

SPRINKLERS SPECIFICATIONS

1. QUALIFICATIONS

- A. Work of this section is a design built system and shall be done by basebuilding approved licensed and qualified fire protection sprinkler contractor and a member of Canadian Automatic Sprinkler Association.
 - B. Apply and obtain all permits before proceeding. Pay all cost for obtaining permit.
 - C. Comply to General Mechanical Requirements.

2. SYSTEM DESIGN

- A. A standard or fixed temperature system of automatic spray sprinklers throughout based upon requirements of Local Fire Department and Owner's Insurance Underwriter in accordance with latest requirements of National Fire Protection Association (N.F.P.A.) standard, Local Fire Department and Ontario Building Code.
 - B. Sprinkler system shall be occupancy hazard as required by NFPA, local authorities and as per base building system. Sizing shall be based on hydraulic basis using areas of application and density noted both as outlined in applicable fire protection standards using existing system.
 - C. Arrange and pay for water flow test witnessed by Insurance Underwriter and Local Fire Department as basis of design. Submit copies of test to Underwriter, Local Fire Department and Engineer.

3. DRAWINGS

- A. Drawings indicate areas to be sprinkler protected and not limited to exact number of sprinklers heads required to provide required protection to approval of Authorities Having Jurisdictions.
 - B. Prepare engineered shop drawings showing existing and proposed system. Drawings shall be prepared in co-ordination with existing building conditions and proposed building revisions as detailed Architectural Drawings including bulkheads, drop ceilings, ceiling pockets, lights, diffusers, obstructions, existing and proposed building features.
 - C. Include in shop drawings, existing system layout to five meters (5m) outside of renovated areas and provide sprinkler protection effected by demolition/new partitions and ceilings.
 - D. Submit prepared shop drawings for Authorities approval before proceeding with any work. Submit two copies of approved shop drawings for Architect's Approval. Revise shop drawings as marked and submit 8 copies for

distribution to

- A. In addition to any tests required by local authorities and N.F.P.A. test piping

5. SPRINKLER HEADS

- A. Provide bulb type sprinkler heads to match existing, approved by UL, ULC, FM. Exact locations of heads shall be coordinated with lights, diffusers, etc. to approval. Supply shop drawings and sample of each type of sprinkler head proposed before starting work.
 - B. Areas which contain finished ceilings shall have concealed piping with semi recessed sprinkler heads with cover plate to match existing.
 - C. In storage room and areas subject to damage sprinkler provide cage to each sprinkler head

6 PIPE & FITTINGS

- A. Provide new pipe and fittings free from rust and scale of full weight, standard size and thickness, true and round with full cut threads. Cut pipes true with clean sharp pipe cutters. ream and file ends of pipe and remove burrs from interior. Use reducing fittings instead of bushings wherever reductions in piping occur.
 - B. Sprinkler piping: standard black steel schedule #40 (CSA #B63) with black cast iron 1207 KPA WWP screwed or flanged fittings, U.L.C. approved. All exposed pipes shall be galvanized steel Sch. 40. Sch. 10 is also acceptable if approved by authorities

7. WARRANTY

- A. Furnish to owner through general contractor and architect, written warranty covering materials and workmanship and free service for one year from date of start of lien period.
 - B. Warranty shall entail repair and replacement of materials without charge to owners except where, in opinion of architect, such repair or replacement was caused by improper use or lack of.

8. EXISTING CONDITIONS

- A. During tender period verify extent of work at building involving existing system and routes of new pipes through existing building. Relocate ducts, pipes, conduits, etc. as required to suit new pipes. No extra will be allowed due to any existing conditions.
 - B. Remove all unused sprinkler heads all pipes from owner premises, Cap unused pipes at mains.
 - C. Confirm with architect on site route of exposed pipe before proceeding.

PLUMBING SPECIFICATIONS

1.01 GENERAL CONDITIONS

- .1 Mechanical General Requirements, form integral part of this section.
 - .2 All workmanship and material must comply to O.B.C.
 - .3 Comply to General Mechanical Requirements.

1.02 TESTS

 - .1 In addition to tests required by local authorities, test piping and drains as hereinafter described.
 - .2 Water test waste and vent piping to top of piping for not less than two hours without dropping in level.

