


APPROXIMATE ESTIMATE
FIRE DEPARTMENT BUILDING RENOVATIONS FOR KINGSVILLE TOWNSHIP

Ashtabula County Engineers Dept.
 Ashtabula County
 Timothy T. Martin P.E. P.S.
 County Engineer

<u>REF NO</u>	<u>Description</u>	<u>Quantities</u>	<u>Unit</u>	<u>\$ Unit Price</u>	<u>\$ Total</u>
	<u>BASE BID</u>				<u>Unit Price</u>
	BUILDING COMPLETE AS PER PLAN (INCLUDES ALL LABOR AND MATERIAL)	1	LUMP	\$ 752,000.00	\$ 752,000.00
	Total Cost			\$ \$	752,000.00


 County Engineer

Date 12-11-2024

OFFICE OF THE KINGSVILLE TOWNSHIP TRUSTEES

PROPOSAL

TO THE BOARD OF KINGSVILLE TOWNSHIP TRUSTEES

For: Fire Department Building Renovation

Bidder's Name _____
Street Address _____
P.O. Box _____
City, State & zc _____
Quotation No. 2024 - 01

Date of Letting: _____

Place of Letting: _____

Completion Date: December 31, 2025

ENGINEER'S ESTIMATE \$752,000.00

Contractor's Total Cost & Expense \$ _____

BID DOCUMENTS

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NOTICE TO BIDDERS

Sealed bids will be received at the office of the _____ Township Trustees at
_____ until _____ M.
on the _____ day of _____, 20____ at which time said bids will be opened and publicly
read for _____

Any supplemental information desired by the Bidder may be obtained at: _____

Phone: _____

Each Bid shall be accompanied by a bid guarantee, in the form of a bid bond, a certified check, a cashiers check or a letter of credit, in conformity with the requirements of ORC 153.54 and 153.571 (B). If a bid bond is used, the bond shall be in the full amount of the bid and signed by a Surety company authorized to do business in Ohio, and accompanied by the Surety's sufficient power of attorney affirming said signature. If a certified check, cashiers check or letter of credit is used, the instrument shall be drawn on a solvent bank in an amount not less than ten percent (10%) of the Bid. The bid guarantee shall be given as security that, if the Bid is accepted, the Bidder will enter into a contract in conformity with the Bid. Bids less than twenty-five thousand dollars (\$25,000.00) do not require a bid guarantee.

DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN SECTION 153.011 OF THE OHIO REVISED CODE APPLY TO THIS PROJECT. COPIES OF SECTION 153.011 OF THE REVISED CODE CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE STATE OF OHIO DEPARTMENT OF ADMINISTRATIVE SERVICES.

Each bid must be in a sealed envelope and the outside thereof properly marked with the Quotation Number, Date and Time of the bid opening.

The Board of Township Trustees reserves the right to waive any and all informalities and the right to reject any and all bids.

Fiscal Officer

I. INSTRUCTIONS TO BIDDERS

1. SUBMISSION OF BIDS

Sealed Bids will be received at the Kingsville Township Trustee's Office, on or before the advertised Bid date and time, as extended, for all labor, materials, equipment, supervision, coordination and other things necessary for the full and complete performance of the project described by the accompanying Bid advertisement (herein referenced as the "Project").

Bids must be submitted in sealed envelopes marked with the Quotation Number. Bids shall be opened immediately upon expiration of the Bid submission time, with the names of bidders and their respective bid prices read publicly.

2. STANDARD SPECIFICATIONS & TERMS

The Construction & Material Specifications of the State of Ohio, Department of Transportation (latest edition as of the date of advertisement), excluding only sections 102 and 103 titled "Bidding" and "Award", shall serve as standard specifications for any contract awarded hereunder. Said Construction & Material Specifications are referenced herein as the "Standard Specifications." Supplemental specifications, requirements, terms, conditions and covenants of these Instructions to Bidders and of the accompanying Bid Documents shall control over conflicting terms found in the Standard Specifications.

Wherever the following terms appear in the Standard Specifications, said terms shall have the following meaning:

- A. The terms "State", "State of Ohio", "Department" and "Department of Transportation" refer to the Township of Kingsville, or the "Owner" herein.
- B. The term "Director," "DCE" and "DDD" refers to the Township of Kingsville.
- C. The term "Engineer" refers to the County Engineer, or to his duly authorized representative.
- D. The term "Laboratory" refers to such testing laboratory or consultant as shall be designated by the Township, or by the County Engineer's duly authorized representative.

A numerical designation for an "item" referenced herein refers to the description of said item number as provided by the Standard Specifications.

Bidders are specifically referred to the definitions provided by section 101.03 of the Standard Specifications. Any undefined trade and technical words and terms shall be deemed to have the meaning established by trade usage in the highway/bridge construction and civil engineering consultation business.

3. FORM OF BID

Bids shall be submitted using the attached blank forms, designed for such purpose. These forms must be completed intact, without removal of any part, must recite the full name of the party making the Bid, and must be properly signed.

In each blank marked "unit price", bidders are required to provide a Bid price per referenced unit for the requested materials, labor or equipment, or referenced combination thereof. Failure to provide a price for each unit price item, or failure to provide prices for lump sum items, will render the Bid informal, allowing its rejection at the Township's discretion.

Extended unit prices are calculated by multiplying the bidder's unit price entries times their respective approximate quantities. The resultant extended unit price figures, in addition to any lump sum prices, are added to calculate the amount of each Bid.

The sum of the extended unit prices and lump sum prices provided by each Bidder shall comprise that Bidder's Bid price for consideration of award of contract. If an error is made in the extension of unit prices, or in the addition of the extended unit and lump sum prices, the accurate extended unit prices and total shall govern.

Quantities provided by the Bid Documents are estimates only. The Township reserves the right to eliminate, increase or decrease the actual quantity of any unit price item, or to non-perform any lump sum item.

4. BIDDER QUALIFICATIONS

Bidders must be prequalified unless otherwise indicated in Item II(2) Prequalification by the Ohio Department of Transportation, as described by ORC sections 5525.02-.09, for performance of Work of the same type, character and magnitude as described hereby, is acceptable.

5. EXAMINATION OF BID DOCUMENTS & SITE OF WORK

Bidders must carefully examine the Bid Documents and perform a reasonable site investigation before submitting a Bid. Submission of a Bid is an affirmative statement that the Bidder has investigated the Project site and is satisfied as to the character, quality, quantities and conditions to be encountered in performing the Work. A reasonable site investigation includes investigating the Project site, borrow sites, hauling roads and all other locations related to the performance of the Work.

6. BID GUARANTEE

Each Bid shall be accompanied by a bid guarantee, in the form of a bid bond, a certified check, a cashiers check or a letter of credit, in conformity with the requirements of ORC 153.54 and 153.571 (B). If a bid bond is used, the bond shall be in the full amount of the bid and signed by a Surety company authorized to do business in Ohio, and accompanied by the Surety's sufficient power of attorney affirming said signature. If a certified check, cashiers check or letter of credit is used, the instrument shall be drawn on a solvent bank in an amount not less than ten percent (10%) of the Bid. The bid guarantee shall be given as security that, if the Bid is accepted, the Bidder will enter into a contract in conformity with the Bid. Bids less than twenty-five thousand dollars (\$25,000.00) do not require a bid guarantee.

7. FACTORS FOR ACCEPTANCE OR REJECTION OF BIDS

- A. Pursuant to ORC 307.90 (A), a contract shall be awarded to the lowest and best Bid.
- B. Any Bid which is incomplete, conditional, obscure, or which contains additions not called for or irregularities of any kind, may be rejected.
- C. The Township reserves the right to reject any and all Bids, and also the right to waive any informality in the Bid. The Township has the right to postpone the decision to award a contract for up to sixty (60) days.
- D. No contract shall be awarded to any person, firm, or corporation that is in arrears or is in default to the Township upon any debt or contract, or that is in default as surety or otherwise upon any obligation to the Township, or has failed to perform faithfully any previous contract with the Township, or that has an unresolved finding of recovery with the State Auditor, or has been debarred by the Township from consideration for contract awards.
- E. R.C. §3517.13(I)(3) and R.C. § 3517.13(J)(3) require that no political subdivision shall enter into any contract for the purchase of goods or services costing more than ten thousand dollars with a corporation, individual, partnership, other unincorporated business, association, including without limitation, a professional association organized under Chapter 1785 of the revised code, estate or trust unless the contract includes a certification that the individuals named in R.C. §3517.13(I)(3) and R.C. § 3517.13(J)(3) are in compliance with the aforementioned provisions. The offeror is required to complete affidavit contained herein and submit same with their proposal/bid. **Failure to submit the required forms with the proposal/bid packet will deem the offeror's response to be non-responsive and disqualified from receiving further considerations.**

8. WITHDRAWAL OF BIDS

A Bidder may request, in writing, to withdraw its Bid within five business days of the opening. Such requests will be reviewed by the Township for approval as permitted by ORC 9.31 and 153.54 (G). If approved, collection of the bid guarantee or bond will be waived.

9. DOMESTIC USE REQUIREMENTS; LOAD BEARING STRUCTURAL STEEL

Domestic steel use requirements as specified in Section 153.011 of the Ohio Revised Code apply to this project. Copies of Section 153.011 of the Revised Code can be obtained from any of the offices of the State of Ohio Department of Administrative Services.

10. PREVAILING WAGE RATES

All employees on the Work site shall be paid at the prevailing wage rate for the appropriate class of Work. The prevailing wage rates shall be determined in accordance with ORC Chapter 4115, except for employees who are covered by a collective bargaining agreement in existence prior to the date of contract, who shall be paid the rate of pay provided by such agreements. Schedules of applicable prevailing wage rates are attached to the Specifications. Bidders are cautioned to assure the completeness of said wage schedules, and to notify the Township prior to the bid date of any omitted schedules.

11. OTHER COSTS & REQUIREMENTS

Bids must include all costs of performing the Work and all costs of fulfilling the requirements of laws, rules and regulations pertaining thereto. The following is a partial list of ancillary contract costs and requirements. Said list is provided for the convenience of Bidders, to assist in their inclusion of all components of costs and fulfillment of all requirements, though this list does not recite all such costs and requirements.

- A. Bids must include the cost of all required bonds (performance and maintenance).
- B. Bids must include the cost to procure all permits and licenses, to pay all charges, fees and taxes, and to provide all notices necessary and incidental to the due and lawful prosecution of the Work.
- C. Bids must include the cost of insurance coverage of the type and at least in the amounts set forth by section 107.12 of the Standard Specifications and by any special bid provisions.
- D. The Township is exempt from all sales, excise, and transportation taxes, with the exception of State of Ohio gasoline tax. Bid prices shall exclude all such taxes.

- E. "Declaration of Personal Property Tax Delinquency" form must be fully executed and notarized pursuant to ORC section 5719.042, before an award can be made.
- F. Pursuant to ORC 3517.13(I)(3) & (J)(3), Bidders must complete the attached Contributions Limitations Certification.

II. SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

1. BIDDER PREFERENCES

N/A

2. ADDITIONAL BIDDER QUALIFICATION REQUIREMENTS

Prequalification requirements of item I (4.) shall not apply to this letting.

3. OTHER SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

N/A

III. SUPPLEMENTAL CONTRACT PROVISIONS

1. AWARD REQUIREMENTS OF SUCCESSFUL BIDDER / CONTRACTOR

The following is a partial list of award of contract requirements. Said list is provided for the convenience of Bidders, to assist in their inclusion of all components of costs of such requirements, though this list does not recite all such costs and requirements.

- A. The successful Bidder/Contractor must provide a one hundred percent (100%) Performance Bond based on the contract amount, in conformity with the requirements of ORC section 153.54 (C) and 153.57 (A). A Maintenance Bond in the amount of ten percent (10%) of the final contract amount, extending coverage for one (1) year beyond the acceptance date of the completed Project, must be provided by the Contractor as a prerequisite to final payment. Said Maintenance Bond shall assure the repair and/or correction of any defects, deficiencies or omissions in the Project Work.
- B. The Contractor must provide evidence of all insurance coverage requirements of section 107.12 of the Standard Specifications.
- C. The Contractor agrees to provide the Township with full and complete documentation of payment of prevailing wages to all employees of the Contractor and of its subcontractors governed by Prevailing Wage law.
- D. The Contractor agrees to provide the Township with a contact person, a telephone number, a mailing address and, if available, an electronic mail address for purposes of giving notice to the Contractor of any changes in prevailing wage rates. Where an electronic mail address is given, the Contractor agrees that the use of that method by the Township satisfies any notice requirements of any change in prevailing wage rates. Upon commencement of contract work, the Contractor and its subcontractors subject to the contract's prevailing wage requirements must provide the prevailing wage coordinator with a schedule of wages, with certified copies of payroll being required throughout work on the Project.
- E. The Contractor further agrees to stay informed of applicable prevailing wage rates and to immediately inform all its subcontractors and the Township of such changes. The Contractor agrees to defend and indemnify the Township, its elected officials, agents and employees, against all claims, actions, demands, judgments, settlements, damages, liabilities, losses, and costs of any kind, including, but not limited to, reasonable fees of attorneys and experts, arising from or related to the Contractor's failure to inform its subcontractors of changes in prevailing wage rates.
- F. The Contractor must furnish the Township with a completed IRS form W-9, "Request for Taxpayer Identification Number & Certification." The Internal Revenue Code requires the Township to file an information return each January 31st on all payments made the

previous year of \$600.00 or more. As required by Section 3406 of the Internal Revenue Code (26 U.S.C. 3406), the Township shall withhold federal taxes at a rate of thirty-one percent (31%) if a correct taxpayer identification number is not provided. Back-up withholding requirements continue until the required information is received.

2. OTHER CONTRACTOR DUTIES

In addition to the duties cited by the Standard Specifications and elsewhere in these Bid Documents, the Contractor has the following duties:

- A. When determined necessary by the Engineer, the Contractor shall provide a field office, suitably located and of ample size and accommodations, from which the Engineer's inspections, as well as the Contractor's Work, may be carried out. The Contractor must keep a full set of Plans and Specifications available at the field office.
- B. The Contractor must furnish, without extra compensation therefore, such assistance as the Engineer, or his assistants or inspectors may require, in measuring in and setting stakes or marks for indicating lines, grades or levels, for measuring or determining quantities for estimates, and for handling and inspecting materials to be used on the Work, whether such materials have been delivered upon the site of the Work or are in local storage. The Contractor shall provide such facilities for weighing and measuring materials as the Engineer may deem necessary, to secure the proper fulfillment of the provisions and requirements of the Specifications.
- C. The Contractor shall diligently protect and preserve all stakes, marks, bench marks and monuments set or used by the Engineer, and shall be responsible for securing therefrom the proper lines, grades and levels for the structures to be built.
- D. The Contractor must place or construct, in such manner and at such points as the Engineer may require, necessary sanitary conveniences for the use of employees on the Work site. They shall be properly secluded from public observation, shall be maintained sanitary and inoffensive at all times, and their use shall be strictly enforced. The Contractor must provide an ample supply of pure drinking water for employees at all times, and the source of such supply shall be subject, at all times, to the approval of the Engineer.
- E. The Contractor is reminded of its duty to notify the registered underground utility protection service and owners of underground utility facilities at least two working days in advance of commencement of construction operations that may involve such facilities, to allow surface marking of facility locations.

3. DISCRIMINATION PROHIBITED

The Contractor understands and agrees that, in the hiring of employees for the performance of work under the contract or any subordinate contract thereunder, the Contractor, its subcontractors

and persons acting on behalf of the same shall not discriminate in the hiring or retention of subordinate contractors or employees "by" or "for" reason of race, creed, sex, disability (as defined by ORC 4112.01) or color; nor shall said parties discriminate against any citizen of the State of Ohio in the employment of labor or workers who otherwise qualify and who are available to perform the work to which the contract relates.

Further, the Contractor and its subcontractors and persons acting on behalf of the same shall not discriminate against or intimidate any employee hired for performance of the Work under the contract on account of race, creed, sex, disability (as defined by ORC 4112.01) or color.

In addition, the Contractor agrees, as a prerequisite of award, to complete the attached "Equal Employment Opportunity Compliance Certificate," and to fulfill all requirements thereof.

4. INSPECTION

The Engineer, assistants and agents, shall have, at all times, immediate access and right to enter upon the Work site and other Work premises occupied by the Contractor as well as upon the site of all sources from which materials are being obtained for the contract. The Contractor shall provide safe and proper facilities for permitting such entrance and for inspecting and testing purposes. Subcontractors and suppliers shall have similar obligations imposed by subordinate contracts. The Contractor shall furnish the Engineer with all reasonable facilities for ascertaining that the materials and Work are in accordance with the requirement and intention of the Specifications and contract, even to the extent of uncovering or removing portions of finished Work.

The Contractor shall give definite information, at any time, as to the place from which, or persons from whom, any material is being or will be procured. All materials to be used may be subjected to such tests as the Engineer may require to assure that such materials conform, in all respects, to the requirements of the Specifications, or that they are equal in quality to samples submitted by the Contractor. All materials which do not conform to such requirements shall be rejected, and the Contractor shall remove such rejected materials from the vicinity of the Work within twenty-four (24) hours thereafter.

The inspection and supervision of the Work and materials by the Engineer, assistants and inspectors, is intended to aid the Contractor in accomplishing the fulfillment of duties and obligations under the contract, but such inspection and supervision shall not relieve the Contractor from contract obligations.

Defective Work shall be made good and unsuitable materials may be rejected, notwithstanding that such Work and materials have been previously overlooked by the Engineer and accepted or estimated for payment. If the Work, or any part thereof, is found, at any time before the acceptance of the whole Work and for the period of the Maintenance Bond thereafter, to be defective, or to contain defective materials, the Contractor shall make good such defects under the direction of the Engineer.

Upon being attached to, or incorporated in the Work, or affixed in or to the soil, all materials shall become the property of the Township. Thereafter the Contractor shall have no right of property therein, unless they are afterward rejected by the Engineer. The Contractor bears risk of loss of and damage to the Work until completion and final acceptance of the Work.

The Contractor shall schedule inspection 24 hours in advance of the performance of the respective Work. At the pre-construction meeting, the Engineer shall provide the Contractor with phone numbers and names of a contact person and of the Engineer's inspectors. The Contractor shall inform the Engineer of his Work schedule and the hours that Work will be performed. The Engineer shall approve the Contractor's schedule and hours of operation before the Contractor may begin Work.

When Work is scheduled and the Contractor desires to change the approved schedule, the Contractor shall contact the Engineer's inspector at or before 7:30 a.m. of the scheduled Work date to cancel or adjust the hours of inspection. If the Contractor fails to contact the Engineer's inspector as stated above or if the notice is within two (2) hours of the scheduled inspection and is insufficient to cancel attendance by the Engineer's inspector, the Contractor will be charged for two (2) hours of inspection time at the current inspection rate. This cost will be subtracted from the Contractor's monthly pay estimate.

5. CHANGES IN QUANTITY OF WORK

The quantities of Work, as given in the Estimated Quantities, are approximations only. The Township shall have the power to alter by increasing, decreasing or deleting the quantities of Work to be done, either before or after the commencement of construction.

If such change involves the reduction or omission of any material or Work called for by the original Plans or Specifications, there shall be no right with the Contractor for any claims for losses or damages, or for loss of profit, growing out of such omission. If any such change involves additional material or labor, upon which the price is fixed in the Contract, that price shall govern. Any such change shall in no way relieve the Contractor of or affect any of the obligations hereunder. In like manner the Township may, without affecting the contract, require the Contractor to furnish materials or to do Work for which no price is given as provided by the Standard Specifications.

If such changes result in increased or diminished expense of Work items, the prices of which are fixed in the contract, the Township shall determine an equitable adjustment of such prices, which shall be final and binding on the parties hereto, subject to dispute resolution.

6. NO WAIVER OF RIGHTS

No act of the Township, or its assistants or inspectors, shall operate as a waiver of any provisions of the contract, nor shall any breach of this contract operate as a waiver of any other subsequent breach. Any and all remedies provided in this contract are cumulative, in addition to other remedies herein provided. The mention of any specific liability or duty of the Contractor, in any

part of the Specifications or contract, shall not be construed as a limitation or restriction upon general liability or duty imposed upon the Contractor by said Specifications and contract. Should any part of the Work be sublet by the Contractor, such action shall in no way release the Contractor from liability or obligation hereunder. The Contractor shall be liable for the acts, omissions and negligence of any subcontractor, and shall be responsible therefore as though no subcontract existed.

7. DAMAGES FOR LATE COMPLETION; EXTENSIONS OF TIME

Time is of the essence to this contract. The rate of progress shall be such as to complete the Project Work within the time limit specified herein.

In the event that the Work is not completed within the time limit aforesaid, the Contractor shall reimburse the Township an amount equal to the Township's costs for and expenses of Project inspections, supervision and similar engineering services provided by or for the Township after the expiration of the aforesaid time limit, and until completion and acceptance of the Work.

In addition, in the event that the Work is not substantially completed within the time limit aforesaid, with said incompleteness prohibiting beneficial use and occupancy of the Project, in compensation for the public's loss of use of the Project, the Contractor shall forfeit liquidated damages in the amount set forth by section 108.07 of the Standard Specifications.

Such amounts shall be deducted by the Engineer from the partial or final estimates to be allowed the Contractor.

The Board of Township Trustees may for good cause shown, extend the time of completion. Any such extension of time shall not be deemed a waiver by the Township of any other rights provided for under this contract, and shall not operate to release any Surety from any of bond obligations.

8. NIGHT & SUNDAY WORK

No Work requiring the presence of the Engineer's inspectors will be permitted at night or on Sunday, except in a case of an emergency, and then only to such an extent as is absolutely necessary and by written permission of the Engineer. This clause shall not prohibit the performance of Work by workmen organized for the regular continuous night work and working on only such Work as the Engineer believes may be performed satisfactorily at night.

9. OTHER SUPPLEMENTAL CONTRACT PROVISIONS

N / A

IV. SCOPE OF WORK

1. GENERALLY

The Contractor shall furnish, at its own cost and expense, all management, labor, tools, forms, equipment, appliances, machinery, transportation, materials and other things necessary, of whatever nature, to perform the Work, and shall perform and complete, within the time limit specified, all of the Work indicated or implied by including the Notice to Bidders, Instructions to Bidders, General & Supplemental Provisions, Standard Specifications, Scope of Work, Plans & Specifications, and Estimated Quantities prepared for this Project, including the removal of surplus or condemned materials, and the thorough cleaning of the site of the Work and structures built.

In no case will any Work, in excess of such requirements, be paid for unless ordered in writing by the Township as hereinafter specified.

All Work shall be of the best quality throughout. Unless otherwise provided herein, all materials shall be new.

2. SCHEDULE OF PERFORMANCE

At the pre-construction meeting, the Contractor must provide the Engineer with a printed schedule showing the interrelation and planned performance of all major items of Work, with completion reasonably scheduled thereon to occur by the scheduled completion date recited herein. The Engineer shall review and consider acceptance of the schedule as provided by section 108.02 (B)(1) of the Standard Specifications.

3. DESCRIPTION OF SCOPE OF WORK

Fire Department Building Renovation

V. PLANS & SPECIFICATIONS

1. GENERALLY

The Plans and Specifications are intended to explain and supplement each other, and to indicate and provide for the construction of the various related parts of the Project in a complete and connected manner. Should any detail be omitted, any discrepancies or errors appear, or misunderstandings arise, in or with respect to such Plans and Specifications, the additions, corrections, or explanations necessary to provide for the construction in accordance with such intent shall be made by the Engineer, and such additions, corrections and explanations shall be final and binding upon the Contractor, subject to dispute resolution.

2. "OR EQUAL"

Whenever an article, material, or equipment, is defined herein by describing a proprietary product, or by using the name of manufacturer or vendor, the term "or equal", if not inserted, shall be implied. The specific article, material, or equipment mentioned, shall be understood as indicating the type, function, minimum standard of design, efficiency, and quality desired, and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design and efficiency. The Contractor shall comply with the requirements of the contract documents, relative to the approval of materials and equipment by the Township, before the same are incorporated in the Work.

3. LIST OF PLANS & SPECIFICATIONS

See Attached

VI. PREVAILING WAGE RATE SCHEDULES

See Attached

Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter Commercial Zone NEO 1A

Change # : LCN01-2024ibLocNEZone1A

Craft : Carpenter Effective Date : 08/07/2024 Last Posted : 08/07/2024

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Carpenter	\$37.52		\$8.25	\$10.98	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$61.18	\$79.94
Apprentice	Percent											
1st 3 months	60.00	\$22.51	\$8.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.76	\$42.02
2nd 3 months	60.00	\$22.51	\$8.25	\$0.00	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$35.19	\$46.45
2nd 6 months	65.00	\$24.39	\$8.25	\$0.00	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$37.07	\$49.26
3rd 6 months	70.00	\$26.26	\$8.25	\$0.00	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$38.94	\$52.08
4th 6 months	75.00	\$28.14	\$8.25	\$0.00	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$40.82	\$54.89
5th 6 months	80.00	\$30.02	\$8.25	\$8.78	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$51.48	\$66.48
6th 6 months	85.00	\$31.89	\$8.25	\$9.33	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$53.90	\$69.85
7th 6 months	90.00	\$33.77	\$8.25	\$9.88	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$56.33	\$73.21
8th 6 months	95.00	\$35.64	\$8.25	\$10.43	\$0.62	\$0.00	\$3.67	\$0.14	\$0.00	\$0.00	\$58.75	\$76.58

Special Calculation Note : *Other is International Training

Ratio :

1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ASHTABULA, CUYAHOGA, GEAUGA, LAKE

Special Jurisdictional Note :

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Local 404

Change # : LCN01-2024ibLoc404

Craft : Cement Effective Date : 05/01/2024 Last Posted : 05/01/2024

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Cement Mason	\$34.88		\$9.40	\$7.10	\$0.63	\$0.00	\$5.95	\$0.08	\$0.00	\$0.00	\$58.04	\$75.48
Apprentice	Percent											
1st yr	58.51	\$20.41	\$9.40	\$7.10	\$0.63	\$0.00	\$2.98	\$0.08	\$0.00	\$0.00	\$40.60	\$50.80
2nd yr	73.50	\$25.64	\$9.40	\$7.10	\$0.63	\$0.00	\$2.98	\$0.08	\$0.00	\$0.00	\$45.83	\$58.65
3rd yr	83.51	\$29.13	\$9.40	\$7.10	\$0.63	\$0.00	\$2.98	\$0.08	\$0.00	\$0.00	\$49.32	\$63.88
4th yr	98.50	\$34.36	\$9.40	\$7.10	\$0.63	\$0.00	\$2.98	\$0.08	\$0.00	\$0.00	\$54.55	\$71.73

Special Calculation Note : Other is Training Fund

Ratio :

- 5 Journeymen to 1 Apprentice
- 2 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :
ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
LORAIN

Special Jurisdictional Note :

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Electrical Local 673 Inside Lt Commercial Northern

Change # : LCN01-2023ibLoc673inLtCom

Craft : Electrical Effective Date : 06/07/2023 Last Posted : 06/07/2023

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrician	\$37.55		\$7.32	\$10.10	\$0.70	\$0.00	\$5.46	\$0.00	\$0.00	\$0.00	\$61.13	\$79.90
Welder	\$41.31		\$7.32	\$10.10	\$0.70	\$0.00	\$5.46	\$0.00	\$0.00	\$0.00	\$64.89	\$85.54
CE-3 12,001- 14,000 Hrs	\$27.59		\$6.51	\$0.83	\$0.82	\$0.00	\$0.83	\$0.10	\$0.00	\$0.00	\$36.68	\$50.47
CE-2 10,001- 12,000 Hrs	\$21.68		\$6.51	\$0.65	\$0.82	\$0.00	\$0.65	\$0.10	\$0.00	\$0.00	\$30.41	\$41.25
CE-1 8,001- 10,000 Hrs	\$19.71		\$6.51	\$0.59	\$0.82	\$0.00	\$0.59	\$0.10	\$0.00	\$0.00	\$28.32	\$38.18
CW-4 6,001- 8,000 Hrs	\$17.74		\$6.51	\$0.53	\$0.82	\$0.00	\$0.53	\$0.10	\$0.00	\$0.00	\$26.23	\$35.10
CW-3 4,001- 6,000 Hrs	\$15.77		\$6.51	\$0.47	\$0.82	\$0.00	\$0.47	\$0.10	\$0.00	\$0.00	\$24.14	\$32.03
CW-2 2,001- 4,000 Hrs	\$14.78		\$6.51	\$0.44	\$0.82	\$0.00	\$0.44	\$0.10	\$0.00	\$0.00	\$23.09	\$30.48
CW-1 0- 2,000 Hrs	\$13.80		\$6.51	\$0.41	\$0.82	\$0.00	\$0.41	\$0.10	\$0.00	\$0.00	\$22.05	\$28.95
Apprentice	Percent											
1st Period	45.00	\$16.90	\$7.32	\$0.50	\$0.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25.42	\$33.87
2nd Period	50.02	\$18.78	\$7.32	\$0.56	\$0.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.36	\$36.75
3rd Period	55.00	\$20.65	\$7.32	\$0.59	\$0.70	\$0.00	\$5.46	\$0.00	\$0.00	\$0.00	\$43.72	\$54.05
4th Period	65.00	\$24.41	\$7.32	\$0.71	\$0.70	\$0.00	\$5.46	\$0.00	\$0.00	\$0.00	\$47.60	\$59.80
5th Period	75.00	\$28.16	\$7.32	\$0.82	\$0.70	\$0.00	\$5.46	\$0.00	\$0.00	\$0.00	\$51.46	\$65.54
6th Period	85.00	\$31.92	\$7.32	\$0.93	\$0.70	\$0.00	\$5.46	\$0.00	\$0.00	\$0.00	\$55.33	\$71.29

Special Calculation Note : Other is Central Collection.

Ratio :

Each job site shall be allowed a ratio of
2 Apprentice for every 3
Journeymen Wireman or fraction thereof:

Jurisdiction (* denotes special jurisdictional note) :
ASHTABULA*, GEAUGA*, LAKE

1 to 3 Journeymen to 2 Apprentices
4 to 6 Journeymen to 4 Apprentices
7 to 9 Journeymen to 6 Apprentices

Construction Electrician and Construction Wireman Ratio

There shall be a minimum ratio of one inside Journeyman Wireman to every (4) employees of different classifications per jobsite. An Inside Journeyman Wireman is required on the project as the fifth (5th) worker or when apprentices are used

Special Jurisdictional Note : The following townships In Ashtabula County are EXCLUDED: Orwell, Colebrook, Williamsfield, Wayne and Windsor.

In Geauga County the following townships are INCLUDED: Burton, Chardon, Claridon, Hambden, Huntsburg, Montville, Munson, Newbury and Thompson.

The scope of work for the light commercial agreement shall apply to the following small medical clinics, stand-alone doctor and dentist offices with up to 600 amp service (not attached to a hospital), gas stations/convenience stores, fast food restaurants and franchised chain restaurants including independent bars and taverns, places of worship, funeral homes, nursing homes, assisted living facilities and day-care facilities under 15,000 sq ft, small office, retail/wholesale facilities under 15,000 sq ft with less than 10 units attached, storage units, car washes, express hotels and motels (4 stories or less) without conference or restaurants facilities, residential units (subject to Davis Bacon Rates) small stand-alone manufacturing facilities when free standing and not part of a larger facility (less than 15,000 sq ft) solar projects (500 panels or less) unless other wise covered under this agreement, lighting retrofits (when not associated with remodels involving branch re-circuiting) Lighting retrofits shall be defined as the changing of lamps and ballasts in existing light fixtures and shall also include the one for one replacement of existing fixtures.

Details :

High Pay: 45 feet above ground or floor shall be paid \$2.00 over Journeyman Scale.

If required to climb on steel, potain crane, etc., that is High Time.

NOTE: If approved scaffolding with handrails, toe boards, netting, bucket trucks, JLG, decks with proper handrails are used No High Time Shall be paid.

Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 573 Inside

Change # : LCN02-2024ibLoc573in

Craft : Electrical Effective Date : 11/25/2024 Last Posted : 11/20/2024

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrician	\$42.20		\$8.61	\$7.75	\$0.93	\$0.00	\$4.64	\$1.27	\$0.00	\$0.00	\$65.40	\$86.50
Apprentices	Percent											
1st period	45.00	\$18.99	\$8.61	\$0.00	\$0.93	\$0.00	\$0.00	\$0.57	\$0.00	\$0.00	\$29.10	\$38.60
2nd period	50.00	\$21.10	\$8.61	\$0.00	\$0.93	\$0.00	\$0.00	\$0.63	\$0.00	\$0.00	\$31.27	\$41.82
3rd period	55.00	\$23.21	\$8.61	\$4.26	\$0.93	\$0.00	\$2.55	\$0.70	\$0.00	\$0.00	\$40.26	\$51.87
4th period	60.00	\$25.32	\$8.61	\$4.65	\$0.93	\$0.00	\$2.79	\$0.76	\$0.00	\$0.00	\$43.06	\$55.72
5th Period	65.00	\$27.43	\$8.61	\$5.04	\$0.93	\$0.00	\$3.02	\$0.82	\$0.00	\$0.00	\$45.85	\$59.57
6th period	70.00	\$29.54	\$8.61	\$5.43	\$0.93	\$0.00	\$3.25	\$0.89	\$0.00	\$0.00	\$48.65	\$63.42
7th period	75.00	\$31.65	\$8.61	\$5.81	\$0.93	\$0.00	\$3.48	\$0.95	\$0.00	\$0.00	\$51.43	\$67.26
8th period	80.00	\$33.76	\$8.61	\$6.20	\$0.93	\$0.00	\$3.71	\$1.01	\$0.00	\$0.00	\$54.22	\$71.10
9th period	85.00	\$35.87	\$8.61	\$6.59	\$0.93	\$0.00	\$3.95	\$1.08	\$0.00	\$0.00	\$57.03	\$74.97
10th period	90.00	\$37.98	\$8.61	\$6.98	\$0.93	\$0.00	\$4.18	\$1.14	\$0.00	\$0.00	\$59.82	\$78.81

Special Calculation Note : Other is National Electrical Benefit Fund.

Ratio :

1 Journeyman to 3 Apprentice
4 Journeyman to 6 Apprentice

Jurisdiction (* denotes special jurisdictional note):

ASHTABULA*, GEAUGA*, MAHONING*, PORTAGE*, TRUMBULL*

Special Jurisdictional Note : In Ashtabula County the following townships are included: (Colebrook, Wayne, Williamsfield, Orwell and Windsor).

In Geauga County the following townships are included: (Auburn, Middlefield, Parkman and Troy).

In Mahoning County the following township is included: (Milton).

In Portage County the following townships are included: (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris and Windham).

In Trumbull County the following townships are excluded: (Liberty and Hubbard).

Details :

Other: National Electrical Benefit Fund

Prevailing Wage Rate Skilled Crafts

Name of Union: Roofer Local 44

Change # : LCN01-2024ibLoc44

Craft : Roofer Effective Date : 05/08/2024 Last Posted : 05/08/2024

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Roofer	\$38.95		\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$59.99	\$79.46
Applicant & Helper Trainees												
0 to 1851 hrs	\$17.53		\$0.55	\$0.50	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$19.11	\$27.87
1852 to 3350 hrs	\$21.42		\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$42.46	\$53.17
3351 to 4850 hrs	\$27.27		\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$48.31	\$61.95
4851 to 6350 hrs	\$31.16		\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$52.20	\$67.78
6351 to 7550 hrs	\$35.06		\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$56.10	\$73.63
7551 hrs	\$38.95		\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$59.99	\$79.46
Apprentice	Percent											
Start of school	50.02	\$19.48	\$0.55	\$0.50	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$21.06	\$30.80
600 hrs worked/72 school hrs	55.00	\$21.42	\$0.55	\$0.50	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$23.00	\$33.71
1200 hrs worked/144 school hrs	60.00	\$23.37	\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$44.41	\$56.10
1800 hrs worked/216 school hrs	65.00	\$25.32	\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$46.36	\$59.02
2400 hrs worked/288 school hrs	70.02	\$27.27	\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$48.31	\$61.95
3000 hrs worked/360 school hrs	75.00	\$29.21	\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$50.25	\$64.86
3600 hrs worked/432 school hrs	80.00	\$31.16	\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$52.20	\$67.78

4200 hrs worked/504 school hrs	90.02	\$35.06	\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$56.10	\$73.63
4800 hrs/576 school hrs	100.00	\$38.95	\$9.51	\$11.00	\$0.47	\$0.00	\$0.00	\$0.06	\$0.00	\$0.00	\$59.99	\$79.46

Special Calculation Note : Other is for Drug Testing.

Ratio : 2 Journeymen to 1 Apprentice
1 Applicant/Helper Trainee

Jurisdiction (* denotes special jurisdictional note) :
ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE,
LORAIN*, SANDUSKY

Special Jurisdictional Note : Lorain (The Ohio Turnpike North)

Details :

Prevailing Wage Rate Skilled Crafts

Name of Union: Plumber Local 55

Change # : LCN01-2024ibLoc55Plum

Craft : Plumber Effective Date : 05/29/2024 Last Posted : 05/29/2024

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Plumber	\$42.36		\$12.87	\$9.63	\$1.23	\$0.00	\$7.10	\$0.20	\$0.00	\$0.00	\$73.39	\$94.57
Shopman (When in the field)	\$23.25		\$9.50	\$5.59	\$0.10	\$0.00	\$3.85	\$0.00	\$0.00	\$0.00	\$42.29	\$53.92
Plumber Light Commercial Journeymen	\$27.92		\$9.18	\$2.28	\$0.69	\$0.00	\$3.58	\$0.20	\$0.00	\$0.00	\$43.85	\$57.81
Apprentice Light Commercial Trainee												
0-3 Months	\$14.32		\$0.00	\$0.00	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14.82	\$21.98
4-6 Months	\$14.41		\$3.69	\$0.00	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.56	\$25.77
7-12 Months	\$14.61		\$4.42	\$0.33	\$0.63	\$0.00	\$1.13	\$0.00	\$0.00	\$0.00	\$21.12	\$28.42
2nd Year	\$15.92		\$4.49	\$0.35	\$0.65	\$0.00	\$1.20	\$0.00	\$0.00	\$0.00	\$22.61	\$30.57
3rd Year	\$17.21		\$4.55	\$0.36	\$0.68	\$0.00	\$1.28	\$0.00	\$0.00	\$0.00	\$24.08	\$32.69
Apprentice	Percent											
1-6 Months	44.41	\$18.81	\$7.39	\$0.24	\$0.95	\$0.00	\$1.56	\$0.00	\$0.00	\$0.00	\$28.95	\$38.36
7-12 Months	48.13	\$20.39	\$7.61	\$0.44	\$1.00	\$0.00	\$2.01	\$0.20	\$0.00	\$0.00	\$31.65	\$41.84
2nd year 1-6	53.92	\$22.84	\$8.37	\$0.85	\$1.05	\$0.00	\$3.06	\$0.20	\$0.00	\$0.00	\$36.37	\$47.79
2nd year 7-12	55.81	\$23.64	\$8.55	\$2.85	\$1.05	\$0.00	\$3.78	\$0.20	\$0.00	\$0.00	\$40.07	\$51.89
3rd year 1-6	62.77	\$26.59	\$9.08	\$2.80	\$1.05	\$0.00	\$4.00	\$0.20	\$0.00	\$0.00	\$43.72	\$57.01
3rd year 7-12	67.57	\$28.62	\$9.32	\$3.63	\$1.05	\$0.00	\$4.62	\$0.20	\$0.00	\$0.00	\$47.44	\$61.75
4th year	73.82	\$31.27	\$9.57	\$4.07	\$1.05	\$0.00	\$4.98	\$0.20	\$0.00	\$0.00	\$51.14	\$66.78
5th year	80.22	\$33.98	\$9.81	\$4.51	\$1.05	\$0.00	\$5.33	\$0.20	\$0.00	\$0.00	\$54.88	\$71.87

Special Calculation Note : OTHER IS: SUPPLEMENTAL UNEMPLOYMENT

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

1 Journeymen 1 Apprentice

ASHTABULA, CUYAHOGA, GEAUGA, LAKE,
MEDINA*, SUMMIT*

Light Commercial Ratio

1-2 Journeymen to 1 Trainee

3 Journeymen to 2 Trainees

4-5 Journeymen to 3 Trainees

6-8 Journeymen to 4 Trainees

9-10 Journeymen to 5 Trainees

11-13 Journeymen to 6 Trainees

Special Jurisdictional Note : Summit County - North of State Route 303 including work within the corporate limits of the City of Hudson, that portion of Medina County North of Route 18 and Smith Road and the corporate limits of the City of Medina.

