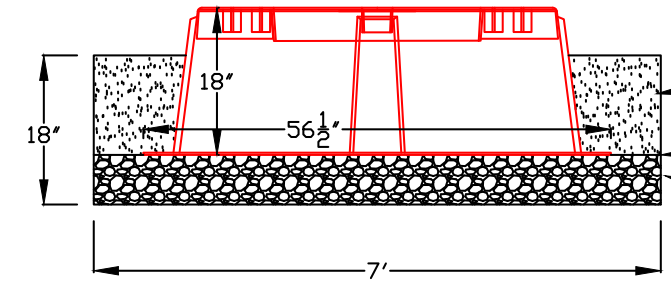
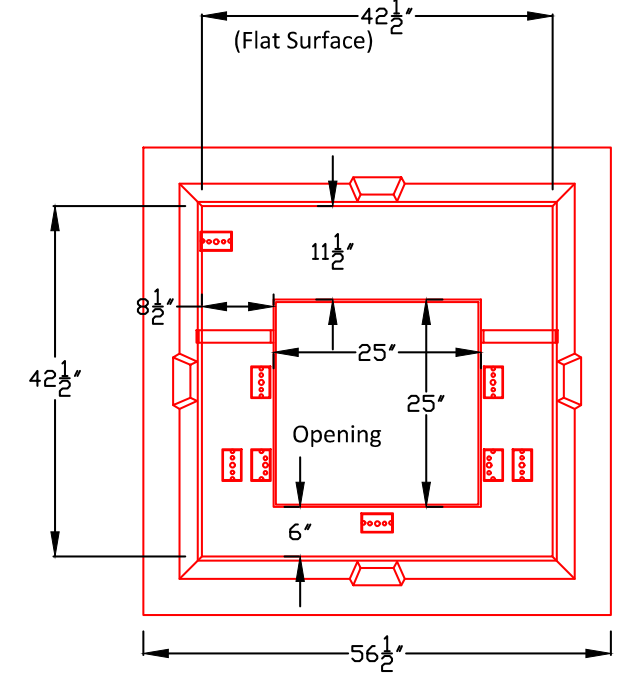


SINGLE PHASE TRANSFORMER



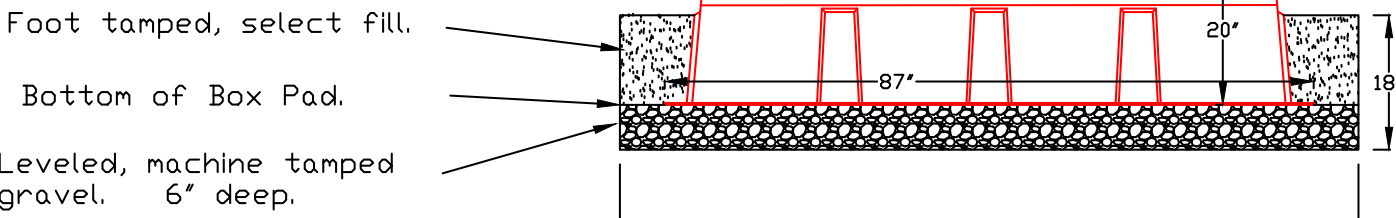
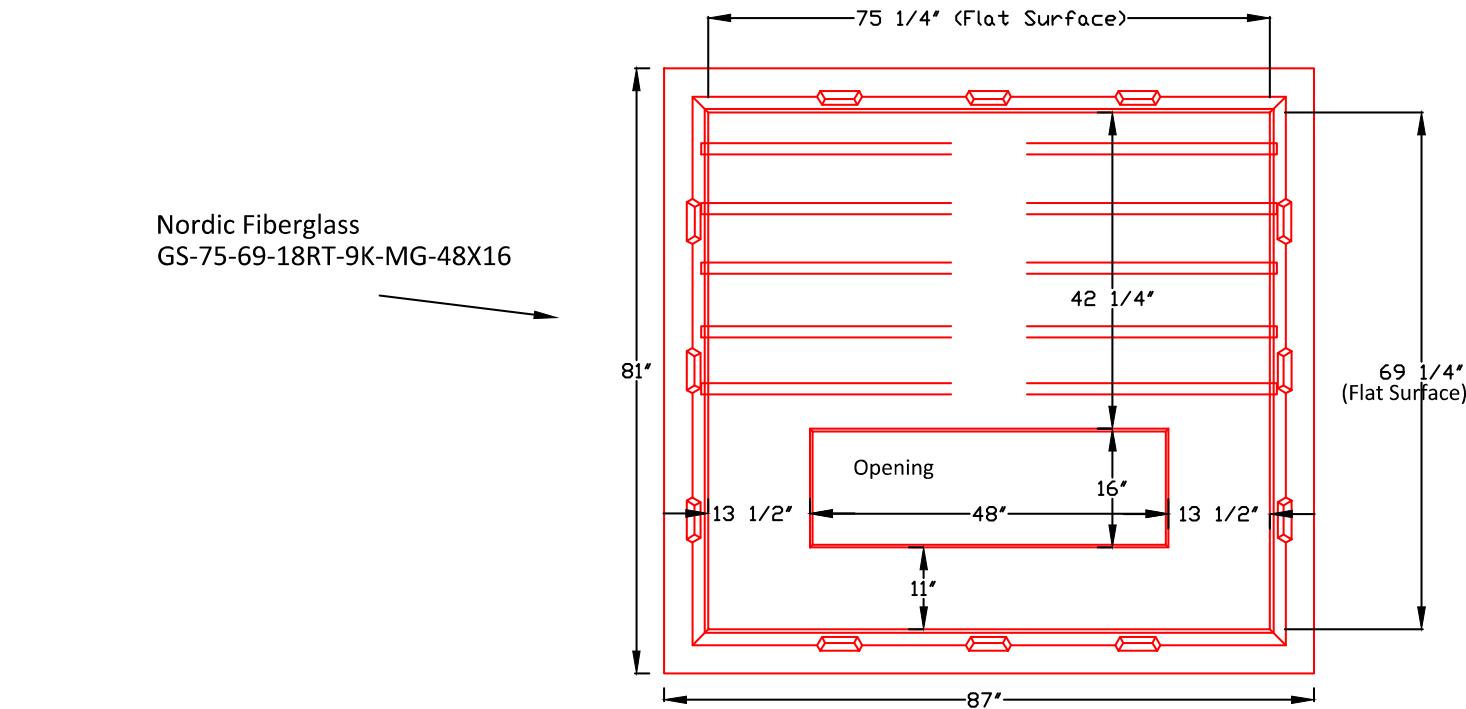
Foot tamped, select fill.  
Bottom of Box Pad.  
Leveled, machine tamped gravel. 6' deep.

