DETAILS

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

PROJECT # 23015

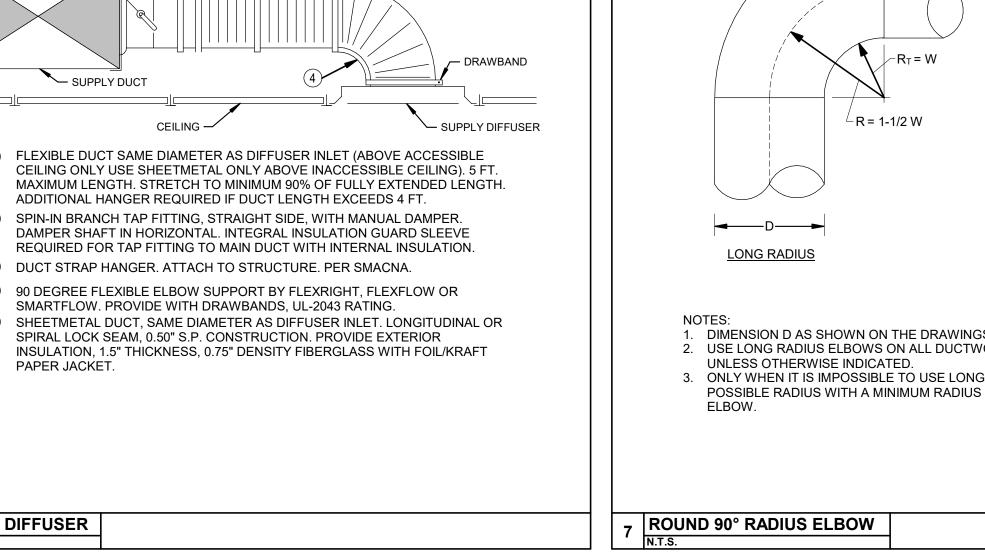
REVISIONS

PLAN APPROVAL / BIDDING

H3.3

(3) CONNECT DUCTWORK TO FLANGE AT LOUVER. REFER TO ARCHITECTURAL DETAIL FOR ADDITIONAL INFO. CEILING — (4) 5' MIN. DISTANCE FOR INTAKE. (5) 30 DEG. DUCT TRANSITION. (1) RETURN GRILLE. (6) INSULATED ACCESS DOOR. (2) RETURN AIR CANOPY. (7) SHEET METAL DUCTWORK. (3) TRANSFER AIR DUCT THROUGH FULL HEIGHT WALL. PROVIDE 1/2" INTERNAL DUCT LINER. REFER TO FLOOR PLAN FOR DUCT SIZE. (8) BIRDSCREEN. (4) SUPPORT PLENUM FROM STRUCTURE WITH DUCT STRAP HANGERS. 6 (5) FRAME OPENING THROUGH WALL AS REQUIRED AND SEAL WALL PENETRATION SMOKE TIGHT. (6) FIRE DAMPER WHERE INDICATED ON PLAN.

10 TRANSFER AIR GRILLE/PLENUM



—SINGLE WALL TURNING VANES

- 1.125"

SMALL ELBOW TURNING VANE

(W<36")

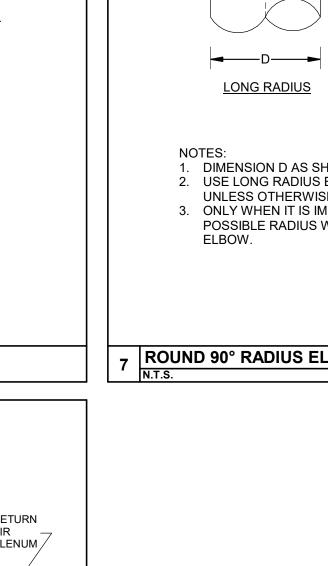
2.125"

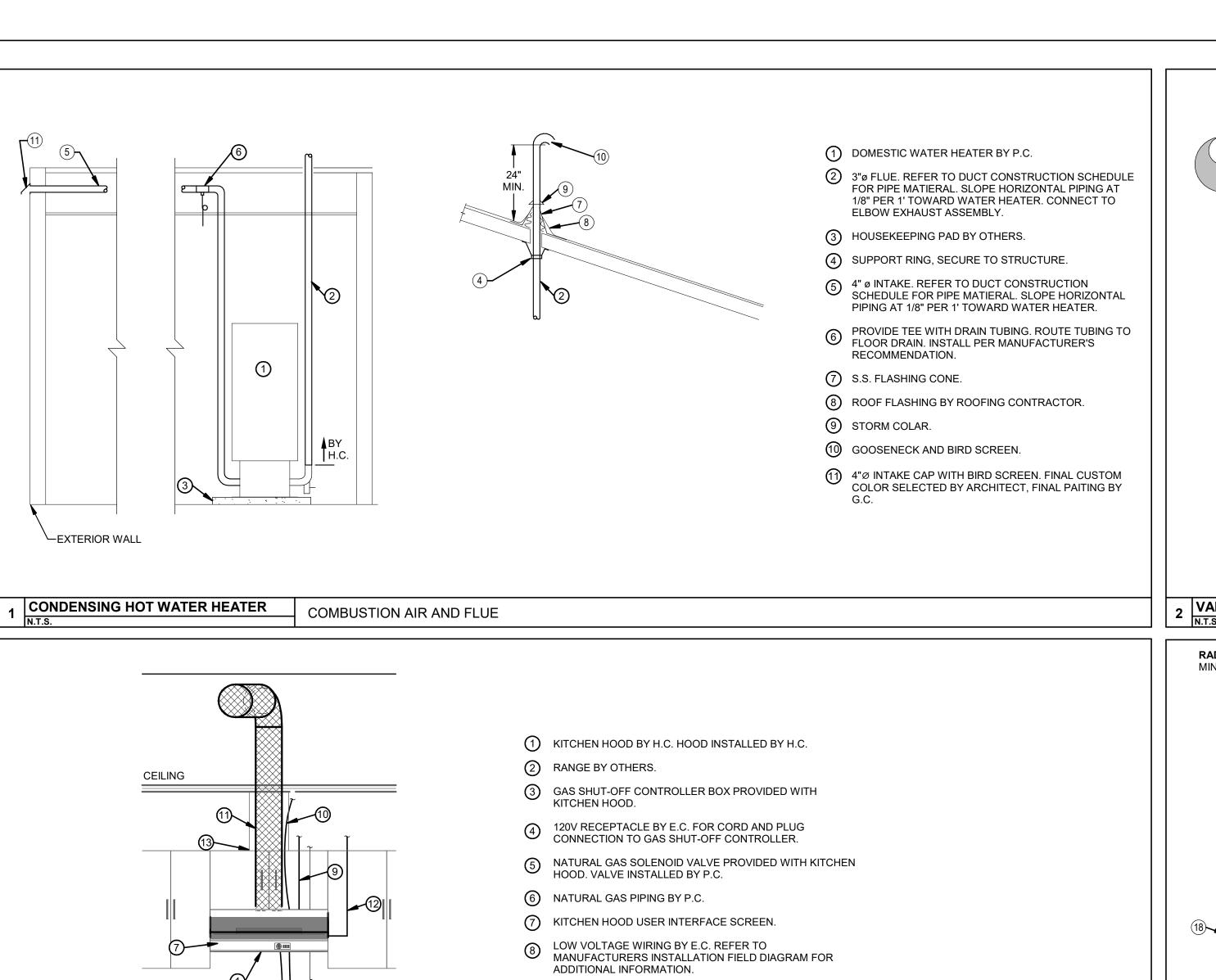
TYP. 🕢

─EQ.─

SMALL ELBOW

GAUGE VANES





(9) 120V KITCHEN HOOD POWER CONNECTION BY E.C.

8" DIA. STAINLESS STEEL EXHAUST DUCT BY H.C.

INLINE EXHAUST FAN.

(13) ENCLOSURE BY G.C.

(1) GAS FIRED UNIT HEATER.

(4) THREADED ROD HANGER.

(5) ROOF STRUCTURE.

7 NOT USED.

(8) 3"Ø VENT DUCT.

(11) STORM COLLAR.

(2) 4"Ø COMBUSTION INTAKE DUCT.

(3) DISCONNECT SWITCH WITH UNIT.

(6) SECURE THREADED ROD HANGER TO BAR

CLEAN OUT CAP WITH STANDARD VENT DRIP LEG.

① S.S. FLASHING CONE. SEAL PENETRATION THROUGH ROOF WATERTIGHT.

GOOSENECK AND BIRD SCREEN ON FLUE VENT.

(13) NATURAL GAS CONNECTION, SHUTOFF

VALVE, AND DIRT LEG BY P.C.

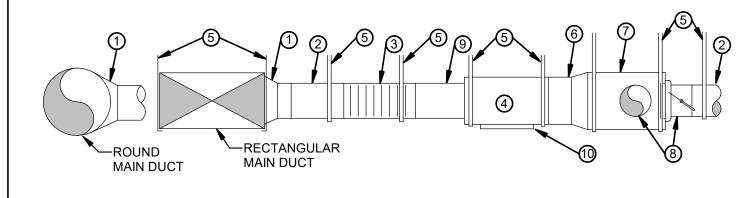
KITCHEN HOOD

GAS FIRED UNIT HEATER

UINE AND LOW (0-10VDC) VOLTAGE WIRING BY E.C. TO

FRANSITION TO 10" DIAMETER ABOVE CEILING.

CONTROL CONNECTION TO HOOD DRY CONTACT. REFER TO CONTROL DIAGRAM 3, SHEET H4.3.



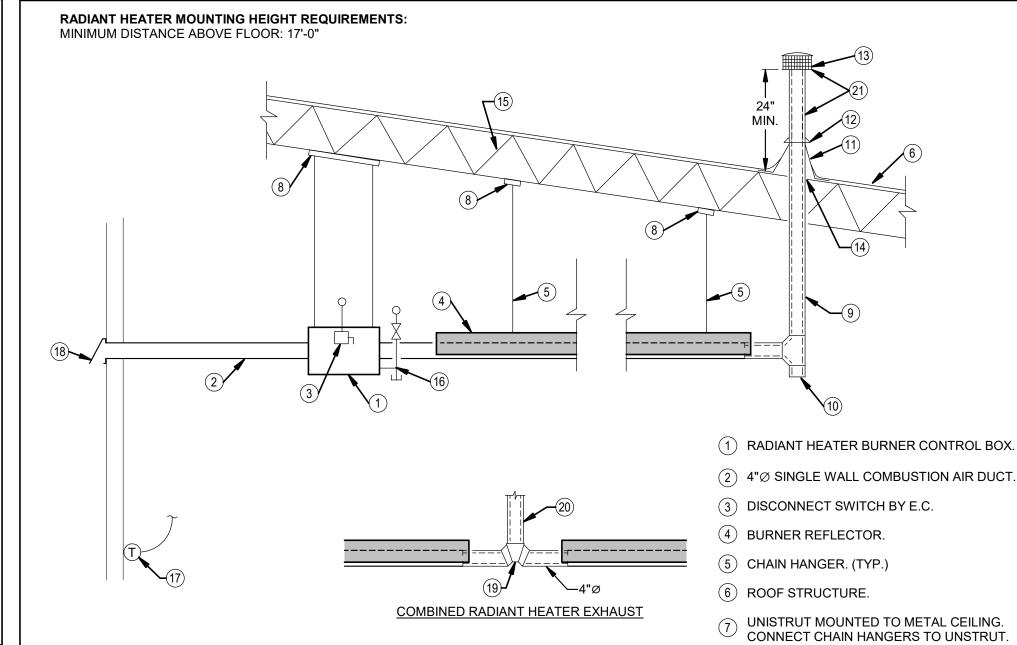
- (1) CONICAL TEE BRANCH FITTING.
- (2) ROUND SHEET METAL BRANCH DUCT. LENGTH AS REQUIRED. INSULATED.
- 3 INSULATED FLEXIBLE DUCT, 4' MAXIMUM LENGTH. STRETCH TO MINIMUM 90% OF FULLY EXTENDED LENGTH. DUCT SHALL BE FLEXMASTER TL-M ALUMINUM SPIRAL LINER WITH 1.5" INSULATION.
- 4 VAV REHEAT AIRFLOW CONTROL UNIT.
- 5 DUCT STRAP HANGER. ATTACH TO STRUCTURAL ELEMENTS.
- 6 ELECTRIC REHEAT COIL.
- O LOW PRESSURE RECTANGULAR SUPPLY DUCT. WHERE NOT SIZED ON THE DRAWINGS, SIZE TO MATCH COIL DIMENSIONS EXCEPT TRANSITION DUCT HEIGHT TO BE 2" HIGHER THAN LARGEST SPIN-IN BRANCH TAP FITTING.
- (8) SPIN-IN BRANCH TAP FITTING, STRAIGHT SIDE WITH MANUAL DAMPER AND INTEGRAL INSULATION GUARD SLEEVE.
- 24" LONG SHEETMETAL AT BOX INLET REDUCE LENGTH ONLY WHERE

 PROJUBED DYSERS 20018 TO 100 PM. STEEL STE REQUIRED BY FIELD CONDITIONS.
- (10) ACCESS DOOR. LOCATE ON UNITS WITH REHEAT COILS ONLY.

COORDINATE WITH OTHER TRADES AND INSTALL VAV BOXES TO PROVIDE 18" SIDE AND UNOBSTRUCTED BOTTOM CLEARANCE TO CONTROLLER, ACTUATORS AND VALVES FOR MAINTENANCE. COORDINATE TO INSURE ACCESS IS PROVIDED BY SIMPLE REMOVAL OF ADJACENT UNRESTRICTED CEILING TILES (FREE OF CEILING MOUNTED DEVICES) WITHOUT NEED TO REMOVE LIGHTS OR CEILING GRID. ACCESS DOOR ON BOX IS FOR INSPECTION AND UPSTREAM COIL CLEANING. ACCESS DOOR USE IS RARE AND REMOVAL OF LIGHTS OR CEILING GRID TO GAIN ACCESS IS

MARK DESIGNATIONS AS SHOWN ON DRAWINGS ON ALL VAV BOXES WITH 2" HIGH PAINTED STENCIL LETTERING.

VARIABLE AIR VOLUME UNIT W/ REHEAT COIL



8 SUPPLEMENTAL UNISTRUT FRAMING. SPAN BETWEEN ROOF TRUSSES.

(9) 4"Ø TYPE B DOUBLE WALL GAS VENT.

(10) CLEAN OUT CAP.

S.S. FLASHING CONE. SEAL PENETRATION THROUGH ROOF WATERTIGHT.

(12) STORM COLLAR.

(13) FLUE VENT CAP. BOTTOM OF CAP MINIMUM 24" ABOVE ROOF ON UPSLOPE SIDE.

(14) SEAL PENETRATION WATER TIGHT.

(15) ROOF TRUSS.

(16) NATURAL GAS CONNECTION, SHUTOFF VALVE, AND DIRT LEG BY P.C.

(17) WALL MOUNTED THERMOSTAT.

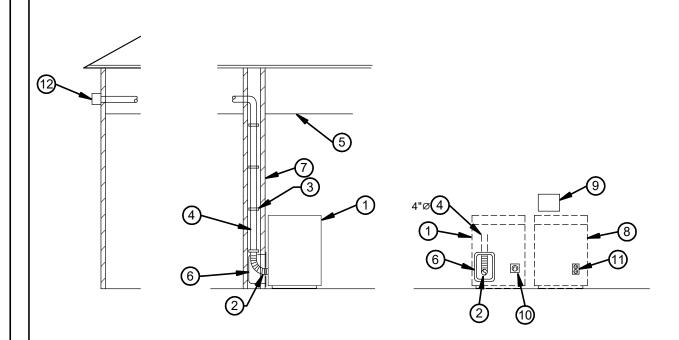
(18) 4"Ø INTAKE CAP WITH BIRD SCREEN. FINAL CUSTOM COLOR SELECTED BY ARCHITECT, FINAL PAITING BY G.C.

(19) DUAL EXHAUST WYE.

(20) 6"Ø TYPE B DOUBLE WALL GAS VENT. 6"Ø FLUE AND VENT CAP.

CUSTOM PAINT COLOR SELECTED BY ARCHITECT, FINAL PAINTING BY G.C.

RADIANT HEATER



1. COORDINATE LOCATION OF VENT BOX WITH WASHER & DRYER PROVIDED AND WITH ELEC. &

4"Ø DUCT SIZE EXCEPT LARGER IF RECOMMENDED BY DRYER MANUFACTURER.

PLBG. CONTRACTORS ON LOCATION OF

RECEPTACLES & WASHER BOX.

CUSTOM PAINT COLOR SELECTED BY ARCHITECT, FINAL PAINTING BY G.C.

DRAIN. REFER TO H1.2 FOR LOCATION.

(14) 4"Ø INTAKE CAP WITH BIRD SCREEN.

COLOR BY ARCHITECT, PAINTING BY G.C.

(15) EXTEND COMBUSTION AIR DUCT TO UNIT

WATERLESS CONDENSATE TRAPS

PROVIDED WITH UNIT. INSTALL PER

(17) EXTEND CONDENSATE DRAIN TO FLOOR

MANUFACTURER'S RECOMMENDATION.

1 DRYER.

2 FLEXIBLE ALUMINUM DUCT WITH METAL DRAWBAND CONNECTORS.

3 STAINLESS STEEL DUCT SUPPORT. SUPPORT AT 4' INTERVALS.

4"Ø ALUMINUM SPIRAL DUCT. DUCT SHALL NOT BE JOINED WITH SCREWS OF FASTENERS THAT PROTRUDE MORE THAN 1/8" INTO THE INSIDE OF THE DUCT.

(5) LAY-IN CEILING.

RECESSED DRYER VENT BOX. FLUSH MTD. IN 6" STUD WALL. 22 GA. ALUMINIZED STEEL WITH FLANGE, 4" DIA. TOP OUTLET, 9"Wx18"Hx4DP. INSIDE DIMENSION. FASTEN TO WALL AT FLANGE TO CONNECT TO STUDS. AMERICAN ALDES #99-061 OR OR EQUAL. MOUNT BOTTOM AT 4" ABOVE FLOOR.

7) DRYWALL OR MASONRY ENCLOSURE BY G.C.

(8) WASHER.

(9) WASHER UTILITY BOX BY P.C.

(10) 220/208 VOLT OUTLET BY E.C.

(1) DOUBLE DUPLEX OUTLET BY E.C.

SIDWALL DRYER BOOSTER FAN. JENCO #SWF-150 OR EQUAL. 120V POWER. FAN ACTIVATES AUTOMATICALLY UPON SENSING DUCT PRESSURE INCREASE FROM DRYER ACTIVATION. MOUNT TO EXTERIOR WALL AND PAINT TO MATCH EXTERIOR WALL

6 DRYER VENT

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents
and instruments and the Architect will not be

OMM. NUMBER	DATE
2207.02	11/13/24
DRAWN BY	CHECKED BY
DJZ	JDZ

DETAILS

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 PROJECT # 23015

TIONS

SIDNI

0

 $\overline{\mathbf{C}}$

CIATES

SSO

FR

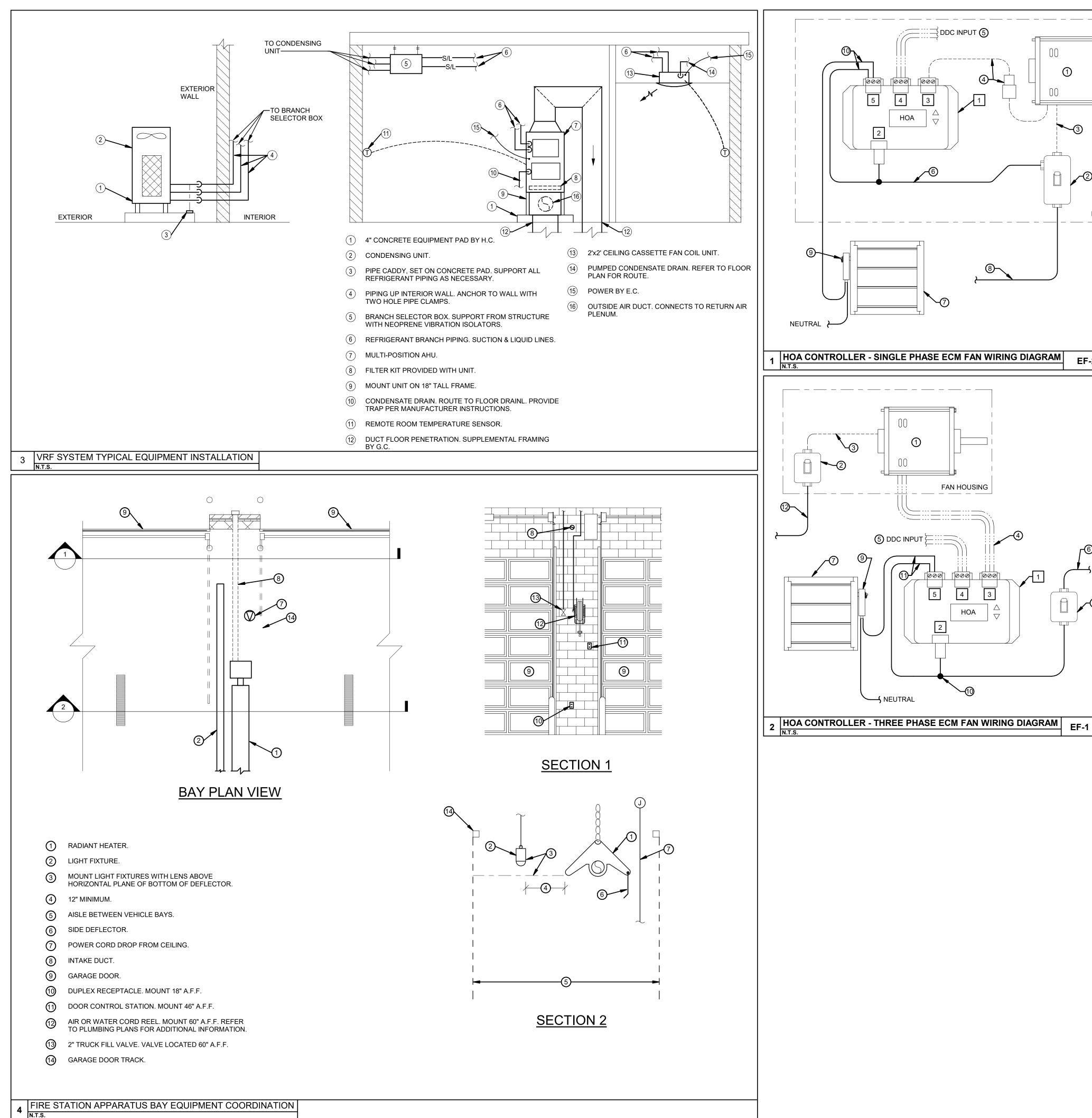
NGINEEL

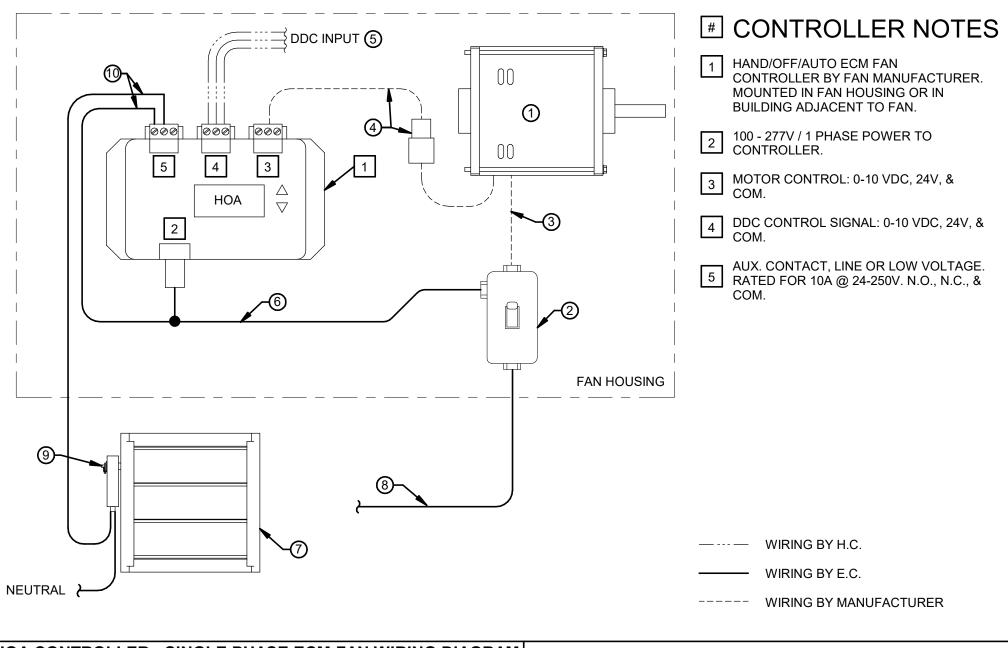
Ш

出出

AR

personally liable for any damage, harm or oss caused thereby. REVISIONS PLAN APPROVAL / BIDDING





DETAIL NOTES

(1) ECM FAN MOTOR.

2 TOGGLE DISCONNECT MOUNTED IN FAN HOUSING BY FAN MANUFACTURER.

3 SINGLE PHASE WIRING BY MANUFACTURER.

EF-7 - KITCHEN HOOD

(4) CONTROL WIRING BY MANUFACTURER.

(5) INPUT CONTROL WIRING BY H.C. EF-2 - NO INPUT EF-3 - NO INPUT EF-4 - CONSTANT PRESSURE MONITOR EF-5 - NO INPUT EF-6 - CONSTANT PRESSURE MONITOR

6 LINE VOLTAGE TO POWER MOTORIZED DAMPER BY E.C. TAP ON LOAD SIDE OF TOGGLE SWITCH. PROVIDES POWER TO HOA CONTROLLER AND DAMPER ACTUATOR.

7 DUCT MOUNTED MOTORIZED DAMPER BY FAN MANUFACTURER.

8 SUPPLY CIRCUIT POWER TO DISCONNECT BY E.C.

9 120V MOTORIZED DAMPER ACTUATOR PROVIDED BY H.C.

WIRE 120V DAMPER POWER THROUGH AUXILARY CONTACT.

HOA CONTROLLER - SINGLE PHASE ECM FAN WIRING DIAGRAM EF-2, EF-3, EF-4, EF-5, EF-6, EF-7

FAN HOUSING

CONTROLLER NOTES 1 HAND/OFF/AUTO ECM FAN CONTROLLER BY FAN MANUFACTURER. MOUNTED IN FAN HOUSING OR IN

BUILDING ADJACENT TO FAN. 2 100 - 277V / 1 PHASE POWER TO CONTROLLER.

MOTOR CONTROL: 0-10 VDC, 24V, & COM.

DDC CONTROL SIGNAL: 0-10 VDC, 24V, & COM.

— --- WIRING BY H.C.

WIRING BY E.C.

---- WIRING BY MANUFACTURER

AUX. CONTACT, LINE OR LOW VOLTAGE. RATED FOR 10A @ 24-250V. N.O., N.C., &

DETAIL NOTES

1 ECM FAN MOTOR

(2) TOGGLE DISCONNECT MOUNTED IN FAN HOUSING BY FAN MANUFACTURER.

THREE PHASE POWER SUPPLY WIRING BY MANUFACTURER.

(4) DDC CONTROL WIRING TO FAN BY H.C.

(5) INPUT CONTROL WIRING BY H.C. FROM APPARATUS BAY PLC #1.

6 120V POWER BY E.C.

7 DUCT MOUNTED MOTORIZED DAMPER BY FAN MANUFACTURER.

8 TOGGLE DISCONNECT SWITCH BY E.C.

120V MOTORIZED DAMPER ACTUATOR PROVIDED BY H.C.

10 TAP 120V TO PROVIDE POWER TO BOTH HOA CONTROLLER AND DAMPER

WIRE 120V DAMPER POWER THROUGH AUXILARY CONTACT.

(2) FAN SUPPLY CIRCUIT BY E.C.

