ADDENDUM NO. 02

Project No.: 2160.00

Contract: General

Date: 08-August-2024

This document includes 10 pages and was emailed on 08-August-2024.

To: All Bidders

Project: Arthur Area Community Centre Renovation

Location: 158 Domville St.

Arthur, Ontario NOG 1A0

Owner: Township of Wellington-North

Address: 7490 Sideroad 7 W, PO Box 125

Kenilworth, Ontario, NOG 2E0

Consultant: JPM Architecture Inc.

51 Kingston Street,

Goderich, Ontario N7A 3K3

PART 1 - INTENT

- 1.1 This Addendum is issued to provide modifications and clarifications during bidding.
- 1.2 Except as otherwise specified herein, and as shown on accompanying Drawings, work required by this Addendum shall be in accordance with Drawings dated 17-July-2024.
- 1.3 Bidders are required to take these Addendum items into account when preparing their Bid.

PART 2 - DRAWINGS AND DOCUMENTS

2.1 The following attachments accompany and form part of the Addendum.

Addendum produced by DEI Consulting Engineers, dated 08-August-2024.

PART 3 - DETAILS

3.1 Drawing Revisions:

.1 There are no Architectural Drawing revisions issued with this Addendum.

PART 4 - DISTRIBUTION

- To Bidders
- Owner
- Consultants





August 08, 2024

Client: JPM Architecture Inc. RE: Township of Wellington North, Arthur & Arena CC

51 Kingston Street, Interior Renovations

Goderich ON N7A 3K3 Arthur, ON

Job #: 24061

Attn: Peg MacDonald, BA, M. Arch, OAA, MRAIC, Architect/Nicole Regier

ADDENDUM

MECHANICAL

Item 1

- 1.0 Reference Attached Reissued Drawing M1.1
 - .1 Handwash sink S-2 added to plumbing schedule.

Item 2

- 2.0 Reference Attached Reissued Drawing M1.2
 - .1 NFPA fan installation detail updated.

Item 3

- 3.0 Reference Attached Reissued Drawings M2.1 and M3.1
 - .1 Existing handwash sink to be removed and replaced.

Item 4

- 4.0 Reference Attached Reissued Drawings M3.2 and M3.3
 - .1 EF-1 changed to a sidewall fan and removed from the roof.

Item 5

- 5.0 Reference Attached Reissued Drawing M4.1
 - .1 Acceptable VVT box manufacturers added to specifications.

ELECTRICAL

Item 1

1.0 No electrical content.

Ann Demaiter, P.Eng.

Partner

24061 Addendum 01 (M-Revisions)(various reissued dwgs) Aug 8 24 ad/mc



CAPACITY INDICATED ON SCHEDULE REFER TO ELECTRIC DUCT HEATER SCHEDULE SPECIFICATION FOR CONSTRUCTION STANDARDS, ACCESSORIES AND ADDITIONAL INFORMATION. Size Air Temperature Electric Heat Manufacturer In Out Capacity Electrical & Model (*F) (*F) kw Voltage Remarks FRONT END SUPPLEMENTAL COIL 400 12x8 60 90 4.0 208/1/60 THERMOLEC SC SERIES CAPACITY INDICATED ON SCHEDULE REFER TO MUA SCHEDULE SPECIFICATION FOR CONSTRUCTION STANDARDS. ACCESSORIES AND ADDITIONAL INFORMATION. Capacity (cfm) Static (cfm) Rise(F) Size Collar Size Electric Heat Capacity Electrical kw Coltage & Model Remarks MINI INLINE MAKEUP AIR UNIT 300 0.2 60 8" 6.0 208/3/60 THERMOLEC FER SERIES VVT CONTROL DAMPER SCHEDULE W/ELECTRIC REHEAT Size Capacity kW Remarks Size BYPASS DAMPER VAV-1.1 1800 | 2800 | 14"x20" SINGLE TERMINAL 600 180 1020 12"ø 3.2 12x8 REFER TO ELECTRICAL DWGS VAV-1.2 CONTROL BOX FOR VOLTAGE AND PHASE REFER TO ELECTRICAL DWGS VAV-1.3 SINGLE TERMINAL CONTROL BOX 1600 480 2720 16"ø 8.6 12x8 REFER TO ELECTRICAL DWGS FOR VOLTAGE AND PHASE

CAPACITY INDICATED ON SCHEDULE REFER TO GRILLE SCHEDULE SPECIFICATION FOR CONSTRUCTION STANDARDS, ACCESSORIES AND ADDITIONAL INFORMATION.

| l | | | | | | | | |
|---|------|------------------------------------|--------------------|------------------|----------------------------|---|--|--|
| | ltem | Туре | Equalizing Grid | Volume Damper | Acceptable Manufacturer | Description | | |
|] | D1 | SQUARE CEILING DIFFUSER | YES | NONE | EH PRICE SCDA | MULTICONE, FULLY ADJUSTABLE, 24x24, STEEL CEILING DIFFUSER W/ROUND NECK. SUITABLE FOR LAY-IN T-BAR CEILING, OR DRYWALL CEILING WHEN C/W FRAME. | | |
| | S1 | SUPPLY GRILLE | NO | NONE | EH PRICE 32-FLA | DOUBLE DEFLECTION, 1/2" SPACING, ALUMINUM AIRFOIL BLADES PARALLEL TO LONG DIMENSION, C/W 1 1/4" FLAT BORDER & SCREWED FASTENING FOR SURFACE MOUNTING. | | |
| | R1 | CEILING RETURN GRILLE (NON-DUCTED) | NO | NONE | EH PRICE 80-CH | 1/2x1/2x1/2 ALUMINUM EGGCRATE CORE, C/W CHANNEL BORDER FOR LAY-IN T-BAR CEILING. | | |
| | R2 | CEILING RETURN GRILLE (DUCTED) | NO | NONE | EH PRICE 80-FA | 1/2x1/2x1/2 ALUMINUM EGGCRATE CORE, C/W 1 1/4" FLAT BORDER & SCREWED FASTENING FOR SURFACE MOUNTING. | | |
| | E1 | EXHAUST GRILLE (DUCTED) | NO | NONE | EH PRICE 80-FA | 1/2x1/2x1/2 ALUMINUM EGGCRATE CORE, C/W 1 1/4" FLAT BORDER & SCREWED FASTENING FOR SURFACE MOUNTING. | | |

GENERAL DIFFUSER/GRILLE NOTES:

. ACCEPTABLE MANUFACTURERS: EH PRICE, NAILOR, TITUS, KRUEGER, CARNES, METALAIRE, TUTTLE & BAILEY 2. GRILLE COLOURS ARE SELECTED BY ARCHITECT FROM STANDARD COLOUR CHART, UNLESS OTHERWISE NOTED. 3. PAINT INTERIOR OF DUCTWORK BEHIND GRILLE MATT BLACK (WHERE VISIBLE THRU GRILLE).

| GREASE INTERCEPTOR SCHEDULE |
|-----------------------------|
|-----------------------------|

| Item | Туре | Flow Rate GPM(LPM) | Grease Capacity Ibs (kg) | Acceptable Manufacturer | Notes |
|------|--------------------|-----------------------|-----------------------------|----------------------------|---|
| GI-1 | GREASE INTERCEPTOR | 25 (95) | 72 (32.6) | ENDURA 3925XTA02 | RECESSED UNDER CABINET INSTALLATION, SOLDERED HOMOPOLYMER TYPE POLYPROPYLENE INTERCEPTOR, CAN BE SOLDERED OR THERMOFORMED |
| GI-2 | GREASE INTERCEPTOR | 10 (38) | 31.9 (14.5) | ENDURA 3910A02 | RECESSED UNDER CABINET INSTALLATION, SOLDERED HOMOPOLYMER TYPE POLYPROPYLENE INTERCEPTOR, CAN BE SOLDERED OR THERMOFORMED |

GREASE INTERCEPTOR GENERAL NOTES: 1. ACCEPTABLE MANUFACTURERS: CAN-AQUA, JRC PLASTIC INTERUPTORS AND PIT BOXES, JONESPEC, CONTOUR, ENDURA 2. RETENTION TYPE INTERCEPTOR, TESTED AND RATED IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION ACT (EPA), COMPLETE WITH FIRE RESISTANT POLYPROPYLENE CONSTRUCTION FOR MOUNTING FLUSH WITH FLOOR WITH ALUMINUM NON-SKID COVERS ON FLOOR COMPLETE WITH FLOW CONTROL FITTING SUITABLY VENTED, AND EXTENSION. 3. CAPACITY: 3.15 L/S (50 GPM) INLET & OUTLET.

4. THE UNIT SHALL BE ABLE TO TREAT EFFLUENT TO LESS THAN 100 MG/LITRE OF OIL AND GREASE. 5. THE GREASE INTERCEPTOR SHALL HAVE A MINIMUM OF FIVE MINUTES RETENTION TIME.

FAN SCHEDULE

| <u>FAN</u> | SCHEDULE | | | | | | | SPECIFICATION FOR CONSTRUCTION STANDARDS, ACCESSORIES AND ADDITIONAL INFORMATION. |
|------------|---------------------|-----------------|--------------|---------------------|------|------------------|----------------------------|---|
| Item | Туре | Capacity cfm | ESP in wc | Fan Speed rpm | hp | Motor Voltage | Acceptable Manufacturer | Description |
| EF-1 | KITCHEN EXHAUST FAN | 600 | 0.2 | 1725 | 1/10 | 120/1/60 | GREENHECK CUE-090 | SPUN ALUMINUM MOTOR COVER & FAN SHROUD, UPBLAST, W/BELT DRIVE CENTRIFUGAL BACKWARD INCLINED NON-STICK FAN, GALV BIRD SCREEN, VENTED & INSULATED EXTENDED ROOF CURB, & GREASE TRAP. SUITABLE FOR NFPA-96 INSTALLATION. |

1. ACCEPTABLE MANUFACTURERS: GREENHECK, PENN-BARRY, COOK, CARNES, ACME, TWIN CITY, JENCO, BUFFALO. (CEILING FANS: BROAN, GREENHECK, ZONEX) PROVIDE 24" TALL PREFABRICATED, INSULATED ROOF CURB FOR ALL ROOF MOUNTED FANS.

EXHAUST HOOD SCHEDULE

| Item | Discription | Туре | Dimensions | Exhaust Size | Manufacturer & Model | Description |
|--------|-------------|-------------------------|-----------------|--------------|-------------------------|---|
| HOOD-1 | | DRY GREASE EXTRACTOR | 60"(L) × 30"(W) | 16" x 16" | | C/W S.S. SHROUD TO CEILING AND DUCT COLLAR, INTEGRAL FIRE SUPPRESSION, REMOTE ON/OFF SWITCH (CONNECTED TO EF-1). PROVIDE LIGHT AS SPECIFIED. PROVIDE HOOD CONTROLLER FOR INTERLOCKING EF-1 AND MUA-1. |

PLUMBING FIXTURE SCHEDULE (1 OF 2)

| Item | Туре | Connection Sizes | | | | s | Fixture | | |
|------|---|------------------|----|----|-------|-------|---|---|--|
| item | Туре | HW | CW | TW | Drain | Vent | Acceptable Manufacturer | Fixture Description | |
| FD-1 | FLOOR DRAIN FOR SAFETY SHEET FLOORING | | | | NOTED | 1 1/2 | ZURN ZN-211-R6 MIFAB CONTOUR WATTS | GENERAL DUTY CAST IRON BODY, ADJUSTABLE STRAINER, NICKEL BRONZE STRAINER, AND CLAMPING COLLAR. USE SQUARE STRAINER IN TILED AREAS AND ROUND STRAINER ELSEWHERE. C/W TRAP PRIMER | |

GENERAL NOTES

- ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PREPARED
- SANITARY VENT PIPING IS NOT SHOWN. PROVIDE ALL NECESSARY VENT PIPING FROM ALL FIXTURES FOR A COMPLETE SYSTEM TO ALL LOCAL PLUMBING CODE & LOCAL AUTHORITY REQUIREMENTS. CONNECTED TO EXISTING VENTS OR NEW VENTS AS REQUIRED. CO-ORDINATE VENT LOCATION(S) WITH GENERAL CONTRACTOR. MAINTAIN MIN 14'-0" FROM ANY AIR INLET. INSTALL VENT PIPING HIGH IN JOIST SPACE.
- C. WHERE DUCTWORK PENETRATES CORRIDOR WALL, CENTER DUCT(S) BETWEEN OWSJ.
- CO-ORDINATE WITH THE GENERAL CONTRACTOR ANY OWSJ BRIDGING/CROSS BRACING RELOCATION OR REMOVAL/REPLACEMENT REQUIRED FOR INSTALLATION OF DUCTWORK.
- E. CONTRACTOR TO LOCATE ISOLATION VALVES / FREEZE PIPING / OR OTHERWISE DRAIN SYSTEMS TO ALLOW PROPOSED WORK TO PROCEED. REFILL SYSTEMS AS INDICATED.
- UPON COMPLETION OF THE PROJECT OR UPON COMPLETION OF EACH INDIVIDUAL PHASE OF THE PROJECT THE CONTRACTORS SHALL PROVIDE THE FOLLOWING CERTIFICATES BEFORE CONFORMANCE LETTERS ARE ISSUED BY THE CONSULTANT:
- POTABLE WATER TEST (SEE SPEC 15142/22 11 16 PART 3) - BACKFLOW TEST CERTIFICATE(S) FOR ALL TESTABLE DEVICES
- COPY OF MANDATORY TSSA/CSA-B149 GAS PRESSURE TEST TAG - NFPA-13 SPRINKLER CONTRACTOR'S MATERIAL & TEST CERTIFICATE
- FIRE PROTECTION ENGINEER'S INSPECTION/CONFORMANCE LETTER - NFPA-96 KITCHEN HOOD FIRE SUPPRESSION SYSTEM TEST
- ALL CERTIFICATES ARE TO BE SUBMITTED TOGETHER IN A SINGLE PACKAGE.

