

METHANE HAZARD MITIGATION STANDARD PLAN: SIMPLIFIED METHOD FOR SMALL ADDITIONS

I. PURPOSE

This Information Bulletin describes three simplified methods for complying with the requirements of Division 71 of the Los Angeles Building Code (LABC).

- Method A - Buildings with Raised Floors - LABC Section 7104.3.2,
- Method B - Buildings with Natural Ventilation - LABC Section 7104.3.3, and
- Method C - Small On-Ground-Level Additions - LABC Section 7104.2

Methods A and B are exceptions that are specifically allowed in the LABC. However, Method C requires a special approval by the Superintendent of Building. This Information Bulletin should be attached to the plans to show the method of compliance when obtaining a building permit.

II. SIMPLIFIED METHODS

Indicate which method is being used by placing a check (✓) in front of the selected method. Combinations of the following methods are allowed only when approved under Modification of Building Ordinance by the Superintendent of Building. All components listed for each method shall be installed.

A. Method A - Additions with Raised Floor Construction

1. All plumbing pipes and electrical and communication wiring conduits installed below ground shall be placed in trenches sealed with Trench Dams, as shown in Detail 8 of this bulletin.
2. A clear space of 18 inches shall be maintained between the bottom of the floor joists and earth.
3. A clear space of 12 inches shall be maintained between the bottom of the floor girders and earth.
4. The top of openings for underfloor area or crawl space ventilation shall be located

less than 6 inches below the bottom of the floor. These openings shall be sized to be the larger of:

- a. 1.5 square feet for each 25 linear feet of exterior wall, or
 - b. 1% of the underfloor area.
5. Openings shall be evenly distributed along the length of at least two opposite sides of the building joists in order to provide cross ventilation.
 6. Openings shall be covered with corrosion-resistant wire mesh with mesh openings not less than 1/4 inch nor greater than 1/2 inch in dimension.

B. Method B - Additions with No Walls or Mostly Open (carports, gazebos, barns, etc.)

1. All plumbing pipes, and electrical and communication wiring conduits installed below ground, shall be placed in trenches sealed with Trench Dams as shown in Detail 8 of this bulletin.
2. At least two sides of the structure shall be completely open **or** if walls are provided, there shall be evenly spaced openings along the exterior walls as follows:
 - a. On two or more exterior sides to provide cross-ventilation.
 - b. Less than 50 feet from any point within the addition.
 - c. Clear of obstructions except for screens of wire mesh.
3. The total area of openings shall be the larger of:
 - a. 25% of total floor area of the ground floor addition, or
 - b. 25% of the total perimeter wall area of the ground floor addition.

C. Method C - Additions with Slab on Grade

Where specifically approved by Modification of Building Ordinance by the Superintendent of Building as an alternate for use in a building such as PC/STR/Mod57A-2020 for Methane Hazard Mitigation Buffer Zone (https://www.ladbs.org/docs/default-source/forms/plan-check-2014/methane-hazard-mitigation-buffer-pc-str-mod57a-2020.pdf?sfvrsn=bbc7eb53_20) and PC/STR/Mod57B-2020 for Methane Hazard Mitigation Methane Zone (https://www.ladbs.org/docs/default-source/forms/plan-check-2014/methane-hazard-mitigation-zone-pc-str-mod57b-2020.pdf?sfvrsn=bfc7eb53_24),

all of the following components shall be installed using the details of this Information Bulletin:

1. 6-mil. thick **Visquene** placed below the floor slab,
2. 2-inch thick **Gravel** layer placed below the Visquene barrier,
3. One 4-inch diameter **Perforated Horizontal Vent Pipe** (slotted or perforated PVC pipe) placed below the **Gravel** layer,
4. Two 2-inch diameter **Vent Risers** placed vertically in the building walls and connected to the two ends of the **Perforated Horizontal Vent Pipe**, and
5. **Conduit and Cable Seal Fittings** installed in electrical conduits penetrating the floor of the addition.

