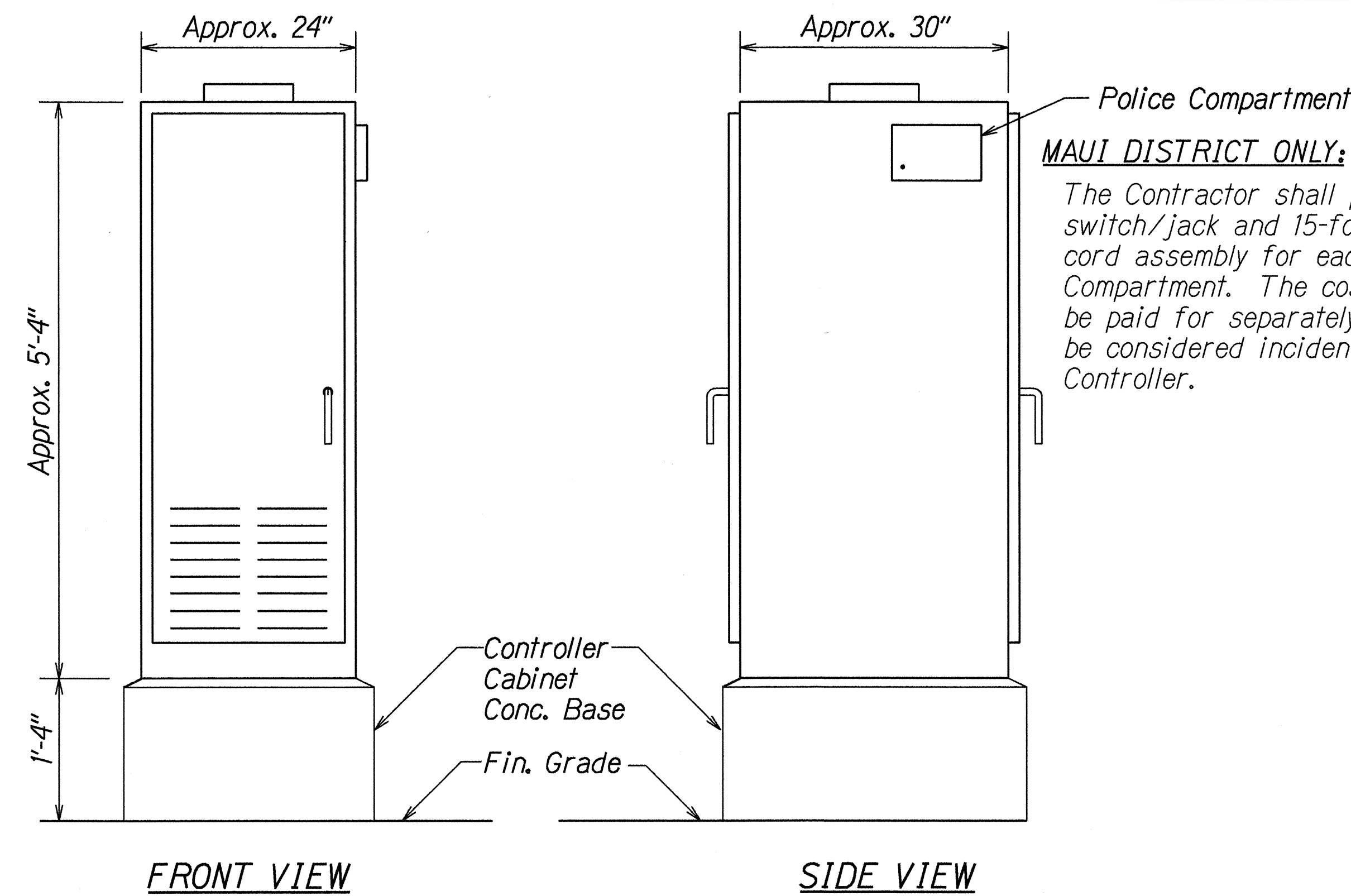
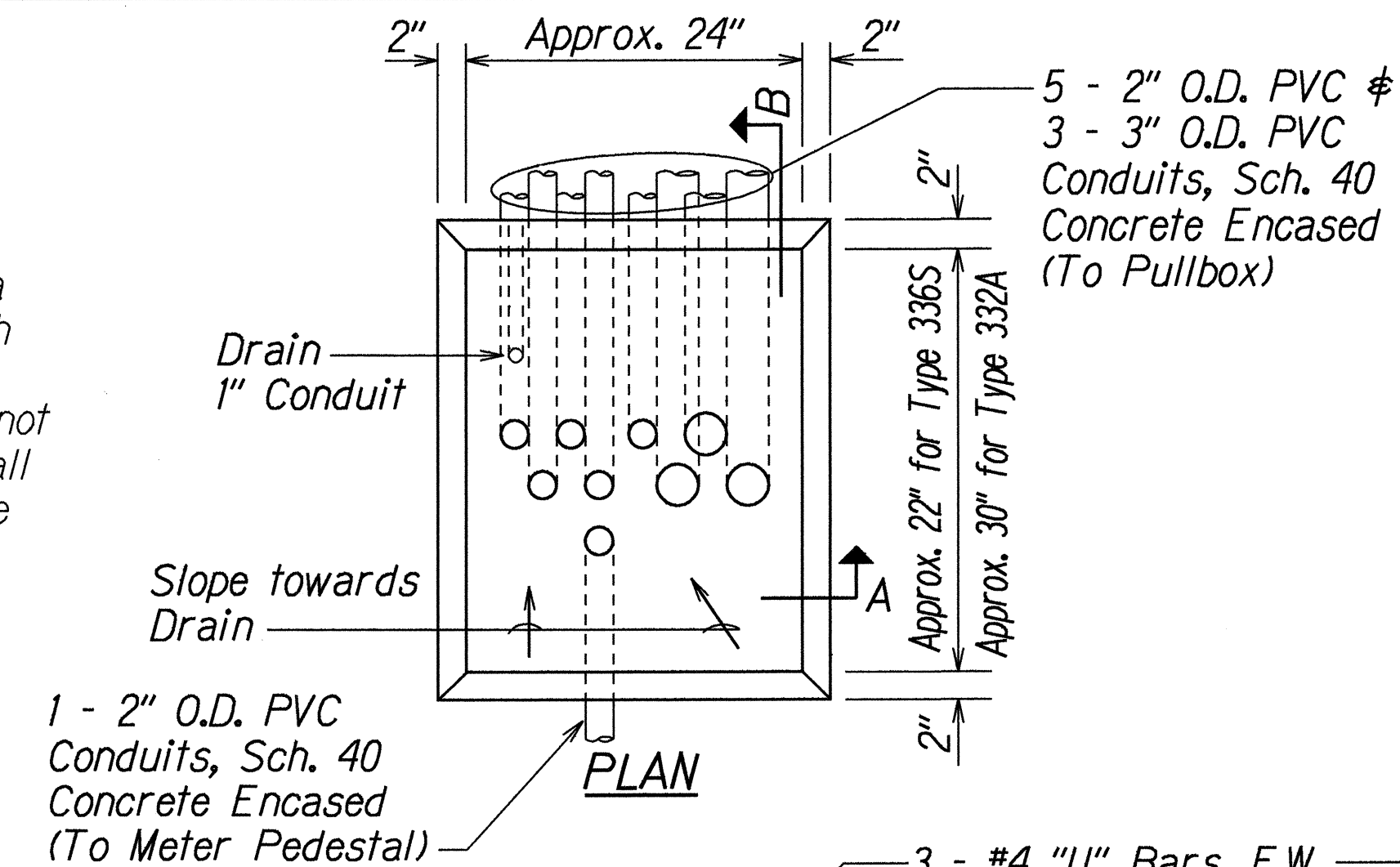