CAPACITY INDICATED ON SCHEDULE REFER TO

| Item | Description | Item | Description |
|----------------|-----------------------------------|--------------------|--|
| | - ITEM TO BE REMOVED | FEC | RECESSED CABINET MOUNTED FIRE EXTINGUISHER |
| | CUT EXISTING & CONNECT NEW PIPING | FE FE | WALL MOUNTED FIRE EXTINGUISHER |
| - | - FLOW DIRECTION | oco | FLOOR CLEANOUT |
| · | POTABLE COLD WATER | ——- co | LINE CLEANOUT |
| | POTABLE HOT WATER | PRV | PRESSURE REDUCING VALVE |
| | POTABLE HOT WATER RECIRC. | GФ | THERMOSTAT (WITH GUARD WHERE INDICATED) |
| -SAN-EX- | EXISTING SAN ABOVE FLOOR | }}}} | TURNING VANES |
| -SAN-EX- | EXISTING SAN BELOW FLOOR | | SUPPLY AIR DUCT |
| - — SAN — - | - SANITARY ABOVE FLOOR | | RETURN/EXHAUST AIR DUCT |
| | SANITARY BELOW FLOOR | - | ACOUSTIC DUCT LINING |
| STM-EX. | EXISTING STM ABOVE FLOOR | | THERMAL INSULATION |
| SŢM—EX. | _ EXISTING STM BELOW FLOOR | | BRANCH LINE SPIN-IN COLLAR C/W BALANCING DAMPER |
| -STM— — · - | STORM ABOVE FLOOR | | TRUNK MAIN BRANCH COLLAR C/W BALANCING DAMPER |
| -STM | STORM BELOW FLOOR | — BD | BALANCING DAMPER |
| ——CD—— | CONDENSATE DRAIN | ~~~ M | MOTORIZED DAMPER |
| | - VENT | FD | FIRE DAMPER |
| FDOT | FLOOR DRAIN | FSD | FIRE/SMOKE DAMPER |
| - 79-P- | TRAP PRIMER | SD SD | SMOKE DAMPER |
| | _ TEE CONNECTION | ─ FF | FIRE FLAP |
| c — | PIPE DOWN | } | RECTANGULAR DUCTWORK |
| o — | PIPE UP | | RIGID ROUND DUCT |
| | SCREWED OR WELDED PIPE CAP | | FLEXIBLE ROUND DUCT |
| ıŏı | PLUG VALVE | A | ACOUSTICAL, FLEXIBLE ROUND DUCT |
| <u> </u> | BALL VALVE | ——AL —— | ALUMINUM DUCT |
| S Φ | SOLENOID VALVE | ——ss —— | STAINLESS STEEL DUCT |
| 4 G── | VALVE ON RISER | Type Size Capacity | DIFFUSER/GRILLE SIZE (imp), TYPE & CAPACITY (cfm) |
| BV BV | BALANCING VALVE | | |



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The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be

returned at the completion of the project. These documents are

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Consultant.

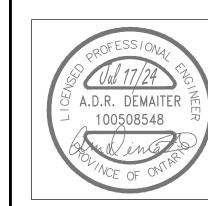


MECHANICAL | ELECTRICAL | AQUATIC 55 Northland Road, Waterloo, ON N2V 1Y8

> Phone: 519-725-3555 Website: deiassociates.ca Project Number: 24061

2024-08-09 ISSUED FOR ADDENDUM #1 3 2024-07-17 ISSUED FOR TENDER & PERMIT 2024-06-25 ISSUED FOR 90% REVIEW 1 2024-05-23 ISSUED FOR 50% REVIEW Rev.No. DATE REMARKS ISSUED FOR | \\ \\

KEY PLAN



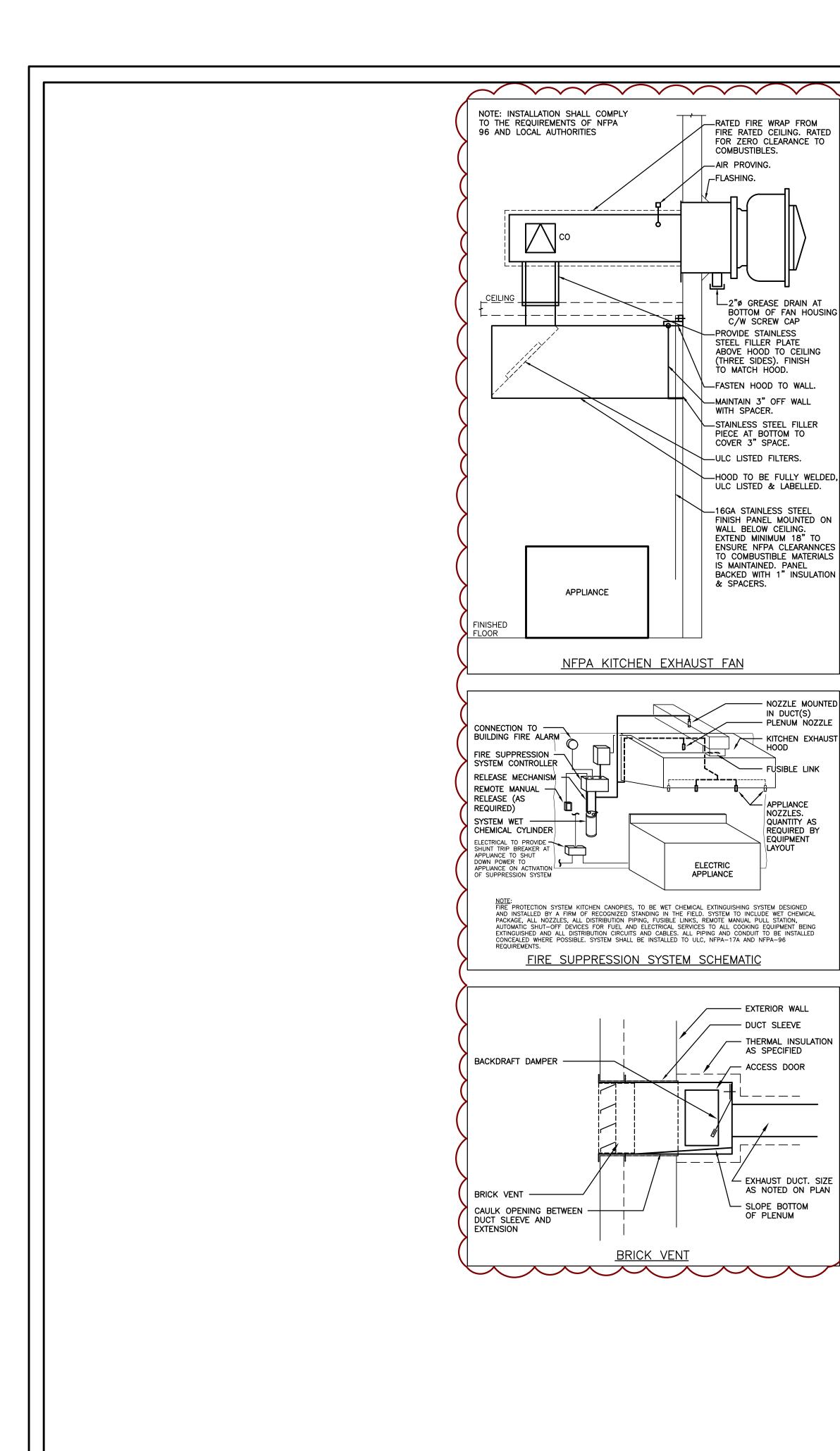
ARTHUR ARENA INTERIOR RENOVATIONS 158 DOMVILLE ST. ARTHUR, ONTARIO MECHANICAL LEGENDS, NOTES, AND SCHEDULES

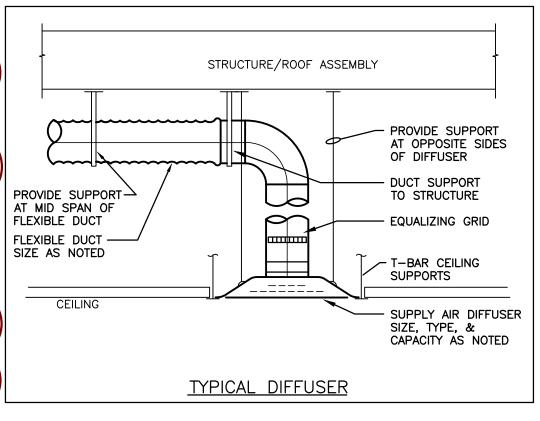
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24061

DITINDING FIVELIDE COLLECTIFE (2 OF 2)

| | Туре | Conn | ection : | Sizes | | Fixture | | Trim | | | Accessories | | |
|----|---|---------|----------|-----------|---|---|--|--|--|-------------------------|--|--|--|
| em | туре | HW CW | TW Dr | oin Vent | Acceptable Manufacturer | Fixture Description | Acceptable Manufacturer | Tr | rim Description | Acceptable Manufacturer | Accessory Description | | |
| | STAINLESS STEEL TRIPLE COMPARTMENT SINK | 1/2 1/2 | 1 | /2 1 1/4 | FRANKE LBT6410PCB-1 NO ALTERNATIVES | SINK: TRIPLE COMPARTMENT, LEDGE-BACK. FROM 1.0 mm (20 GAUGE) THICK TYPE 302 POLISHED STAINLESS STEEL, SELF-RIMMING, UNDERCOATED, CLAMPS. OVERALL SIZE: 1178 mm X 522 mm X 254 mm (46-3/8" X 20 9/16" X 10"). COMPARTMENT SIZE: 356 mm X 406 mm X 254 mm (14" X 16" X 10") | T&S B-1123-WH4 NO ALTERNATIVES | | ED BRASS BODY, WITH 12" SWING SPOUT, HANDLES. ACCESSORIES TO LIMIT MAXIMUM PPM) AT 413 kPA (60 psi). | | WASTE FITTING: INTEGRAL STAINLESS STEEL BASKET STRAINER/STOPPER, TAILPIECE, CAST BRASS P-TRAP WITH CLEANOUT. | | |
| | | | \ | | | | | | | | | | |
| | STAINLESS STEEL WALL HUNG SINGLE SINK | 1/2 1/2 | 1 | /2 1 1/4 | NOVANNI 8100 KINDRED | SINK: SINGLE COMPARTMENT, LEDGE-BACK. FROM 16 GAUGE THICK TYPE 304 POLISHED STAINLESS STEEL, WALL-HUNG. OVERALL SIZES: 480 mm X 500 mm X 180 mm (18-3/4" X 19-1/2" X 7"). | DELTA 100 ZURN Z82300-CP8 MOEN COMMERCIAL 8701 | FAUCET: CHROME PLATED BRASS, WITH SWI WASHERLESS CONTROLS, ACCESSO I/min (2.2 gpm) AT 413 kPa (60 | NG SPOUT, AERATOR, SINGLE LEVER HANDLE, RIES TO LIMIT MAXIMUM FLOW RATE TO 8.35) psi). | | WASTE FITTING: INTEGRAL STAINLESS STEEL BASKET STRAINER/STOPPER, TAILPIECE, CAST BRASS P-TRAP WITH CLEANOUT. | | |
| | | | | \ | | | | | | | | | |
| -1 | HUB DRAIN | | NO | TED 1 1/2 | ZURN Z415 C/W Z-400-S MIFAB F1100-C-DD CONTOUR C2000-F WATTS FD-100-C-DD | GENERAL DUTY HUB DRAIN CAST IRON BODY, CLAMPING COLLAR, NICKEL-BRONZE ADJUSTABLE HEAD HUB. C/W TRAP PRIMER. | | | | | | | |





FIRE RATED CEILING. RATED

FOR ZERO CLEARANCE TO

___2"ø GREASE DRAIN AT

C/W SCREW CAP

ABOVE HOOD TO CEILING

(THREE SIDES). FINISH

-FASTEN HOOD TO WALL.