TIONS

SIDNE

0

RS

ENGINEE

<u>H</u>H

ARC

CIATES

SSO

FR

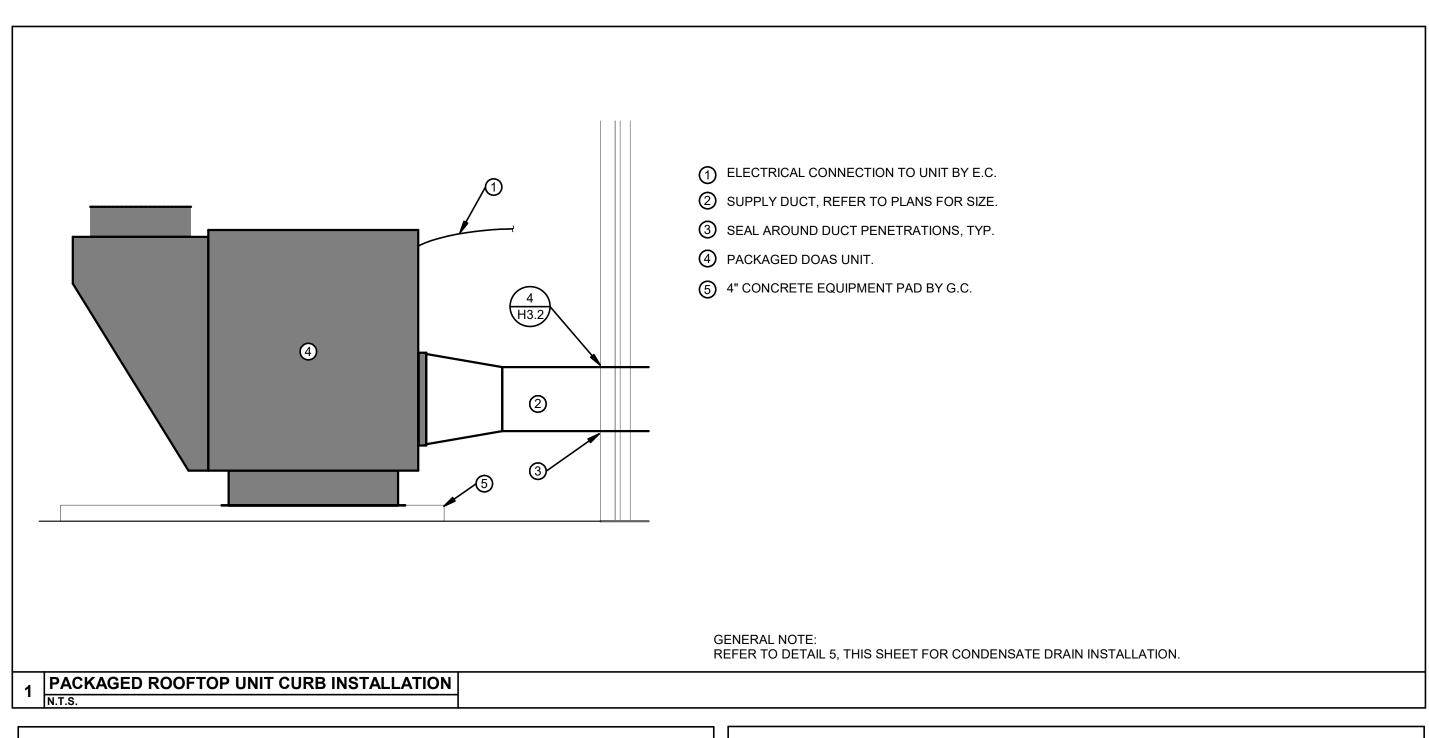
These designs and all items depicted herein whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm or

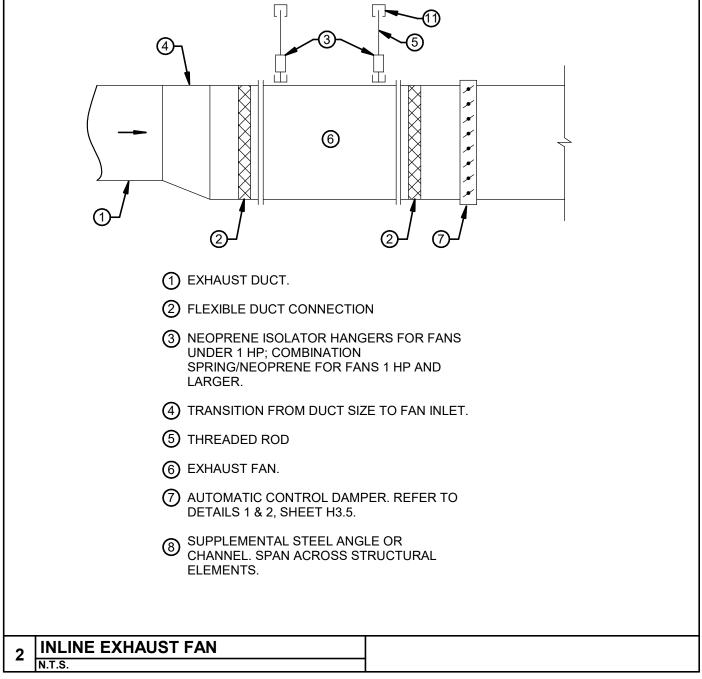
REVISIONS PLAN APPROVAL / BIDDING

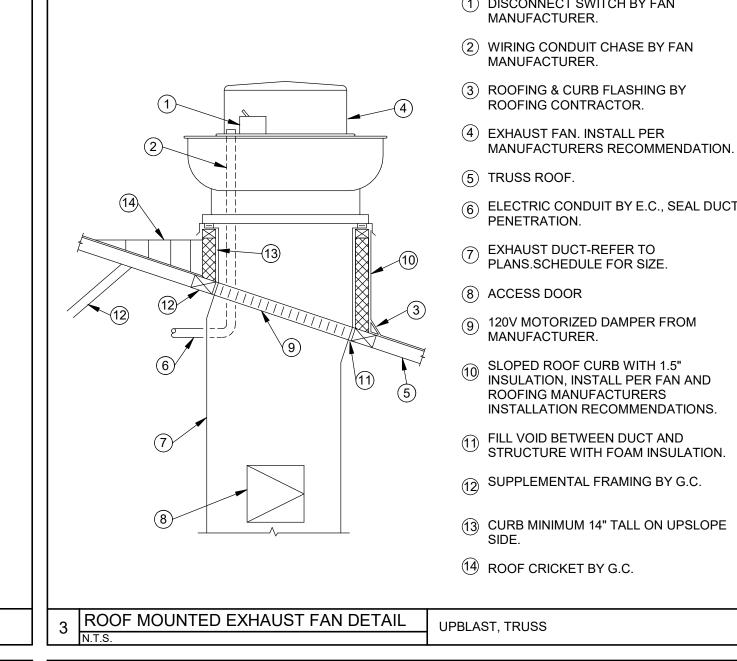
COMM. NUMBER DATE 2207.02 CHECKED BY DRAWN BY JDZ

DETAILS

 $N_{\text{AUMAN \& }}Z_{\text{ELINSKI LLC.}}$ 204 S. Ludlow Street Suite 400 Dayton, Ohio 45402







1) DISCONNECT SWITCH BY FAN

(3) ROOFING & CURB FLASHING BY

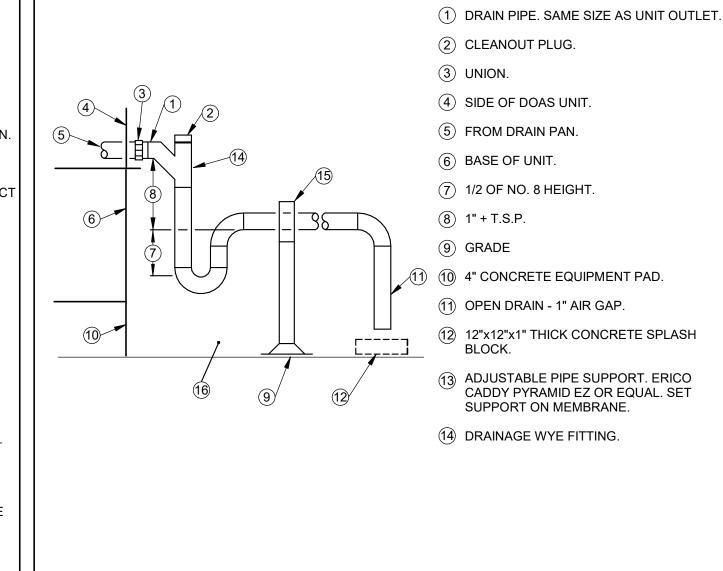
(6) ELECTRIC CONDUIT BY E.C., SEAL DUCT

INSULATION, INSTALL PER FAN AND

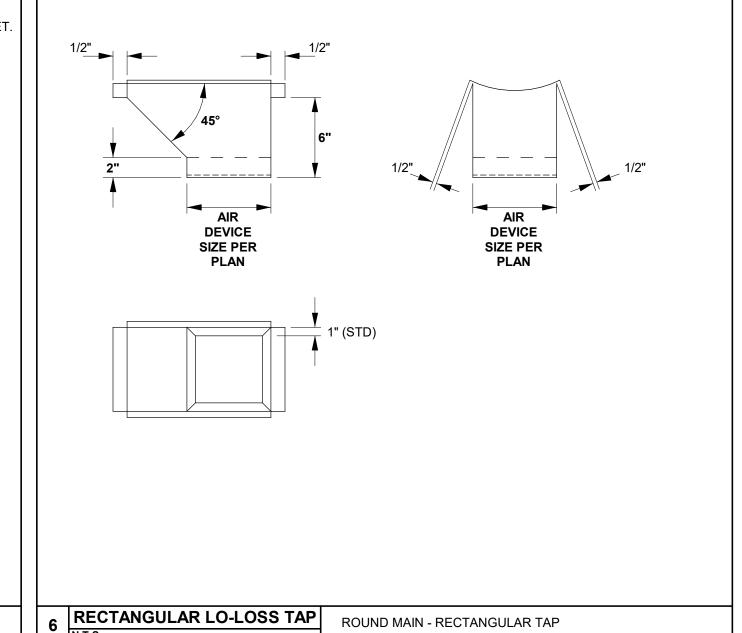
11 FILL VOID BETWEEN DUCT AND STRUCTURE WITH FOAM INSULATION.

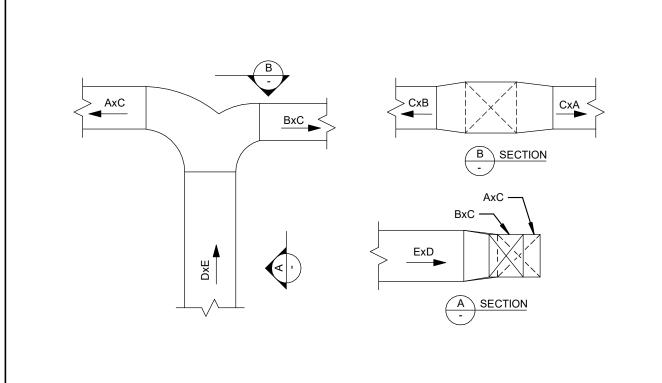
(13) CURB MINIMUM 14" TALL ON UPSLOPE

① DISCONNECT SWITCH BY FAN MANUFACTURER. ② WIRING CONDUIT CHASE BY FAN MANUFACTURER. ROOFING & CURB FLASHING BY ROOFING CONTRACTOR. 4 EXHAUST FAN. INSTALL PER MANUFACTURERS RECOMMENDATION. (5) TRUSS ROOF. (6) ELECTRIC CONDUIT BY E.C., SEAL DUCT PENETRATION. EXHAUST DUCT-REFER TO PLANS.SCHEDULE FOR SIZE. (8) ACCESS DOOR 120V MOTORIZED DAMPER FROM MANUFACTURER. 10 SLOPED ROOF CURB WITH 1.5" INSULATION, INSTALL PER FAN AND ROOFING MANUFACTURERS INSTALLATION RECOMMENDATIONS. 1) FILL VOID BETWEEN DUCT AND STRUCTURE WITH FOAM INSULATION. (12) SUPPLEMENTAL WOOD FRAMING BY (13) CURB MINIMUM 14" TALL ON UPSLOPE (14) ROOF CRICKET BY G.C. ROOF MOUNTED EXHAUST FAN DETAIL DOWNBLAST, TRUSS



DOAS COOLING COIL CONDENSATE PIPING





2. TRANSITIONS SHOWN CONCENTRIC IN PLAN, MAY BE FLAT ON EITHER SIDE. TRANSITION SHOWN FLAT ON TOP IN SECTION, MAY BE FLAT ON BOTTOM OR CONCENTRIC. TRANSITION

3. SAME FOR RETURN AND EXHAUST DUCTS EXCEPT AIRFLOW IS REVERSED.

7 RECTANGULAR TEE REDUCING Y-BRANCHES

1. DIMENSIONS A, B, C, D, AND E AS INDICATED ON DRAWINGS.

DUCT AS FIELD CONDITIONS DICTATE.

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or oss caused thereby.

REVISIONS

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY JDZ

DETAILS

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 PROJECT # 23015

ENGINEERS

Ĭ H

ARC

TIONS

FIRE

SIDNE

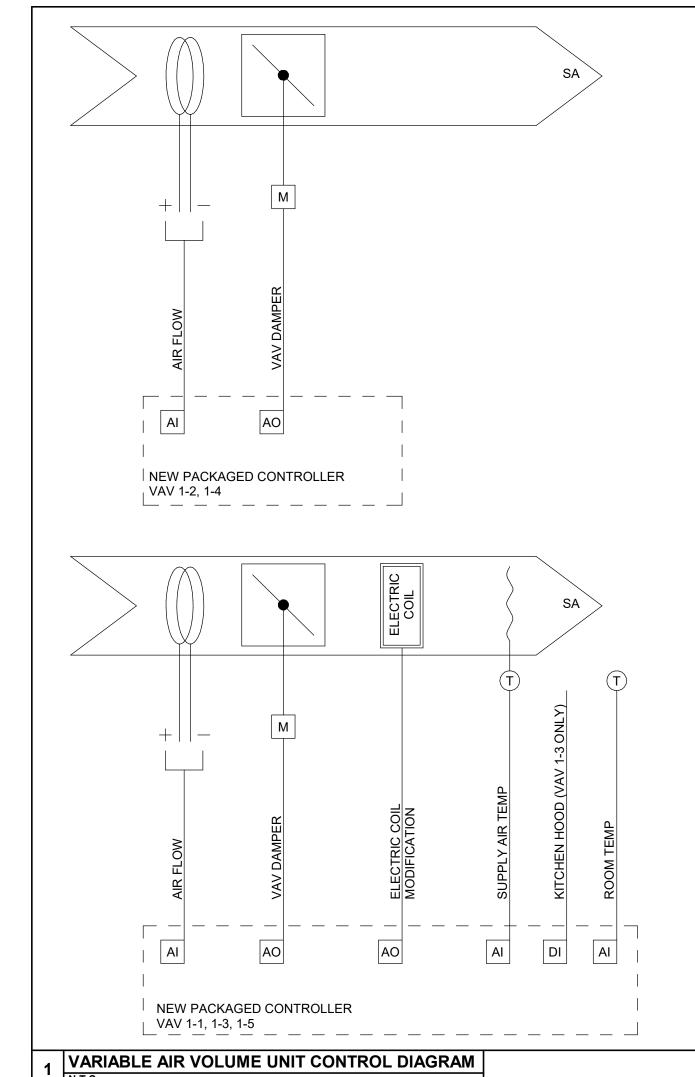
0

CIATES

SSO

 ∞

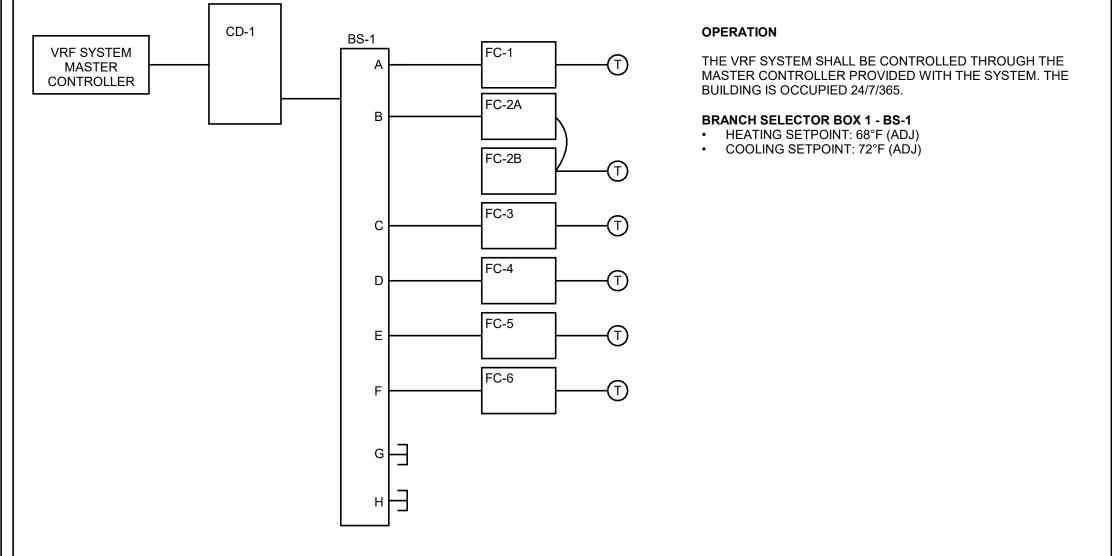
FREYTAG



SEQUENCE OF OPERATION

CONSTANT VOLUME, REHEAT: 1-1, 1-3, 1-5

- A. VARIABLE AIR VOLUME (VAV) AIR TERMINAL UNITS ARE THE FOLLOWING CONSTANT VOLUME, NO REHEAT: 1-2, 1-4
- B. THE VAV BOX MANUFACTURER SHALL INCLUDE PNEUMATIC FLOW TAPS FROM THE AIR FLOW SENSOR ON THE BOX INLET AND AN INTEGRAL DAMPER WITH PROTRUDING SHAFT. ALL OTHER CONTROL COMPONENTS SHALL BE FURNISHED BY THE T.C.
- C. CONSTANT VOLUME, NO REHEAT CONTROL TERMINAL UNIT SHALL MAINTAIN A CONSTANT AIR FLOW VOLUME.
- D. CONSTANT VOLUME, REHEAT CONTROL TERMINAL UNIT SHALL MAINTAIN A CONSTANT AIR FLOW VOLUME. ELECTRIC HEATING COIL SHALL MODULATE TO MAINTAIN ROOM TEMPERATURE AT SETPOINT. PROVIDE A 2 DEG. F DEADBAND. WHEN THE ROOM TEMPERATURE RISES ABOVE THE HEATING SETPOINT THE ELECTRIC COIL SHALL SHUT
- E. KITCHEN HOOD CONTROLS: UNIT 1-3 SHALL ONLY OPERATE WHEN THE KITCHEN HOOD IS ACTIVE. THE KITCHENHOOD IS PROVIDED WITH AN EXTERNAL DRY CONTACT AND A CONNECTION BETWEEN THE DRY CONTACT AND VAV 1-3 SHALL BE PROVIDED BY THE T.C.. UPON HOOD ACTIVATION, VAV UNIT 1-3 SHALL OPERATE AT ITS CONSTANT VOLUME SETPOINT. WHEN THE HOOD SHUTS OFF, VAV 1-3 SHALL STOP OPERATING AND MODULATE TO 100% CLOSED.
- F. DISCHARGE AIR TEMPERATURE SENSOR PROVIDE A DISCHARGE AIR TEMPERATURE SENSOR IN THE SUPPLY DUCT (FIELD INSTALLED BY THE TEMPERATURE CONTROL SUBCONTRACTOR) FOR EACH REHEAT BOX FOR CONTROL, MONITORING AND TROUBLE SHOOTING PURPOSES. THE SENSOR SHALL BE A PRECISION THERMISTOR TYPE, WITH ACCURACY OF + OR - 0.5 DEG. F., MAXIMUM.
- G. TERMINAL UNITS THAT SHARE A ROOM TEMP. SENSOR SHALL CONTROL IN UNISON PER THE ABOVE SEQUENCE.



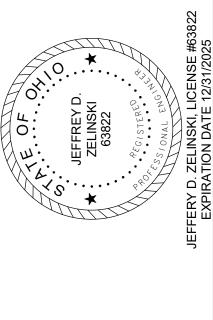
CONTROLS GENERAL NOTES

- . THERE IS NO CENTRAL, GRAPHICAL DIRECT DIGITAL CONTROL (DDC) SYSTEM BEING PROVIDED FOR THE BUILDING. EQUIPMENT SHALL BE CONTROLLED THROUGH CONTROLLERS PROVIDED WITH THE EQUIPMENT AND/OR INDIVIDUAL PROGRAMABLE LOGIC CONTROLLERS. CONTROL DIAGRAMS PROVIDED INDICATE HOW EACH SYSTEM SHALL OPERATE.
- REQUIRED PROGRAMABLE LOGIC CONTROLLERS SHALL BE EQUAL TO DISTECH CONTROL #ECB-253.
- PROVIDE ALL REQUIRED CONTROL WIRING AND LOW VOLTAGE POWER DEVICES REQUIRED TO ACHIEVE THE SPECIFIED SYSTEM

NGINEE SSO Ш 出 FRE

TIONS SIDNE

0 <u>.</u>



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or

PLAN APPROVAL / BIDDING

REVISIONS

oss caused thereby.

COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY JDZ

CONTROLS

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

PROJECT # 23015

SEQUENCE OF OPERATION

UNIT INFORMATION:

THE DOAS UNIT PROVIDES CODE REQUIRED VENTILATION TO THE LIVING QUARTERS. THE UNIT SHALL OPERATE 24/7. BACNET CONNECTION SHALL BE UTILIZED TO CONTROL DISCHARGE AIR TEMPERATURE SETPOINT AND HUMIDITIY CONTROLS.

DISCHARGE AIR TEMPERATURE:

THE DOAS UNIT SHALL PROVIDE THE REQUIRED HEATING OR COOLING TO MEET THE SUPPLY AIR TEMPERATURE SETPOINT. THE DOAS UNIT SHALL USE AN ECONOMIZER MODE IF OUTSIDE AIR DRYBULB AND WETBLUB TEMPERTATURE ARE APPROPRIATE TO MEET THE SUPPLY AIR TEMPERATURE SETPOINT.

SUPPLY AIR TEMPERATURE SHALL CHANGE DEPENDING ON THE OUTDOOR AIR DRYBULB AND DEWPOINT TEMPERATURES ACCORDING TO THE FOLLOWING SCENARIOS:

SCENARIO 1 - OUTSIDE AIR DEW POINT TEMPERATURE GREATER THAN OR EQUAL TO 52°F.

THE SUPPLY AIR TEMPERATURE SETPOINT OF THE DOAS UNIT SHALL BE 52°F DB / 52°F WB.

SCENARIO 2 - OUTSIDE AIR DEW POINT TEMPERATURE LESS THAN 52°F & DRYBULB TEMPERATURE IS BETWEEN 65°F & 72°F.

THE SUPPLY AIR TEMPERATURE SETPOINT SHALL EQUAL THE OUTDOOR AIR DRYBULB TEMPERATURE.

SCENARIO 3 - OUTSIDE AIR DEW POINT TEMPERATURE LESS THAN 52°F & DRYBULB TEMPERATURE GREATER THAN 72°F.

THE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE 72°F.

SCENARIO 4 - OUTSIDE AIR DEW POINT TEMPERATURE LESS THAN 52°F & DRYBULB TEMPERATURE LESS THAN 65°F.

THE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE 72°F.

FAN OPERATION:

THE DOAS UNIT FAN SHALL MODULATE TO MEET THE DUCT STATIC PRESSURE SENSOR SETPOINT AS DETERMINED BY THE BALANCING CONTRACTOR. REFER TO FLOOR PLANS FOR STATIC

THE HOT GAS REHEAT COIL SHALL MODULATE TO MAINTAIN THE BUILDING RELATIVE HUMIDITY SETPOINT OF 50% RH (ADJ.).

DOAS UNIT CONTROL DIAGRAM

DOAS UNIT PLC

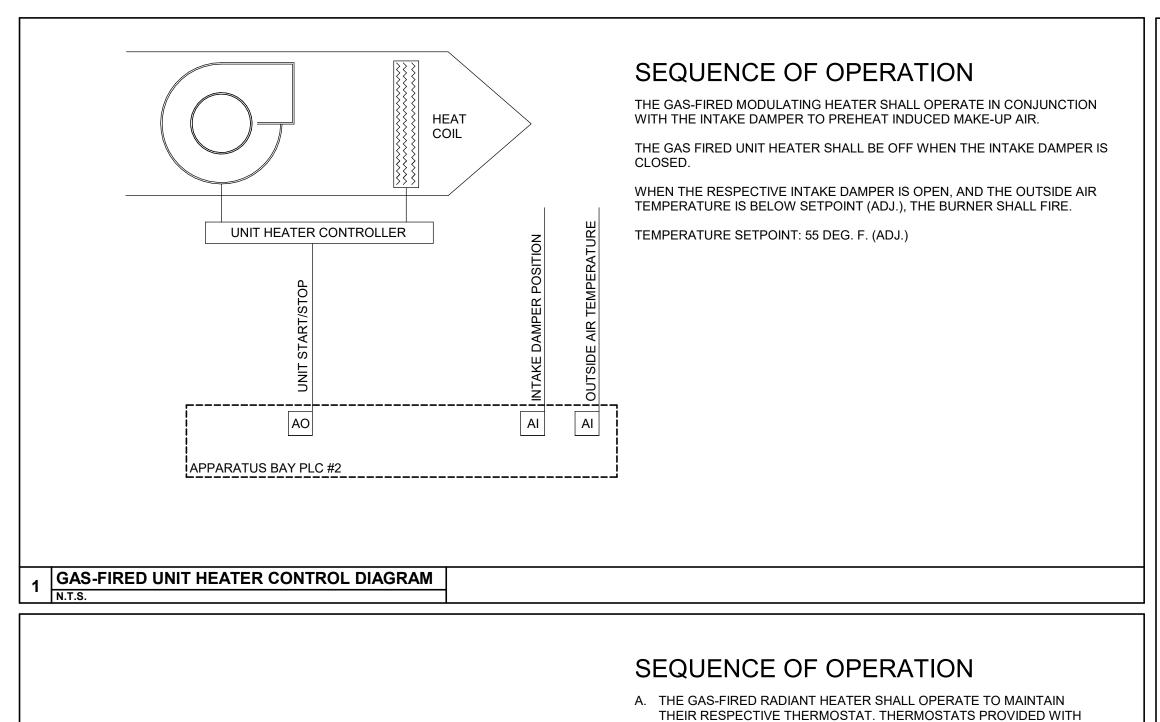
VRF SYSTEM CONTROL DIAGRAM

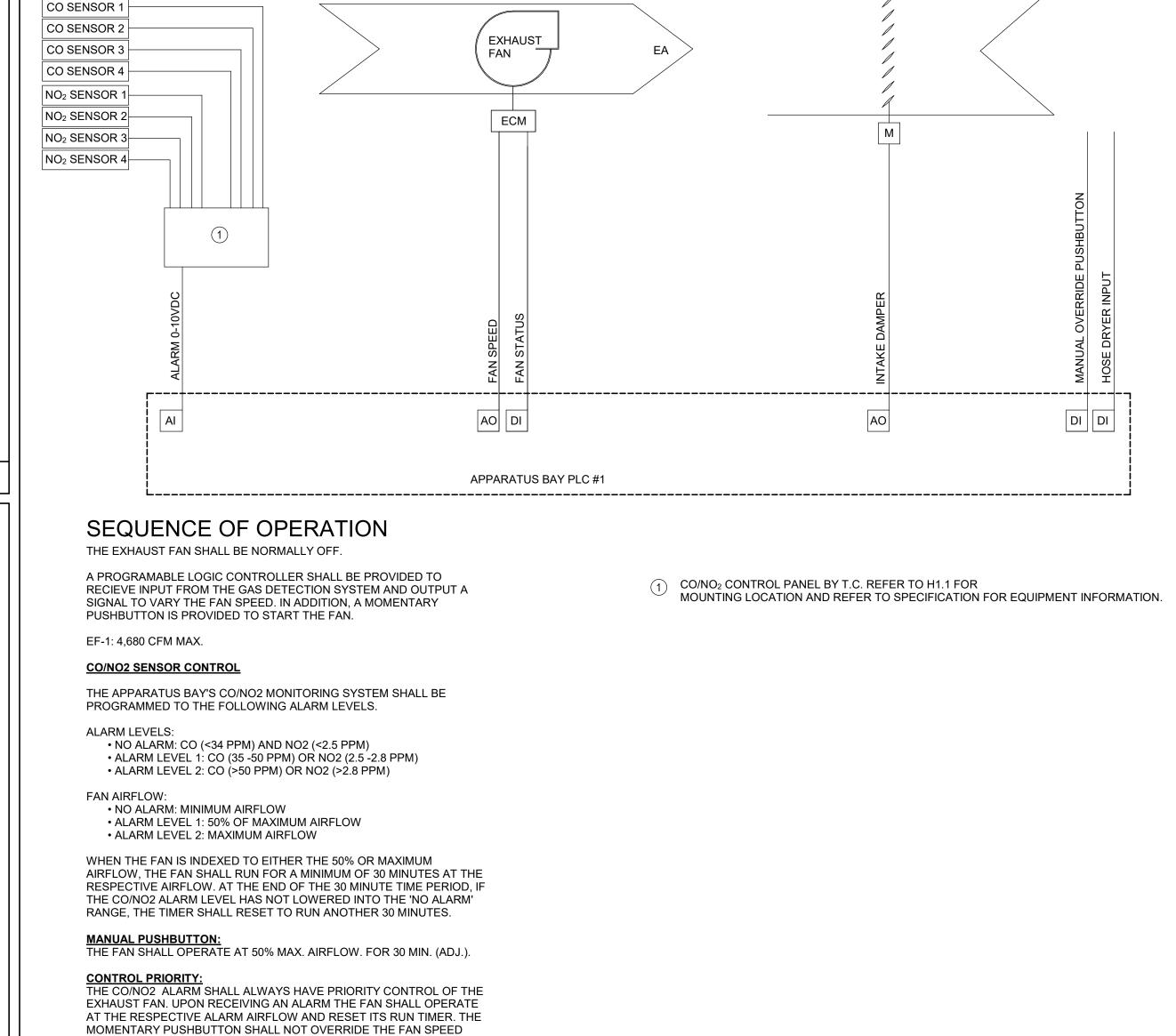
DOAS

UNIT

DOAS UNIT CONTROLLER AI AI AI

> PRESSURE SENSOR LOCATION. **DEHUMIDIFICATION MODE:**





2 GAS-FIRED RADIANT HEATERS CONTROL DIAGRAM
N.T.S.

HEAT TUBE

3 APPARATUS BAY CONTROL DIAGRAM - EF-1 & INTAKE DAMPER
N.T.S.

• THE INTAKE DAMPER SHALL OPEN TO 100% WHEN THE RESPECTIVE APPARATUS BAY EXHAUST FAN IS OPERATING.