1.03 VENTING

 - .1 Vent each fixtures traps according to Plumbing Code and local regulations. Increase vents smaller than 75mm diameter before same pass through roof.

1.04 JOINTS

 - .1 Make all joints in piping to conform to Plumbing Code and Manufacturer directions and to approval.

1.05 PIPE & FITTINGS

 - .1 Water Piping: Aquarise CPVC SDR-11. Install pipes to manufacturer directions. Provide supports and expansion provision to suit.

1.06 EXISTING SYSTEMS & MATERIALS

 - .1 Clean and service existing fixtures and materials being reused putting each in efficient operating condition. provide new compression cushions, gaskets, o-rings, flush fittings and packing as necessary.
 - .2 Verify fully all existing systems to ensure proper operation of all new equipments and systems. Allow for video inspection of buried line for its size, elevation and condition.
 - .3 Removed material shall be removed from site. removed materials shall not be reused except as noted, be removed from site, not be allowed to accumulate and become property of contractor unless otherwise noted.
 - .4 Verify extent of work required in existing building during Tender period. Report to architect a week before tender closing for complexity and routes of new pipes. relocate ducts, pipes, conduits, etc. as required to suit new pipes. no extra will be allowed due to any existing conditions. Perform X-ray before cutting/excavation begins

1.07 WARRANTY

- .1 Furnish to Owner through General Contractor and Architect, written warranty covering materials & workmanship and free service for one year from date of start of lien period.
 - .2 Warranty shall entail repair and replacement of materials without charge to Owner except where, in opinion of Architect, such repair or replacement was caused by improper use or lack of maintenance.

NOTES:

All dimensions and measurements must be checked and verified by the General Contractor

A detailed architectural key plan diagram of the Royal Botanical Garden's glasshouse complex. The plan shows various interconnected glass structures of different sizes and shapes, some with internal partitions and support columns. A large green rectangular area, representing a specific section of the glasshouses, is highlighted. The plan also includes labels for 'pool' and 'pool deck'. The entire complex is set against a background of irregular shapes representing the surrounding terrain or other garden areas.

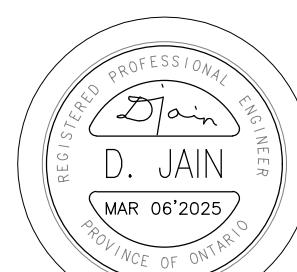
PROJECT:
22459

RBG - HALL INTERIOR RENOS

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The logo consists of the lowercase letters "inflow" in a bold, orange, sans-serif font. To the right is a graphic element: a circle containing a vertical line segment. The top half of this segment is light gray, and the bottom half is dark gray. The letter "i" has a small orange dot at its top. To the right of the graphic, the letters "CZ" are written vertically in a black sans-serif font.

A large, bold, orange letter 'J' is positioned at the top left of the slide. The slide has a white header area and a grey footer area. In the bottom right corner of the white area, there is a small, faint watermark-like text 'M1.0'. The word 'SPECIFICATION' is written vertically along the right edge of the white area.

DROP H&CW LINES. PROVIDE VALVE AT 300MM ABOVE FLOOR AND QUICK DISCONNECT AT OUTLET.

PROVIDE 100 ϕ OPEN PIPE C/W LIFT RING COVER, FULLY RECESSED WITH FLOOR

NEW 100 ϕ BURIED SANITARY @ 1%

EXISTING WATER HEATER
EXISTING FFD
DISCHARGE 100 ϕ OPEN PIPE TO DOWN OPEN WASTE IN MECH. ROOM
CONNECT NEW 13 ϕ H&CW C/W SHUT-OFF VALVE TO EXISTING 50 ϕ H&CW WITH SHUT-OFF VALVE.
EXISTING SPRINKLER MAIN

REMOVE ALL EXISTING SPRINKLERS AND UNUSED PIPES. PROVIDE NEW FULLY RECESSED SPRINKLERS AND CONNECT TO EXISTING MAIN

PROVIDE 100 ϕ OPEN PIPE C/W LIFT RING COVER, FULLY RECESSED WITH FLOOR

DROP H&CW LINES. PROVIDE VALVE AT 300MM ABOVE FLOOR AND QUICK DISCONNECT AT OUTLET.