__MAINTAIN 3" OFF WALL

PIECE AT BOTTOM TO

ULC LISTED & LABELLED.

FINISH PANEL MOUNTED ON

TO COMBUSTIBLE MATERIALS

BACKED WITH 1" INSULATION

NOZZLE MOUNTED IN DUCT(S) PLENUM NOZZLE

KITCHEN EXHAUST

— FŲSIBLE LINK

APPLIANCE

QUANTITY AS

EQUIPMENT

- EXTERIOR WALL - DUCT SLEEVE

- ACCESS DOOR

- THERMAL INSULATION AS SPECIFIED

EXHAUST DUCT. SIZE AS NOTED ON PLAN

- SLOPE BOTTOM OF PLENUM

REQUIRED BY

HOOD

EXTEND MINIMUM 18" TO ENSURE NFPA CLEARANNCES

WALL BELOW CEILING.

IS MAINTAINED. PANEL

& SPACERS.

COVER 3" SPACE.

WITH SPACER.

PROVIDE STAINLESS

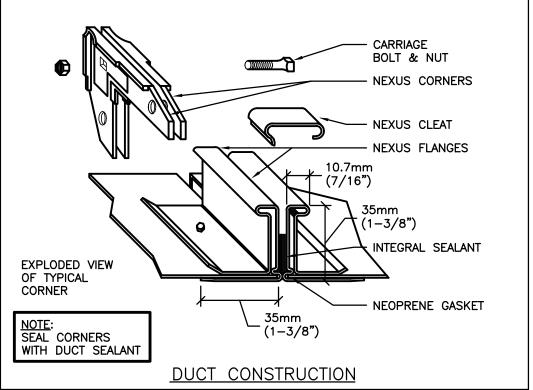
STEEL FILLER PLATE

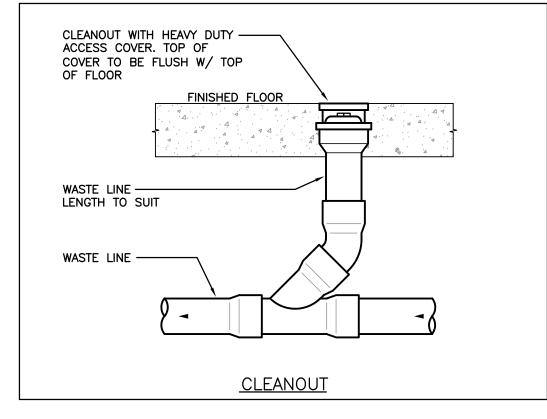
TO MATCH HÓOD.

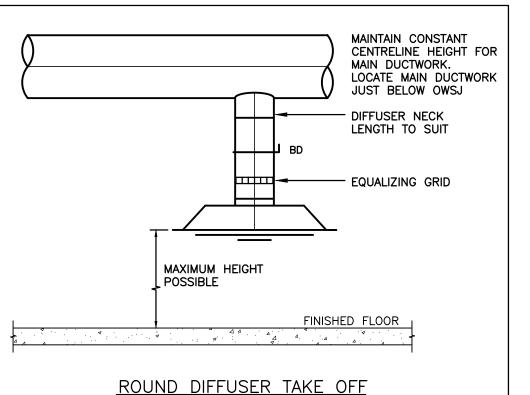
BOTTOM OF FAN HOUSING

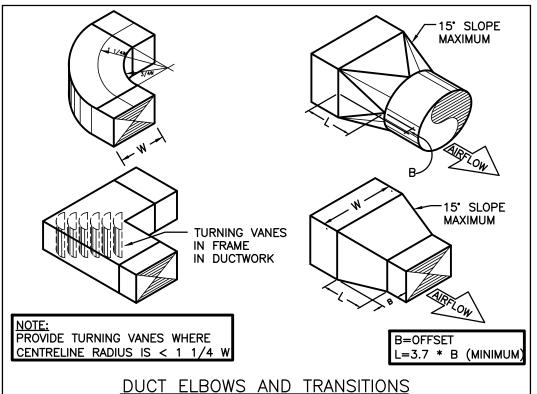
COMBUSTIBLES.

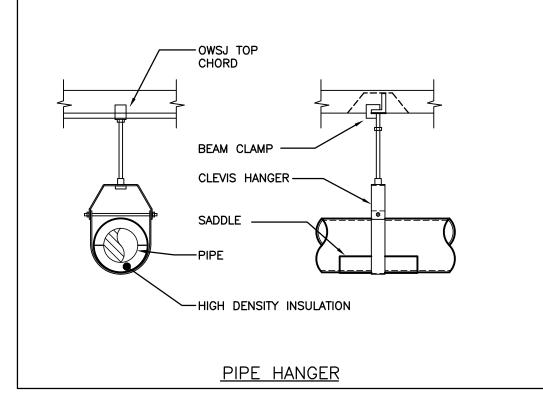
-AIR PROVING. _FLASHING.

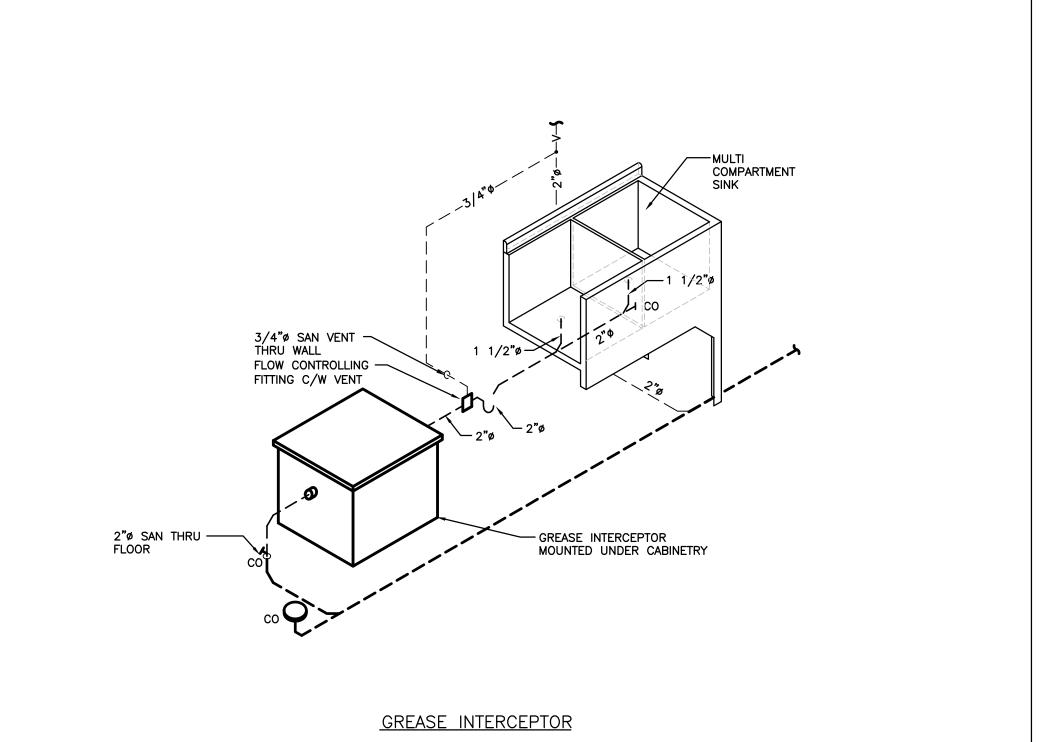


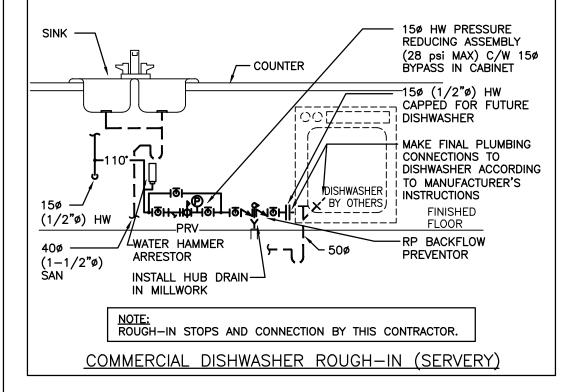


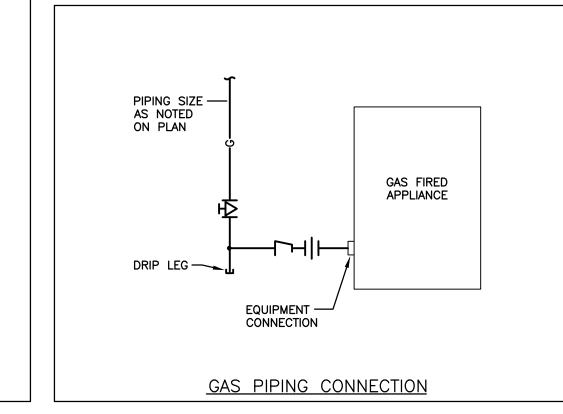














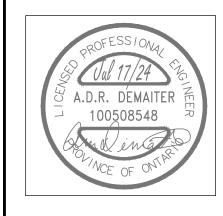
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2024-08-09 ISSUED FOR ADDENDUM #1 2024-07-17 ISSUED FOR TENDER & PERMIT 2024-06-25 ISSUED FOR 90% REVIEW 2024-05-23 ISSUED FOR 50% REVIEW Rev.No. DATE REMARKS ISSUED FOR KEY PLAN



ARTHUR ARENA **INTERIOR** RENOVATIONS 158 DOMVILLE ST. ARTHUR, ONTARIO MECHANICAL DETAILS

check:

05/24/24

24061

SPECIFIC DEMOLITION NOTES

- CUT AND CAP PORTION OF ACCESSIBLE ABANDONED STORM DRAINAGE PIPE. REMOVE BEYOND COMPLETE.
- 2. REMOVE EXISTING ABANDONED STORM PIPING.
- 3. EXISTING SINK TO BE REMOVED COMPLETE. CUT EXISTING WATER CONNECTION AND PREPARE FOR NEW SINK INSTALLATION.
- 4. CUT EXISTING SANITARY LINE AND REMOVE VERTICAL PIPING. PREPARE FOR NEW CONNECTION. CO-ORDINATE WITH ARCHITECTURAL TRADE TO SAWCUT FLOOR AS REQUIRED FOR INSTALLATION OF NEW DRAINS BELOW SLAB.
- CUT EXISTING 1/2"ø C&HW AND PREPARE FOR NEW CONNECTION.
- 6. REMOVE EXISTING 1/2"Ø C&HW BACK LOCATION WHERE PIPE IS LARGER. LEAVE HANGERS IN PLACE FOR INSTALLATION OF NEW 1"Ø PIPE.
- EXISTING HANDWASH SINK TO BE REMOVED. PREPARE EXISTING 1/2" H&CW AND 1-1/2" SANITARY PIPING FOR NEW SINK CONNECTION.