Details :

The Plumber Shopman will have charge of the Employer's shop and warehouse containing plumbing and heating supplies and equipment, and perform such duties as are customarily required by a Plumber or a Plumber's Shopman, including casual delivery of tools and equipment necessary for installation of Plumbing and Heating facilities. One field shopman per shop may be hired after employing the 1st apprentice, and a second field shopman per shop may be hired after employing the 5th apprentice. These shopmen may work in the field performing primarily non-mechanical work. The plumber shopman's duties do not include the installation of plumbing.

The Plumber Light Commercial Rate can be used for the following: Any private construction project covered by this agreement shall be eligible for designation as a Market Recovery Project (Lt Commercial). The Market Recovery (Lt Commercial) wage rate shall be determined project specific by the business manager. The Market Recovery rate (Lt Commercial) may be utilized on all new, repair, remodeling, alteration, and/or maintenance (interior and exterior) of "Private Enterprise Projects"; including office buildings, service buildings, retail establishments, churches, motels/hotels, and strip shopping centers which fall under this agreement.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Laborer Local 245

Change # : LCN01-2024ibLoc245

Craft : Laborer Effective Date : 05/01/2024 Last Posted : 05/01/2024

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Laborer Group 1	\$35.95		\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$50.55	\$68.53
Group 2	\$36.45		\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$51.05	\$69.28
Group 3	\$36.85		\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$51.45	\$69.87
Group 4	\$36.95		\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$51.55	\$70.03
Apprentice	Percent											
1-1000 hours	60.00	\$21.57	\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$36.17	\$46.96
1001-2000 hours	70.01	\$25.17	\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$39.77	\$52.35
2001-3000 hours	80.00	\$28.76	\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$43.36	\$57.74
3001-4000 hours	90.00	\$32.36	\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$46.96	\$63.13
4000 + hours	100.00	\$35.95	\$8.40	\$4.15	\$0.45	\$0.00	\$1.50	\$0.00	\$0.10	\$0.00	\$50.55	\$68.53

Special Calculation Note : The apprenticeship rate shall be calculated at the appropriate percentages for the classification of work being performed by the apprentice.

Ratio :

1 Journeymen to 1 Apprentice then
3 Journeymen to 1 Apprentice
thereafter per project

Jurisdiction (* denotes special jurisdictional note) :
ASHTABULA

Special Jurisdictional Note :

Details :

Group 1
Stone Mason Assistant, Asphalt Raker and Tamper, Dump person (Batch Truck), Signal Person, Concrete Worker, Building Wrecker, Tool Checker, Carpenter Tender, Mason Tender, Construction Laborer, Landscape Laborer, Spreader Box Person, Screw Person, Asphalt, Plaster or Mortar Mixer, Squeegee Person, Air and Machine Drive Tool Operator, Power Driven Wheelbarrows, Power Driven Sweepers, Burning and Cutting Torches, Industrial Cleaner, Mud Jacking of Floors, Sewer Pipe Layer, Bottom Person - 6 feet and over, Sheeting and Shoring Person, Acid and Fire Brick, Screed Person, Concrete Specialist, Mud Jacking of Floors, Sand and Water Blaster

Group 2

Asbestos, Lead and Hazardous Waste Removal

Group 3

Stack Person, Swinging Scaffold Person, Tunnel Laborer, Gunnite Operator, Blaster and Power Person, Welder

Group 4

Power Plant Worker (New or Remodel \$750,000 or higher)

VII. PROPOSAL FORMS

EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS FOR SERVICE AND SUPPLY CONTRACTS

EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE CERTIFICATE

As used in this Certificate, the terms "contract" and "subcontract" includes the term "Purchase Order" and all other agreements effectuating purchase of supplies or services.

This Certificate shall be renewed annually. Notwithstanding the foregoing, the certifications made herein shall remain applicable until completion of all non-exempt contracts/subcontracts awarded while this certificate is in effect. The undersigned Bidder certifies the following to the Township:

- A. **REPORTS:** Within thirty (30) days after the Township's award to the Bidder of any contract, and prior to each March 31 thereafter, during the performance of work under said contract, the Bidder shall file Standard Form 100, entitled "Equal Employment Opportunity Employer Information Report EEO-1" in accordance with instructions contained therein, unless the Bidder has either filed such report with the Township within twelve (12) months preceding the date of the award or is not otherwise required by law or regulation to file such a report.
- B. **PRIOR REPORTS:** The Bidder, if it has participated in a previous contract or subcontract subject to the Equal Employment Opportunity Clause 41 C.F.R. Sec. 60-1.4 (a) (1) through (7), or the clause originally contained in Section 301 or Executive Order No. 10925, or the clause contained in Section 201 of the Executive Order No. 11114, has filed all required compliance reports. The Bidder shall obtain similar representations indicating submission of all required compliance reports, signed by proposed subcontractors, prior to awarding subcontracts not otherwise exempt from the Equal Employment Opportunity clause.
- C. **CERTIFICATION OF NON-SEGREGATED FACILITIES:** The Bidder certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Bidder certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Bidder agrees that a breach of this certification is a violation of the Equal Employment Opportunity Clause in this certificate. As used in this certification, the term "segregated facilities" means any waiting rooms, rest rooms, and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and

housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or natural origin, because of habit, local customs or otherwise. The Bidder further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of any subcontracts exceeding \$10,000.00 which are not exempt from the provisions of the Equal Employment Opportunity Clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

Notice to Prospective Subcontractors of Requirement for Certification of Non-segregated Facilities: A Certification of Non-segregated Facilities, as required by Section 60-1.8 of Title 41 of the Code of Federal Regulations, must be submitted prior to the award of a subcontract exceeding \$10,000.00 which is not otherwise exempt from the provisions of the Equal Employment Opportunity Clause.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

- D. **AFFIRMATIVE ACTION COMPLIANCE PROGRAM:** Prior to 120 days after receipt of any contract in the amount of \$50,000.00 or more from the Township, Bidder, if it has fifty (50) or more employees and is not otherwise exempt under 41 C.F.R., Part 60-1, shall have developed for each of his establishments a written affirmative action compliance program as called for in 41 C.F.R., Sec. 60-1.40. Bidder will also require its lower-tier subcontractors who have fifty (50) or more employees and receive a subcontract of \$50,000.00 or more and who are not otherwise exempt under C.F.R., Part 60-1 to establish written affirmative action compliance programs in accordance with 41 C.F.R., Section 60-1.40.

- E. Bidders are responsible for EEO compliance as provided in Executive Order 11246 and implementing regulations Title 41, Chapter 60-4.2, 60-4.3 (Equal Employment Opportunity Clause & Notice of Standard Specifications), 60-250, and 60-741, when applicable.

- F. Bidder certifies that it is not currently in receipt of any outstanding letters of deficiencies, show cause, probable cause or other such notifications or noncompliance with EEO regulations.

Signed this _____ day of _____, 20 _____

Bidder: _____

(Signed) _____

Printed Name & Title: _____

DECLARATION OF PERSONAL PROPERTY TAX DELINQUENCY

OHIO REVISED CODE 5719.042

I, the undersigned, hereby certify that the bidder identified below IS /
 IS NOT charged at the time of submitting this Bid with any delinquent personal
property taxes on the general tax list of personal property of the County of Ashtabula.

COMPLETE THIS PARAGRAPH ONLY IF APPLICABLE:

The amount of any such due and unpaid delinquent tax and any due and unpaid
penalties and interest is \$ _____.

Bidder: _____

(Signed) _____

Printed Name & Title: _____

STATE OF OHIO)

COUNTY OF ASHTABULA) ss:

Before me, a Notary Public, in and for said County, personally appeared the person identified
above, who did sign this document after first affirming that the execution of this document was
an authorized act on behalf of the above named Bidder.

IN TESTIMONY WHEREOF, I have affixed my hand and the seal of my office at this
_____ day of _____, 20____.

NOTARY PUBLIC

**CERTIFICATE OF BIDDER
UNRESOLVED FINDINGS OF RECOVERY
WITH AUDITOR OF STATE
ORC 9.24 & 9.241**

I, the undersigned, hereby certify that the Bidder identified below:

CHECK & COMPLETE ONLY ONE

- has no unresolved findings of recovery with the State of Ohio Auditor, as defined by ORC 9.24 & 9.241;
- has the following unresolved findings of recovery with the State of Ohio Auditor, as defined by ORC 9.24 & 9.241:

Signed this _____ day of _____, 20 ____

Bidder: _____

(Signed) _____

Printed Name & Title: _____

AFFIDAVIT IN COMPLIANCE WITH SECTION 3517.13 OF THE OHIO REVISED CODE

STATE OF OHIO)
COUNTY OF ASHTABULA)SS:

Personally appeared before me the undersigned, as an individual or as a representative of

_____ for a contract for _____
(Name of Entity) (Type of Product or Service)

to be let by the Township of Kingsville, who, being duly cautioned and sworn, makes the following statement with respect to prohibit activities constituting a conflict of interest or other violations under Ohio Revised Code Section 3517.13, and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

1. That none of the following has **individually** made since April 4, 2007 and that, if awarded a contract for the purchase of goods or services with a cost aggregating more than \$10,000 in a calendar year, none of the following **individually** will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, as an individual, one or more campaign contributions totaling in excess of \$1,000, to any member of the Kingsville Township Board of Trustees or their individual campaign committees:

- a. myself;
- b. any partner or owner or shareholder of the partnership (if applicable);
- c. any owner of more than 20% of the corporation or business trust (if applicable);
- d. each spouse of any person identified in (a) through (c) of this section;
- e. each child seven years of age to seventeen years of age of any person identified in division (a) through (c) of this section (only applicable to contributions made on or after January 1, 2007).

2. That none of the following have **collectively** made since April 4, 2007 and that, if awarded a contract for the purchase of goods or services with a cost aggregating more than \$10,000 in a calendar year, none of the following **collectively** will make, beginning on the date the contract is awarded and extending until one year following the conclusion of the contract, one or more campaign contributions totaling in excess of \$2,000, to any member of the Kingsville Township Board of Trustees or their individual campaign committees:

- a. myself;
- b. any partner or owner or shareholder of the partnership (if applicable);
- c. any owner of more than 20% of the corporation or business trust (if applicable);
- d. each spouse of any person identified in (a) through (c) of this section;
- e. each child seven years of age to seventeen years of age of any person identified in division (a) through (c) of this section.

Signature: _____

Title: _____

SWORN TO BEFORE ME and subscribed in my presence this _____ day of _____, 20____.

Notary Public

My commission expires: _____

SEAL

PROPOSAL

Kingsville Township, Ohio

December 12, 2024

To the Board of Township Trustees:

The undersigned Bidder certifies the pre-bid examination, in its entirety, of all Bid Documents contained in or referenced by this Proposal, including the Notice to Bidders, Instructions to Bidders, General & Supplemental Provisions, Standard Specifications, Scope of Work, Plans & Specifications, and Planned Bid Items & Quantities, which shall govern this improvement and are made a part of this Proposal and the ensuing contract.

DESCRIPTION OF THE IMPROVEMENT

Fire Department Building Renovation

The undersigned Bidder proposes to furnish any and all material, tools, labor, transportation, machinery, appliances, and appurtenances necessary, and to prosecute to full completion, the Work called for hereunder, and in consideration thereof, to accept from the Township, as full payment for the completion of each item as specified, the respective unit or lump sum price hereafter set forth.

The undersigned Bidder agrees that, if this Proposal is accepted, said Bidder will, within ten (10) days after notification of such acceptance, enter into the contract for the performance of the Work proposed and, as a guarantee of the faithful performance thereof, to furnish at the time of executing the contract, a bond in the amount equal to 100% of the total Bid price, with a Surety subject to the approval of the Township.

The Bidder hereby agrees that the Township has the right to reject any and all bids, and the Bidder will not dispute the correctness of the quantities used to determine the lowest and best bid.

Accompanying this Bid is a bid guarantee or bond payable to the Township. Upon any failure to execute the Contract or provide an adequate performance bond as aforesaid, it is agreed that the undersigned Bidder shall forfeit the bid guarantee or bond accompanying the proposal to the Township, to the extent allowed by law.

Bidder (full name) _____

Signed _____

Printed name & title _____

Bidder's mailing address.

() _____ () _____
Phone Fax

- Atch: Bid Guarantee or Bond
- Bid Prices (completed unit & lump sum price list)
- Supplemental Bidder Qualifications Forms (if any)
- Equal Employment Opportunity Compliance Certificate
- Declaration: Personal Property Tax Delinquency
- Certificate: Unresolved Findings of Recovery

PROPOSAL
FIRE DEPARTMENT BUILDING RENOVATIONS FOR KINGSVILLE TOWNSHIP

Ashtabula County Engineers Dept.
 Ashtabula County
 Timothy T. Martin P.E. P.S.
 County Engineer

<u>REF NO</u>	<u>Description</u>	<u>Quantities</u>	<u>Unit</u>	<u>\$ Unit Price</u>	<u>\$ Total</u>
	BASE BID				<u>Unit Price</u>
	BUILDING COMPLETE AS PER PLAN (INCLUDES ALL LABOR AND MATERIAL)	1	LUMP		
	Total Cost			\$	

Authorized Signature Print name

Contractor: _____

Address: _____

Phone: _____

Name and email address for contract signee

VII. ARTICLES OF AGREEMENT

For use in award of contract.

The Bidder is not to fill in the following blanks.

This Agreement is made and entered into by the **Township of Kingsville** acting herein by its Board of Township Trustees, and the Contractor identified below, hereinafter called the Contractor.

WITNESSETH:

The Contractor, for and in consideration of certain payments to be made as specified herein, hereby covenants and agrees to perform and execute all provisions of its Proposal for construction of the subject public improvement, including fulfillment of the requirements of the Notice to Bidders, Instructions to Bidders, General & Supplemental Provisions, Standard Specifications, Scope of Work, Plans & Specifications, and Planned Bid Items & Quantities, and to be governed by the provisions contained therein, setting forth duties, relations and obligations of the Township, Contractor and the Surety, which are hereto attached and made a part hereof, and agrees to fully and completely perform the Work described hereby in a manner to achieve completion thereof by or before a completion date of December 31, 2025.

In consideration of the performance by the Contractor of the covenants and agreements as herein set forth, the Township hereby covenants and agrees to pay the Contractor according to the schedule of rates and prices set forth in the attached Proposal of said Contractor, and at the time and in the manner hereinafter set forth herein.

IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands

effective this _____ day of _____, 20 _____.

CONTRACTOR:

Board of Township Trustees:

(full name)

(signed)

Contractor's mailing address.

County Engineer:

Timothy T. Martin, P.E., P.S.

() ()

Phone

Fax

Affirmation of Contractor

I, the undersigned, certify that I am the Secretary or equivalent of the Contractor identified above. I hereby affirm that the person who signed hereinabove on behalf of said Contractor was duly authorized to do so, and that said contract was signed for and on behalf of said Contractor by authority of its governing body.

(Signed) _____

Printed Name & Title: _____

Signature Page

Agreement Title: Kingsville Township 2024 – 01 Fire Department Building Renovation

Approved as to Legal Form Only:

By: _____

Colleen M O'Toole,
Ashtabula County Prosecutor

Dated: _____, 2024

FISCAL OFFICER'S CERTIFICATE

Kingsville Township, Ohio

December 12, 2024

I hereby certify that there is sufficient money in the Township Treasury, according to my books, not otherwise appropriated, to the credit of the _____ FUND, or has been levied and placed on the duplicate and in process of collection, not otherwise appropriated, for the payment of this contract.

_____, Township Fiscal Officer

Township, Ohio

Date: _____



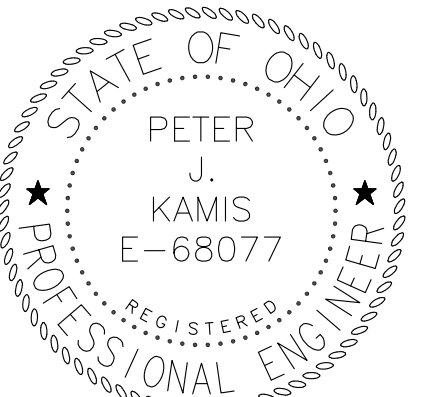
**GENERAL MECHANICAL
DEMOLITION NOTES:**

- a. REMOVE ALL MECHANICAL SYSTEMS IN SCOPE OF WORK ENTIRELY TO CREATE CLEAN, EMPTY SHELL SPACE. PATCH ALL FLOOR, ROOF, & WALL PENETRATIONS TO MATCH EXISTING CONSTRUCTION. COORDINATE DEMOLITION WITH NEW WORK.

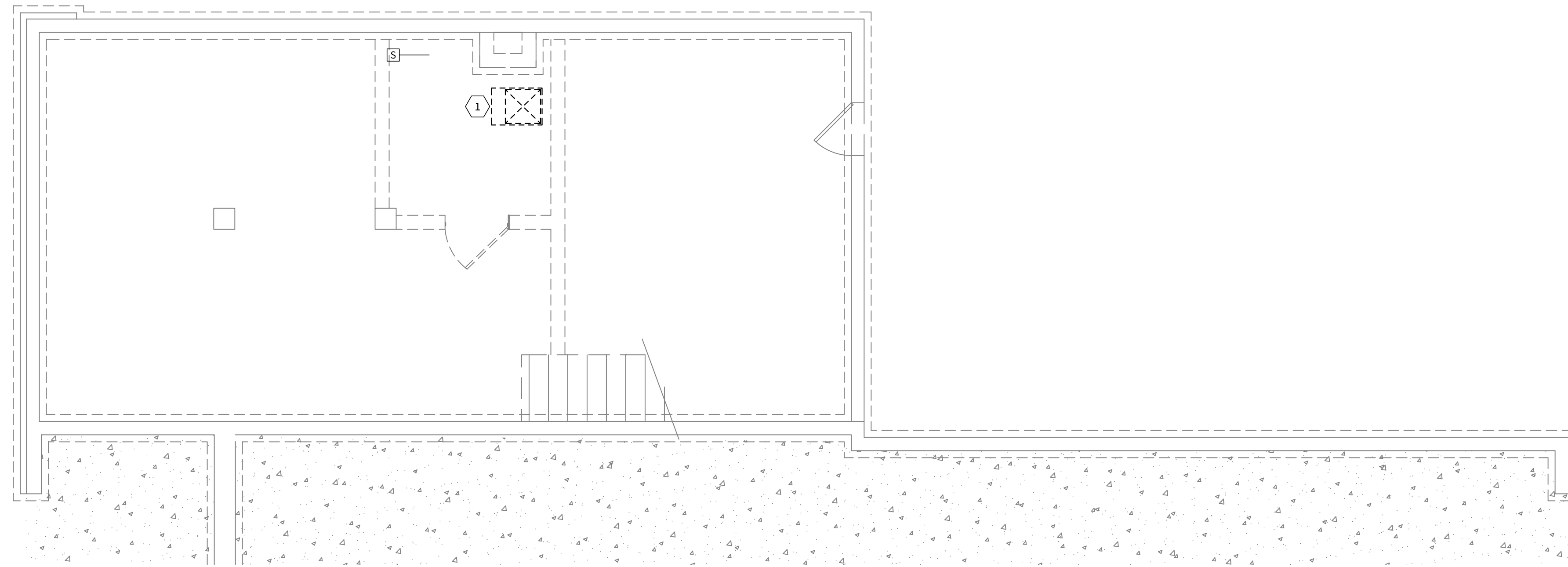
**MECHANICAL DEMOLITION
CODED NOTES:** ○

- 1. REMOVE GAS-FIRED FURNACE & ALL ASSOCIATED CONTROLS, DUCTWORK, GAS PIPING, AIR DISTRIBUTION, FLUE PIPING, ETC. ENTIRELY. COORDINATE REMOVAL WITH REPLACEMENT UNIT.
- 2. REMOVE CONDENSING UNIT & ALL ASSOCIATED REFRIGERANT PIPING. COORDINATE REMOVAL WITH REPLACEMENT UNIT.
- 3. REMOVE SIDEWALL EXHAUST FAN & ALL ASSOCIATED DUCTWORK, CONTROLS, ETC. ENTIRELY. PATCH WALL TO MATCH EXISTING CONSTRUCTION.

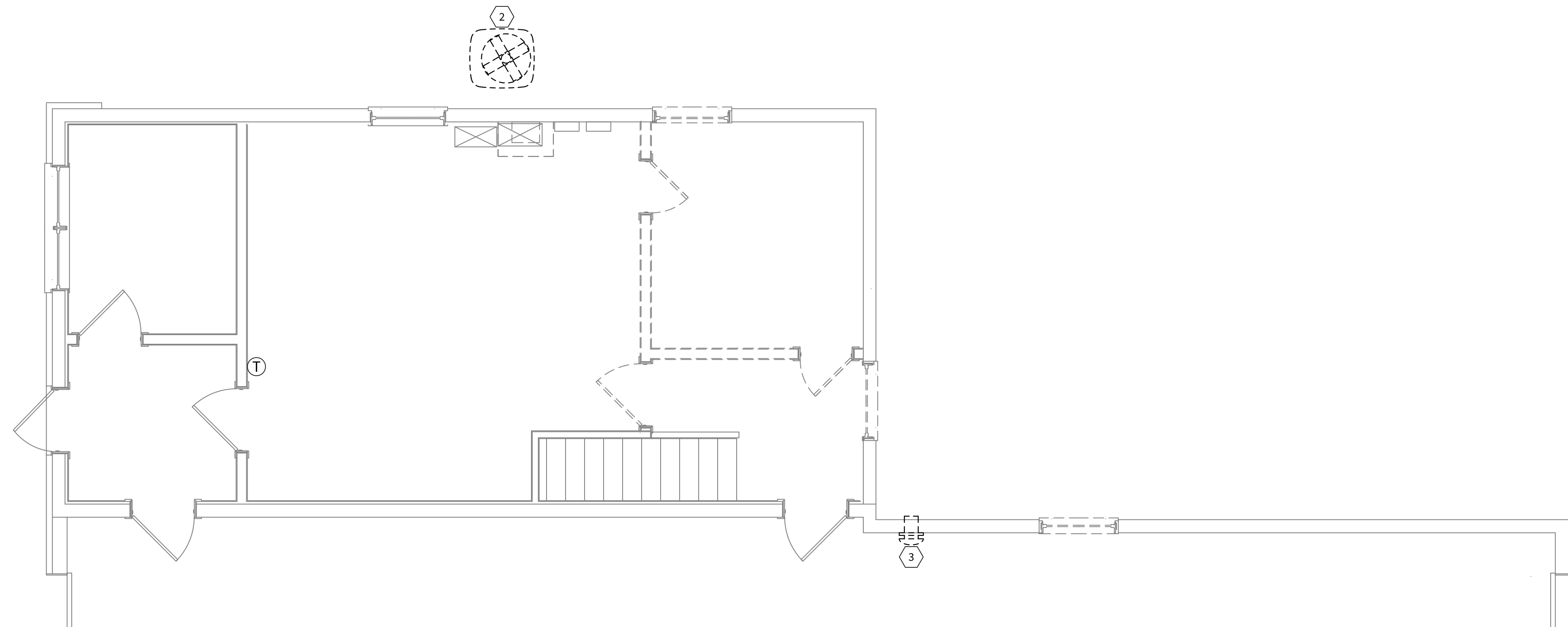
MATTHEW WOLF ARCHITECT
1814 EAST 40TH SUITE 3B / CLEVELAND OH 44103
MATT@MATTFWOLFARCHITECT.COM / 216 235 5381



PETER J. KAMIS, PE
LICENSE #68077
EXP. DATE 12/31/2025



**BASEMENT
MECHANICAL DEMOLITION** 1
SCALE: 1/4" = 1'-0" MD1.0 NORTH



**FIRST FLOOR
MECHANICAL DEMOLITION** 2
SCALE: 1/4" = 1'-0" MD1.0 NORTH

MECHANICAL LEGEND

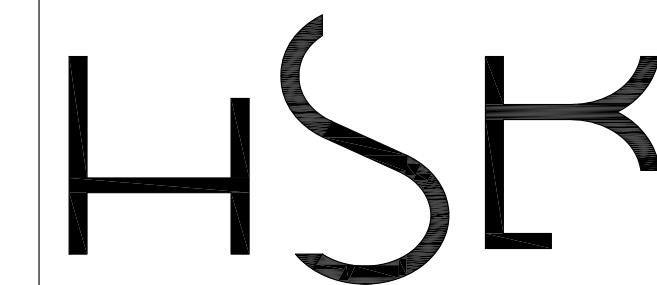
	NEW OR RELOCATED AIR DEVICE
	EXISTING AIR DEVICE
	MANUAL ADJUSTABLE VOLUME DAMPER (V.D.)
	THERMOSTAT
	SMOKE DETECTOR
	RELOCATE
	EXISTING TO REMAIN
	REMOVE EXISTING
	CONNECT TO EXISTING
	FIRE DAMPER
	SUPPLY AIR
	RETURN AIR
	OUTSIDE AIR
	TRANSFER AIR
	1" UNDERCUT DOOR

KINGSVILLE FIRE DEPARTMENT
3130 EAST MAIN STREET
KINGSVILLE OHIO 44048

BID/PERMIT OCT 28 2024
REVIEW SET OCT 18 2024
PROJECT #: 2022

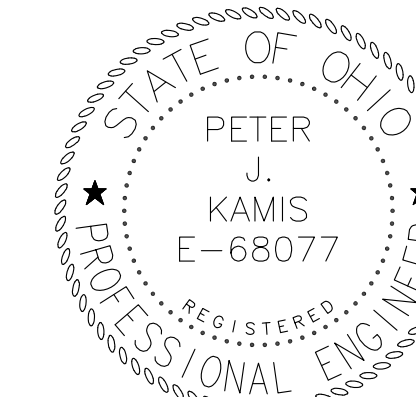
**MD
1.0**

MECHANICAL
DEMOLITION PLANS



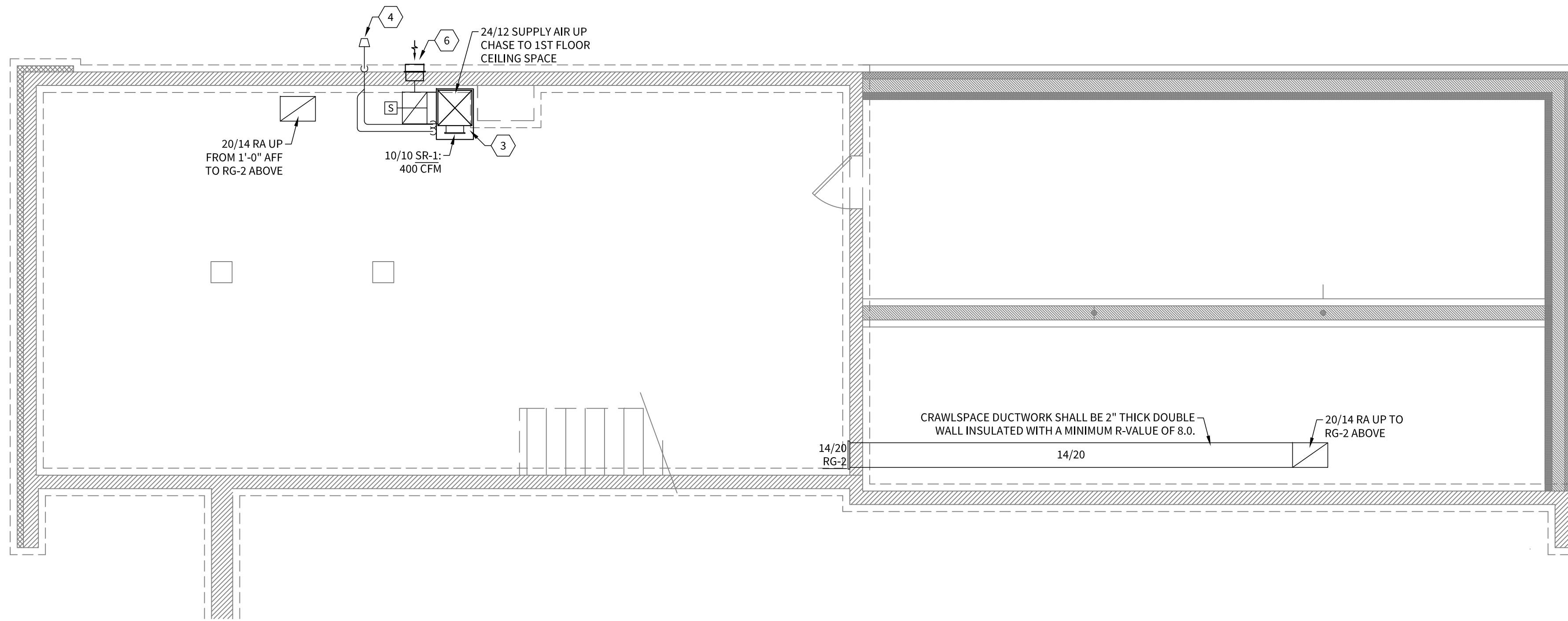
Henget Streff Bajko Architects and Engineers
1250 Old River Rd. Suite 201 Cleveland OH 44113-1244

MATTHEW WOLF ARCHITECT
1816 EAST 40TH SUITE 3B / CLEVELAND OH 44103
MATT@MATTFARCHITECT.COM / 216 235 5381



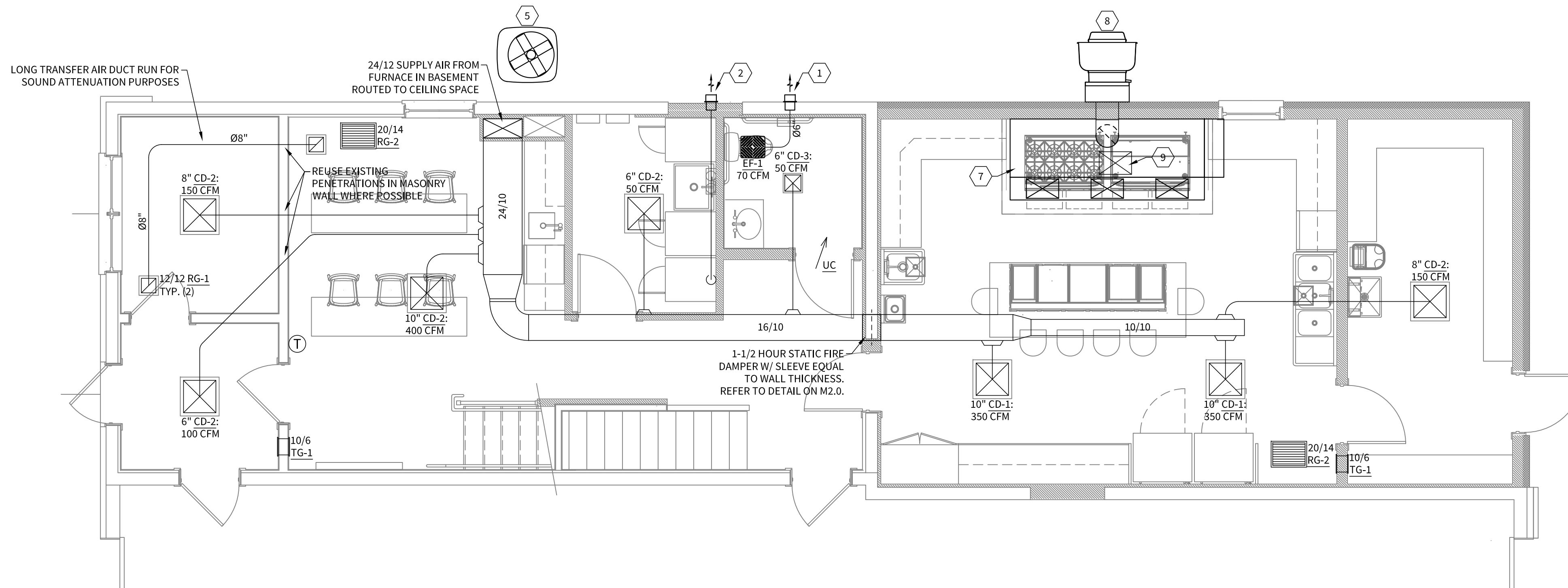
PETER J. KAMIS, PE
LICENSE #68077
EXP. DATE 12/31/2025

KINGSVILLE FIRE DEPARTMENT
3130 EAST MAIN STREET
KINGSVILLE OHIO 44048



BASEMENT MECHANICAL PLAN

SCALE: 1/4" = 1'-0" M1.0



FIRST FLOOR MECHANICAL PLAN

SCALE: 1/4" = 1'-0" M1.0



GENERAL MECHANICAL NOTES:

- MOUNT THERMOSTATS AT 4'-0" ABOVE FINISHED FLOOR. COORDINATE EXACT LOCATIONS WITH OCCUPANTS.
- ROUND DUCT FEEDING DIFFUSER/GRILLE TO BE SAME SIZE AS DIFFUSER/GRILLE NECK UNLESS NOTED OTHERWISE.
- DUCTWORK DENOTED "(L)" TO HAVE 1" INTERIOR ACOUSTIC LINING. DUCT SIZE SHOWN IS EXTERIOR & IS SIZED TO ACCOUNT FOR LINING.

MECHANICAL CODED NOTES:

- TERMINATE Ø6" EXHAUST AT EXTERIOR WALL WITH GREENHECK WC-6 HOODED WALL CAP. MAINTAIN 10'-0" FROM MECHANICAL OUTSIDE AIR INTAKES.
- TERMINATE DRYER VENT AT EXTERIOR WALL WITH MANUFACTURER'S SIDEWALL VENT CAP & BACKDRAFT DAMPER. NO BIRD SCREENS ARE PERMITTED IN DRYER VENT PIPING.
- NEW GAS-FIRED FURNACE & COOLING COIL FURN-1 MOUNTED ON EQUIPMENT PAD. ROUTE CONDENSATE TO EXISTING FLOOR DRAIN & TERMINATE WITH AIR GAP. PROVIDE INLINE CONDENSATE NEUTRALIZER. INSTALL PER MANUFACTURER'S REQUIREMENTS & MAINTAIN ALL RECOMMENDED CLEARANCES.
- TERMINATE PVC COMBUSTION AIR & FLUE PIPING AT EXTERIOR WALL WITH MANUFACTURER'S CONCENTRIC VENTING KIT. FIELD VERIFY EXACT TERMINATION LOCATION TO BE AWAY FROM OPERABLE WINDOWS & OUTSIDE AIR INTAKES. INSTALL PER MANUFACTURER'S REQUIREMENTS.
- NEW 5-TON CONDENSING UNIT CU-1 MOUNTED LEVEL ON 4" HIGH CONCRETE EQUIPMENT PAD WITH VIBRATION ISOLATORS. ROUTE REFRIGERANT PIPING TO ASSOCIATED FURN-1 SIMILAR TO REMOVED PIPING INSTALLATION. COORDINATE ROUTE IN FIELD WITH FINAL LOCATION OF CONDENSING UNIT. COORDINATE REFRIGERANT PIPE SIZE REQUIREMENTS WITH THE MANUFACTURER. INSULATE ALL REFRIGERANT PIPING (ARMACELL 'ARMAFLEX' OR EQUAL), EXTERIOR REFRIGERANT PIPING WITH INSULATION SHALL HAVE UV RESISTANT WEATHER PROOF SHELL (3M 'VENTURECLAD' OR EQUAL). INSTALL PER MANUFACTURER'S REQUIREMENTS.
- Ø10" WALL CAP WITH BIRD SCREEN & GRAVITY BACKDRAFT DAMPER. ROUTE Ø10" OUTSIDE AIR DUCT TO FURNACE RETURN DUCTWORK & SET VOLUME DAMPER TO 300 CFM.
- TYPE-1 KITCHEN EXHAUST HOOD HOOD-1 (2,000 CFM) MOUNTED AT 6'-8" AFF (APPROX. 880 LBS.). VERIFY EXACT REQUIREMENTS WITH MANUFACTURER.
- Ø14" GREASE DUCT ROUTED TO UP-BLAST KITCHEN EXHAUST FAN KEF-1 (2,000 CFM) MOUNTED ON WALL (APPROX. 200 LBS.). PROVIDE TRANSITION DUCTWORK BETWEEN HOOD COLLAR & FAN AS REQUIRED. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER.
- 20/14 MAKEUP AIR DUCT DOWN FROM FLOOR ABOVE. PROVIDE (3) Ø12" DUCT FEEDS TO (3) HOOD SUPPLY PLENUM COLLARS. VERIFY EXACT ROUTING IN FIELD.