NOTE: Contractor should install primary & secondary conduits as far to left & right side of opening.

- Contractor to dig hole 7'x7'x18' deep.
- Contractor to supply and install 3/4' stone, Machine tamped and leveled, 6' deep.
- City to install Box Pad.
- Contractor to supply, backfill with select fill.
- Top of Box Pad to be min. 6' above final grade.

|                                                                                   |       |                                         |        |                 |        |
|-----------------------------------------------------------------------------------|-------|-----------------------------------------|--------|-----------------|--------|
|  |       | CITY of NEWARK<br>NEW CASTLE COUNTY, DE |        |                 |        |
|                                                                                   |       | SINGLE PHASE BOX PAD INSTALLATION       |        |                 |        |
| CHECKED BY:                                                                       | BP    | SIZE                                    | DR BY: | FILENAME        | REV    |
|                                                                                   |       | A                                       | AM     | \\std\STD9E.dwg | 1      |
| DWG NO.                                                                           | STD9E | SCALE                                   | NTS    | DATE            | SHEET  |
|                                                                                   |       |                                         |        | 6/29/22         | 1 of 1 |

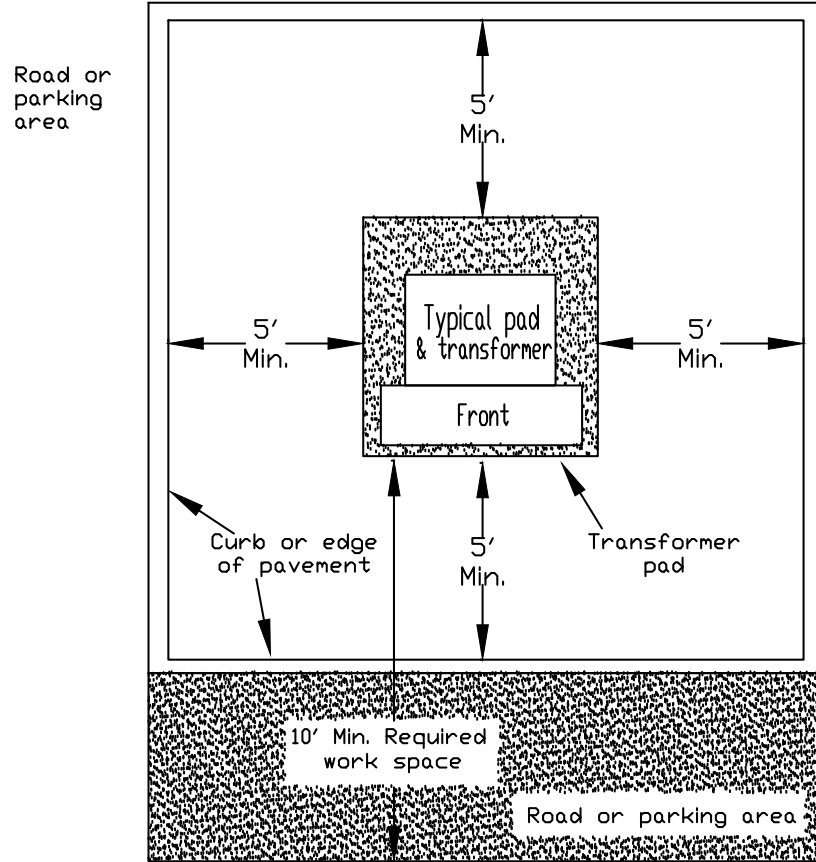
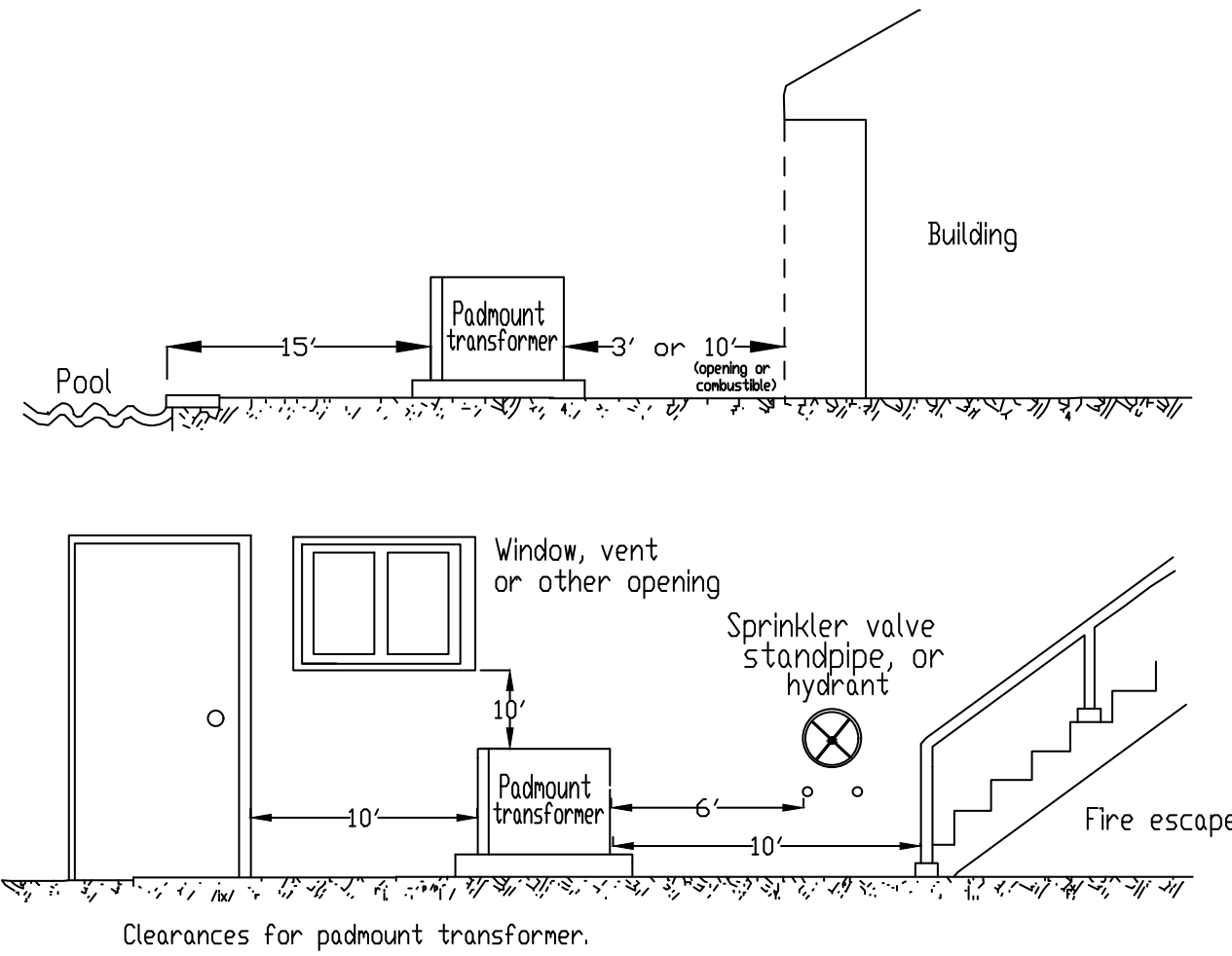
3 Ø commercial transformer  
9,000 lb. limit



NOTE: Contractor should install primary & secondary conduits as far to left & right side of opening.

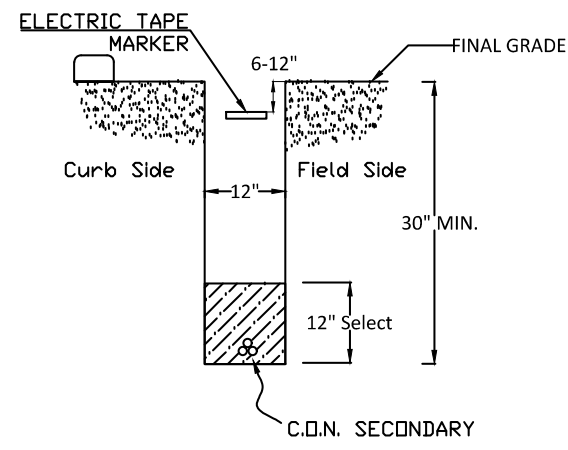
- Contractor to dig hole 8.5'x8.5'x18' deep.
- Contractor to supply and install 3/4' stone, Machine tamped and leveled, 6' deep.
- City to install Box Pad.
- Contractor to supply, backfill with select fill.
- Top of Box Pad to be min. 6' above final grade.