GENERAL DEMOLITION NOTES

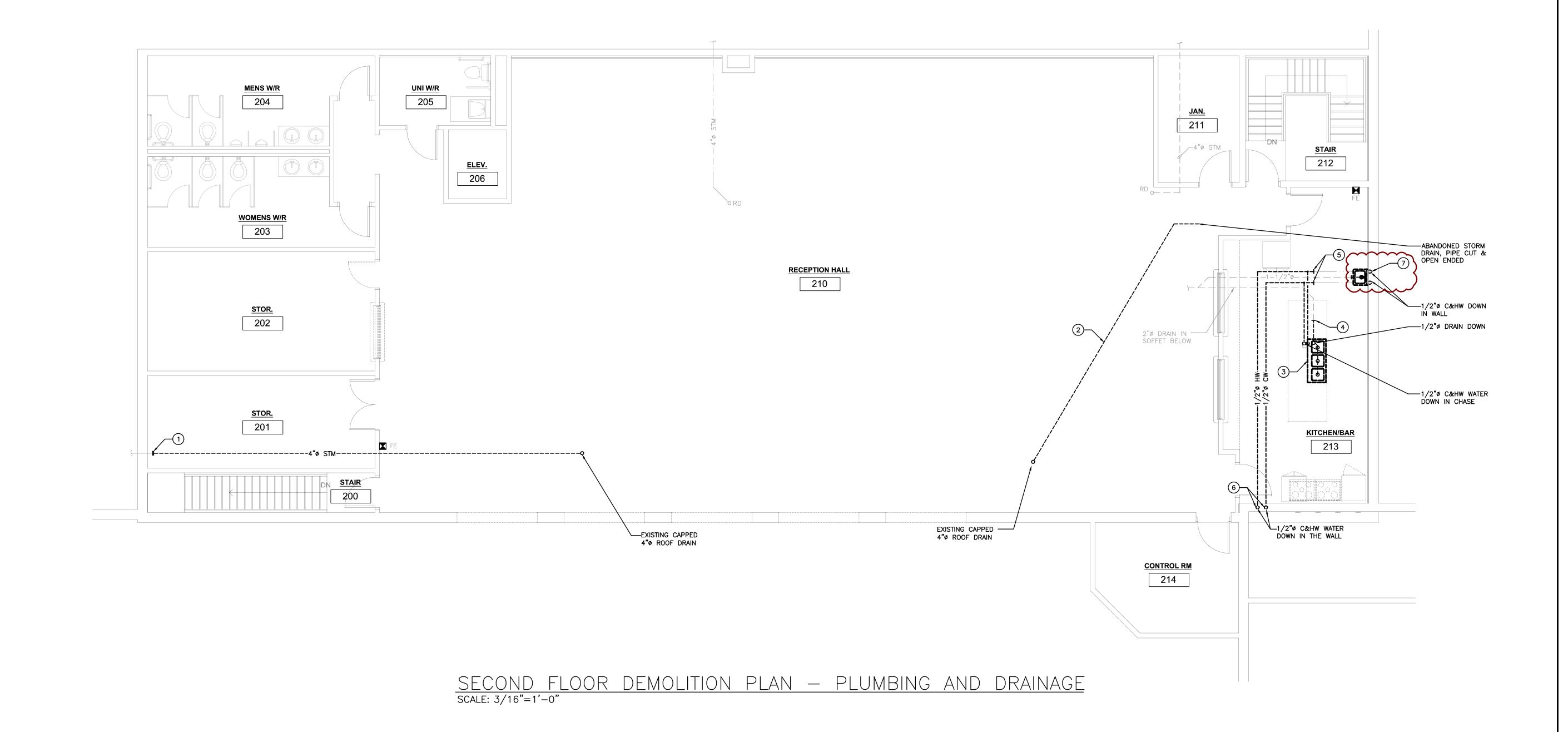
- A. EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- B. EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED
 AS BEING REMOVED OR RENOVATED SHALL REMAIN AS
 PRESENTLY INSTALLED AND OPERATING.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT
- D. ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING
- E. PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
- F. REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION,

CONSTRUCTION.

REMAIN OR BE MODIFIED.

- FITTINGS, ETC.

 G. MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO
- H. INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
- I. THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS
 AS REQUIRED FOR REMOVAL/REPLACEMENT OF





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The drawings do not indicate all offsets fitting and accessories

which may be required. Provide the same to meet the required conditions.

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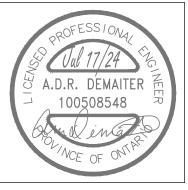
MECHANICAL | ELECTRICAL | AQUATIC

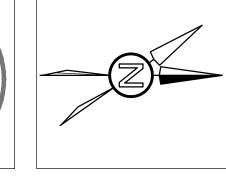
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ISSUED FOR

KEY PLAN





ARTHUR ARENA
INTERIOR
RENOVATIONS
158 DOMVILLE ST.
ARTHUR, ONTARIO
DEMOLITION PLAN PLUMBING AND
DRAINAGE

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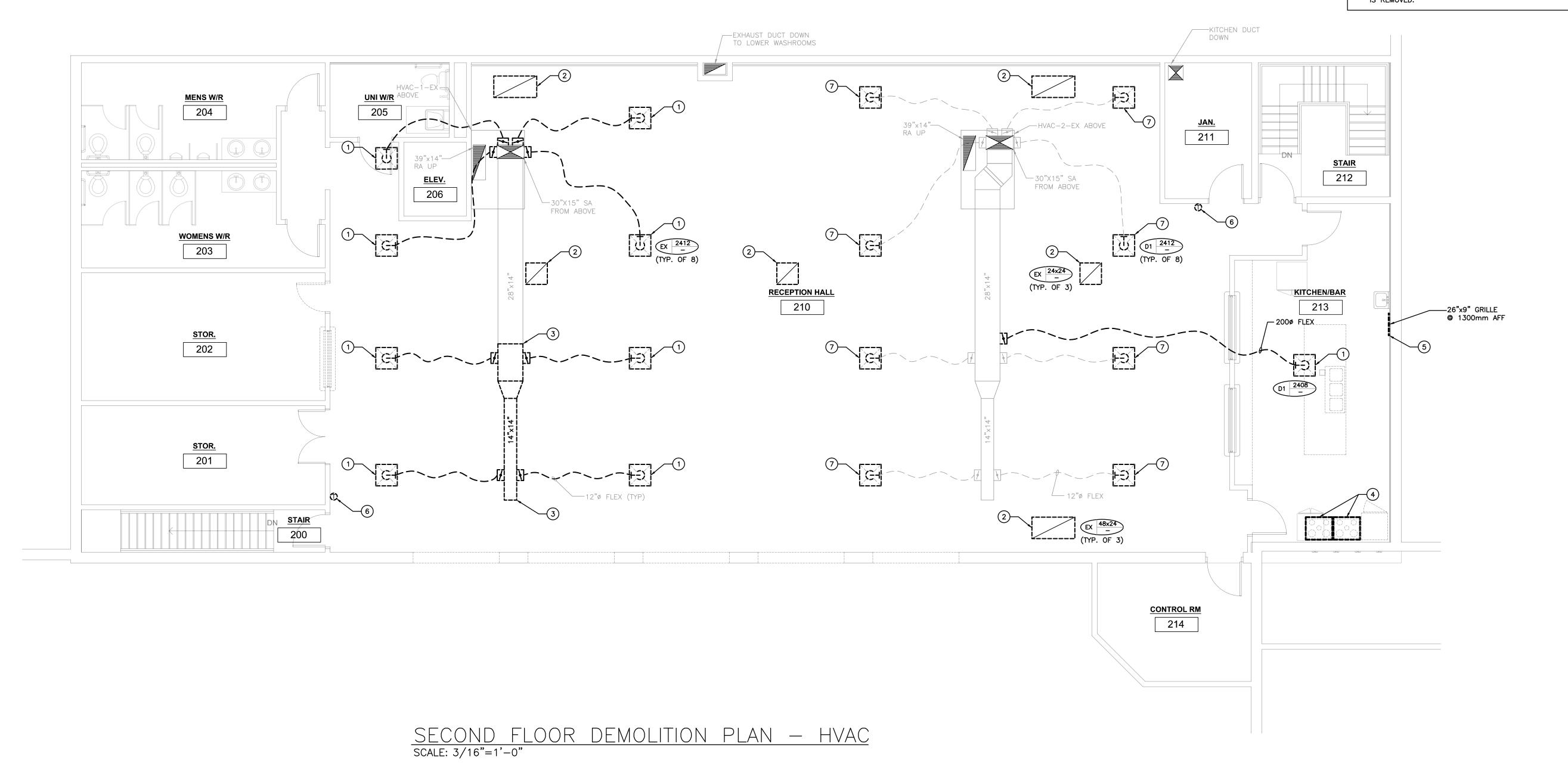
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SPECIFIC DEMOLITION NOTES

- EXISTING DIFFUSER AND FLEXIBLE DUCTWORK TO BE REMOVED COMPLETE.
- 2. EXISTING RETURN GRILLE TO BE REMOVED COMPLETE.
- 3. CUT AND CAP DUCT.
- 4. EXISTING EXHAUST HOODS TO BE REMOVED COMPLETE. 5. EXISTING GRILLE TO BE REMOVED COMPLETE. CAP DUCT
- CONCEALED IN WALL AND REMOVE BEYOND COMPLETE. PATCH AND MAKE GOOD ALL SURFACES.
- 6. REMOVE EXISTING THERMOSTAT.
- EXISTING DIFFUSER TO BE REMOVED, FLEXIBLE DUCTWORK TO REMAIN. PREPARE FOR NEW DIFFUSER

GENERAL DEMOLITION NOTES

- A. EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- B. EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED AS BEING REMOVED OR RENOVATED SHALL REMAIN AS PRESENTLY INSTALLED AND OPERATING.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT
- ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.
- PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
- REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.
- G. MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- H. INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
- THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS AS REQUIRED FOR REMOVAL/REPLACEMENT OF
- ENSURE ANY REMAINING DUCTWORK, FITTINGS, AND CONTROLS OF DECOMMISSIONED SMOKE HEATER SYSTEM IS REMOVED.





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The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions.

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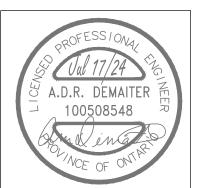
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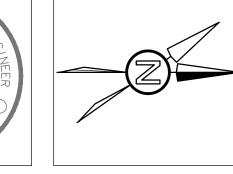
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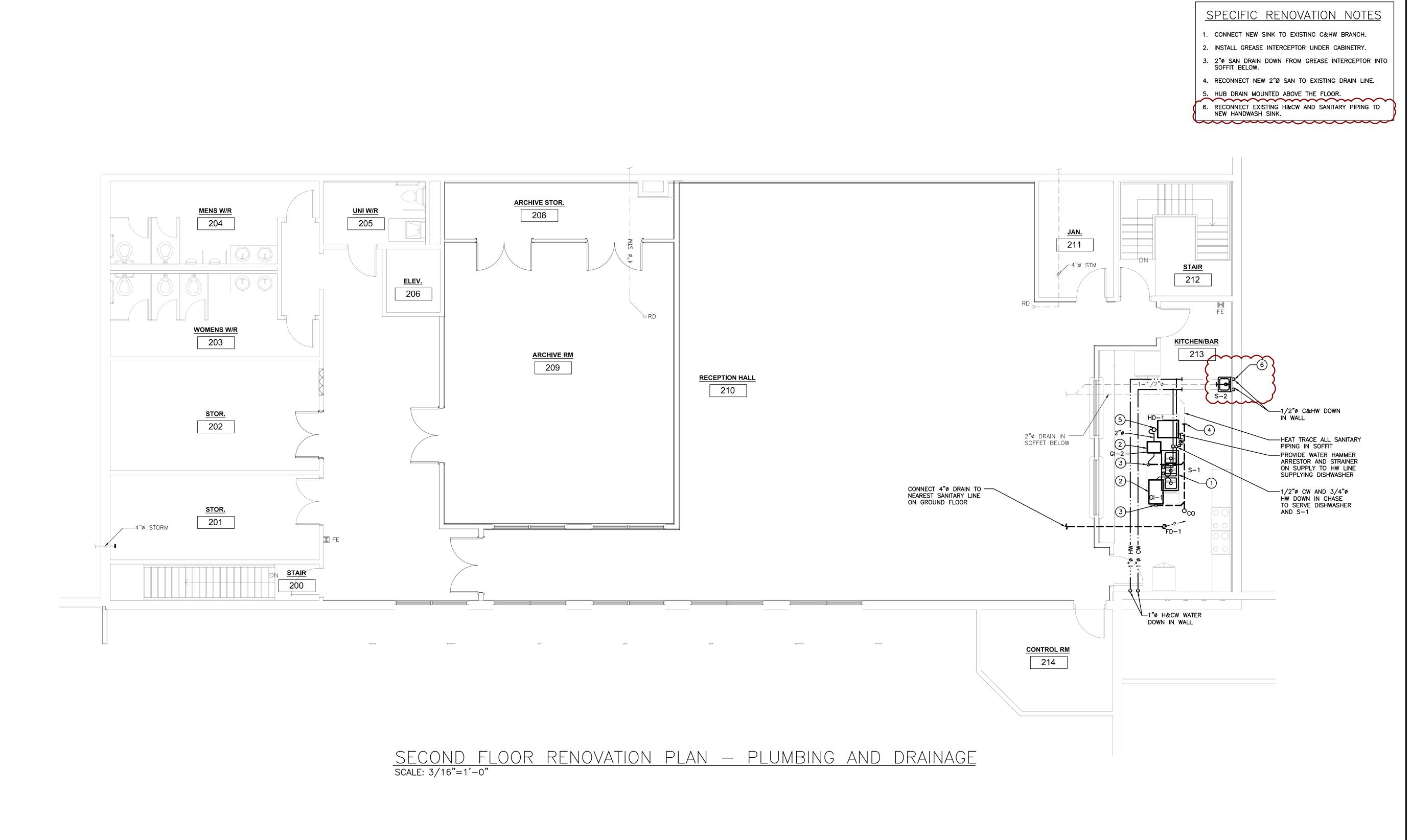


ARTHUR ARENA INTERIOR RENOVATIONS 158 DOMVILLE ST. ARTHUR, ONTARIO **DEMOLITION PLAN -HVAC**

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B. SANITARY VENT PIPING IS NOT SHOWN. PROVIDE ALL NECESSARY VENT PIPING FROM ALL FIXTURES FOR A COMPLETE SYSTEM TO ALL LOCAL PLUMBING CODE & LOCAL AUTHORITY REQUIREMENTS, CONNECTED TO EXISTING VENTS OR NEW VENTS AS REQUIRED.
 C. FLOOR DRAINS ARE TO BE VENTED AND TRAP SEAL PRIMED PROVIDE AUTOMATIC TRAP SEAL PRIMERS, MANIFOLDS, AND ASSOCIATED PIPING AS REQUIRED.