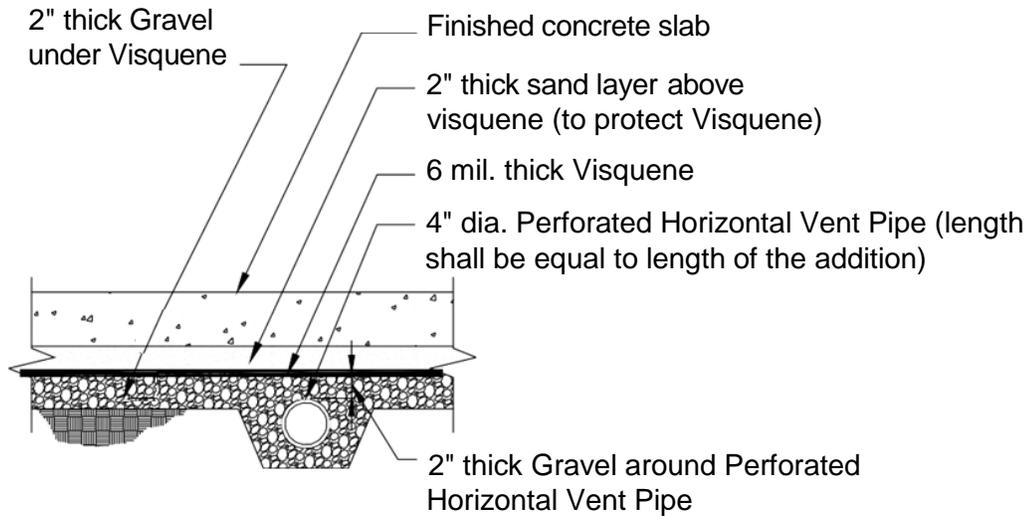
III. MAINTENANCE OF MITIGATION SYSTEMS

All components of the systems described in either of the methods shall be maintained and serviced to be in proper working condition.

IV. INSPECTION REQUIREMENTS

Inspection by a City of Los Angeles Department of Building and Safety inspector shall be conducted prior to the covering of any component required by the Methane Mitigation System outlined in this Information Bulletin.

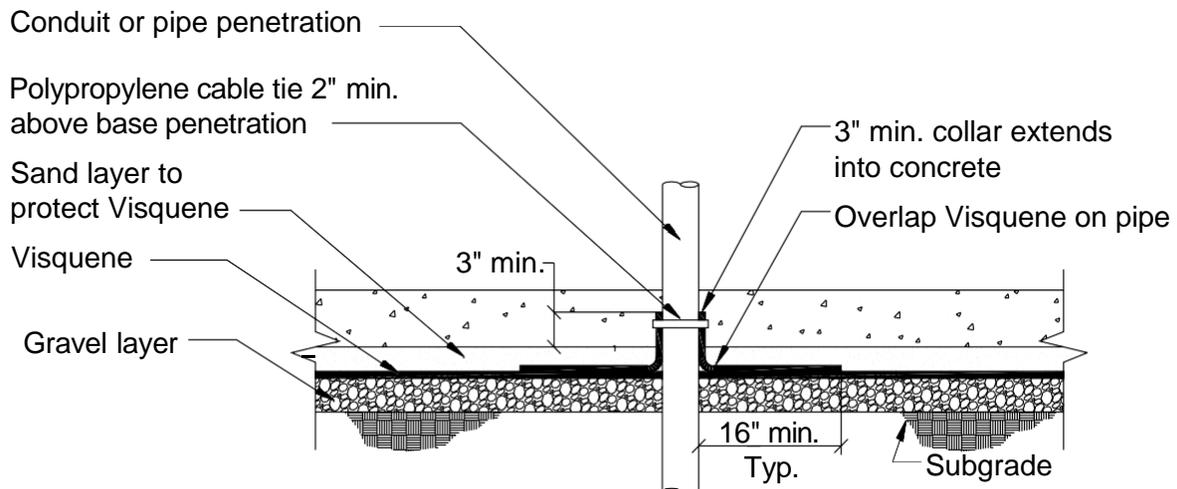
Detail 1 - Typical Cross Section



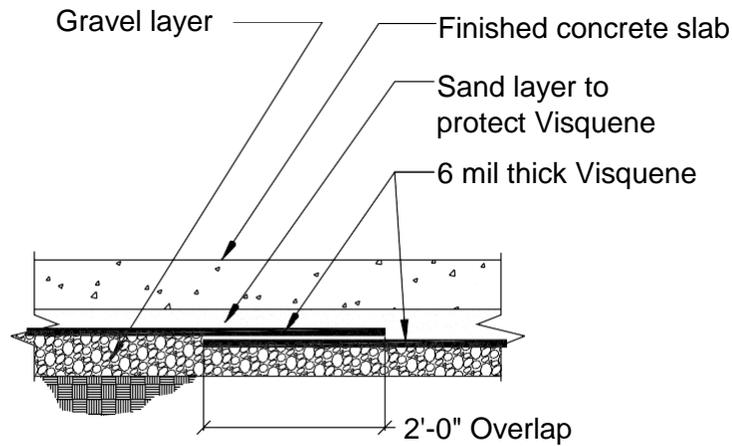
Note:

1. If groundwater is found during footing excavation, then special approval from the Department of Building and Safety is required for dewatering.
2. Gravel shall be clean crushed rock with maximum particle size of 3/8" and less than 10% passing sieve No. 8.
3. Sand shall be clean sand with less than 10% passing Sieve No. 100.

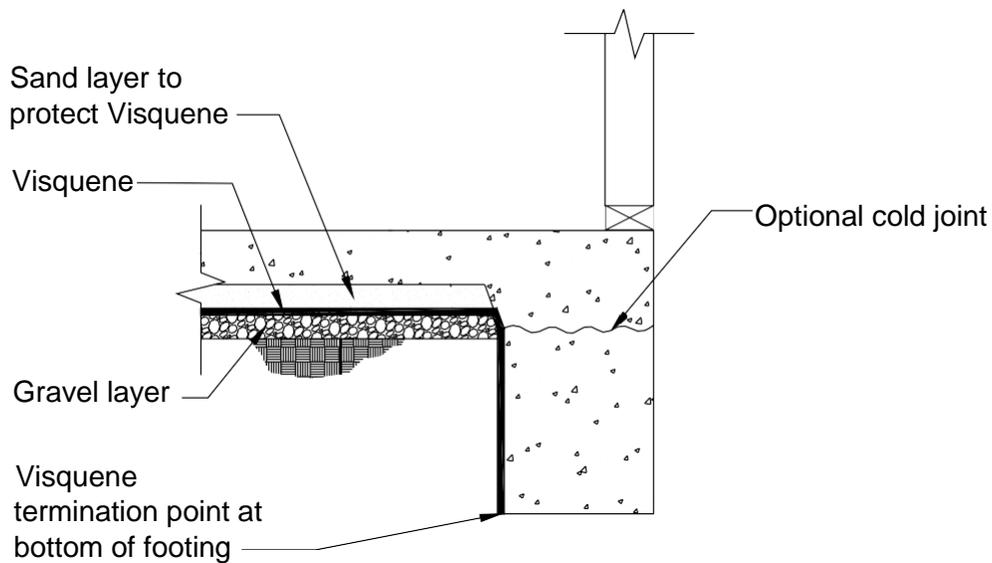
Detail 2 - Visquene Penetration