AND RUN TIMER IF THERE IS AN ALARM.

INTAKE CONTROL DAMPER

JEFFREY D.

SELINSKI

63822

JEFFREY D.

SELINSKI

63822

JEFFERY D. ZELINSKI

JEFFERY D. ZELINSKI, LICENSE #63822

TIONS

SIDNE

0

CIATES

FREYTAG

ENGINEE

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/13/24

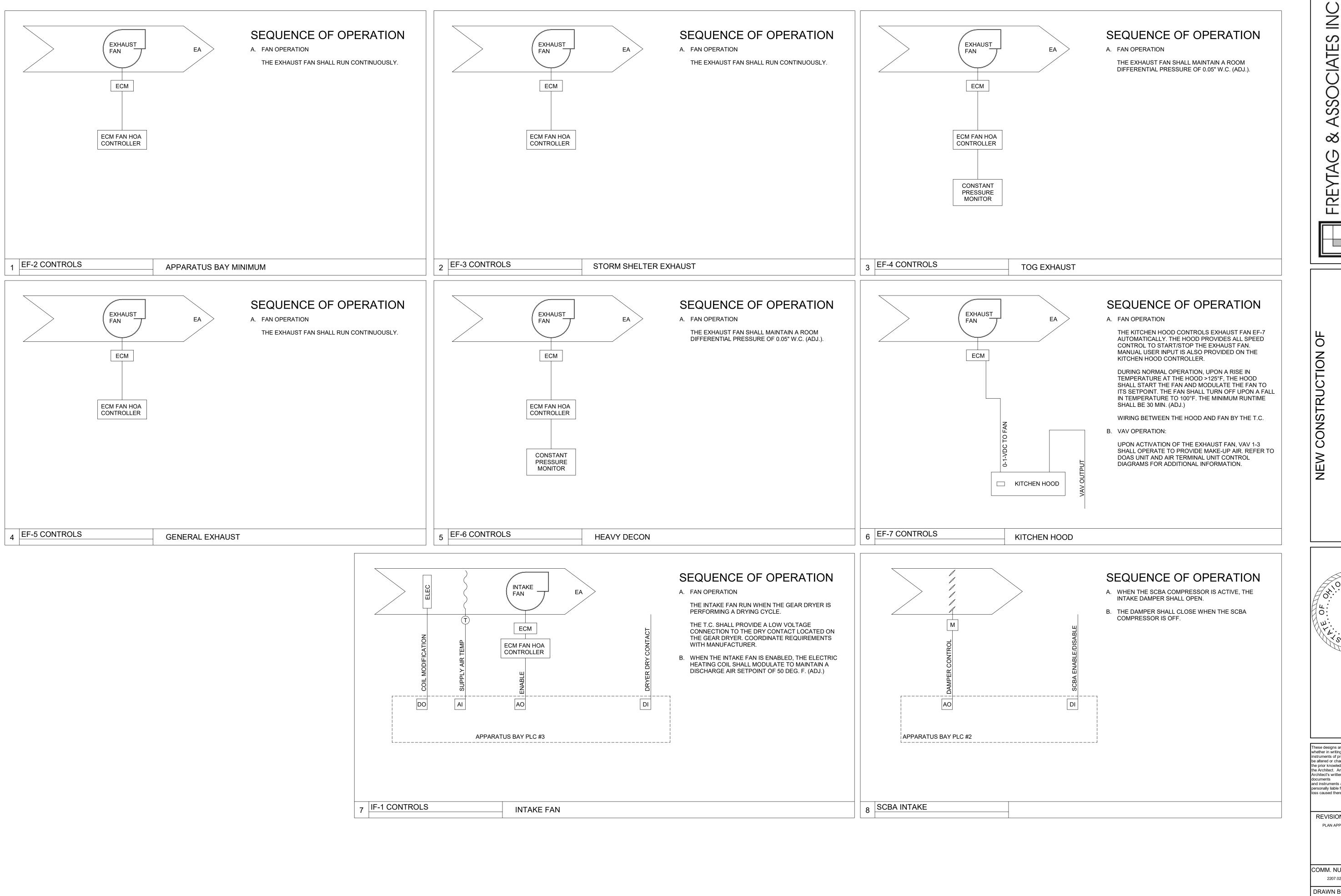
DRAWN BY CHECKED BY
DJZ JDZ

CONTROLS

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

PROJECT # 23015

H4.2

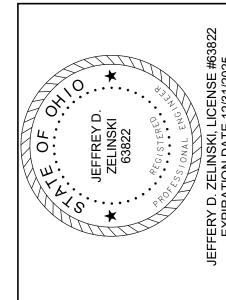


ENGINEERS CIATES SSO \triangleleft ∞ Ĭ **FREYTAG**

ARC

TIONS SIDNE 0 FIRE

CH



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not the altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and the Architect will not be personally liable for any damage, harm or oss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

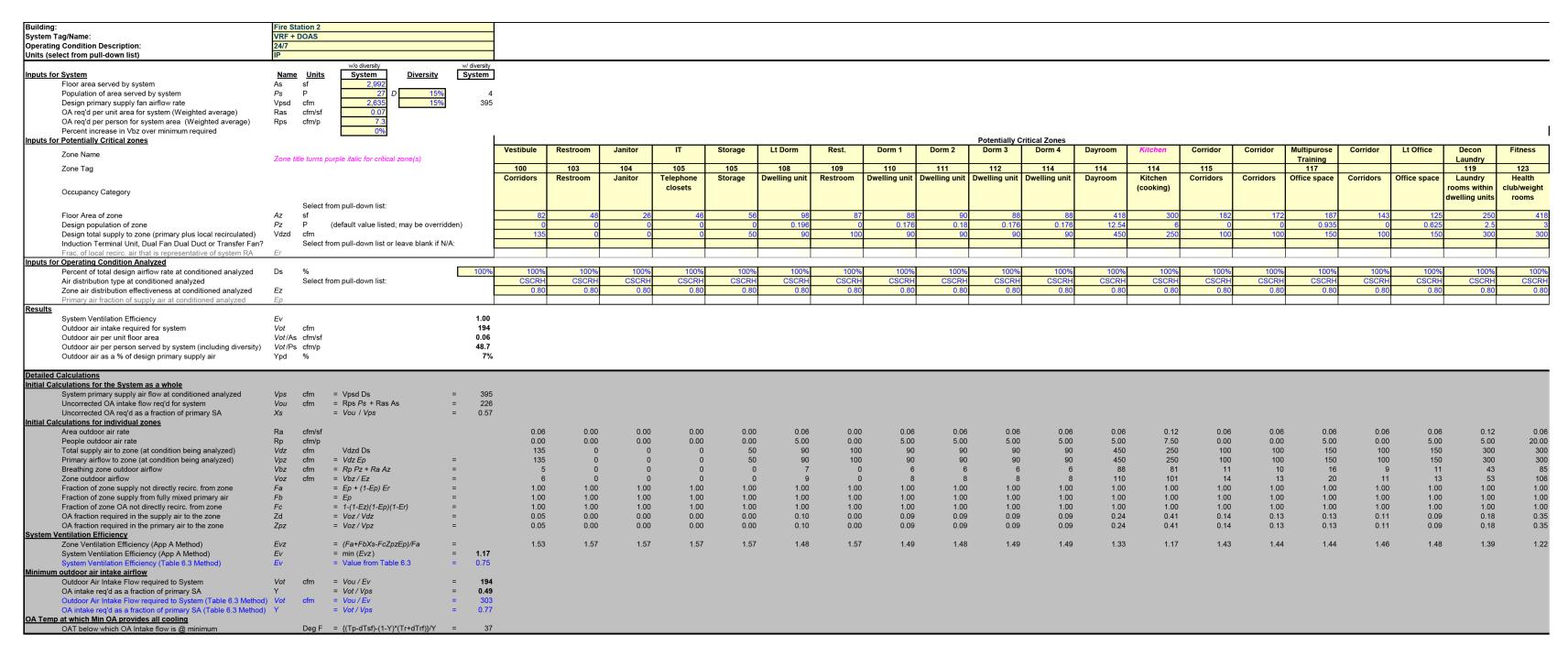
COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY JDZ

CONTROLS

H4.3

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

PROJECT # 23015



VENTILATION NOTES:

OMC CHAPTER 4 REQUIRED VENTILATION: 194 CFM

EF-3: 100 CFM EF-4: 300 CFM

EF-4: 300 CFM
EF-5: 525 CFM (225 CFM FOR FUTURE EXPANSION)
EF-6: 225 CFM

EF-7: 500 CFM

EXHAUST TOTAL: 1,650 CFM TOTAL OUTDOOR AIR RATE: 1,935 CFM

VENTILATION PROVIDED VIA DOAS-1. UNIT IS SIZED FOR FUTURE BUILDING EXPANSION.

BALANCING DAMPER SETPOINTS: FC-1: 200 CFM FC-2A: 42 CFM FC-2B: 42 CFM

FC-3: 200 CFM FC-4: 200 CFM FC-5: 200 CFM NEW CONSTRUCTION OF

 $\frac{1}{2}$

 \forall

 ∞

FREYTAG

ASSOCIATES IN ENGINEERS

CTS

HIE

ARC

FIRE STATIONS
CITY OF SIDNE

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS

PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/13/24

DRAWN BY CHECKED BY
DJZ JDZ

VENTILATION

H5.1

Nauman & Zelinski Llc.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015

ELECTRICAL SPECIFICATIONS

- AD. DISCONNECT SWITCHES SHALL BE HEAVY DUTY; FUSIBLE TYPE TO UTILIZE 'RK1' FUSES.
- AE. LIGHTING CONTROL OCCUPANCY SENSORS SHALL BE BY HUBBELL, LEVITON, COOPER CONTROLS OR SENSOR SWITCH. CEILING MOUNTED SENSORS SHALL BE LOW PROFILE, "DOME" TYPE SENSORS.
- AF. EQUIPMENT, DUCTWORK AND PIPING SHALL NOT BE INSTALLED IN THE DEDICATED ELECTRICAL SPACE ABOVE OR IN THE WORKING SPACE REQUIRED AROUND ELECTRICAL SWITCHGEAR, MOTOR CONTROL CENTERS OR PANELBOARDS AS IDENTIFIED BY NEC 110.26 SPACES ABOUT ELECTRICAL EQUIPMENT - 600 VOLTS NOMINAL OR LESS.FOR EQUIPMENT RATED OVER 600 VOLTS NOMINAL – 110.32 WORK SPACE ABOUT EQUIPMENT – 110.33 ENTRANCE AND ACCESS TO WORK SPACE - 110.34 WORK SPACE AND GROUNDING. THE ELECTRICAL CONTRACTOR SHALL CAUTION OTHER TRADES TO COMPLY WITH THIS STIPULATION.
- AG. PROVIDE ONE YEAR COMPLETE WARRANTY (PARTS, MATERIALS, LABOR). START OF WARRANTY FROM DATE OF BENEFICIAL OCCUPANCY AGREED TO IN WRITING.

ELECTRICAL SPECIFICATIONS

- ALL ELECTRICAL WIRING, EQUIPMENT AND INSTALLATION SHALL CONFORM TO THE 2017 OHIO BUILDING CODE, 2017 NATIONAL ELECTRIC CODE AND LOCAL CODES, LATEST ADOPTED EDITIONS.
- ALL ELECTRICAL EQUIPMENT SHALL BE U.L. APPROVED AND COMMERCIAL GRADE. PANELBOARDS, CIRCUIT BREAKERS AND DISCONNECTS BY SQUARE D, SIEMENS, CUTLER-HAMMER OR G.E
- . SUBMIT ELECTRONIC SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO ORDERING FOR THE FOLLOWING EQUIPMENT: LIGHT FIXTURES, PANELBOARD(S), CIRCUIT BREAKER(S) AND WIRING DEVICES.
- ALL POWER AND SYSTEMS WIRING SHALL BE INSTALLED IN CONDUIT RACEWAYS UNLESS OTHERWISE SPECIFICALLY NOTED.
- STAGGER LOCATIONS OF RECESSED OUTLETS WHERE SHOWN ON OPPOSITE SIDES OF STUD WALL PARTITIONS TO PREVENT SOUND TRANSMISSION BETWEEN ROOMS.
- DRAWINGS ARE SCHEMATIC IN NATURE TO REPRESENT REQUIRED EQUIPMENT/DEVICES AND ASSOCIATED POWER/CIRCUITRY. DRAWINGS SHALL NOT BE SCALED FOR DEVICE LOCATIONS. THE E.C. SHALL COORDINATE THE FINAL LOCATIONS OF ALL FLUSH MOUNTED DEVICES (INCLUDING FIRE ALARM AND TECHNOLOGY ROUGH-IN BOXES) WITH CASEWORK, FIXED FURNITURE. ETC. TO AVOID CONFLICTS AND VIEWING OBSTRUCTIONS. RECEPTACLES ASSOCIATED WITH/ADJACENT TO TECHNOLOGY OUTLET BOXES SHALL BE LOCATED AT THE SAME MOUNTING HEIGHT AND WITHIN 6" HORIZONTALLY UNLESS SPECIFICALLY NOTED OTHERWISE.
- THE ARCHITECT SHALL RESERVE THE RIGHT TO MAKE MINOR ADJUSTMENT IN LOCATIONS OF SYSTEM RUNS AND COMPONENTS WHERE THEY CONSIDER SUCH ADJUSTMENTS DESIRABLE IN THE INTEREST OF CONCEALING WORK OR PRESENTING A BETTER APPEARANCE WHERE EXPOSED. ANY SUCH CHANGES SHALL BE ANTICIPATED AND REQUESTED SUFFICIENTLY IN ADVANCE SO AS TO NOT CAUSE EXTRA WORK, OR UNDULY DELAY THE WORK. COORDINATE WORK IN ADVANCE WITH ALL OTHER TRADES AND REPORT IMMEDIATELY ANY DIFFICULTIES WHICH CAN BE ANTICIPATED. WHERE ANY SYSTEM RUNS AND COMPONENTS ARE SO PLACED AS TO CAUSE OR CONTRIBUTE TO A CONFLICT, IT SHALL BE READJUSTED AT THE EXPENSE OF THE CONTRACTOR CAUSING SUCH CONFLICT. THE ARCHITECT'S DECISION SHALL BE FINAL IN REGARD TO ARRANGEMENT OF EQUIPMENT, CONDUIT(S), DEVICES, WIREWAYS ETC., WHERE CONFLICT ARISES.
- ALL WIRING SHALL UTILIZE MIN. #12 AWG SIZE COPPER THHN/THWN STRANDED CONDUCTORS WITH INSULATION SUITABLE FOR THE APPLICATION. CONDUCTORS FOR ELECTRIC RADIANT HEATERS SHALL BE LISTED FOR THE APPLICATION.
- PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT AND SEPARATE GREEN COLORED INSULATED COPPER GROUNDING CONDUCTOR FOR EACH BRANCH CIRCUIT CONDUIT. NEUTRAL WIRES FOR 120 VOLT CIRCUITS SHALL BE WHITE.
- ALL CONDUCTORS SHALL BE INSTALLED IN MIN. 0.75" SIZE CONDUIT. EMT SHALL BE UTILIZED FOR INTERIOR FEEDERS AND BRANCH CIRCUITRY. MC CABLE SHALL ONLY BE ALLOWED FOR FINAL CONNECTION TO INDOOR LIGHT FIXTURES. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED FOR ALL OTHER FINAL CONNECTIONS TO MOVEABLE/VIBRATING EQUIPMENT. ALL EXTERIOR CONDUIT SHALL BE RIGID METAL CONDUIT.
- EMT CONDUIT FITTINGS SHALL BE ALL STEEL COMPRESSION OR SETSCREW TYPE.
- ALL CONDUITS INSTALLED ON EXTERIOR OF BUILDING SHALL BE RIGID GALVANIZED TYPE WITH THREADED STEEL FITTINGS. UTILIZE COMPATIBLE NEMA 3R TYPE BOXES FOR ALL EXTERIOR FIXTURE AND OUTLET BOXES.
- M. BRANCH CIRCUITS WHERE FISHED IN EXISTING INACCESSIBLE WALLS ONLY MAY UTILIZE MC CABLE OR 0.5" SIZE FLEXIBLE METALLIC CONDUIT TO INDIVIDUAL DEVICES WHEN PROPERLY
- ALL EMPTY CONDUITS INSTALLED FOR ANY LOW VOLTAGE CABILING USES INCLUDING VOICE/DATA, SECURITY, AV. MONITORING OR ANY OTHER LOW VOLTAGE SYSTEM SHALL HAVE NYLON BUSHINGS INSTALLED ON ALL CONDUIT OPEN ENDS.
- . ALL EMPTY CONDUITS SHALL HAVE A NYLON PULLSTRING INSTALLED PER SPECIFICATIONS.
- WIRING DEVICES SHALL BE SPECIFICATION GRADE. WHITE COLOR, WITH BRUSHED STAINLESS STEEL COVERPLATES, HUBBELL, P&S, COOPER OR LEVITON. PROVIDE TAMPER-RESISTANT RECEPTACLES IN LOCATIONS AS REQUIRED BY NEC 406.12.
- Q. ALL CONDUIT, FITTINGS, BENDS, ETC, SHALL BE PROPERLY SUPPORTED PER NEC AND NEATLY INSTALLED.
- IDENTIFY PANEL AND CIRCUIT NUMBER ON ALL RECEPTACLE COVERPLATES WITH PRINTED LABELS WITH BLACK LETTERS ON CLEAR ADHESIVE BACKGROUND.
- PROVIDE TYPED PANEL DIRECTORIES INDICATING TYPE OF LOAD AND ROOM DESCRIPTION WITH ROOM NUMBER AND TYPE.
- ALL SPARE BREAKERS IN PANELBOARDS SHALL BE TURNED 'OFF'.
- THE TOTAL LOAD (AMPERES) OF ANY BRANCH CIRCUIT SHALL NOT EXCEED 80% OF THE RATED AMPACITY OF THE CIRCUIT BREAKER FOR THAT CIRCUIT.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS TO AVOID INTERFERENCE WITH THE BUILDING COMPONENTS, EXISTING UTILITIES, EQUIPMENT, ETC.
- V. THE E.C. SHALL PROVIDE FIRESTOPPING FOR ALL PENETRATIONS THRU RATED WALLS. ALL FIRESTOPPING ASSEMBLIES SHALL BE LISTED AND APPROVED FOR THE ASSEMBLY AND PENETRATION
- IDENTIFY ALL BRANCH CIRCUITS AT ALL JUNCTION BOXES BY NEATLY PRINTING PANEL AND CIRCUIT NUMBERS ON BOX COVERS WITH INDELIBLE MARKER.
- NEATLY LABEL BRANCH CIRCUIT NUMBERS ON EACH EXPOSED CONDUIT LEAVING PANELBOARDS WITH INDELIBLE MARKERS.
- NEATLY LABEL PANEL AND BRANCH CIRCUIT NUMBERS ON EACH ACCESSIBLE OR EXPOSED CONDUIT ENTERING OR LEAVING ALL PULLBOXES AND JUNCTION BOXES WITH INDELIBLE MARKERS.
- AA. LABEL ALL POWER PANELBOARDS WITH PHENOLIC WHITE BACKGROUND AND BLACK LETTER PLATE WITH SOURCE OF FEEDER, SWITCH OR BREAKER NUMBER, VOLTAGE, PHASE, AND BRANCH.
- AB. LABEL ALL POWER DISCONNECT SWITCHES WITH PHENOLIC WHITE BACKGROUND AND BLACK LETTER PLATE WITH PANEL. CIRCUIT NUMBER, VOLTAGE, PHASE, FED FROM AND DESCRIPTION OF LOAD FED.
- AC. ALL OPEN CABLING SHALL BE PLENUM RATED AND INSTALLED ON J-HOOK SYSTEM ABOVE ACCESSIBLE CEILINGS. REFER TO TECHNOLOGY PLANS.

ELECTRICAL LEGEND CONT.

OCCUPANCY SENSOR UL 924 RELAY TO TURN EMERGENCY SWITCHLEG LIGHTS 'ON' AND BYPASS SWITCH ON LOSS OF NORMAL POWER. DIMMED EMERGENCY FIXTURES TO BYPASS DIMMER CONTROL TO DRIVE DIMMED FIXTURES TO FULL BRIGHTNESS.

DISCONNECT SWITCH

MOTOR STARTER.

COMBINATION MOTOR STARTER AND DISCONNECT

ELECTRIC MOTOR.

UNIT HEATER.

FAN COIL UNIT.

CIRCUIT BREAKER PANEL, FLUSH MOUNTED. CIRCUIT BREAKER PANEL, SURFACE MOUNTED.

POWER PANEL OR SWITCHBOARD, SURFACE MOUNTED.

ELECTRIC BASEBOARD HEATER.

TELEPHONE/DATA OUTLET (18" M.H. EXCEPT WHEN SHADED, MOUNT AT 46" M.H. UNLESS OTHERWISE INDICATED M.H.). REFER TO TECHNOLOGY PLANS.

FIRE ALARM HORN & SIGNAL LIGHT (80" A.F.F.),

WIRELESS WIFI ACCESS POINT: CEILING MOUNTED.

SUBSCRIPT 'C' INDICATES CEILING MOUNTED DEVICE. FIRE ALARM SIGNALING LIGHT (80" A.F.F.), # WHEN

SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 110 CANDELA. "C" SUBSCRIPT INDICATES CEILING MOUNTED DEVICE.

FIRE ALARM SENDING STATION (46" M.H.).

CEILING MOUNTED SMOKE DETECTOR.

CEILING MOUNTED COMBINATION SMOKE/CO ALARM

DUCT MOUNTED SMOKE DETECTOR (S/SUPPLY, R/RETURN).

ELECTRO-MAGNETIC DOOR HOLDER.

BUILDING INTERIOR.

DOOR ACCESS CONTROL SYSTEM CARD READER -

TV WALL BOX, REFER TO DETAIL

46" M.H. REFER TO DETAIL 5 ON SHEET E0.4 CCTV CAMERA ROUGH-IN BOX/ CONDUIT STUBB TO

ELECTRIC DOOR OPERATOR, INCLUDING RELAYS, OPERATING SWITCHES AND LIMIT SWITCHES SHALL BE FURNISHED BY THE DOOR EQUIPMENT SUPPLIER AND INSTALLED BY THE E.C. IN ACCORDANCE WITH

PUSHPLATE DOOR CONTROLS FURNISHED BY THE DOOR EQUIPMENT SUPPLIER AND INSTALLED BY THE E.C. (42" M.H.).

APPROVED WIRING DIAGRAMS BY THE EQUIPMENT

SUPPLIER (120 VOLT SINGLE PHASE OPERATION).

PUSH BUTTON (46" M.H.). SINGLE GANG BOX WITH 0.75" BUSHED CONDUIT TO ABOVE ACCESSIBLE CORRIDOR CEILING, OR REFER TO NOTE ON PLAN.

CEILING FAN FURNISHED AND INSTALLED BY E.C.: REFER TO SPECIFICATIONS

EL

LECTRIC	CAL LEGEND
•~~	ELECTRICAL CONNECTION REQUIRED.
\rightarrow	EXIT LIGHTING FIXTURE. ARROWS AS INDICATED.
H1 B1 O a b	LIGHTING FIXTURE: CAPITAL LETTER DENOTES FIXTURES TYPE. LOWER CASE LETTER DENOTES SWITCHING ARRANGEMENT.
H1 B1	LIGHTING FIXTURE WITH INTEGRAL BATTERY BACKUP.
A-1&2 ▶►	EACH ARROWHEAD REPRESENTS ONE COMPLETE CIRCUIT; CAPITAL LETTER DENOTES PANEL; NUMBER DENOTES CIRCUIT.
	WIRE & CONDUIT IN WALL OR ABOVE CEILING
	WIRE & CONDUIT UNDERGROUND
(J)	JUNCTION BOX.
Ф	20A-125V SINGLE RECEPTACLE, NEMA 5-20R (18" M.H.).
Ф	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (18" M.H.).
Ф	20A-125V DUPLEX RECEPTACLE WITH INTEGRAL USB CHARGING PORTS (1 USB 'A'; 1 USB 'C' PORT), NEMA 5-20R (18" M.H.).USB TYPE A-C CHARGING PORTS WITH MINIMUM 5 AMPS COMBINED CHARGING POWER.
\bigoplus^{NL}	20A-125V DUPLEX RECEPTACLE WITH INTEGRAL NIGHT LIGHT ACCESSORY, DEVICE SHALL HAVE LED NIGHT LIGHT IN FACE OF DEVICE WITH PHOTOSENSOR CONTROL, NEMA 5-20R (18" M.H.).
	SPECIAL PURPOSE RECEPTACLE. REFER TO NOTE ON PLAN
#	20A-125V DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, (18" M.H.) TWO-GANG ASSEMBLY.
$\bigoplus \bigoplus^{D}$	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, (46" M.H.) D = DOUBLE DUPLEX.