D. EXTEND CLEANOUTS UP THROUGH FLOOR.

BRANCH SIZING.

E. REFER TO PLUMBING SCHEDULE FOR ALL FIXTURE

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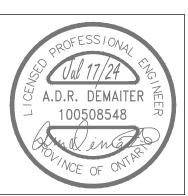
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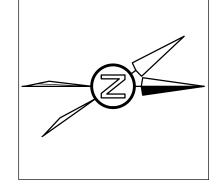
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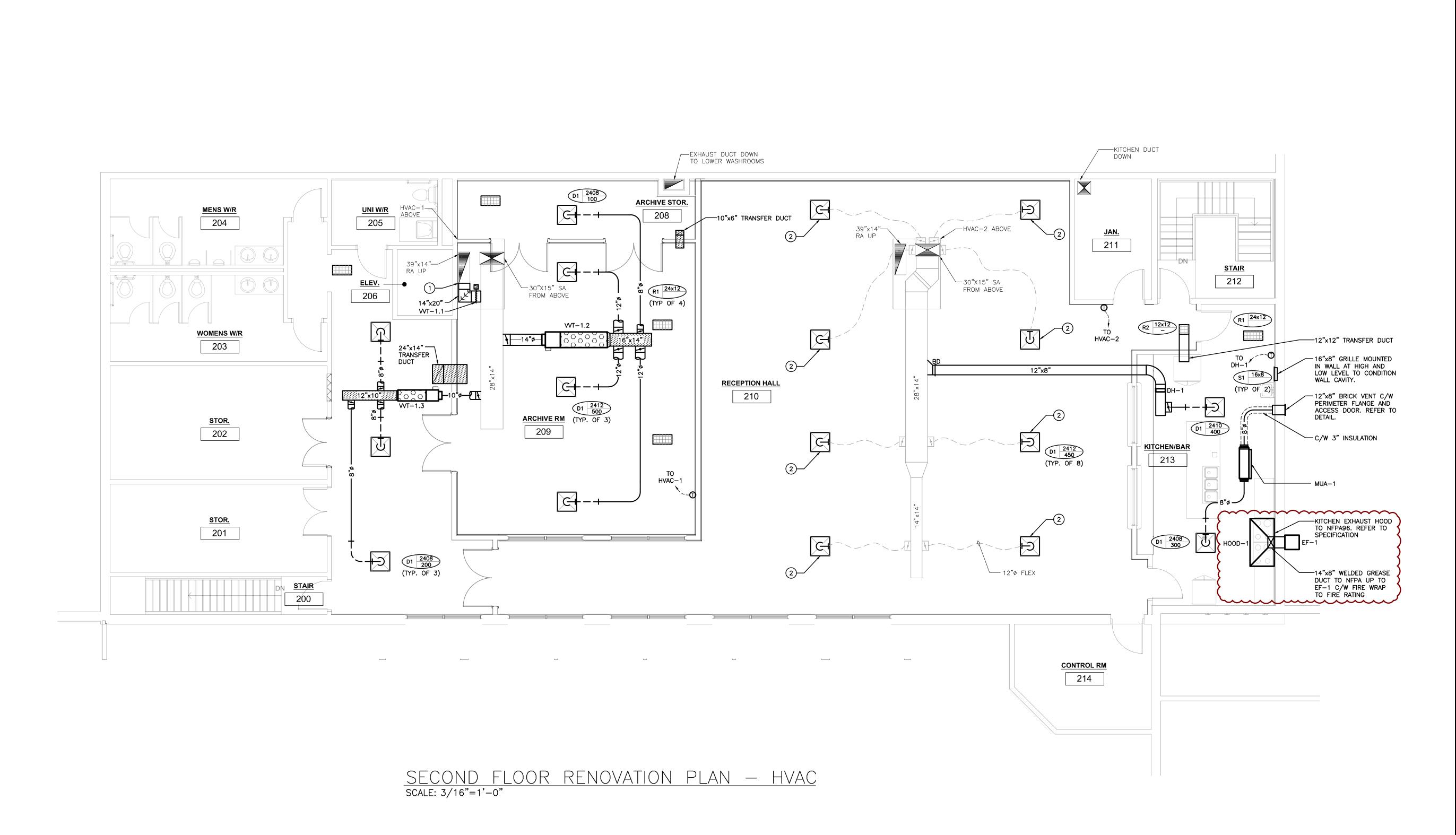
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- A. REFER TO ARCHITECTURAL CEILING PLANS FOR GRILLE/DIFFUSER LOCATIONS. CO-ORDINATE FINAL LOCATION ON SITE.
- B. WHERE DUCTWORK PENETRATES A CORRIDOR WALL, CENTER DUCTS BETWEEN OWSJ.

SPECIFIC RENOVATION NOTES

- . EXTEND EXISTING RETURN DUCT AS REQUIRED TO CONNECT NEW BYPASS DUCTWORK. BOTTOM OF DUCTWORK TO REMAIN OPEN.
- NEW DIFFUSER CONNECTED TO EXISTING FLEX DUCT. STRETCH FLEX DUCT AS NEEDED TO SUIT LOCATION.



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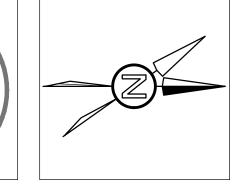
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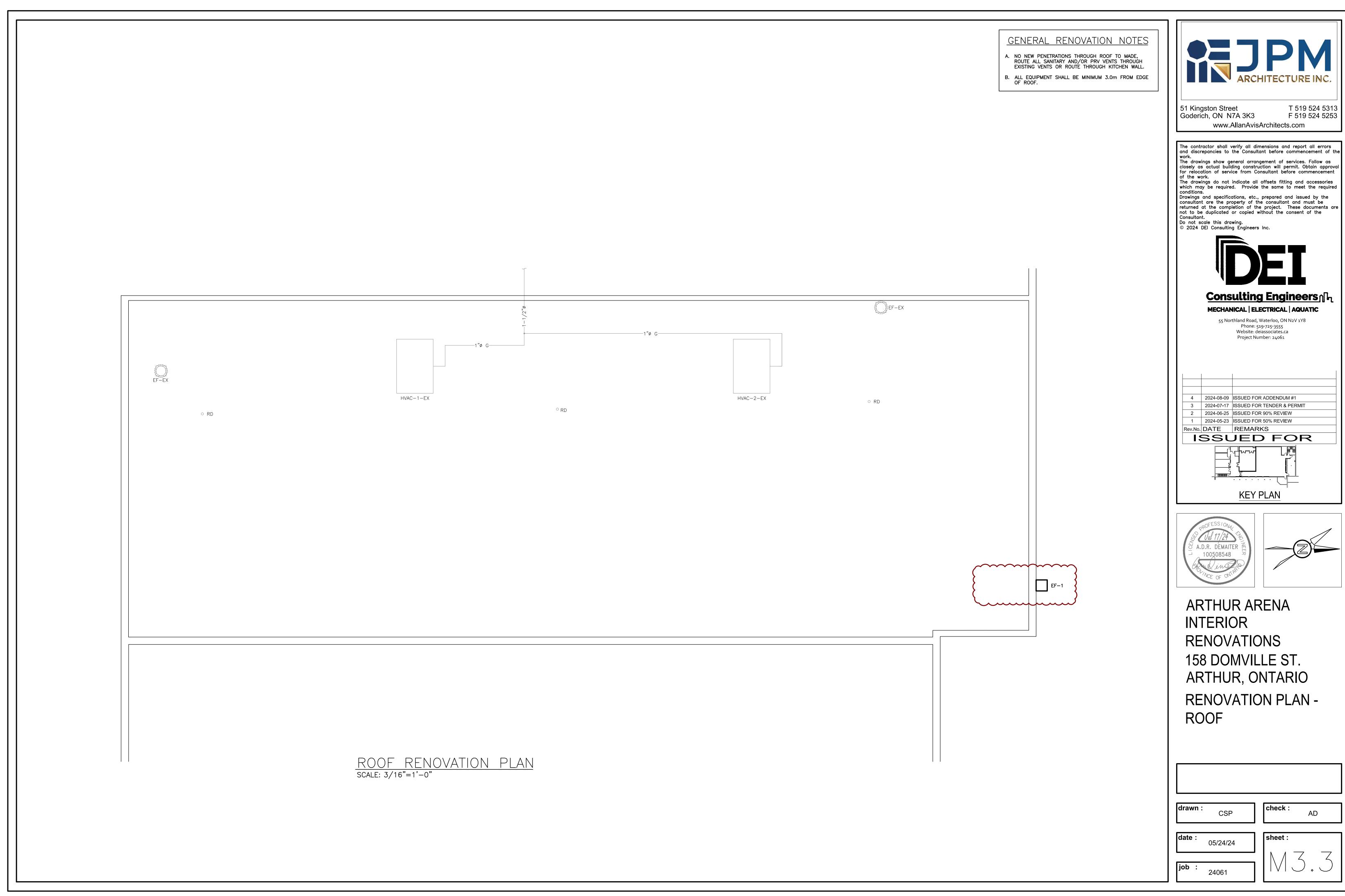
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MECHANICAL SPECIFICATION

PART A GENERAL NOTES

- 1. PROVIDE LABOUR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO OWNER AND CONSULTANT.
- 2. OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES, AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS. OBTAIN ALL NECESSARY APPROVALS, CERTIFICATES. SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT. COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF FIRE UNDERWRITERS, THE CANADIAN GAS ASSOCIATION, THE LOCAL BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL UTILITY COMPANY AND BY—LAWS. POST BUILDING PERMIT AT SITE IN ACCORDANCE WITH O.B.C. REQUIREMENTS.
- 3. VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE. INCLUDE ALL SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER AND CONSULTANT
- 4. COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH ALL OTHER TRADES. ENSURE SYSTEMS ARE SERVICEABLE.
- 5. CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRED TO INSTALL THE SERVICE.
- 6. THE DRAWINGS ARE DIAGRAMMATIC. THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS.
- 7. PROVIDE MARKED COPIES OF AS BUILTS.
- 8. THE MECHANICAL SYSTEMS OF THIS BUILDING MUST ACHIEVE THE ENERGY EFFICIENCY LEVELS BY CONFORMING TO ANSI/ASHRAE/IESNA 90.1 "ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS" AND CHAPTER 2 OF DIVISION 3 OF SB-10 PRESCRIPTIVE METHOD FROM THE ONTARIO BUILDING CODE.
- 9. ALL EQUIPMENT AND MATERIAL SHALL BE NEW. REPLACE ALL DAMAGED EQUIPMENT.
- 10. MATERIAL AND EQUIPMENT ARE NAMED IN THE SPECIFICATION TO ESTABLISH AN ACCEPTABLE STANDARD OF MATERIALS AND THE QUALITY OF WORKMANSHIP BY WHICH TO ADHERE.
- 11. SUBMIT SHOP DRAWINGS ELECTRONICALLY FOR ALL EQUIPMENT. THESE WILL BE REVIEWED BY THE CONSULTANT. RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY. SUBMIT ONE COMPLETE SUBMISSION INDEXED AND LABELED FOR THIS PROJECT.
- 12. PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN PIPES, DUCTS AND EQUIPMENT SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE.
- 13. MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKERS COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE WITH THE MINISTRY OF LABOUR REQUIREMENTS.
- 14. PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
- 15. INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.
- 16. SUBMIT DIGITAL, INDEXED COPIES OF OPERATING AND MAINTENANCE INSTRUCTIONS.
- 17. REMOVE ALL PROTECTIVE COVERINGS, CLEAN AND POLISH ALL EQUIPMENT, FREE ALL OBSTRUCTIONS, CLEAN AND REPLACE ALL FILTERS WITH NEW, AND LEAVE ALL KEYS AND WRENCHES WITH THE OWNER.
- 18. ALL SURPLUS AND WASTE MATERIALS SHALL BE PROMPTLY REMOVED FROM THE PREMISES.
- 19. ALL AREAS NOT AFFECTED BY RENOVATION OR DEMOLITION SHALL REMAIN AS PRESENTLY INSTALLED UNLESS NOTED OTHERWISE.
- 20. THE OWNER WILL DECIDE WHICH ITEMS OR EQUIPMENT SLATED FOR REMOVAL THAT THEY WISH TO RETAIN AS THEIR PROPERTY AND THIS CONTRACTOR SHALL REMOVE ALL OTHER MATERIALS FROM THE PREMISES.
- 21. PROVIDE LAMICOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDED.
- 22. ALL ELECTRICAL LINE AND LOW VOLTAGE WIRING WHICH IS TO BE PROVIDED BY THE MECHANICAL CONTRACTOR AS SPECIFIED ELSEWHERE HEREIN SHALL BE RUN IN EMT CONDUIT TO STANDARDS OF THE ELECTRICAL DIVISION.
- 23. WARRANTY ALL MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF SYSTEM.
- PROVIDE SCHEDULE 40 STEEL PIPE SLEEVES AT POINTS WHERE PIPES PASS THROUGH MASONRY, CONCRETE OR FIRE RATED ASSEMBLIES AND AS INDICATED. GROUT SLEEVES IN PLACE. MINIMUM 6 MM (1/4") CLEARANCE ALL AROUND, BETWEEN SLEEVE AND UNINSULATED PIPE OR BETWEEN SLEEVE AND INSULATION. CAULK BETWEEN SLEEVE AND PIPE IN FOUNDATION WALLS AND BELOW GRADE FLOORS WITH WATERPROOF FIRE RETARDANT NON—HARDENING MASTIC. WHERE SLEEVES PASS THROUGH WALLS OR FLOORS, PROVIDE SPACE FOR FIRESTOPPING. WHERE PIPES PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY. ENSURE NO CONTACT BETWEEN COPPER TUBE OR PIPE AND FERROUS SLEEVE. FILL FUTURE—USE SLEEVES WITH LIME PLASTER OR OTHER EASILY REMOVABLE FILLER. COAT EXPOSED EXTERIOR SURFACES OF FERROUS SLEEVES WITH HEAVY APPLICATION OF ZINC RICH PAINT TO CGSB 1—GP—181M+AMDT—MAR—78.
- 25. DUCT SLEEVES
 PROVIDE MINIMUM 20 GAUGE DUCT SLEEVES WHERE DUCTS PASS THROUGH MASONRY, CONCRETE OR FIRE RATED
 ASSEMBLIES. MAINTAIN MINIMUM 25 MM CLEARANCE ALL AROUND OR TO THE REQUIREMENTS OF THE AUTHORITY HAVING
 JURISDICTION. SEAL AT WALL AS INDICATED. WHERE DUCTS PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS,
 MAINTAIN FIRE RATING INTEGRITY.

