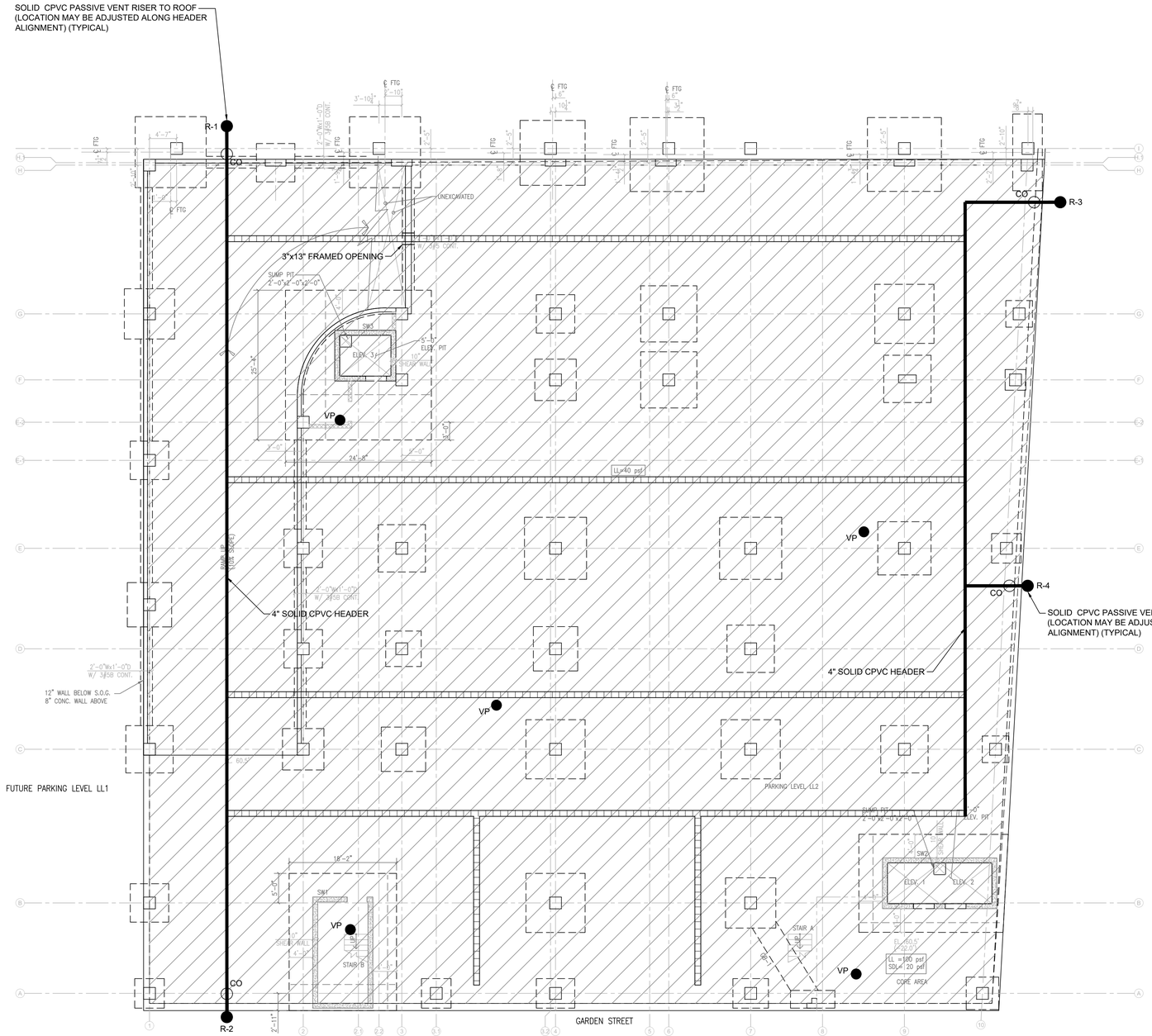

NOTE:

1. THE FOUNDATION PLANS INCLUDED IN THIS DRAWING ARE ILLUSTRATIVE AND MAY CHANGE AS WE PROCEED IN DESIGN. THIS MAY REQUIRE VAPOR PIPES TO SHIFT OR FOR ADDITIONAL SLEEVES TO BE USED BASED ON THE FINAL DESIGN.
2. 6" SLEEVES SHALL BE PROVIDED AT ALL 4" CPVC PIPE CROSSINGS AT FOUNDATION WALLS UNLESS OTHERWISE NOTED. ALL SLEEVES SHALL BE AT THE SAME ELEVATION.
3. 4" SLEEVES SHALL BE PROVIDED AT ALL 2" CPVC PIPE CROSSINGS SHALL BE INSTALLED AT THE SAME ELEVATION.
4. ALL J-DRAIN SHALL BE RUN THROUGH BLOCK FOUNDATION THROUGH FRAMED 3"x13" OPENINGS ADEQUATE TO ALSO PASS THE 2" CONDUIT WHERE NECESSARY.
5. PROVIDE NON-SHRINK GROUT TO SEAT EXTERIOR SLEEVES.

LEGEND:

- 4" SOLID HEADER PIPE
- RISER PIPE
- 12" 'J' DRAIN GEOVENT OR 4" PERF HDPE VENT PIPE
- THE LIMITS OF PROPOSED VAPOR BARRIER
- CLEAN OUT
- VP - VAPOR PIN

REFERENCE
FLOOR AND FOUNDATION TAKEN FROM "BUILDING 1 FIRST FLOOR & FOUNDATION PLAN" "BUILDING 2 SECOND FLOOR & FOUNDATION PLAN" PREPARED BY THOMAS J. BRENNAN ARCHITECTS. DATED 03.09.2018.

Scale: 1"= 10'
0 5 10 20 30 40

rev	date	description	by

dwg by: yy
chk by: FL
scale: AS NOTED
date: 12/09/2020

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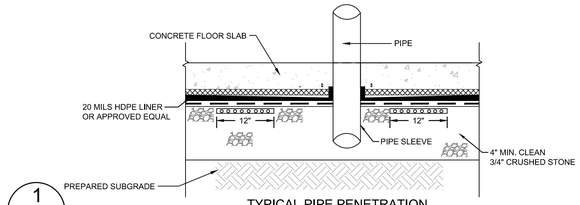
NEW ROCHELLE, WESTCHESTER COUNTY, NY

drawing title:
VAPOR INTRUSION PLAN

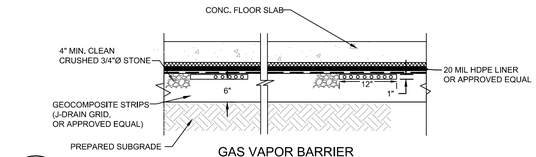
job no. 10491
drawing no.
V-1



1 D-1

TYPICAL PIPE PENETRATION

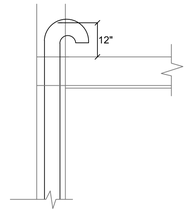
NTS



2 D-1

GAS VAPOR BARRIER
TYPICAL SLAB ON-GRADE DETAIL

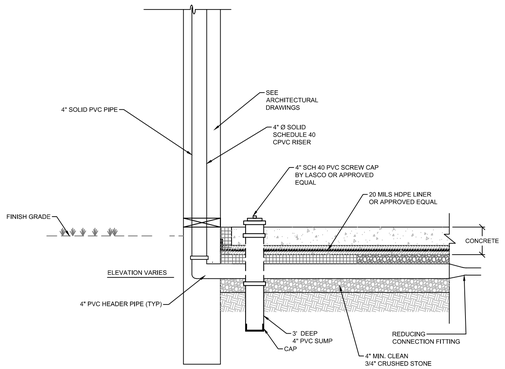
NTS



3 D-1

VENT RISER TERMINATION ON ROOF
(R2 AND R3)

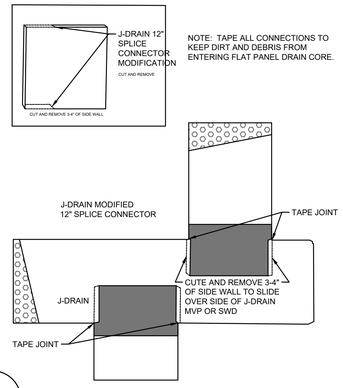
NTS



4 D-1

SECTION B-B - TYPICAL SECTION: SUBSLAB RISERS

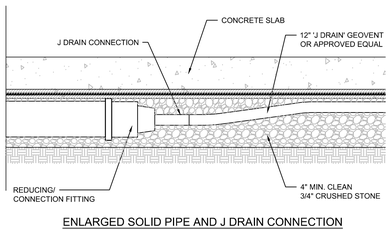
SCALE: N.T.S.