M.H.) D = DOUBLE DUPLEX.

20A-125V SPLIT DUPLEX RECEPTACLE, NEMA 5-20R WITH BOTTOM OUTLET CONTROLLED BY WALL SWITCH (18" M.H.).

20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" M.H.). 20A-125V TAMPERPROOF RECEPTACLE, NEMA 5-20R,

20A-125V WEATHERPROOF DUPLEX RECEPTACLE. NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" M.H.), WITH HUBBELL #WP26M

CAST ALUMINUM "WHILE-IN-USE" COVER. 20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, IN HUBBELL BA-2436 FLUSH FLOOR BOX WITH SA-3825 COVERPLATE. PROVIDE CARPET FLANGE WHERE

REQUIRED. 20A-125V/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-20R, (18" M.H.).

30A-125V/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-30R, (18" M.H.). 50A-125V/250V-1PH-4W SINGLE RECEPTACLE, NEMA

SINGLE POLE WALL SWITCH (46" M.H.)

14-50R (18" M.H.)

TWO POLE WALL SWITCH (46" M.H.). THREE-WAY WALL SWITCH (46" M.H.).

FOUR-WAY WALL SWITCH (46" M.H.).

LIGHTING 0-10V LED DIMMER SWITCH WITH PRESET SLIDE CONTROL AND POWER ON-OFF 'DECORATOR' STYLE SWITCH (46" M.H.) UNLESS OTHERWISE

LIGHTING OCCUPANCY SENSOR WALL SWITCH (46"

INDICATED. LIGHTING 0-10V LED DIMMER SWITCH WITH PRESET SLIDE CONTROL AND 3-WAY POWER ON-OFF 'DECORATOR' STYLE SWITCH (46" M.H.) UNLESS OTHERWISE INDICATED.

SPEAKER VOLUME CONTROL (46" M.H.)

0-10V LED COMBINATION VACANCY SENSOR AND DIMMER SWITCH WITH PRESET SLIDE CONTROL AND SEPARATE ON-OFF 'DECORATOR' STYLE SWITCH (46" M.H.) UNLESS OTHERWISE INDICATED, RATED MIN. 800 WATTS.

SWITCH WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" M.H.).

KEY OPERATED WALL SWITCH (46" M.H.). HUBBELL # HBL 1221 RKL WITH #512RKL COVERPLATE.

LIGHTING DIMMER SWITCH WITH PRESET CONTROL (46" M.H.) 1000 WATT UNLESS OTHERWISE INDICATED. DIMMER TO MATCH TYPE OF LIGHTING

SWITCH WITH RECEPTACLE (46" M.H.) STANDARD TWO-GANG ASSEMBLY OF SWITCH AND RECEPTACLE. FLUSH FRACTIONAL HORSEPOWER MOTOR

STARTER WITH NEON PILOT LIGHT. ONE-GANG ASSEMBLY (46" M.H.). HP RATED WALL SWITCH (46" M.H.).

OCCUPANCY SENSOR, CEILING MOUNTED.

OR

OCCUPANCY SENSOR CONTROL RELAY.

GENERAL NOTES

ALL WORK SHALL BE IN ACCORDANCE WITH THE 2017 OHIO BUILDING CODE. INCLUDING REFERENCED CODES AND STANDARDS, ALL LOCAL AND STATE CODES AND MEET APPROVAL OF AUTHORITIES HAVING JURISDICTION.

APPROVAL OF THE CODE OFFICIAL.

- BIDDERS SHALL INSPECT PROJECT SITE EXISTING CONDITIONS DURING BIDDING.
- INCLUDE PAYMENT OF ALL PERMIT AND INSPECTION FEES AND OBTAIN AN ELECTRICAL PERMIT AND SECURE INSPECTION AND
- SUBMIT AN ELECTRONIC COPY OF SUBMITTAL DATA AND DESCRIPTIVE LITERATURE IN .PDF FORMAT FOR ALL FIXTURES AND EQUIPMENT.
- WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY AND REPRESENT THE BEST PRACTICES OF THE INDUSTRY.
- COORDINATE INSTALLATION WITH OTHER TRADES; PROVIDE
- OFFSETS AS REQUIRED. . INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE

WITH MANUFACTURERS REQUIREMENTS.

PERFORMING WORK.

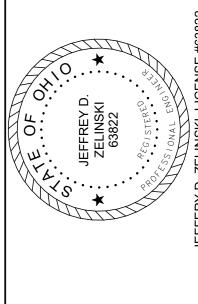
- COORDINATE EACH ROUGH-IN INSTALLATION REQUIREMENTS AND LOCATIONS WITH OTHER TRADES, ACTUAL EQUIPMENT OR CABINETRY PROVIDED AND FIELD CONDITIONS BEFORE
- REFER TO ARCHITECTURAL DRAWING ELEVATIONS FOR MOUNTING LOCATION INFORMATION, ARRANGEMENT AND HEIGHT FOR ALL DEVICES AT FURNISHINGS, CASEWORK, ETC.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES. WHERE DISCREPANCIES MAY OCCUR BETWEEN THE ELECTRICAL PLANS AND THE ARCHITECTURAL CEILING PLANS ON QUANTITY OF FIXTURES, THE ELECTRICAL PLANS SHALL TAKE PRECEDENCE. COORDINATE FIXTURE LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS WITH PIPING AND DUCTWORK.
- ALL EQUIPMENT AND MATERIAL REQUIRED FOR COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEMS SHALL BE INCLUDED IN THE CONTRACT.

ELECTRICAL INDEV DE DRAWINGS

ELECT	RICAL INDEX OF DRAWING
	DRAWING TITLE LEGEND
E0.2	SCHEDULES
E0.3	SINGLE LINE
E0.4	DETAILS
E0.5	DETAILS
E0.6	MSD&C SCHEDULE
E0.7	PANEL SCHEDUELS
E1.1	SITE PLAN
E2.1	FIRST FLOOR LIGHTING PLAN
E2.2	SECOND FLOOR LIGHTING PLAN
E3.1	FIRST FLOOR POWER PLAN
E3.2	SECOND FLOOR POWER AND SYSTEMS PLAN
E4.1	FIRST FLOOR SYSTEMS PLAN

SEISMIC REQUIREMENTS

THIS PROJECT HAS SEISMIC REQUIREMENTS. REFER TO DRAWING H0.1



These designs and all items depicted herein. instruments of professional service, may not e altered or changed, in any way, without e prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm or

REVISIONS PLAN APPROVAL / BIDDING

loss caused thereby.

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY TCR

LEGEND

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

AR

~

ш

ш

~

CTION

NOIL

LIGHTING CONTROL RELAY PANEL LOAD AND CONTROL REQUIREMENTS SCHEDULE PANEL DESIGNATION: RP1 (24 POSITION PANEL) FIXTURE NO. OF DEVICE (KVA) CIRCUIT NO. (VOLTAGE) CONTROL OUTPUT CONTROL INPUT RELAY DIM 0-10V DISCRETE SWITCH OCC SENSOR PHOTO CELL CLOCK NOTE ROOM/ AREA DESCRIPTION NO. POLE LIGHTING PL1 **EXTERIOR** 120V • **EXTERIOR** BLDG LIGHTING K1 120V SPARE 120V • SPARE 120V APP BAY C2 ZONE 'a' 120V • • • C2 • | • APP BAY ZONE 'b' 120V •

120V

120V

120V

120V

120V

120V

•

•

•

12 NOTES:

8

10

11

APP BAY

APP BAY

APP BAY

SPARE

SPARE

SPARE

ZONE 'c'

ZONE 'd'

ZONE 'e'

C2

C2

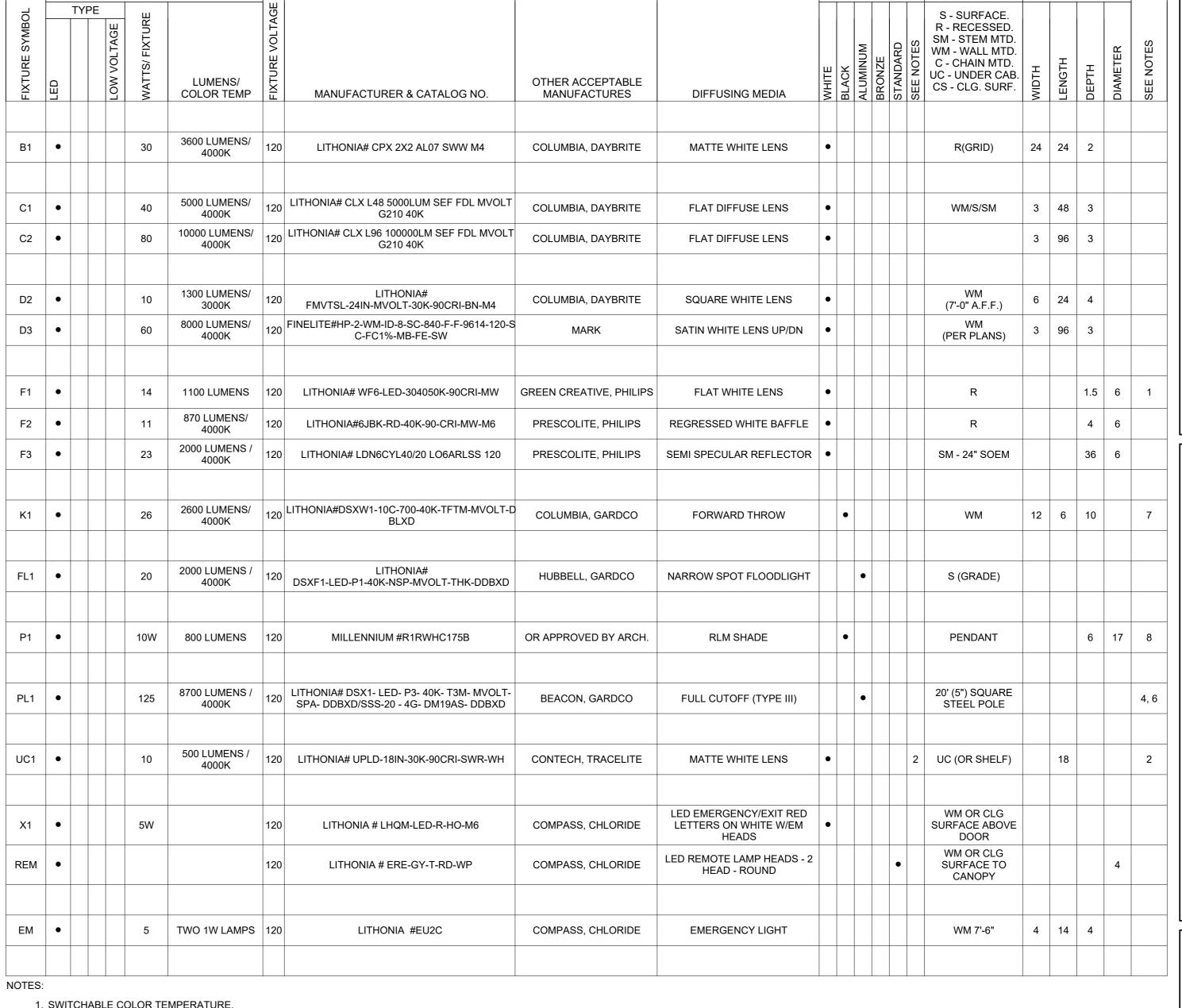
C2

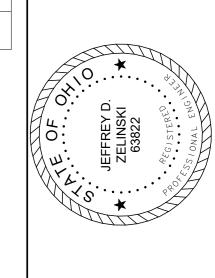
			LUMINA	IRE	I				Т	RIM	CO	LOR	MOUNTED		SI	IZE		
FIXTURE SYMBOL	TED	LOW VOLTAGE	WATTS/ FIXTURE	LUMENS/ COLOR TEMP	FIXTURE VOLTAGE	MANUFACTURER & CATALOG NO.	OTHER ACCEPTABLE MANUFACTURES	DIFFUSING MEDIA	WHITE	BLACK	BRONZE	STANDARD	S - SURFACE. R - RECESSED. SM - STEM MTD. WM - WALL MTD. C - CHAIN MTD. UC - UNDER CAB. CS - CLG. SURF.	WIDTH	LENGTH	DEРТН	DIAMETER	SEE NOTES
B1	•		30	3600 LUMENS/	120	LITHONIA# CPX 2X2 AL07 SWW M4	COLUMBIA, DAYBRITE	MATTE WHITE LENS	•				R(GRID)	24	24	2	_	
				4000K			,											
C1	•		40	5000 LUMENS/ 4000K 10000 LUMENS/	120	LITHONIA# CLX L48 5000LUM SEF FDL MVOLT G210 40K LITHONIA# CLX L96 100000LM SEF FDL MVOLT	COLUMBIA, DAYBRITE	FLAT DIFFUSE LENS	•		_		WM/S/SM	3	48	3		
C2	•		80	4000K	120	G210 40K	COLUMBIA, DAYBRITE	FLAT DIFFUSE LENS	•					3	96	3		
D2	•		10	1300 LUMENS/ 3000K	120	LITHONIA# FMVTSL-24IN-MVOLT-30K-90CRI-BN-M4	COLUMBIA, DAYBRITE	SQUARE WHITE LENS	•				WM (7'-0" A.F.F.)	6	24	4		
D3	•		60	8000 LUMENS/ 4000K	120	FINELITE#HP-2-WM-ID-8-SC-840-F-F-9614-120-S C-FC1%-MB-FE-SW	MARK	SATIN WHITE LENS UP/DN	•				WM (PER PLANS)	3	96	3		
F1	•		14	1100 LUMENS 870 LUMENS/	120		GREEN CREATIVE, PHILIPS	FLAT WHITE LENS	•		+		R			1.5		1
F2 F3	•		23	4000K 2000 LUMENS / 4000K	120		PRESCOLITE, PHILIPS PRESCOLITE, PHILIPS	REGRESSED WHITE BAFFLE SEMI SPECULAR REFLECTOR					R SM - 24" SOEM			36	6	
K1	•		26	2600 LUMENS/ 4000K	120	LITHONIA#DSXW1-10C-700-40K-TFTM-MVOLT-D BLXD	COLUMBIA, GARDCO	FORWARD THROW	•	•			WM	12	6	10		7
EL1	•		20	2000 LUMENS / 4000K	120	LITHONIA# DSXF1-LED-P1-40K-NSP-MVOLT-THK-DDBXD	HUBBELL, GARDCO	NARROW SPOT FLOODLIGHT		•	•		S (GRADE)					
P1	•		10W	800 LUMENS	120	MILLENNIUM #R1RWHC175B	OR APPROVED BY ARCH.	RLM SHADE	•	•			PENDANT			6	17	8
PL1	•		125	8700 LUMENS / 4000K	120	LITHONIA# DSX1- LED- P3- 40K- T3M- MVOLT- SPA- DDBXD/SSS-20 - 4G- DM19AS- DDBXD	BEACON, GARDCO	FULL CUTOFF (TYPE III)		•	•		20' (5") SQUARE STEEL POLE					4, 6
JC1	•		10	500 LUMENS / 4000K	120	LITHONIA# UPLD-18IN-30K-90CRI-SWR-WH	CONTECH, TRACELITE	MATTE WHITE LENS	•			2	2 UC (OR SHELF)		18			2
X1	•		5W		120	LITHONIA # LHQM-LED-R-HO-M6	COMPASS, CHLORIDE	LED EMERGENCY/EXIT RED LETTERS ON WHITE W/EM HEADS	•				WM OR CLG SURFACE ABOVE DOOR					
EM	•				120	LITHONIA # ERE-GY-T-RD-WP	COMPASS, CHLORIDE	LED REMOTE LAMP HEADS - 2 HEAD - ROUND				•	WM OR CLG SURFACE TO CANOPY				4	
										_								

1

• • • •

- 1. SWITCHABLE COLOR TEMPERATURE.
- 2. INTEGRAL ROCKER SWITCH (HARD WIRED CONNECTION). 3. COORDINATE FIXTURE SUSPENSION HEIGHT WITH ARCHITECT.
- 4. REFER TO POLE BASE DETAIL.
- 5. PROVIDE SURFACE MOUNTED WEATHER PROOF BACK BOX FOR SURFACE MOUNTING TO UNDERSIDE OF CANOPY.
- 6. FIXTURES SHALL HAVE 7-PIN CONTROL RECEPTACLE WITH SHORTING CAP, REFER TO SITE PLAN FOR POLE FIXTURES WITH CONVENIENCE RECEPTACLE AT BASE.
- 7. FIXTURE CENTERED ON WALL BETWEEN APPARATUS BAY DOORS. REFER TO ARCHITECHTURAL ELEVATIONS FOR MOUNTING HEIGHT.
- 8. COORDINATE SUSPENSION HEIGHT WITH ARCHITECT.
- 9. ADJUSTABLE LUMEN OUTPUT 1000-2000 LUMEN.





STATION 2

FIRE

ENGINEERS

ARCHITE

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such decuments. documents
and instruments and the Architect will not be
personally liable for any damage, harm or
loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

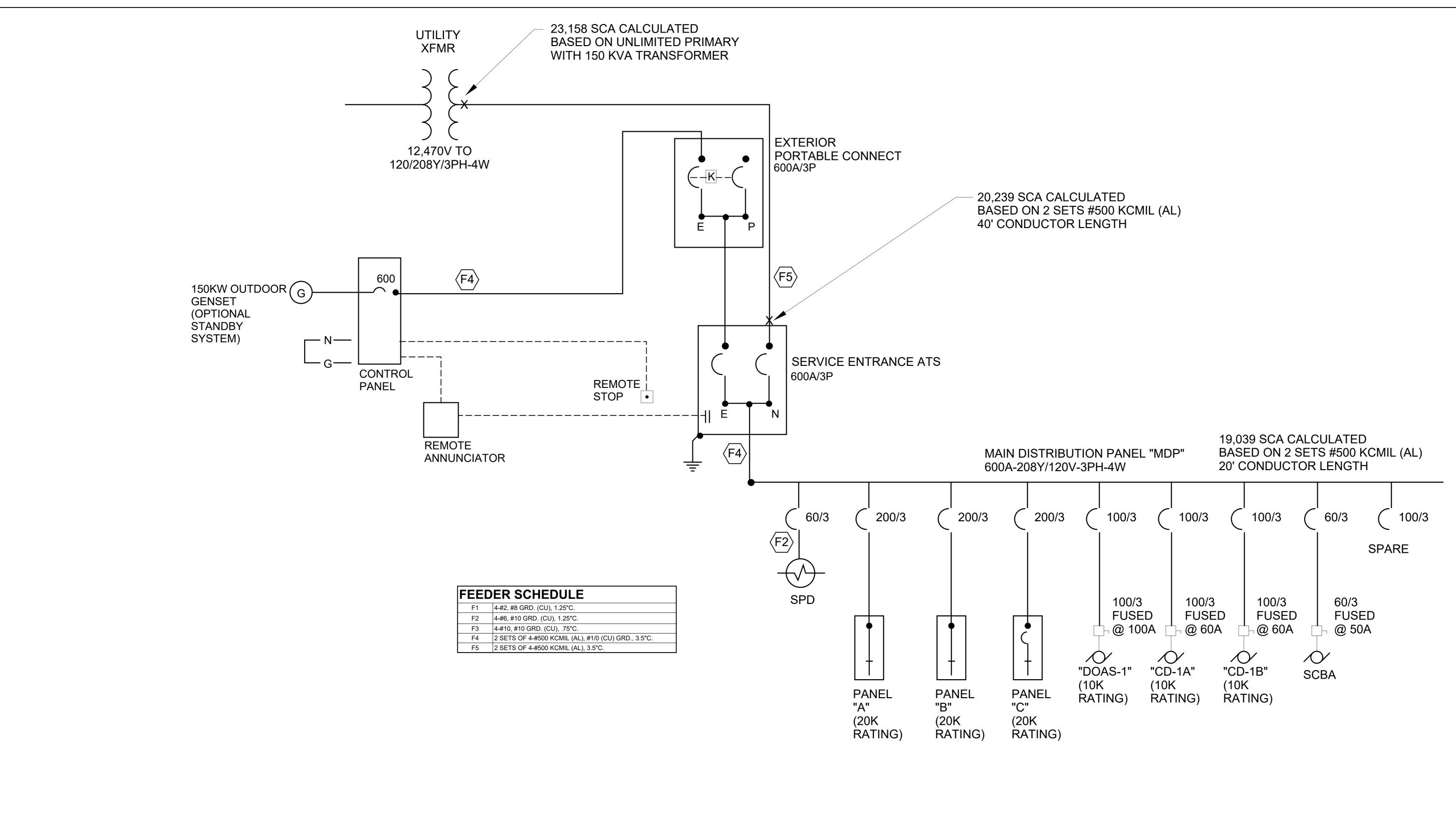
COMM. NUMBER DATE DRAWN BY CHECKED BY TCR

SCHEDULES

Nauman & Zelinski llc. 204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015

^{1.} OVERIDE BUTTON LOCATED IN APP BAY CONTROL PANELS TO BYPASS OCCUPANCY SENSOR CONTROL. (ALL ON)



ENGINEERS **ARCHITECTS**

NEW CONSTRUCTION OF STATION 2 FIRE

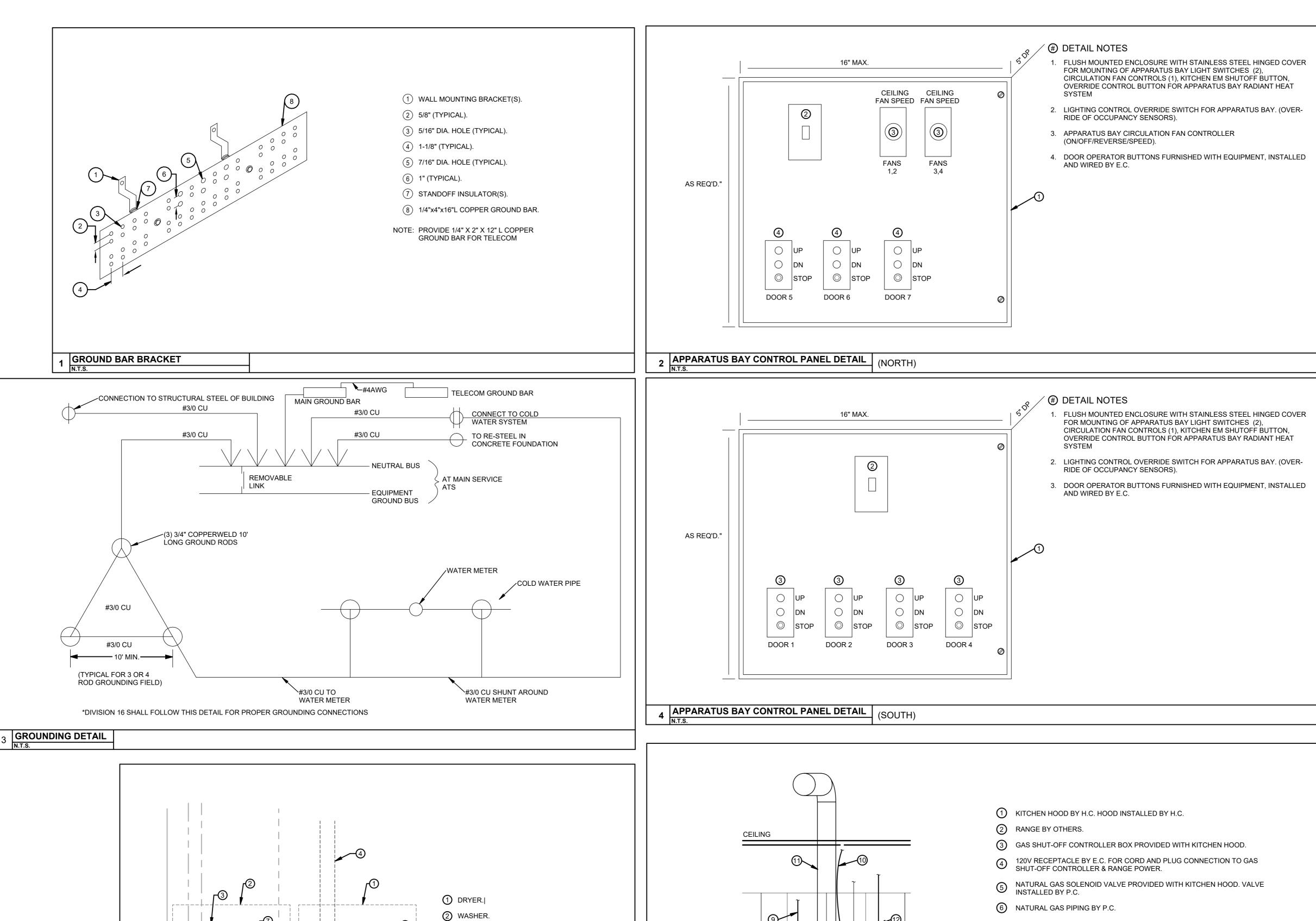
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents
and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

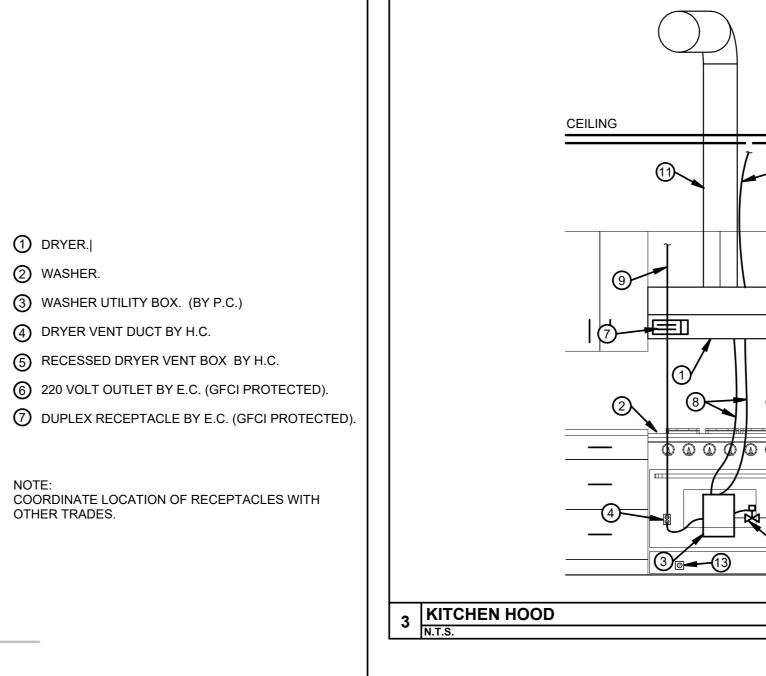
> REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY TCR

SINGLE LINE

E0.3





OTHER TRADES.

LAUNDRY ELEVATION

- (ON HOOD OR REMOTE WALL MTD.).
- 8 LOW VOLTAGE WIRING BY E.C. REFER TO MANUFACTURERS INSTALLATION FIELD DIAGRAM FOR ADDITIONAL INFORMATION.
- 9 120V KITCHEN HOOD POWER CONNECTION BY E.C.
- UNE AND LOW (0-10VDC) VOLTAGE WIRING BY E.C. TO INLINE EXHAUST FAN.
- 11) EXHAUST DUCT BY H.C.
- CONTROL CONNECTION TO HOOD DRY CONTACT. REFER TO CONTROL DIAGRAM 3, SHEET H4.3.
- 50A-208V-1PH RECEPTACLE (GFCI PROTECTED) FOR FUTURE ELECTRIC RANGE (6" M.H.).