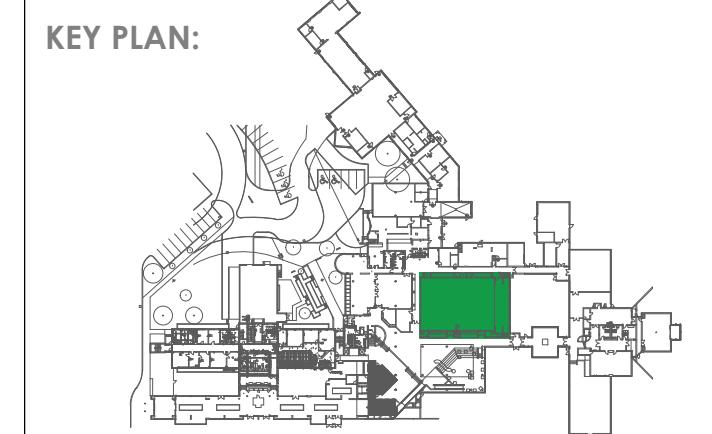
REMOVE ALL EXISTING SPRINKLERS AND UNUSED PIPES. PROVIDE NEW FULLY RECESSED SPRINKLERS AND CONNECT TO EXISTING MAIN

PLUMBING & DRAINAGE LEGEND

- SANITARY DRAIN (BELOW GRADE)
- DOMESTIC COLD WATER LINE
- DOMESTIC HOT WATER LINE

FIRE PROTECTION LEGEND

- F — FIRE PROTECTION SUPPLY
 - UP-RIGHT SPRINKLER HEAD AND CONNECT TO EXISTING SPRINKLER MAINS
 - FULLY RECESSED SPRINKLER HEAD (COVER PLATE) AND CONNECT TO EXISTING SPRINKLER MAINS
- GB-P (6000) CEILING HEIGHT

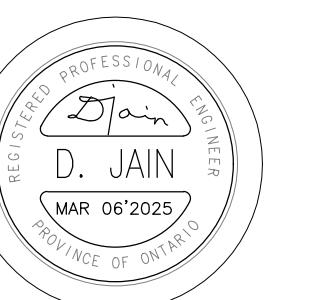


CLIENT:
ROYAL BOTANICAL GARDEN

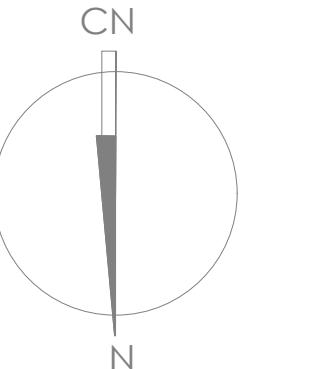
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PLUMBING & SPRINKLERS - LOW LEVEL FLOOR PLAN

1 M1.1 1:50 PLUMBING & SPRINKLERS - LOW LEVEL FLOOR PLAN

Plot Date:

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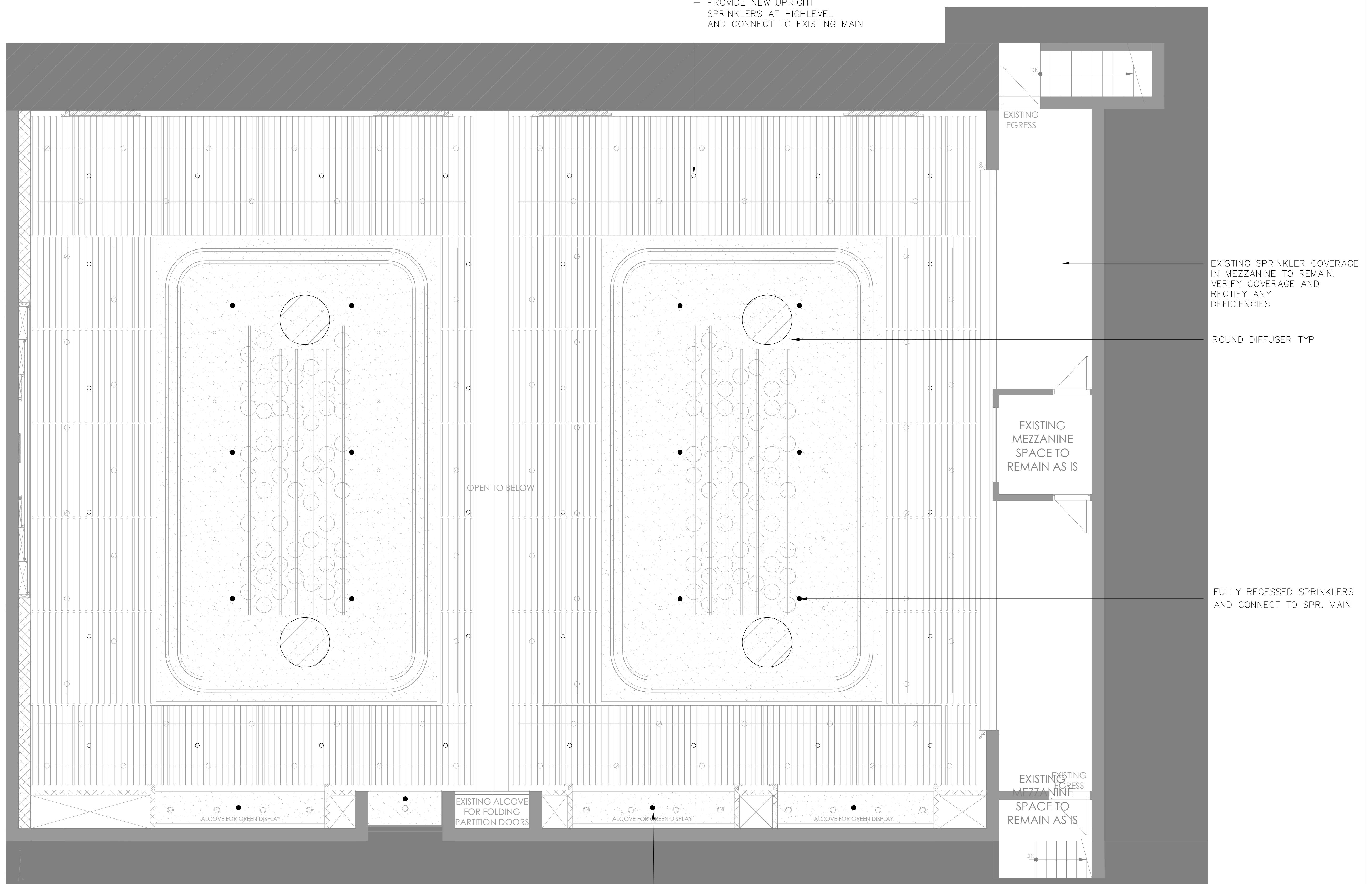
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NOTE:

1. SEE ARCHITECTURAL DRAWINGS FOR DETAIL CEILING INFORMATION.
 2. REMOVE ALL UNUSED SPRINKLER AND PIPE, CAP PIPES AT MAINS.

PROVIDE NEW FULLY RECESSED SPRINKLERS AND CONNECT TO EXISTING MAIN TYPICAL

1 PLUMBING & SPRINKLERS - HIGH LEVEL FLOOR PLAN
M1.2 1:50

OTES:

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All dimensions and measurements must be checked and verified by the General Contractor

An architectural site plan of the Royal Botanical Garden. The plan shows various building footprints, including a large rectangular building at the bottom left and several smaller structures scattered throughout. A large, irregularly shaped green area, representing a garden or plaza, is highlighted in green in the center of the plan. The plan also includes a network of paths, walkways, and possibly water features, indicated by different line types and symbols.