5 D-1

3 AND 4 WAY J DRAIN
CONNECTION

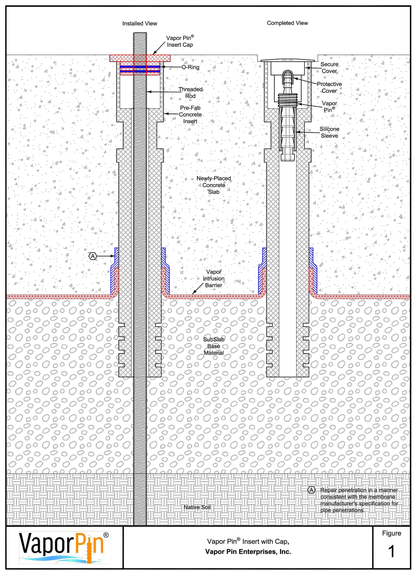
SCALE: N.T.S.



6 D-1

ENLARGED SOLID PIPE AND J DRAIN CONNECTION

SCALE: N.T.S.



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GENERAL NOTES

1. THE PLANNED SUB-SLAB VAPOR INTRUSION (VI) MITIGATION SYSTEM WILL BE PLACED BENEATH THE CONCRETE SLAB IN THE ENCLOSED AREAS. THE VI MITIGATION SYSTEM INCLUDES THE FOLLOWING ELEMENTS:

   a) VAPOR BARRIER - A CONTINUOUS 20-MIL HDPE LINER (OR APPROVED EQUAL) SHALL BE PLACED AND SEALED AROUND ALL PENETRATIONS (E.G. UTILITIES, RISER PIPERS, ETC.).

   b) GRAVEL VENTING LAYER - A MINIMUM, 4-INCH THICK , CLEAN (I.E. NO SILT AND/OR CLAY "FINES"), CRUSHED STONE VENTING LAYER (I.E. 3/4 - INCH CRUSHED STONE) WILL BE PLACED BELOW THE SLAB AND LINER.

   c) SUB-SLAB COLLECTION PIPING - A NETWORK OF VENTING PIPES (J-DRAIN OR HDPE PIPE) WILL BE PLACED WITHIN THE GRAVEL VENTING LAYER. THE VENTING PIPES WILL BE MANIFOLDED AS SHOWN IN THE DRAWING.

   d) RISERS - CONVEYANCE RISER PIPES WILL BE INSTALLED FROM THE SUB-SLAB HEADER PIPES TO BUILDING ROOF AS SHOWN IN THE DRAWING

2. THE VAPOR BARRIER SHALL BE INSTALLED BY A CERTFIED CONTRACTOR AND BE INSTALLED UNDER THE OVERSIGHT OF SESI CONSULTING ENGINEERS. THE CONTRACTOR AND SESI SHALL INSPECT ALL SEAMS, JOINTS, AND PENETRATIONS IN THE VAPOR BARRIER AND DOCUMENT IN AN INSPECTION REPORT. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DEFECTIVE SEAMS, JOINTS, AND PENETRATIONS PRIOR TO COVERING VAPOR BARRIER.

3. QA/QC TESTING SHALL BE COMPLETED BY THE CERTIFIED CONTRACTOR. THE QA/QC PACKAGE SHALL BE PROVIDED TO SESI FOLLOWING COMPLETION OF THE SYSTEM

4. ALL CONDUITS AND/OR PIPE PENETRATIONS INTO THE SLAB SHOULD BE GAS TIGHT - REFER TO PIPE OR CONDUIT PENETRATION DETAIL ON THIS DRAWING

5. OPERATION OF THE VI MITIGATION SYSTEM IS DESIGNED TO BE PASSIVE. THERE ARE NO MOVING OR MECHANICAL PARTS. ALL VENT RISERS SHALL BE FREE OF OBSTRUCTIONS AND VENT VALVES SHALL BE SET IN A FULLY OPEN POSITION. IF NECESSARY, ADJUSTMENT OF THE VENT VALVES SHALL BE PERFORMED BY A COMPETENT AND RESPONSIBLE AGENT TO ENSURE ADEQUATE VENTING OF THE SUB-SLAB SPACE.