Nauman & Zelinski llc. 204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

ENGINEERS

TATION

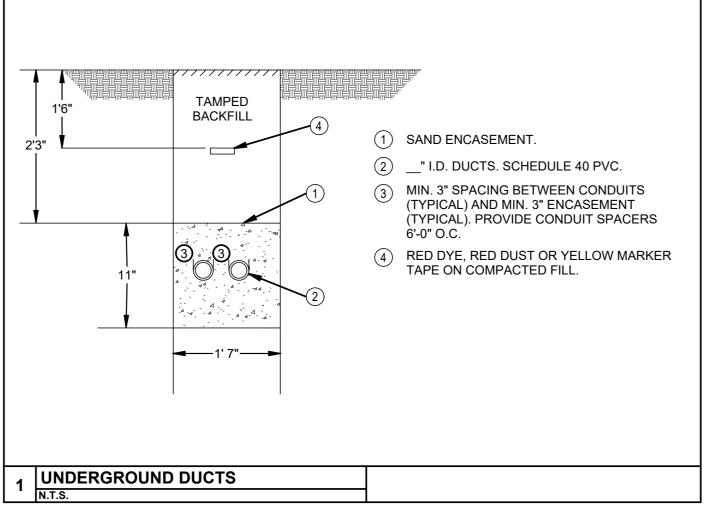
FIR

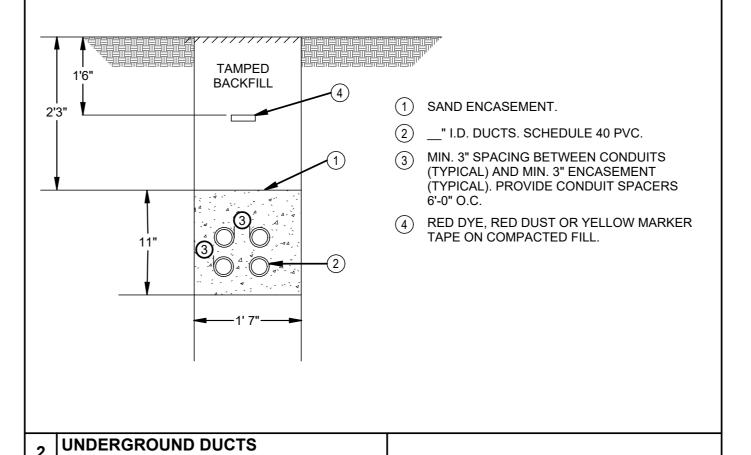
These designs and all items depicted herein. whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents
and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

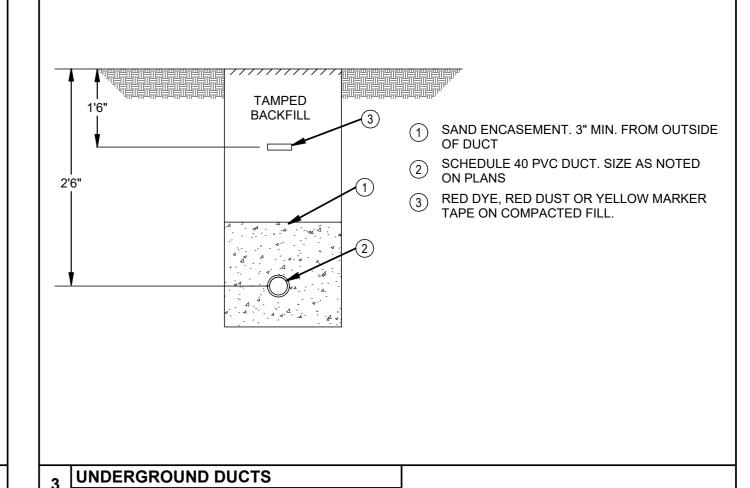
REVISIONS PLAN APPROVAL / BIDDING

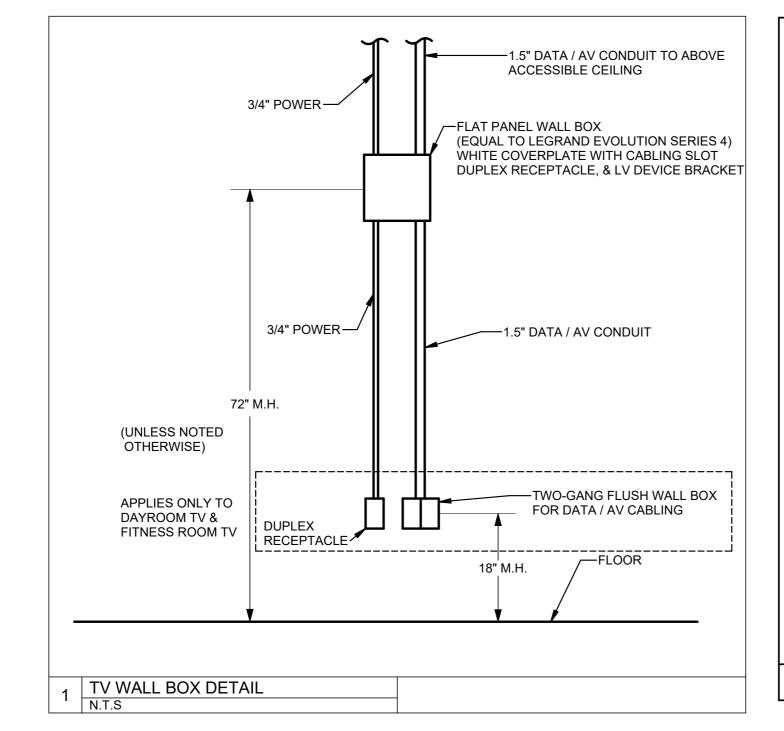
COMM. NUMBER DATE DRAWN BY CHECKED BY TCR

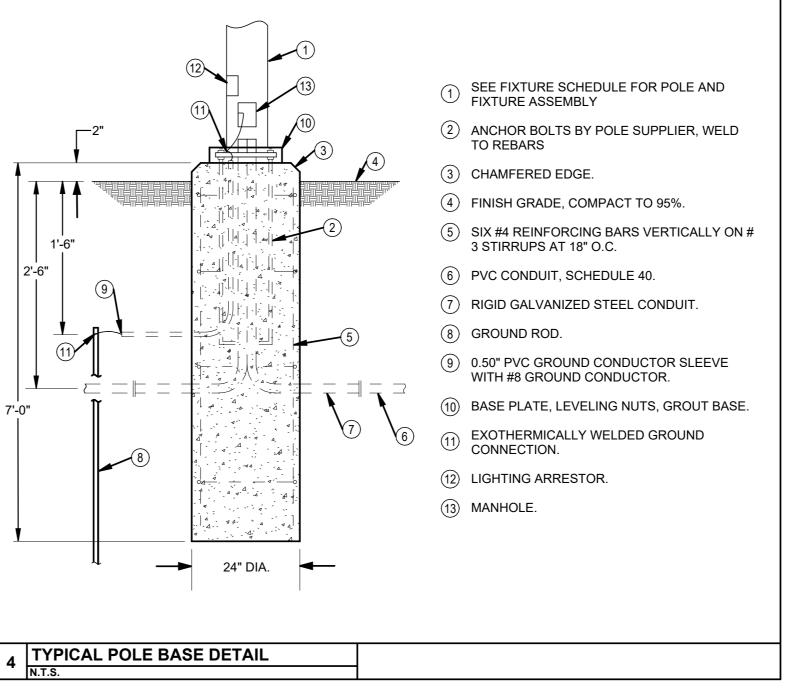
DETAILS

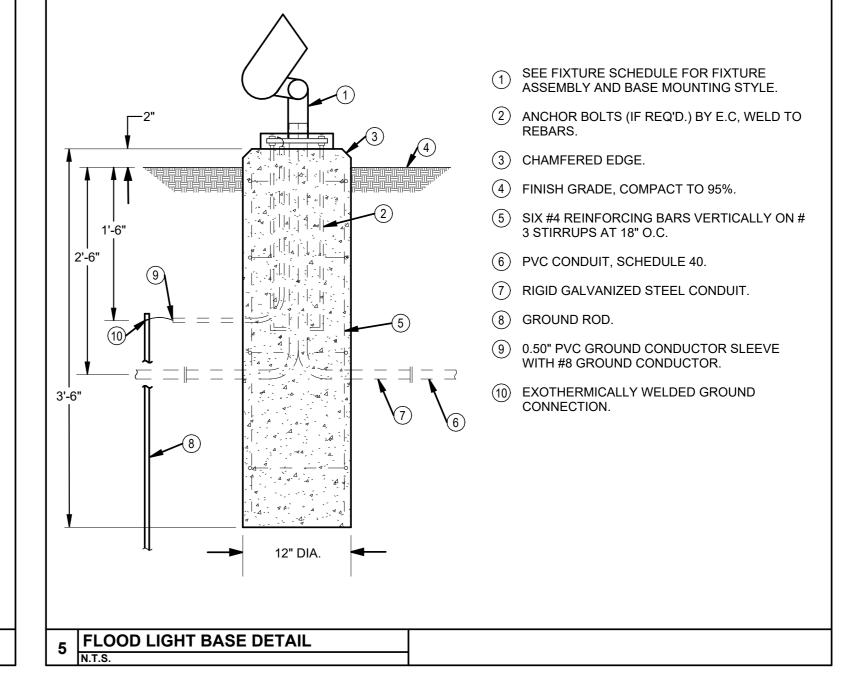


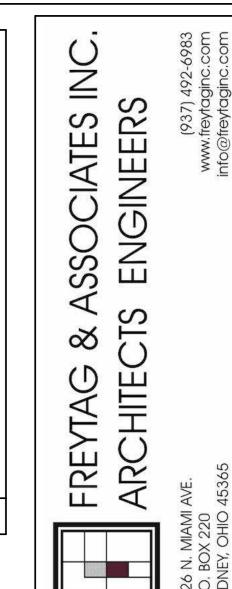












ATION FIR

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents. documents
and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 DRAWN BY CHECKED BY TCR

DETAILS

NAUMAN & ZELINSKI LLC.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

				ID	ΞD	0	VI	ER	RHEAD CIRC										NITE	201				חבים	
			FAN CHARAC	TERI	STIC	S					TYPE	CONI E		CAT					NTF 世	KOL			FEE	DER	
FAN NUMBER	CIRCUIT NUMBER	NAMEPLATE	HP (KVA OR FLA)	120V-1PH	208V-3PH	208V-1PH	480V-1PH	480V-3PH	LOCATION	DISC. SWITCH	TOGGLE SWITCH	BREAKER	NEAR MOTOR	CONTROLLER	SEE NOTES	FURNISHED BY	FAN CONTROL PANEL	INDIVIDUAL SPEED CONT. / OFF	GROUP SPEED CONTROLLER / OF	KEEP SPACE FOR FUTURE	SEE NOTES	NO. OF CONDUCTORS	WIRE SIZE	GRD. SIZE	CONDUIT SIZE
CF1		CEILING FAN		•					APP BAY			•							•						
																						_	_		

			MOTOR							<u> </u>			,	STAF	RTER	<u>S</u>							DISCO	NNE	∟ا∨ا ار	ANS				CONTR	₹OL		FEE)ER	'
			CHARAC	TERI	ISTIC	S						TYF	PE	_	\vdash	LOC	CATIO	NC	-	⊩	· ·	TYPE	<u> </u>	_	LO	CATI	ON	4							,
MOTOR NUMBER	CIRCUIT NUMBER	NAMEPLATE	HP (KVA OR FLA)	120V-1PH	208V-3PH	208V-1PH	480V-1PH	480V-3PH	LOCATION	NEMA SIZE	MANUAL	BUILT-IN MOTOR 0/L		ECM	NEAR MOTOR	MOTOR CONT. CNTR	EQUIP. CONT. PANEL	ROOM NUMBER	SEE NOTE FURNISHED BY	DISC. SWITCH	MANUAL STARTER	RECEPTACLE	BREAKER	NEAR MOTOR	MOTOR. CONT. PANEL	EQUIP. CONT. PANEL	PANELBOARD	SEE NOTE		MANUAL AT STARTER INTEGRAL W/ EQUIP.	BY H.C.	SEE NOTE NO. OF CONDUCTORS	WIRE SIZE	GRD. SIZE	CONDUIT SIZE
OAS-1		DOAS UNIT	54 MCA/60 MOCP		•			00	N GRADE											•				•				F	IC		•	3	6	10	1
D-1a		COND. UNIT 1a	38 MCA/60 MOCP		•			10	N GRADE											•				•				E	C		•	3	2	8	1.25
CD-1b			38 MCA/60 MOCP		•				N GRADE											•				•					EC		•	3		8	
C-1		FAN COIL 1	3 MCA/15 MOCP			•		МЕ	ECH. ROOM											•								H	IC		•	2	12	12	.5
C-2A		FAN COIL 2A	0.3 MCA/15 MOCP			•		FIT	TNESS											•									IC		•	2			
C-2B			0.3 MCA/15 MOCP			•			TNESS				\perp							•									IC		•	2			
C-3			3 MCA/15 MOCP			•			ECH. ROOM				_					_		•									IC		•	2			.5
C-4			3 MCA/15 MOCP			•			ECH. ROOM				_							•									IC		•	2		12	.5
C-5 C-6			3 MCA/15 MOCP 0.3 MCA/15 MOCP			•			ECH. ROOM ROOM											•	-								IC IC		•	2	12		
S-1		BRANCH SELECTOR	1 MCA/15 MOCP			•														•								E	C		•	2	12	12	.5
TU-1-1			2.8 KW		•				TNESS											•	_								IC IC		•		12		
TU 1-2		AIR TERMINAL UNIT 1-2			•				TNESS											ŀ									IC	+	•		12		.5 .5
TU-1-3 TU-1-5		AIR TERMINAL UNIT 1-3 AIR TERMINAL UNIT 1-5			•				AYROOM ECH. ROOM				+																IC		•		12		
110-1-3		AIIX TERMINAL ONTT 1-3	3.0 KW					IVIL	LCH. ROOM																			i					12		
F-1		EXH. FAN 1	3 HP		•			AP	PP BAY FAN					•	•					•									IC		•	3	12	12	.5
F-2		EXH. FAN 2	1/10 HP	•				AP	PP BAY FAN					•	•					•									IC		•	_	12	_	
F-3		EXH. FAN 3	1/4 HP	•					TORM SHELTER					•	+					•	_								IC		•	_	12		
F-4 F-5		EXH. FAN 4	1/6 HP 1/4 HP	•					OG ROOOM				+	•					H(C •	+								IC IC		•		12		
=r-5 =F-6			1/10 HP	•					VING QUARTERS ECON ROOM				+	•	+ -					3 •									IC		•	_	12	_	
F-7		EXH. FAN 7	1/2 HP	•					TCHEN HOOD					•	•					C •									IC		•	_	12		_
F-1		INTAKE FAN 1	1/6 HP	•				DE	ECON ROOM					•	•				Н	O •								F	IC		•	2	12	12	.5
																																	10	10	_
RH-1			5 AMPS	•					PP BAY	+ +		_	+			_	_	\perp		•				•			_		C C		•		12		
RH-2 RH-3			5 AMPS 5 AMPS	•					PP BAY PP BAY				+					+			_	H		-					C C		•		12		
кп-э КН-4			5 AMPS	•					PP BAY				+				+	+		•	_			•			+		C		•		12		
SUH-1			9 AMPS	•					PP BAY			•)				•		Н	C •				•					IC		•		12		
UH-1		ELEC. UNIT HTR. 1	1.5 KW	•				\/^	ARIES	+ +		•	,				•	+	Н	0 •	+			•				F	IC		•	+	12	12	5
UH-2			5 KW	+	•				ARIES			•	-				•	+) 				•					IC		•	_	10	_	
UH-3		1	4 KW		•				ARIES			•	•				•			O •				•					IC		•	_	12	_	
)H-1		ELEC. DUCT HTR	15 KW		•			DE	ECON				+				+		Н	O •	+			•				H	IC		•	3	6	10 .	.75

NOTES:

- 1. REFER TO FAN CONTROL DETAILS 1 & 2, H3.5 FOR CONTROLS AND INTERLOCK WIRING.
- 2. FAN POWERED FROM STORM SHELTER LIGHTING UPS.
- 3. FAN POWERED AND CONTROLLED FROM KITCHEN HOOD/CIRCUIT.



STATION 2

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such decuments. documents
and instruments and the Architect will not be
personally liable for any damage, harm or
loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY TCR

MSD&C SCHEDULE

E0.6

DAUMAN & ZELINSKI LLC.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015

^{1.} REFER TO SPECIFICATIONS, 26 5700

(LOCATION: SUPPLY FROM: VOLTAGE:		08 Wye	-3-4	ENG	OUNTING CLOSURE B RATING				MA	AINS	ATING TYPE: I			
СКТ	Description	Trip	Poles	Note	-	١	E	3		3	Note	Poles	Trip	Description	СКТ
1	Lighting	20 A	1		1485 VA	90 VA						1	20 A	Lighting	2
3	Lighting	20 A	1				1000 VA	1000 VA				1	20 A	Lighting	4
5	Service Cord	20 A	1	1					500 VA	500 VA	1	1	20 A	Service Cord	6
7	Service Cord	20 A	1	1	500 VA	500 VA					1	1	20 A	Service Cord	8
9	Service Cord	20 A	1	1			1000 VA	1000 VA			1	1	20 A	Service Cord	10
11	Service Cord	20 A	1	1					500 VA	1600 VA		1	20 A	OH DOOR 1	12
13	OH DOOR 2	20 A	1		1600 VA	1600 VA						1	20 A	OH DOOR 3	14
15	OH DOOR 4	20 A	1				1600 VA	1600 VA				1	20 A	OH DOOR 5	16
17	OH DOOR 6	20 A	1						1600 VA	1600 VA		1	20 A	OH DOOR 7	18
19	App Bay 122	20 A	1		540 VA	900 VA						1	20 A	App Bay 122	20
21	App Bay 122	20 A	1				720 VA	900 VA				1	20 A	App Bay 122	22
23	App Bay 122	20 A	1						900 VA	400 VA		1	20 A	CLG FANS	24
25	CLG FANS	20 A	1		400 VA	1000 VA						1	20 A	GEN. CHRG.	26
27	SOFFITT REC.	20 A	1				180 VA	180 VA				1	20 A	Receptacles	28
29	CO/NOX Sys.	20 A	1						1000 VA	360 VA		1	20 A	Weight Rm.124	30
31	Drying Cabinet	20 A	1		180 VA	540 VA						1	20 A	Weight Rm.124	32
33	Decon 123	20 A	1				360 VA	1000 VA				1	20 A	GEN. HTR.	34
35	Spare	20 A	1						0 VA	3200 VA		1	20 A	RAD. HTR.	36
37	Spare	20 A	1		0 VA	3200 VA						1	20 A	RAD. HTR.	38
39	FC-2A/2B	15 A	2				300 VA	0 VA				1	20 A	Spare	40
41									300 VA	0 VA		1	20 A	Spare	42
43	DH-1	20 A	3		5000 VA	0 VA						3	30 A	TOG WASH	44
45							5000 VA	0 VA							46
47									5000 VA	0 VA					48
49	ATU1-1	20 A	3		933 VA	367 VA						3	20 A	ATU1-2	50
51							933 VA	367 VA							52
53									933 VA	367 VA					54
		Total	Load:		1883	5 VA	1714	0 VA	1876	0 VA					
NOTE	ES:														

Receptacles	10260 VA	70.00%	7182 VA	Total Conn. Current:	152 A
				Total Est. Demand	120 A
Branch Panel: C					
LOCATION:	MOUNTIN	IG: Flush		A.I.C RATING	

ENCLOSURE: Type 1

MCB RATING: 1 A

125.00%

80.00%

70.00%

1969 VA 31120 VA

2800 VA

Total Conn. Load: 54735 VA

Total Est. Demand: 43071 VA

MAINS TYPE: M.L.O MAINS RATING: 225 A

1575 VA

38900 VA

4000 VA

Power

NOTES:

SUPPLY FROM: MDP

VOLTAGE: 120/208 Wye-3-4

СКТ	Description	Trip	Poles	Note	Α	\	E	3		;	Note	Poles	Trip	Description	СКТ
1	Lighting	20 A	1		699 VA	317 VA						1	20 A	Lighting	2
3	Lighting	20 A	1				688 VA	1260 VA			1	1	20 A	Toilet 107,9	4
5	Kitchen 114	20 A	1	1					1780 VA	1080 VA	1	1	20 A	Kitchen 114	6
7	Kitchen 114	20 A	1		180 VA	360 VA						1	20 A	Kitchen 114	8
9	Kitchen 114	20 A	1				540 VA	360 VA				1	20 A	Kitchen 114	10
11	Kitchen 114	20 A	1						540 VA	360 VA		1	20 A	Kitchen 114	12
13	Kitchen 114	20 A	1		180 VA	180 VA						1	20 A	Kitchen 114	14
15	Kitchen 114	20 A	1				720 VA	360 VA			2	1	20 A	Dayroom 114	16
17	Jan. 104	20 A	1	2					540 VA	1080 VA	2	1	20 A	DORMS	18
19	DORMS	20 A	1	2	1260 VA	1080 VA					2	1	20 A	DORMS	20
21	EUH-1	20 A	1				1500 VA	180 VA			1	1	20 A	REFRIG.	22
23	REFRIG.	20 A	1	1					180 VA	180 VA	1	1	20 A	REFRIG.	24
25	RANGE	50 A	2	1	4160 VA	1267 VA						3	30 A	ATU1-3	26
27							4160 VA	1267 VA							28
29	Gas Valve	20 A	1						1600 VA	1267 VA					30
31	Decon Damp.	20 A	1		2000 VA	0 VA						1	20 A	Spare	32
33	Spare	20 A	1				0 VA	0 VA				1	20 A	Spare	34
35	Spare	20 A	1						0 VA	0 VA		1	20 A	Spare	36
37	Spare	20 A	1		0 VA	0 VA						1	20 A	Spare	38
39	Spare	20 A	1				0 VA	0 VA				1	20 A	Spare	40
41	Spare	20 A	1						0 VA	0 VA		1	20 A	Spare	42
		Total	Load:		1107	2 VA	1103	4 VA	8607	7 VA					

Load Classification	Connected Load	Demand Factor	Estimated	Panel	Totals
Lighting	1436 VA	125.00%	1796 VA		
Other	4700 VA	70.00%	3290 VA	Total Conn. Load:	30687 VA
Power	6340 VA	70.00%	4438 VA	Total Est. Demand:	22082 VA
Receptacles	18580 VA	70.00%	13006 VA	Total Conn. Current:	85 A
				Total Est. Demand	61 A

S	LOCATION: SUPPLY FROM: VOLTAGE:		08 Wye	-3-4	ENG	OUNTING CLOSURE B RATING	• •			MA	AINS	ATING TYPE: I			
СКТ	Description	Trip	Poles	Note	A	\	I	3	C	;	Note	Poles	Trip	Description	CK.
1	Lighting	20 A	1		242 VA	569 VA						1	20 A	Lighting	2
3	Site Lighting	20 A	1				651 VA	720 VA				1	20 A	IT 105	4
5	IT 105	20 A	1						720 VA	720 VA		1			
	Report Rm.117	20 A	1		360 VA	180 VA						1	20 A	App Bay 122	8
	Report Rm.117	20 A	1				360 VA	180 VA				1	20 A	Washer	10
11	App Bay 122	20 A	1						180 VA	360 VA		1	20 A	Decon 119	12
13	WH-1	20 A	1		180 VA	540 VA						1	20 A	TOG 118	14
15	Ice Maker	20 A	1	1			180 VA	1260 VA				1	20 A	Exterior Rec.	16
17	EF-2	20 A	1						1600 VA	10000		3	20 A	EF-1	18
19	EF-4	20 A	1		1600 VA	10000									20
21	EF-5	20 A	1				1600 VA	10000 VA							22
23	EF-7	20 A	1						1600 VA	500 VA		2	15 A	FC-1	24
25	FC-3	15 A	2		500 VA	500 VA									26
27							500 VA	500 VA				2	15 A	FC-4	28
29	FC-5	15 A	2						500 VA	500 VA					30
31					500 VA	1500 VA						2	20 A	FC-6	32
33	ATU1-5	20 A	3				333 VA	1500 VA							34
35									333 VA	500 VA		2	60 A	AIR COMP.	36
37					333 VA	500 VA		2.125							38
39	Other	20 A	3				833 VA	2496 VA	000111	0.4063.43	1	2	30 A	Dryer	40
41					000 : / 1	500			833 VA	2496 VA					42
43					833 VA	500 VA	500 111	500://				2	15 A	BS-1	44
45	EUH-2	20 A	3				500 VA	500 VA	500.11						46
47					500 111	4500346			500 VA						48
49					500 VA	1500 VA	000111	500:11				1	20 A	EUH-1	50
51	EUH-3	20 A	3				833 VA	500 VA	000111	500 : / :		3	20 A	EUH-2	52
53					000111	500			833 VA	500 VA					54
55					833 VA	500 VA		4000375						 IT 405	56
57			ļ.,					4992 VA	1005:11	0.1.1		1	30 A	IT 105	58
59	Motor	20 A	1			0.17			1600 VA	0 VA		3	20 A	Spare	60
61			ļ , .			0 VA	0.144	0.1							62
63	Spare	20 A	1				0 VA	0 VA	0.1.1	0.1.1					64
65	Spare	20 A	1		0.1.1	0.7.			0 VA	0 VA		1	20 A	Spare	66
67	Spare	20 A	1		0 VA	0 VA						1	20 A	Spare	68
69	Spare	20 A	1				0 VA	0 VA				1	20 A	Spare	70
71	Spare	20 A	1						0 VA	0 VA		1	20 A	Spare	72
		Total	Load:		2216	9 VA	2843	88 VA	2/27	6 VA		1		I	

, ,	Opaic	2011			0 7/1	, , , , , , , , , , , , , , , , , , , ,	/\ Opuic	1 -
		Total Load:	22169 VA	28438 VA	24276 V	/A		
NOTE	S:				·			
Load	Classification		Connected Load	Demand Factor	Estimated	Pane	l Totals	
Lightir	ng		1460 VA	125.00%	1825 VA			
Motor	•		41000 VA	80.00%	32800 VA	Total Conn. Load	: 74883 VA	
Other			9500 VA	70.00%	6650 VA	Total Est. Demand	: 57321 VA	
Power	r		7000 VA	70.00%	4900 VA	Total Conn. Current	: 208 A	
Recep	otacles		15924 VA	70.00%	11147 VA	Total Est. Demand.	. 159 A	
$\overline{}$			<u>'</u>			•	-	

	anch Panel: LOCATION: SUPPLY FROM: VOLTAGE:	MDP	08 Wye	-3-4	ENG	OUNTING CLOSURE B RATING				MA	AINS	ATING TYPE: TING: ;			
СКТ	Description	Trip	Poles	Note		A		 3			Note	Poles	Trip	Description	СКТ
1	Lighting	20 A	1		242 VA	569 VA						1	20 A	Lighting	2
3	Site Lighting	20 A	1				651 VA	720 VA				1	20 A	IT 105	4
5	IT 105	20 A	1					-	720 VA	720 VA		1	20 A	Report Rm.117	6
7	Report Rm.117	20 A	1		360 VA	180 VA						1	20 A	App Bay 122	8
9	Report Rm.117		1				360 VA	180 VA				1	20 A	Washer	10
11	App Bay 122	20 A	1						180 VA	360 VA		1	20 A	Decon 119	12
13	WH-1	20 A	1		180 VA	540 VA						1	20 A	TOG 118	14
15	Ice Maker	20 A	1	1			180 VA	1260 VA				1	20 A	Exterior Rec.	16
17	EF-2	20 A	1						1600 VA	10000		3	20 A	EF-1	18
19	EF-4	20 A	1		1600 VA	10000									20
21	EF-5	20 A	1				1600 VA	10000 VA							22
23	EF-7	20 A	1						1600 VA	500 VA		2	15 A	FC-1	24
25	FC-3	15 A	2		500 VA	500 VA									26
27							500 VA	500 VA				2	15 A	FC-4	28
29	FC-5	15 A	2						500 VA	500 VA					30
31					500 VA	1500 VA						2	20 A	FC-6	32
33	ATU1-5	20 A	3				333 VA	1500 VA							34
35									333 VA	500 VA		2	60 A	AIR COMP.	36
37					333 VA	500 VA									38
39	Other	20 A	3				833 VA	2496 VA			1	2	30 A	Dryer	40
41									833 VA	2496 VA					42
43					833 VA	500 VA						2	15 A	BS-1	44
45	EUH-2	20 A	3				500 VA	500 VA							46
47									500 VA						48
49					500 VA	1500 VA						1	20 A	EUH-1	50
51	EUH-3	20 A	3				833 VA	500 VA				3	20 A	EUH-2	52
53									833 VA	500 VA					54
55					833 VA	500 VA									56
57								4992 VA				1	30 A	IT 105	58
59	Motor	20 A	1						1600 VA	0 VA		3	20 A	Spare	60
61						0 VA									62
63	Spare	20 A	1				0 VA	0 VA							64
65	Spare	20 A	1						0 VA	0 VA		1	20 A	Spare	66
~=						0.1/4									

СКТ	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Wire Size	Feed	Cond. Size
1	PANEL 'A'	3	200 A	200 A	54735 VA	3-#4/0, 1-#4/0, 1-#6		2"
2	PANEL 'B'	3	200 A	200 A	74883 VA	3-#4/0, 1-#4/0, 1-#6		2"
3	PANEL 'C'	3	200 A	200 A	30687 VA	3-#4/0, 1-#4/0, 1-#6		2"
4	DOAS-1	3	100 A	100 A	15600 VA	3-#2, 1-#2, 1-#8		1.25
5	CD-1A	3	100 A	100 A	10800 VA	3-#2, 1-#2, 1-#8		1.25"
6	CD-1B	3	100 A	100 A	10800 VA	3-#2, 1-#2, 1-#8		1.25
7	SCBA	3	60 A	60 A	6000 VA	3-#6, 1-#6, 1-#10		
8	Spare	3	100 A	100 A	0 VA			
9								
10								
11								
12								
			Total C	onn. Load:	·	203492 VA		
			To	otal Amps:		565 A		

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating:

Mains Type: M.L.O

Mains Rating: 600 A

MCB Rating: 1 A

Switchboard: MDP

Location:

Mounting: Surface

Enclosure: Type 1

Supply From:

Load Classification	Connected Load	Demand Factor	Estimated	Panel	Totals
Lighting	4223 VA	125.00%	5279 VA		
Motor	79900 VA	80.00%	63920 VA	Total Conn. Load:	203492 VA
Other	14200 VA	70.00%	9940 VA	Total Est. Demand:	152685 VA
Power	60540 VA	70.00%	42378 VA	Total Conn. Current:	565 A
Receptacles	44764 VA	70.00%	31335 VA	Total Est. Demand	424 A

CONSTRUCTION NOTES 1. PROVIDE GFCI BREAKER OR CIRCUIT PROTECTOR.