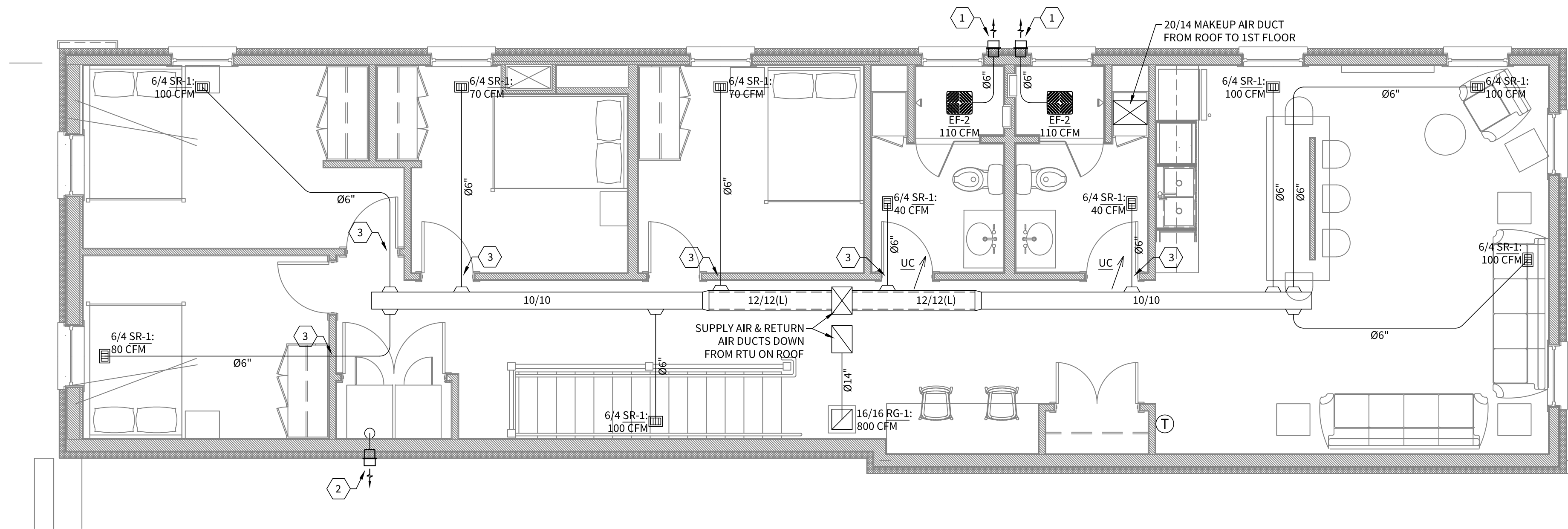
MECHANICAL LEGEND

	NEW OR RELOCATED AIR DEVICE
	EXISTING AIR DEVICE
	MANUAL ADJUSTABLE VOLUME DAMPER (V.D.)
	THERMOSTAT
	SMOKE DETECTOR
	RELOCATE
	EXISTING TO REMAIN
	REMOVE EXISTING
	CONNECT TO EXISTING
	FIRE DAMPER
	SUPPLY AIR
	RETURN AIR
	OUTSIDE AIR
	TRANSFER AIR
	1" UNDERCUT DOOR

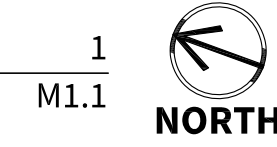
BID/PERMIT OCT 28 2024
REVIEW SET OCT 18 2024
PROJECT #: 2022

M
1.0

BASEMENT & FIRST FLOOR MECHANICAL PLANS



SECOND FLOOR MECHANICAL PLAN
 SCALE: 1/4" = 1'-0"

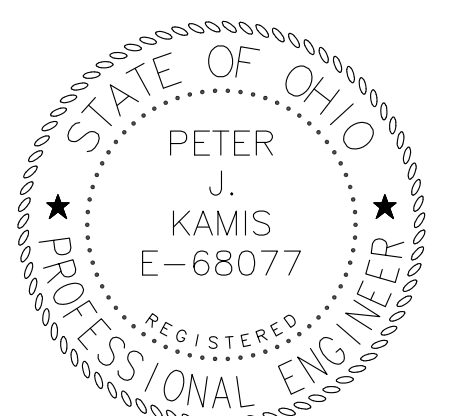


GENERAL MECHANICAL NOTES:

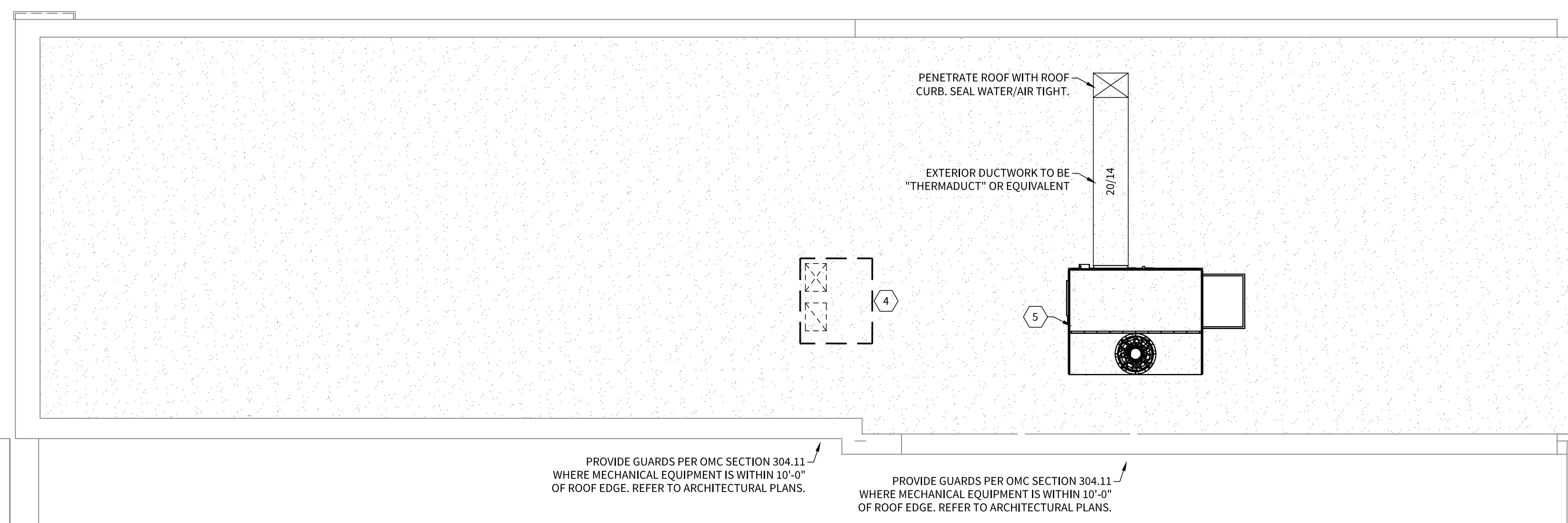
- a. MOUNT THERMOSTATS AT 4'-0" ABOVE FINISHED FLOOR. COORDINATE EXACT LOCATIONS WITH OCCUPANTS.
- b. ROUND DUCT FEEDING DIFFUSER/GRILLE TO BE SAME SIZE AS DIFFUSER/GRILLE NECK UNLESS NOTED OTHERWISE.
- c. DUCTWORK DENOTED "(L)" TO HAVE 1" INTERIOR ACOUSTIC LINING. DUCT SIZE SHOWN IS EXTERIOR & IS SIZED TO ACCOUNT FOR LINING.

MECHANICAL CODED NOTES:

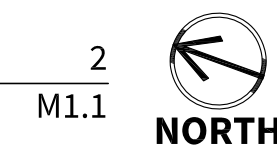
- 1. TERMINATE 06" EXHAUST AT EXTERIOR WALL WITH GREENHECK WC-6 HOODED WALL CAP. MAINTAIN 10'-0" FROM MECHANICAL OUTSIDE AIR INTAKES.
- 2. TERMINATE DRYER VENT AT EXTERIOR WALL WITH MANUFACTURER'S SIDEWALL VENT CAP & BACKDRAFT DAMPER. NO BIRD SCREENS ARE PERMITTED IN DRYER VENT PIPING.
- 3. DUCT PENETRATING FIRE-RATED WALL TO BE CONSTRUCTED OF 24 GAUGE SHEETMETAL OR THICKER. INSTALL PER OMC SECTION 607.5.3, EXCEPTION 3.
- 4. NEW 2-TON ELECTRIC COOLING, GAS HEAT ROOFTOP UNIT RTU-1. ADJUST OUTSIDE AIR DAMPER TO 160 CFM (20.00% OA). MAINTAIN 10'-0" FROM ROOF EDGE. COORDINATE EXACT LOCATION WITH STRUCTURAL ENGINEER.
- 5. DEDICATED OUTSIDE AIR UNIT DOAS-1 (1,600 CFM) MOUNTED LEVEL ON MANUFACTURER'S ROOF CURB (APPROX. 1,270 LBS.). COORDINATE EXACT LOCATION WITH STRUCTURAL ENGINEER.



PETER J. KAMIS, PE
 LICENSE #68077
 EXP. DATE 12/31/2025



ROOF MECHANICAL PLAN
 SCALE: 1/4" = 1'-0"



MECHANICAL LEGEND

	NEW OR RELOCATED AIR DEVICE
	EXISTING AIR DEVICE
	MANUAL ADJUSTABLE VOLUME DAMPER (V.D.)
	THERMOSTAT
	SMOKE DETECTOR
	RELOCATE
	EXISTING TO REMAIN
	REMOVE EXISTING
	CONNECT TO EXISTING
	FIRE DAMPER
	SUPPLY AIR
	RETURN AIR
	OUTSIDE AIR
	TRANSFER AIR
	1" UNDERCUT DOOR

KINGSVILLE FIRE DEPARTMENT
 3130 EAST MAIN STREET
 KINGSVILLE OHIO 44048

BID/PERMIT: OCT 28 2024
 REVIEW SET: OCT 18 2024
 PROJECT #: 2022

OUTDOOR AIR VENTILATION SCHEDULE

AREA	OCCUPANCY CATEGORY	(Pz) ZONE POP.	(Rp) OA PER PERSON	(Ra) OA PER SQ. FT.	(Ez) ZONE AIR DIST. EFF.	(Ev) SYS. VENT. EFF.	CFM REQ.	CFM DESIGN	NOTES	
										710 SF
900 SF	STORAGE	N/A	N/A	0.12 CFM	1.0	1.0	108	120	1	
465 SF	KITCHEN	4	7.5 CFM	0.12 CFM	1.0	1.0	79	90	1	
1,320 SF	LIVING AREA/BEDROOM	6	5 CFM	0.06 CFM	1.0	0.8	137	160	1	
1. OUTSIDE AIR IS INTRODUCED THROUGH A NEW PACKAGED ROOFTOP UNIT, NEW SPLIT-SYSTEM FURNACE, & A NEW DEDICATED OUTSIDE AIR UNIT. OUTSIDE AIR DAMPERS OF EACH PIECE OF EQUIPMENT ARE TO BE ADJUSTED TO THE AIRFLOW QUANTITIES SHOWN ON PLAN.							TOTAL	402	460	

DIFFUSER AND GRILLE SCHEDULE

ITEM	SERVICE	MANUFACTURER AND CATALOG NUMBER	NECK SIZE	PANEL SIZE	CORE PATTERN	REMARKS
CD-1	SUPPLY	CAPTIVEAIRE #DI-PSP	AS SHOWN ON DWG.	24x24	PERFORATED	STAINLESS STEEL LAMINAR FLOW SUPPLY AIR DIFFUSER WITH NECK-MOUNTED DAMPER AND SURFACE-MOUNT BORDER.
CD-2	SUPPLY	PRICE #SPD	AS SHOWN ON DWG.	24x24	4 WAY THROW	STEEL HIGH PERFORMANCE PLAQUE FACE SUPPLY AIR DIFFUSER WITH #VCR8 DAMPER, WHITE FINISH AND TYPE-31 SURFACE-MOUNT BORDER.
CD-3	SUPPLY	PRICE #SPD	AS SHOWN ON DWG.	12x12	4 WAY THROW	STEEL HIGH PERFORMANCE PLAQUE FACE SUPPLY AIR DIFFUSER WITH #VCR8 DAMPER, WHITE FINISH AND TYPE-31 SURFACE-MOUNT BORDER.
SR-1	SUPPLY	PRICE #520	AS SHOWN ON DWG.	AS SHOWN ON DWG.	DOUBLE DEFLECTION	STEEL, DOUBLE DEFLECTION SUPPLY REGISTER WITH 3/4" BAR SPACING, SURFACE MOUNT BORDER, AND WHITE FINISH. PROVIDE WITH OPPOSED-BLADE DAMPER.
RG-1	RETURN	PRICE #530	AS SHOWN ON DWG.	AS SHOWN ON DWG.	SINGLE DEFLECTION	STEEL, FIXED LOUVER GRILLE WITH 3/4" BAR SPACING, SURFACE-MOUNT BORDER, AND WHITE FINISH.
RG-2	RETURN	HART & COOLEY #265	AS SHOWN ON DWG.	AS SHOWN ON DWG.	SINGLE DEFLECTION	HEAVY DUTY STEEL FLOOR GRILLE WITH 1/2" BAR SPACING. COORDINATE FINISH WITH FLOOR COLOR.
TG-1	TRANSFER	PRICE #530	-	AS SHOWN ON DWG.	SINGLE DEFLECTION	STEEL SIDEWALL GRILLE WITH 3/4" BAR SPACING. PROVIDE GRILLE FOR EITHER SIDE OF WALL AND PROVIDE RETURN AIR SILENCER #RAS BETWEEN. COORDINATE FINISH WITH WALL COLOR.

EXHAUST FAN SCHEDULE

TAG	MFR.	MODEL NO.	NOMINAL CFM	EXTERNAL STATIC PRESSURE (IN.)	ELECTRICAL		REMARKS
					KW	V/CY/PH	
EF-1	GREENHECK	SP-B90	70	0.25	.03	120/60/1	1, 2, 3
EF-2	GREENHECK	SP-AP0511W-1	110 ASHRAE 62.2	0.25	.02	120/60/1	1, 2, 3

NOTES:
1. INCLUDE WITH HANGER ISOLATION KIT AND BACKDRAFT DAMPER.
2. CONTROL WITH RESTROOM LIGHT SWITCH.
3. INCLUDE WITH FAN MOUNTED SOLID STATE SPEED CONTROLLER AND STANDARD WHITE GRILLE.

FURNACE AND COOLING COIL SCHEDULE

ITEM	MANUFACTURER AND CATALOG NUMBER	REMARKS
FURN-1	TRANE #59W2C100USPSC INDOOR COOLING COIL: #4TXCC007DS3	VERTICAL UPFLOW, GAS-FIRED, TWO STAGE FURNACE. HEATING INPUT: 100.0 MBH. HEATING OUTPUT: 97.4 MBH. COOLING CAPACITY: 56.4 MBH TOTAL, 44.1 MBH SENSIBLE. AIRFLOW: 2000 CFM @ 0.70" ESP WITH 1 HP MOTOR. INCLUDE WITH CONDENSATE TRAP KIT AND WIRED REMOTE THERMOSTAT. ELECTRICAL: 120V/1PH/60HZ, 15 MOCP. MATCH TO CU-1.

CONDENSING UNIT SCHEDULE

ITEM	MANUFACTURER AND CATALOG NUMBER	REMARKS
CU-1	TRANE 4TRR6060N1	AIR COOLED CONDENSING UNIT. SEER: 15.5, COOLING CAPACITY: NOMINAL 60 MBH, MATCH TO FURN-1. 208V/ 1 PH/ 60 HZ, MCA = 35 A, MOCP = 60 A.

KITCHEN EXHAUST FAN SCHEDULE

TAG	MFR.	MODEL NO.	NOMINAL CFM	EXTERNAL STATIC PRESSURE (IN.)	ELECTRICAL				NOTES
					W	V/CY/PH	MCA	MOCP	
KEF-1	CAPTIVEAIRE	DU180HFA	2,000	1.50	-	208/60/3	-	-	1, 2, 3, 4

NOTES:

- INCLUDE WITH VENTED THROUGH WALL CURB (10" GREATER THAN WALL THICKNESS) W/ GREASE BOX & HINGE KIT.
- INCLUDE WITH UNIT-MOUNTED NEMA-3R SAFETY DISCONNECT SWITCH.
- PROVIDE & INSTALL IN ACCORDANCE WITH OHIO MECHANICAL CODE SECTION 506.
- COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER & KITCHEN EQUIPMENT.

KITCHEN EXHAUST HOOD SCHEDULE

TAG	MFR.	MODEL NO.	DIMENSIONS			CLASSIFICATION	EXHAUST (CFM)	MAKE UP AIR (CFM)	REMARKS
			LENGTH	WIDTH	HEIGHT				
HOOD-1	ECON-AIR	3650 ELPX-2	120"	36"	24"	TYPE-I	2,000	1,600	1, 2, 3, 4, 5

NOTES:

- HEAVY-DUTY, BACK-SHELF, 430 STAINLESS STEEL CONSTRUCTION, W/ HIGH TEMPERATURE LIGHT FIXTURE & CAPTRATE SOLO FILTER.
- PROVIDE WITH 14" AIR CURTAIN SUPPLY PLENUM, 24" HIGH FIELD WRAPPER, BACKSPLASH, AND 1" INSULATED BACK STANDOFF.
- PROVIDE WITH FIRE SUPPRESSION SYSTEM AND 12" UTILITY CABINET. COORDINATE EXACT CONFIGURATION WITH EQUIPMENT VENDOR AND FLOOR PLAN.
- PROVIDE & INSTALL IN ACCORDANCE WITH OHIO MECHANICAL CODE SECTION 506.
- COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER & KITCHEN EQUIPMENT.

DOAS UNIT SCHEDULE

TAG	MFR.	MODEL NO.	COOLING CAPACITY (MBH)		SUPPLY AIR (CFM)	EXTERNAL STATIC PRESSURE (IN.)	HEATING CAPACITY			ELECTRICAL			OPERATING WEIGHT (LBS)	REMARKS
			SENSIBLE	TOTAL			KW	STAGES	MBH	V/CY/PH	MCA	MOCP		
DOAS-1	ECON-AIR	EARTU1-1.150-18-ST-MPU	40.8	64.0	1,600	0.50	-	1	145	208/60/3	25.5	30	1,270	1, 2, 3, 4

NOTES:

- INCLUDE WITH AVERAGING TEMPERATURE SENSORS, INLET PRESSURE GAUGE, AND MANIFOLD PRESSURE GAUGE.
- INCLUDE WITH INTAKE HOOD, HAIL GUARD, SIDE DISCHARGE, AND 18" HIGH INSULATED CURB FOR ROOF MOUNTING.
- PROVIDE & INSTALL IN ACCORDANCE WITH OHIO MECHANICAL CODE SECTION 506.
- COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER & KITCHEN EQUIPMENT.

ROOFTOP UNIT SCHEDULE

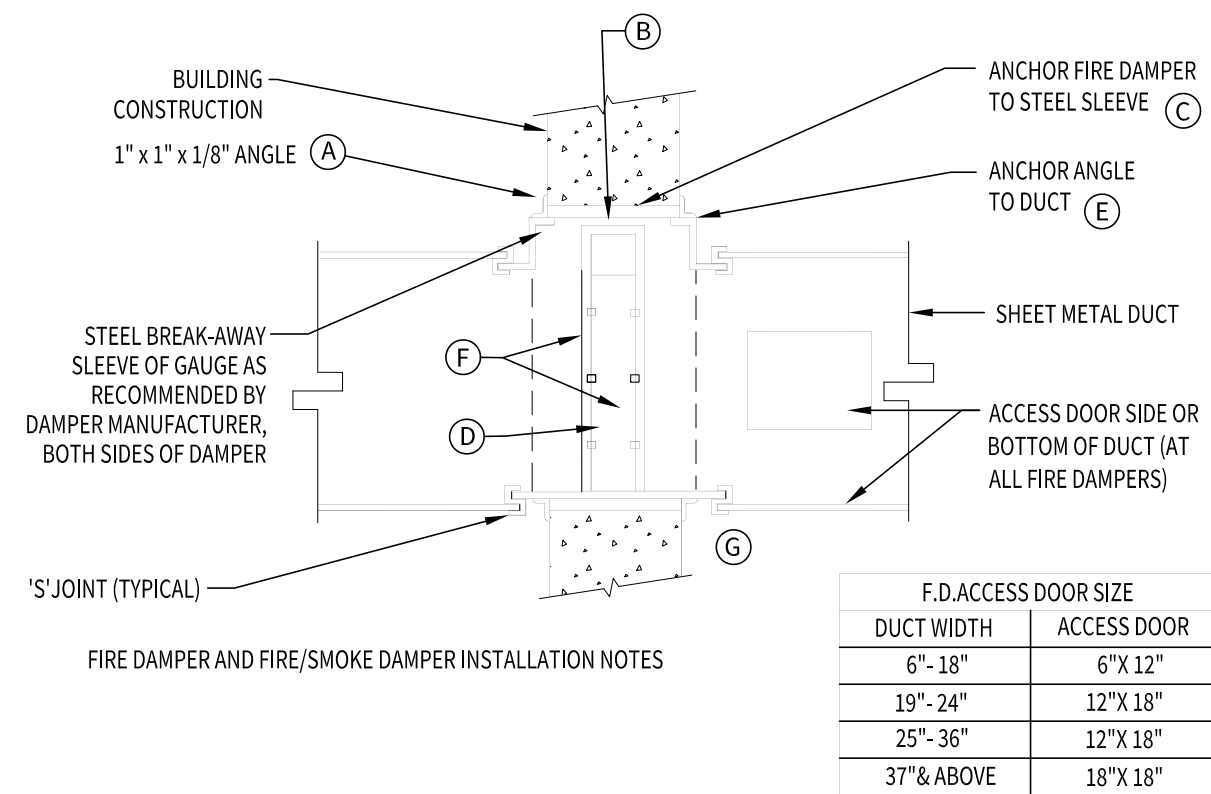
TAG	MFR.	MODEL NO.	COOLING CAPACITY (MBH)		SUPPLY AIR (CFM)	EXTERNAL STATIC PRESSURE (IN.)	HEATING CAPACITY			ELECTRICAL			OPERATING WEIGHT (LBS)	REMARKS
			SENSIBLE	TOTAL			KW	STAGES	MBH	V/CY/PH	MCA	MOCP		
RTU-1	TRANE	"IMPACT" 4YCC4024	19.6	24.6	800	1.0	-	2	60	208/60/1	19.5	30	400	1, 2, 3

NOTES:

- PROVIDE WITH 14" HIGH (MINIMUM) ROOF CURB.
- PROVIDE WITH POWERED CONVENIENCE OUTLET, UNIT MOUNTED DISCONNECT, AND PROGRAMMABLE T'STAT.
- PROVIDE WITH MANUAL OUTSIDE AIR DAMPER.

KITCHEN AIR BALANCE

TAG	SA CFM	RA CFM	OA CFM	EA CFM
DEDICATED OUTSIDE AIR UNIT #DOAS-1	1,600	0	1,600	0
KITCHEN EXHAUST FAN #KEF-1	0	0	0	2,000
SPLIT-SYSTEM FURNACE #FURN-1	2,000	1,700	300	0
ROOFTOP UNIT #RTU-1	800	640	160	0
TOTALS			2,060 (MAX.)	2,000 (MAX.)



NOTES:

- RETAINING ANGLES: MINIMUM 1"X1"X1/8".
- CLEARANCE: 1/2" LARGER THAN DAMPER, BOTH DIMENSIONS SLEEVE AND VOID TO BE FIRESTOPPED WITH SAFING OR FIRE RATED FOAM.
- STEEL SLEEVE: PER SMACNA FIRE DAMPER AND HEAT STOP GUIDE.
- APPROVED FIRE DAMPER (CURTAIN OR BLADE TYPE).
- SECURE RETAINING ANGLES TO DUCT ONLY ON 8" CENTERS WITH:
 - 1/2" LONG WELDS OR
 - 1/4" BOLTS AND NUTS, OR
 - NO. 10 STEEL SCREWS, OR
 - MINIMUM 3/16" STEEL RIVETS.
- SECURE DAMPERS TO SLEEVE ON 8" CENTERS WITH:
 - 1/2" LONG WELDS, OR
 - 1/4" BOLTS AND NUTS IN HOLES PROVIDED, OR
 - MINIMUM 3/16" STEEL RIVETS.
- SECURE DUCT TO SLEEVE WITH A CONNECTION PER SMACNA GUIDE, FIRE DAMPERS SHALL BE INSTALLED WITHIN WALL OR FLOOR OR IF INSTALLED IN A 10 GAUGE STEEL SLEEVE, WITHIN 12" OF WALL. ACCESS DOORS SHALL BE PROVIDED OUTSIDE OF THE SLEEVE. IN EXISTING FACILITIES WHERE THE ACCESS DOOR IS BETWEEN THE PLANE OF THE WALL OR FLOOR AND THE DAMPER, THE ACCESS DOOR SHALL BE CONSIDERED AS A SMOKE DOOR AND SHALL BE MADE SELF-CLOSING. WALL OPENING TO BE FRAMED WITH METAL STUDS IN GYPSUM WALLS.
- INSULATION SHALL NOT PENETRATE WALL.
- PROVIDE ACCESS DOORS IN WALL, CEILING, AND DUCT TO ALLOW INSPECTION AND MAINTENANCE OF DAMPERS AND SMOKE DETECTORS.
- PROVIDE FIRE SEAL BETWEEN DAMPER AND SLEEVE.
- PROVIDE CAULKING OF RETAINING ANGLES OF THE WALLS ON FIRE/SMOKE DAMPER INSTALLATION ON DETAIL FOR SMOKE-PROOF INSTALLATION.

1-1/2 HOUR FIRE DAMPER DETAIL

SCALE: NTS



MATTHEW WOLF ARCHITECT
1816 EAST 40TH SUITE 3B / CLEVELAND OH 44103
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PETER J. KAMIS, PE
LICENSE #68077
EXP. DATE 12/31/2025

KINGSVILLE FIRE DEPARTMENT

3130 EAST MAIN STREET
KINGSVILLE OHIO 44048

BID / PERMIT: OCT 28 2024
REVIEW SET: OCT 18 2024

PROJECT #: 2022

M
2.0

MECHANICAL
SCHEDULES

MECHANICAL DEMOLITION NOTES

1. THIS CONTRACT SHALL INCLUDE ALL LABOR, MATERIALS, AND MISCELLANEOUS EXPENSES REQUIRED FOR MECHANICAL DEMOLITION OF THE EXISTING PROJECT AREA BEING RENOVATED. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID AND BE FAMILIAR WITH ALL DEMOLITION WORK REQUIRED. COORDINATE ALL DEMOLITION WORK WITH ARCHITECTURAL DRAWINGS AND OWNER'S GENERAL REQUIREMENTS.
2. MECHANICAL CONTRACTOR SHALL DISCONNECT, DISASSEMBLE, AND REMOVE EXISTING EQUIPMENT, ASSOCIATED DUCTWORK, DIFFUSERS, GRILLES, SUPPORTS, HANGERS, PIPING, CONTROL WIRING, ETC., NOT OTHERWISE INDICATED TO BE REUSED ON DRAWINGS. ALL OPENINGS ON PIPING AND DUCTWORK THAT REMAIN SHALL BE CAPPED AND PROPERLY SECURED. FLOORS, WALLS, AND CEILINGS SHALL BE PATCHED TO MATCH EXISTING OR PREPARED FOR NEW FINISH IN AREA TO BE REMODELED.
3. UNUSED SERVICES SHALL BE REMOVED BACK TO DEMISING WALLS OR CAPPED AT RESPECTIVE MAINS. UNUSED MAINS SHALL BE REMOVED IN THEIR ENTIRETY.
4. ALL ABANDONED ELECTRICAL DEVICES, WIRING, CONDUIT, ETC., SHALL BE REMOVED. WIRING SHALL BE DISCONNECTED AT CIRCUIT BREAKERS AND REMOVED, AND BREAKERS MARKED "SPARE."
5. ANY EQUIPMENT DESIGNATED TO BE SALVAGED SHALL BE PROTECTED AND DELIVERED TO OWNER ON SITE. OTHERWISE, CONTRACTORS SHALL LEGALLY DISPOSE OF DEMOLITION MATERIALS.
6. DEMOLITION WORK SHALL BE PERFORMED IN A MANNER SO AS NOT TO DAMAGE ADJACENT WORK AND NOT AFFECT THE OPERATION OF SYSTEMS TO REMAIN IN USE. ANY ITEM TO REMAIN THAT IS DAMAGED BY CONTRACTOR SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
7. MECHANICAL CONTRACTOR SHALL REMOVE AND RECLAIM ANY REFRIGERANT IN EXISTING SYSTEMS PRIOR TO DEMOLITION OF ANY EQUIPMENT, IN ACCORDANCE WITH EPA REQUIREMENTS.

MECHANICAL HVAC NOTES

1. THE PROJECT CONSISTS OF MODIFICATIONS TO THE EXISTING HVAC SYSTEM THROUGHOUT THE EXISTING TENANT SPACE. ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, ETC. MUST BE FIELD VERIFIED FOR EXACT LOCATION.
2. ALL SUPPLY (INCLUDING OUTSIDE AIR), RETURN, AND EXHAUST DUCTWORK SHALL BE OF NO. 1 GALVANIZED STEEL CONSTRUCTION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE OHIO MECHANICAL CODE (OMC), SMACNA STANDARDS, AND NFPA 90.
 - A. SMACNA LOW PRESSURE CONSTRUCTION DUCTWORK SHALL HAVE 2" STATIC PRESSURE RATING WITH SEAL CLASS "A" SEAMS AND JOINTS.
3. FLEXIBLE DUCTS SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE AND CONNECTED WITH PLASTIC DRAW BANDS TIGHTENED WITH MANUFACTURER'S TOOL. FLEXIBLE DUCTS SHALL BE LIMITED TO STRAIGHT LENGTHS WITH A MAXIMUM LENGTH OF 5'-0", AND ARE NOT PERMITTED IN ROOMS WITHOUT CEILINGS. FLEXIBLE DUCTS SHALL BE ATCO RUBBER TYPE 070 OR EQUIVALENT WITH 1-1/2" INSULATION, RATED FOR 10" W.C. UP TO 12" DIA., U.L. LISTED AND PLENUM RATED.
4. ALL ROUND DUCT ELBOWS SHALL BE LONG SWEEP, 1-1/2 TIMES THE CENTERLINE RADIUS UNLESS CLEARANCE IS NOT AVAILABLE, AT WHICH TIME MITERED ELBOWS WITH TURNING VANES SHALL BE USED.
5. ALL RECTANGULAR ELBOWS SHALL BE FURNISHED WITH DOUBLE THICKNESS TURNING VANES. TURNING VANES SHALL BE FASTENED WITH A DOUBLE ROW OF SCREWS.
6. CHANGES IN DUCT SIZE SHALL BE MADE BY UNIFORM TAPER SECTION WITH A MAXIMUM INCLUDED ANGLE OF DIVERGENCE OF 15 DEGREES. MITERED OFFSETS GREATER THAN 30" IN ANY DIRECTION ARE NOT PERMITTED.
7. ALL BRANCH CONNECTION FITTINGS IN RECTANGULAR DUCTWORK SHALL BE 45° TRANSITION TYPE, CONICAL FITTINGS, OR SPIN-IN FITTINGS WITH INTEGRAL AIR SCOOPS. BUTT FITTINGS ARE NOT ACCEPTABLE.
8. MANUAL VOLUME DAMPERS SHALL BE RUSKIN OR EQUIVALENT, INSTALLED PER MANUFACTURER'S AND SMACNA REQUIREMENTS, FOR A U.L. APPROVED INSTALLATION. DAMPERS SHALL BE OF OPPOSED BLADE CONSTRUCTION WITH LOCKING QUADRANTS, AND SHALL BE LOCATED CLOSE TO TAKEOFF FROM MAIN DUCT. PROVIDE REMOTE DAMPER ADJUSTMENT WHERE DAMPERS ARE INACCESSIBLE. COORDINATE WITH GENERAL CONTRACTOR.
9. NO EQUIPMENT, DUCTWORK, PIPING, CONTROLS, ETC., SHALL BE INSTALLED OR ROUTED ABOVE ELECTRICAL PANELS AND EQUIPMENT.
10. OUTDOOR AIR VENTILATION SHALL BE PROVIDED PER THE OCCUPANCY LOAD AND CLASSIFICATION AS LISTED IN OMC CHAPTER 4. THE OCCUPANCY LOAD SHOWN ON THE TITLE SHEET UNDER CODE INFORMATION AND ACTUAL OCCUPANT LOAD MAY DIFFER. FOR PURPOSES OF DETERMINING REQUIRED VENTILATION AIR, ACTUAL OCCUPANCY LOAD SHALL BE USED.
11. AN INDEPENDENT "AABC" OR "NEBB" CERTIFIED AIR BALANCE CONTRACTOR SHALL TEST AND BALANCE THE SYSTEM AND SUBMIT REPORT RESULTS TO THE OWNER AND ARCHITECT FOR APPROVAL. PROVIDE ALL AIR BALANCING DAMPERS, ACCESS DOORS, DIFFUSER AIR BAFFLES, PRESSURE TAPS, AND REPLACEMENT FAN BELTS/SHEAVES WHERE REQUIRED TO COMPLETE THE BALANCE WORK FOR THIS PROJECT, AT NO ADDITIONAL COST TO OWNER. ALL AIR QUANTITIES SHALL BE WITHIN 10% OF THE DESIGN VALUES.
12. PROVIDE INSULATION ON MECHANICAL DUCTWORK AND PIPING AS FOLLOWS:
 - A. ALL UNLINED, CONCEALED SUPPLY AIR DUCTWORK AND BACKS OF CEILING DIFFUSERS SHALL BE INSULATED WITH 1-1/2" THICK FOIL FACED REINFORCED KRAFT JACKET FIBERGLASS DUCT WRAP.
 - B. DUCTWORK INSTALLED IN UNCONDITIONED SPACES SHALL BE INSULATED WITH "INSTALLED" (25% COMPRESSION) MINIMUM R-VALUE OF 5.0.
 - C. EXTERIOR DUCTWORK SHALL BE 2" THICK DOUBLE WALL INSULATED WITH A MINIMUM R-VALUE OF 8.0.
 - D. INSULATE ALL REFRIGERANT SUCTION PIPING FROM CONDENSING UNIT TO INDOOR DX COIL WITH 1/2" ARMAFLEX CLOSED CELL PIPING INSULATION.
 - E. INSULATE ALL CONDENSATE PIPING INSIDE BUILDING WITH 1" RIGID FIBERGLASS INSULATION.
 - F. ALL PIPING SHALL BE NEATLY AND CLEARLY LABELED INDICATING SERVICE AND DIRECTION OF FLOW.
 - G. INSULATION SHALL BE FULLY SECURED TO DUCTWORK AND PIPING. LAP AND TAPE SEAMS AND SECURE TIGHTLY WITH WIRE OR STICK PINS.
 - H. ALL INSULATION SHALL BE APPLIED IN FULL ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL INSULATION SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND U.L. 723.
13. WHERE SHOWN ON PLANS, PROVIDE 1" INTERNAL ACOUSTIC LINING IN SUPPLY AND RETURN AIR DUCTWORK. LINING SHALL BE NON-FLAKING, COATED, AND MEDIUM DENSITY INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. DUCT SIZES SHOWN ON DRAWINGS ARE OUTSIDE DIMENSIONS, AND INCLUDE LINING ALLOWANCE.
14. PHOTO ELECTRIC SMOKE DETECTORS SHALL BE FIELD INSTALLED IN THE RETURN AIR DUCTS OF AIR HANDLING UNITS AS SHOWN ON PLANS, WIRED TO SHUT DOWN UNITS UNDER ALARM. MECHANICAL CONTRACTOR SHALL PROVIDE AND WIRE REMOTE TEST STATIONS/ALARMS AT LOCATIONS AS DIRECTED BY AUTHORITY HAVING JURISDICTION. DETECTORS SHALL HAVE AUXILIARY CONTACT FOR WIRING TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR. DETECTORS SHALL COMPLY WITH OMC SECTION 606. VERIFY EXISTENCE AND PROPER OPERATION OF ALL EXISTING SMOKE DETECTORS.
15. PROVIDE CURBS FOR ALL ROOF OPENINGS FOR MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT. CURBS SHALL BE FURNISHED AS ACCESSORIES TO EQUIPMENT OR SHALL BE 4" HIGH PATE OR EQUIVALENT, AND SHALL BE FLASHED AND COUNTER-FLASHED INTO ROOFING. ROOF CURBS SHALL BE COMPATIBLE WITH ROOFING SYSTEM AND SHALL MATCH ROOF SLOPE SUCH THAT EQUIPMENT SITS DEAD LEVEL.
16. EQUIPMENT AND APPLIANCE LOCATION SHALL BE IN COMPLIANCE WITH OMC SECTION 304. GUARDS SHALL BE PROVIDED WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS THAT REQUIRE SERVICE ARE LOCATED WITHIN 10'-0" OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND IS LOCATED MORE THAN 30" ABOVE THE FLOOR, ROOF OR GRADE BELOW.
17. REFRIGERANT CHARGE ON EQUIPMENT THAT IS MODIFIED OR REMOVED SHALL BE PROPERLY EVACUATED FROM SYSTEMS PRIOR TO REMOVAL OF EQUIPMENT, REFRIGERANT PIPING OR SPECIALTIES.
18. REFRIGERANT PIPING SHALL BE REFRIGERANT GRADE TYPE "L" COPPER WITH SILVER SOLDERED JOINTS. INSTALL PER MANUFACTURER'S PIPING DIAGRAMS AND RECOMMENDATIONS. ISOLATE PIPING FROM STRUCTURE WITH 1/2" INSULATION BETWEEN PIPING AND SUPPORT POINTS. AFTER COMPLETION, PRESSURE TEST PIPING, PURGE AND EVACUATE SYSTEM TWICE, AND CHARGE SYSTEM WITH REFRIGERANT AND OIL. ALLOWANCE FOR EXPANSION, SUPPORTS, VALVES, AND TESTING, SHALL BE IN COMPLIANCE WITH OMC CHAPTER 11.

MECHANICAL CODE REQUIREMENTS

1. DUCT CONSTRUCTION AND INSTALLATION: METALLIC DUCTS SHALL MEET AND CONFORM TO "OMC", SECTION 603.4, CONSTRUCTED AS PER SMNVA HVAC DUCT CONSTRUCTION STANDARD.
2. FLEXIBLE AIR DUCTS AND CONNECTORS: SHALL MEET AND CONFORM TO "OMC", SECTIONS 603.6 THRU 603.6.4 FOR CONNECTORS, LENGTH, PENETRATION AND TEMPERATURE LIMITATIONS.
3. REGISTERS, GRILLES AND DIFFUSERS: SHALL MEET AND CONFORM WITH "OMC", SECTION 603.18, INSTALLED PER MFR'S INSTALLATION INSTRUCTIONS, AND HAVE VOLUME ADJUSTMENT IN BRANCH DUCTS OR AT EACH INDIVIDUAL REGISTER, GRILLE OR DIFFUSER.
4. SMOKE DETECTION SYSTEMS CONTROL: SMOKE DETECTORS SHALL MEET AND CONFORM WITH "OMC", SECTION 606. INSTALL IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM, UPSTREAM OF FILTERS, EXHAUST AIR, OUTSIDE AIR OR DECONTAMINATION EQUIPMENT CONNECTIONS. MECHANICAL CONTRACTOR SHALL VERIFY IF EXISTING SYSTEM CONFORMS TO CODE.
5. DUCTS AND AIR TRANSFER OPENINGS: SHALL MEET AND CONFORM WITH "OMC", SECTIONS 607.1 THRU 607.7. FIRE DAMPERS SHALL BE INSTALLED AT ALL PENETRATIONS OF DUCTS THRU FIRE RATED WALLS AND CEILINGS AS REQUIRED BY "OMC", SECTION 607. FIRE DAMPER PROTECTION RATING SHALL BE IN ACCORDANCE WITH TABLE 607.3.1.
6. VENTILATION OF HVAC SYSTEM: SHALL MEET AND CONFORM TO "OMC", CHAPTER 4, WITH MINIMUM VENTILATION RATE DETERMINED IN ACCORDANCE WITH SECTION 403.3. ASHRAE STANDARD 62.1-2010 MAY BE USED AS AN ALTERNATIVE ENGINEERED VENTILATION DESIGN PROVIDED THAT THE SYSTEM DEMONSTRATES EQUIVALENCY TO THE PRESCRIPTIVE REQUIREMENTS OF "OMC"
7. PROTECTION OF STRUCTURE: MOUNTING OF ALL EQUIPMENT, ROUTING OF ALL PIPING AND DUCTWORK AND PENETRATIONS OF FLOOR/CEILING ASSEMBLIES SHALL MEET AND CONFORM TO "OMC", SECTION 302.
8. CLEARANCES FOR MAINTENANCE AND REPLACEMENT OF MECHANICAL EQUIPMENT SHALL MEET AND CONFORM WITH "OMC", SECTION 306.