PART B DEMOLITION NOTES

- 1. THIS PROJECT IS ONE OF A RETROFIT NATURE IN PART, AND WHICH WILL REQUIRE SOME DEMOLITION. ALLOW FOR ALL REMEDIAL WORK IN AREAS INDICATED ON THE DRAWINGS AND AS GENERALLY DEFINED IN THE RELEVANT SECTIONS OF THE
- 2. THE SCOPE OF WORK IS ESSENTIALLY THE SELECTED DISCONNECTION AND/OR REMOVAL OF SERVICES AND/OR EQUIPMENT, PIPING, DUCTWORK ETC. AS INDICATED OR REQUIRED TO COMPLETE THE WORK.
- 3. THIS DIVISION IS TO LIAISE WITH THE OWNERS OR CONSULTANT FOR EQUIPMENT BEING REMOVED THAT MAY BE SUITABLE FOR REUSE TO THAT SPECIFIED OR HANDED OVER TO THE OWNER.
- 4. THIS DIVISION TO TAKE FULL RESPONSIBILITY FOR ANY SPECIAL TOOLS OR EQUIPMENT REQUIRED TO DISASSEMBLE OR REMOVE MATERIAL FROM BUILDING.
- 5. THE GENERAL EXECUTION OF THE DEMOLITION IS TO BE CARRIED OUT IN A CLEAN AND EFFICIENT MANNER.
- 6. DEMOLITION OF EXISTING CEILING, WALLS ETC., TO FACILITATE REMOVAL OF EXISTING SERVICES OR EQUIPMENT OR INSTALLATION OF NEW TO BE KEPT TO A MINIMUM AND THEN RESTORED TO MATCH EXISTING.
- 7. ALL OPENINGS OR HOLES CREATED BY REMOVAL OF EXISTING MECHANICAL SYSTEMS WHICH ARE NOT BEING REUSED ARE TO BE PATCHED WITH THE SAME MATERIAL SURROUNDING SURFACES.
- 8. PROTECT ALL EXISTING FURNISHINGS MATERIALS AND EQUIPMENT. ANY DAMAGE OCCURRING AS A RESULT OF THE WORK OF THIS DIVISION SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THIS DIVISION.
- 9. WHERE WORK INVOLVES BREAKING INTO OR CONNECTING TO EXISTING SERVICES, CARRY OUT WORK AT TIMES DIRECTED BY THE OWNERS IN AN EXPEDIENT MANNER WITH MINIMUM DISRUPTION TO THE FACILITY AND SYSTEMS DOWNTIME.
- 10. WHERE UNKNOWN SERVICES ARE ENCOUNTERED, IMMEDIATELY ADVISE CONSULTANT AND CONFIRM FINDINGS IN WRITING.
- 11. WHERE THE LOCATION OF ANY SERVICES HAS BEEN SHOWN ON THE PLANS, SUCH INFORMATION IS NOT GUARANTEED. IT IS THIS DIVISION'S RESPONSIBILITY TO VERIFY LOCATIONS, INVERT ELEVATIONS, ETC., IMMEDIATELY AFTER MOVING ON SITE. SHOULD FOR ANY REASON THE INFORMATION OBTAINED NECESSITATES CHANGES IN PROCEDURE OR DESIGN, ADVISE THE CONSULTANT AT ONCE. IF VERIFICATION OF EXISTING CONDITIONS IS NOT DONE AT THE OUTSET AND ANY PROBLEMS ARISE, THE RESPONSIBILITY FOR SAME IS ENTIRELY THIS DIVISION'S.
- 12. DISCONNECT AND/OR REMOVE EQUIPMENT PIPING, DUCTWORK, ETC. AS INDICATED.
- 13. CAP AND CONCEAL ALL REDUNDANT AND OBSOLETE CONNECTIONS.
- 14. PROVIDE A LIST OF EQUIPMENT TO BE REMOVED TO THE OWNER, FOR HIS ACCEPTANCE OF SAME. REMOVE ALL EQUIPMENT FROM SITE WHICH THE OWNER DOES NOT RETAIN.
- 15. MAINTAIN EQUIPMENT TO BE RETAINED BY OWNER ON SITE WHERE DIRECTED BY CONSULTANT.
- 16. DEMOLITION OF ALL PARTS OF THE WORK MUST BE COMPLETED WITHIN THE CONFINES OF THE WORK AREA AND IN SUCH A WAY AS THE DUST PRODUCED AND RISK TO INJURY OF WILL NOT ADVERSELY AFFECT THE BUILDING USERS.
- 17. DEMOLISHED AREAS OF THE EXISTING BUILDING WILL REMAIN IN THEIR CURRENT USE IN SOME CASES. DEMOLITION IN THESE AREAS MUST BE KEPT TO THE MINIMUM REQUIRED TO COMPLETE THE WORK.
- 18. DEMOLITION SHALL TAKE PLACE WITHIN AREAS ISOLATED FROM ALL OTHER AREAS WITH APPROPRIATE HOARDING, SCAFFOLDING, NETTING, FENCING OR OTHER MEANS OF SECURITY BETWEEN BUILDING USERS AND THE WORK.
- 19. CO-ORDINATE MAKING SAFE ELECTRICAL DEVICES, CAPPING PLUMBING AND REMOVAL OF FIXTURES PRIOR TO COMMENCEMENT OF DEMOLITION.
- 20. ALL PIPING AND EQUIPMENT TO BE REMOVED AND/OR ABANDONED SHALL BE DRAINED PRIOR TO CAPPING AND/OR ABANDONING. DISPOSAL OF ALL LIQUIDS SHALL BE TO THE APPROVAL OF AUTHORITY OF HAVING JURISDICTION AND/OR PROVINCIAL REGULATIONS.

- 21. DRAIN ALL EXISTING PIPING AND DRAINAGE SYSTEMS INCLUDING ALL RELATED EQUIPMENT AS REQUIRED TO FACILITATE SYSTEM RENOVATIONS.
- 22. DISPOSAL OF EXISTING SYSTEM SHALL BE TO THE REQUIREMENTS OF THE LOCAL AND/OR PROVINCIAL REGULATIONS.

DART C DILIMBING NOTES

- 1. CONTRACTOR TO PROVIDE POTABLE WATER CERTIFICATE FOR E. COLI AND COLIFORM FROM A RECOGNIZED TESTING LABORATORY UPON COMPLETION OF THE PROJECT. WATER IS TO BE TAKEN FROM A NEW FIXTURE TO TEST THE NEW PIPING INSTALLED.
- 2. SERVICES CONNECT TO EXISTING SERVICES WHERE SHOWN ON DRAWINGS.

AND THE LOCAL GAS DISTRIBUTORS REQUIREMENTS.

- 3. CODES AND REGULATIONS
 SANITARY, SOIL WASTE, VENT, AND ALL WATER PIPING SHALL CONFORM AND BE INSTALLED TO THE ONTARIO PLUMBING
 CODE AND THE CANADIAN PLUMBING CODE, LATEST EDITION. ALL GAS PIPING SHALL CONFORM TO THE CANADIAN GAS CODE
- 4. IESTING
 SANITARY PIPING: ALL SANITARY PIPING SHALL BE TESTED WITH WATER UNDER THE GUIDANCE OF THE LOCAL PLUMBING
 INSPECTOR. SMOKE TESTS OR ANY OTHER TEST REQUIRED BY THE PLUMBING INSPECTOR SHALL ALSO BE MADE. WATER
 PIPING: ALL WATER PIPING SHALL BE TESTED TO 150 PSI. PRESSURE FOR NOT LESS THAN FOUR HOURS WITHOUT A LOSS
 IN PRESSURE. GAS PIPING: ALL GAS PIPING SHALL BE PRESSURE TESTED TO THE LATEST ONTARIO GAS UTILIZATION CODE
 AND LOCAL GAS DISTRIBUTORS REQUIREMENTS. ALL GAS PIPING SHALL CONFORM TO THE CANADIAN GAS CODE AND THE
 LOCAL GAS DISTRIBUTORS REQUIREMENTS.
- MAINTAIN TESTABLE RP BACKFLOW PREVENTOR BETWEEN MUNICIPAL WATER AND NEW PLUMBING SYSTEM. ENSURE A MINIMUM OF 90% OF PLUMBING FIXTURES ARE INSTALLED. FLUSH WATER MAINS THROUGH AVAILABLE OUTLETS WITH A SUFFICIENT FLOW OF POTABLE WATER TO PRODUCE A VELOCITY OF 1.5 M/S, WITHIN PIPE FOR 10 MIN, OR UNTIL FOREIGN MATERIALS HAVE BEEN REMOVED AND FLUSHED WATER IS CLEAR WITH BACKFLOW PROTECTION. PROVIDE CONNECTIONS AND PUMPS FOR FLUSHING AS REQUIRED. OPEN AND CLOSE VALVES, AND OPERATE FIXTURES TO ENSURE THOROUGH FLUSHING. TAKE WATER SAMPLES AT REMOTE FIXTURES AND SERVICE CONNECTIONS.
- 5. PIPE AND FITTINGS
 STORM, SANITARY AND VENT DRAINS: (ABOVE GRADE), MEDIUM WEIGHT CAST IRON WITH MECHANICAL RUBBER JOINTS OR TYPE DWV COPPER PIPE. STORM, SANITARY AND VENT PIPING: (BELOW GRADE) PVC DRAINAGE PIPE TO SDR 35 WITH SOLVENT WELDED JOINTS. ABS DRAINAGE PIPE WITH SOLVENT WELDED JOINTS. WATER PIPING: TYPE L COPPER WITH LEAD FREE SOLDER JOINTS. GAS PIPING: GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH SCREWED MALLEABLE IRON FITTINGS FOR PIPING 2" DIAMETER AND SMALLER, AND WELDED JOINTS FOR PIPE 2 1/2" DIAMETER AND LARGER UNLESS OTHERWISE NOTED HEREIN. ALL GAS PIPING SHALL BE PAINTED WITH TWO COATS OF YELLOW PAINT.
- 6. VALVES
 ISOLATION VALVES: HOT AND COLD WATER BRONZE BODY, CLASS 150, STAINLESS STEEL BALL, FULL PORT, PTFE SEAT AND PACKING, STEEL LEVER HANDLE. MILWAUKEE BA-455, CRANE, TOYO CHECK VALVES: HOT AND COLD WATER SIZES 1/2"
 DIAMETER TO 2" DIAMETER CRANE FIG. 1342, OR EQUAL JENKINS, BRONZE SWING CHECK, SOLDER ENDS. CRANE FIG. 29
 OR EQUAL JENKINS VERTICAL LIFT CHECK VALVE, SCREWED ENDS ON VERTICAL PIPING. GAS VALVES: SHALL BE GSA APPROVED LUBRICATED PLUG TYPE.
- 7. CLEAN OUTS
 CLEAN OUTS: PROVIDE AND SET CLEAN OUT PLUGS IN ALL DRAINS AND SOIL PIPE LINES WHERE OBSTRUCTIONS MAY BE FOUND, AT CHANGES OF DIRECTION, AT THE BASE OF ALL SANITARY STACKS AND AT INTERVALS. LENGTHS TO THE ONTARIO PLUMBING CODE. CLEAN OUTS SHALL BE FULL SIZES OF PIPES UP TO 4" DIAMETER AND NOT LESS THAN 4" DIAMETER FOR LARGER PIPES. ANCON CO-100-R OR EQUAL.
- WATERLESS INLINE FLOOR DRAIN TRAP SEAL, COMMERCIAL GRADE UV AND OZONE RESISTANT PVC (XFR) PLASTIC HOUSING WITH PROPRIETARY EPDM RUBBER DIAPHRAGM AND SOFT RUBBER SEALING GASKET. ACCEPTABLE MATERIALS: SURE SEAL, TRAP GUARD.
- 9. DRAIN VALVES
 DRIP COCKS: SUPPLY AND INSTALL 1/2" DIAMETER MUELLER OR EQUAL DRAIN VALVES AT ALL LOW POINTS IN THE WATER
 SYSTEMS TO COMPLETELY DRAIN THE SYSTEMS. ALL DRIP COCKS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS.
- O. PLUMBING FIXTURES