2. PROVIDE AFCI BREAKER.

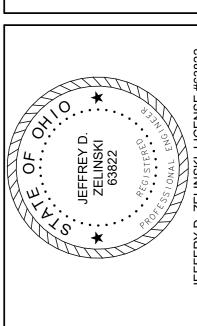
2

ASSOCIATES IN ENGINEERS

SIDNEY

STATION 2 FIRE

NEW CONSTRUCTION OF



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such decuments. documents
and instruments and the Architect will not be
personally liable for any damage, harm or
loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY TCR

PANEL SCHEDUELS

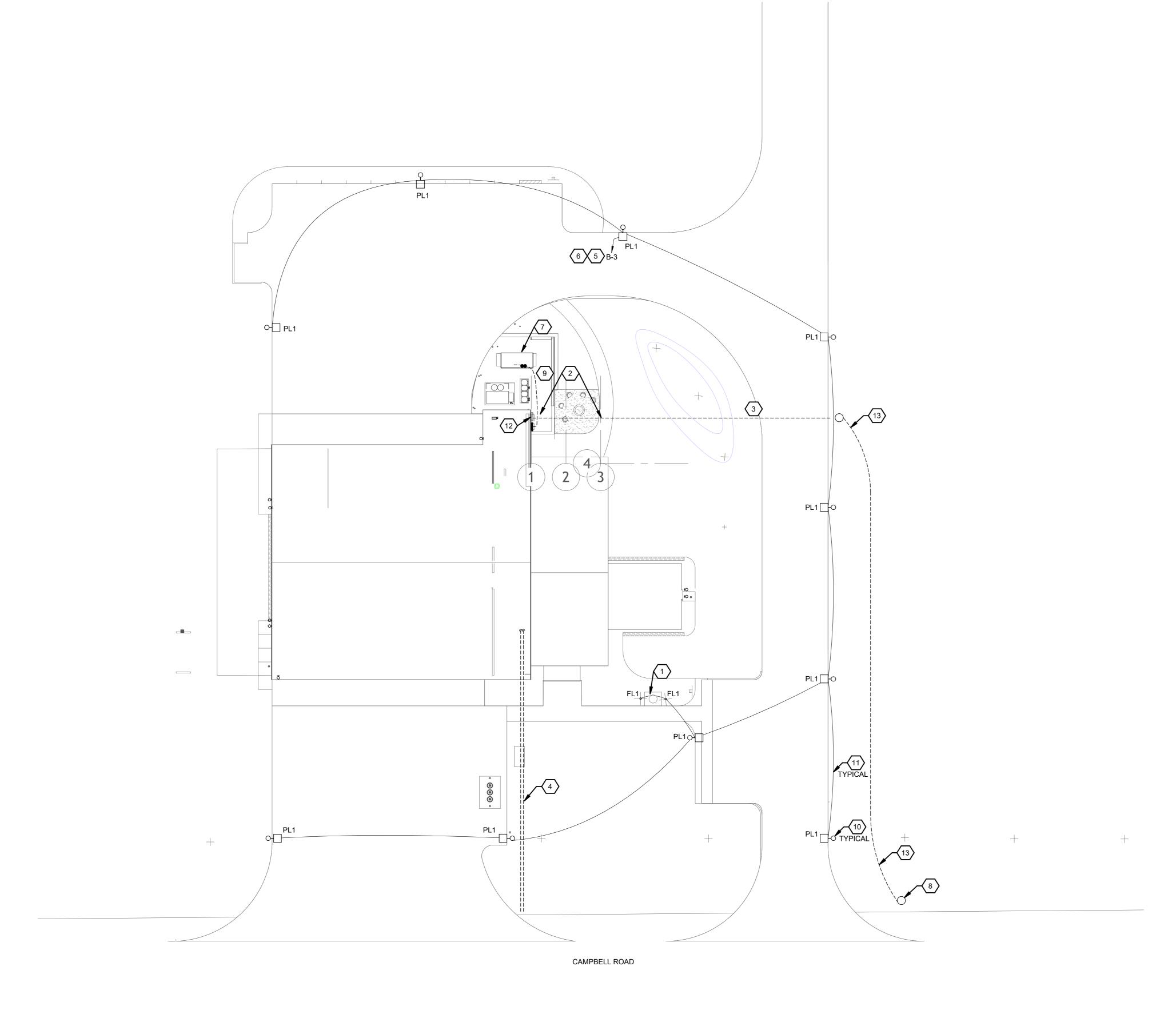
E0.7

DAUMAN & ZELINSKI LLC.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015





CONSTRUCTION NOTES

- 1. COORDINATE FLAG POLE LIGHTS WITH INSTALLER.
- 2. UNDER GROUND SERVICE ENTRANCE CONDUCTORS TO CT CABINET ON EXTERIOR WALL (WITH METERING) PER AES
- 3. PROVIDE CONCRETE ENCASEMENT ON UNDERGROUND PRIMARY AND SECONDARY SERVICE CONDUITS WHERE
- 5. UTILIZE #10 AWG CONDUCTORS.
- 6. CIRCUIT EXTERIOR LIGHTS THRU EXTERIOR LIGHTING RELAY
- 9. CONDUITS FROM STANDBY GENERATOR FOR OUTPUT FEEDER, BLOCK HEATER, BATTERY CHARGER, REMOTE ANNUNCIATOR, START SIGNAL WIRING, ETC.
- 12. PORTABLE GENERATOR CONNECTION BOX.
- CONDUITS.

- REQUIREMENTS.
- CROSSING DRIVEWAYS, ROADS, PARKING.
- 4. PROVIDE TWO (4") UNDERGROUND CONDUITS FROM UTILITY POLE TO RISE UP TO IT ROOM.
- PANEL LOCATED IN ELECTRICAL ROOM.
- 7. STANDBY GENERATOR
- 8. NEW UTILITY POLE MOUNT TRANSFORMER.
- 10. REFER TO POLE BASE DETAIL, SHEET E0.5
- 11. REFER TO SAND ENCASED UNDERGROUND DUCT DETAIL, SHEET E0.5.
- 13. PROVIDE LONG RADIUS BENDS ON SECONDARY SERVICE

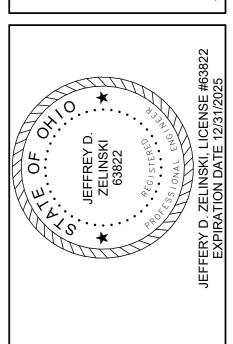
ENGINEERS

FREYTAG

ARC

STATION FIRE

CONSTRUCTION



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents. documents
and instruments and the Architect will not be
personally liable for any damage, harm or
loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY TCR

SITE PLAN

SCALE: 1"=20'-0"

NAUMAN & ZELINSKI LLC.

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402

Phone: (937) 223-3821 ~ Fax: (937) 223-3849

PROJECT # 23015

STORM SHELTER

- A. PENETRATIONS THROUGH THE STORM SHELTER ENVELOPE LARGER THAN 3-1/2 IN² AREA FOR RECTANGULAR OPENING OR 2 1/16" IN DIAMETER SHALL BE CONSIDERED OPENING AND SHALL BE PROVIDED WITH AN OPENING PROTECTIVE DEVICE. REFERENCE STRUCTURAL DRAWINGS.
- B. LIGHTING FIXTURES IN STORM SHELTER SHALL HAVE INTEGRAL EMERGENCY BATTERY BALLAST(S) IN FIXTURE(S) CAPABLE TO ILLUMINATE FIXTURE AT 1000 LUMENS FOR A MINIMUM OF 180 MINUTES (2 HOURS) OR THE E.C. SHALL PROVIDE SEPARATE EMERGENCY BATTERY LIGHTING UNIT WITH SIMILAR LUMEN OUTPUT AND BATTERY BACKUP.

GENERAL NOTES

A. CONNECT ALL EXIT/EMERGENCY EGRESS LIGHTING AHEAD OF LOCAL CONTROLS.

CONSTRUCTION NOTES

 CONNECT EXIT/EM EGRESS LIGHT TO APPARATUS BAY LIGHTING CIRCUIT AHEAD OF CONTROLS. 10' - 0" MOUNTING HEIGHT UNLESS NOTE OTHERWISE.

2. PROVIDE STANDALONE UPS (1 KW-120V OUTPUT) TO POWER EMERGENCY LIGHTING FIXTURES AND EXHAUST FAN SERVING STORM SHELTER (TOG ROOM AND TOILET). UPS SHALL BE SIZED TO SUPPORT LIGHTING AND FAN LOAD FOR A MINIMUM OF 2 HOURS UPON LOSS OF BUILDING NORMAL AND STANDBY POWER. UPS SHALL BE UL LISTED AND SUITABLE FOR WALL MOUNTING; WITH WALL BRACKET; 1-120V OUTPUT BREAKER. MOUNT ON WALL NEAR CEILING; SERVE FROM 'EMERGENCY' CCT.

- 3. CIRCUIT LIGHTS TO EXTERIOR LIGHTING RELAY PANEL, LOCATED IN MAIN ELECTRIC ROOM.
- 4. PROVIDE 4-POLE LIGHTING CONTACTOR WITH 120V COIL FOR CONTROL OF EXTERIOR LIGHTING. PHOTOCELL ON/OFF. LOCATE PHOTOCELL ON ROOF PARAPET ABOVE.
- 5. LIGHTING RELAY PANEL FOR APP BAY AND EXTERIOR LIGHTING CONTROL.
- 6. PROVIDE LIGHTING CIRCUIT CONNECTION TO EXTERIOR STATION SIGNAGE.



JARCHITECTS

AMI AVE.

226 N. MIAMI AVE. P.O. BOX 220 SIDNEY, OHIO 4536

226 N. MI. PO. BOX 2 SIDNEY, OI

45365

EY SIDNEY, OHI

STATION OF SIDNE

FIRE

CONSTRUCTION

CITY 0

324 CAMPBELL R



These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

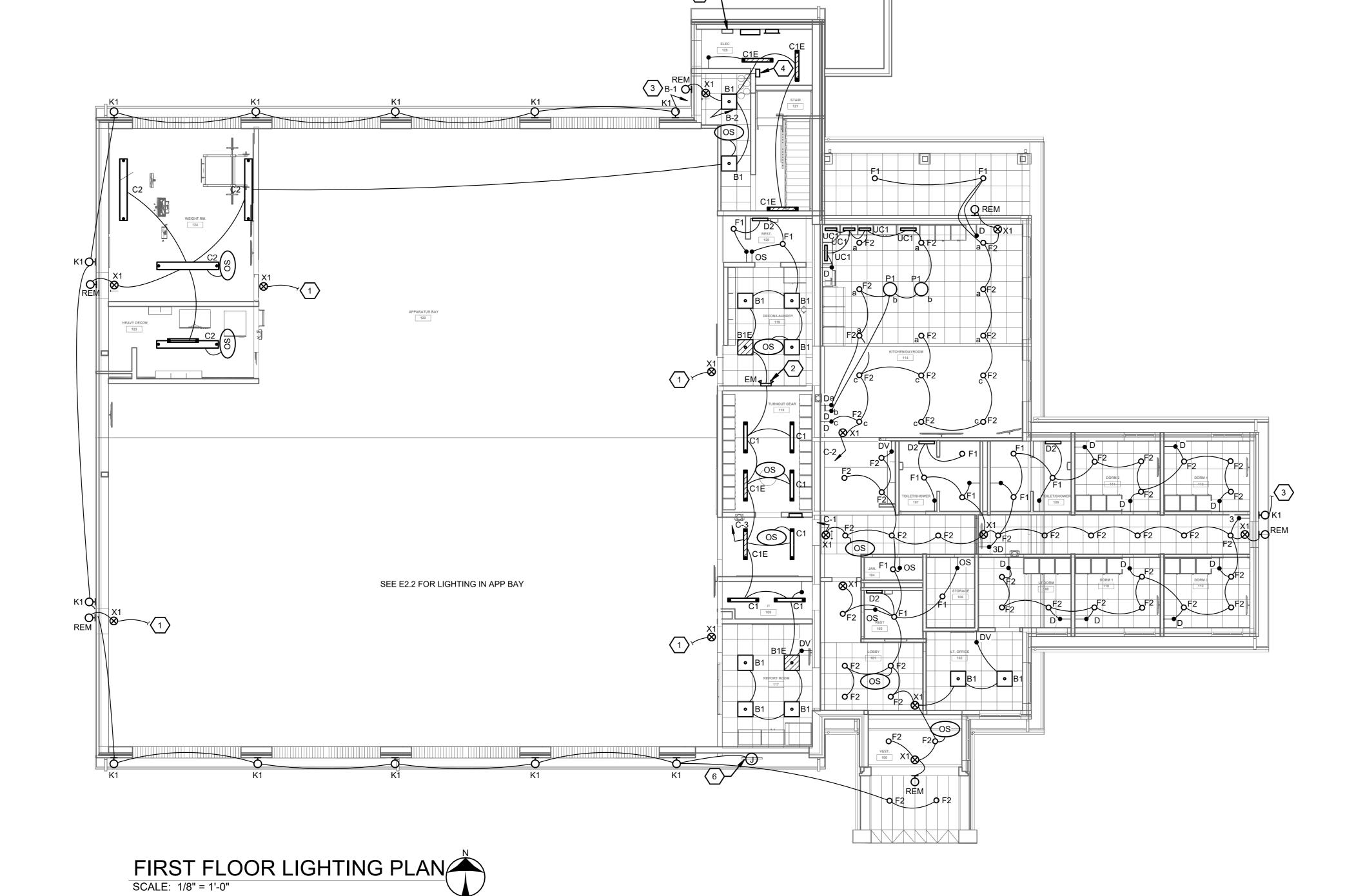
REVISIONS
PLAN APPROVAL / BIDDING

COMM. NUMBER DATE
2207.02 11/13/24

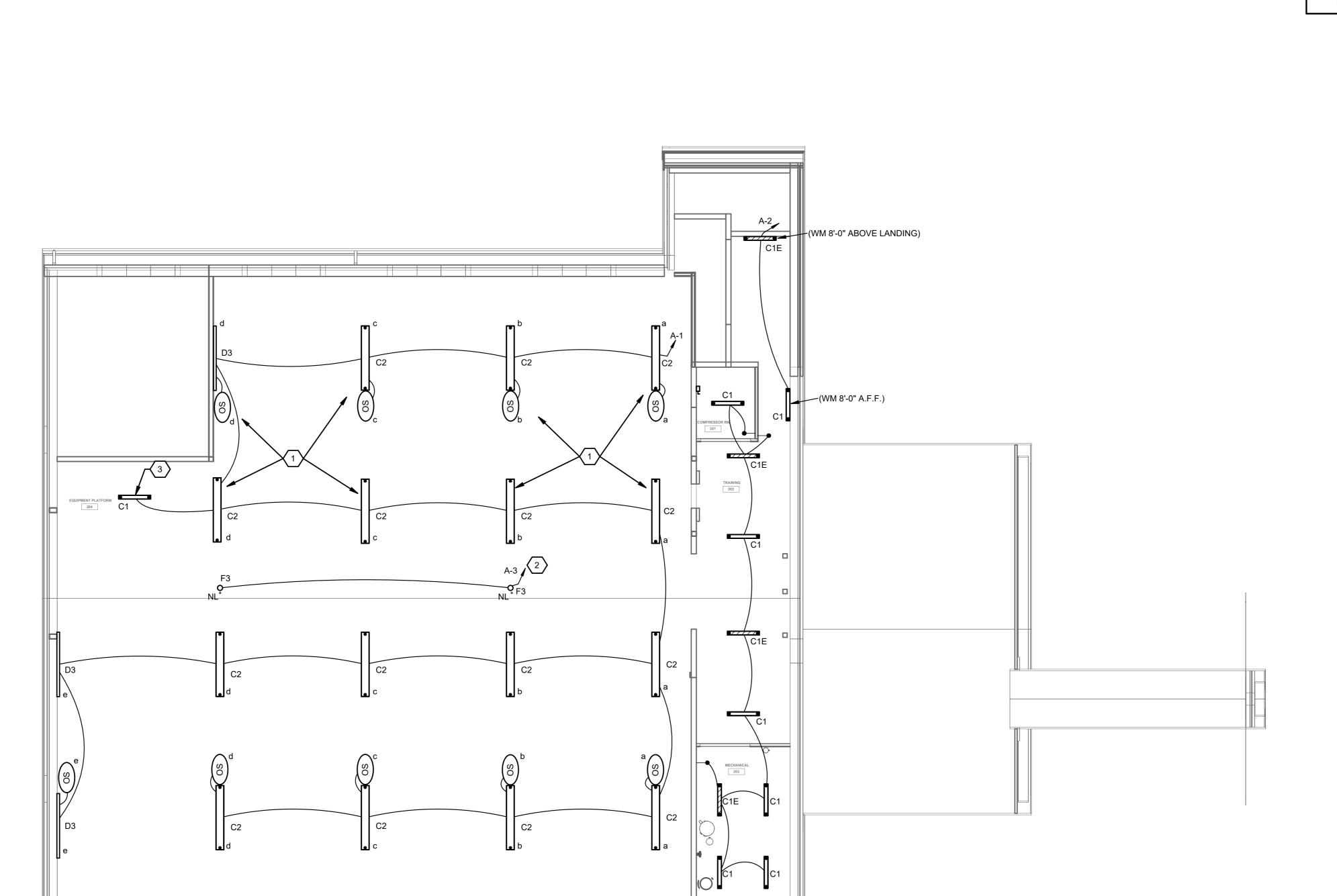
DRAWN BY CHECKED BY
DAC TCR

FIRST FLOOR LIGHTING PLAN

E2.



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



SECOND FLOOR LIGHTING PLAN

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

CONSTRUCTION NOTES

 APPARATUS BAY LIGHTS CONTROLLED BY ROW FROM OCCUPANCY SENSORS MOUNTED TO FIXTURES VIA LIGHTING RELAY PANEL LOCATED IN ELECTRIC ROOM. MOUNT UNITS AT SAME HEIGHT AS RADIANT HEATERS.

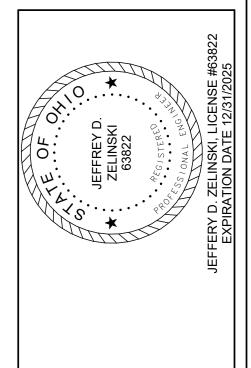
- 2. APPARATUS BAY EMERGENCY EGRESS/NIGHT LIGHTS WIRED THRU EMERGENCY LIGHTING INVERTER, LOCATED IN MAIN ELECTRICAL ROOM.
- 3. SUSPEND LIGHT FIXTURE 9'-0" ABOVE THE MECHANICAL PLATFORM.

SSOCIATES IN ENGINEERS



STATION 2 FIRE

NEW CONSTRUCTION O



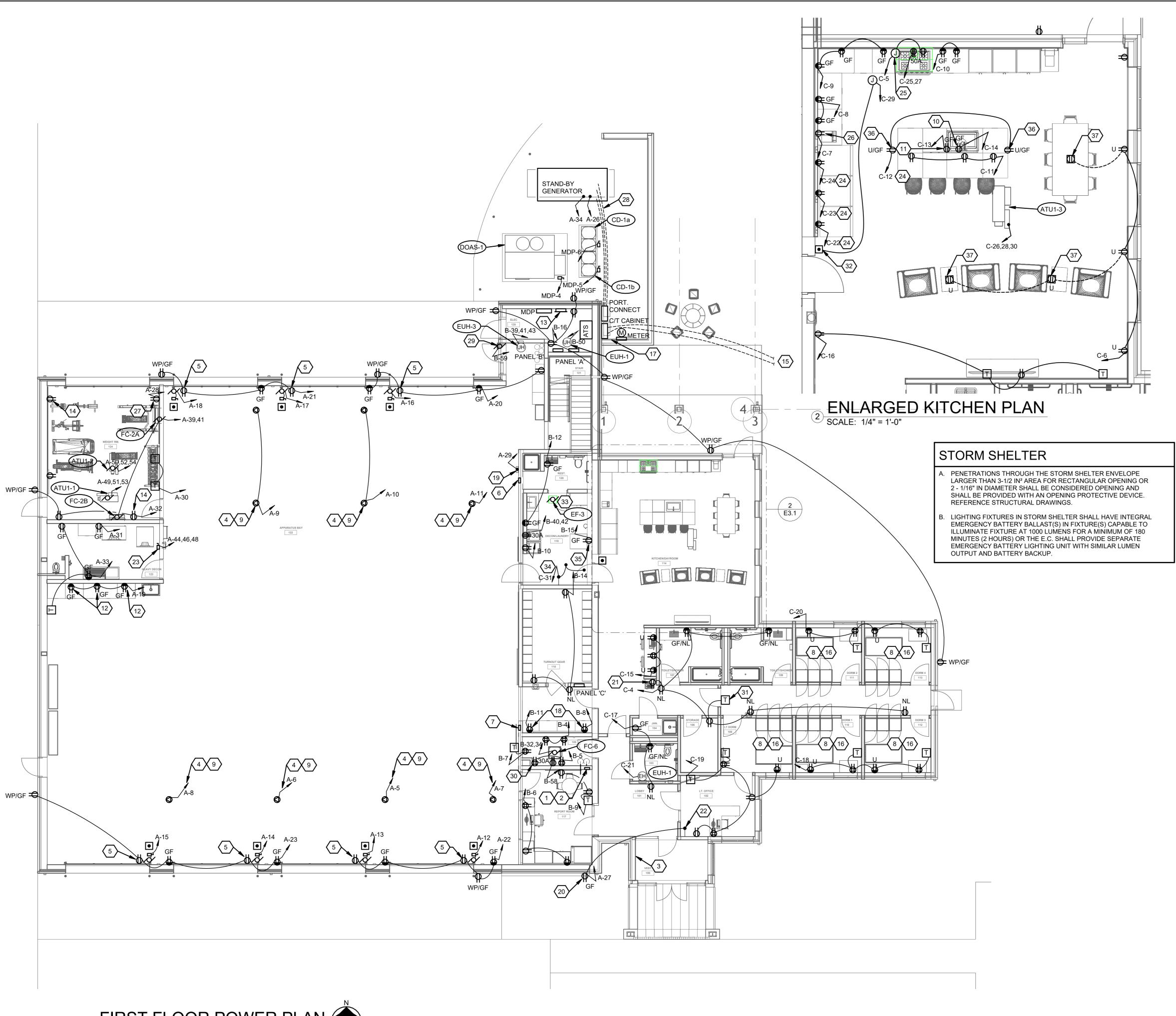
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such decuments. documents
and instruments and the Architect will not be
personally liable for any damage, harm or
loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 2207.02 11/13/24 DRAWN BY CHECKED BY TCR

SECOND FLOOR LIGHTING PLAN

SCALE: 1"=10'-0"



(#) CONSTRUCTION NOTES

2. FIRE ALARM REMOTE ANNUNCIATOR

GENERATOR ANNUNCIATOR.

SHEET E0.4.