MECHANICAL SPECIFICATIONS

1. THIS CONTRACT SHALL INCLUDE THE FURNISHING, INSTALLING, CONNECTING, AND START-UP OF ALL EQUIPMENT AND APPURTENANCES WHICH ARE A PART OF THE SYSTEMS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE THE OWNER COMPLETE AND WORKABLE, CODE APPROVED, AND OPERATIONAL SYSTEMS.
2. GENERAL CONDITIONS OF THE CONTRACT FOUND IN THE ARCHITECTURAL DRAWINGS, GENERAL AND SPECIAL CONDITIONS OF THE AMERICAN INSTITUTE OF ARCHITECTS (AIA), AND ANY OF THE OWNER'S GENERAL REQUIREMENTS SHALL APPLY UNLESS NOTED OTHERWISE. CHECK OTHER PLANS AND SPECIFICATIONS AND FULLY COORDINATE WITH OTHER TRADES AND ARCHITECT'S REQUIREMENTS.
3. THE SYSTEMS AS SHOWN ON THE CONTRACT DRAWINGS ARE DIAGRAMMATIC. THE PROJECT SCOPE IS TO INSTALL COMPLETE AND WORKABLE SYSTEMS. VERIFY ALL DIMENSIONS, CLEARANCES, AND POINTS OF CONNECTION BY FIELD MEASUREMENT, AND CHECK FOR INTERFERENCES PRIOR TO STARTING WORK. CHANGES RESULTING FROM EXISTING CONDITIONS OR COORDINATION ISSUES SHALL BE MADE WITH NO ADDITIONAL COST TO THE OWNER.
4. ANY INCIDENTAL ITEMS OR LABOR, ETC. NOT INCLUDED IN THE SPECIFICATIONS OR DRAWINGS BUT REASONABLY IMPLIED AS NECESSARY FOR THE COMPLETE INSTALLATION OF ALL APPARATUS ARE TO BE FURNISHED WITHOUT ADDITIONAL COST. THE QUESTION AS TO WHETHER THE ITEM OR ITEMS ARE INCIDENTAL SHALL IN ALL CASES BE LEFT TO THE JUDGMENT OF THE ARCHITECT.
5. ALL WORK SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES INCLUDING THE OHIO BUILDING CODE, NATIONAL ELECTRIC CODE, UTILITY COMPANY REQUIREMENTS, AND ANY SPECIAL OWNER REQUIREMENTS IN ADDITION TO THOSE SPECIFIED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES OF CONSTRUCTION AND THE SAFETY OF WORKMEN. COMPLY WITH ALL OSHA REGULATIONS.
6. OBTAIN AND PAY FOR ALL NECESSARY LICENSES, PERMITS, APPROVALS, AND INSPECTIONS REQUIRED TO PROCEED WITH THE WORK.
7. CONTRACTORS BIDDING THIS PROJECT SHALL HAVE PRIOR EXPERIENCE WORKING IN THIS JURISDICTION AND MUST LIST ON BID FORM ANY LOCAL REQUIREMENTS THAT ARE NOT SHOWN ON THE DRAWINGS. SUBMISSION OF A BID SHALL BE EVIDENCE THAT THE CONTRACTOR'S BID MEETS ALL JURISDICTIONAL REQUIREMENTS.
8. EACH CONTRACTOR SHALL PROVIDE FOR HIS OWN CLEAN-UP, REMOVAL, AND LEGAL DISPOSAL OF ALL RUBBISH DAILY.
9. ARRANGE FOR AND OBTAIN OWNER'S AND INSURANCE REPRESENTATIVE'S PERMISSION FOR ANY SERVICE SHUTDOWNS. SHUTDOWNS MUST BE PERFORMED WITHOUT DISRUPTION TO FACILITY OPERATIONS, AS SCHEDULE WITH THE OWNER. INCLUDE ANY PREMIUM TIME REQUIRED IN BID.
10. INSTALLATION OF ALL EQUIPMENT SHALL COMPLY WITH THE MANUFACTURER'S INSTALLATION INFORMATION AND INSTRUCTIONS, REQUIREMENTS AND ANY ADDITIONAL GUIDELINES. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL REQUIRED BASES, ISOLATORS, SUPPORTS, AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION.
11. SHOP DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT OF ALL EQUIPMENT AND ACCESSORIES TO BE PROVIDED FOR THE PROJECT. REVIEW OF THE SHOP DRAWINGS SHALL BE FOR GENERAL DESIGN CONCEPT AND ADHERENCE WITH SPECIFICATIONS. QUANTITY OF SHOP DRAWINGS SUBMITTED SHALL BE AS SPECIFIED BY THE ARCHITECT.
12. INCLUDE IN BASE BID THE EQUIPMENT AND MATERIALS EXACTLY AS SPECIFIED ON DRAWINGS, INCLUDING ANY ALTERNATE MANUFACTURERS LISTED ON DRAWINGS. ANY ANOTHER MANUFACTURER OR MODEL IS A SUBSTITUTION, MUST BE LISTED ON BID FORM, AND IS SUBJECT TO OWNER AND ARCHITECT APPROVAL. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO EVALUATE ANY SUBSTITUTION AND CERTIFY IT IS EQUIVALENT IN ALL ASPECTS TO THE BASE SPECIFICATIONS. NOTIFY ALL OTHER TRADES AFFECTED BY AN APPROVED SUBSTITUTION AND FULLY COORDINATE. ANY COSTS RESULTING FROM A SUBSTITUTION, WHETHER BY THIS CONTRACTOR OR ANOTHER, SHALL BE THE RESPONSIBILITY OF AND PAID FOR BY SUBSTITUTING CONTRACTOR.
13. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS, AND U.L. LABELED. ALL MATERIALS AND METHODS SPECIFIED ON DRAWINGS SHALL BE THE MINIMUM ALLOWED. IF A CONFLICT OCCURS, THE OWNER SHALL RESOLVE SUCH CONFLICT WITH CONTRACTOR CONFORMING TO THE OWNER'S DECISION.
14. THIS CONTRACT SHALL INCLUDE A VISIT TO THE JOB SITE AND TAKE INTO CONSIDERATION MECHANICAL, ELECTRICAL AND GENERAL TRADE WORK CURRENTLY EXISTING AND WORK WHICH MAY BE INSTALLED PRIOR TO CONTRACT AWARD. RELOCATION OF DUCTWORK, PIPING AND EQUIPMENT, AS REQUIRED TO ACCOMMODATE THIS WORK SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
15. EQUIPMENT, PIPING, DUCTWORK, ETC. SHALL NOT BE SUPPORTED FROM ANY CEILINGS, OTHER PIPING, CONDUIT, DUCTWORK, ROOF DECK, OR JOIST BRIDGING. ITEMS SHALL BE SUPPORTED FROM ACCEPTABLE STRUCTURAL BUILDING COMPONENTS AS DETERMINED BY ARCHITECT OR STRUCTURAL ENGINEER.
16. ALL MECHANICAL SYSTEM COMPONENTS SHALL BE ROUTED TIGHT TO UNDERSIDE OF STRUCTURE AND THROUGH JOISTS OR TRUSSES WHERE POSSIBLE. COORDINATE INSTALLATION AND PROVIDE OFFSETS TO PRESERVE HEADROOM, EQUIPMENT SERVICE ACCESS, AND ARCHITECTURAL CLEARANCES FOR FINISHES, INCLUDING CEILING HEIGHTS. COORDINATE WITH OTHER TRADES AND DO NOT CONFLICT WITH THE ARCHITECTURAL REQUIREMENTS FOR THE FINISHED CONSTRUCTION.
17. REFER TO THE GENERAL CONDITIONS OF THE ARCHITECTURAL DOCUMENTS AND THE AIA GENERAL AND SPECIAL CONDITIONS, FOR ADDITIONAL REQUIREMENTS REGARDING SAFETY, COORDINATION AND COOPERATION, WORKMANSHIP, PROTECTION, CUTTING AND PATCHING, DAMAGE TO OTHER WORK, PRELIMINARY OPERATIONS, STORAGE, ADJUSTMENTS, ETC.
18. COORDINATE ELECTRICAL CHARACTERISTICS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING OF EQUIPMENT. NO ADDITIONAL PAYMENT WILL BE MADE FOR LACK OF CONTRACTOR COORDINATION OF ELECTRICAL CHARACTERISTICS.
19. EXACT LOCATIONS OF ROOFTOP MECHANICAL EQUIPMENT SHALL BE APPROVED BY ARCHITECT OR STRUCTURAL ENGINEER. PROVIDE ALL SUPPLEMENTAL SUPPORT STEEL AND ROOF OPENINGS FOR EQUIPMENT. PROVIDE 2-1/2" HIGH PERMANENT LETTERING INDICATING SPACE SERVED.
20. ALL ROOF PENETRATIONS, FLASHINGS AND COUNTER-FLASHINGS, PATCHING, ETC. SHALL BE PERFORMED BY OWNER'S CERTIFIED ROOFING CONTRACTOR, AND PAID FOR BY THIS CONTRACTOR.
21. ALL OTHER CUTTING AND CHASING OF THE BUILDING CONSTRUCTION REQUIRED FOR THIS WORK SHALL BE BY THIS CONTRACTOR, UNLESS SHOWN ON THE ARCHITECTURAL DRAWINGS. CONFIRM SIZES AND LOCATIONS PRIOR TO PERFORMING ANY WORK. ALL CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER.
 - a. NEATLY SAW CUT ALL RECTANGULAR OPENINGS, SET SLEEVE THROUGH OPENING, AND FINISH PATCH OR PROVIDE TRIM FLANGE AROUND OPENING.
 - b. NEATLY SAW CUT AND PATCH FLOORS TO MATCH EXISTING, INCLUDING FLOOR COVERING.
 - c. CORE DRILL AND SLEEVE ALL ROUND OPENINGS.
 - d. CUT AND PATCH EXISTING BUILDING WALLS AS REQUIRED FOR DUCT INSTALLATION. PROVIDE STEEL LINTEL ABOVE OPENINGS WIDER THAN 10". REFER TO ARCHITECTURAL OR STRUCTURAL DRAWINGS FOR SIZES. PROVIDE ESCUTCHEONS OR 2" WIDE SHEET METAL FLANGES AROUND ALL EXPOSED PENETRATIONS.
 - e. DO NOT CUT ANY STRUCTURAL COMPONENT WITHOUT APPROVAL OF ARCHITECT OR STRUCTURAL ENGINEER.
 - f. PATCH AND FINISH TO MATCH ADJACENT AREAS THAT HAVE BEEN CUT, DAMAGED, OR MODIFIED TO INSTALL EQUIPMENT FOR THIS PROJECT.
 - g. FIRE STOP ALL PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER USING U.L. LISTED FIRE RATED MATERIALS. PATCH ALL STRUCTURAL FIREPROOFING REQUIRED TO INSTALL MECHANICAL SYSTEMS.
 - h. ALL CONTRACTORS SHALL CONFIRM WITH OWNER PRIOR TO BID, TIMES AVAILABLE FOR NOISE PRODUCING WORK SUCH AS CUTTING AND CORE DRILLING OF FLOORS, WALLS, ETC. AS WELL AS TIMES FOR WORK WHICH REQUIRES ACCESS INTO ADJOINING AREAS. INCLUDE ANY PREMIUM TIME REQUIRED IN BID.
22. AFTER INSTALLATION, CHECK ALL EQUIPMENT AND PERFORM START-UP IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ALL DUCTWORK AND PIPING SHALL BE TESTED AND FREE OF LEAKS. BALANCE ALL SYSTEMS, CALIBRATE CONTROLS, CHECK FOR PROPER OPERATING SEQUENCE UNDER ALL CONDITIONS, AND MAKE ALL NECESSARY ADJUSTMENTS. TAG ALL SWITCHES AND CONTROLS WITH PERMANENT LABELS. INSTRUCT OWNER IN OPERATION AND MAINTENANCE OF ALL SYSTEMS. SUBMIT OPERATION AND MAINTENANCE MANUAL FOR ALL EQUIPMENT AND SYSTEMS.
23. FULLY WARRANT ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE. EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER. REPAIR OR REPLACE WITHOUT CHARGE TO OWNER, ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD.

MECHANICAL TEMPERATURE CONTROLS

1. CONTROLS SHALL BE ELECTRONIC AND BE COMPLETELY AUTOMATIC WITH NO MANUAL INTERVENTION REQUIRED. PROVIDE ALL CONTROL (LOW VOLTAGE) AND POWER WIRING, RELAYS, ELECTRICAL INTERLOCK, AND ANY OTHER APPURTENANCES REQUIRED FOR COMPLETE OPERATION OF MECHANICAL EQUIPMENT, WHERE NOT SPECIFICALLY SHOWN ON ELECTRICAL DRAWINGS. ALL POWER WIRING AND EXPOSED CONTROL WIRING SHALL BE IN EMT CONDUIT. CONCEALED CONTROL WIRING IN CEILING PLENUMS MAY BE U.L. LISTED PLENUM RATED CABLE NEATLY SUPPORTED IN WIRE RINGS. INSTALL ALL WIRING PER THE N.E.C., STATE AND LOCAL CODES, AND ELECTRICAL SPECIFICATIONS.



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PETER J. KAMIS, PE
LICENSE #68077
EXP. DATE 12/31/2025

KINGSVILLE FIRE DEPARTMENT

3130 EAST MAIN STREET
KINGSVILLE OHIO 44048

BID / PERMIT OCT 28 2024
REVIEW SET OCT 18 2024

PROJECT #: 2022

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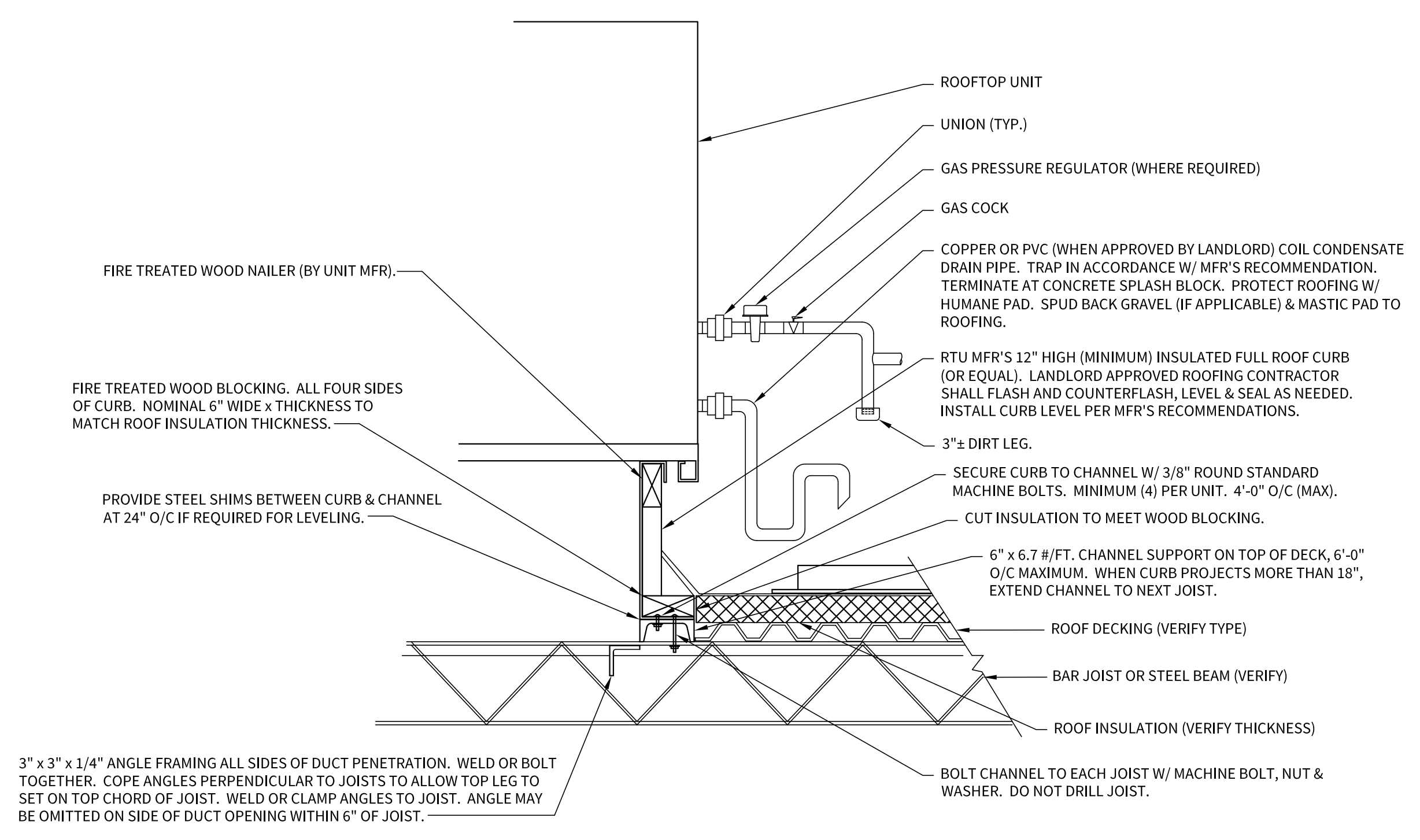
MECHANICAL
SPECIFICATIONS



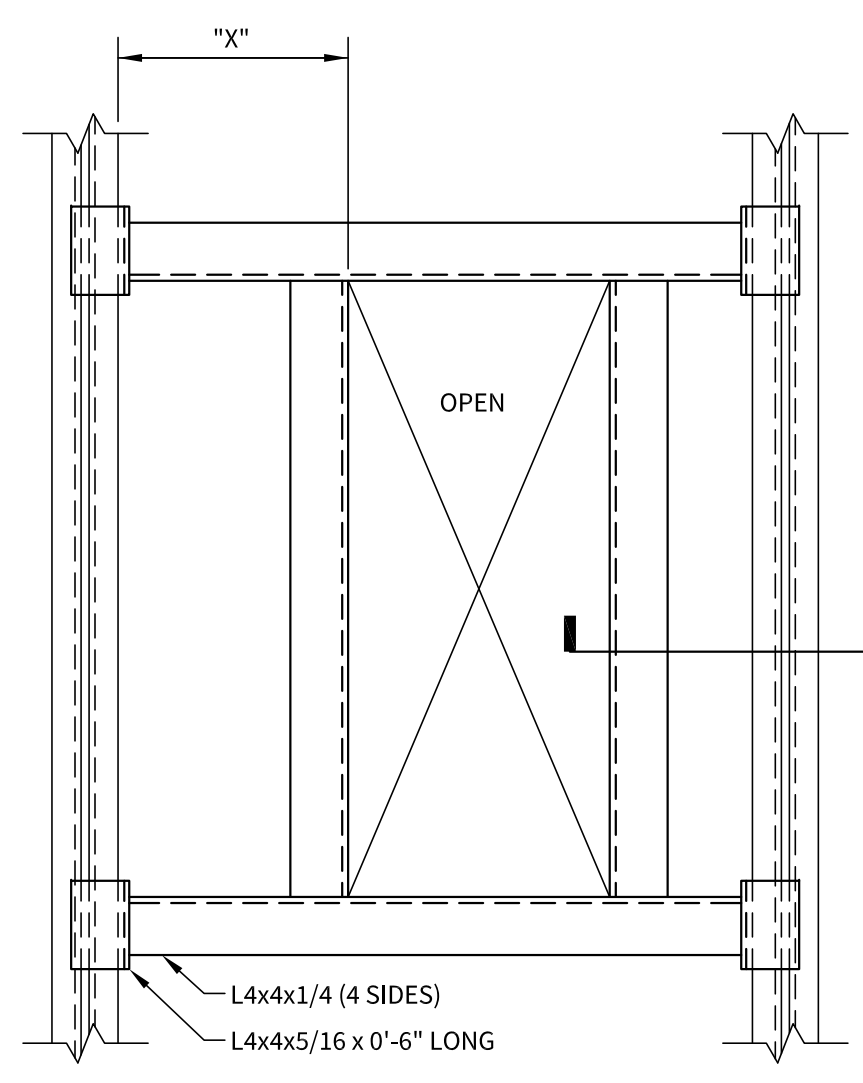
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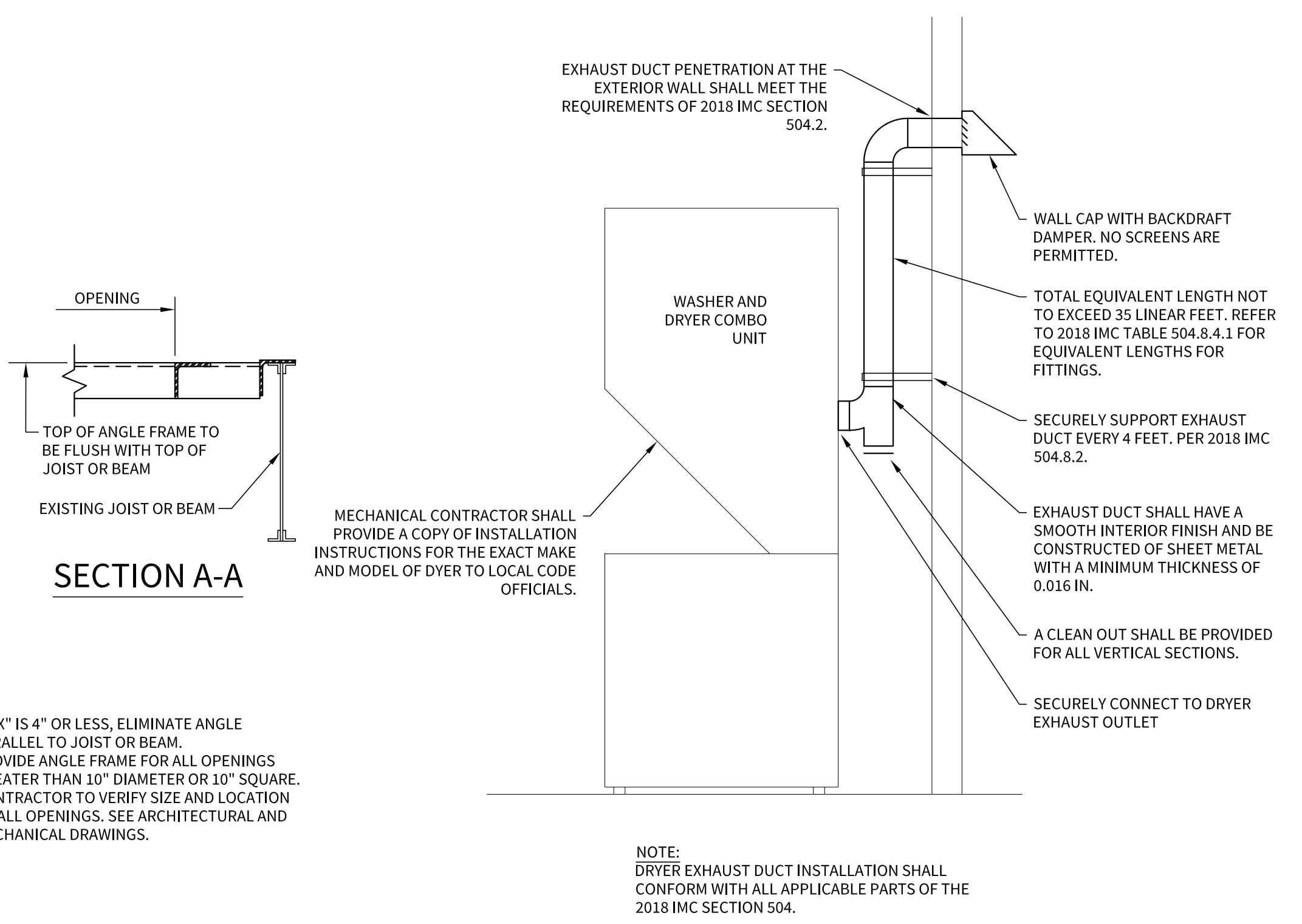
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**ROOFTOP UNIT
 INSTALLATION DETAIL**
 SCALE: NTS



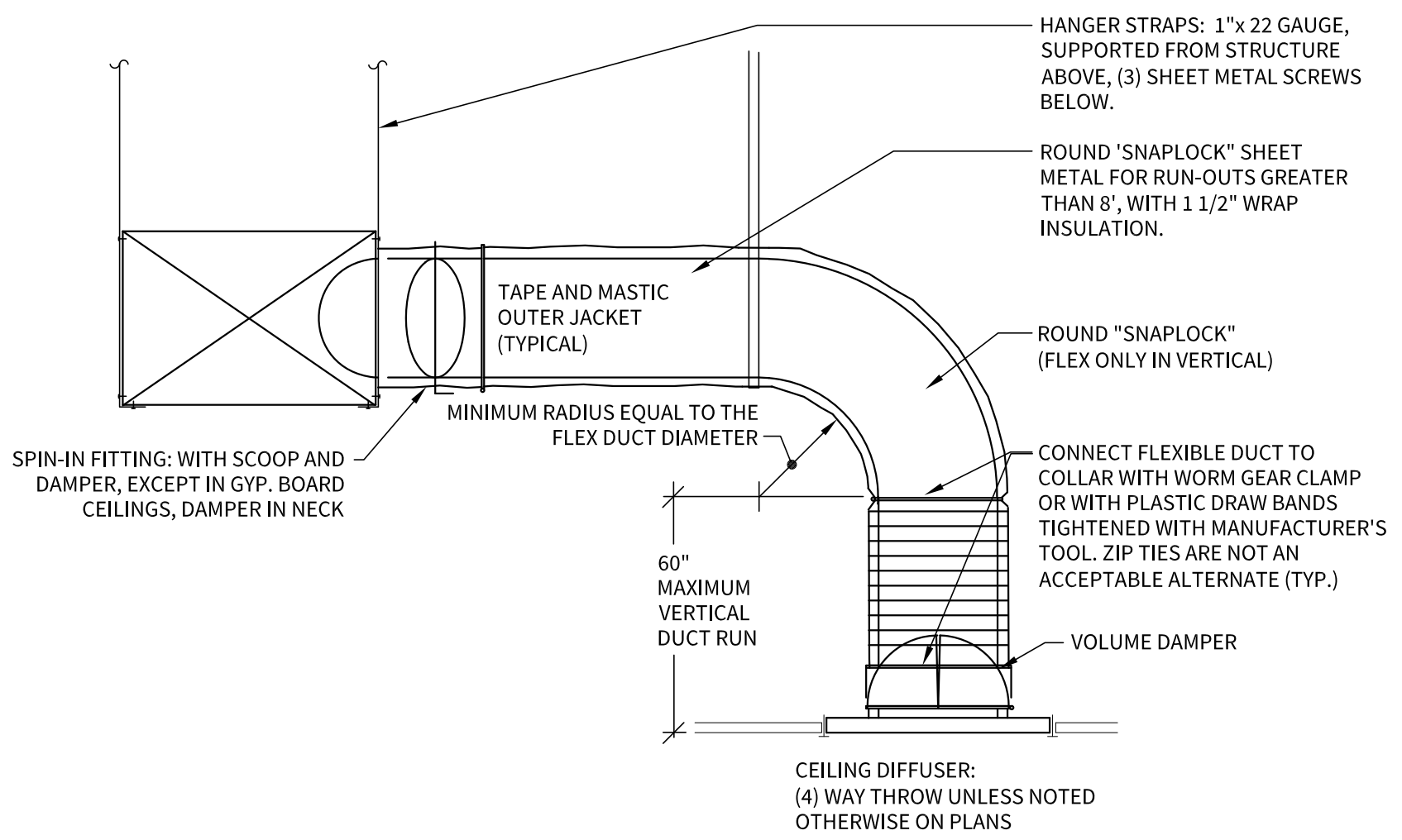
**ROOFTOP EQUIPMENT
 DECK OPENING DETAIL**
 SCALE: NTS



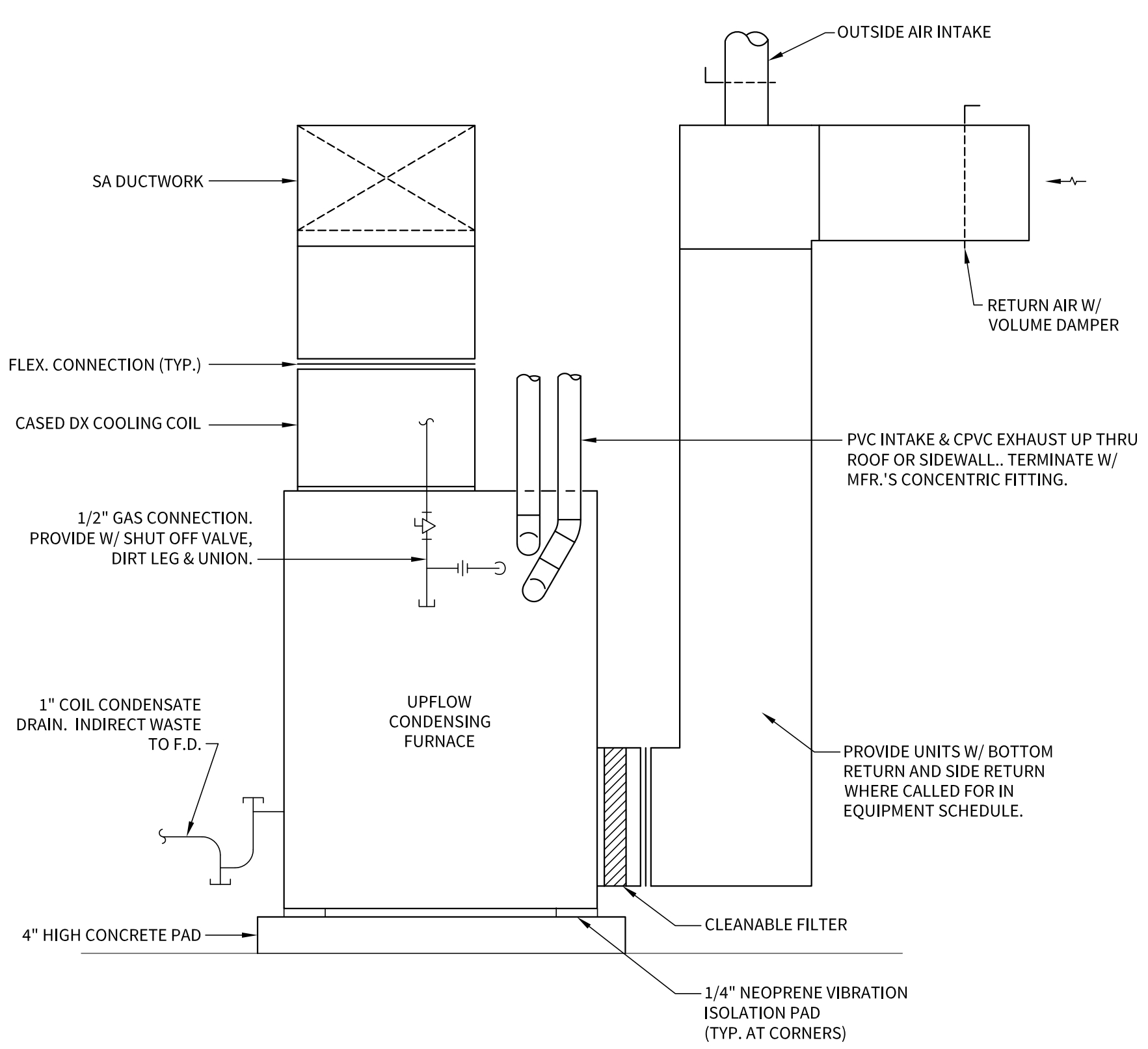
**DRYER VENT
 INSTALLATION DETAIL**
 SCALE: NTS

ELBOW WITH AIRFOIL TURNING VANES			
BRANCH TAKE-OFF RECTANGULAR TO RECTANGULAR		BRANCH TAKE-OFF RECTANGULAR TO ROUND	
BRANCH TAKE-OFF ROUND TO ROUND		SQUARE TO ROUND TRANSITION FITTING	
PROPORTIONAL SPLIT		ACOUSTIC LINED DUCT (SEE NOTE)	
MANUAL VOLUME DAMPER (MVD)		NOTE: DASHED LINE INDICATES 1\"/>	

**TYPICAL
 DUCT TAKEOFF DETAILS**
 SCALE: NTS



**CEILING DIFFUSER
 CONNECTION DETAIL**
 SCALE: NTS



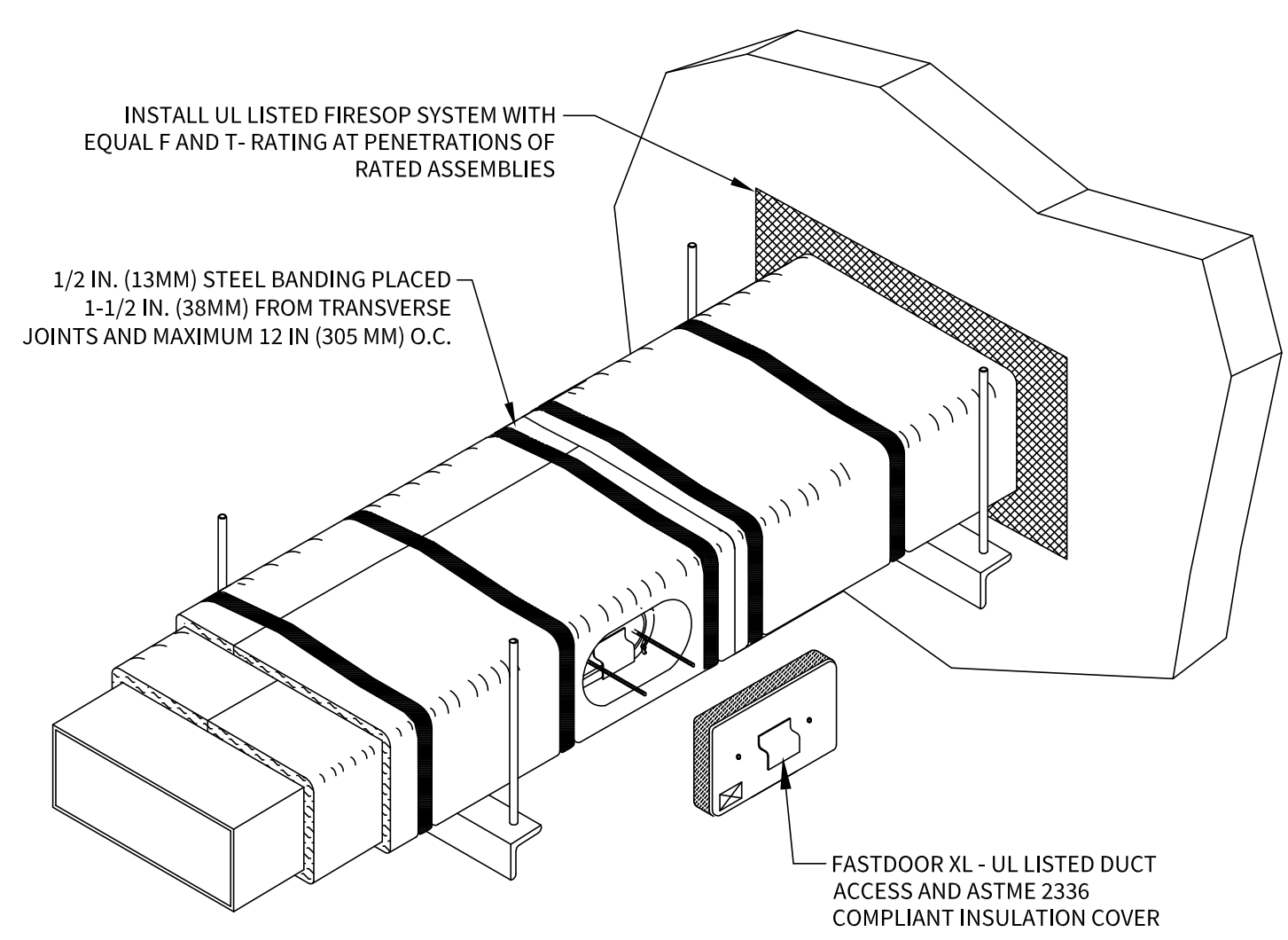
UPFLOW FURNACE DETAIL
 SCALE: NTS



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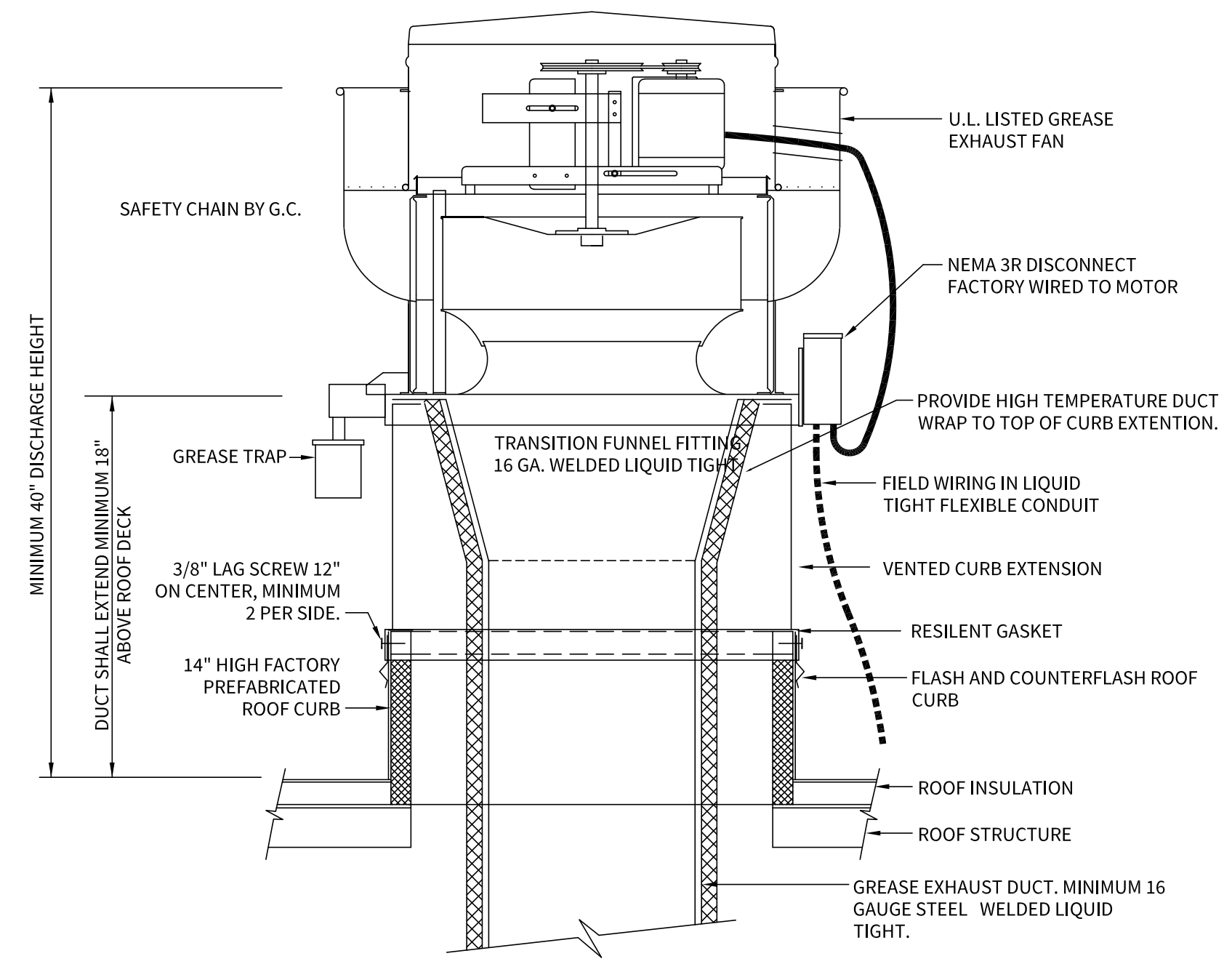
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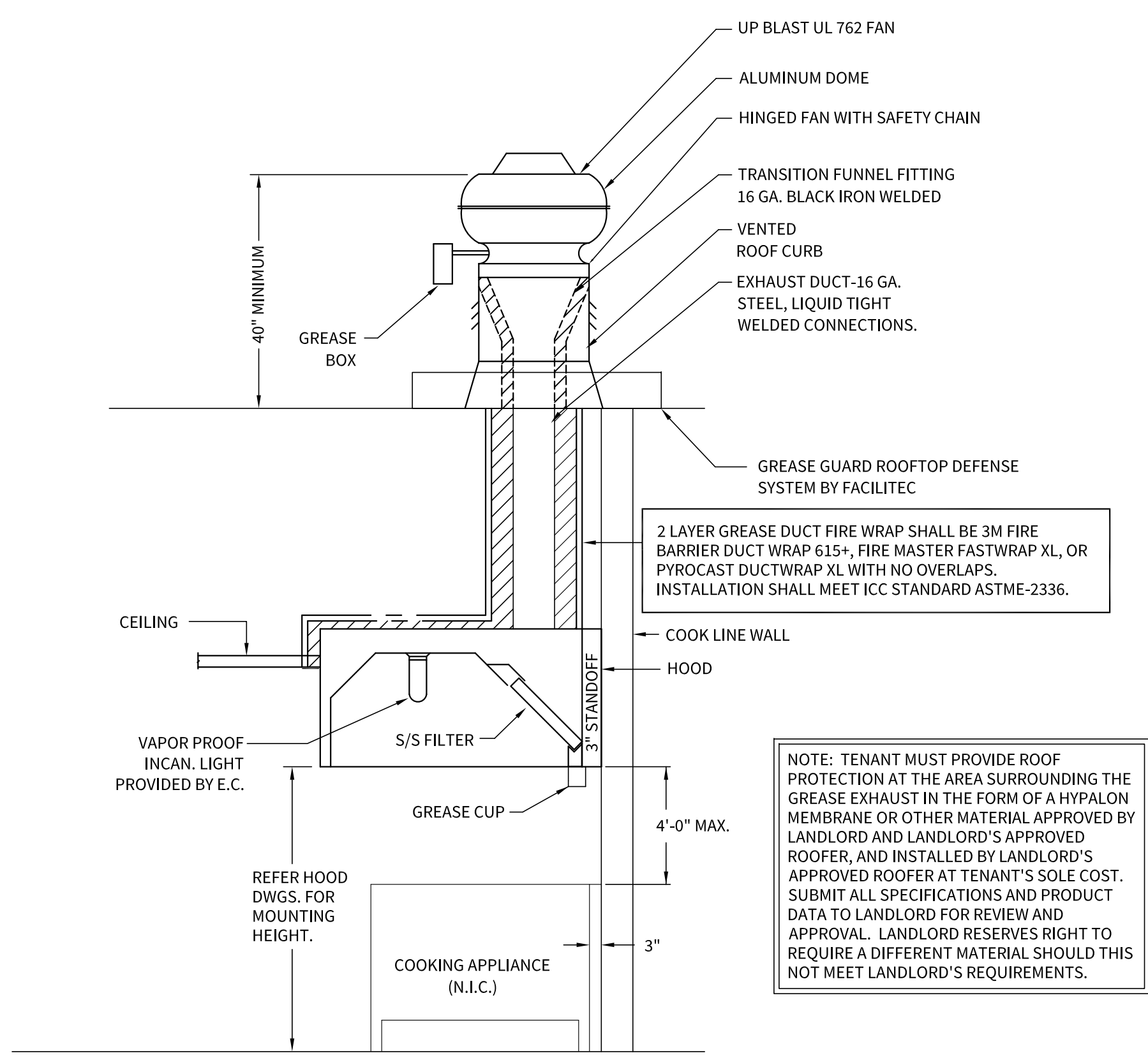
GREASE DUCT WRAP DETAIL