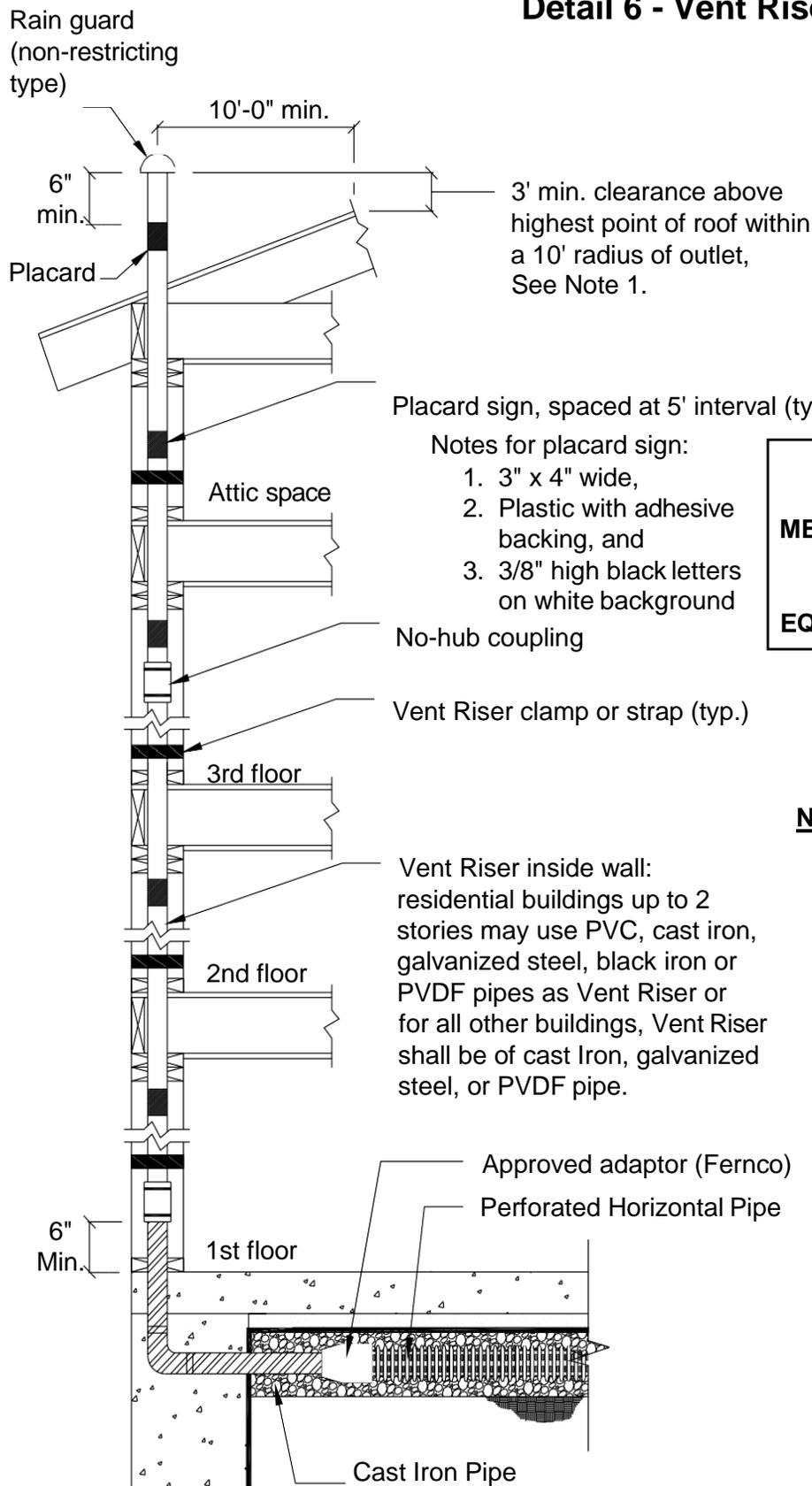
Detail 3 - Visquene Overlap



Detail 4 - Visquene Termination at Exterior Footing



Detail 6 - Vent Riser



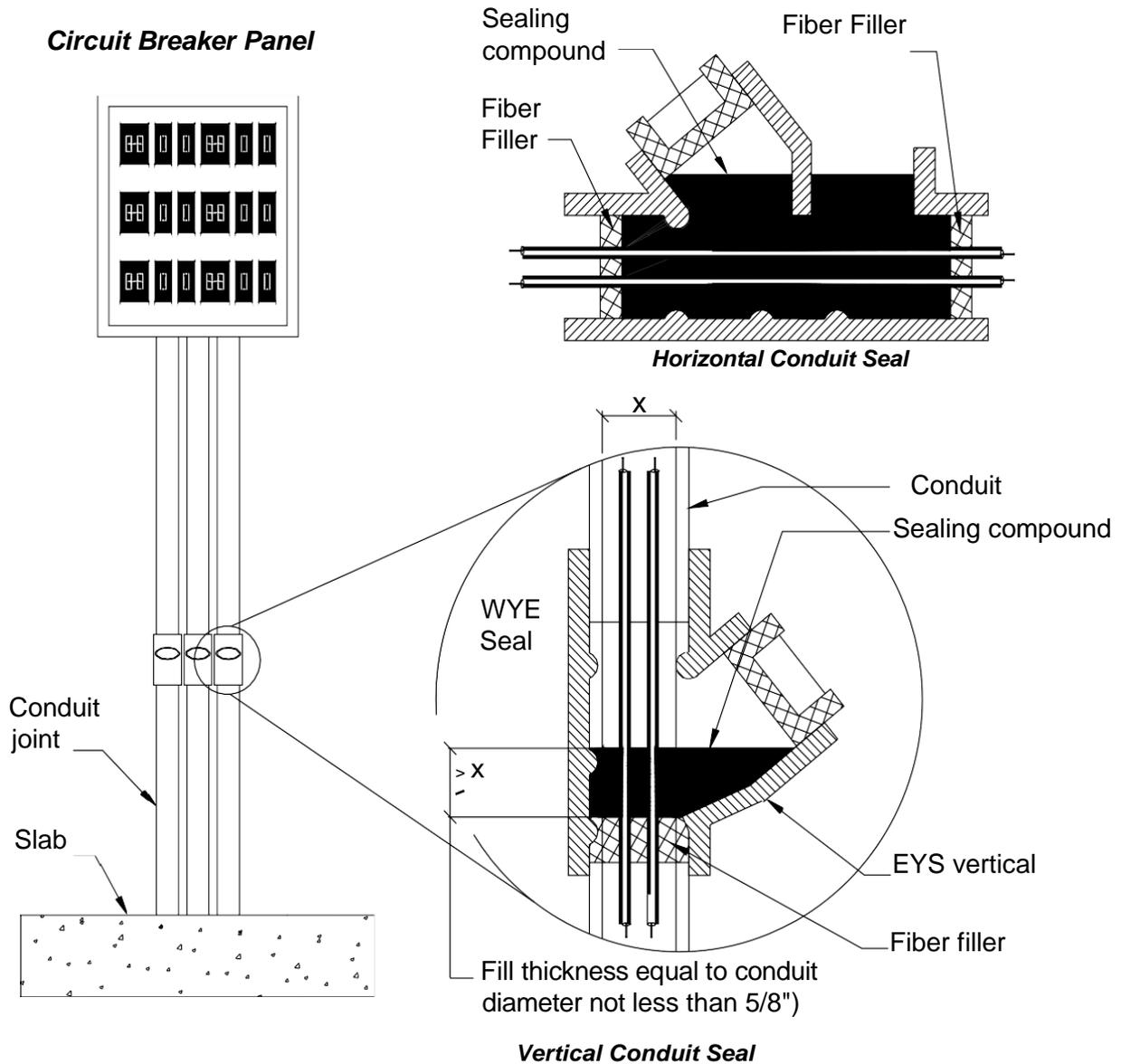
CAUTION

**METHANE GAS IN PIPE
NO SMOKING
OR ELECTRICAL
EQUIPMENT WITHIN 10'**

- Notes:**
1. Termination of Vent Riser shall be as follows:
 - a. 10' min. above grade,
 - b. 10' min. away from any window, door, door hatch, opening or air intake into the building,