- 3. FLUSH MOUNTED KNOX BOX.
- FLUSH MOUNTED TWISTLOCK RECEPTACLE AT CEILING STRUCTURE FOR SERVICE CORD DROP TO VEHICLE BAY.
- RECEPTACLE MOUNTED AT TOP OF DOOR OPENING TO POWER
- DOOR POSITION LIGHTS. LIGHTS BY DOOR SYSTEM VENDOR. NORTH APPARATUS BAY CONTROL PANEL REFER TO DETAIL 2
- SOUTH APPARATUS BAY CONTROL PANEL. REFER TO DETAIL 3 SHEET E0.4.
- 8. PROVIDE AFCI CIRCUIT BREAKER FOR DORM ROOM CIRCUIT.
- E.C. TO PROVIDE A DROP CORD ASSEMBLY CONSISTING OF 25' LONG 12/3 'SOOW' CORD WITH A NEMA L5-20P 120V-20A PLUG ON ONE END AND A NEMA 5-20R CONNECTOR ON THE OTHER END. PROVID A CABLE GRIP EQUAL TO ADALET # "SKY-TIE" BUS DROP CABLE CLAMP ("SHS" SERIES) AND MOUNT TO CEILING WITH EYE BOLT ATTACHED TO STRUCTURE. MOUNT CONNECTOR AT HEIGHT ABOVE FLOOR PER OWNERS DIRECTION AND COIL AND TIE EXTRA CABLE AT CABLE SUPPORT EYE BOLT NEAR CEILING.
- 10. GFCI RECEPTACLE IN SINK BASE CABINET FOR GARBAGE DISPOSER. COORDINATE LOCATION WITH P.C. AND PROVIDE MATCHING CORD/PLUG FOR DISPOSER, WIRE RECEPTACLE TO WALL SWITCH ABOVE COUNTER.
- 11. GFCI RECEPTACLE IN SINK BASE CABINET FOR DISHWASHER. COORDINATE LOCATION WITH P.C. AND PROVIDE MATCHING CORD/PLUG FOR UNIT.
- 12. PROVIDE PLUGMOLD ABOVE WORK COUNTER, 6' LONG WITH NEMA 5-20R RECEPTACLES SPACED 12" ON-CENTER.
- 13. MAIN GROUND BAR.
- 14. RECEPTACLE AT 96"M.H. FOR CONNECTION OF WALL MOUNTED OSCILLATING FAN. PROVIDE FAN EQUAL TO GLOBAL INDUSTRIAL #607050. 24" DIA, 7500 CFM, 120V CORD AND PLUG CONNECTED WITH 3 SPEED/OFF PULLCHAIN CONTROL.
- 15. UNDERGROUND SERVICE FEEDERS FROM UTILITY TRANSFORMER.
- 16. COORDINATE MOUNTING HEIGHTS/LOCATIONS OF RECEPTACLES IN DORM ROOMS WITH FURNITURE.
- 17. UTILITY CT CABINET AND METER PER AES.
- 18. PLUGMOLD FOR BATTERY CHARGING STATIONS (STACKED) COORDINATE MOUNTING HEIGHT WITH SHELVES. 36" LONG, RECEPTACLES 6" O.C. UTILIZE SAME CIRCUIT FOR BOTH.
- 19. PROVIDE 120 POWER TO CO/NOX SYSTEM DETECTION SYSTEM (FURNISHED BY H.C.). COORDINATE LOCATION WITH H.C.
- 20. RECEPTACLE MOUNTED FLUSH IN SOFFIT, FOR HOLIDAY
- 21. GFCI RECEPTACLE FOR WATER COOLER, COORDINATE LOCATION WITH P.C.
- 22. PROVIDE WALL SWITCH FOR CONTROL OF SOFFIT RECEPTACLE.
- 23. COORDINATE POWER CONNECTION AND FUSING REQUIREMENTS FOR TOG WASHER WITH EQUIPMENT SUPPLIER.
- 24. PROVIDE GFCI CIRCUIT BREAKER FOR CIRCUIT.
- 25. PROVIDE 120V POWER TO EXHAUST HOOD FOR CONNECTION TO EXHAUST FAN EF-3, RANGE CONTROL CIRCUIT AND HOOD LIGHT(S). HOOD INCLUDES FIRE SUPPRESSION SYSTEM FOR RANGE CONTROL POWER CIRCUIT AND GAS SUPPLY SOLENOID VALVE CONTROL. COORDINATE ROUGH-IN REQUIREMENTS AND WIRING WITH EQUIPMENT SUPPLIER.
- 26. COORDINATE RECEPTACLE MOUNTING HEIGHT, LOCATION, WITH MICROWAVE SHELF. REFER TO ARCHITECTURAL ELEVATIONS.
- 27. DEDICATED 20A-120V CIRCUIT FOR TREADMILL.
- 28. UNDERGROUND STAND-BY FEEDERS, START/ANNUNCIATOR WIRING, BLOCK HEATER, BATTERY CHARGER, HOUSING CIRCUITS FROM GENERATOR TO POTRABLE CONNECTION BOX
- 29. PROVIDE 120V POWER AND SERVICE DISCONNECT TO BOOSTER FAN FOR DRYER EXHAUST. COORDINATE WITH H.C.
- 30. COORDINATE RECEPTACLE CONFIGURATION WITH OWNER FOR DATA RACK.
- 31. LOCATE TV WALL BOX ABOVE DOOR FRAME.
- 32. PROVIDE MAINTAINED CONTACT MUSHROOM HEAD EMERGENCY STOP BUTTON TO DE-ENERGIZE POWER TO GAS SOLONOID VALVE FOR KITCHEN RANGE. COORDINATE WIRING REQUIREMENTS WITH P.C.
- 33. CONNECT EXHAUST FAN SERVING STORM SHELTER TO UPS SERVING LIGHTING IN DECON / TOILET ROOMS.
- 34. 120V POWER TO DAMPER ACTUATOR AT THIS LOCATION. PROVIDE 120V WALL SWITCH FOR MANUAL DAMPER CONTROL.
- 35. RECEPTACLE FOR ICE MAKER, COORDINATE LOCATION WITH ARCHITECT.
- 36. MOUNT RECEPTACLE IN FACE OF ISLAND CASEWORK.
- 37. FLUSH FLOOR BOX WITH DUPLEX RECEPTACLE AND SCRUB SHIELD COVER, SATIN NICKEL TRIM. EQUAL TO HUBBELL SYSTEM ONE, 4" FLOOR BOX.

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

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

ENGINEERS

FRE

AR

ATION F R

nese designs and all items depicted herein struments of professional service, may not e altered or changed, in any way, without e prior knowledge, and written consent of e Architect. Any change made without the chitect's written approval will void all such nd instruments and the Architect will not be

sonally liable for any damage, harm or

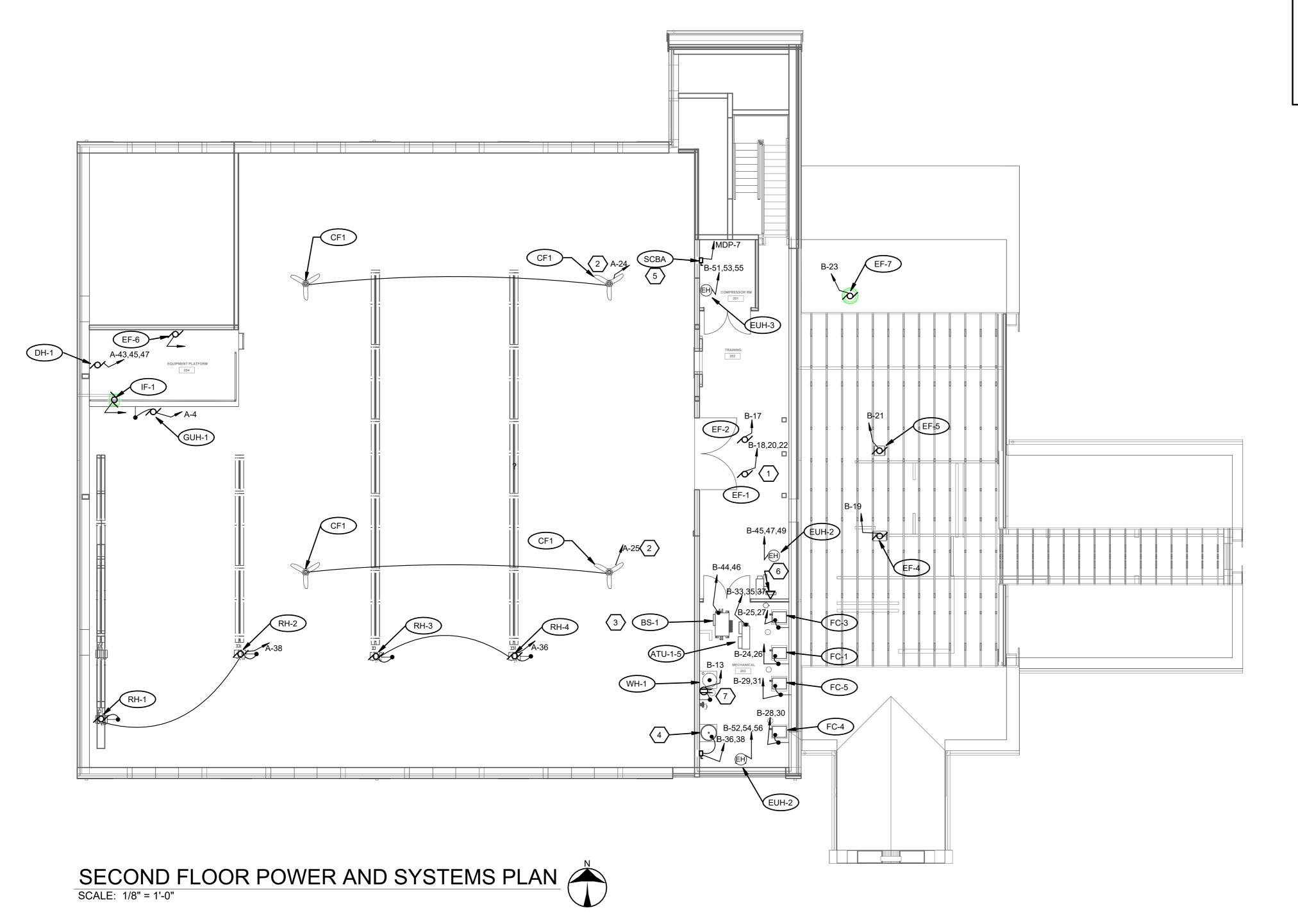
REVISIONS PLAN APPROVAL / BIDDING

oss caused thereby.

COMM. NUMBER DATE DRAWN BY CHECKED BY

FIRST FLOOR POWER PLAN





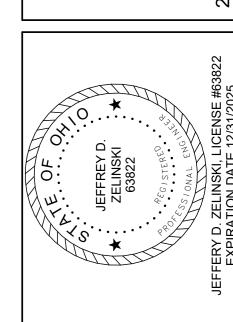
(#) CONSTRUCTION NOTES

- 1. PROVIDE AUXILLARY 120V CONTROL CIRCUIT FOR EXHAUST FAN ECM CONTROLLER.
- 2. GROUP CONTROLLER FOR CEILING CIRCULATION FANS LOCATED IN APPARATUS BAY (SOUTH) CONTROL PANEL.
- 3. COORDINATE CIRCUIT REQUIRMENTS AND LOCATION OF BRANCH SELECTOR BOX WITH H.C.
- 4. COORDINATE POWER REQUIREMENTS AND FUSING SIZE FOR AIR COMPRESSOR WITH P.C.
- 5. COORDINATE POWER REQUIREMENTS AND FUSING SIZE FOR SCBA COMPRESSOR WITH EQUIPMENT SUPPLIER.
- 6. DATA ROUGH-IN BOX REFER TO TECHNOLOGY PLANS.
- 7. COORDINATE POWER CONNECTION TO WATER HEATER AND RECIRC. PUMP WITH P.C.

SSOCIATES IN ENGINEERS

STATION 2

FIRE

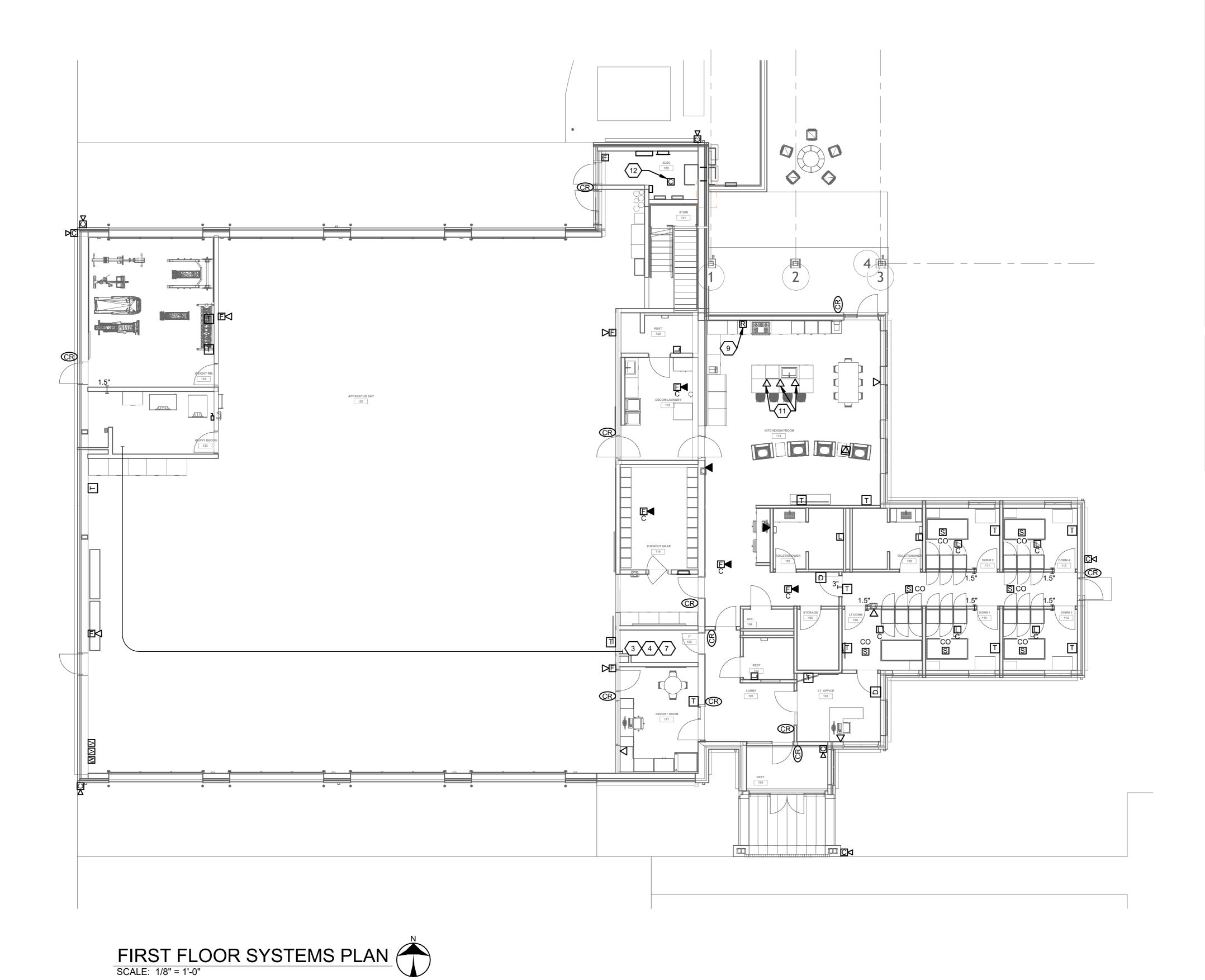


These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents. documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE DRAWN BY CHECKED BY TCR

SECOND FLOOR POWER AND SYSTEMS PLAN



GENERAL NOTES

SPECIFICATIONS FOR ROUGH-IN BOX, RACEWAY, AND PATHWAY REQUIREMENTS FOR TECCHNOLOGY / AV SYSTEMS.

- STRUCTURE, FOR FIRE ALARM CABLING.
- 3. PROVIDE 3/4" PLYWOOD, 3 WALLS, FOR DATA, IT EQUIPMENT.
- LOCUTION, FIRE ALARM, ETC.).
- CABLING IN 1"C. ACROSS APPARATUS BAY IT ROOM.
- REFER TO SITE PLAN FOR ROUTING OF SERVICE ENTRANCE CONDUIT TO UTILITY POLE/PEDISTAL.
- PROVIDE TELECOM GROUND BAR NEAR DATA RACK REFER TO GROUNDING DETAILS, SHEET E0.4
- PROVIDE ROUGH-IN BOX FOR DOORBELL (VIA FIRE ALARM-CALL
- PROVIDE FIRE ALARM MONITOR MODULE FOR CONNECTION TO
- 10. ROUGH-IN SINGLE GANG BOX AND STUBB IN 3/4" CONDUIT FOR
- 11. COORDINATE MOUNTING OF DATA ROUGH-INS TO KITCHEN
- 12. PROVIDE FIRE ALARM CONTROL RELAY TO SHUNT-CIRCUIT TO APP BAY CEILING FANS UPON FIRE ALARM CONDITION.

STORM SHELTER

- 2 1/16" IN DIAMETER SHALL BE CONSIDERED OPENING AND SHALL BE PROVIDED WITH AN OPENING PROTECTIVE DEVICE. REFERENCE STRUCTURAL DRAWINGS.
- LIGHTING FIXTURES IN STORM SHELTER SHALL HAVE INTEGRAL EMERGENCY BATTERY BALLAST(S) IN FIXTURE(S) CAPABLE TO ILLUMINATE FIXTURE AT 1000 LUMENS FOR A MINIMUM OF 180 MINUTES (2 HOURS) OR THE E.C. SHALL PROVIDE SEPARATE EMERGENCY BATTÉRY LIGHTING UNIT WITH SIMILAR LUMEN OUTPUT AND BATTERY BACKUP.

A. THE E.C. SHALL REFER TO TECHNOLOGY PLANS, DETAILS, AND

(#) CONSTRUCTION NOTES

- PROVIDE TWO GANG BOX WITH 1.25" CONDUIT TO TV WALL BOX FOR A/V CABLING (BY OWNER). COORDINATE LOCATIONS AND COVER PLATES WITH OWNER.
- PROVIDE 3"C. ACROSS APPARATUS BAY, AT CEILING
- PROVIDE TWO 3"C. ACROSS APPARATUS BAY , AT CEILING STRUCTURE, FOR SYSTEMS CABLING (DATA, SECURITY,
- PROVIDE BACKBOX AT CEILING STRUCTURE AND DATA

- EXHAUST HOOD/SUPPRESSION SYSTEM.
- REMOTE RELEASE OF ENTRY DOOR LOCK.
- ISLAND WITH ARCHITECT / OWNER.

A. PENETRATIONS THROUGH THE STORM SHELTER ENVELOPE LARGER THAN 3-1/2 IN² AREA FOR RECTANGULAR OPENING OR

204 S. Ludlow Street Suite 400 Dayton, Ohio 45402 Phone: (937) 223-3821 ~ Fax: (937) 223-3849 PROJECT # 23015

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

ENGINEERS SIATES FREYTA

AR

TATION

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents
and instruments and the Architect will not be

personally liable for any damage, harm or loss caused thereby.

PLAN APPROVAL / BIDDING

REVISIONS

DRAWN BY

COMM. NUMBER DATE 11/13/24

FIRST FLOOR SYSTEMS PLAN

CHECKED BY TCR

- A ALL WORK AND PROCEDURES PROVIDED, SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL BUILDING CODES.
- B ALL TECHNOLOGY CABLING AND DEVICES SHALL BE INSTALLED IN A MANNER THAT CONFORMS WITH THE STANDARDS AS SET FORTH BY BICSI TDMM (LATEST EDITION), NEC, AND TIA AS APPLICABLE.
- C ALL CASEWORK SHALL BE PROVIDED BY THE GENERAL CONTRACTOR (G.C.). REFER TO THE ARCHITECTURAL CASEWORK DRAWINGS FOR COORDINATION INFORMATION. COORDINATE OUTLET AND DEVICE PLACEMENT WITHIN CASEWORK WITH APPLICABLE CONTRACTOR PRIOR TO THE INSTALLATION. NOTIFY THE ARCHITECT OF ANY CONFLICTS.
- D IT SHALL BE THE DIVISION 27 CONTRACTOR'S RESPONSIBILITY TO DIRECT / COORDINATE ALL WORK PERFORMED BY OTHER TRADES AS IT PERTAINS TO THE INSTALLATION AND /OR ROUTING OF PATHWAYS FOR DIVISION 27 (TECHNOLOGY) AND DIVISION 28 (SECURITY) CABLING AND TO VERIFY ALL DEVICE LOCATIONS PRIOR TO INSTALLATION. ANY DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR THE TECHNOLOGY DESIGNER / CONSULTANT IMMEDIATELY FOR RESOLUTION.
- ALL CONDUITS, ELECTRICAL BACK BOXES, AND SLEEVES FOR LOW VOLTAGE CABLING INFRASTRUCTURE SHALL BE PROVIDED AND INSTALLED BY THE DIVISION 26 CONTRACTOR UNLESS OTHERWISE NOTED. ALL CONDUITS FOR LOW VOLTAGE CABLING SHALL HAVE BUSHED ENDS.
- ALL UTP DATA CABLING SHALL BE PLACED IN CONDUIT WHEN RUN WITHIN WALLS AND CONCEALED AREAS. ALL CABLING AND WIRING THAT IS NOT INSTALLED WITHIN CONDUIT SHALL BE SUPPORTED EVERY 48"-60" WITH J-TYPE HOOKS SIZED ADEQUATELY PER N.E.C. AND BICSI. THE USE OF BRIDLE RINGS IS NOT PERMITTED.
- REFER TO THE DIVISION 08 SPECIFICATIONS AND DRAWINGS FOR INFORMATION PERTAINING TO THE ELECTRONIC LOCKS AND DOOR POSITION SWITCHES.
- PENETRATIONS OF STORM SHELTER ENVELOPE BY MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS. PENETRATIONS THROUGH THE STORM SHELTER ENVELOPE LARGER THAN 3-1/2" SQUARED AREA FOR RECTANGULAR OPENING OR 2-1/16" IN DIAMETER SHALL BE CONSIDERED OPENINGS AND SHALL BE PROVIDED WITH A PROTECTIVE DEVICE. REFERENCE STRUCTURAL DRAWINGS.

- 17 LOCATION OF A STATION ALERT SYSTEM DISPLAY (PROVIDED AND INSTALLED BY OTHERS).
- 18 MOUNT THE DATA OUTLETS ABOVE THE COUNTER. COORDINATE POSITION WITH THE ASSOCIATED AC POWER RECEPTACLES.
- 19 THE LOW AV OUTLET (TV3) SHALL BE MOUNTED AT 18" AFF. THE HDMI CABLE SHALL BE INSTALLED BETWEEN THIS OUTLET AND THE UPPER TV2 OUTLET.

IT ROOM ABLE LADDER LAYOUT

1/4"=1'-0"

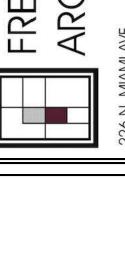
- 20 PROVIDE A 12-0" WIDE LADDER RACK MOUNTED AT 6-0" ABOVE THE DATA
- 21 TWO (2) 4" SERVICE ENTRANCE CONDUITS FOR DATA AND VIDEO COMMUNICATIONS.

CODED NOTES:

- THE TECHNOLOGY CABLING CONTRACTOR SHALL PROVIDE A NEW OUTLET AND CABLING, TO THE IT / DATA ROOM, TYPE AS INDICATED WITH A NEW 4" SQUARE 3-1/4"D BACKBOX, AND A DEDICATED MINIMUM 1" CONDUIT EXTENDED HORIZONTALLY AND VERTICALLY AS REQUIRED TO CEILING, OR A WALL CADDY IN CASES WHERE WALL CAVITY WILL ALLOW. REFER TO THE TECHNOLOGY OUTLET DETAILS FOR MORE REQUIREMENTS.
- PROVIDE A MULLION STYLE CARD READER AT THIS LOCATION. COORDINATE THE CABLING PATHWAY IN THE FIELD WITH ALL APPLICABLE TRADES.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN AV OUTLET AND ELECTRICAL BOXES WITH ALL NECESSARY CONDUITS AS SHOWN IN THE AV ELEVATION DETAIL "A" ON SHEET T901. COORDINATE FINAL LOCATIONS OF THE WALL BOXES WITH THE OWNERS AV REPRESENTATIVE.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE 4' X 8' X 3/4" WALL BOARD PAINTED WITH FIRE RETARDANT PAINT AS SHOWN.
- THE TECHNOLOGY CABLING CONTRACTOR SHALL PROVIDE NEW 18" CABLE LADDER RACK AS SHOWN. MAINTAIN A 6" CLEARANCE ABOVE ALL DATA
- THE TECHNOLOGY CABLING CONTRACTOR SHALL PROVIDE A NEW SURFACE OUTLET AND CABLING, TO THE IT / DATA ROOM, TYPE AS INDICATED FOR NEW WIRELESS ACCESS POINT LOCATION. ACCESS POINT TO BE INSTALLED BY OTHERS. COORDINATE EXACT LOCATION OF ACCESS POINTS AND MOUNTING LOCATIONS WITH OWNER.
- PROVIDE TWO (2) SINGLE GANG ELECTRICAL BOXES SIDE BY SIDE WITH A 1" CONDUIT AT 48" AFG. ONE BOX FOR A PROXIMITY CARD READER AND ONE BOX FOR A BIOMETRIC READER. WHERE WALL SPACE IS LIMITED, STACK
- LOCATION OF THE NEW TELECOMMUNICATIONS GROUNDING BUSBAR.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE A 4" SLEEVE FOR HORIZONTAL LOW VOLTAGE CABLING.
- 10 THE TECHNOLOGY CABLING CONTRACTOR SHALL PROVIDE A NEW 2-POST DATA RACK SECURED TO THE FLOOR. COORDINATE THE AC POWER CONNECTIONS FOR THE DATA RACK WITH THE EC AND THE OWNERS IT REPRESENTATIVE.
- 11 PRIOR TO THE INSTALLATION OF THE CONDUIT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE ELEVATION OF THE EXTERIOR CCTV CAMERA'S ELECTRICAL BACK BOX WITH THE OWNER TO INSURE THE DESIRED FIELD OF VIEW CAN BE PROVIDED. REFER TO THE CAMERA SCHEDULE ON SHEET T-901 FOR MORE INFORMATION.
- 12 PROVIDE A 10' SERVICE LOOP IN THE DATA CABLE AT ALL SECURITY CAMERA AND WIRELESS ACCESS POINT LOCATIONS.
- 13 OUTLET MOUNTING HEIGHTS FOR THE VIDEO DISPLAYS AND TV'S SHALL BE VERIFIED IN THE FIELD AND COORDINATED WITH ALL APPLICABLE TRADES. LV OUTLET SHALL BE LOCATED NEXT TO THE AC POWER OUTLET AND SHALL NOT INTERFERE WITH THE VIDEO DISPLAY MOUNTING SYSTEM.
- 14 REFER TO THE CAMERA SCHEDULE ON SHEET T-901 FOR MORE INFORMATION.
- 15 OWNER PROVIDED AND INSTALLED 43" TV COMPLETE WITH WALL MOUNT.
- 16 AT THIS LOCATION ONLY, PROVIDE AND INSTALL AN RG6 COAXIAL CABLE (WEST PENN 25841) FROM THE TV OUTLET TO THE IT ROOM. AT THE TV OUTLET, TERMINATE THE CABLE WITH A 75-OHM F-TYPE COUPLER MODULE MODEL KSFCN (FOG WHITE) BY LEGRAND. WITHIN THE IT ROOM LEAVE A 20 FOOT SERVICE LOOP ON THE UNTERMINATED CABLE. THE CATV VENDOR SHALL TERMINATE THE CABLE IN THE IT ROOM. OWNER PROVIDED AND INSTALLED 75" TV COMPLETE WITH WALL MOUNT.