SCALE: NTS



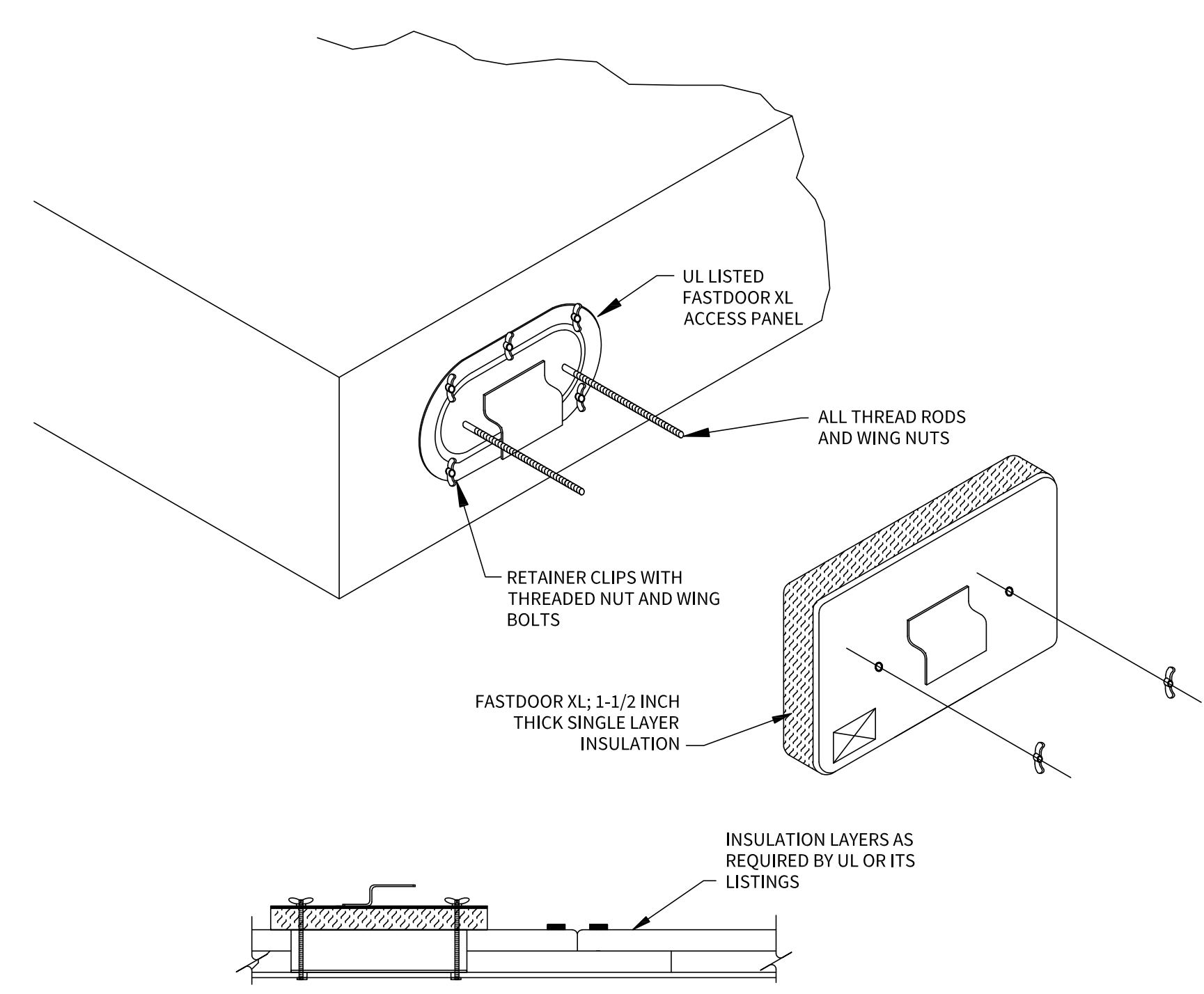
KITCHEN EXHAUST FAN DETAIL

SCALE: NTS



FIRE RATED CHASE DETAIL

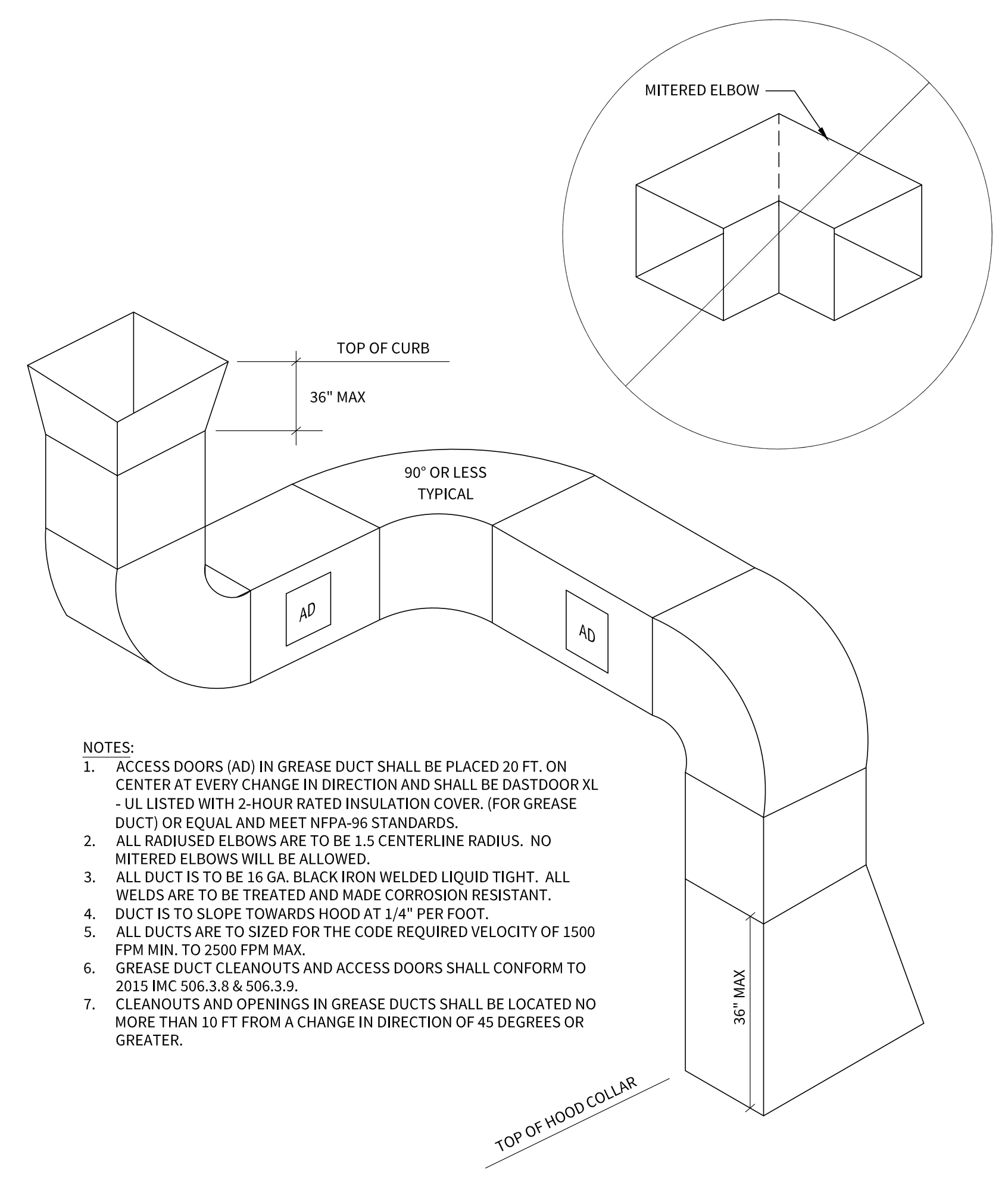
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- NOTES:
- ACCESS DOOR IS TO BE FASTDOOR XL OR EQUAL.
 - ACCESS DOOR IS TO BE U.L. LISTED, INSTALLED LIQUID TIGHT AND SHALL BE NOT LESS 12 INCHES ON ONE (1) SIDE.
 - ACCESS DOOR IS TO MEET OR EXCEED THE REQUIREMENTS OF NFPA 96, 2008 EDITION
 - PROVIDE AND INSTALL ACCESS DOOR AT 20 FT. ON CENTER, EACH CHANGE OF DIRECTION OF DUCT AND AT ALL LOCATIONS REQUIRED BY LOCAL CODE.

GREASE DUCT ACCESS DOOR DETAIL

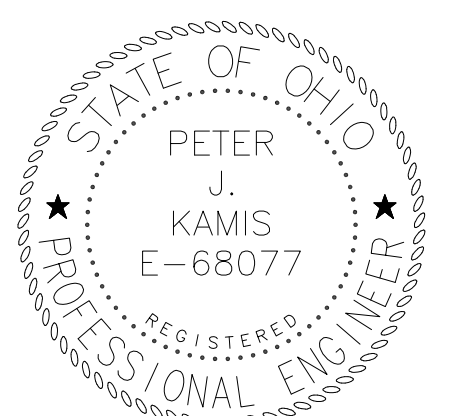
SCALE: NTS



- NOTES:
- ACCESS DOORS (AD) IN GREASE DUCT SHALL BE PLACED 20 FT. ON CENTER AT EVERY CHANGE IN DIRECTION AND SHALL BE DASTDOOR XL - UL LISTED WITH 2-HOUR RATED INSULATION COVER. (FOR GREASE DUCT) OR EQUAL AND MEET NFPA-96 STANDARDS.
 - ALL RADIUS ELBOWS ARE TO BE 1.5 CENTERLINE RADIUS. NO MITERED ELBOWS WILL BE ALLOWED.
 - ALL DUCT IS TO BE 16 GA. BLACK IRON WELDED LIQUID TIGHT. ALL WELDS ARE TO BE TREATED AND MADE CORROSION RESISTANT.
 - DUCT IS TO SLOPE TOWARDS HOOD AT 1/4" PER FOOT.
 - ALL DUCTS ARE TO SIZED FOR THE CODE REQUIRED VELOCITY OF 1500 FPM MIN. TO 2500 FPM MAX.
 - GREASE DUCT CLEANOUTS AND ACCESS DOORS SHALL CONFORM TO 2015 IMC 506.3.8 & 506.3.9.
 - CLEANOUTS AND OPENINGS IN GREASE DUCTS SHALL BE LOCATED NO MORE THAN 10 FT FROM A CHANGE IN DIRECTION OF 45 DEGREES OR GREATER.

TYPICAL GREASE DUCT DETAIL

SCALE: NTS



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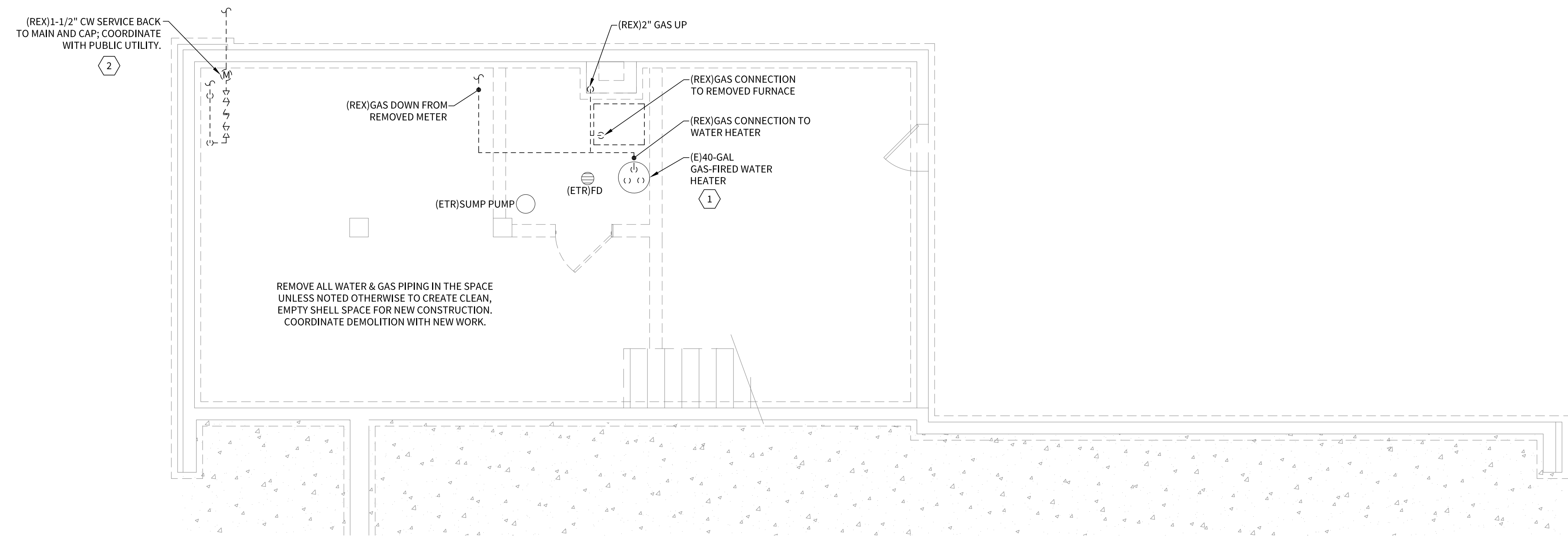
PLUMBING
DEMOLITION PLANS

**PLUMBING DEMOLITION
 CODED NOTES:** ⬡

1. REMOVE ALL COLD WATER, HOT WATER, AND GAS PIPING ASSOCIATED WITH EXISTING 40-GAL GAS-FIRED WATER HEATER; TO BE REPLACED WITH ALL NEW PIPING. REFER TO NEW BASEMENT PLUMBING PLAN ON SHEET P1.0. WATER HEATER TO REMAIN AS-IS; THOROUGHLY INSPECT, MAINTAIN, AND VERIFY PROPER OPERATION.
2. REMOVE EXISTING 1-1/2" DOMESTIC COLD WATER SERVICE AND REMOVE ALL EXISTING COLD WATER PIPING WITHIN THE SPACE - TO BE REPLACED WITH NEW 2" DOMESTIC COLD WATER SERVICE AND PIPING. REFER TO NEW DOMESTIC WATER & GAS PLUMBING PLANS ON SHEETS P1.0 AND P1.1.
3. MAINTAIN EXISTING 2" GAS LINE RUNNING ALONG FIRST FLOOR CEILING SERVING THE ADJACENT GARAGE AREA. PROVIDE CONNECTION TO NEW GAS SERVICE UP FROM BASEMENT; REFER TO NEW DOMESTIC WATER & GAS PLUMBING PLANS ON SHEET P1.0.

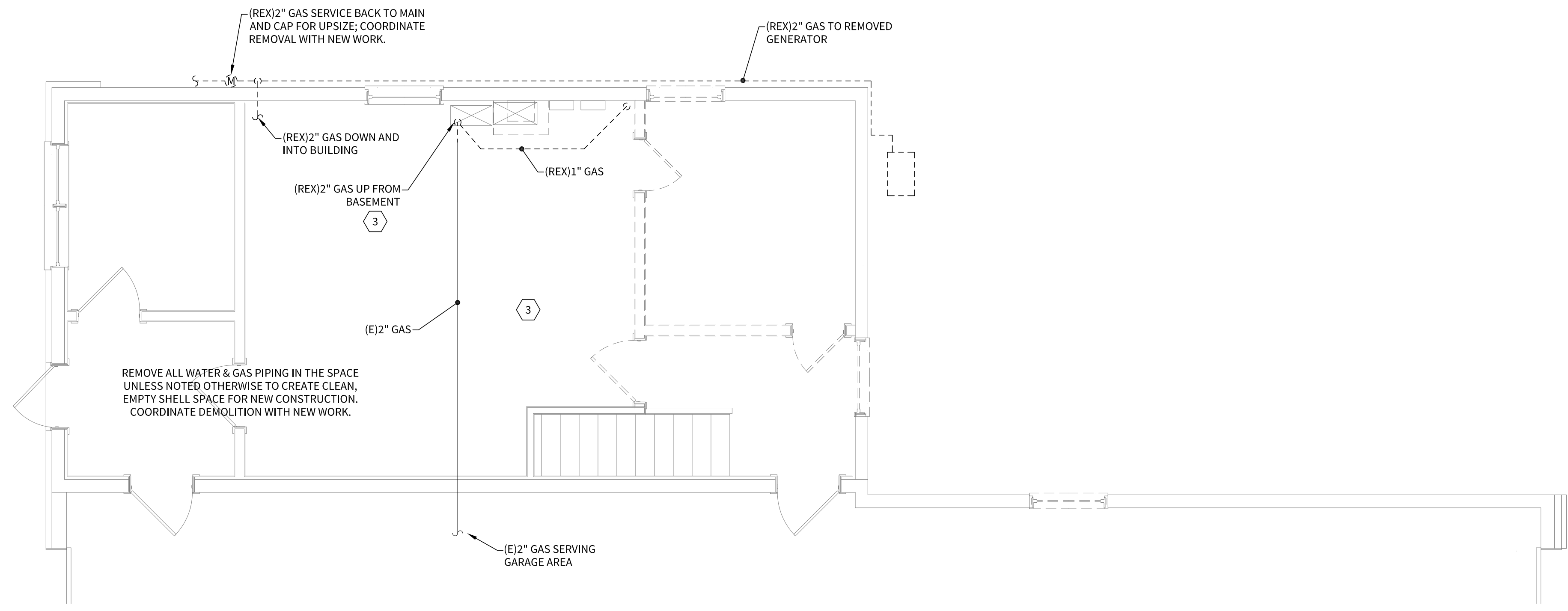
PLUMBING LEGEND

----- CW -----	COLD WATER
----- HW -----	HOT WATER
----- V -----	VENT
----- SAN -----	SANITARY SEWER
----- SAN -----	SANITARY SEWER (BELOW FLOOR)
----- G -----	GAS
⋈	VALVE
Ⓜ	WATER METER
FD	FLOOR DRAIN
WC	WATER CLOSET
LAV	LAVATORY
MS	MOP SINK
CO	CLEANOUT
WH	WATER HEATER
VTR	VENT THROUGH ROOF
AFF	ABOVE FINISHED FLOOR
(E)	EXISTING TO REMAIN
(R)	RELOCATE
REX	REMOVE EXISTING
CTE	CONNECT TO EXISTING



**BASEMENT
 PLUMBING DEMOLITION PLAN** 1
 SCALE: 1/4" = 1'-0" PD1.0

NORTH



**FIRST FLOOR
 PLUMBING DEMOLITION PLAN** 2
 SCALE: 1/4" = 1'-0" PD1.0

NORTH

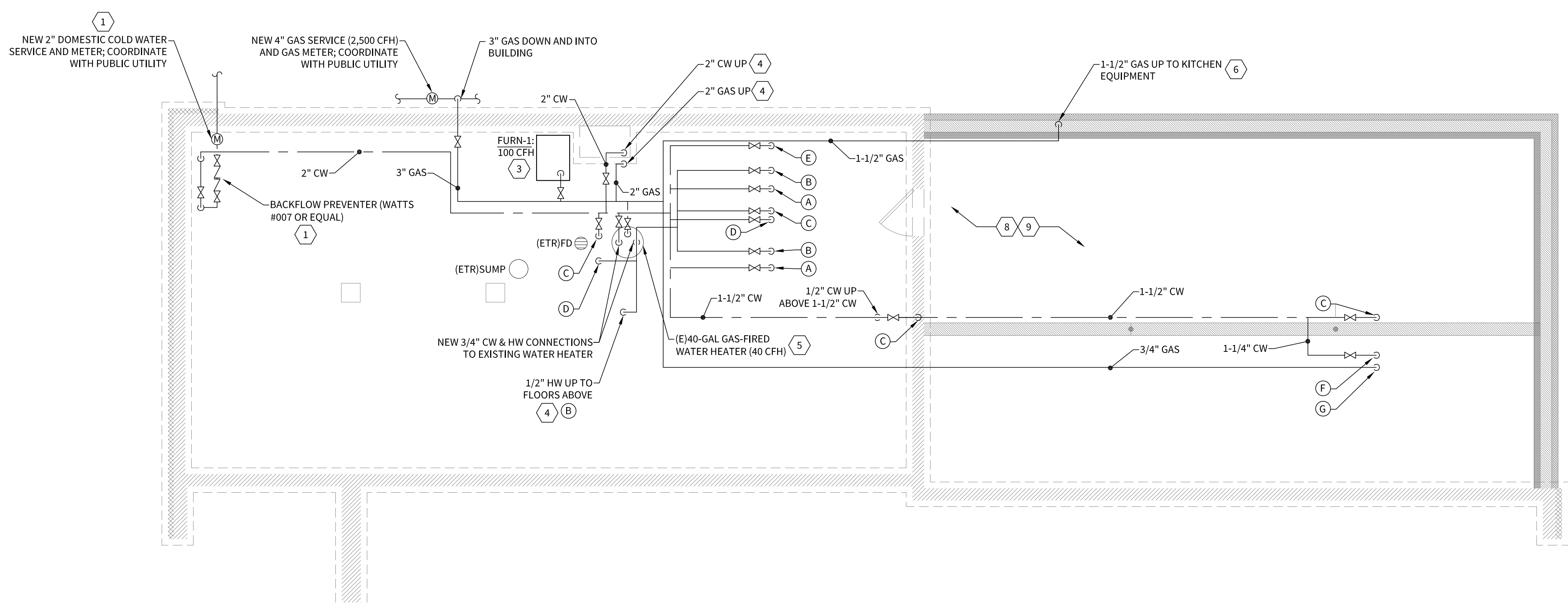


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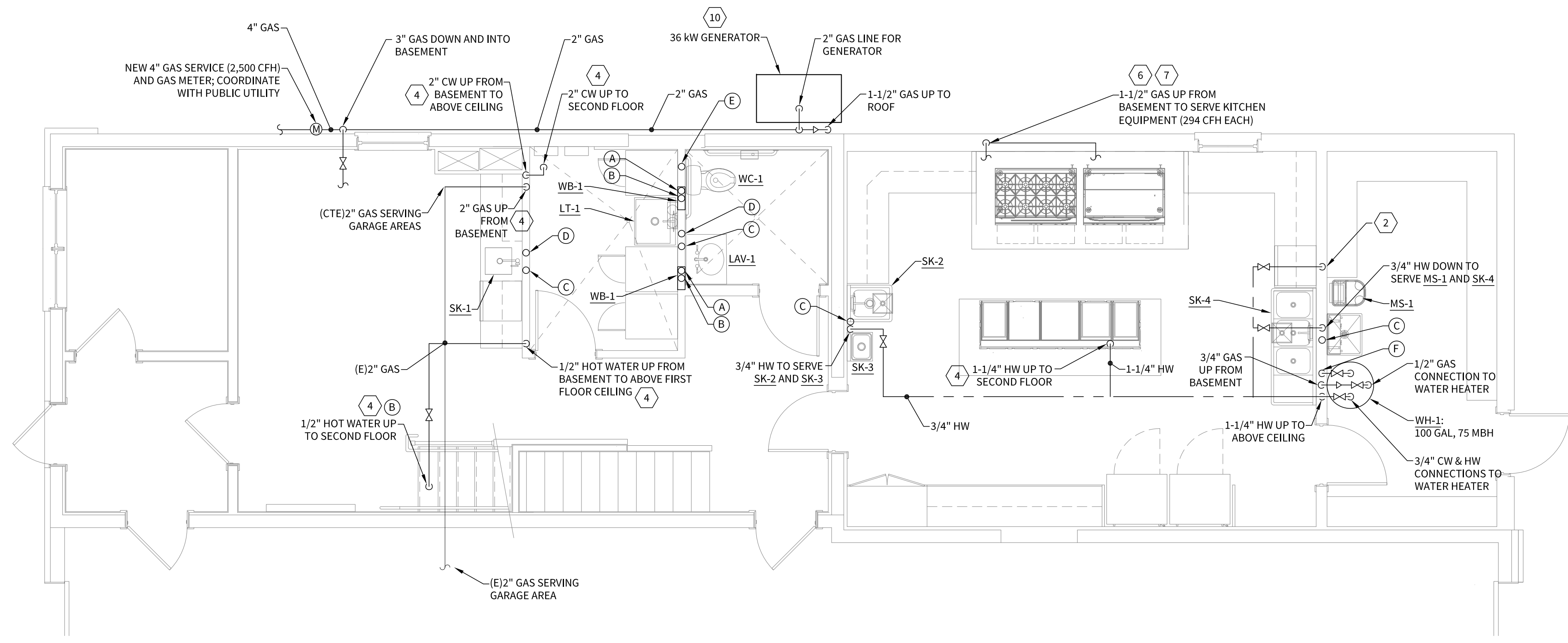


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BASEMENT DOMESTIC WATER & GAS PLAN 1
 SCALE: 1/4" = 1'-0" P1.0



FIRST FLOOR DOMESTIC WATER & GAS PLAN 2
 SCALE: 1/4" = 1'-0" P1.0

GENERAL PLUMBING NOTES:

- A. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON SHEET P2.0 FOR COLD WATER, HOT WATER, SANITARY, AND VENT CONNECTIONS SIZES FOR ALL NEW PLUMBING FIXTURES/EQUIPMENT.
- B. PROVIDE ALL NEW LAVATORIES LAV-1 WITH THERMOSTATIC MIXING VALVE TMV-1.

BASEMENT AND FIRST FLOOR DOMESTIC WATER & GAS CODED NOTES:

- 1. REFER TO DOMESTIC WATER SERVICE DIAGRAM ON SHEET P3.0. INSTALL IN SIMILAR FASHION TO PREVIOUS WATER SERVICE.
- 2. PROVIDE 1/2" HOT WATER LINE FOR UNDERCOUNTER DISHWASHER. PROVIDE WITH DISHWASHER AIR GAP 'PROFLO' #PFGAPCP.
- 3. PROVIDE 1/2" GAS LINE WITH SHUT-OFF VALVE FOR NEW FURNACE FURN-1; REFER TO MECHANICAL PLANS FOR FURNACE INFORMATION AND SCHEDULE.
- 4. COORDINATE EXACT ROUTE AND LOCATIONS OF FLOOR PENETRATIONS FOR COLD WATER, HOT WATER, OR GAS UP FROM BASEMENT (AND/OR UP TO SECOND FLOOR IF APPLICABLE) WITH STRUCTURE AND NEW WALL LOCATIONS - TYPICAL.
- 5. PROVIDE NEW 3/4" COLD WATER & HOT WATER CONNECTIONS AND NEW 1/2" GAS CONNECTION TO EXISTING 40-GALLON WATER HEATER. MAINTAIN EXISTING VENT PIPING AND REWORK AS REQUIRED.
- 6. COORDINATE EXACT GAS PIPING ROUTE UP THROUGH FLOOR TO KITCHEN EQUIPMENT WITH EQUIPMENT LOCATION AND STRUCTURE PRIOR TO ROUGH-IN.
- 7. PROVIDE EMERGENCY GAS SHUT-OFF VALVE INTERLOCKED WITH HOOD FIRE SUPPRESSION SYSTEM. COORDINATE REQUIREMENTS WITH HOOD MANUFACTURER - REFER TO MECHANICAL PLANS FOR KITCHEN HOOD SCHEDULE.
- 8. VERIFY EXACT LOCATIONS OF ALL FLOOR PENETRATIONS FOR COLD & HOT WATER SERVING FIXTURES ON FLOORS ABOVE; COORDINATE WITH EXACT FIXTURE LOCATIONS - TYPICAL.
- 9. PROVIDE HEAT TRACE ON ALL DOMESTIC COLD, DOMESTIC HOT, GAS, AND SANITARY PIPING LOCATED WITHIN THE UNCONDITIONED CRAWL SPACE TO PREVENT FREEZING. REFER TO NOTES 17, 18, 19, AND 20 IN THE 'PLUMBING SPECIFICATIONS' ON P2.0 FOR ADDITIONAL INFORMATION, MODEL NUMBERS, ASSUMED LENGTHS, AND ELECTRICAL REQUIREMENTS.
- 10. REFER TO ELECTRICAL PLANS FOR GENERATOR INFORMATION. COORDINATE EXACT GAS REQUIREMENTS WITH EQUIPMENT VENDOR.

PLUMBING PIPE NOTES:

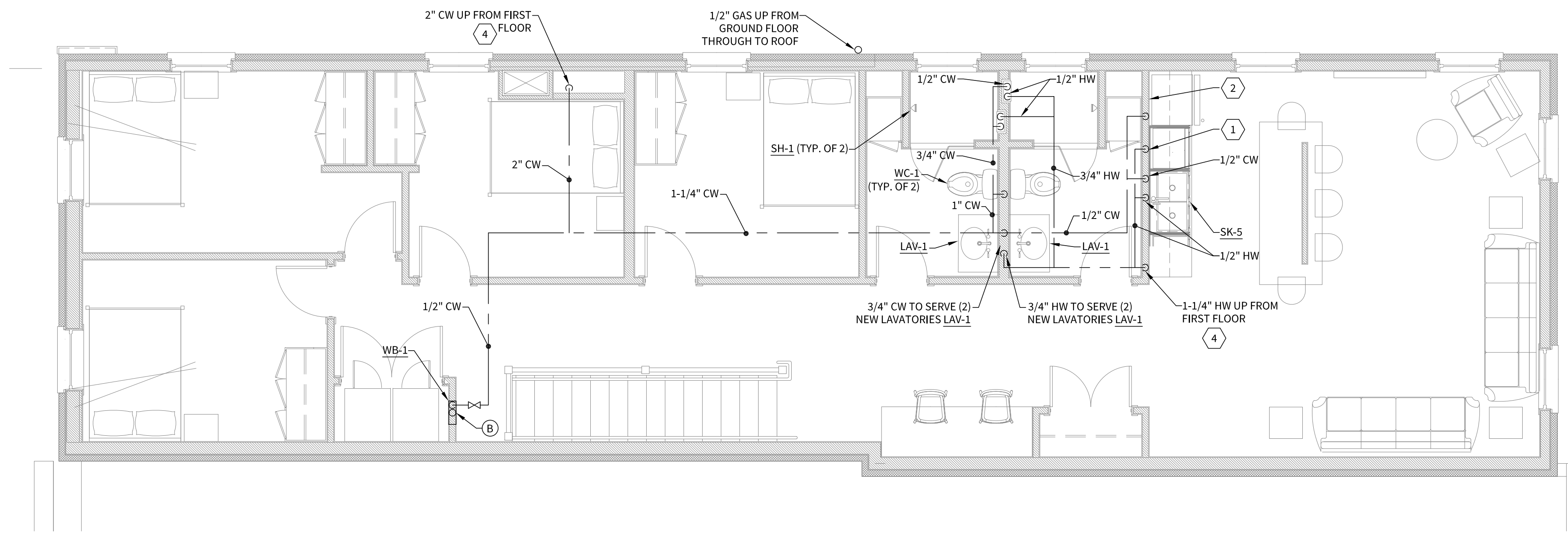
- A. 1/2" COLD WATER UP TO WASHER BOX
- B. 1/2" HOT WATER UP TO WASHER BOX
- C. 1/2" COLD WATER UP TO SINK(S)/LAVATORY(S)/MOP SINK
- D. 1/2" HOT WATER UP TO SINK(S)/LAVATORY(S)/MOP SINK
- E. 1/2" COLD WATER UP TO WATER CLOSET
- F. 1-1/4" COLD WATER UP TO WATER HEATER
- G. 3/4" GAS UP TO WATER HEATER

PLUMBING LEGEND

---	CW	COLD WATER
---	HW	HOT WATER
---	V	VENT
---	SAN	SANITARY SEWER
---	SAN	SANITARY SEWER (BELOW FLOOR)
---	G	GAS
---		VALVE
(M)		WATER METER
FD		FLOOR DRAIN
WC		WATER CLOSET
LAV		LAVATORY
MS		MOP SINK
CO		CLEANOUT
WH		WATER HEATER
VTR		VENT THROUGH ROOF
AF		ABOVE FINISHED FLOOR
(E)		EXISTING TO REMAIN
(R)		RELOCATE
REX		REMOVE EXISTING
CTE		CONNECT TO EXISTING

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SECOND FLOOR DOMESTIC WATER & GAS PLAN 1
 SCALE: 1/4" = 1'-0" P1.1 NORTH

GENERAL PLUMBING NOTES:

- A. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON SHEET P2.0 FOR COLD WATER, HOT WATER, SANITARY, AND VENT CONNECTIONS SIZES FOR ALL NEW PLUMBING FIXTURES/EQUIPMENT.
- B. PROVIDE ALL NEW LAVATORIES LAV-1 WITH THERMOSTATIC MIXING VALVE TMV-1.

SECOND FLOOR AND ROOF DOMESTIC WATER & GAS CODED NOTES:

- 1. PROVIDE 1/2" HOT WATER LINE AND 1" DRAIN CONNECTION AT TAILPIECE OF SINK SK-5 FOR UNDER-COUNTER DISHWASHER. PROVIDE WITH DISHWASHER AIR GAP 'PROFLO' #PFGAPCP OR EQUAL IN COUNTER.
- 2. PROVIDE 3/8" DOMESTIC COLD WATER WITH SHUT-OFF VALVE AND POINT-OF-USE BACKFLOW PREVENTER (WATTS #SD-3 OR EQUAL) FOR REFRIGERATOR AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT VENDOR.
- 3. PROVIDE 1/2" GAS CONNECTION TO ROOFTOP UNIT RTU-1. REFER TO MECHANICAL PLANS FOR ROOFTOP UNIT INFORMATION AND SCHEDULE.
- 4. COORDINATE EXACT ROUTE AND LOCATIONS OF FLOOR PENETRATIONS FOR COLD WATER OR HOT WATER UP FROM BASEMENT (AND UP TO SECOND FLOOR IF APPLICABLE) WITH STRUCTURE AND WALL LOCATIONS - TYPICAL.
- 5. REFER TO MECHANICAL PLANS FOR DEDICATED OUTDOOR AIR SYSTEM DOAS-1 SCHEDULE AND NOTES.