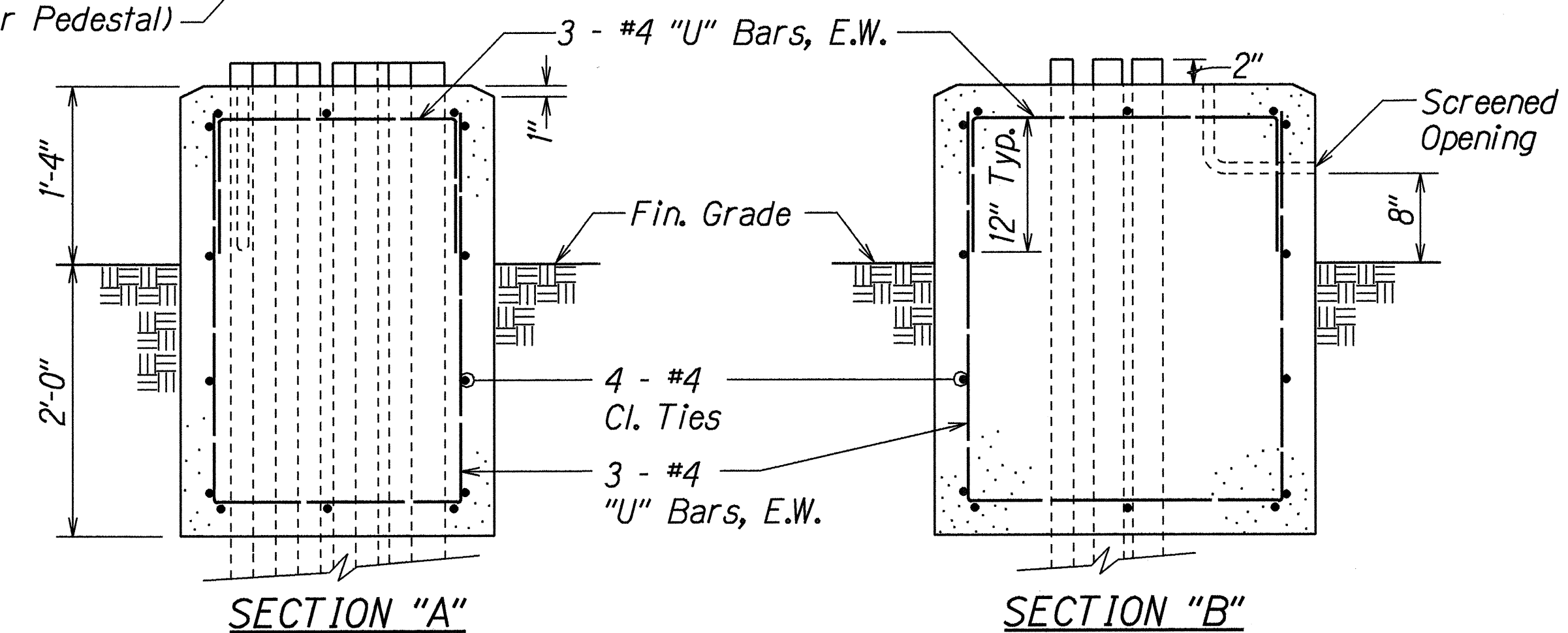
| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-------------|-------------|-----------|--------------|
| HAWAII | HAW. | 3400B-01-98 | 1998 | 12 | 16 |



**TYPE 332A TRAFFIC SIGNAL
CONTROLLER CABINET DETAIL**
N.T.S.

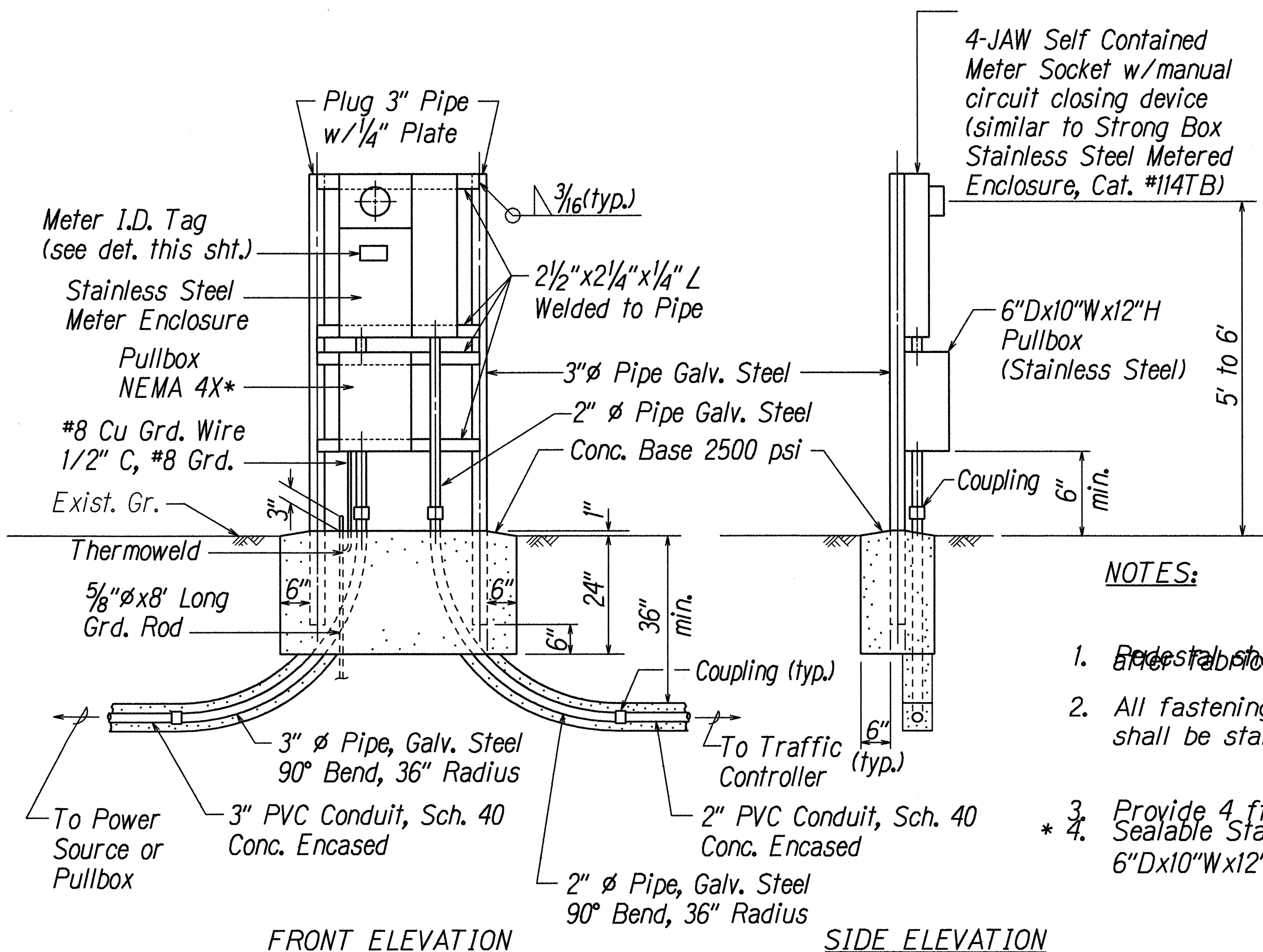
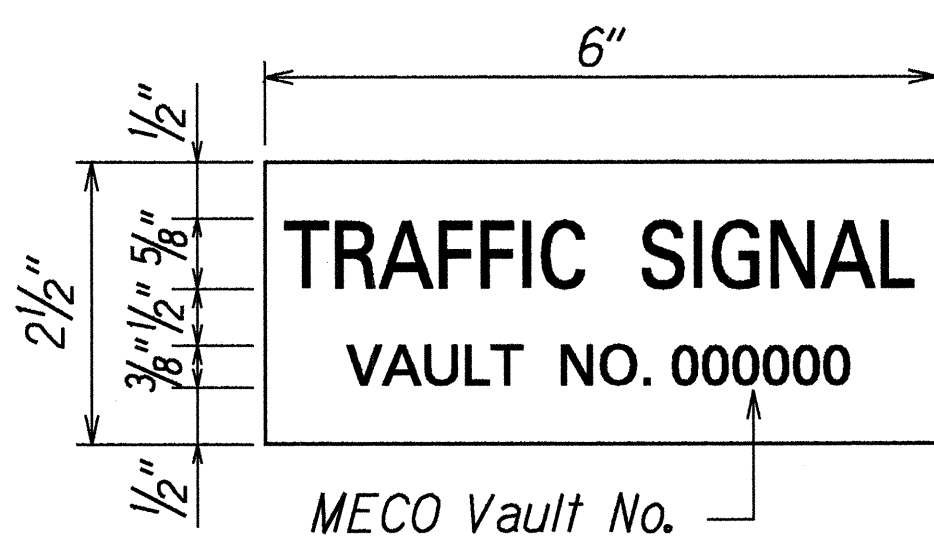


- NOTES:**
- Concrete shall be class "B".
 - Dimensions shall be altered to suit controller cabinet actually furnished.
 - Conduits bends and drain are incidental to concrete base
 - Refer to Cabinet Manufacturer's Specifications for details of anchor bolts and base setting.
 - All exposed surfaces of concrete base shall be given a class 2, rubbed finish.