 FIXTURES AS LISTED ON THE DRAWINGS. ALL FIXTURES MUST BE NEW AND CLEAN WHEN THE WORK IS TAKEN OVER BY
 THE OWNER. ALL PLUMBING FIXTURES SHALL BE EQUIPPED WITH SUPPLY VALVES, FAUCETS, TRAPS, SUPPORTS, WATER
 CONNECTIONS, ESCUTCHEONS, HANGERS, BOLTS. ETC. FIXTURES SHALL BE CRANE OR EQUAL AMERICAN STANDARD, KOHLER.
 TRAPS: 2" DIAMETER AND SMALLER, SHALL BE CAST BRASS AND CHROME PLATED IN EXPOSED AREAS. ALL SINK TRAPS
 SHALL BE TWO PIECE CONSTRUCTION. ALL TRIM MUST BE CAMBRIDGE BRASS OR EQUAL. ON COMPLETION ALL FIXTURES,
 ACCESSORIES AND EXPOSED PIPING SHALL BE THOROUGHLY CLEANED AND LEFT READY FOR USE. AFTER FINAL INSPECTION
- 11. FIRE EXTINGUISHERS
 SUPPLY AND INSTALL WHERE SHOWN ON DRAWINGS NATIONAL OR EQUAL UL LABELED 5 LB. MULTIPURPOSE DRY CHEMICAL
 FIRE EXTINGUISHERS WITH HOSE SHUTOFF NOZZLE AND WALL MOUNTING BRACKETS. PROVIDE RECESSED WALL CABINET

BY THE PLUMBING INSPECTOR CAULK AROUND BASE OF ALL FIXTURES TO THE WALL OR FLOOR WITH SILICONE CAULKING.

- 12. EXPANSION COMPENSATION
 PIPING SUBJECTED TO THERMAL EXPANSION SHALL BE INSTALLED USING PIPE LOOPS AND/OR EXPANSION COMPENSATORS
 TO PERMIT FREE EXPANSION AND CONTRACTION WITHOUT CAUSING DAMAGE TO OR STRESSES AT JOINTS AND HANGER AND
 TO REDUCE STRAIN ON CONNECTED EQUIPMENT TO A MINIMUM.
- 13. GREASE INTERCEPTORS (PLASTIC)
 RETENTION TYPE INTERCEPTOR, TESTED AND RATED IN ACCORDANCE WITH ENVIRONMENTAL PROTECTION ACT (EPA),
 COMPLETE WITH FIRE RESISTANT POLYPROPYLENE CONSTRUCTION FOR MOUNTING ABOVE FLOOR WITH ALUMINUM NON—SKID
 COVERS ON FLOOR COMPLETE WITH FLOW CONTROL FITTING SUITABLY VENTED. CAPACITY: 3.15 L/S (50 GPM) IOD INLET &
 OUTLET. THE UNIT SHALL BE ABLE TO TREAT EFFLUENT TO LESS THAN 100 mg/L OF GREASE. THE GREASE INTERCEPTOR
 SHALL HAVE A MINIMUM OF FIVE MINUTES RETENTION TIME. ACCEPTABLE MATERIAL: JRC PLASTIC INTERRUPTERS, JONESPEC,
 CONTOUR, ENDURA.
- 14. PIPE INSULATION
 INSULATE ALL DOMESTIC HOT AND COLD WATER PIPING AND STORM PIPING ABOVE GRADE. WITH 1" (FOR PIPING UNDER 1 1/2" DIAMETER) OR 1 1/2" (FOR PIPING 1 1/2" DIAMETER AND HIGHER) FIBERGLASS INSULATION WITH VAPOUR BARRIER. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS. RECOVER EXPOSED PIPING WITH 6 OZ. CANVAS JACKET AND TWO COATS LAGGING ADHESIVE.

PART D KITCHEN HOOD NOTES

- 1. BOX CANOPY FILTER HOOD
 THE HOOD SHALL BE CEILING HUNG WITH A RECOMMENDED MOUNTING HEIGHT BETWEEN 1981mm (6'-6") AND 2200mm
 (7'-3") FROM THE FINISHED FLOOR. THE HOOD SHALL BE FINISHED IN A NO. 4 STAINLESS STEEL FINISH ON ALL EXPOSED SIDES.
- THE HOOD SHALL BE EQUIPPED WITH HIGH EFFICIENCY UL/ULC LISTED BAFFLE GREASE FILTERS. THE EXHAUST AIR SHALL ACCELERATE THROUGH MULTIPLE TURNS WITHIN THE BAFFLE FILTER. THE LIQUEFIED GREASE SHALL DRAIN DOWN THE BAFFLES, ALONG THE GREASE TROUGH, AND INTO A GREASE.

 THE FILTER HOOD SHALL BE BOX CANOPY, HIGH EFFICIENCY, FILTER HOOD, UL/ULC LISTED, AND BUILT IN ACCORDANCE WITH THE NFPA—96. THE UNIT CASING SHALL BE A MINIMUM 18 GA. STAINLESS STEEL ON ALL EXPOSED SURFACES.
- 2. GREASE FILTER TYPE
 TO NFPA. ULC LABELED. WELDED TYPE 304 STAINLESS STEEL, WASHABLE FILTERS AND DRAIN CONNECTOR. ACCEPTABLE
 MATERIALS: SPRING AIR, GARLAND, HALTON.
- 3. FIRE SUPPRESSION SYSTEM
 FIRE DETECTION AND SUPPRESSION SYSTEM: ULC LISTED AND LABELED, WET CHEMICAL PRE—ENGINEERED FIXED NOZZLE
 TYPE FOR APPLIANCES, FILTERS AND DUCTWORK.
 MANUAL AND AUTOMATIC DUMP SYSTEM. AUTOMATIC ACTUATION SHALL BE PROVIDED BY AN APPROPRIATE NUMBER OF FUSE
 LINK DETECTORS MOUNTED IN SERIES ON A STAINLESS STEEL WIRE INPUT LINE TO THE CONTROL HEAD. MANUAL ACTUATION
 SHALL BE PROVIDED BY TURNING A HANDLE ON THE PRIMARY HEAD AND/OR BY AN OPTIONAL REMOTE PULL STATION WITH
 A DEDICATED STAINLESS STEEL INPUT LINE TO THE CONTROL HEAD.
- CABLE AND CONDUIT SYSTEM.
 BOTTLE CAPACITY TO MEET DEMAND. SUBMIT SIZING WITH SHOP DRAWINGS.
 THE CARTRIDGE SHALL BE AN INTEGRAL PART OF THE CONTROL HEAD ASSEMBLY. THE WET CHEMICAL STORAGE CYLINDER SHALL BE D.O.T.—RATED FOR STORED PRESSURE OF 225 PSIG, AND A PRESSURE GAUGE SHALL BE PROVIDED ON THE CYLINDER VALVE FOR VISUAL INSPECTION.
- NOZZLES IN EXHAUST DUCT, HOOD PLENUM, AND APPLIANCE PROTECTION.
 ENGINEERED DRAWINGS (STAMPED) AND FIELD REVIEW BY A PROFESSIONAL ENGINEER SUBMITTED TO THE CONSULTANTS AND AUTHORITY HAVING JURISDICTION. SAME PROFESSIONAL ENGINEER TO PROVIDE SIGN—OFF FOR THE OPERATION.
 ACCEPTABLE MATERIALS: SPRING AIR, GARLAND, PYRO—CHEM, HALTON.

PART G HEATING, AIR CONDITIONING, AND VENTILATION NOTES

- 1. DUCTWORK TO BE CONSTRUCTED TO SMACNA STANDARDS, MEDIUM STATIC PRESSURE WITH LEAKAGE RATE OF 5% MAXIMUM. FABRICATED IN ACCORDANCE WITH RECOMMENDATIONS OF SMACNA AND ASHRAE. SEAL ALL TRANSVERSE AND LONGITUDINAL JOINTS WITH DUCT SEALER.
- 2. ROUND AND OVAL DUCTS: FACTORY FABRICATED, SPIRAL WOUND, WITH MATCHING FITTINGS AND SPECIALS TO SMACNA. TRANSVERSE JOINTS UP TO 900 MM (36"): SLIP TYPE WITH TAPE AND SEALANTS.
- 3. SQUARE AND RECTANGULAR DUCTS:TO SMACNA. TRANSVERSE JOINTS, LONGEST SIDE UP TO AND INCLUDING 750 MM (30"): SMACNA PROPRIETARY DUCT JOINTS.

- 4. DAMPERS
 ALL DAMPERS TO TO SMACNA RECOMMENDATIONS AS MINIMUM ACCEPTABLE STANDARD. SPLITTER DAMPERS OF SAME
 MATERIAL AS DUCT BUT ONE SHEET METAL THICKNESS HEAVIER WITH APPROPRIATE STIFFENING, CUT AIRFOIL SHAPE, PIANO
 HINGE PIVOT, WITH CONTROL ROD WITH LOCKING DEVICE AND POSITION INDICATOR ON EXTERIOR OF DUCT. SINGLE BLADE
 BALANCING ROUND AND RECTANGULAR, MAXIMUM 100MM (4") HIGH, OR SAME MATERIAL AS DUCT BUT ONE SHEET METAL
 THICKNESS HEAVIER (MINIMUM 16 GAUGE), V—GROOVE STIFFENED WITH LOCKING QUADRANT. MULTI—LEAF OPPOSED BLADE
 DAMPERS DESIGNED TO SMACNA DETAILS, SELF—LUBRICATING NYLON BEARINGS, SHAFT EXTENSION TO ACCOMMODATE
 INSULATION THICKNESS, WITH LOCKING QUADRANT. MANUFACTURED ADJUSTABLE EXTRACTORS TO BE WITH ADJUSTMENT ROD.
 ACCEPTABLE PRODUCTS: TITUS, NAILOR OR EQUAL.
- 5. VVT BOXES
 SINGLE DUCT, VARIABLE VOLUME AIR DISTRIBUTION ASSEMBLIES OF THE SIZES AND CAPACITIES AS SHOWN ON THE PLANS.
 THE ASSEMBLIES SHALL BE PRESSURE INDEPENDENT AND SHALL RESET TO ANT AIR FLOW BETWEEN ZERO AND THE MAXIMUM CATALOGUED AIR VOLUME.
- PRESSURE SHALL BE ARI CERTIFIED

 THE AIRFLOW SENSOR SHALL BE OF A CROSS CONFIGURATION LOCATED AT THE INLET OF THE ASSEMBLY AND SHALL HAVE
 MULTIPLE PICKUP POINTS, DESIGNED TO AVERAGE THE FLOW ACROSS THE INLET OF THE ASSEMBLY. THE AIR FLOW SENSOR SHALL AMPLIFY THE SENSED AIR FLOW SIGNAL.
- PROVIDE A DISCHARGE AIR TEMPERATURE SENSOR ON DISCHARGE OF VVT BOX.

 THE ASSEMBLY CASING SHALL BE CONSTRUCTED OF 0.7 MM (22 GAUGE) ZINC COATED STEEL, INTERNALLY LINED WITH 20 MM (3/4") THICK, DUAL DENSITY FIBERGLASS INSULATION, WHICH COMPLIES WITH UL-181 AND NFPA-90A. ANY CUT EDGES OF FIBERGLASS EXPOSED TO THE AIR STREAM SHALL BE COATED WITH NFPA-90A APPROVED SEALANT.