 - c. 3' min. above highest point of roof within a 10' radius of outlet,
 - d. 4' min away from property line, and
 - e. 5' min. away from electrical devices.
 2. Wrap and protect all piping through concrete slab or floor.
 3. Support all piping per Table 3-2 of Los Angeles Plumbing Code.

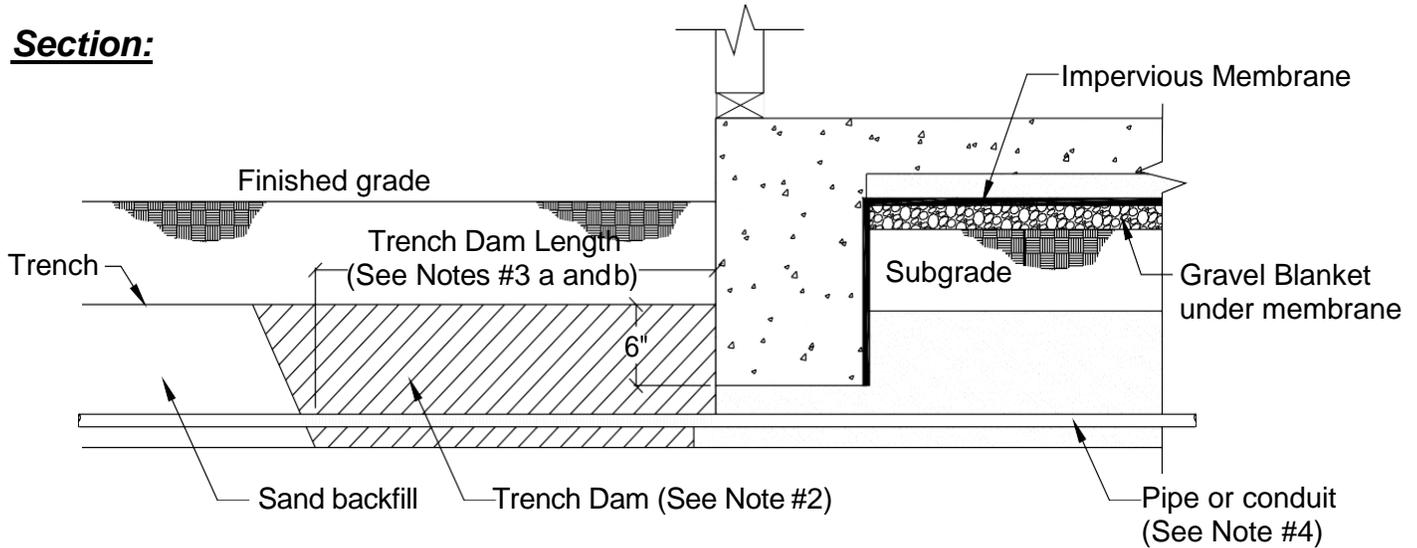
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Detail 7 - Conduit Seal