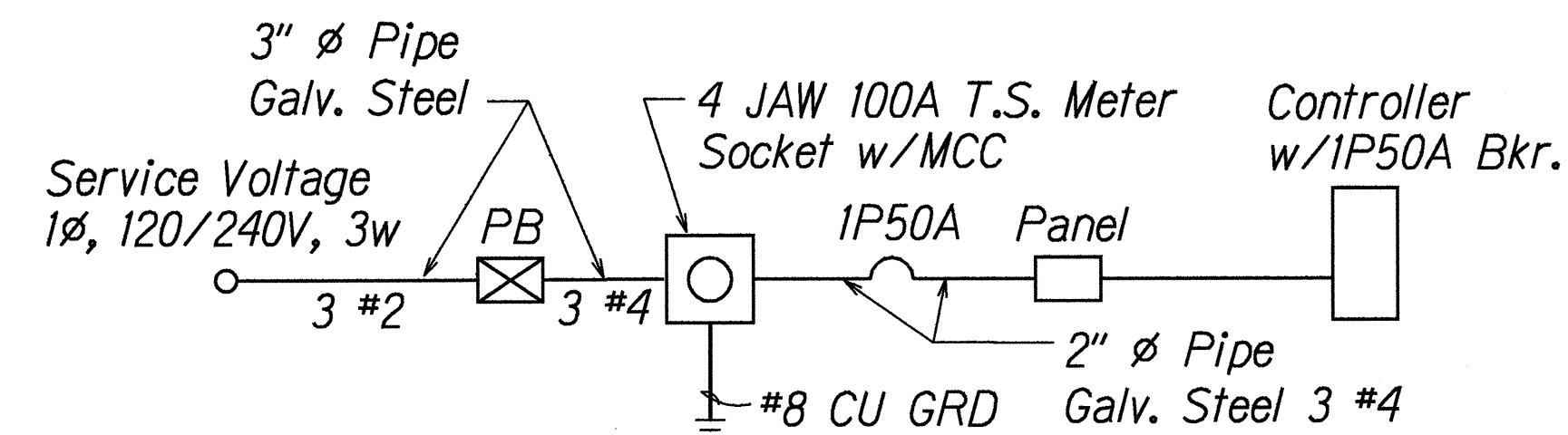
CONTROLLER CABINET CONCRETE BASE
N.T.S.

- NOTES:**
- Use 3-ply laminated flexible plastic, black-white-black thickness: black cap sheet - 0.010", white base sheet - 0.052", black base sheet - 0.010".
 - Attach to Meter Socket using Scotch 3M Brand very high bond (VHB) double coated acrylic foam tape or equivalent.
 - Letters/Numbers shall be 1/16" stroke, (white in color).
 - Letters/Numbers area inscribed by cutting through "black cap sheet" to expose white letters/numbers.



- NOTES:**
- Pedestal shall be hot-dipped galvanized
 - All fastening bolts, nuts & washers shall be stainless steel.
 - Provide 4 ft. clearance in front of meter.
 - * Sealable Stainless Steel Enclosure 6"Dx10"Wx12"H.

METER ID TAG DETAIL
N.T.S.