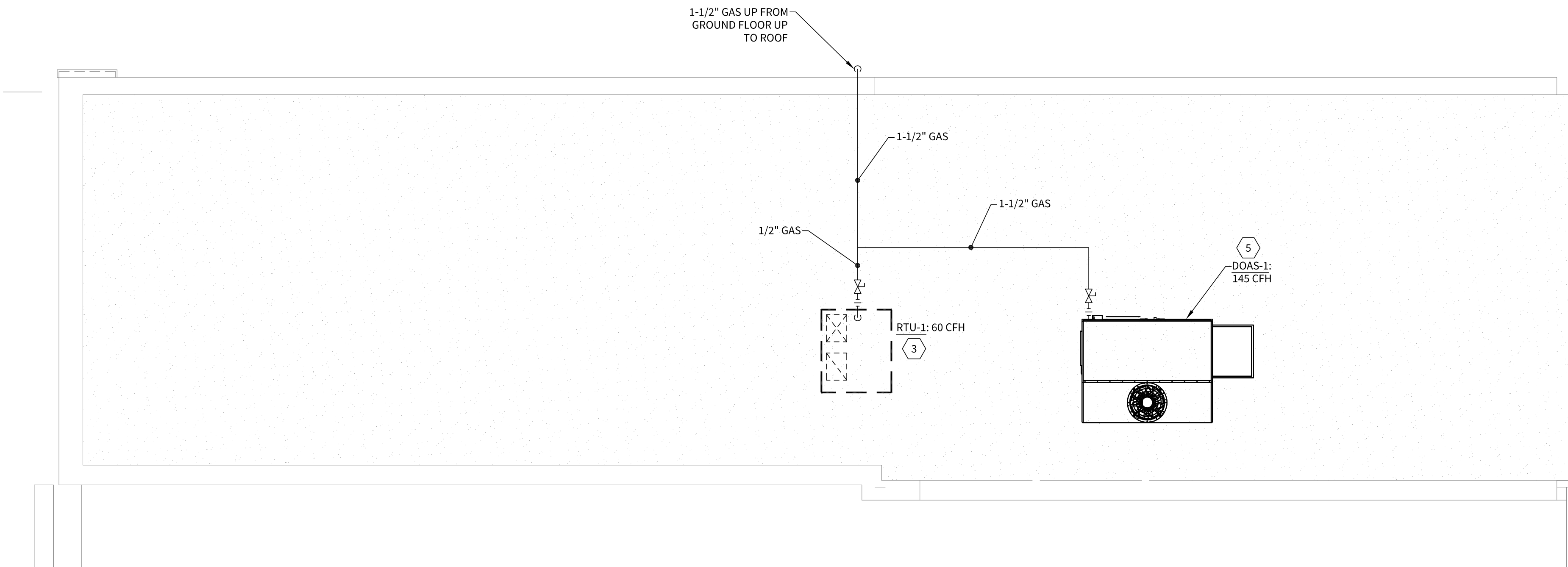
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PLUMBING PIPE NOTES:

- A. 1/2" COLD WATER UP TO WASHER BOX
- B. 1/2" HOT WATER UP TO WASHER BOX
- C. 1/2" COLD WATER UP TO SINK(S)/LAVATORY(S)/MOP SINK
- D. 1/2" HOT WATER UP TO SINK(S)/LAVATORY(S)/MOP SINK
- E. 1/2" COLD WATER UP TO WATER CLOSET
- F. 1-1/4" COLD WATER UP TO WATER HEATER
- G. 3/4" GAS UP TO WATER HEATER

PLUMBING LEGEND

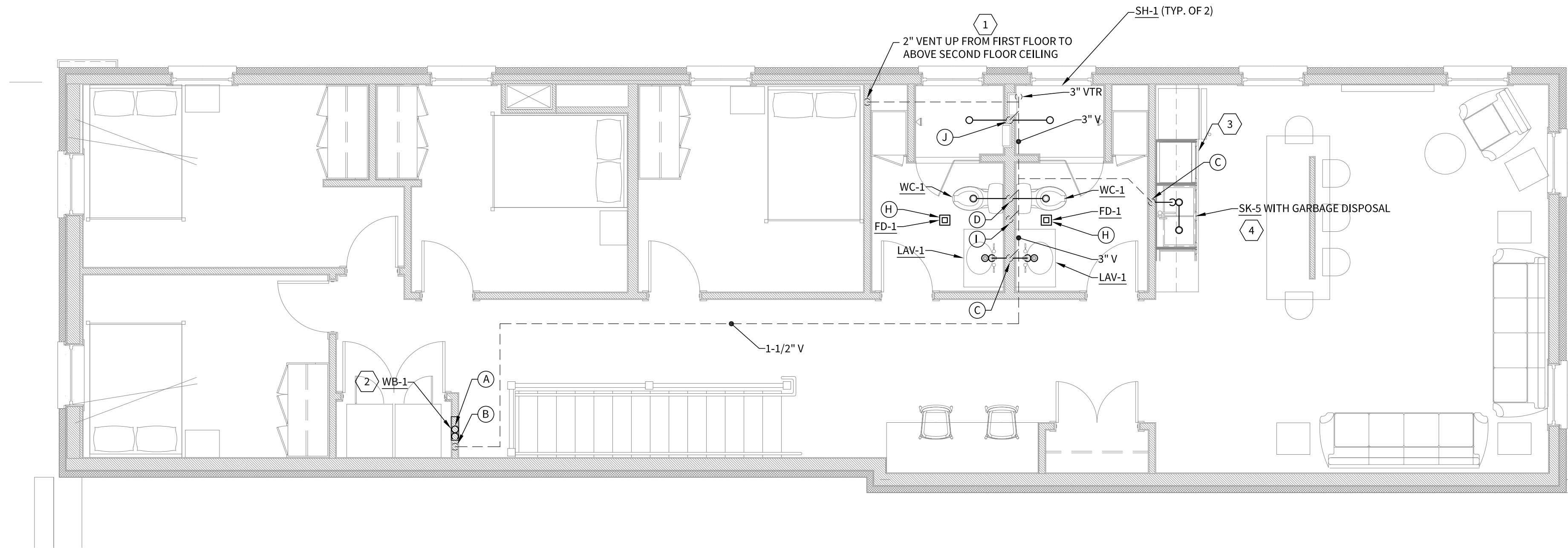
----	CW	COLD WATER
----	HW	HOT WATER
- - - -	V	VENT
----	SAN	SANITARY SEWER
- - - -	SAN	SANITARY SEWER (BELOW FLOOR)
----	G	GAS
⌵		VALVE
(M)		WATER METER
FD		FLOOR DRAIN
WC		WATER CLOSET
LAV		LAVATORY
MS		MOP SINK
CO		CLEANOUT
WH		WATER HEATER
VTR		VENT THROUGH ROOF
AFF		ABOVE FINISHED FLOOR
(E)		EXISTING TO REMAIN
(R)		RELOCATE
REX		REMOVE EXISTING
CTE		CONNECT TO EXISTING



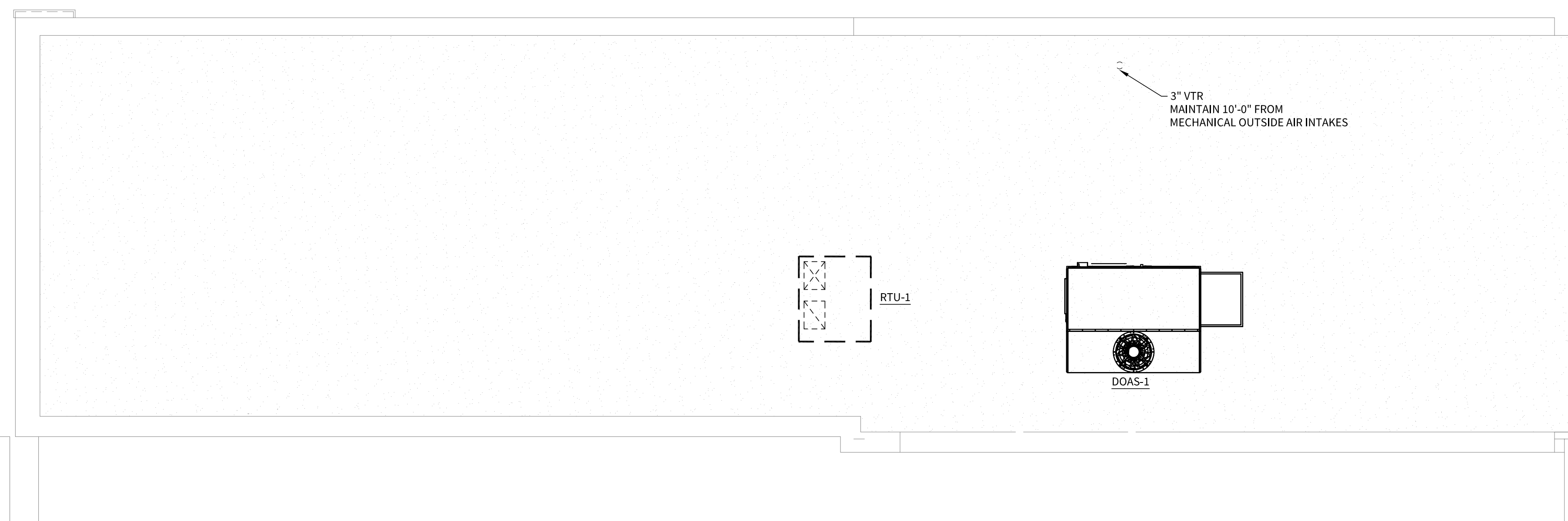
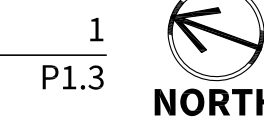
ROOF DOMESTIC WATER & GAS PLAN 2
 SCALE: 1/4" = 1'-0" P1.1 NORTH

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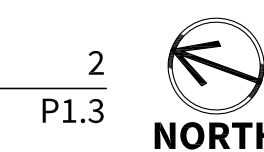
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**SECOND FLOOR
 SANITARY & VENT PLAN**
 SCALE: 1/4" = 1'-0"



**ROOF
 SANITARY & VENT PLAN**
 SCALE: 1/4" = 1'-0"



GENERAL PLUMBING NOTES:

- A. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON SHEET P2.0 FOR COLD WATER, HOT WATER, SANITARY, AND VENT CONNECTIONS SIZES FOR ALL NEW PLUMBING FIXTURES/EQUIPMENT.
- B. PROVIDE ALL NEW LAVATORIES LAV-1 WITH THERMOSTATIC MIXING VALVE TMV-1.

**SECOND FLOOR AND ROOF
 SANITARY & VENT CODED NOTES:**

- 1. COORDINATE EXACT ROUTE AND LOCATION OF CEILING/FLOOR PENETRATIONS FOR 3" VENT UP TO SECOND FLOOR - REFER TO SECOND FLOOR PLUMBING PLANS ON SHEET P1.1.
- 2. WASHER BOX WB-1 FOR CLOTHES WASHER. COORDINATE EXACT LOCATION WITH EQUIPMENT PRIOR TO ROUGH-IN. PROVIDE FLEX HOSE FOR FINAL CONNECTION TO COLD & HOT WATER AND MESH LINT TRAP AT END OF WASHER DRAIN HOSE.
- 3. PROVIDE 1/2" HOT WATER LINE AND DRAIN 1" CONNECTION AT TAILPIECE OF SINK SK-5 FOR UNDER-COUNTER DISHWASHER. PROVIDE WITH DISHWASHER AIR GAP PROFLO 'PFGAPCP' OR EQUAL IN COUNTER.
- 4. PROVIDE GARBAGE DISPOSAL UNDER COUNTER FOR SINK SK-5. ROUTE WASTE PIPING DOWN TO BASEMENT THROUGH SOLIDS INTERCEPTOR AND GREASE INTERCEPTOR AS INDICATED. REFER TO BASEMENT AND FIRST FLOOR SANITARY & VENT PLANS ON SHEET P1.2.

**SANITARY & VENT
 PLUMBING PIPE NOTES:**

- A. 2" SANITARY DOWN FROM WASHER BOX
- B. 1-1/2" VENT UP FROM WASHER BOX
- C. 2" SANITARY DOWN FROM SINK(S)/LAVATORY(S)
- D. 4" SANITARY DOWN FROM WATER CLOSET(S)
- E. 3" SANITARY DOWN FROM FLOOR SINK
- F. 1-1/2" VENT UP FROM FLOOR SINK
- G. 3" SANITARY DOWN FROM MOP-SINK/LAUNDRY TUB
- H. 2" SANITARY DOWN FROM FLOOR DRAIN
- I. 1-1/2" VENT UP FROM FLOOR DRAIN(S)
- J. 2" SANITARY DOWN FROM SHOWERS
- K. 2" VENT UP FROM FLOOR DRAIN & WASHER BOXES

PLUMBING LEGEND

---	CW	COLD WATER
---	HW	HOT WATER
---	V	VENT
---	SAN	SANITARY SEWER
---	SAN	SANITARY SEWER (BELOW FLOOR)
---	G	GAS
---		VALVE
(M)		WATER METER
FD		FLOOR DRAIN
WC		WATER CLOSET
LAV		LAVATORY
MS		MOP SINK
CO		CLEANOUT
WH		WATER HEATER
VTR		VENT THROUGH ROOF
AFF		ABOVE FINISHED FLOOR
(E)		EXISTING TO REMAIN
(R)		RELOCATE
REX		REMOVE EXISTING
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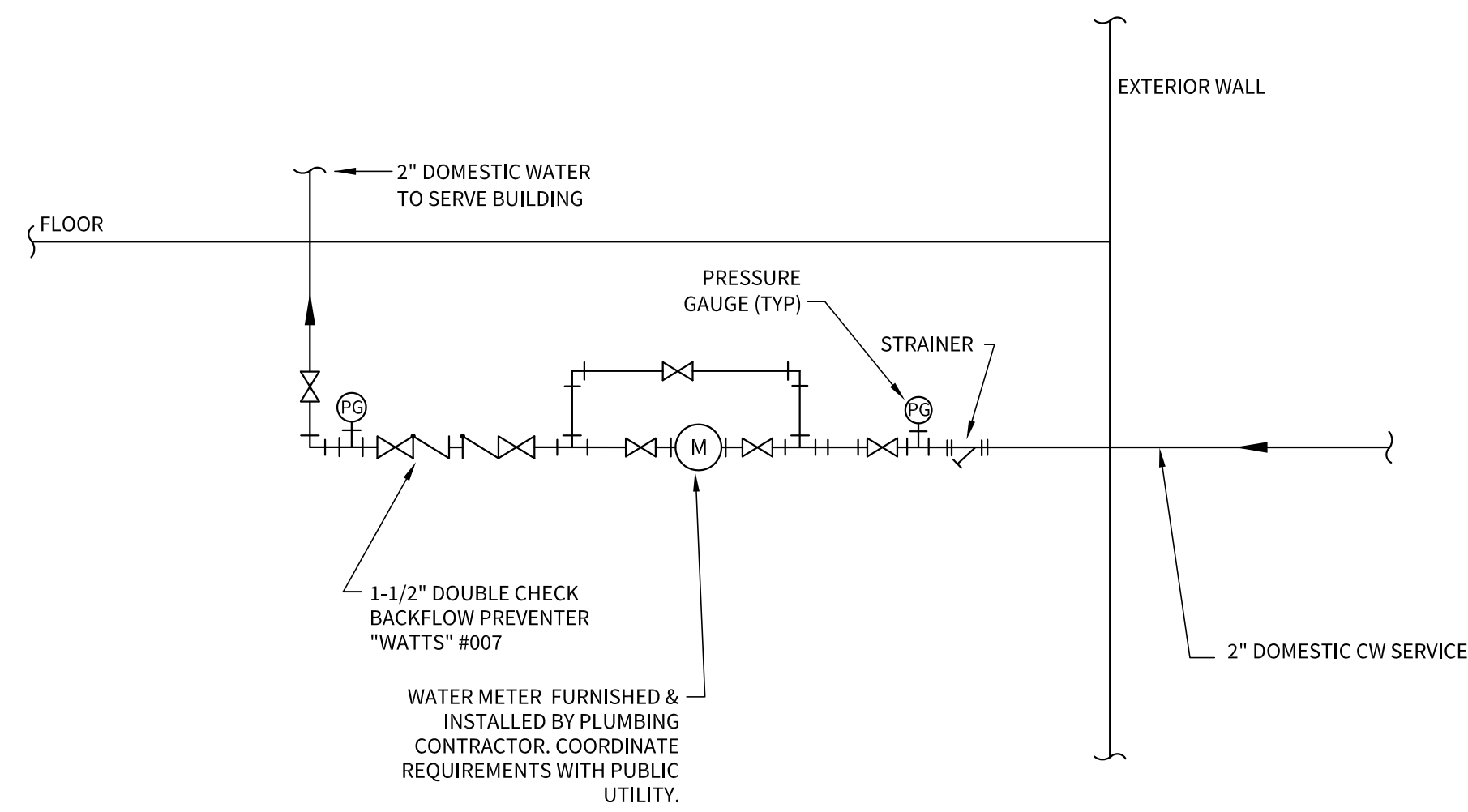
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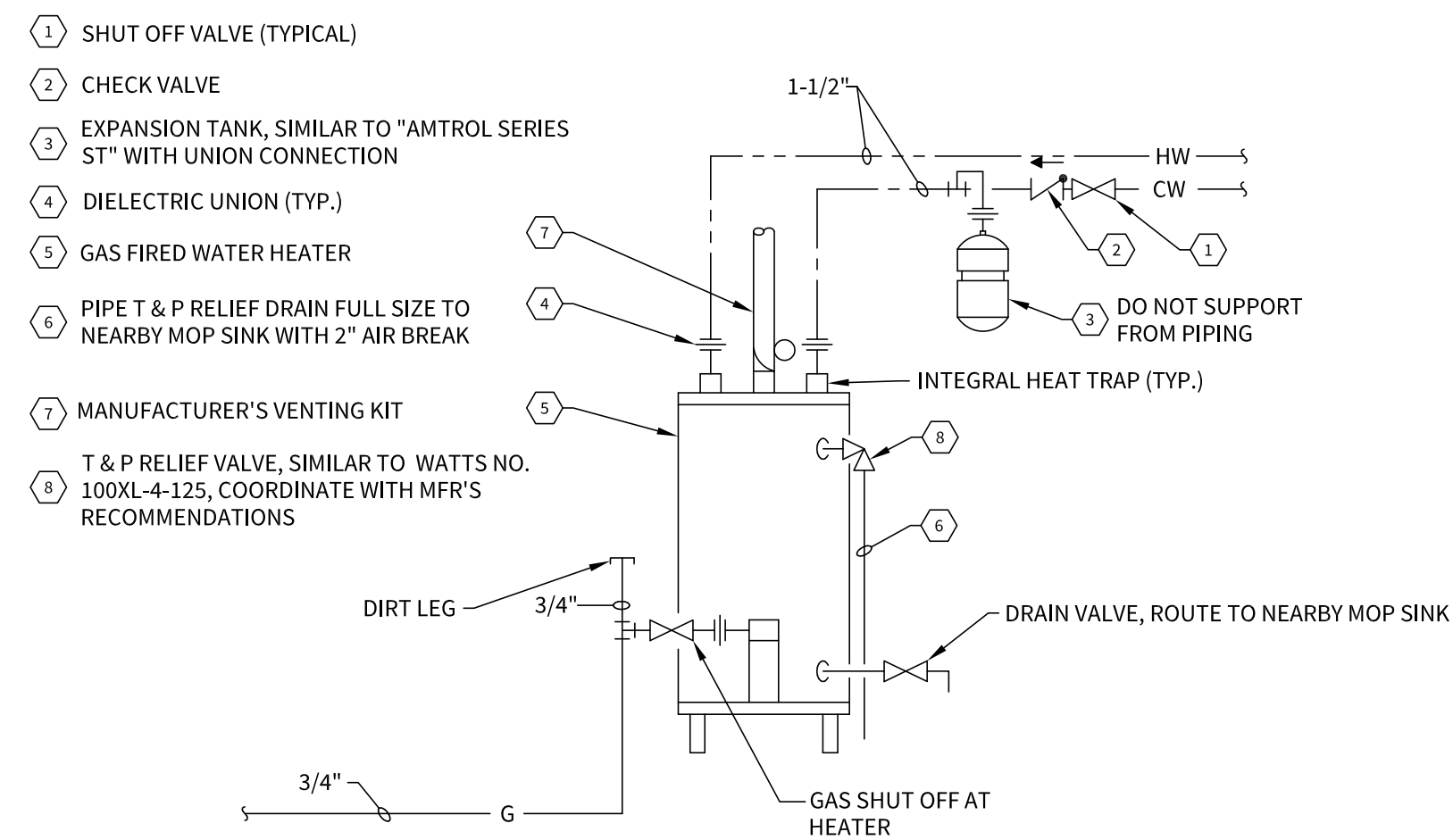
SECOND FLOOR AND ROOF
 SANITARY & VENT PLANS



DOMESTIC WATER SERVICE DIAGRAM

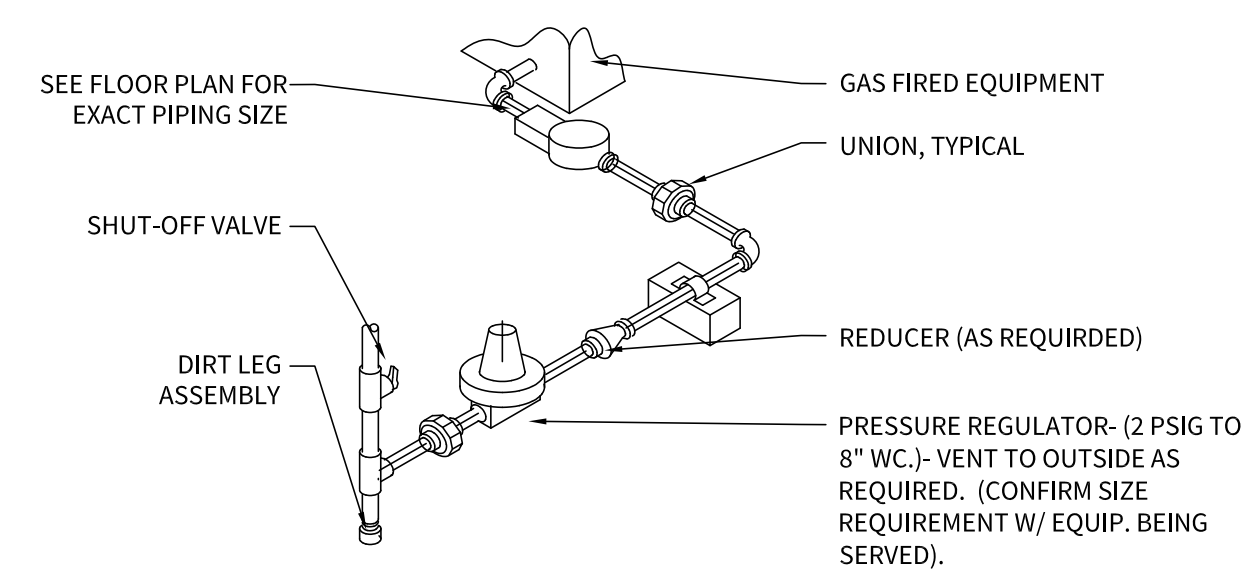
SCALE: NTS

- NOTES:
- COORDINATE EXACT METER LOCATION AND BACKFLOW PREVENTER SPECIFICATIONS WITH PUBLIC UTILITY.
 - ALL DRAIN PIPING SHALL BE ROUTED SO AS NOT TO INTERFERE WITH VALVE OPERATION.
 - ALL VALVES SHALL BE A MAX. OF 7'-0" A.F.F.



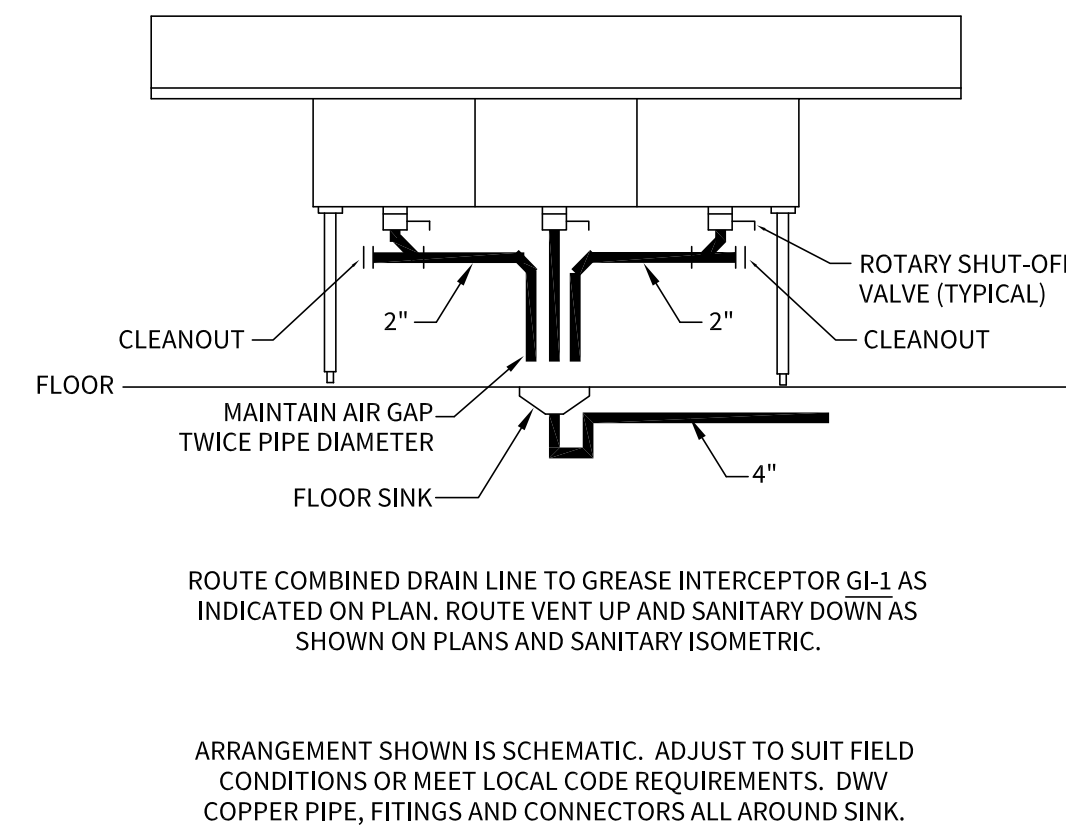
GAS-FIRED WATER HEATER DETAIL

SCALE: NTS



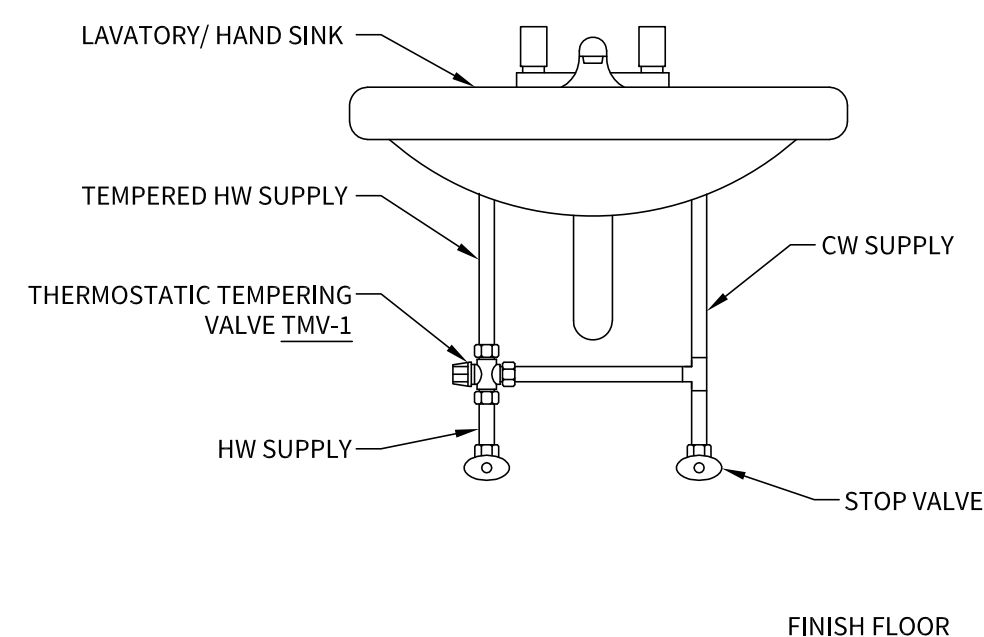
EQUIPMENT GAS PIPING DETAIL

SCALE: NTS



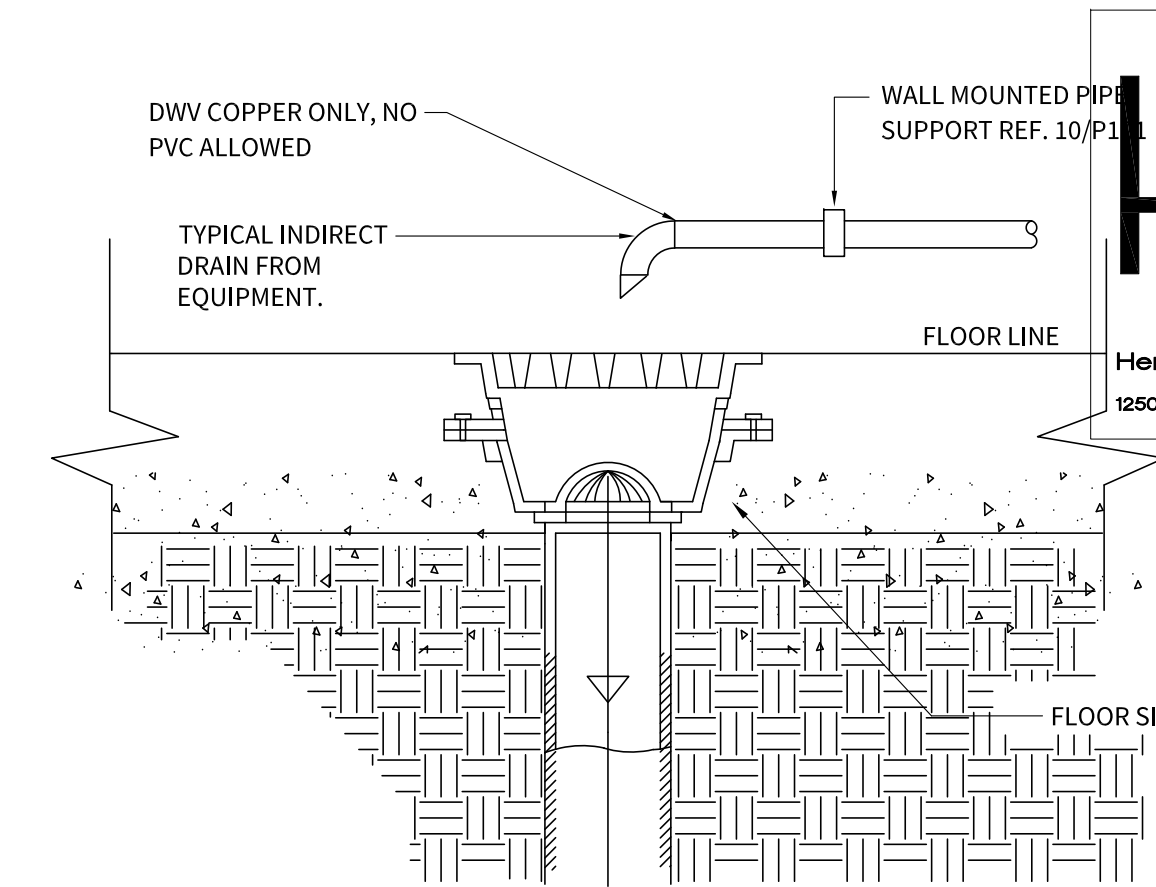
3-COMPARTMENT SINK DETAIL

SCALE: NTS



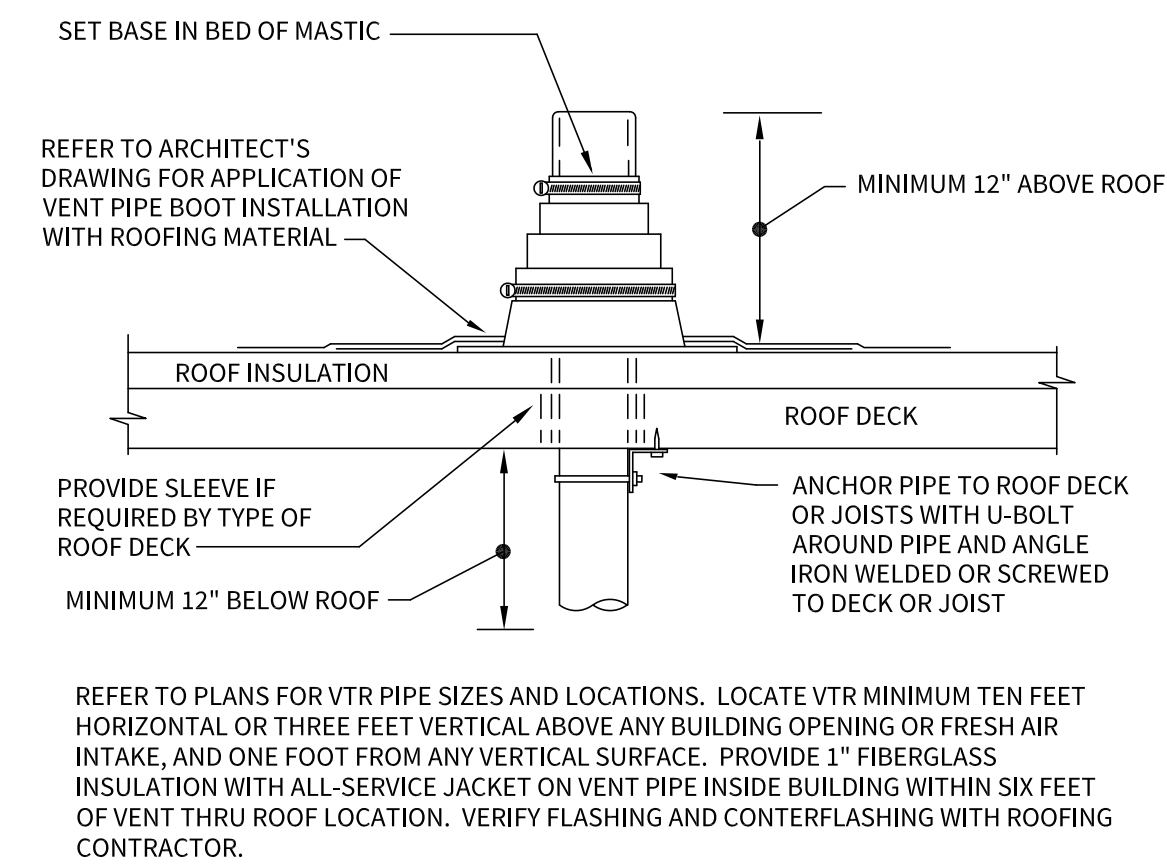
LAVATORY AND HAND SINK TEMPERING VALVE DETAIL

SCALE: NTS



FLOOR SINK DETAIL

SCALE: NTS



VENT THROUGH ROOF DETAIL

SCALE: NTS



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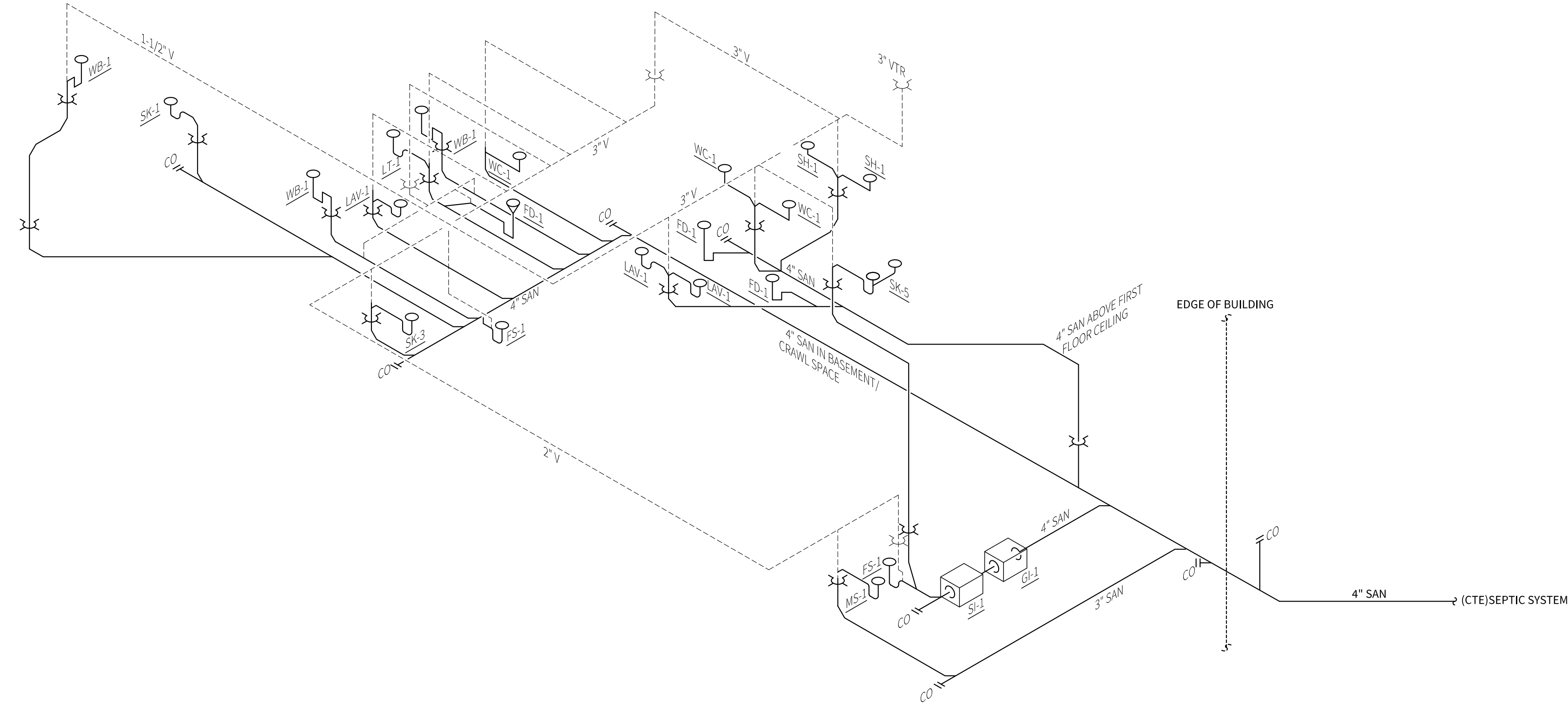
3130 EAST MAIN STREET
KINGSVILLE OHIO 44048

BID/PERMIT OCT 28 2024
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P
3.0
PLUMBING
DETAILS



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SANITARY ISOMETRIC
 SCALE: NTS

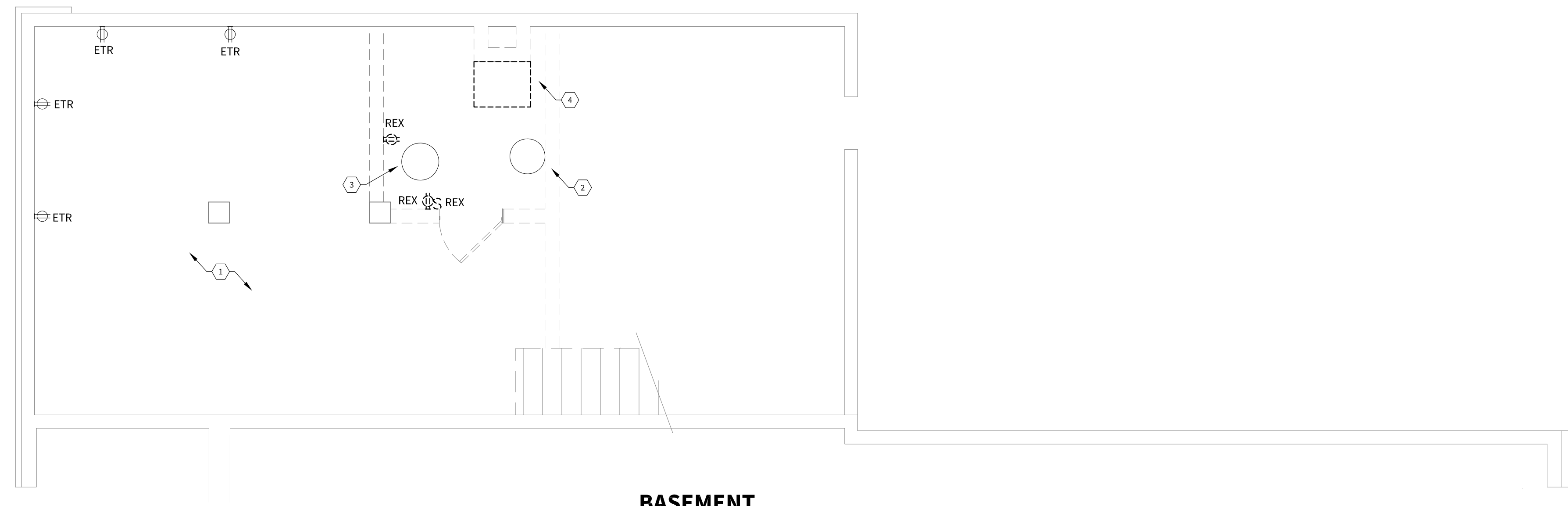
NOTE: REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE AND SANITARY AND VENT PLUMBING PLANS ON SHEETS P1.2 AND P1.3 FOR FIXTURE CONNECTION SIZES.