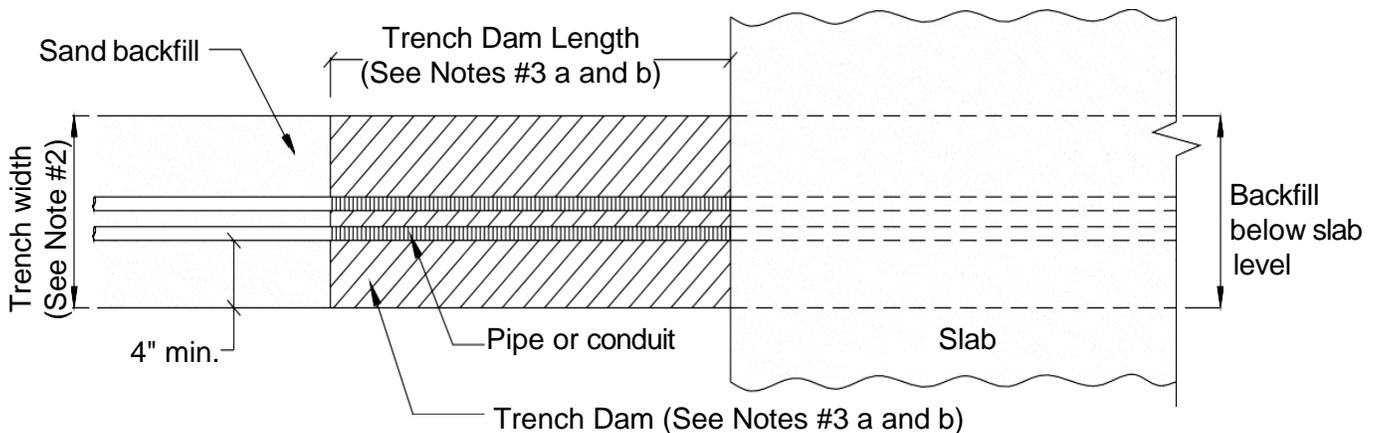


Detail 8 - Trench Dam

Section:



Plan View:



Notes: Trench Dams

1. All Trench Dams shall be installed in trenches containing piping and conduit that connects directly from the utility lines in the street.
2. The width of a Trench Dam shall be one half the length.
3. Trench Dams shall be constructed of one of the following:
 - a. Bentonite Cement Slurry three feet long: A mixture of 4% Type II Cement, and 2% Powdered Bentonite.
 - b. Compacted Native Soils Backfill five feet long: Native soils shall be compacted at least 90% relative compaction in accordance with ASTM D-1557 Testing Procedures.
 - c. Concrete mixes other than Bentonite Cement Slurry may be used provided conduit or piping is wrapped with High Density PVC Foam Tape, Closed Cells, Adhesive Backed, 1/4" thick by 1/2" wide shall be applied to clear surface with ends butted together at most visible locations in Trench Dam.
4. Piping and conduit shall be protected from corrosion and structural settlement as follows:
 - a. Tape shall be applied on conduit and piping encased in cement slurry or concrete.
 - b. Tape shall be PS-37-90, Black Plastic PVC or PE Pressure-Sensitive Corrosion Preventive Tape.