ONE LINE DIAGRAM

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL DETAILS

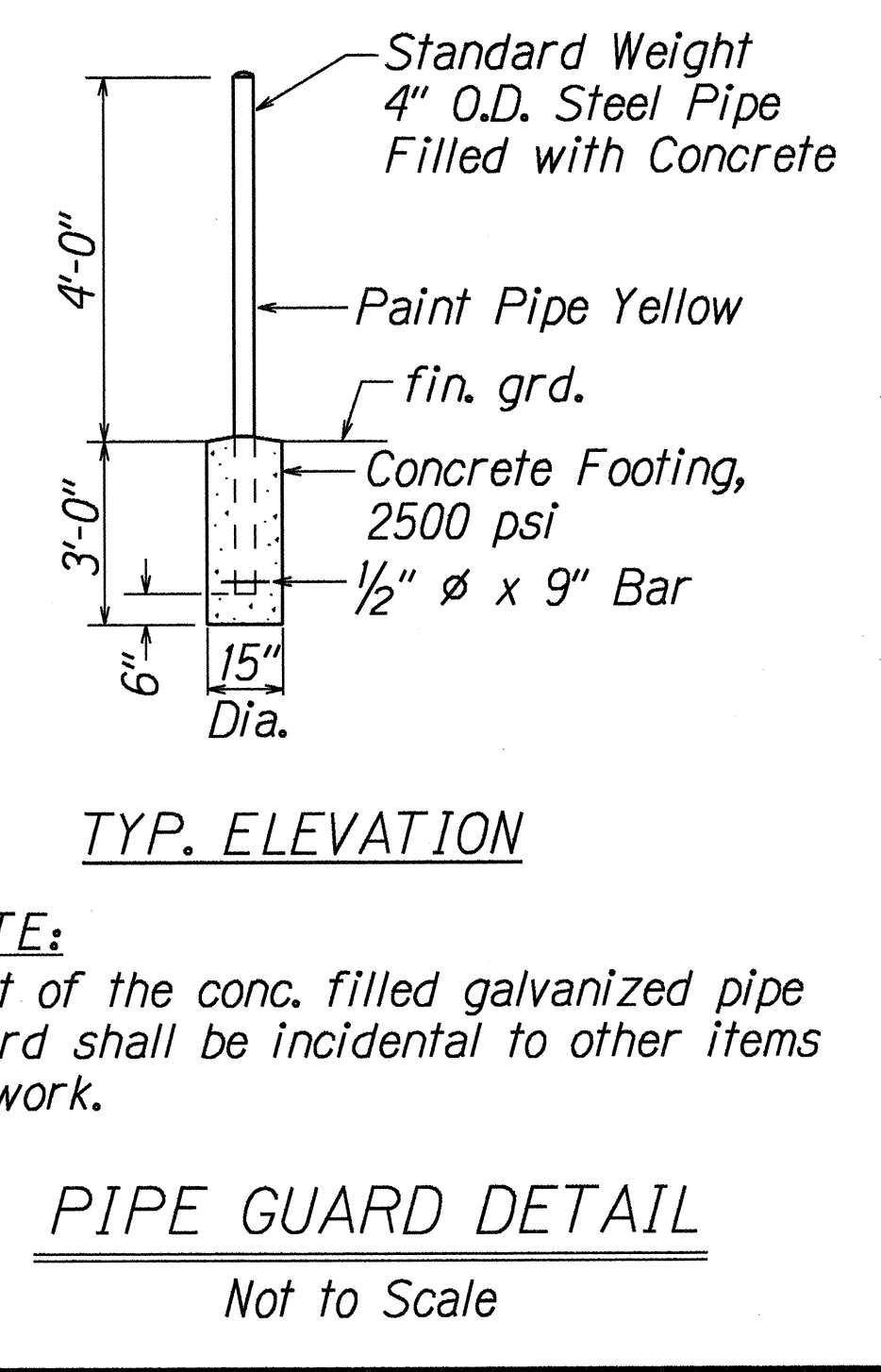
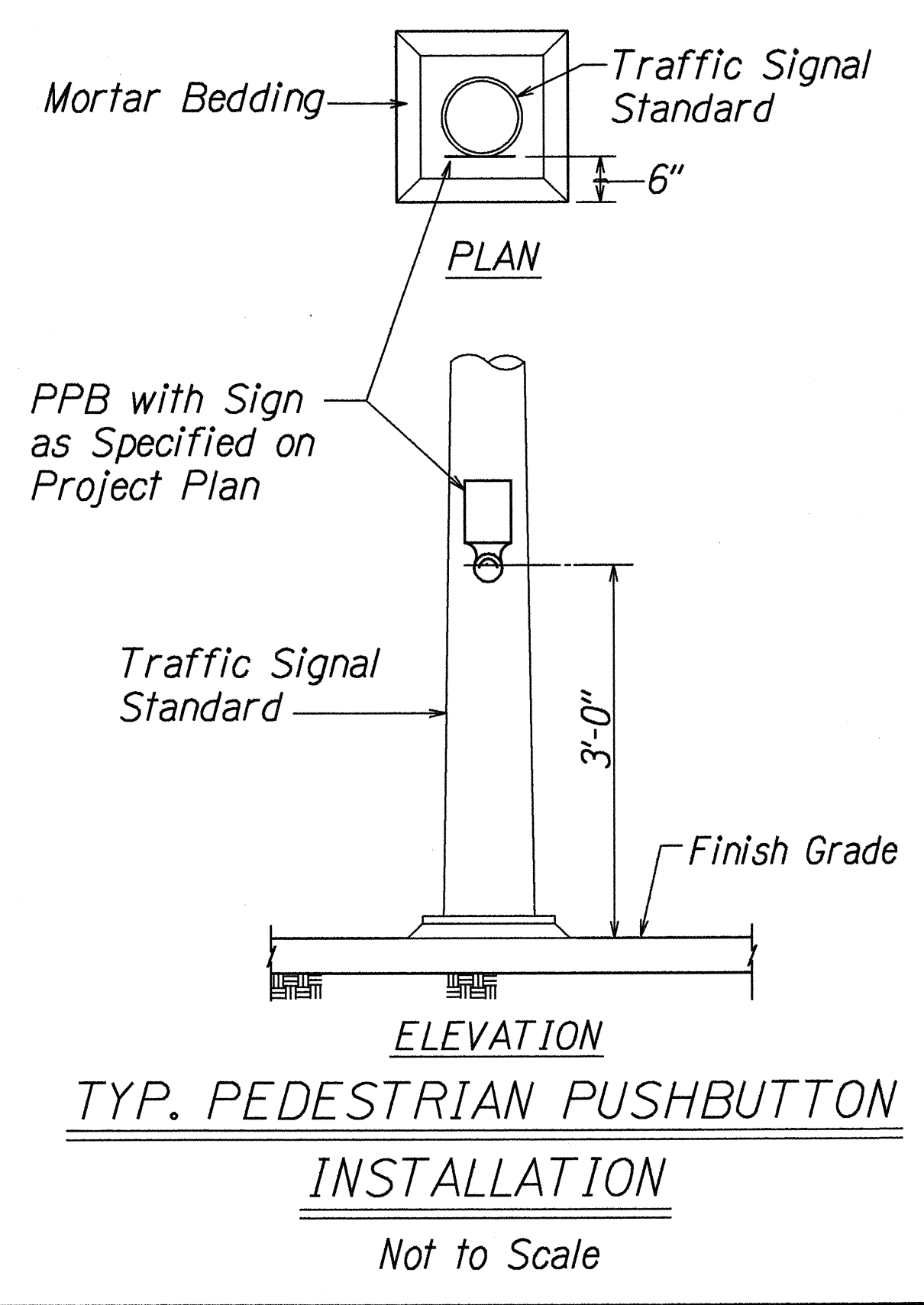
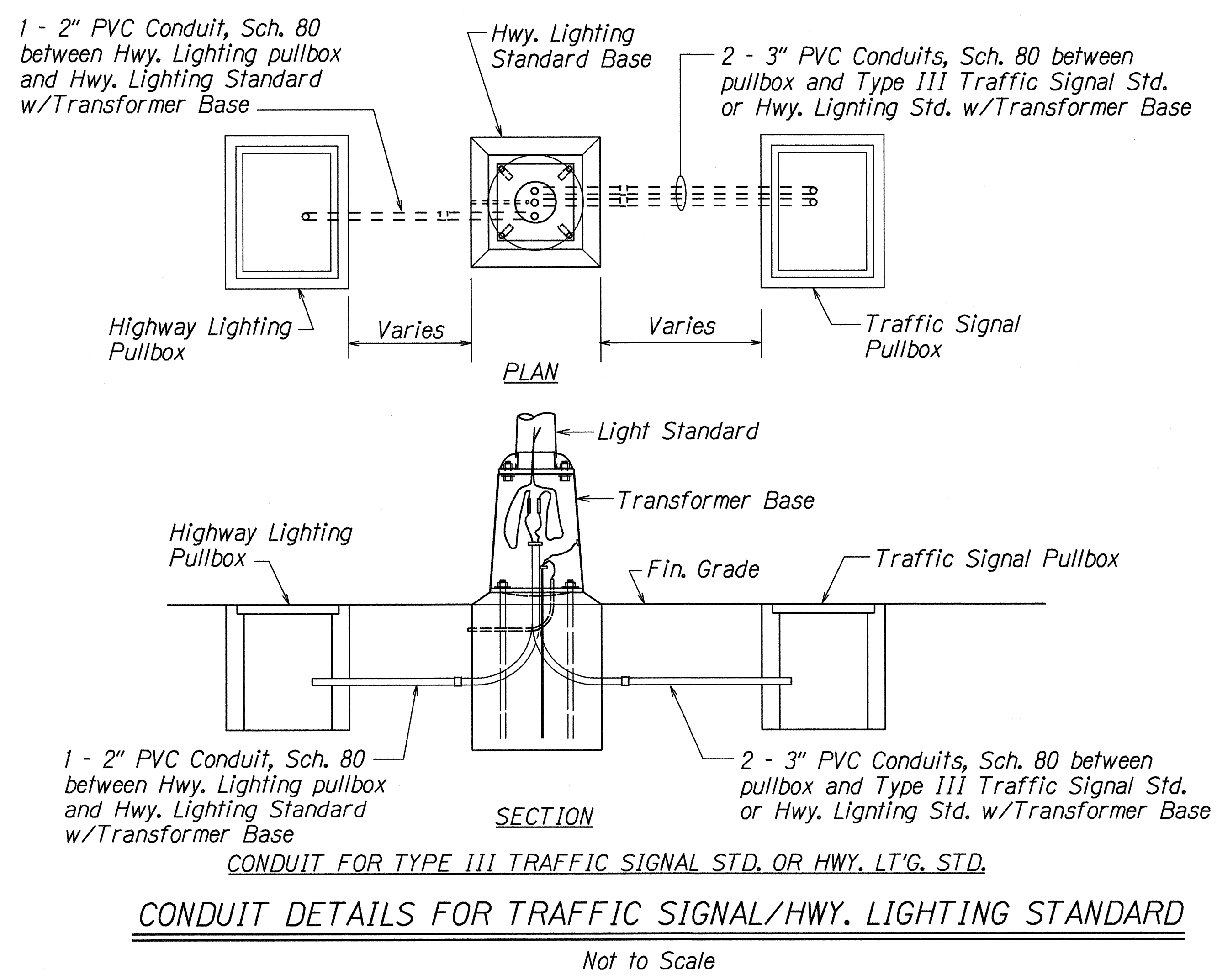