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2459
BG - HALL INTERIOR RENOS

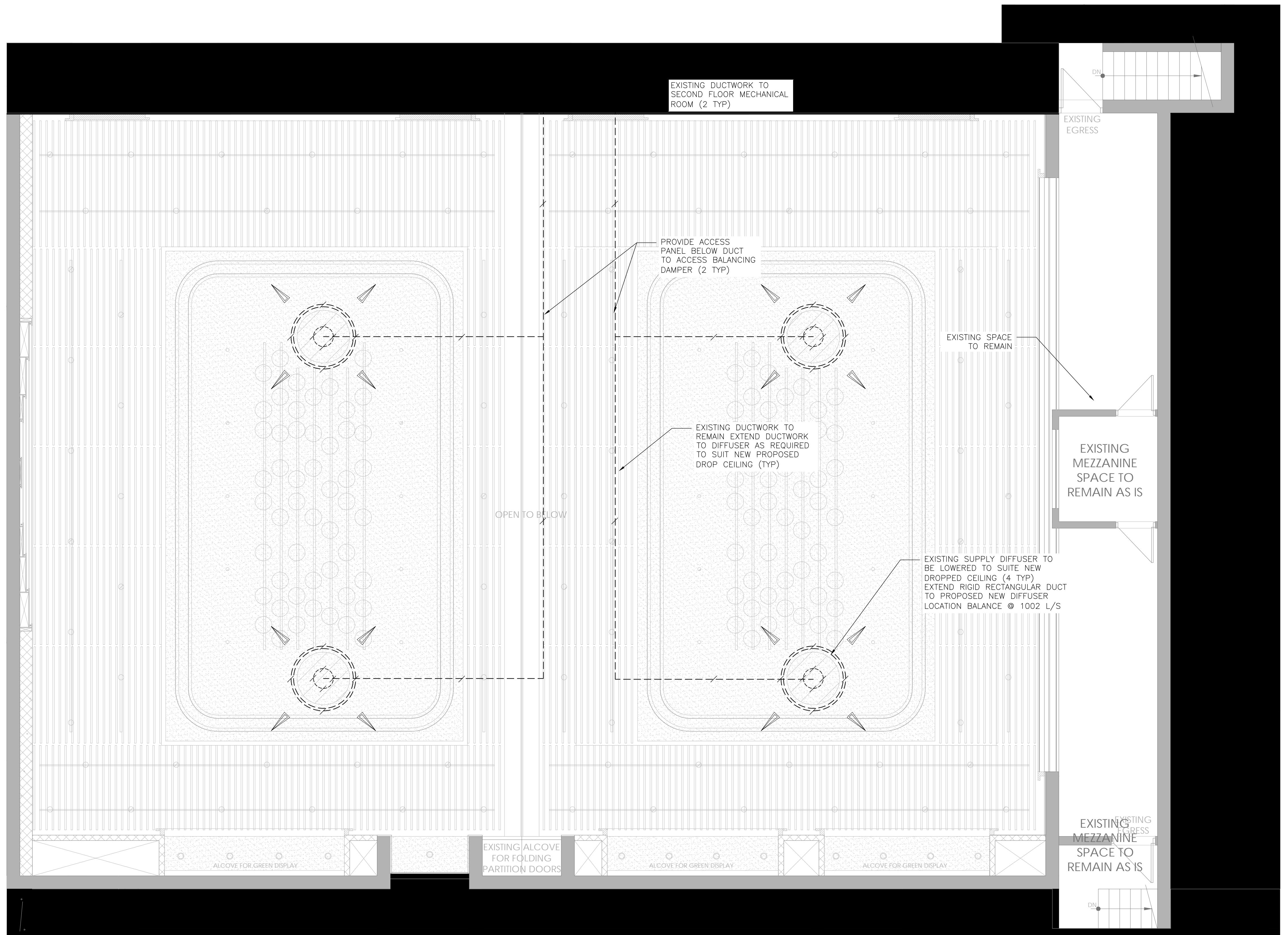
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A circular registration stamp for D.Jain, Professional Engineer, Province of Ontario. The outer ring contains the text "REGISTERED PROFESSIONAL ENGINEER" at the top and "PROVINCE OF ONTARIO" at the bottom. The inner circle features "D.Jain" in a stylized font, with "D." above "Jain". Below "D.Jain" is the name "D. JAIN". At the bottom of the inner circle is the date "MAR 06'2025".