|                                                                                     |        |                                         |        |                  |              |
|-------------------------------------------------------------------------------------|--------|-----------------------------------------|--------|------------------|--------------|
|  |        | CITY of NEWARK<br>NEW CASTLE COUNTY, DE |        |                  |              |
|                                                                                     |        | 3 PHASE BOX PAD INSTALLATION            |        |                  |              |
| CHECKED BY:                                                                         | BP     | SIZE:                                   | DR BY: | FILENAME:        | REV:         |
| DWG NO.                                                                             | STD18E | A                                       | AH     | \\std\STD18E.dwg | 1            |
|                                                                                     |        | SCALE:                                  | NTS    | DATE:            | SHEET 1 of 1 |
|                                                                                     |        |                                         |        | 6/29/2012        |              |

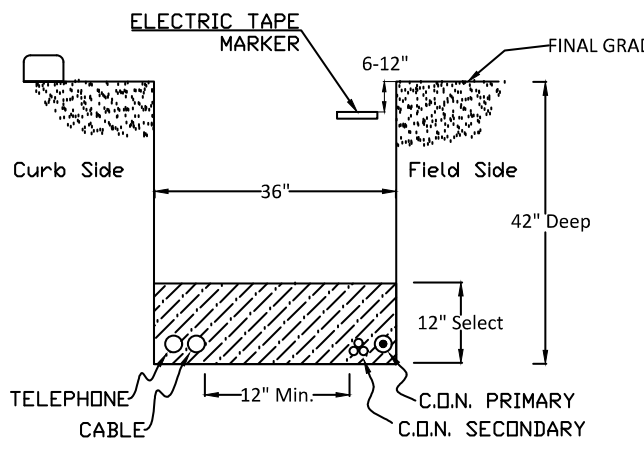


|                                                                                     |        |                                         |        |                  |         |
|-------------------------------------------------------------------------------------|--------|-----------------------------------------|--------|------------------|---------|
|  |        | CITY of NEWARK<br>NEW CASTLE COUNTY, DE |        |                  |         |
|                                                                                     |        | PAD XFMR CLEARANCES                     |        |                  |         |
| CHECKED BY:                                                                         | BP     | SIZE:                                   | OR IN: | FILENAME:        | REV:    |
|                                                                                     |        | A                                       | AH     | \\std\STD15E.dwg | 1       |
| DWG NO.                                                                             | STD15E | SCALE:                                  | NTS    | DATE:            | 6/29/22 |
|                                                                                     |        |                                         |        | SHEET: 1 of 1    |         |

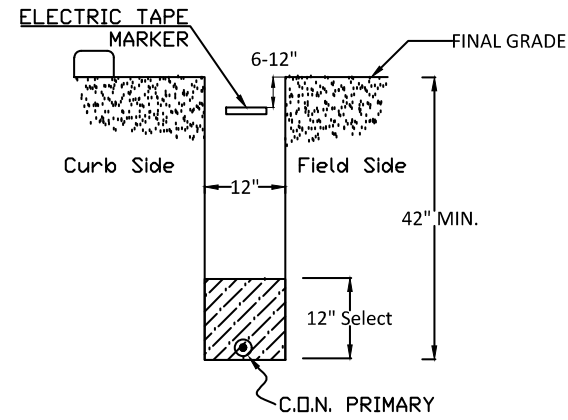
SECONDARY AND SERVICE TRENCH  
30" MINIMUM COVER



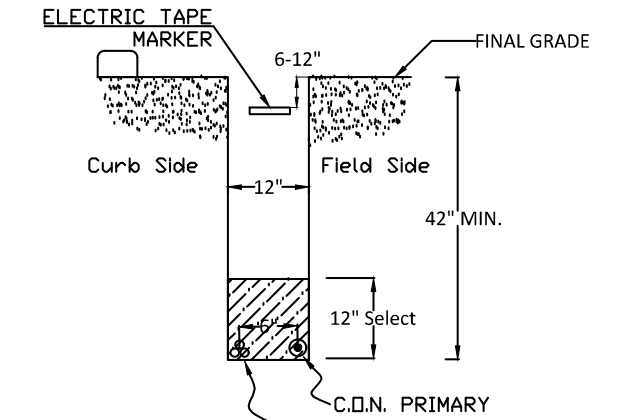
JOINT TRENCHING 12" SEPARATION  
WITHOUT GAS



PRIMARY TRENCH  
42" MINIMUM COVER



PRIMARY & SECONDARY TRENCH  
42" MINIMUM COVER

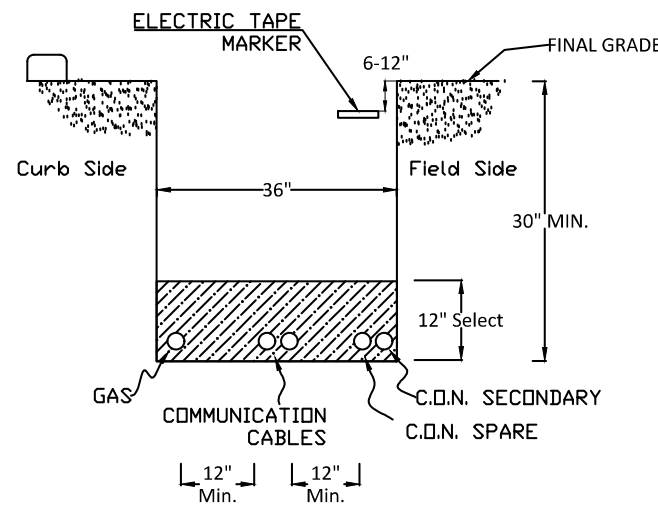


NOTES:

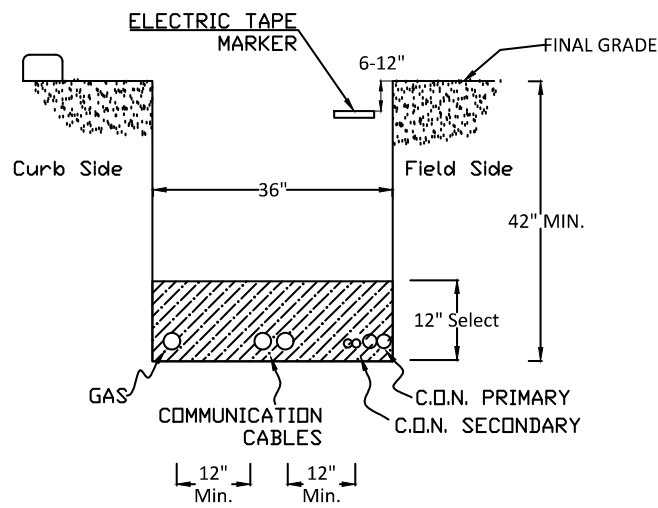
- Hand dig in areas with insufficient room for equipment or a concentration of obstructions.
- Normal soil exists where all excavating can be done by a plow, trencher, or backhoe without special considerations.
- Main line trench shall normally be dug behind the sidewalk.
- Adverse soil exists where all excavating can be done by a plow, trencher, backhoe, but requires additional time due to hard ground, tree roots, rough terrain, etc.
- Trench to be backfilled with select material or sand. Fill material shall be verified and approved by City.
- Crossing separation: minimum 12 inches vertical.

|                                                                                     |             |                                         |        |                   |               |
|-------------------------------------------------------------------------------------|-------------|-----------------------------------------|--------|-------------------|---------------|
|  |             | CITY of NEWARK<br>NEW CASTLE COUNTY, DE |        |                   |               |
|                                                                                     |             | UNDERGROUND DISTRIBUTION TRENCHING      |        |                   |               |
| CHECKED BY:                                                                         | ESP         | SIZE:                                   | OR BY: | FILENAME:         | REV:          |
|                                                                                     |             | A                                       | AH     | \\std\STD100E.DWG | 1             |
| DWG NO.                                                                             | STD100E.DWG | SCALE:                                  | NTS    | DATE:             | SHEET: 1 of 1 |
|                                                                                     |             |                                         |        | 6/23/22           |               |

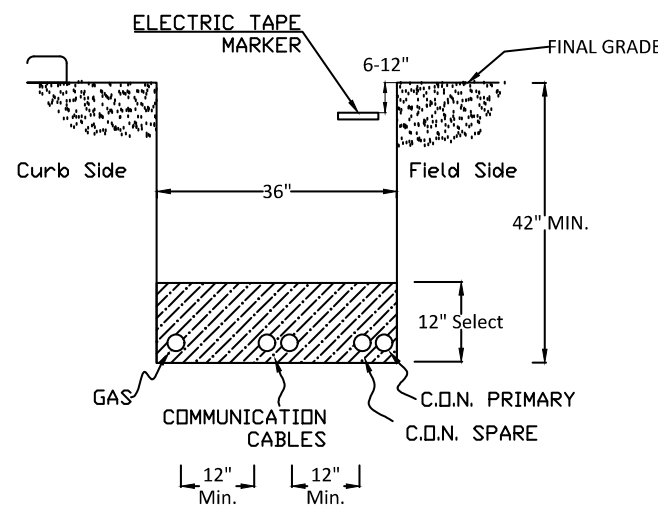
SECONDARY AND SERVICE JOINT TRENCHING 12" SEPARATION WITH GAS



JOINT TRENCHING 12" SEPARATION WITH GAS



PRIMARY JOINT TRENCHING 12" SEPARATION WITH GAS

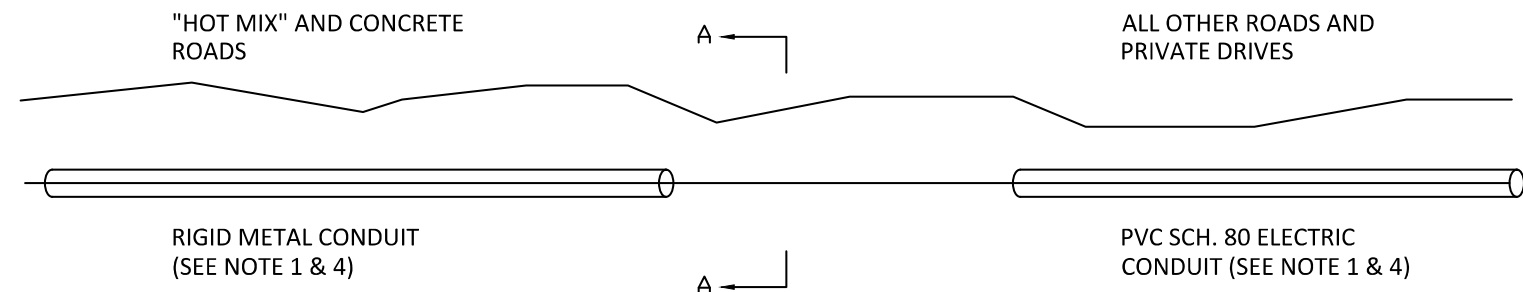


NOTES:

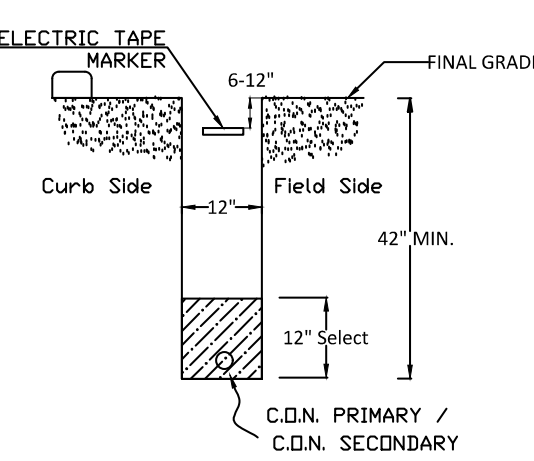
- Hand dig in areas with insufficient room for equipment or a concentration of obstructions.
- Normal soil exists where all excavating can be done by a plow, trencher, or backhoe without special considerations.
- Main line trench shall normally be dug behind the sidewalk.
- Adverse soil exists where all excavating can be done by a plow, trencher, backhoe, but requires additional time due to hard ground, tree roots, rough terrain, etc.
- Trench to be backfilled with select material or sand. Fill material shall be verified and approved by City.
- Crossing separation: minimum 12 inches vertical.

|                                                                                     |             |                                           |        |                   |              |
|-------------------------------------------------------------------------------------|-------------|-------------------------------------------|--------|-------------------|--------------|
|  |             | CITY of NEWARK<br>NEW CASTLE COUNTY, DE   |        |                   |              |
|                                                                                     |             | UNDERGROUND DISTRIBUTION TRENCHING W/ GAS |        |                   |              |
| CHECKED BY:                                                                         | BP          | SIZE                                      | DR IN: | FILENAME:         | REV 1        |
|                                                                                     |             | AH                                        |        | \\std\STD100E.DWG |              |
| DWG NO.                                                                             | STD100E.DWG | SCALE:                                    | NTS    | DATE:             | 6/23/22      |
|                                                                                     |             |                                           |        |                   | SHEET 1 of 1 |