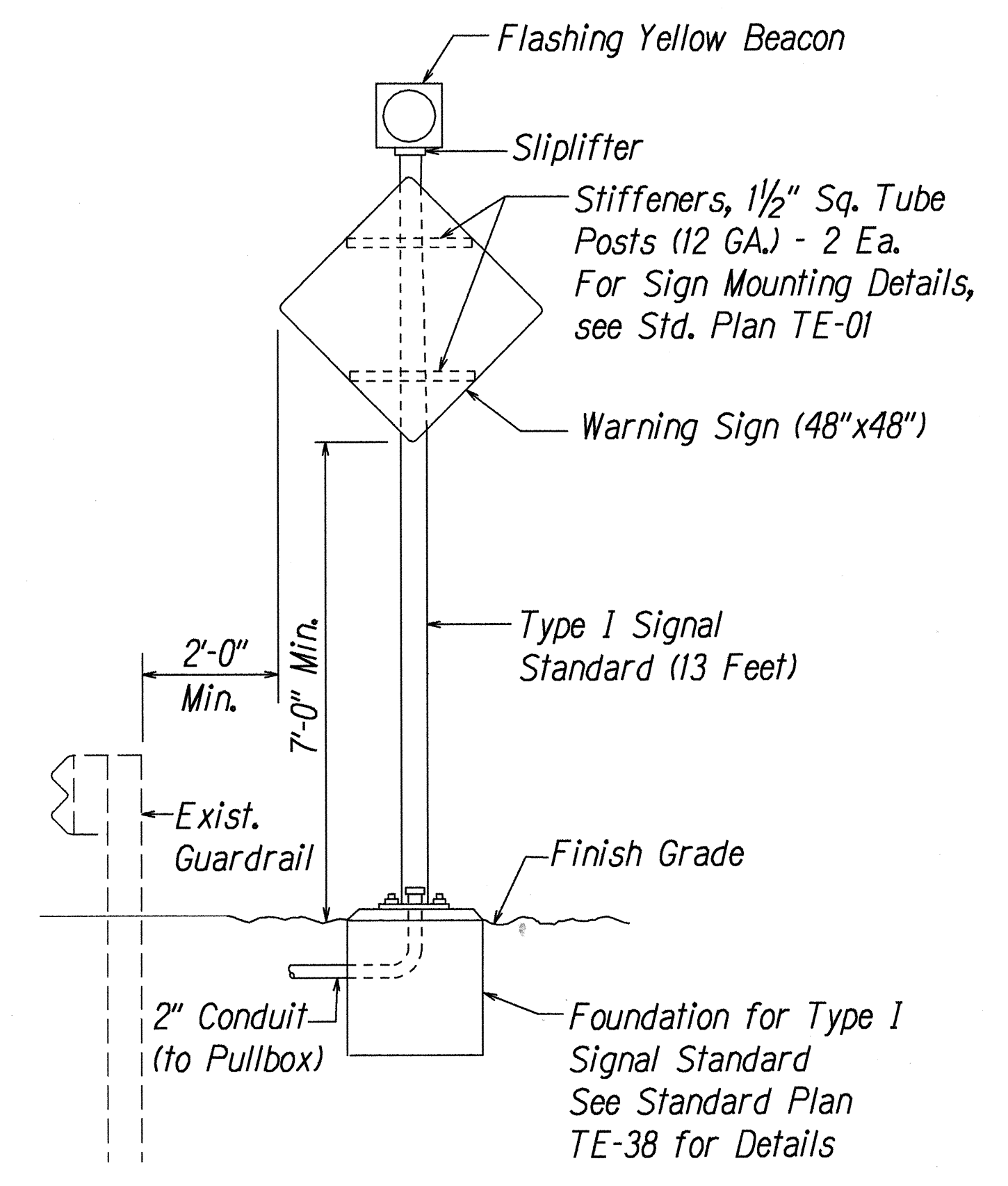
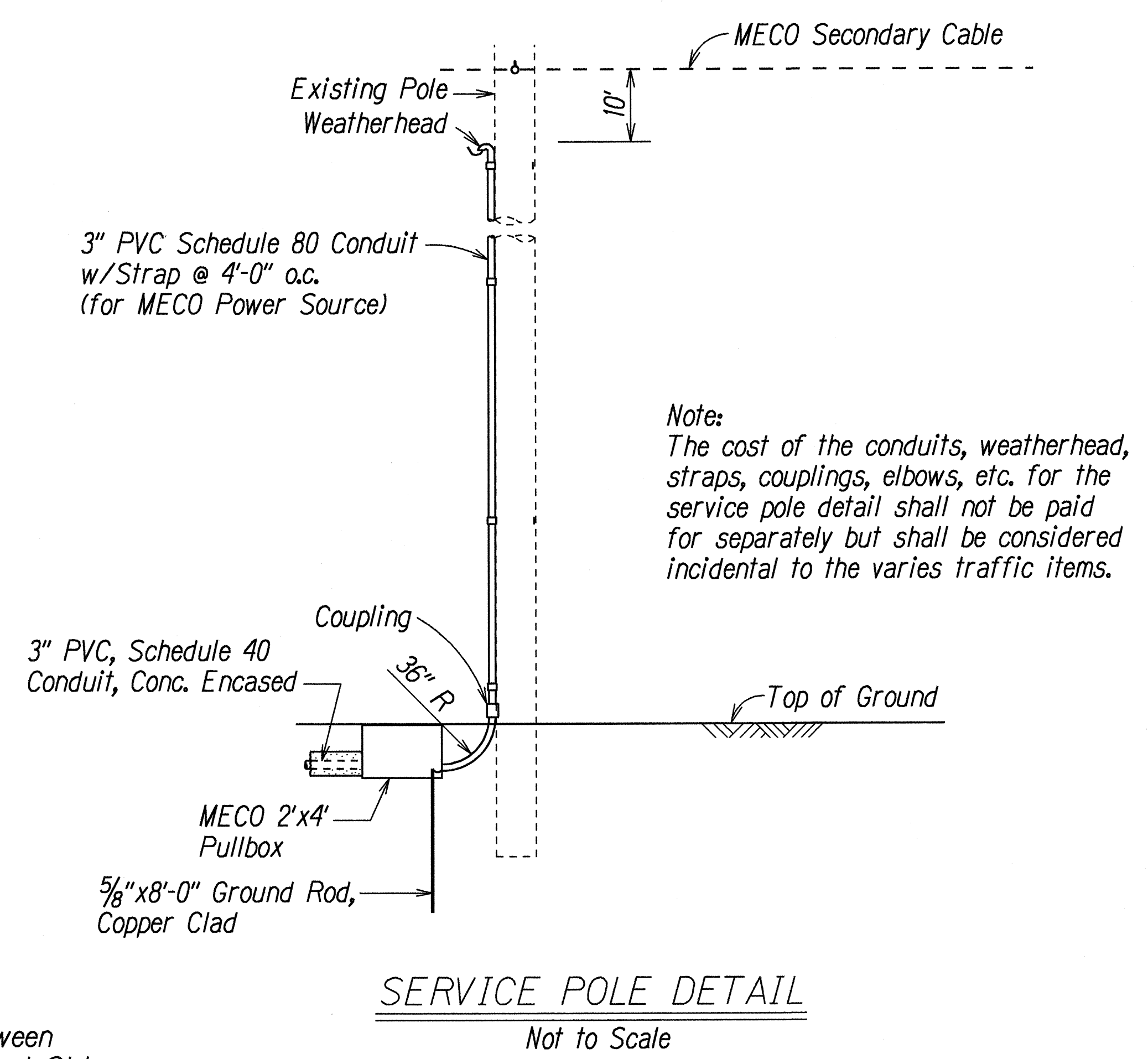
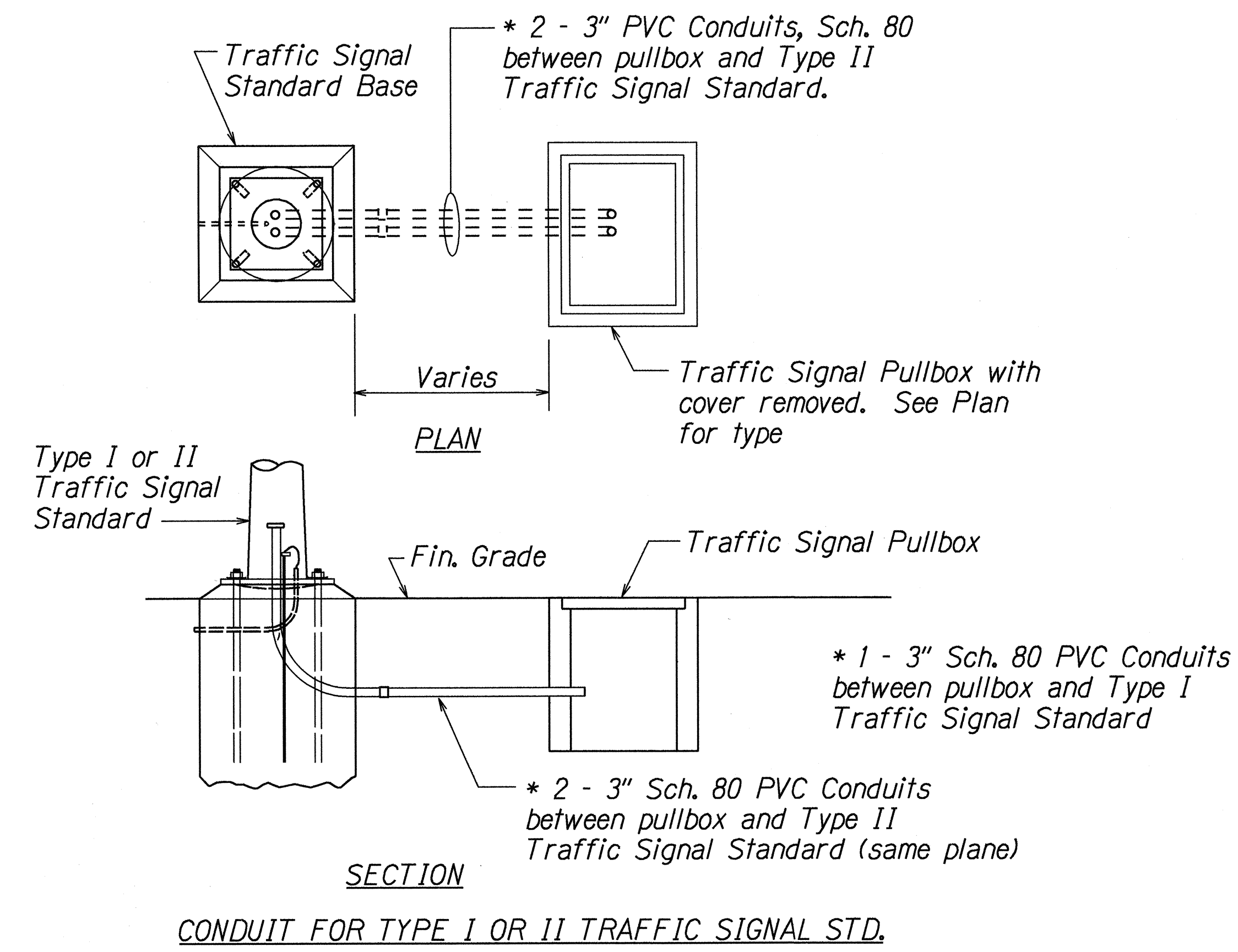
WAIERU BEACH ROAD
Installation of Traffic Signals at Eha Street
Project No. 3400B-01-98