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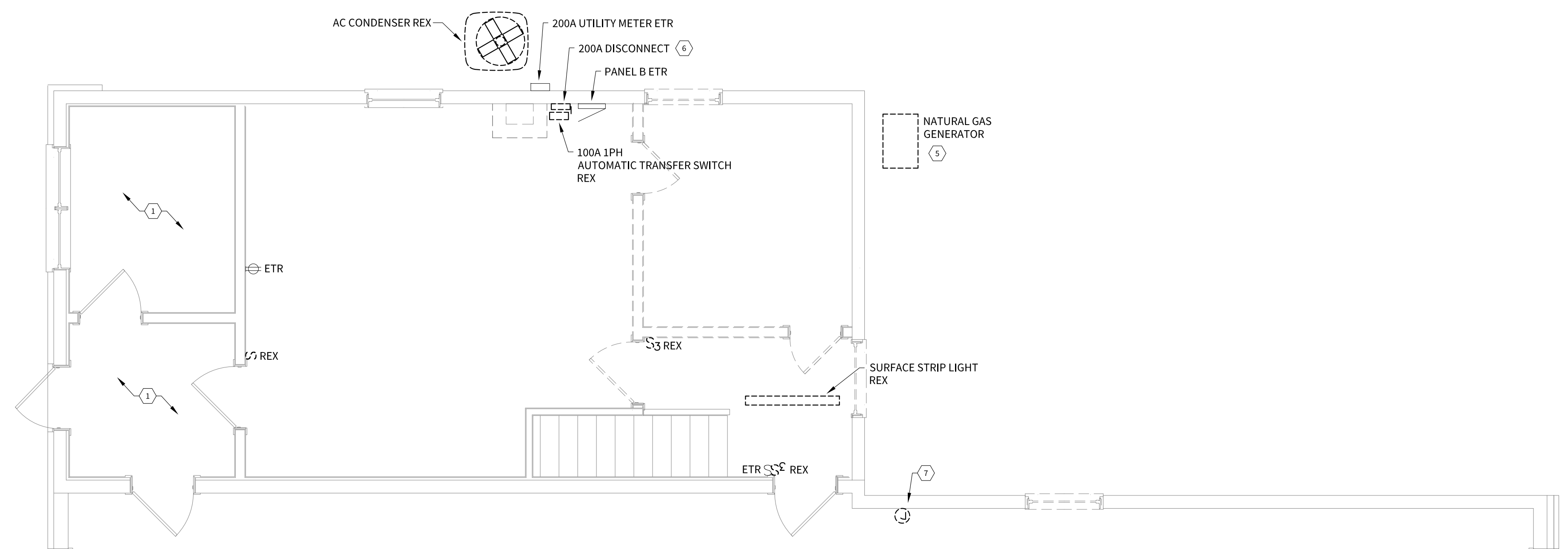
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CODED NOTES:

- ① THIS ROOM IS EXISTING TO REMAIN. PROTECT AND MAINTAIN ALL EXISTING CONNECTIONS AS REQUIRED.
- ② GAS WATER HEATER TO REMAIN. PROTECT AND MAINTAIN EXISTING ELECTRICAL CONNECTION AS REQUIRED.
- ③ EXISTING SUMP PUMP TO REMAIN. PROTECT AND MAINTAIN EXISTING CIRCUITING FOR EXTENSION TO NEW SURFACE MOUNTED RECEPTACLE INDICATED ON SHEET E1.0.
- ④ EXISTING FURNACE TO BE REMOVED AND REPLACED. MAINTAIN EXISTING CIRCUITING FOR EXTENSION TO REPLACEMENT UNIT.
- ⑤ EXISTING GENERATOR TO BE REMOVED. DISCONNECT AND REMOVE SERVICE WIRING BACK TO SOURCE. MAINTAIN EXISTING SURFACE MOUNTED SERVICE CONDUIT FOR REUSE.
- ⑥ 200A SERVICE DISCONNECT TO BE REMOVED. MAINTAIN EXISTING SERVICE WIRING FOR RECONNECTION TO NEW ELECTRICAL PANEL.
- ⑦ WALL MOUNTED EXHAUST FAN TO BE RELOCATED TO FIREHOUSE ROOF IN EXISTING LOCATION. EXTEND CIRCUITING TO NEW LOCATION AS REQUIRED.



BASEMENT DEMOLITION PLAN
 SCALE: 1/4" = 1'-0" 1 ED1.0



FIRST FLOOR DEMOLITION PLAN
 SCALE: 1/4" = 1'-0" 1 ED1.0



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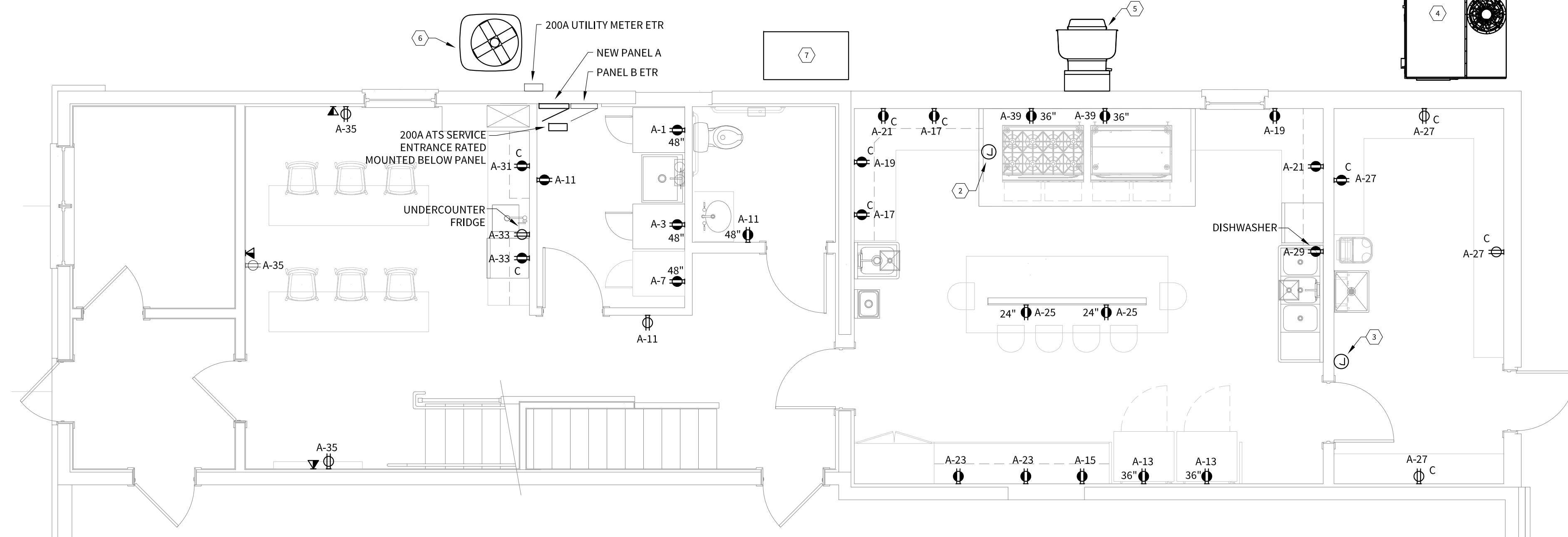
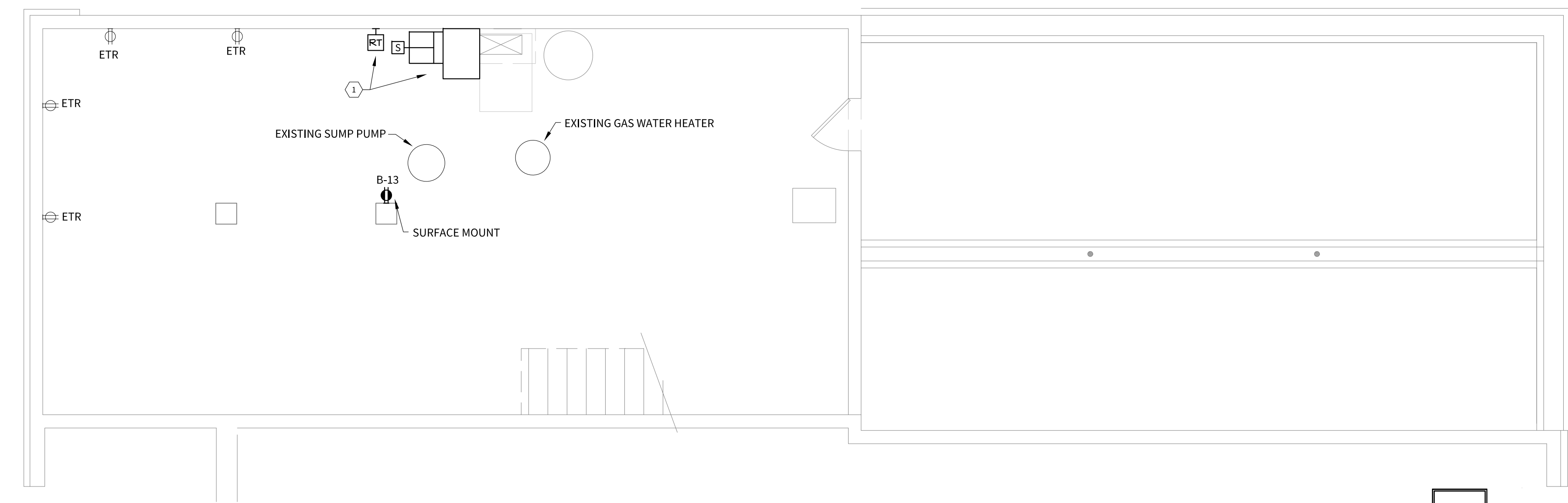
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**ED
 1.0**

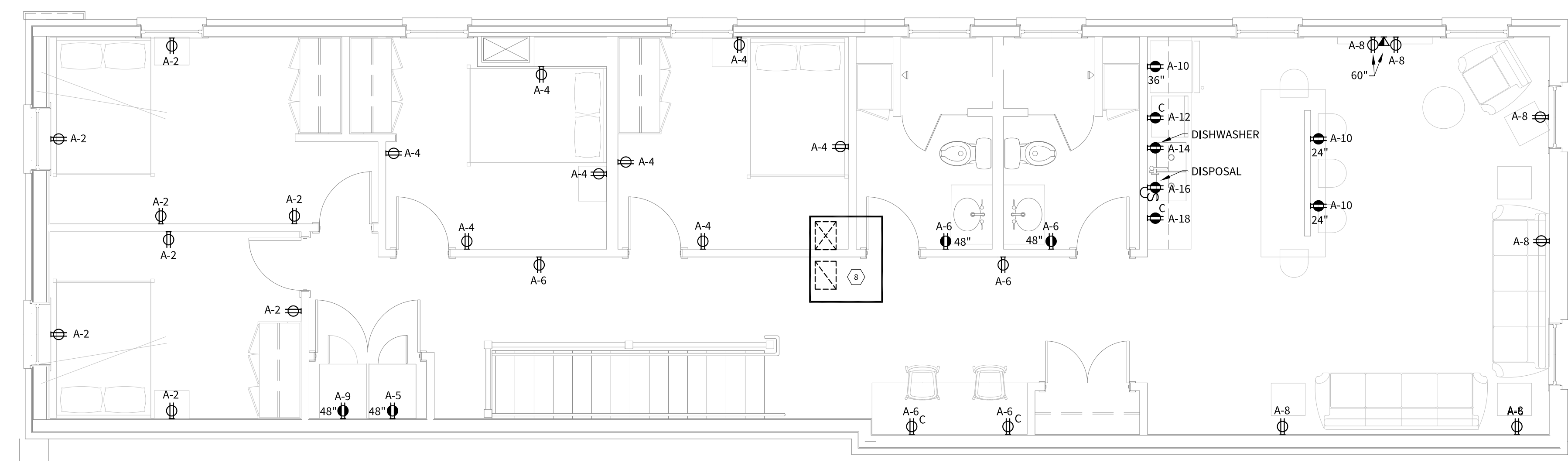
ELECTRICAL DEMOLITION PLANS

CODED NOTES:

- ① FURN-1: 120V, GAS FURNACE, EXTEND EXISTING FURNACE CIRCUITING TO NEW FURNACE LOCATION INDICATED. PROVIDE REMOTE TEST STATION FOR DUCT SMOKE DETECTOR AS REQUIRED.
- ② JUNCTION BOX FOR HOOD LIGHTS/CONTROL. CONNECT TO SHUNT TRIP CIRCUIT A-39. FIELD COORDINATE EXACT MOUNTING LOCATION WITH HOOD SHOP DRAWINGS PRIOR TO ROUGH IN.
- ③ WH-1: GAS WATER HEATER CONNECT TO STORAGE ROOM GENERAL RECEPTACLE CIRCUIT A-27 AS REQUIRED.
- ④ DOAS-1: 208V 3PH, 25.5MCA, 30A MOCPS, UNIT PROVIDED WITH NON-POWERED RECEPTACLE. PROVIDE WEATHERPROOF DISCONNECT AND WIRE WITH 3#10 + 1#10GND IN 3/4" C TO A-38,40,42. CONNECT RECEPTACLE TO EXISTING EXTERIOR RECEPTACLE CIRCUIT B-17.
- ⑤ KEF-1: 208V 3PH, 6.6FLA, PROVIDE WEATHERPROOF DISCONNECT AND WIRE WITH 3#12 + 1#12GND IN 3/4" C TO A-32,34,36.
- ⑥ CU-1: 208V 1PH, 35MCA, 60A MOCPS, PROVIDE WEATHERPROOF DISCONNECT AND WIRE WITH 2#6 + 1#10GND IN 1" C TO A-24,26.
- ⑦ NEW 32KW NATURAL GAS GENERATOR 100A MCB. MOUNT ON CONCRETE PAD PER GENERATOR MANUFACTURER SPECIFICATIONS. WIRE WITH 4#3 AND 1#8 GND IN 1-1/4" C TO NEW AUTOMATIC TRANSFER SWITCH.
- ⑧ RTU-1(OH ROOF): 208V 1PH, 19.5MCA, 30A MOCPS. UNIT PROVIDED WITH DISCONNECT AND POWERED CONVENIENCE RECEPTACLE. WIRE WITH 2#10 + 1#10 GND IN 3/4" C TO CIRCUIT B-25,27.



**FIRST FLOOR
POWER AND DATA PLAN**
SCALE: 1/4" = 1'-0" 1
E1.0



**SECOND FLOOR
POWER AND DATA PLAN**
SCALE: 1/4" = 1'-0" 2
E1.0



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**E
1.0**

POWER AND DATA PLANS

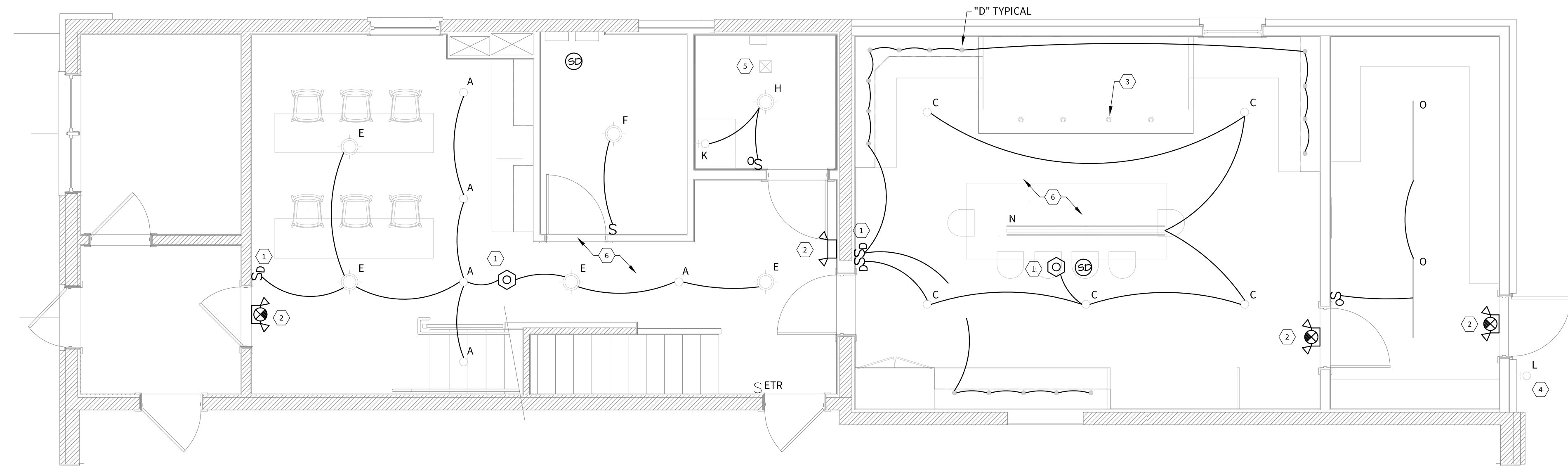


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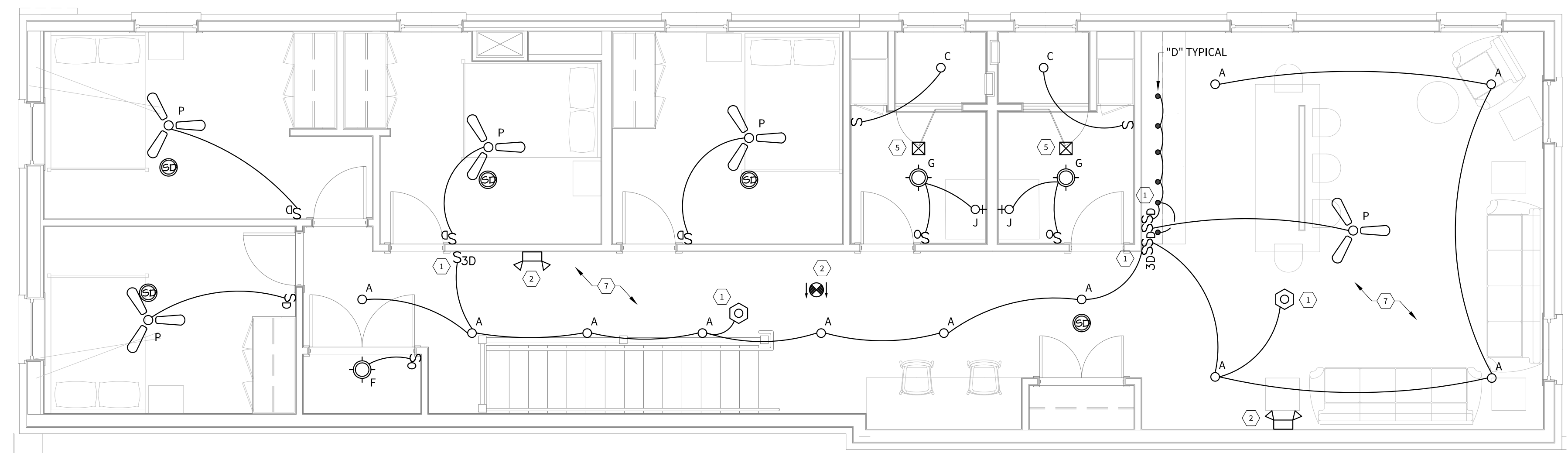
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CODED NOTES:

- ① WIRE OCCUPANCY SENSOR AHEAD OF LOCAL DIMMER(S) INDICATED.
- ② CONNECT TO AREA LIGHTING CIRCUIT AHEAD OF LOCAL SWITCHING.
- ③ UNDER HOOD LIGHTING PROVIDED AND POWERED WITH HOOD. TYPICAL.
- ④ CONNECT TO EXISTING EXTERIOR LIGHTING CIRCUIT AND CONTROL WITH EXISTING TIMECLOCK.
- ⑤ EXHAUST FAN: 120V, CIRCUIT AND CONTROL WITH RESTROOM LIGHTING.
- ⑥ ALL NEW FIRST FLOOR LIGHTING TO BE CIRCUITED TO B-6.
- ⑦ ALL NEW SECOND FLOOR LIGHTING TO BE CIRCUITED TO B-8.



FIRST FLOOR LIGHTING PLAN
 SCALE: 1/4" = 1'-0" 1 E2.0



SECOND FLOOR LIGHTING PLAN
 SCALE: 1/4" = 1'-0" 2 E2.0

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E
2.0

SERVICE: 120/208V 1 Ø 3W BUS: 225A
MOUNTING: SURFACE MAIN: 100A
LOCATION: 1ST FLR LAUNDRY A/C: EXISTING

PANEL: B (ETR)

LOAD	WATTAGE			BKR	CKT NO	P	AMP	P	WATTAGE	LOAD
	Ø A	Ø B	Ø C							
SPARE	-	-	-	20	1	1	-	-	200	PANEL RECEPTACLE
APPARATUS ROOM	600	-	-	20	1	3	-	-	600	APPARATUS ROOM
APPARATUS ROOM	600	-	-	20	1	5	-	-	617	KITCHEN, RESTROOM, MEETING RM LTS
DRYER + TRAILER RM DOOR OPENER	1800	-	-	20	1	7	-	-	901	2ND FLOOR LIGHTS
WASHER + TRAILER RM LIGHTS	1200	-	-	20	1	9	-	-	500	FURN-L
RECEPTACLE IN APPARATUS ROOM	600	-	-	20	1	11	-	-	100	EXISTING TIMECLOCK
EXISTING SUMP PUMP	700	-	-	20	1	13	-	-	300	EXISTING BASEMENT LIGHTS
EXISTING BASEMENT RECEPTACLES	800	-	-	20	1	15	-	-	-	SPARE
EXTERIOR RECEPTACLES	600	-	-	20	1	17	-	-	840	EAST FRONT OVERHEAD DOOR
WATCH ROOM RECEPTACLES	600	-	-	20	1	19	-	-	600	APPARATUS ROOM HEATER
EXISTING EM LIGHTING	100	-	-	20	1	21	-	-	-	SPARE
SPARE	-	-	-	20	1	23	-	-	-	SPARE
RTU-1	2000	-	-	30	2	25	-	-	-	SPARE
RECEPT CENTER BAY + NORTH HEATER	600	-	-	20	1	29	-	-	2000	PANEL C
SPACE	-	-	-	31	-	-	-	-	2000	SPACE
SPACE	-	-	-	33	-	-	-	-	-	SPACE
SPACE	-	-	-	34	-	-	-	-	-	SPACE
SPACE	-	-	-	35	-	-	-	-	-	SPACE
SPACE	-	-	-	36	-	-	-	-	-	SPACE
SPACE	-	-	-	37	-	-	-	-	-	SPACE
SPACE	-	-	-	38	-	-	-	-	-	SPACE
SPACE	-	-	-	39	-	-	-	-	-	SPACE
SPACE	-	-	-	40	100	2	-	-	-	MAIN BREAKER
SPACE	-	-	-	41	-	-	-	-	-	SPACE
SPACE	-	-	-	42	-	-	-	-	-	SPACE

WATTS: Ø A: 8457 AMPS: 77.2A NOTES: EXISTING PANEL, RE-USE EXISTING CB'S
Ø B: 8601 FEEDER: SEE RISER TO THE EXTENT POSSIBLE, PROVIDE
TOTAL: 16058 FED FROM: SEE RISER NEW CB'S AS REQUIRED.

SERVICE: 120/208V 3 Ø 4W BUS: 200A
MOUNTING: SURFACE MAIN: 200A MCB
LOCATION: 1ST FLR LAUNDRY A/C: 10000

PANEL: A

LOAD	WATTAGE			BKR	CKT NO	P	AMP	P	WATTAGE	LOAD
	Ø A	Ø B	Ø C							
1ST FLOOR WASHING MACHINE	1200	-	-	20	1	1	-	-	1440	BEDROOM 1 + 2 RECEPTACLES (AFCI)
1ST FLOOR WASHING MACHINE	1200	-	-	20	1	3	-	-	1440	BEDROOM 3 + 4 RECEPTACLES (AFCI)
2ND FLOOR WASHING MACHINE	1200	-	-	20	1	5	-	-	1080	2ND FLR RM, COUNTER, HALL REC (AFCI)
1ST FLOOR DRYER	1500	-	-	20	1	7	-	-	1080	LIVING RM, TV RECEPTACLES (AFCI)
2ND FLOOR DRYER	1500	-	-	20	1	9	-	-	900	2ND FLR FRIDGE, ISLAND RECEPTACLES
1ST FLR HALL, LAUNDRY, RESTRM REC	540	-	-	20	1	11	-	-	360	2ND FLR KITCHEN COUNTER
KITCHEN FRIDGE + FREEZER RECEPTS	1400	-	-	20	1	13	-	-	1200	2ND FLR DISHWASHER
KITCHEN MICROWAVE	1200	-	-	20	1	15	-	-	1000	2ND FLR GARBAGE DISPOSAL
KITCHEN COUNTER GENERAL RECEPTS	360	-	-	20	1	17	-	-	360	2ND FLR KITCHEN COUNTER
KITCHEN COUNTER GENERAL RECEPTS	360	-	-	20	1	19	-	-	-	SPARE
KITCHEN COUNTER GENERAL RECEPTS	360	-	-	20	1	21	-	-	-	SPARE
KITCHEN COUNTER GENERAL RECEPTS	360	-	-	20	1	23	-	-	3640	CU-1
KITCHEN ISLAND RECEPTACLES	360	-	-	20	1	25	-	-	3640	CU-1
STORAGE COUNTER REC + WATER HTR	800	-	-	20	1	27	-	-	8457	PANEL B
DISHWASHER	1200	-	-	20	1	29	-	-	8601	PANEL B
BREAK ROOM COUNTER RECEPTACLE	360	-	-	20	1	31	-	-	792	REF-1
BREAK ROOM COUNTER + FRIDGE REC	600	-	-	20	1	33	-	-	792	REF-1
MEETING ROOM GENERAL RECEPTS	540	-	-	20	1	35	-	-	36	3059
SPARE	-	-	-	20	1	37	-	-	3059	3059
HOOD LIGHTS + STOVE + GRIDDLE REC	540	-	-	20	1	39	-	-	3059	DOAS-1
SHUNT TRIP	-	-	-	41	-	-	-	-	-	SHUNT TRIP

WATTS: Ø A: 16391 AMPS: 167.7A NOTES: NEW PANEL
Ø B: 21848 FEEDER: SEE RISER BREAKERS LABELED AFCI SHALL BE AFCI PROTECTED.
Ø C: 22092 FED FROM: SEE RISER
TOTAL: 60331



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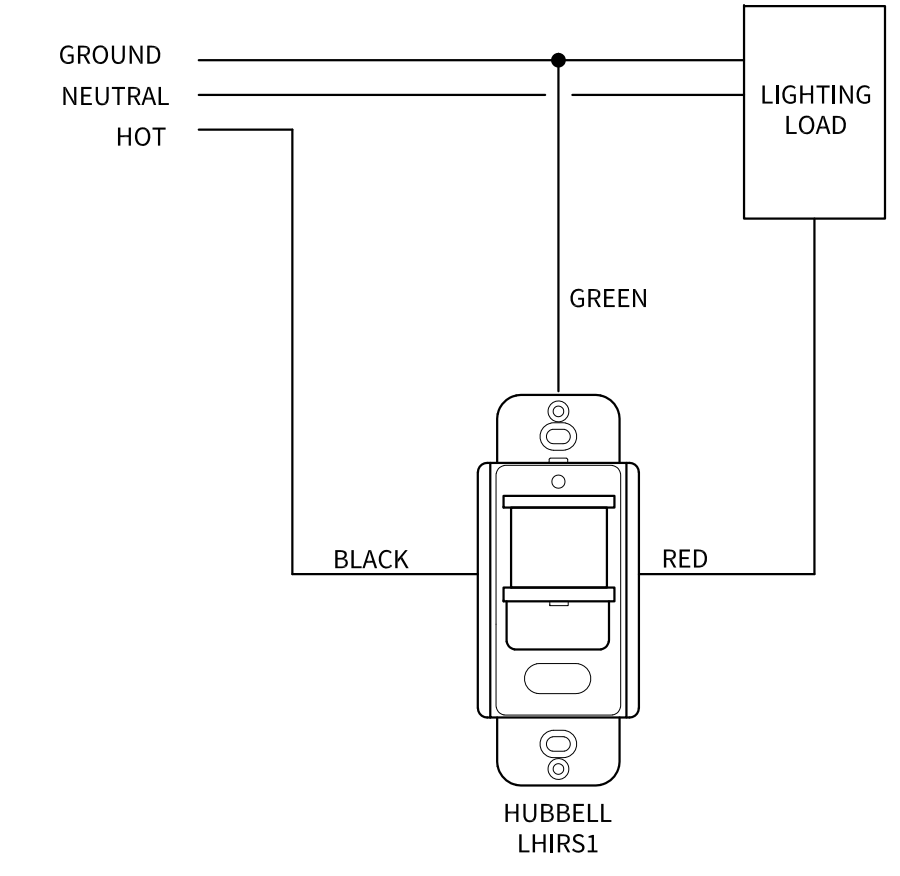
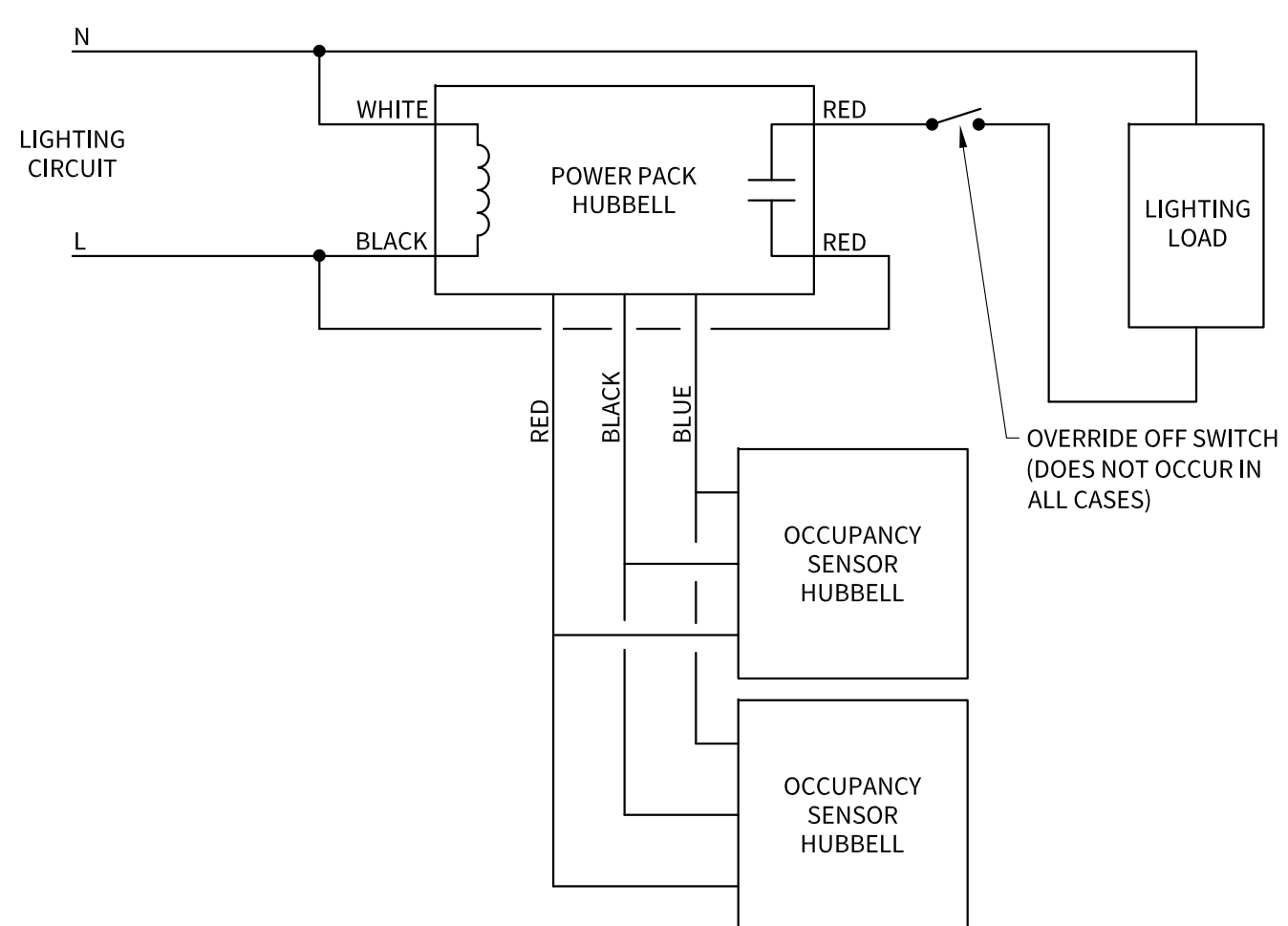
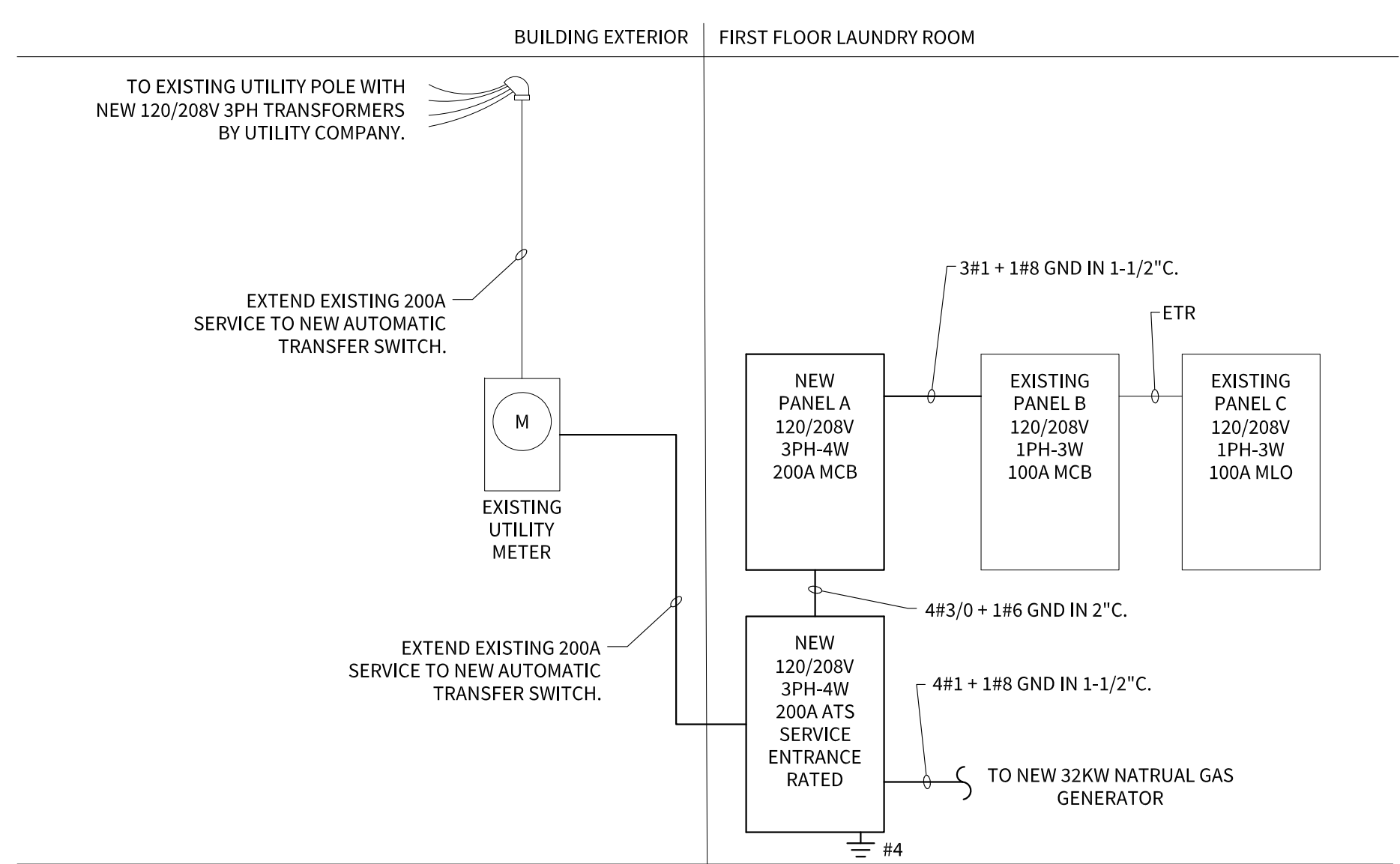
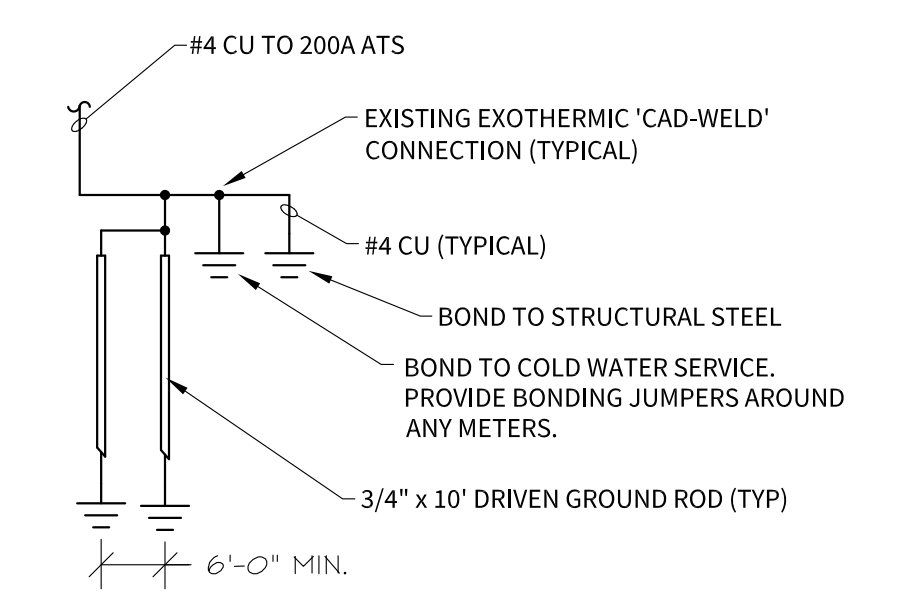


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3130 EAST MAIN STREET
KINGSVILLE OHIO 44048

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	VOLTS	LAMPS	WATTS	MANUFACTURER	MODEL
A	5" OPEN REFLECTOR DOWNLIGHT, LED, WHITE TRIM	120/277	LED 2700K	25	JUNO	TC20LED G4 20LM 27K 90CRI MVOLT ZT10 205WWH
C	6" OPEN REFLECTOR DOWNLIGHT, LED, CLEAR TRIM COLOR, MATT-DIFFUSE FINISH, WET LOCATION	120/277	LED 2700K	28	LITHONIA	LDN6-27/25-106-AR-LD-TRW -MVOLT-GZ10
D	2" FLAT DOWNLIGHT WITH SWITCHABLE LUMENS AND COLOR TEMPERATURE. SET FOR MEDIUM OUTPUT.	120/277	LED 2700K	10	JUNO	WF2 RD AL025 SSW5 90CRI 120 MW M6
E	SURFACE MOUNT LED, DIMMABLE, PROVIDED BY OWNER	120	LED 2700K	35	TBD	TBD
F	SURFACE MOUNT LED, PROVIDED BY OWNER	120	LED 2700K	30	TBD	TBD
G	SURFACE MOUNT LED, PROVIDED BY OWNER	120	LED 2700K	30	TBD	TBD
H	SURFACE MOUNT LED, PROVIDED BY OWNER	120	LED 2700K	30	TBD	TBD
J	LED RESTROOM WALL SCONCE, PROVIDED BY OWNER	120	LED 2700K	25	TBD	TBD
K	LED RESTROOM WALL SCONCE, PROVIDED BY OWNER	120	LED 2700K	25	TBD	TBD
L	LED EXTERIOR WALL SCONCE, PROVIDED BY OWNER	120	LED 2700K	30	TBD	TBD
N	LED 8' LINEAR, WITH LENS, DIMMABLE, PROVIDED BY OWNER	120	LED 2700K	60	TBD	TBD
O	LED 4' UTILITY STRIP, WITH LENS, DIMMABLE, PROVIDED BY OWNER	120	LED 2700K	40	TBD	TBD
P	3 SPEED CEILING FAN WITH DIMMABLE LIGHT KIT PROVIDED BY OWNER	120	LED 2700K	60	TBD	TBD
⊞	WHITE THERMOPLASTIC EMERGENCY LIGHTING UNIT, AC ONLY.	120	LED	5	LITHONIA	ELM2-LED
⊞	WHITE THERMOPLASTIC EMERGENCY LIGHTING UNIT/EXIT SIGN COMBO. PROVIDE MOUNTING, FACES, AND DIRECTIONAL ARROWS AS SHOWN ON THE PLANS, AC ONLY	120	LED	5	LITHONIA	LHQM-LED-R
⊞	EXIT SIGN, WHITE POLYCARBONATE HOUSING, PROVIDE MOUNTING, FACES, AND DIRECTIONAL ARROWS AS SHOWN ON THE PLANS, AC ONLY	120	LED	5	LITHONIA	LHQM-LED-R-RO



CEILING MOUNTED OCCUPANCY SENSOR WIRING
SCALE: NTS E3.0

WALL MOUNTED OCCUPANCY SENSOR WIRING
SCALE: NTS E3.0

DUAL TECHNOLOGY (ULTRASONIC AND INFRARED) CEILING MOUNTED OCCUPANCY SENSOR FOR LIGHTING CONTROL. 1700 SQ. FT. COVERAGE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE HUBBELL OMNIDT-2000RP OR APPROVED EQUAL.