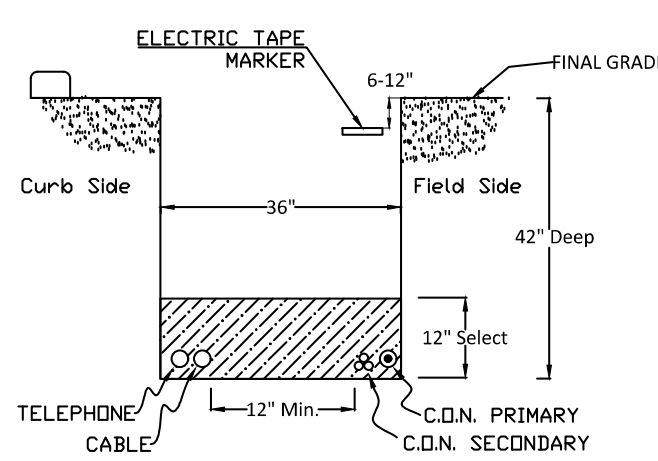
ROAD CROSSINGS



PRIMARY/SECONDARY TRENCH

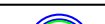


JOINT TRENCHING 12" SEPARATION WITHOUT GAS

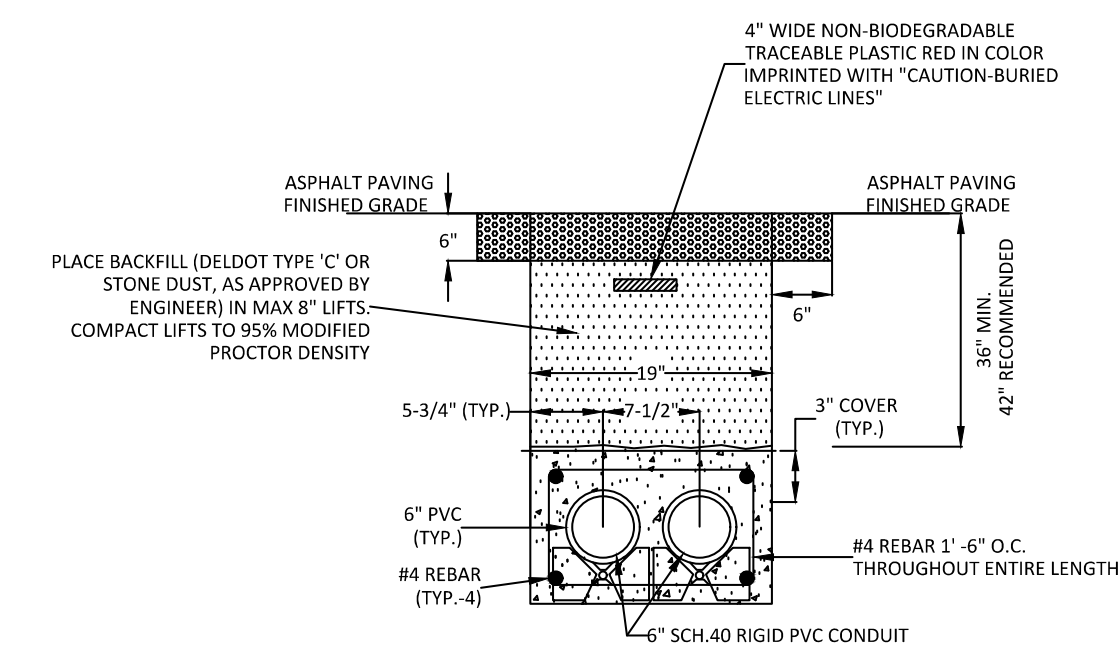


NOTES:

- When required by State or City, use rigid metal conduit. Use rigid non-metallic conduit for all other cases.
- Preferred depth of covering is 42" for crossings. In case of extreme hardship such as water, sewer, etc., at the same depth, a minimum cover of 36" is acceptable.
- All crossing, primary and/or secondary conduits are to be buried at same depth.
- When open cutting roadways, a spare primary and/or secondary conduits must be installed and ends shall be sealed with an approved cap or plug.

|                                                                                                                    |              |                                         |     |         |         |           |                    |      |   |
|--------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------|-----|---------|---------|-----------|--------------------|------|---|
| <br><b>NEWARK</b><br>ELECTRIC |              | CITY of NEWARK<br>NEW CASTLE COUNTY, DE |     |         |         |           |                    |      |   |
|                                                                                                                    |              | ROAD CROSSING TRENCHING                 |     |         |         |           |                    |      |   |
| CHECKED BY:                                                                                                        | BP           | SIZE:                                   | A   | DR. BY: | AM      | FILENAME: | \\std\STD100E3.DWG | REV: | 1 |
| DWG NO.                                                                                                            | STD100E3.DWG | SCALE:                                  | NTS | DWG:    | 6/23/22 | SHEET:    | 1 of 1             |      |   |