 THE PRIMARY AIR VALVE DAMPER SHALL BE HEAVY GAUGE METAL, WITH PERIPHERAL GASKET, PIVOTED IN SELF-LUBRICATING BEARINGS. IN THE FULL CLOSED POSITION, AIR LEAKAGE PAST THE CLOSED DAMPER SHALL NOT EXCEED 2% OF THE NOMINAL CATALOGUE RATING AT 750 PA (3" W.C.) INLET STATIC PRESSURE, AS RATED BY ARI STANDARD 880.

TERMINAL UNIT MANUFACTURER SHALL FACTORY MOUNT CONTROLLER AND ACTUATOR INCLUDING TUBING FROM CROSS FLOW

ACCEPTABLE PRODUCTS: E.H PRICE, NAILOR, TITUS, KRUEGER, CARNES, METALAIRE.

SENSOR TO CONTROLS, WIRING CONTROLLER TO MOTOR AND CALIBRATION.

GRILLES, REGISTERS AND DIFFUSERS. MAXIMUM LENGTH SHALL BE 6'-0".

- 6. FLEXIBLE CONNECTIONS
 AT ALL DUCT CONNECTIONS TO FANS AND AIR HANDLING UNITS. NEOPRENE COATED GLASS FABRIC, NOT MORE THAN 6"
 LONG BETWEEN METAL PARTS INSTALLED SUFFICIENT SLACK TO PREVENT VIBRATION TRANSMISSION. ALLOW MOVEMENT (2")
 TO LOW PRESSURE FANS.
- 7. TURNING VANES

 SMALL ARC AIRFOIL HOLLOW VANES IN SUPPLY DUCT ELBOW WHERE CENTERLINE RADIUS IS LESS THAN 1 1/4 TIMES TURNING DIMENSION OF DUCT.
- 8. GRILLES, REGISTERS AND DIFFUSERS
 GRILLES, REGISTERS AND DIFFUSERS SHALL BE THE SAME MANUFACTURER. TYPE AS SHOWN ON THE DRAWING.
 ACCEPTABLE MATERIALS: E.H. PRICE, TITUS, NAILOR, KRUEGER, TUTTLE & BAILEY, METALAIR.
- 9. FLEXIBLE DUCTWORK
 METALLIC ALUMINUM FLEXIBLE DUCTWORK MANUFACTURED BY FLEXMASTER LTD., OR EQUAL BETWEEN BRANCH DUCTS AND
- 10. FILTERS
 SUPPLY AND INSTALL FILTERS FOR NEW EQUIPMENT AND EXISTING EQUIPMENT SERVING RENOVATED AREAS.

 1" DISPOSABLE FILTER MEDIA SHALL BE SUPPLIED FOR USE DURING THE CONSTRUCTION. A COMPLETE SET OF NEW FILTER MEDIA SHALL BE INSTALLED BEFORE TESTING AND BALANCING.
- 11. BRICK VENTS

 E.H. PRICE OR EQUAL ALUMINUM MODULAR BLOCK VENTS, SIZES AS SHOWN ON THE DRAWINGS. BLOCK VENTS SHALL BE C/W BIRD SCREEN, DRIP LEDGE AND DUCT EXTENSION. COLOUR AND FINISHED SELECTED BY THE ARCHITECT.
- 12. EXHAUST FAN(S)

 EXHAUST FANS OF TYPE AND PERFORMANCE IN THE SCHEDULE AS SHOWN ON THE DRAWING AND/OR HEREIN. INSTALL EXHAUST FANS AS PER MANUFACTURERS RECOMMENDATIONS. FANS SHALL BE AMCA LABELED.
- 13. GAS FIRED HVAC UNITS

 CARRIER OR EQUAL KEEPRITE, LENNOX ROOFTOP GAS FIRED HVAC UNITS.

 UNIT(S) SHALL BE EQUIPPED WITH ALL INTERNAL PROTECTIVE DEVICES, DISCHARGE MUFFLER, INTERNAL MOTOR PROTECTION, TIME GUARD CONTROL TO PREVENT SHORT CYCLING OF THE COMPRESSOR, FAN-OFF-AUTO HEATING COOLING ROOM THERMOSTAT C/W LOCKING COVER. OPPOSED BLADE ECONOMIZER SECTION ROOF CURB AND PERMANENT CLEANABLE
- FILTERS AND FRAME.
 REFER TO SCHEDULE FOR UNIT CAPACITY AND PERFORMANCE.

 14. ACOUSTIC DUCT LINER
 RIGID DUCT LINER 1" THICK 36 KG/M WITH NEOPRENE LINER GLUED AND PINNED TO INSIDE SURFACE OF DUCTWORK.

MINIMUM 3.OM (10') FROM ALL AIR HANDLERS AND WHERE SHOWN ON DRAWINGS. SEAL ALL EXPOSED EDGES. DUCT SIZING

REPRESENTS CLEAR INSIDE DIMENSIONS.

15. DUCTWORK INSULATION
ON THE LAST 5'-0" OF ALL EXHAUST DUCTS, INCLUDING PLENUM AND ALL AIR INTAKE DUCTWORK. FIBERGLASS FOIL FACED RIGID DUCT INSULATION 1" THICK TYPE PF-335-3/4 LB. DENSITY WITH RFFRK FACING. GLUE AND PIN AS PER MANUFACTURERS RECOMMENDATIONS.
ON ALL OUTDOOR AIR DUCTWORK, FIBREGLASS FOIL FORCED RIGID DUCT INSULATION 3" THICK TYPE PF-335-3/4 LB DENSITY WITH RFFRK FACING, GLUE AND PIN.

RECOVER ALL EXTERIOR DUCTWORK WITH TWO COATS OF MASTIC SEALER AND 28 GAUGE PREFINISHED METAL FLASHING

WITH CROSSBREAKS AND STANDING SEAMS AND BUTTONHOOK JOINTS. COLOUR TO MATCH BUILDING FLASHINGS.

- 16. FIRE BARRIER DUCT WRAP
 FIRE BARRIER DUCT WRAP 15A BLANKET, THICKNESS AS APPROVED BY MANUFACTURER. ALUMINUM FOIL TAPE, MINIMUM
 3/4in (19mm) WIDE FILAMENT TAPE. CARBON STEEL OR STAINLESS STEEL BANDING MATERIAL, MINIMUM 1/2in (12.7mm)
 WIDE, MINIMUM 0.015in (0.38mm) THICK, WITH STEEL BANDING CLIPS. HAND BANDING TENSIONER, CRIMPING TOOL, AND
 BANDING CUTTER. MINIMUM 12 GUAGE COPPER—COATED STEEL INSULATION PINS; GALVANIZED STEEL SPEED CLIPS, MINIMUM
 1-1/2in (38mm) SQUARE OR 1-1/2in (38mm) DIA. ROUND, OR EQUIVALENT SIZES INSULATED CUP HEAD PINS;
 CAPACITOR DISCHARGE STUD GUN. ACCESS DOOR HARDWARE: FOUR GALVANIZED STEEL THREAD RODS, 1/4in (6mm) DIA.
 BY 4-1/2in TO 5in LONG (114mm TO 127mm WITH 1/4in (6mm) WING NUTES AND 1/4in (6mm) WASHERS: 4in
 (102mm) LONG STEEL HOLLOW TUBING TO FIT THREADED RODS. ACCEPTABLE MATERIALS: 3M FIRE BARRIER, CL4FIRE.
- 17. KITCHEN HOOD ENCLOSURE
 PROVIDE AN 18 GAUGE WELDED BRUSH FINISH STAINLESS STEEL ENCLOSURE AROUND EXISTING HOOD. HOOD MAY BE MADE INTO TWO (2) PIECES AND BOLTED TOGETHER ON SITE AND INDEPENDANTLY SUPPORTED TO STRUCTURE. DO NOT BOLT HOOD TO EXISTING.
 INSTALL HOOD WITHOUT INTERFERING WITH OPERATION OF EXISTING.
- 18. HVAC UNIT CONTROL:

 OCCUPIED MODE: FAN MUST RUN CONTINUOUS, OUTDOOR AIR OPENS TO MINIMUM POSITION AND THE NEW ROOM THERMOSTAT MUST CYCLE 2 STAGES OF HEATING SNF 3 STAGES OF COOLING TO MAINTAIN SETPOINT. THE FIRST STAGE OF COOLING MUST BE A FREE COOLING ECONOMIZER CYCLE BY THE INTEGRAL CONTROLLER. WHEN OUTDOOR AIR TEMPERATURE EXCEEDS THE FREE COOLING TEMPERATURE THE DAMPER RETURNS TO MINIMUM POSITION AND ENERGIZES MECHANCIAL COOLING.

 UNOCCUPIED MODE: CYCLE FAN, HEATING AND COOLING TO MAINTAIN NIGHT SETBACK TEMPERATURE.

 PUMP PROVIDE OCCUPIED/UNOCCUPIED, START/STOP/STATUS, DISCHARGE AIR TEMPERATURE, MIXED AIR TEMPERATURE, CLOGGED FILTER, BURNER OPERATION, AND COOLING OPERATION AT THE OPERATOR WORK STATION.

21. WT CONTROL SEQUENCE

- THIS SYSTEM CONSISTS OF A DAMPER AND AN ELECTRIC REHEAT COIL. THE EQUIPMENT SHALL BE USED IN A VVT SYSTEM. THE DAMPER IS CONTROLLED BETWEEN IT'S MINIMUM AND MAXIMUM SET POINTS, AND THE ELECTRIC REHEAT COIL IS MODULATED TO MEET SPACE TEMPERATURE SET POINT. THE SPACE SERVED BY THE VAV TERMINAL UNIT IS CONTROLLED IN OCCUPIED AND UNOCCUPIED MODES AS FOLLOWS:

 OCCUPIED: THE VAV TERMINAL UNIT IS CONTROLLED WITHIN USER DEFINED MAXIMUM AND MINIMUM SUPPLY AIR VOLUME SETTINGS. THE CONTROLLER MONITORS THE ROOM TEMPERATURE SENSOR MODULATES THE SUPPLY AIR DAMPER IN SEQUENCE WITH THE REHEAT COIL TO MAINTAIN THE ROOM TEMPERATURE AT SET POINT. ZONES SHALL NOT CALL FOR HEAT UNLESS REHEAT COIL IS UNABLE TO MAINTAIN SPACE TEMPERATURE. ZONE DAMPERS SHALL ALSO REMAIN OPEN TO THEIR MAXIMUM POSITION SO LONG AS THE SPACE TEMPERATURE IS MAINTAINED TO MAXIMIZE VENTILATION RATE.

 UNOCCUPIED: THE ELECTRIC REHEAT COIL IS TURNED OFF. SHOULD ADDITIONAL HEAT BE REQUIRED AT NIGHT THE CONTROLLER MAY RESET TO THE TERMINAL UNIT OCCUPIED MODE FOR A PREDETERMINED TIME PERIOD UPON A SIGNAL FROM THE CONTROL SYSTEM OR MANUALLY AT THE ROOM SENSOR.
- 21. SYSTEM BALANCING

 BALANCE AIR AND WATER SYSTEMS USING NEBB CERTIFIED FIRM AND AS PER NEBB REQUIREMENTS TO WITHIN 5% OF TOTAL SYSTEM CAPACITY. PROVIDE 3 COPIES OF BALANCING REPORTS C/W SYSTEM SCHEMATICS.
- 22. ALTERNATES AND SUBSTITUTES
 SHOULD ELECTRICAL CHARACTERISTICS FOR "ALTERNATE" OR "EQUAL" EQUIPMENT DIFFER FROM EQUIPMENT SPECIFIED IT
 SHALL BE THE RESPONSIBILITY OF THE EQUIPMENT MANUFACTURER TO PAY ALL COSTS ASSOCIATED WITH THE REVISIONS TO
 THE ELECTRICAL CONTRACT.



51 Kingston Street T 519 524 5313 Goderich, ON N7A 3K3 F 519 524 5253 www.AllanAvisArchitects.com

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approva for relocation of service from Consultant before commencement of the work.

The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required

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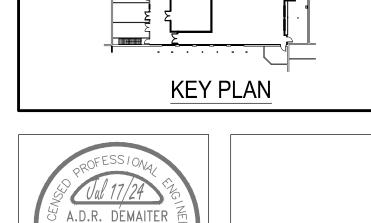
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55 Northland Road, Waterloo, ON N2V 1Y8
Phone: 519-725-3555
Website: deiassociates.ca
Project Number: 24061

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ARTHUR ARENA
INTERIOR
RENOVATIONS
158 DOMVILLE ST.
ARTHUR, ONTARIO

MECHANICAL

SPECIFICATIONS

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