IT ROOM #105 FLOOR PLAN

1/4"=1'-0"



CIATES

S

S

MOIL

RUC

M-Engineering 750 Brooksedge Blvd. Westerville, Ohio 43081 phone: 614.839.4639 fax: 614.839.2222 www.mengineering.us.com

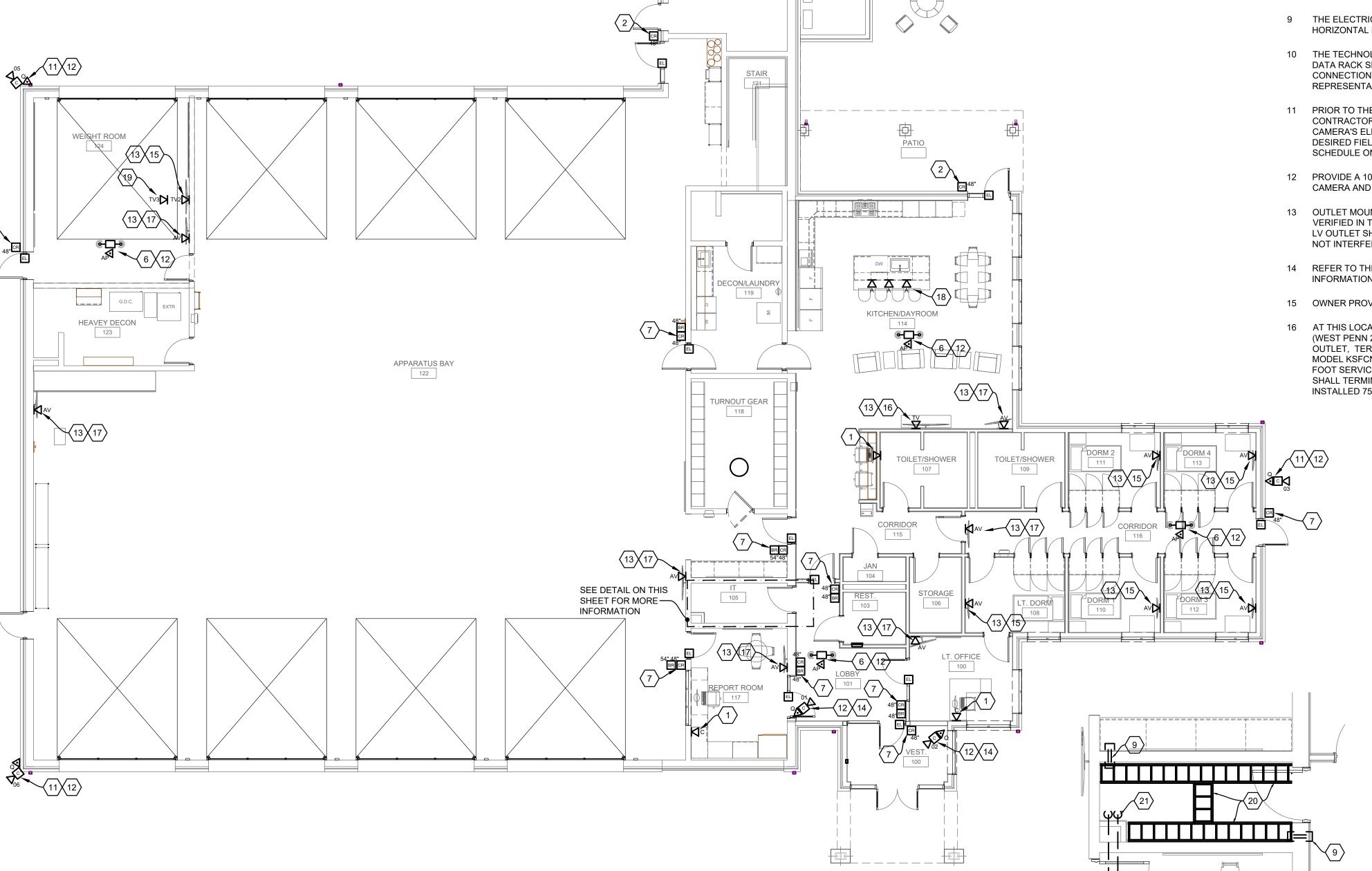
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any hange made without the Architect's ten approval will void all such and instruments and the Architect will not e personally liable for any damage, har r loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 2207 DRAWN BY CHECKED BY

OVERALL TECHNOLOGY FIRST FLOOR PLAN

T-100



OVERALL TECHNOLOGY FIRST FLOOR PLAN

1/8"=1'-0"

STATION SIDNE

NEW CONSTRUCTION OF

FIRE

M-Engineering 750 Brooksedge Blvd. Westerville, Ohio 43081 phone: 614.839.4639

fax: 614.839.2222 www.mengineering.us.com

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such documents and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

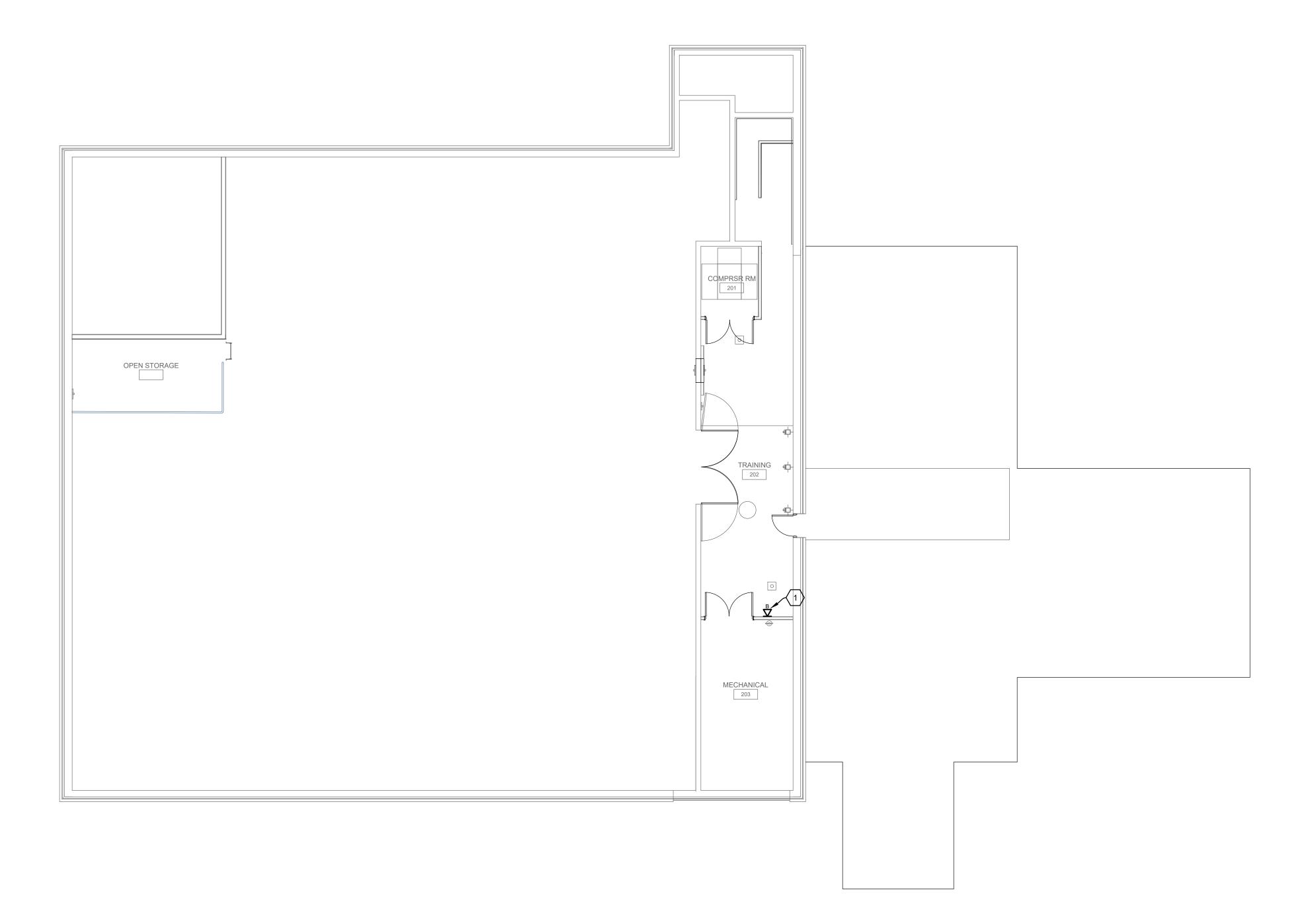
COMM. NUMBER 2207	DATE 11/13/24
DRAWN BY	CHECKED BY
MHW	MW/MG

OVERALL TECHNOLOGY MEZZANINE PLAN

T-200

CODED NOTES:

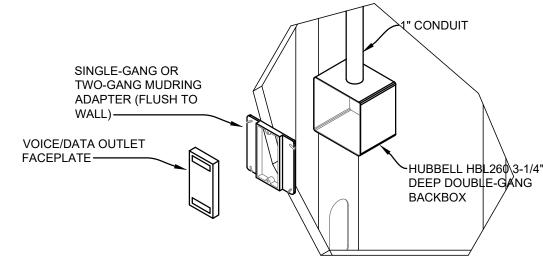
1 THE TECHNOLOGY CABLING CONTRACTOR SHALL PROVIDE A NEW OUTLET AND CABLING, TO THE IT / DATA ROOM, TYPE AS INDICATED WITH A NEW 4" SQUARE 3-1/4"D BACKBOX, AND A DEDICATED MINIMUM 1" CONDUIT EXTENDED HORIZONTALLY AND VERTICALLY AS REQUIRED TO CEILING, OR A WALL CADDY IN CASES WHERE WALL CAVITY WILL ALLOW. REFER TO THE TECHNOLOGY OUTLET DETAILS FOR MORE REQUIREMENTS.



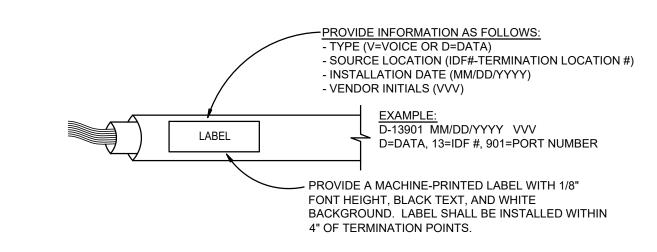


CONTRACTOR RESPONSIBILITY NOTE: THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL "NEW" CONDUITS, PATHWAYS, BACK BOXES, FLOOR BOXES AND FLOOR POKES AS SHOWN ON THE "T" DRAWINGS.

THE TECHNOLOGY CONTRACTOR SHALL PROVIDE AND INSTALL ALL LOW VOLTAGE CABLES AND AND SUPPORT FOR ALL CABLES NOT CONCEALED WITHIN CONDUIT.







B HORIZONTAL CABLE LABELING
N.T.S.

CODED NOTES:

- 1 PROVIDE SELF-ADHESIVE LABEL (TYPICAL). EVERY JACK SHALL HAVE A TYPED LABEL.
- PROVIDE LEGRAND #KSSMB2-88 SURFACE MOUNT BOX OUTLETS AS NOTED ON THE DRAWINGS. ADJUST JACK COLOR PER OUTLET ASSIGNMENT.
- PROVIDE PLENUM CAT6 CABLES MODEL SUPERIOR-ESSEX 66-246-2B WITH A BLUE FLAME ARREST OUTER JACKET. ROUTE CABLES TO THE NEAREST IDF AND TERMINATE CABLE ON A MODULAR PATCH PANEL.
- 4 PROVIDE LEGRAND FACEPLATE MODEL KSFP4-13 FOG WHITE FOR HARD WALLS.
- PROVIDE DATA JACK MODEL KT2J6-** (** DENOTES JACK COLOR) BY LEGRAND. FILL UNUSED PORTS WITH BLANKS.
- 6 PROVIDE A FIELD TERMINATED DATA PLUG MODEL HDPUC65E BY LEGRAND.
- PROVIDE A MODULE FRAME FOR DATA AND AV CONNECTIONS.

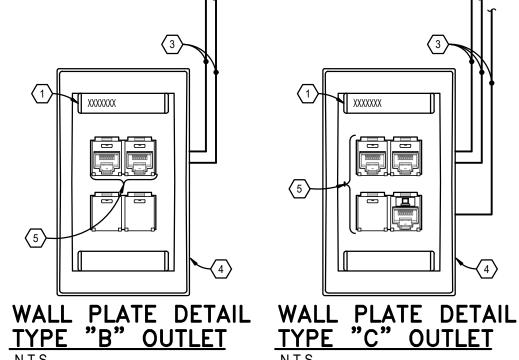
WALL PLATE DETAIL

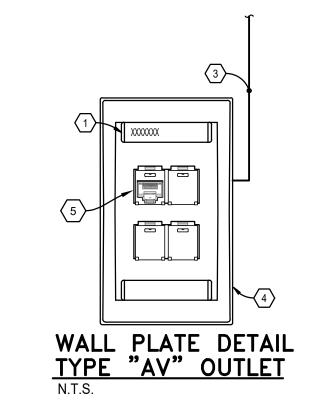
TYPE "A" OUTLET

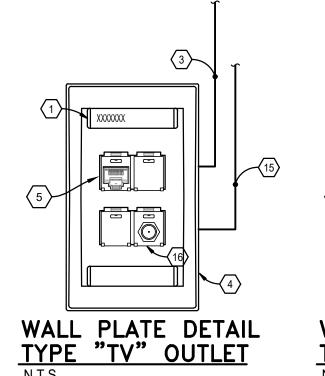
- PROVIDE LEGRAND WIREMOLD DEVICE PLATE MODEL 10DEC WITH A DECORA STYLE OPENING FOR DATA AND AV. PROVIDE QUANTITY SHOWN (BY ELECTRICAL CONTRACTOR)
- PROVIDE LEGRAND WIREMOLD EVOLUTION SERIES FLOOR POKE MODEL 10STCP WITH A MODEL 10CTCBS COVER PLATE. PROVIDE COVER IN A BRASS FINISH. (BY ELECTRICAL CONTRACTOR)
- 10 PROVIDE BLUE PLENUM CAT6A CABLES BELDEN MODEL 10GX53F D151000 A FLAME ARREST OUTER JACKET OR PANDUIT MODEL PUP6A04BU-UG UTP CABLE.
- 11 PROVIDE A MODULAR CAT6A JACK MODEL KT2J6A-88 BY LEGRAND.
- PROVIDE A HDMI JACK MODULE MODEL WP124KBK BY LEGRAND.
- 13 PROVIDE AN FSR HDMI DIGITAL RIBBON CABLE SERIES DR-PCB-H**M. ** LENGTH AS REQUIRED TO EXTEND FROM INPUT PLATE TO BEHIND THE ASSOCIATED VIDEO DISPLAY.
- PROVIDE A WIREMOLD EVOLUTION SERIES FLOOR POKE-THRU MODEL 6AT2PAA WITH
- FLUSH STYLE COVER. PROVIDE COVER WITH A DURABLE BRUSHED ALUMINUM FINISH.
- 15 PROVIDE A PLENUM RATED RG6U COAXIAL CABLE WITH A SOLID 18AWG CENTER CONDUCTOR WEST PENN MODEL 25841. ROUTE ALL COAX CABLES BACK TO THE IT ROOM AND LEAVE A 20 FT SERVICE LOOP.

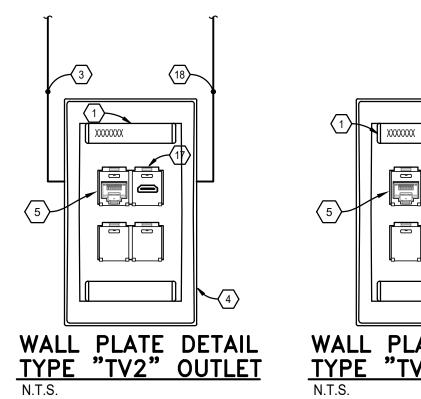
16 PROVIDE A 75-OHM F-TYPE COUPLER MODULE MODEL KSFCN (FOG WHITE) BY LEGRAND.

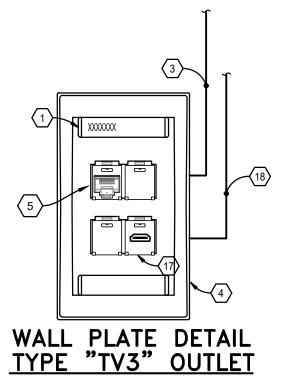
- 17 PROVIDE A LEGRAND 4K HDMI KEYSTONE INSERT MODEL WP124KBR.
- 18 PROVIDE A C2G PERFORMANCE SERIES HDMI ACTIVE OPTICAL CABLE (C2G103XX) BETWEEN THE DISPLAY AND THE ROOM AV OUTLET. (LENGTH AS REQUIRED)

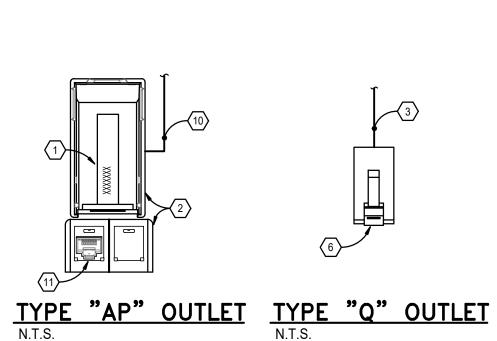












M-Engineering 750 Brooksedge Blvd. Westerville, Ohio 43081 phone: 614.839.4639 fax: 614.839.2222 www.mengineering.us.com

SOCIATES

S

FREYTAG

AR

NOL

S

SIDNI

CONSTRUCTION

NEW

ENGINEER

C VOICE / DATA / AV OUTLET DETAILS

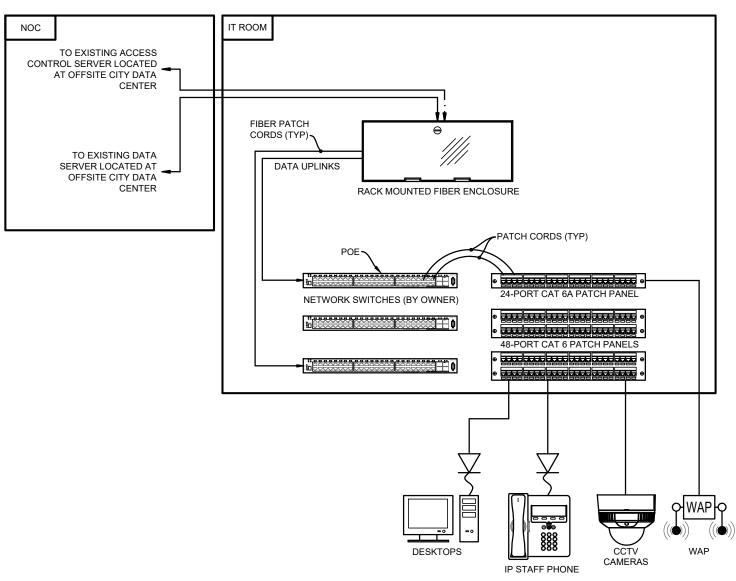
These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such and instruments and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 2207 DRAWN BY CHECKED BY MW/MG

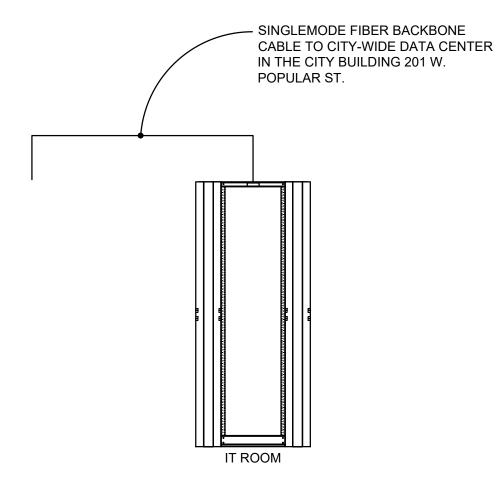
TECHNOLOGY DETAILS

T-900

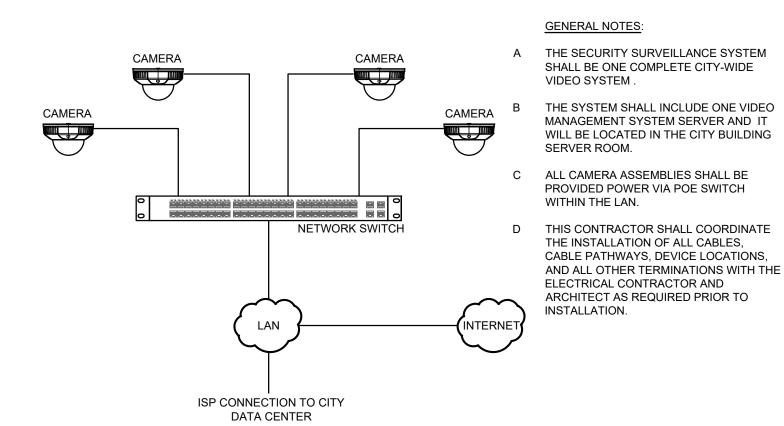


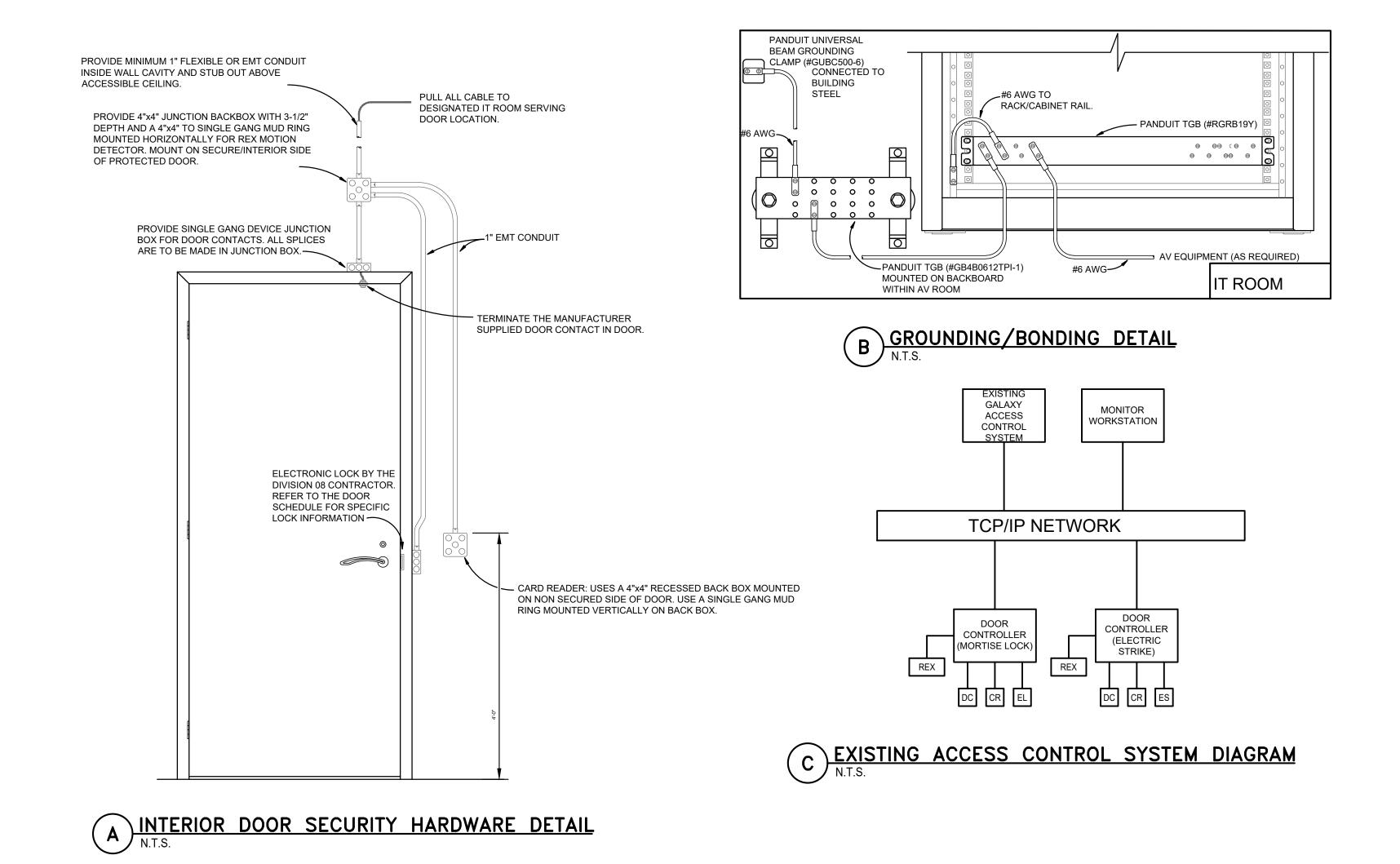
A VOICE/DATA ONE-LINE DIAGRAM

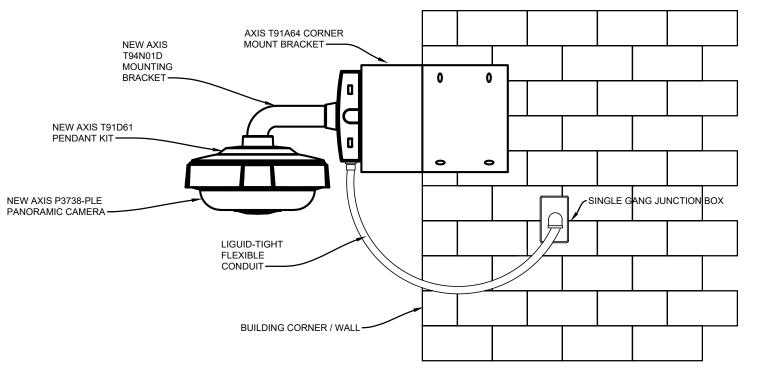
N.T.S.

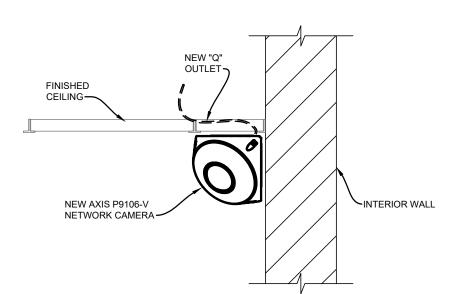


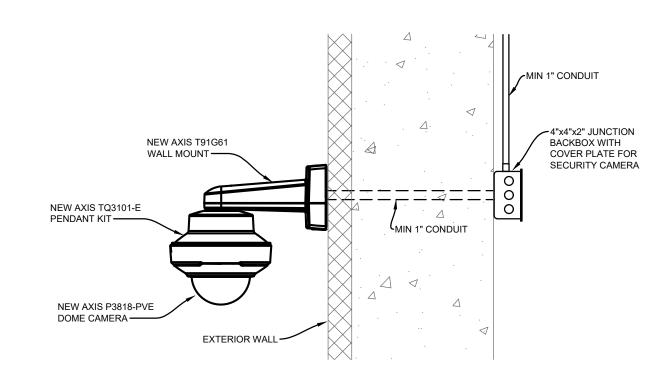
D VOICE/DATA NEW BACKBONE DIAGRAM
N.T.S.











EXTERIOR CORNER MOUNT (MULTI-SENSOR)

MOUNTING STYLE "7"

INDOOR CEILING MOUNT MOUNTING STYLE "9"

WALL MOUNTED EXTERIOR MOUNTING STYLE "10"

							SECURITY VIDE	EO CA	MERA	SCH	EDULE	•								
CAMERA NUMBER	MANUFACTURER	CAMERA MODEL	DESCRIPTION	CAMERA TYPE	LOCATION		MOUNTING INFORMATION												POWER	
					INTERIOR	EXTERIOR	НЕІСНТ	MOUNTING STYLE	CEILING	WALL	APPROX MOUNTING HEIGHT	MANUFACTURER SUPPLIED BACKBOX	CONTRACTOR SUPPLIED BACKBOX	CEILING MOUNT ADAPTER	EXTERIOR WALL MOUNT	PENDANT ADAPTER	CORNER BRACKET	DRAWING SHEET	EEE 802.3af/502.at TYPE 1 CLASS 2	LOCAL
01	AXIS	P9117-PV	3 MP CORNER CAM	С3	Х		TBD (VERIFY IN THE FIELD)	9	Х		9'-0" AFF							T-100	Х	
02	AXIS	P9117-PV	3 MP CORNER CAM	C3	Х		TBD (VERIFY IN THE FIELD)	9	Х		9'-0" AFF							T-100	Х	
03	AXIS	P3818-PVE	13 MP 180 MULTISENSOR	E2		Х	TBD (VERIFY IN THE FIELD)	10		Х	8'-0" AFG		Х		Х	Х		T-100	Х	
04	AXIS	P3818-PVE	13 MP 180 MULTISENSOR	E2		Х	TBD (VERIFY IN THE FIELD)	10		Х	8'-0" AFG		Х		Х	Х		T-100	Х	
05	AXIS	P3738-PLE	4X 4K MULTIDIRECTIONAL	E3		Х	TBD (VERIFY IN THE FIELD)	7		Х	18'-0" AFG		Х		Х	Х	Х	T-100	Х	
06	AXIS	P3738-PLE	4X 4K MULTIDIRECTIONAL	E3		Х	TBD (VERIFY IN THE FIELD)	7		Х	18'-0" AFG		Х		Х	Х	Х	T-100	Х	
07																				
08																				

SSOCIATES INC **FREYTAG**

SIDNE

TATION S

NEW CONSTRUCTION OF

M-Engineering 750 Brooksedge Blvd. Westerville, Ohio 43081 phone: 614.839.4639 fax: 614.839.2222 www.mengineering.us.com

These designs and all items depicted herein, whether in writing or graphically, as instruments of professional service, may not be altered or changed, in any way, without the prior knowledge, and written consent of the Architect. Any change made without the Architect's written approval will void all such written approval will void all such documents and the Architect will not be personally liable for any damage, harm or loss caused thereby.

REVISIONS PLAN APPROVAL / BIDDING

COMM. NUMBER DATE 11/13/24 2207 DRAWN BY CHECKED BY

TECHNOLOGY DETAILS

MHW

T-901

MW/MG