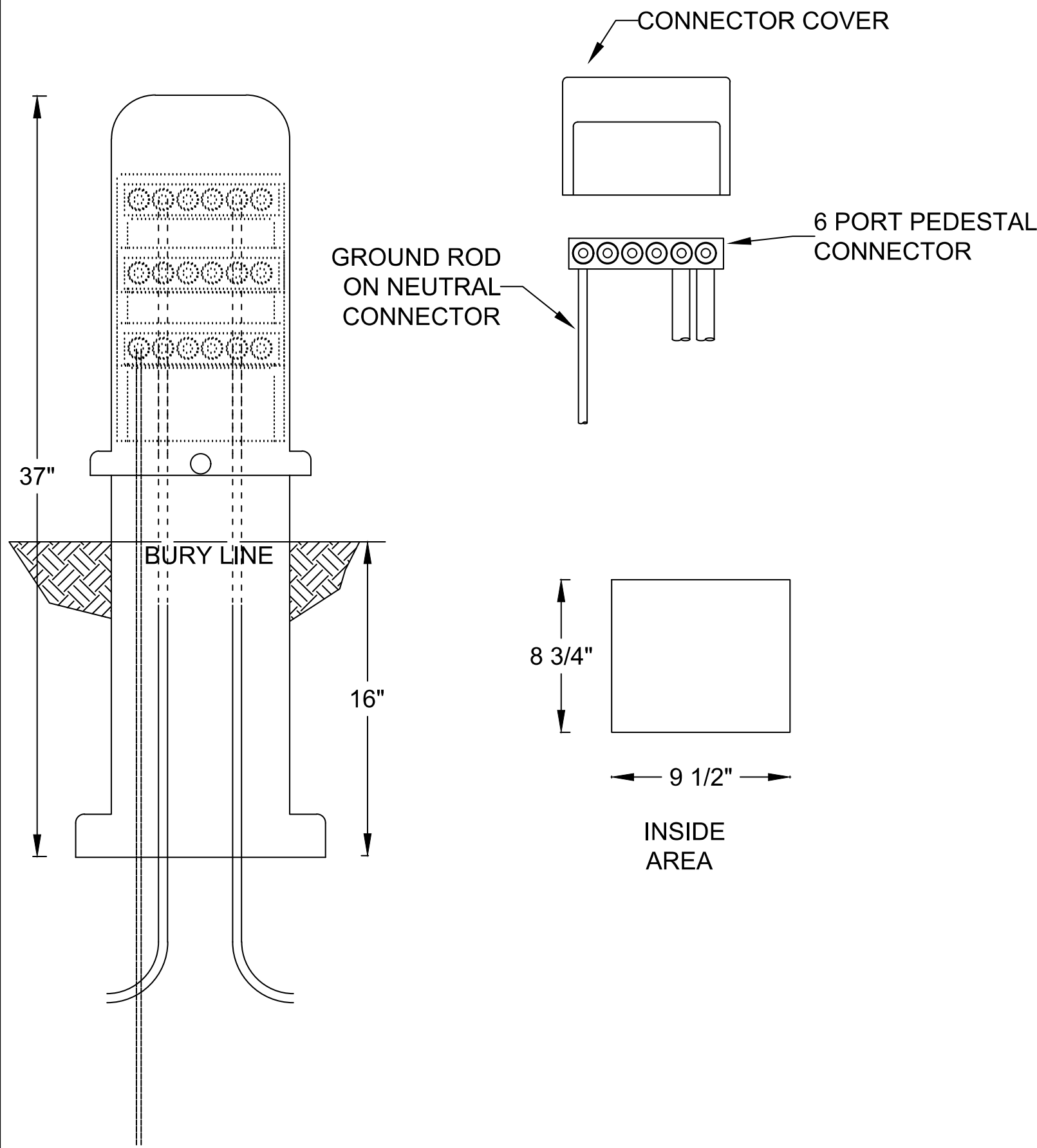
2 WAY CONCRETE ENCASED DUCT BANK DETAIL



NOTE:

- UNDERGROUND CONDUITS SHALL BE UNDERGROUND PLASTIC UTILITIES DUCT, TYPE DB-60 PVC, RING, COMPLYING WITH NEMA TC 6 & 8 AND ASTM F512 FOR DIRECT BURIAL, WITH MATCHING FITTINGS COMPLYING WITH NEMA TC 9 BY SAME MANUFACTURER AS DUCT. EXPOSED EXTERIOR CONDUITS SHALL BE GALVANIZED RIGID STEEL.
- UNDERGROUND CONDUIT SYSTEM SHALL CONSIST OF WIDE SWEEP ELBOWS AND BENDS AND SHALL BE COMPLETELY WATERTIGHT.
- DUCT SPACERS: FACTORY-FABRICATED, RIGID, PVC INTERLOCKING SPACERS, SIZED FOR TYPE AND SIZE OF DUCT WITH WHICH USED, AND SELECTED TO PROVIDE MINIMUM DUCT SPACING INDICATED WHILE SUPPORTING DUCT DURING CONCRETING OR BACKFILLING.
- WHEN REQUIRED BY STATE, USE RIGID METAL CONDUIT. USE RIGID NON-METALLIC CONDUIT FOR ALL OTHER CASES.
- PREFERRED DEPTH OF COVER IS 42" FOR CROSSINGS. IN CASE OF EXTREME HARDSHIP SUCH AS WATER, SEWER, ETC., AT THE SAME DEPTH, A MINIMUM COVER OF 36" IS ACCEPTABLE. STATE BY REQUIRE GREATER DEPTHS.
- RADIAL SEPERATION OF CONDUIT FROM GAS AND OTHER LINES THAT TRANSPORT FLAMMABLE MATERIAL SHALL BE NOT LESS THAN 12" AS MEASURED FROM THE NEAREST DUCT IN THE CONDUIT AND SHOULD BE SUFFICIENT SEPERATION FROM GAS AND OTHER LINES THAT TRANSPORT FLAMMABLE MATERIAL TO PERMIT THE USE OF PIPE MAINTENANCE EQUIPMENT.
- WHERE A CONDUIT RUN CROSSES A SEWER/WATER, IT SHALL BE DESIGNED TO HAVE SUITABLE SUPPORT ON EACH SIDE OF THE SEWER/WATER TO LIMIT THE LIKELIHOOD OF TRANSFERRING ANY DIRECT LOAD ONTO THE ELECTIC DUCT.
- CONDUIT SHOULD BE INSTALLED AS FAR AS IS PRACTICAL FROM A WATER MAIN IN ORDER TO PROTECT IT FROM BEING UNDERMINED IF THE MAIN BREAKS. CONDUIT THAT CROSSES OVER A WATER MAIN SHALL BE DESIGNED TO HAVE SUITABLE SUPPORT IN EACH SIDE AS REQUIRED TO LIMIT THE LIKELIHOOD OF TRANSFERRING ANY DIRECT LOADS ONTO THE MAIN.

|                                                                                       |            |                                         |                              |               |  |
|---------------------------------------------------------------------------------------|------------|-----------------------------------------|------------------------------|---------------|--|
|  |            | CITY of NEWARK<br>NEW CASTLE COUNTY, DE |                              |               |  |
|                                                                                       |            | ENCASED DUCT BANK DETAIL                |                              |               |  |
| CHECKED BY: BP                                                                        | SIZE: A    | DR: BH                                  | FILENAME: \\std\STD100E4.DWG | REV: 1        |  |
| DWG NO. STDI00E4.DWG                                                                  | SCALE: NTS | DATE: 9/8/23                            |                              | SHEET: 1 of 1 |  |



|                                                                                       |                                         |               |                             |           |
|---------------------------------------------------------------------------------------|-----------------------------------------|---------------|-----------------------------|-----------|
|  | CITY of NEWARK<br>NEW CASTLE COUNTY, DE |               |                             |           |
|                                                                                       | URD SECONDARY PED                       |               |                             |           |
| CHECKED BY: BP                                                                        | SIZE: A                                 | DR BY: AH     | FILENAME: \\std\STD197E.DWG | REVISION: |
| DWG NO. STD197E.DWG                                                                   | SCALE: NTS                              | DATE: 6/24/22 | SHEET: 1 of 1               |           |