6. ALL SUB-SLAB COLLECTION LATERALS AND VERTICAL VENT RISERS SHALL BE FREE OF OBSTRUCTIONS, NOT INUNDATED WITH WATER, AND ABLE TO VENT AIR FREELY FROM BELOW THE BUILDING SLAB TO THE ATMOSPHERE.

7. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF VI MITIGATION SYSTEM WITH OTHER TRADES.

8. ARCHITECTURAL AND ENGINEERING CONSTRUCTION DOCUMENTS SHALL BE COORDINATED WITH THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL NOT DEVIATE FROM THESE DOCUMENTS WITHOUT APPROVAL FROM THE RESPECTIVE DESIGN PROFESSIONALS.

TESTING AND INSPECTION

THE VAPOR BARRIER SHALL BE SMOKE TESTED FOR QUALITY ASSURANCE. SMOKE TESTING SHALL BE CONDUCTED BY SESI OR AN APPROVED VAPOR BARRIER APPLICATOR. THE SMOKE TESTING PROCUDRE IS AS FOLLOWS:

a. THE VAPOR BARRIER SHALL BE VISUALLY INSPECTED. ANY APPARENT DEFICIENCIES AND/OR INSTALLATION PROBLEMS SHALL BE CORRECTED PRIOR TO SMOKE TESTING.

b. THE DATE, TIME, TESTING REFERENCE AREA, TEMPERATURE, WIND SPEED/DIRECTION, AND CLOUD COVER SHALL BE RECORDED ON THE SMOKE TESTING RECORD. THE AMBIENT AIR TEMPERATURE AT THE TIME OF TESTING SHOULD BE IN EXCESS OF 45° F AND THE WIND SPEED AT GROUND LEVEL SHOULD BE 15 MPH OR LESS. (NOTE: VISUAL IDENTIFICATION OF LEAKS BECOMES MORE DIFFICULT WITH INCREASING WIND SPEED.)

c. DELINEATE A SMOKE TESTING AREA. ASSEMBLE AND SITUATE SMOKE TESTING SYSTEM TO INJECT SMOKE BENEATH VAPOR BARRIER. ONLY INERT, NON-TOXIC SMOKE IS TO BE UTILIZED FOR VAPOR BARRIER SMOKE TEST.

d. DESIGNATE TESTING CONTROL AREAS BY CUTTING OPENINGS IN AN "X" PATTERN (MINIMUM 4" X 4") IN THE VAPOR BARRIER AT SELECTED LOCATIONS. MARK TESTING CONTROL AREAS FOR IDENTIFICATION PRIOR TO CONDUCTING THE SMOKE TEST.

e. ACTIVATE SMOKE GENERATOR/BLOWER SYSTEM (NOMINAL 150-950 CFM). APPLY SUFFICIENT PRESSURE AS TO ENSURE THAT SMOKE WILL PERMEATE THE DESIGNATED TESTING AREA. FOR VERIFICATION, ENSURE THAT SMOKE IS LEAKING THROUGH TESTING CONTROL AREAS.

f. PUMP SMOKE BENEATH THE VAPOR BARRIER FOR A MINIMUM PERIOD OF 10 MINUTES. OBSERVE FOR LEAKS IN THE VAPOR BARRIER. REDUCE PRESSURE/FLOW RATE IF EXCESSIVE LIFTING OF THE VAPOR BARRIER OCCURS.

g. THOROUGHLY INSPECT ENTIRE VAPOR BARRIER SURFACE WITHIN AREA DELINEATED FOR TESTING. USE MARKING DEVICE TO MARK/LABEL ANY LEAK LOCATIONS. MARK/LABEL LEAK LOCATIONS ON FLOOR PLAN AND CORRESPONDING TESTING REFERENCE AREA.

h. REPAIR LEAK LOCATIONS MARKED IN STEP G BY CUTTING PATCHES OF VAPOR BARRIER, OVERLAPPING DAMAGED AREA BY 6 INCHES MINIMUM, AND TAPING ALL FOUR SIDES.

REPEAT STEPS F AND G, AS NECESSARY TO CONFIRM INTEGRITY OF THE VAPOR BARRIER.

N:\ACAD\10491\VAPOR\10491 VAPOR - PHASE II.DWG 12/09/20 03:56:53PM jerry LAYOUT:D-1

rev	date	description	by

dwg by: yy
chk by: FL
scale: AS NOTED
date: 12/09/2020

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