Not to Scale
Date: Oct., 1997

SHEET No. 1 OF 3 SHEETS

| | |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DESIGNED BY | |
| TRACED BY | |
| NOTE BOOK | |
| QUANTITIES BY | |
| CHECKED BY | |

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-------------|-------------|-----------|--------------|
| HAWAII | HAW. | 3400B-01-98 | 1998 | C.O. 13 | 16 |



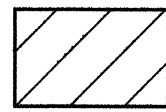
| 4/1/98 | Revised Service Pole Detail. Revised Conduit Size - Hwy. Lt'g. P.B. to Transformer Base. |
|--|---|
| DATE | REVISION |
| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TRAFFIC SIGNAL DETAILS WAIEHU BEACH ROAD Installation of Traffic Signals at Eha Street Project No. 3400B-01-98 Not to Scale Date: Oct., 1997 SHEET No. 2 OF 3 SHEETS | |

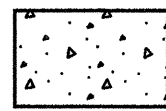
| | | |
|---------------|-------------|----------|
| ORIGINAL PLAN | DATE | 10/21/97 |
| NOTED BY | DESIGNED BY | C. Ake |
| QUANTITIES BY | CHECKED BY | 4/2/1998 |

R12/15/97

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-------------|-------------|-----------|--------------|
| HAWAII | HAW. | 3400B-01-98 | 1998 | 14 | 16 |

STATE RIGHT-OF-WAY BACKFILL NOTES

- 

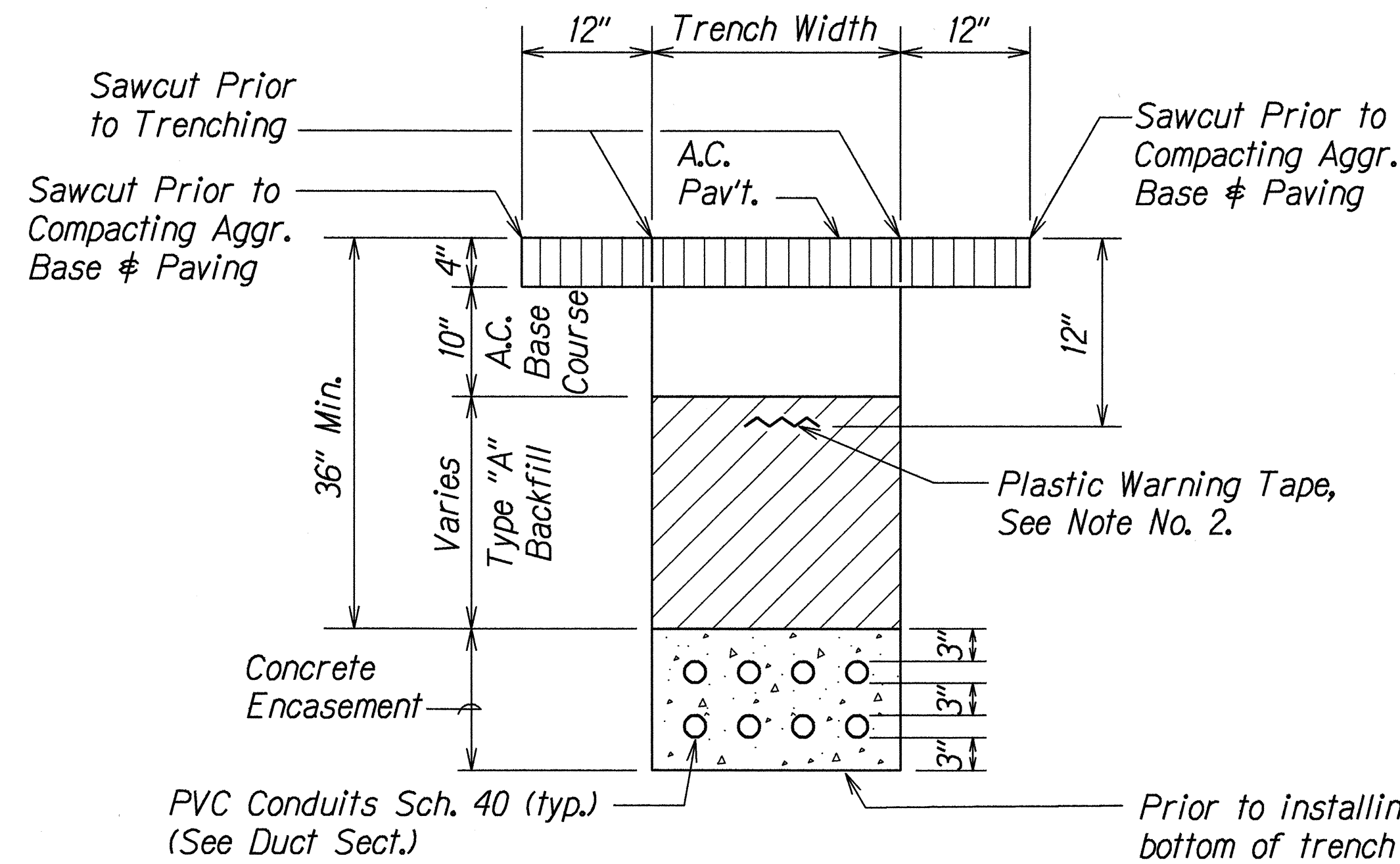
Trench Backfill Material "A"
Beach Sand, Earth, or Earth and Gravel if Earth and Gravel used, the maximum shall contain not more than 50% by volume of rock particles. Maximum 8" loose fill per lift. Obtain 95% compaction for each lift.
- 

Concrete
3000 psi compressive strength @ 3 days.

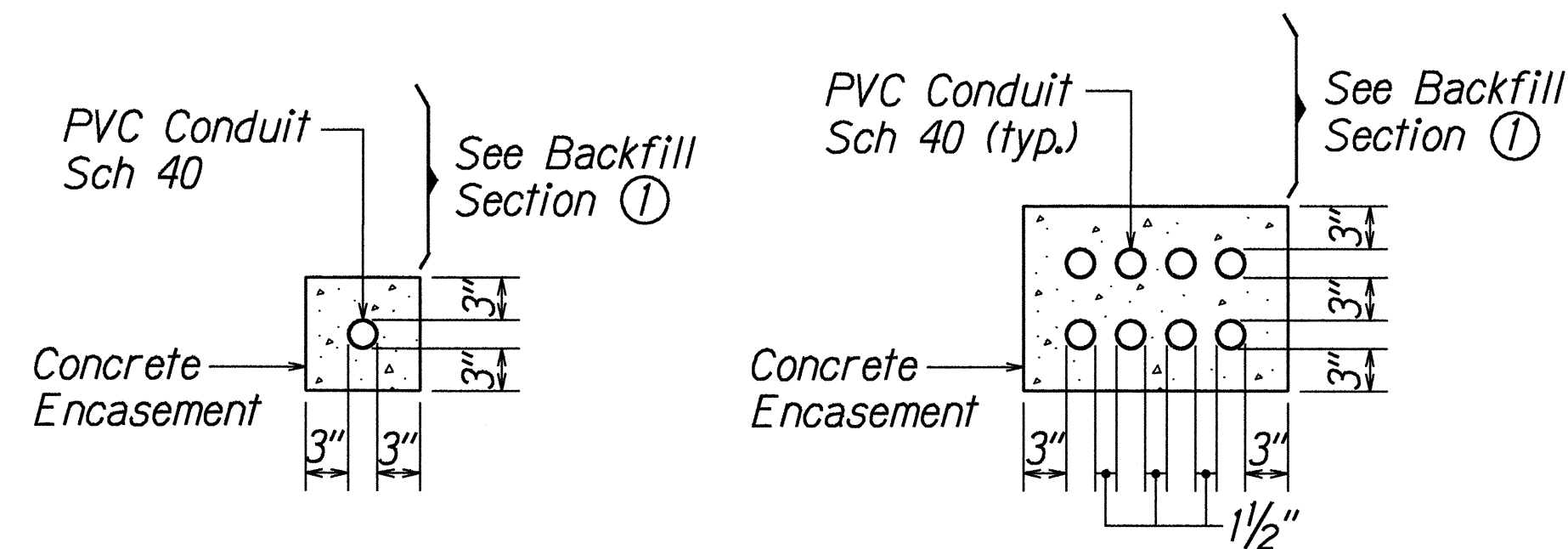
NOTE: Base Course & Sub-Base Course per 1994 State Standard Specifications for Highway Construction.