NOTES:
1. SWITCH IS EITHER AUTO ON OR MANUAL ON/AUTO OFF
2. THIS IS A GROUND-LEAKAGE POWERED SENSOR. IT MUST BE GROUNDED TO FUNCTION.

NOTE:
LOCATE SENSORS SO SENSOR IS AT LEAST 5'-0" FROM THE EDGE OF SUPPLY AIR DIFFUSERS.

BID / PERMIT OCT 28 2024
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E 3.0

RISER DIAGRAM, DETAILS, AND PANEL SCHEDULES

ELECTRICAL SYMBOLS

	2x4 FIXTURE, 'x' INDICATES FIXTURE TYPE	C.SR 	DUPLEX RECEPTACLE, 125VAC, 20A, MTD @ 18" AFF UNLESS OTHERWISE INDICATED. "C" DENOTES: MOUNT 8" ABOVE COUNTER. "SR" DENOTES: PROVIDE 'SPLIT RECEPTACLE'. SEE DETAIL FOR MORE INFORMATION.
	2x2 FIXTURE, 'x' INDICATES FIXTURE TYPE		DOUBLE DUPLEX RECEPTACLE, 125VAC, 20A, MTD @ 18" AFF UNLESS OTHERWISE INDICATED
	1x4 FIXTURE, 'x' INDICATES FIXTURE TYPE		DUPLEX RECEPTACLE, 125VAC, 20A, GROUND FAULT INTERRUPT, MTD @ 18" AFF UNLESS OTHERWISE INDICATED
	2x4 FIXTURE, EMERGENCY NIGHT LIGHT, 'x' INDICATES FIXTURE TYPE	WC 	JUNCTION BOX FOR HARDWIRED WATER COOLER, 125VAC, 20A, EC TO PROVIDE GROUND FAULT INTERRUPT PROTECTION AT CIRCUIT BREAKER.
	2x2 FIXTURE, EMERGENCY NIGHT LIGHT, 'x' INDICATES FIXTURE TYPE		DUPLEX RECEPTACLE, 125VAC, 20A, MTD @ 18" AFF UNLESS OTHERWISE INDICATED. TAMPER PROOF. (1)USB-A AND (1)USB-C CHARGING JACKS. HUBBELL #USB20K5W
	1x4 FIXTURE, EMERGENCY NIGHT LIGHT, 'x' INDICATES FIXTURE TYPE		SIMPLEX SPECIALTY RECEPTACLE, MD @ 18" AFF UNLESS OTHERWISE INDICATED.
	STRIP FIXTURE, 'x' INDICATES FIXTURE TYPE	J 	JUNCTION BOX
	UNDERCOUNTER FIXTURE, 'x' INDICATES FIXTURE TYPE	F 	FIRE ALARM PULL STATION, MTD @ 48" AFF
	DOWN LIGHT, 'x' INDICATES FIXTURE TYPE		FIRE ALARM HORN/SPEAKER AND STROBE, MTD @ 80" AFF
	DOWNLIGHT WALL WASHER, 'x' INDICATES FIXTURE TYPE		FIRE ALARM STROBE, MTD @ 80" AFF
	WALL SCONCE, 'x' INDICATES FIXTURE TYPE		FIRE ALARM HORN/SPEAKER
	TRACK LIGHT, 'x' INDICATES FIXTURE TYPE		CEILING MOUNTED FIRE ALARM HORN/SPEAKER AND STROBE
	EMERGENCY LIGHTING UNIT BATTERY PACK, WALL MOUNTED		CEILING MOUNTED FIRE ALARM STROBE
	EMERGENCY LIGHTING UNIT BATTERY PACK, CEILING MOUNTED		CEILING MOUNTED FIRE ALARM SPEAKER
	EMERGENCY LIGHTING UNIT/EXIT SIGN COMBO, WALL MOUNTED		SMOKE ALARM/ MONOXIDE DETECTOR WITH BOTH PHOTOELECTRIC AND IONIZATION TECHNOLOGY. SMOKE DETECTORS SHALL BE INTERCONNECTED.
	EMERGENCY LIGHTING UNIT/EXIT SIGN COMBO, CEILING MOUNTED		FIRE ALARM CEILING HEAT DETECTOR, 'E' INDICATES ELEVATOR SHUTDOWN
	6V EMERGENCY LIGHTING REMOTE FIXTURE. TWO(2) 1.5V LED LAMPS. CONNECT TO LOW-VOLTAGE SIDE OF BATTERY UNIT. WET LOCATION LISTED.		DUCT DETECTOR. PROVIDE INTERLOCK CIRCUITING FOR FAN SHUT DOWN.
	EXIT SIGN, PROVIDE DIRECTIONAL ARROWS AS SHOWN		DUCT SMOKE DETECTOR REMOTE TEST STATION IN WALLS OR ABOVE CEILINGS.
	SWITCH, SPST, 120/277VAC, 20A, MTD @ 48" AFF UNLESS OTHERWISE INDICATED		DUCT SMOKE DETECTOR REMOTE TEST STATION WITH INTEGRAL AUDIBLE AND VISUAL ALARMS AND ANNUNCIATION
	SWITCH, 3-WAY, 120/277VAC, 20A, MTD @ 48" AFF UNLESS OTHERWISE INDICATED		FIRE ALARM WATER FLOW SWITCH
	SWITCH, 4-WAY, 120/277VAC, 20A, MTD @ 48" AFF UNLESS OTHERWISE INDICATED		FIRE ALARM VALVE MONITOR SWITCH
	SWITCH, DIMMER, MTD @ 48" AFF UNLESS OTHERWISE INDICATED. PROVIDE LUTRON 'NOVA' SERIES OR APPROVED EQUAL		FIRE ALARM CONTROL PANEL
	VACANCY SENSOR WALL SWITCH, PASSIVE INFRARED, MTD @ 48" AFF, PROVIDE HUBBELL LHD-IRS-1-N-WH.		FIRE ALARM ANNUNCIATOR PANEL
	VACANCY SENSOR WALL SWITCH, 0-10V DIMMING, PASSIVE INFRARED, MTD @ 48" AFF, PROVIDE HUBBELL LHD-IRS-3-N-WH.		TELEVISION OUTLET, PROVIDE CHIEF BOX MODEL P6C525 AND 1-1/4" EMPTY CONDUIT STUBBED UP TO ACCESSIBLE CEILING SPACE, PROVIDE PULL STRING
	CEILING MOUNTED OCCUPANCY SENSOR FOR LIGHTING CONTROL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE DETAIL FOR MORE INFORMATION.		DOOR ACCESS SYSTEM CARD READER, PROVIDE BOX AND 3/4" EMPTY CONDUIT STUBBED UP TO ACCESSIBLE CEILING SPACE, PROVIDE PULL STRING
	TOGGLE OPERATED 115/230V FRACTIONAL HORSEPOWER MANUAL MOTOR SWITCH WITH INDICATING LIGHT, OVERLOAD PROTECTION AND HANDLE GUARD/LOCK-OFF. SQUARE-D CLASS 2510.		DOOR ACCESS SYSTEM PUSH BUTTON, PROVIDE BOX AND 3/4" EMPTY CONDUIT STUBBED UP TO ACCESSIBLE CEILING SPACE, PROVIDE PULL STRING
	CIRCUIT HOMERUN, 'x' INDICATES PANEL, 'y' INDICATES CIRCUIT NUMBER		DOOR ACCESS SYSTEM KEYPAD, PROVIDE BOX AND 3/4" EMPTY CONDUIT STUBBED UP TO ACCESSIBLE CEILING SPACE, PROVIDE PULL STRING
	DISCONNECT SWITCH, 'x' INDICATES FRAME SIZE, 'y' INDICATES POLES, 'z' INDICATES FUSE SIZE, NF INDICATES NON-FUSED.		DOOR ACCESS SYSTEM CHIME/BUZZER
	WEATHER-PROOF GROUND FAULT		TELE/DATA OUTLET, PROVIDE BOX AND 3/4" EMPTY CONDUIT STUBBED UP TO ACCESSIBLE CEILING SPACE, PROVIDE PULL STRING, MTD @ 18" AFF UNLESS OTHERWISE INDICATED. PROVIDE SINGLE FACEPLATE WITH NUMBER OF DATA DROPS INDICATED.
	ISOLATED GROUND		WORKSTATION SYSTEMS FURNITURE POWER FEED LOCATION. PROVIDE FINAL CONNECTION TO SYSTEMS FURNITURE AS REQUIRED. MTD @ 8" AFF UNLESS OTHERWISE INDICATED.
	CONDUIT		2-CHANNEL POWER POLE FOR POWER AND TELE/DATA FEEDS TO WORKSTATION SYSTEMS FURNITURE. PROVIDE ALL REQUIRED COMPONENTS FOR A COMPLETE INSTALLATION. COORDINATE WITH FURNITURE SUPPLIER FOR REQUIREMENTS.
	GROUND		DUPLEX RECEPTACLE IN FULLY ADJUSTABLE FLUSH CEILING BOX
	CIRCUIT BREAKER		DOUBLE DUPLEX RECEPTACLE IN FULLY ADJUSTABLE FLUSH CEILING BOX
	VOLT-AMPERE		TELE/DATA OUTLET MOUNTED FLUSH IN CEILING
	TYPICAL		FIRE RATED POKE-THRU, DUPLEX AND TELE/DATA (2)3/4" EMT - TELE/DATA (3/4" EMT - POWER WALKER RCTATCGY AND COM75. PROVIDE CONDUIT(S) SHOWN FROM POKE-THRU OVER TO AND UP THRU NEAREST AVAILABLE WALL/COLUMN/CHASE AND INTO ACCESSIBLE CEILING SPACE.
	ISOLATED		
	NATIONAL ELECTRIC CODE		
	COPPER		
	TRANSFORMER		
	AUTOMATIC TRANSFER SWITCH		
	JUNCTION BOX		
	CIRCUIT		
	NIGHT LIGHT		
	REMOVE EXISTING		
	RELOCATE EXISTING		
	EXISTING TO REMAIN		
	EXISTING TO REMAIN, ETR		
	MECHANICAL CONTRACTOR		
	PLUMBING CONTRACTOR		
	ELECTRICAL CONTRACTOR		
	GROUNDING ELECTRODE CONDUCTOR		

ELECTRICAL SPECIFICATIONS

- THE GENERAL CONDITIONS OF THE CONTRACT, THE SUPPLEMENTARY CONDITIONS, ELECTRICAL DRAWINGS, MECHANICAL DRAWINGS, ARCHITECTURAL DRAWINGS, STRUCTURAL DRAWINGS, THE FOLLOWING SPECIFICATIONS, SHOP DRAWINGS, AND ANY ADDENDUMS TO THE ABOVE ARE PART OF THE CONTRACT FOR THE WORK. WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE BY THE OWNER AND ARCHITECT. AS-BUILT DRAWINGS SHALL BE PROVIDED.
- THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. NO ADDITIONAL COMPENSATION WILL BE AWARDED FOR UNNOTICED FIELD CONDITIONS.
ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES. THE ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED TO PERFORM THE ELECTRICAL WORK.
THE DRAWINGS INDICATE DIAGRAMMATICALLY THE LOCATIONS OF ELECTRICAL DEVICES, EQUIPMENT, FIXTURES AND THE METHOD OF CONNECTION. MATERIALS NOT SPECIFICALLY INDICATED BUT ESSENTIAL TO COMPLETE THE WORK SHALL BE INCLUDED.
"PROVIDE" SHALL MEAN FURNISH EQUIPMENT, ASSOCIATED APPURTENANCES, AND INSTALL SAME.
- SCOPE
THE SCOPE OF WORK SHALL INCLUDE, BUT IS NOT LIMITED TO:
 - CONDUIT, BRANCH CIRCUITS, OUTLETS AND WIRING.
 - LIGHTING FIXTURES, LAMPS, MOUNTING HARDWARE, SWITCHES, CONDUIT AND WIRING.
 - EMERGENCY LIGHTING INCLUDING TESTING.
 - EXTENSION OF AND/OR RECONFIGURATION OF EXISTING POWER DISTRIBUTION SYSTEM.
 - DATA/TELEPHONE OUTLETS, CONDUITS AND PULL WIRES.
 - ALL CHANNELING AND CONCRETE PATCHING WORK REQUIRED FOR ELECTRICAL WORK EXCLUSIVELY.
 - RECONNECTION, AS REQUIRED INCLUDING CONDUIT AND WIRE, OF ALL BRANCH CIRCUITS CUT OFF BY DEMOLITION OF EXISTING PARTITIONS, ETC.
 - NECESSARY CABINETS, JUNCTION BOXES, AND PULL BOXES.
 - TEMPORARY CONSTRUCTION POWER AND LIGHTING TO ACCOMMODATE ALL TRADES.
 - GROUNDING OF ALL SYSTEMS AND EQUIPMENT.
 - EXTENSION OF AND/OR RECONFIGURATION OF EXISTING FIRE ALARM SYSTEM.
 - ELECTRICAL CONNECTION TO EQUIPMENT PROVIDED BY MECHANICAL AND/OR PLUMBING CONTRACTOR. FIELD VERIFY VOLTAGE, CURRENT, AND CONNECTION REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ROUGH-IN. NOTIFY ENGINEER IMMEDIATELY IF THERE ARE DISCREPANCIES BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT IS ACTUALLY REQUIRED. ALSO PROVIDE, LINE VOLTAGE CIRCUITING FOR AND FINAL CONNECTION TO CONTROLS TRANSFORMER(S). CONTROLS TRANSFORMER(S) AND LOW VOLTAGE CONTROLS CABLING BY MECHANICAL AND/OR PLUMBING CONTRACTOR.
- ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND BEAR UL LABELS AND LISTINGS. SUBMIT SHOP DRAWINGS FOR ALL EQUIPMENT PRIOR TO ORDERING FOR PROJECT.
- COORDINATE WORK WITH OTHER TRADES FOR SPACE REQUIREMENTS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL WORK. VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
- CONDUIT
 - SUPPORT CONDUIT FROM BUILDING STRUCTURE ONLY. INSTALL 1/16" PULL STRING IN ALL EMPTY CONDUITS. NO PVC SHALL BE PERMITTED ABOVE GRADE WITHIN THE BUILDING.
 - USE TYPE MC CABLE FOR FISHING NEW CIRCUITS THROUGH EXISTING WALLS AND FOR LIGHTING FIXTURE WHIPS. FLEXIBLE METAL CONDUIT SHALL BE USED FOR THE FINAL CONNECTION TO TRANSFORMERS AND MOTORS. FLEXIBLE LIQUID-TIGHT CONDUIT SHALL BE USED FOR FINAL CONNECTION TO ALL HARD-WIRED EQUIPMENT.
 - ABOVE GRADE INTERIOR DRY LOCATION CONDUIT SHALL BE ELECTRICAL METALLIC TUBING(EMT) WITH SET SCREW FITTINGS CONCEALED IN WALLS OR ABOVE CEILINGS.
 - ABOVE GRADE EXTERIOR CONDUIT SHALL BE RIGID METAL CONDUIT(RMC) WITH THREADED FITTINGS.
 - BELOW GRADE CONDUIT SHALL BE SCHEDULE 40 RIGID NONMETALLIC CONDUIT(RNC) WITH FITTINGS APPROVED FOR USE WITH RNC. TRANSITION TO EMT OR RMC ABOVE GRADE.
 - IF APPROVED BY LANDLORD, MC CABLE MAY BE USED FOR RECEPTACLE, LIGHTING, AND EQUIPMENT BRANCH CIRCUITING. INSTALL CONCEALED IN WALLS OR ABOVE CEILINGS.
 - CIRCUITING SERVING RECEPTACLES, LIGHTING, AND/OR EQUIPMENT IN PATIENT CARE AREAS(EXAM ROOMS, OPERATORY ROOMS, TREATMENT ROOMS, PROPHY AREA, ETC.) SHALL BE ONE OR A COMBINATION OF THE FOLLOWING:
 - CONDUIT AND WIRE SYSTEM WITH A SEPARATE INSULATED GROUND(REDUNDANT GROUND)
 - ARMORED CABLE SYSTEM WITH AN ARMORED BONDING STRIP, AND SEPARATE INSULATED GROUND CONDUCTOR LISTED FOR USE AS REDUNDANT GROUND ASSEMBLY. PROVIDE IFC-90 AND ASSOCIATED FITTINGS BY AFC CABLE SYSTEMS OR EQUAL.
- FIRE STOP ALL WALL AND FLOOR PENETRATIONS PER UL APPROVED METHOD AT RATED ASSEMBLIES.
- WIRE AND CABLE
 - WIRE AND CABLE SHALL BE 600V TYPE THWN COPPER UNLESS OTHERWISE INDICATED. WIRE #8 AND LARGER SHALL BE STRANDED CONDUCTOR. WIRE #10 AWG AND SMALLER SHALL BE SOLID CONDUCTOR.
 - UNLESS OTHERWISE INDICATED, NO WIRE SMALLER THAN #12 AWG SHALL BE USED. CONTROL CIRCUITS MAY BE #14 AWG.
 - UNLESS OTHERWISE INDICATED, PRESUME WIRE SIZE TO BE #12 AWG.
 - ALL 120V, 20A HOMERUNS GREATER THAN 75 FEET SHALL BE #10 AWG. ALL 277V, 20A HOMERUNS GREATER THAN 150 FEET SHALL BE #10 AWG.
 - SEPARATE INSULATED GROUNDING WIRES SHALL BE INSTALLED IN ALL CONDUIT RUNS FOR POWER AND LIGHTING. MINIMUM SIZE OF GROUND SHALL BE PER THE NEC ARTICLE 250.
 - ALL EQUIPMENT AND RECEPTACLE CIRCUITS SHALL BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS (NO SHARED NEUTRALS).
 - COLOR CODE WIRING AS FOLLOWS:

208Y/120 VOLTS	480Y/277 VOLTS
BLACK	A
RED	B
BLUE	C
WHITE	N
GREEN	G
	WHITE/BLACK STRIPE
	GREEN
- PANEL DIRECTORIES SHALL BE TYPED. PROVIDE AND INSTALL ENGRAVED PHENOLIC NAMEPLATES FOR MOTOR STARTERS, PANELBOARDS, SAFETY SWITCHES ETC.
- TEST WIRING SYSTEMS FOR SHORTS AND GROUNDS PRIOR TO ENERGIZING CIRCUITS.
- WIRING DEVICES SHALL BE AS FOLLOWS:

DEVICE	HUBBELL NUMBER
SINGLE POLE SWITCH	HBL1221
THREE-WAY SWITCH	HBL1223
FOUR-WAY SWITCH	HBL1224
DUPLEX RECEPTACLE	HBL5362
DUPLEX RECEPTACLE GFI	GF5362
SPLIT RECEPTACLE	BR20C1

ELECTRICAL DEMOLITION NOTES

- HILES IN ROOM SURFACES DUE TO THE REMOVAL OF ELECTRICAL WORK SHALL BE PATCHED TO MATCH EXISTING FINISH. OPENINGS IN FIRE RATED PARTITIONS SHALL BE SEALED WITH FIRE RATED MATERIAL.
- COORDINATE DEMOLITION SUCH THAT EXISTING EMBEDDED CONDUIT AND FLUSH BOXES IN MASONRY WALLS AND CEILINGS MAY BE REUSED TO THE EXTENT POSSIBLE. FLUSH OUTLET BOXES THAT ARE NOT REUSED SHALL BE PROVIDED WITH BLANK PLATES.
- DEVICES SHOWN WITH 'REX' SHALL BE REMOVED COMPLETELY INCLUDING ALL ASSOCIATED WIRING AND CONDUIT. CIRCUITING AFFECTED SHALL BE REROUTED TO OTHER ACTIVE DEVICES SHARING THAT CIRCUIT AS REQUIRED.
- DEVICES SHOWN WITH 'ETR' SHALL REMAIN. PROTECT DURING DEMOLITION. DEVICES IN CEILINGS THAT ARE TO BE REPLACED SHALL BE REMOVED TEMPORARILY AND REINSTALLED.
- DEVICES SHOWN WITH 'REL' SHALL BE RELOCATED. EXTEND CIRCUIT(S) AS REQUIRED.
- ELECTRICAL DEMOLITION INCLUDES BUT IS NOT LIMITED TO THE RELOCATION OF AND/OR REMOVAL OF ALL ELECTRICAL RELATED DEVICES (UNLESS OTHERWISE INDICATED) LOCATED ON, IN, AND/OR THROUGH WALLS AND CEILINGS SHOWN TO BE DEMOLISHED ON THE ARCHITECTURAL PLANS. CIRCUITING AFFECTED SHALL BE REROUTED TO OTHER ACTIVE DEVICES SHARING THAT CIRCUIT AS REQUIRED.
- RECONFIGURATION OF ACTIVE TELECOMMUNICATIONS WIRING/CABLING BY OTHERS.
- REMOVE ACCESSIBLE PORTION OF ABANDONED TELECOMMUNICATIONS WIRING/CABLING.
- REX ALL UNUSED WORK BOXES, JUNCTION BOXES, CONDUIT, ETC.
- UNLESS INDICATED OTHERWISE, REX ALL UNUSED BRANCH CIRCUITS BACK TO BRANCH CIRCUIT PANEL AND TAG CIRCUIT BREAKER AS 'SPARE'.
- NO ATTEMPT HAS BEEN MADE TO INDICATE ALL EXISTING ELECTRICAL DEVICES TO BE REMOVED AND/OR RELOCATED. HOWEVER, THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY THE EXTENT OF DEMOLITION PRIOR TO SUBMITTING BID. REMOVE AND/OR RELOCATE EXISTING ELECTRICAL DEVICES ON WALLS OR CEILING BEING REMOVED. COORDINATE SUCH CONDITIONS WITH ARCHITECTURAL DRAWINGS.
- ELECTRICAL CONTRACTOR TO MAKE SAFE ALL ELECTRICAL PANELBOARDS, DEVICES, EQUIPMENT, ETC. DURING DEMOLITION PHASE. TAKE ALL NECESSARY PRECAUTIONS SUCH AS PROVIDING LOCK-OUT DEVICES, REMOVAL OF CIRCUITING, DISCONNECT POWER TO ANY AND ALL EQUIPMENT SLATED TO BE REMOVED, ETC.

- WIRING DEVICE AND COVER PLATE COLOR SHALL BE AS SELECTED BY ARCHITECT. COVER PLATES SHALL BE HIGH-IMPACT NYLON. WIRING DEVICES SHALL BE HUBBELL, PASS & SEYMOUR, OR EQUAL.
- TELEPHONE AND DATA EQUIPMENT AND WIRE SHALL BE FURNISHED AND INSTALLED BY OTHERS UNDER SEPERATE CONTRACT WITH OWNER. COORDINATE WITH OWNER.
- CEILING CAVITY IS A RETURN AIR PLENUM. EXPOSED LOW VOLTAGE COMMUNICATIONS, TELEPHONE, SECURITY AND OTHER MISCELLANEOUS WIRING SHALL BE SUITABLE FOR INSTALLATION IN AIR HANDLING PLENUMS PER NEC.
- THE ELECTRICAL CONTRACTOR IS CAUTIONED THAT THE BUILDING IS OCCUPIED AND WORK SHALL NOT INTERFERE WITH THE NORMAL OPERATION OF THE BUILDING AND ITS TENANTS. THE PROJECT SHALL BE MANAGED AT ALL TIMES BY A COMPETENT FOREMAN.
- FIRE ALARM
 - CONTRACTOR TO PROVIDE ALL NECESSARY COMPONENTS AND/OR PROGRAMMING TO INTERFACE WITH AND/OR EXTEND THE EXISTING FIRE ALARM SYSTEM AND TO COORDINATE WITH EXISTING FIRE ALARM MANUFACTURER.
 - ALL FIRE ALARM COMPONENTS SHALL MEET THE REQUIREMENTS OF AND SHALL BE INSTALLED PER NFPA 72 AND ADA. ALL APPLIANCES AND DEVICES SHALL BE COMPATIBLE WITH AND LISTED TO BE USED WITH THE EXISTING FIRE ALARM SYSTEM. DEVICES SHALL MATCH EXISTING BUILDING STANDARD.
 - NEW STROBES: NEW FIRE ALARM SYSTEM STROBES SHALL XENON TYPE WITH A CLEAR OR NOMINAL WHITE COLOR. INTENSITY SHALL BE 75 CANDELA MINIMUM. FLASH RATE SHALL BE A MINIMUM OF 1HZ AND A MAXIMUM OF 3HZ. TWO OR MORE STROBES SERVING THE SAME ROOM SHALL BE SYNCHRONIZED.
 - SHOP DRAWINGS: LOCATION OF EQUIPMENT SHALL BE AS INDICATED ON DRAWINGS. CONTRACTOR SHALL SUBMIT EQUIPMENT SUPPLIER'S COMPLETE SET OF ENGINEERED SHOP DRAWINGS TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF WORK. ENGINEERED SHOP DRAWINGS SHALL INCLUDE FLOOR PLAN, EQUIPMENT LOCATION, BATTERY CALCULATIONS, CONDUCTOR TYPES AND SIZES, VOLTAGE DROP CALCULATIONS, CONDUIT SIZE, WIRE FILL, SYSTEM WIRING, INTERNAL WIRING FOR ALL COMPONENTS AND EQUIPMENT, HOOK-UP, ETC. DRAWINGS SHALL INCLUDE MODEL NUMBERS AND LISTING INFORMATION FOR EQUIPMENT, DEVICES AND MATERIALS. TYPICAL DRAWINGS WILL NOT BE ACCEPTED.
 - FIRE ALARM CONTRACTOR SHALL BE LANDLORD APPROVED.
 - THE ENTIRE SYSTEM SHALL BE INSPECTED AND TESTED ACCORDING TO THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. ALL MODIFICATIONS AND ADDITIONS TO THE SYSTEM SHALL BE MADE TO THE EXTENT AS REQUIRED TO SATISFY THIS AUTHORITY.
 - ANY AND ALL TENANT ACCESS SYSTEMS THROUGHOUT THIS SCOPE OF WORK SHALL BE TIED INTO BUILDING'S FIRE ALARM/LIFE SAFETY SYSTEM AND MUST RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM.
- WORKSTATION SYSTEMS FURNITURE SHALL BE PROVIDED WITH BASE-INFEED POWER SERVICE AS INDICATED ON THE PLANS. PROVIDE BOX, SEALTIE CONDUIT, ETC. AS MAY BE REQUIRED FOR A COMPLETE INSTALLATION. PROVIDE JUMPER WIRES AS REQUIRED TO MAINTAIN THE FURNITURE'S SYSTEM WITH THE CIRCUITS SHOWN ON THE PLANS. COORDINATE INSTALLATION WITH THE MANUFACTURER. PROVIDE FINAL CONNECTION TO WORKSTATION SYSTEMS FURNITURE.
MULTI-WIRE BRANCH CIRCUITS SUPPLYING POWER TO WORKSTATION SYSTEMS FURNITURE SHALL BE PROVIDED WITH A MEANS TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS AT THE PANELBOARD.

POWER DISTRIBUTION

- PANELBOARDS SHALL BE ENCLOSED TYPE, CABINETS OF CODE GAUGE STEEL WITH CONCEALED STEEL TRIM HINGES AND FLUSH TYPE LOCKS. BACK BOXES SHALL BE CODE GAUGE STEEL. DOORS AND TRIM SHALL BE ONE-PIECE WITH 180 DEGREE MOVEMENT. PROVIDE SEPARATE EQUIPMENT GROUND, NEUTRAL, AND ISOLATED GROUND BUSES AS INDICATED. PANELBOARDS SHALL BE EQUIPPED WITH BOLT-ON MOLDED-CASE CIRCUIT BREAKERS OF THE TYPE, POLES AND TRIP RATINGS, AS INDICATED WITH INTERRUPTING CAPACITY PER BUILDING REQUIREMENTS.
- TRANSFORMERS SHALL BE DRY TYPE, 150°C RISE MAXIMUM, TWO(2) TAPS ABOVE AND TWO(2) TAPS BELOW NORMAL RATED VOLTAGE, SOUND LEVELS SHALL NOT EXCEED NEMA STANDARDS. PROVIDE MOUNTING AS SHOWN ON THE PLANS.
- DISCONNECT SWITCHES SHALL BE HEAVY DUTY WITH DUAL-INTERLOCKED BOX COVERS, FUSED OR NON-FUSED, WITH NUMBER OF POLES AND SIZES AS SHOWN ON THE PLANS. PROVIDE NEUTRAL ASSEMBLY AND GROUND LUGS WHERE REQUIRED. ENCLOSURE SHALL BE NEMA TYPE 1 FOR DRY AND INDOOR LOCATIONS. ENCLOSURE SHALL BE NEMA TYPE 3R FOR WET, SPRINKLED, AND OUTDOOR LOCATIONS. FUSES SHALL BE DUAL ELEMENT BY BUSSMAN OR FERRAZ-SHAWMUT.
- PROVIDE PRODUCTS MANUFACTURED BY SQUARE-D OR APPROVED EQUAL BY CUTLER-HAMMER OR GENERAL ELECTRIC.
- ELECTRICAL EQUIPMENT LOCATION IS SHOWN ON PLANS TO INDICATE INTENT ONLY. FIELD COORDINATE ACTUAL INSTALLATION LOCATION. ACTUAL INSTALLATION LOCATION SHALL SATISFY WORKING SPACE AND DEDICATED ELECTRICAL SPACE REQUIREMENTS. FIELD COORDINATE ACTUAL INSTALLATION LOCATION TO AVOID CONFLICTS WITH OTHER EQUIPMENT, SYSTEMS, AND BUILDING ELEMENTS.
- CONTRACTOR SHALL CALCULATE OR ENGAGE AN ENGINEER TO CALCULATE MAXIMUM AVAILABLE FAULT CURRENT AT SERVICE EQUIPMENT. CONTRACTOR SHALL FIELD MARK SERVICE EQUIPMENT WITH THE DATE THE THE CALCULATION WAS PERFORMED AND THE MAXIMUM AVAILABLE FAULT CURRENT. ALL PER NEC 110.24.
- WHEN MODIFICATIONS TO THE ELECTRICAL INSTALLATION OCCUR THAT AFFECT THE MAXIMUM AVAILABLE FAULT CURRENT, CONTRACTOR SHALL VERIFY OR RECALCULATE OR ENGAGE AN ENGINEER TO CALCULATE MAXIMUM AVAILABLE FAULT CURRENT AT SERVICE EQUIPMENT. CONTRACTOR SHALL FIELD MARK SERVICE EQUIPMENT WITH THE DATE THE THE CALCULATION WAS PERFORMED AND THE MAXIMUM AVAILABLE FAULT CURRENT. ALL PER NEC 110.24.

NEW UTILITY SERVICE

- PROVIDE NEW UTILITY SERVICE AND ASSOCIATED EQUIPMENT.
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING ELECTRIC UTILITY, COORDINATING SERVICE REQUIREMENTS, ARRANGING UTILITY CONNECTION, AND PAVING FOR ALL ASSOCIATED UTILITY CHARGES/FEES.
- COORDINATE ALL OUTAGES WITH OWNER AND THE UTILITY. ALL SCHEDULED OUTAGES SHALL BE DURING TIMES WHEN THE BUILDING IS NOT IN USE.

LIGHTING

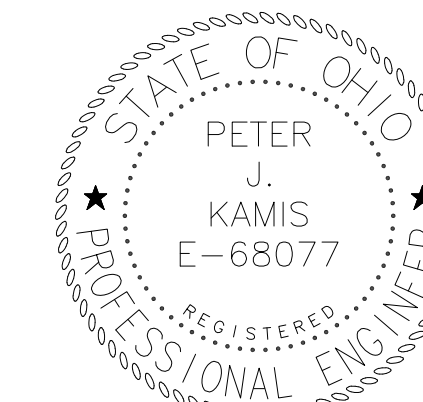
- PROVIDE LIGHTING FIXTURES AS SHOWN IN THE LIGHTING FIXTURE SCHEDULE OR APPROVED EQUAL.
- BALLASTS SHALL BE HIGH POWER FACTOR ELECTRONIC WITH TYPE-A SOUND RATING AND FUSED WITH BUSSMAN GLR FUSE IN HLR HOLDER. VOLTAGE AS SPECIFIED IN LIGHTING FIXTURE SCHEDULE. PROVIDE LUTRON HL-LUME, OR APPROVED EQUAL, DIMMING BALLASTS FOR FLOURESCENT FIXTURES SHOWN ON THE PLAN TO BE DIMMED.
- LAMPS SHALL BE OSRAM SYLVANIA, GENERAL ELECTRIC, OR APPROVED EQUAL.
- INTENSITY OF EMERGENCY LIGHTING SHALL BE ONE FOOT-CANDLE. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ADDITIONAL EMERGENCY LIGHT UNITS TO MEET THIS REQUIREMENT IF NECESSARY.
- VERIFY CEILING CONSTRUCTION WITH THE GENERAL CONTRACTOR AND COORDINATE LIGHT FIXTURE MOUNTING WITH CEILING CONSTRUCTION. SUPPORT ALL RECESSED LIGHTING FIXTURES INDEPENDENTLY OF CEILING SUSPENSION SYSTEMS. INSTALL LIGHT FIXTURES TO PRECLUDE CONTACT WITH INSULATION MATERIAL.
- FINAL CONNECTION TO LIGHTING FIXTURES SHALL BE WITH FLEXIBLE METAL CONDUIT OR MC CABLE FIXTURE WHIPS NO MORE THAN SIX(6) FOOT IN LENGTH.
- LIGHTING FIXTURES SHALL BE EQUIPPED WITH AN ACCESSIBLE DISCONNECTING MEANS LOCATED AT EACH INDIVIDUAL FIXTURE.

PLAN NOTES

- FIELD VERIFY MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES PRIOR TO ROUGH-IN. NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WHICH MAY INTERFERE WITH THE PROPER INSTALLATION OF NEW WORK.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND SHALL NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES AND/OR DAMAGED EXISTING BASE BUILDING WORK WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF NEW WORK.
- ALL EXIT SIGNS, NIGHT LIGHTS, EMERGENCY LIGHTING UNITS, AND EMERGENCY BATTERY PACKS SHALL BE CONNECTED TO CIRCUIT AHEAD OF LOCAL SWITCHING. CONNECT TO THE LIGHTING CIRCUIT SERVING THE AREA SERVED BY THE EXIT AND/OR EMERGENCY LIGHTING UNIT.
- EXISTING SYSTEMS, DEVICES, FIXTURES, CIRCUITING, ETC. THAT ARE SHOWN ON THESE PLANS ARE BASED ON VISUAL INSPECTION AND/OR AS-BUILT DRAWINGS, BUT MAY NOT REFLECT THE ACTUAL CONDITIONS IN EVERY CASE. THE ELECTRICAL CONTRACTOR SHALL INSPECT THE SITE AND EXAMINE THE WORK BEFORE SUBMITTING HIS PROPOSAL. HE SHALL NOTE THE EXISTING CONDITIONS, THE EXTENT OF HIS WORK, AND INTERFERENCE BY OTHER TRADES WITH HIS WORK. ANY DISCREPANCIES SHOULD BE DISCUSSED WITH THE ARCHITECT OR ENGINEER.
- CIRCUITING SHOWN TO EXISTING PANELS IS SHOWN ON DRAWINGS FOR INDICATING INTENT ONLY. FIELD VERIFY EXISTING CIRCUITING, EXISTING CIRCUIT NUMBERS AND/OR SPARES, AND SPACES AVAILABLE IN PANELS. UNLESS INDICATED OTHERWISE, EXISTING CIRCUITS BEING FED FROM EXISTING CB'S SHALL REMAIN. IF A CIRCUIT NUMBER SHOWN ON THE DRAWING INDICATES CIRCUITING TO A CB REQUIRED TO SERVE AN EXISTING CIRCUIT, USE THE NEXT AVAILABLE CB OF THE SIZE AND CONFIGURATION REQUIRED. IF EXISTING CB IS NOT AVAILABLE, PROVIDE NEW CB IN EXISTING PANEL SPACE AS REQUIRED. FIELD VERIFY EXISTING PANELS HAVE ADEQUATE CAPACITY TO HANDLE ADDITIONAL LOADS.
- CONTRACTOR TO PROVIDE ALL NECESSARY COMPONENTS (AMPLIFIERS, REPEATERS, EXPANDER PANELS, ETC.) AND/OR PROGRAMMING TO INTERFACE WITH AND/OR EXTEND THE EXISTING FIRE ALARM SYSTEM AND TO COORDINATE WITH EXISTING FIRE ALARM MANUFACTURER.
- RACEWAY PASSING FROM THE INTERIOR TO THE EXTERIOR OF THE BUILDING SHALL BE FILLED WITH AN APPROVED MATERIAL TO PREVENT THE CIRCULATION OF WARM AIR TO A COLDER SECTION OF THE RACEWAY.



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EXP. DATE 12/31/2025

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BID / PERMIT OCT 28 2024
REVIEW SET OCT 18 2024

PROJECT #: 2022

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ELECTRICAL SPECIFICATION