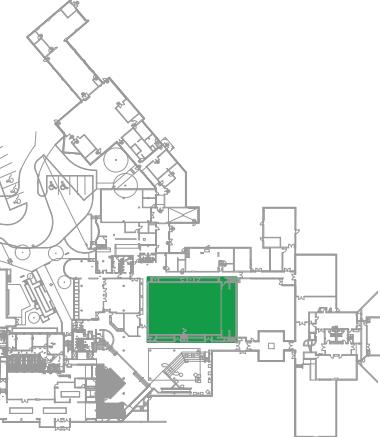
A circular symbol with a vertical line through the center. The top half of the line is white, and the bottom half is dark gray.

PLUMBING & SPRINKLERS - HIGH LEVEL FLOOR PLAN



NOTES:

KEY PLAN:



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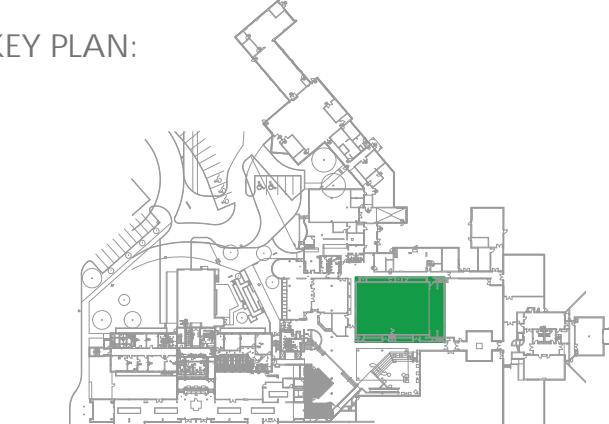
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DRAWN BY : SL CHECKED BY : DJ

REVISIONS	NO.	DATE	PARTICULAR
	1	2024.12.18	ISSUED FOR PROGRESS
	2	2024.12.30	ISSUED FOR PERMIT
	3	2025.03.06	ISSUED FOR PERMIT + TENDER

NOTES:

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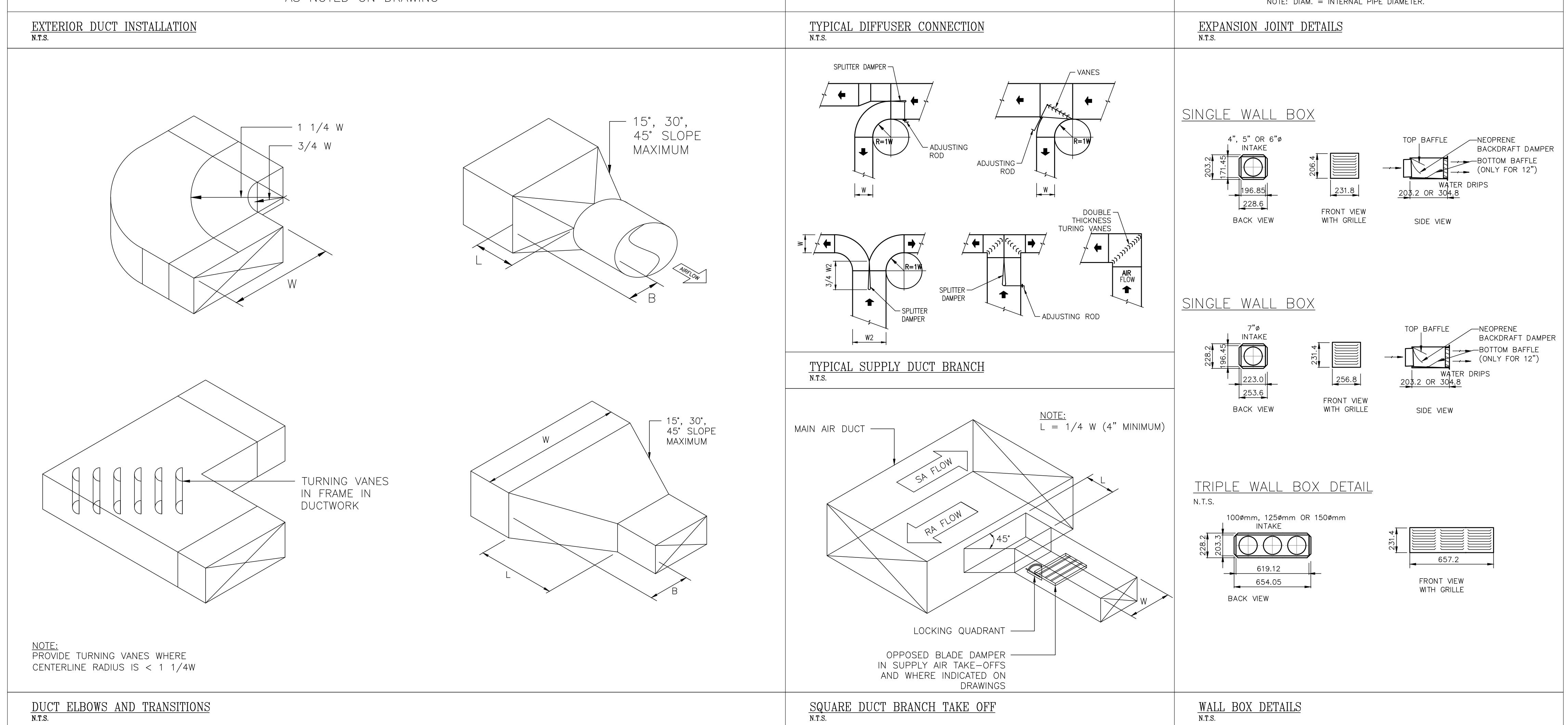
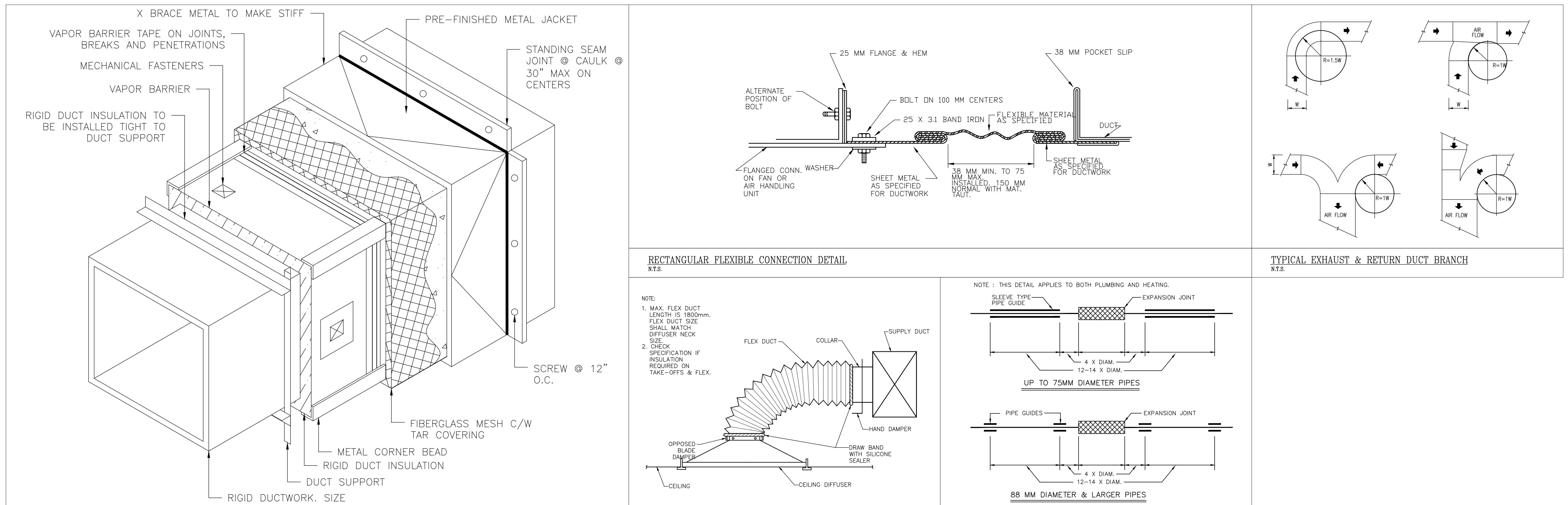
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Plot Date: Mar 05, 2025 - 4:54pm By: Reception

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M2.3



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MECHANICAL DETAILS