GENERAL NOTES

- If trench is located on unpaved area, the Contractor shall replace 10" A.C. Base Course and 4" A.C. Pavement with Type "A" backfill material.
- The Metal Detectable High Fluorescence Yellow Plastic Warning Tape shall be a minimum 5 mils thick and 4" wide with a continuous metallic backing and corrosion resistant 1 mil thick foil core. The tape shall read, "CAUTION - STATE TRAFFIC SIGNAL AND/OR HWY LIGHTING BURIED BELOW," utilizing 3 inch series "C" lettering. The message will be repeated with a 12-inch spacing between the end and beginning of repeated message.
- The Contractor may begin backfilling the conduit trench when the concrete reaches 3000 psi compressive strength after 3 days.
- Maximum four (4) Conduits per Row for multiple conduit duct section.



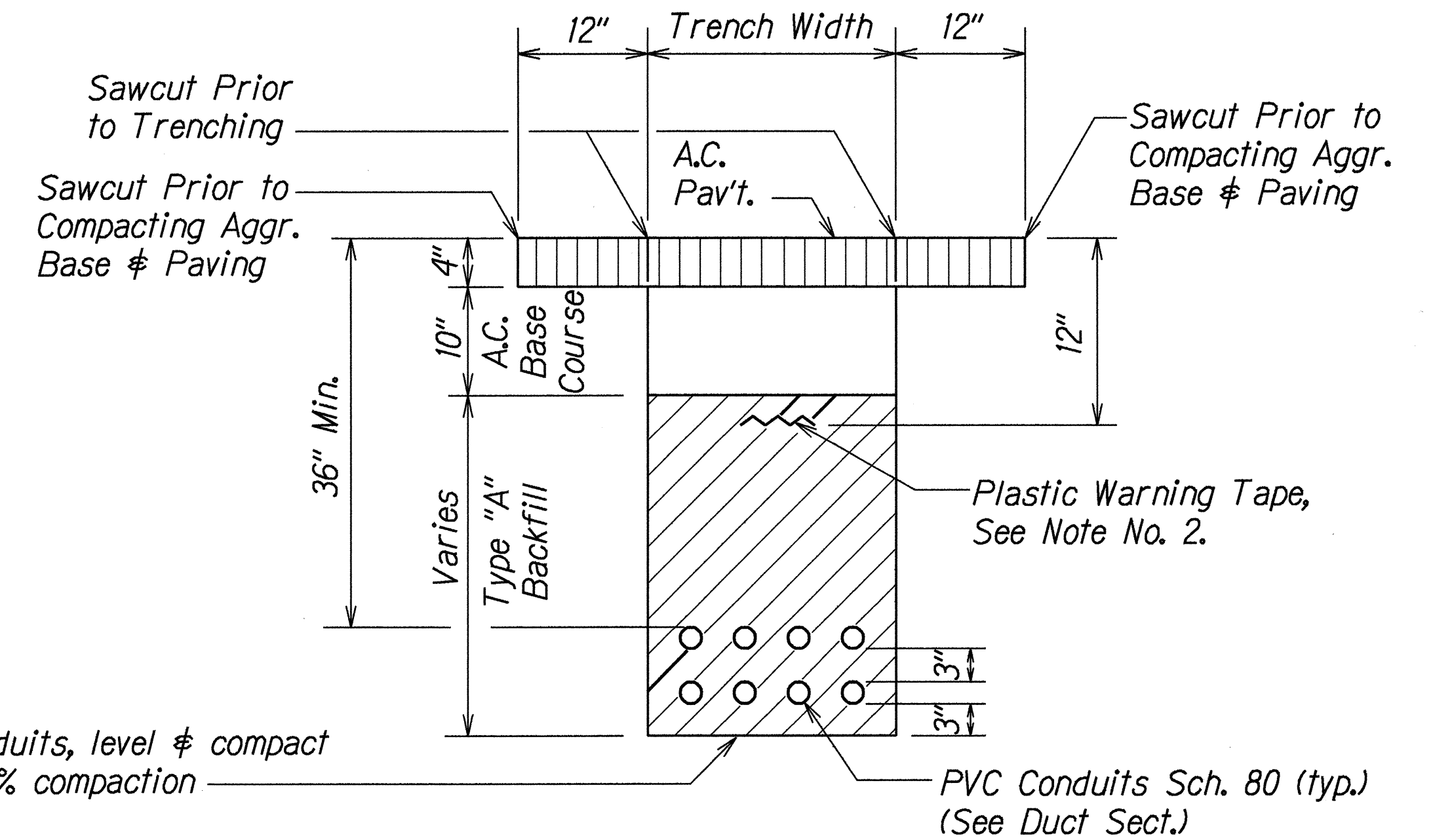
① TYPICAL BACKFILL SECTION WITH CONCRETE ENCASED DUCTS



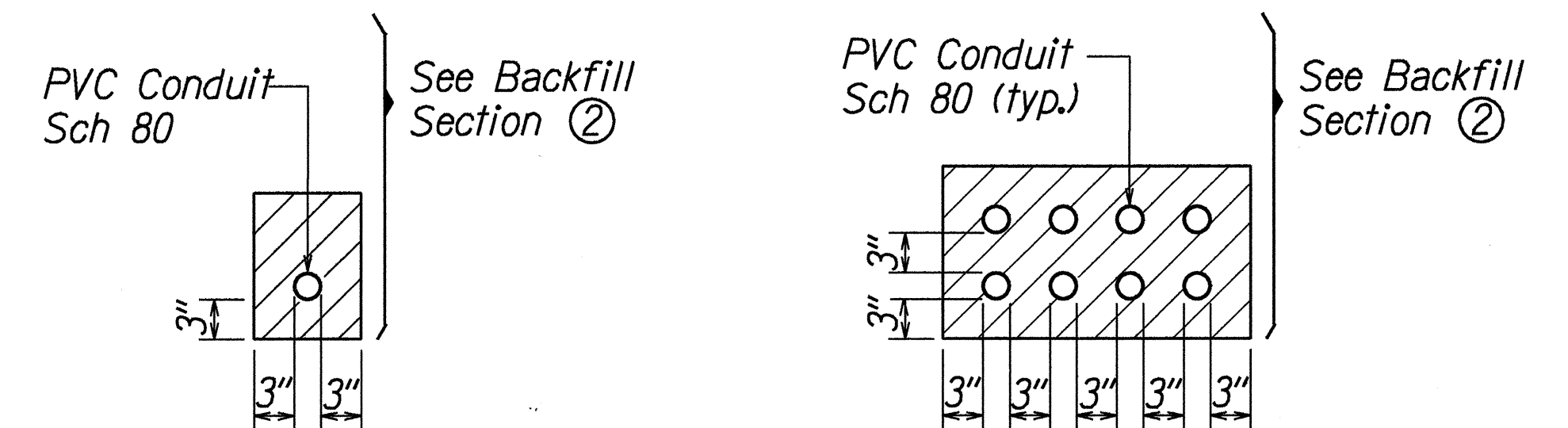
SINGLE CONDUIT

MULTIPLE CONDUIT

DUCT SECTIONS - CONC. ENCASED



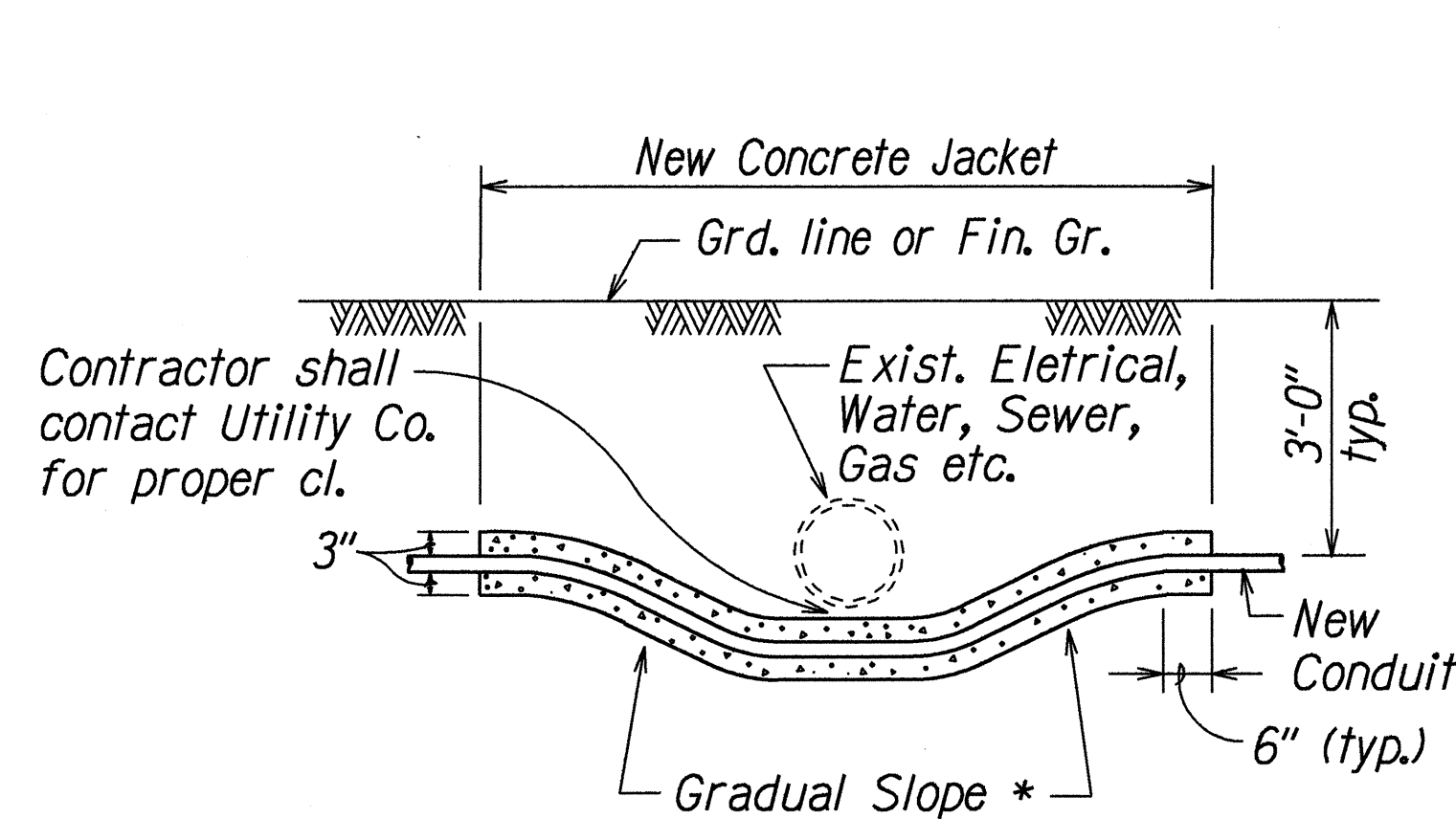
② TYPICAL BACKFILL SECTION DIRECT BURIED



SINGLE CONDUIT

MULTIPLE CONDUIT

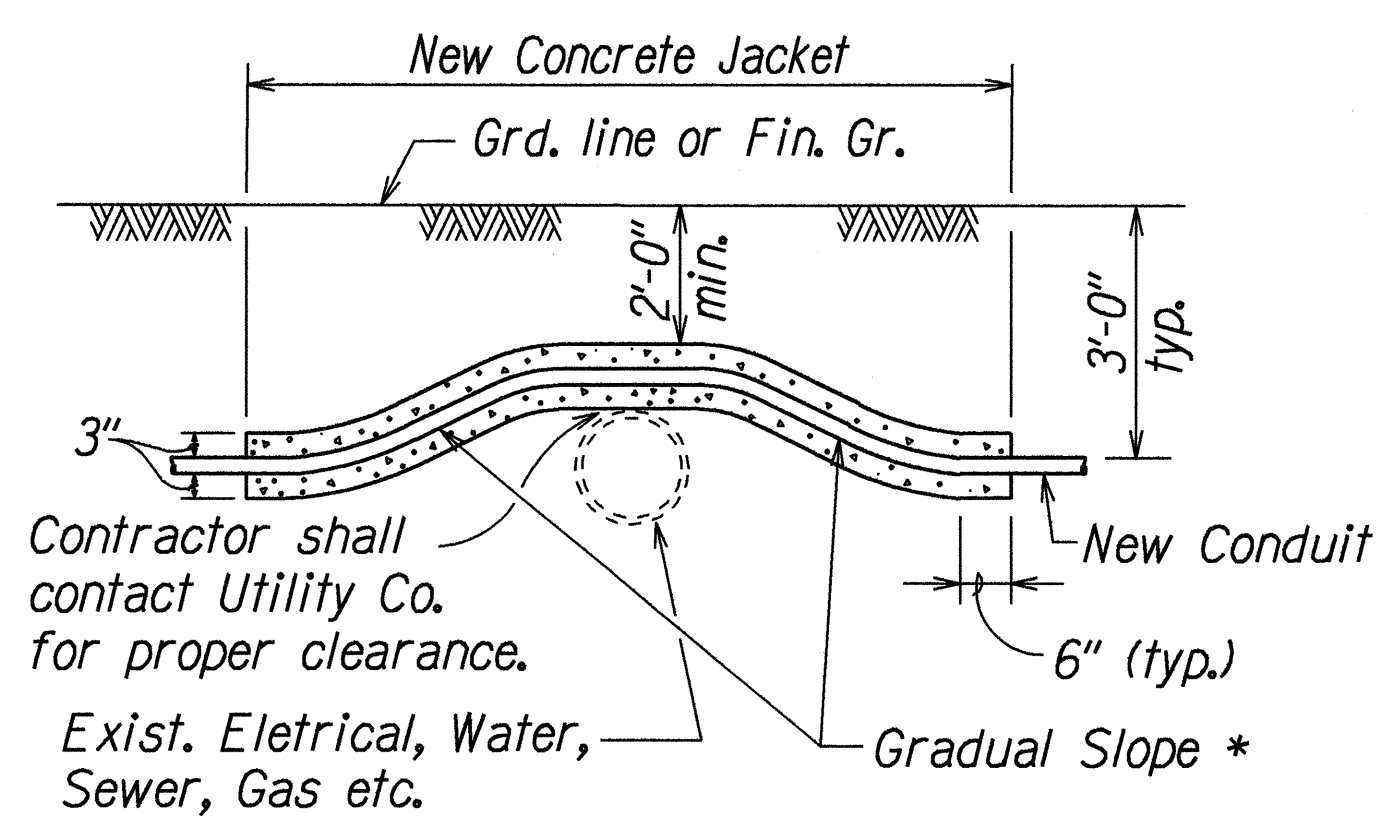
DUCT SECTIONS - DIRECT BURIED



* To be determined by County Electrical Inspector/Engineer

CONDUIT BY-PASS DETAIL AT VARIOUS UTILITIES

Not to Scale



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL DETAILS

WAIIEHU BEACH ROAD
Installation of Traffic Signals at Eha Street
Project No. 3400B-01-98

Not to Scale Date: Oct., 1997

SHEET No. 3 OF 3 SHEETS

| | |
|---------------|------|
| DESIGNED BY | DATE |
| NOTED BY | |
| TRACED BY | |
| QUANTITIES BY | |
| CHECKED BY | |

RI2-1-97