

SECTION 26 42 00 - SERVICE ENTRANCE

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Provide all labor, materials, tools, and equipment required for the complete installation of work called for in the Contract Documents. The utility company is Rochester Gas and Electric.
- B. Pay all utility company fees as part of the Contract.

1.2 DESCRIPTION OF WORK

- A. This section includes minimum requirements for the following:
 - 1. New Utility Service

1.3 QUALITY ASSURANCE

- A. The Service Entrance equipment shall be installed in a neat and workmanlike manner. All methods of construction that are not specifically described or indicated in the contract documents shall be subject to the control and approval of the Owner's Representative and the utility company. Equipment and materials shall be of the quality and manufacture indicated. The equipment specified is based upon the acceptable manufacturers listed. Where "approved equal" is stated, equipment shall be equivalent in every way to that of the equipment specified and subject to approval.
- B. Materials specified herein shall comply with the applicable requirements the Niagara Mohawk Power Company and the following articles of the National Electric Code (NFPA 70):
 - 1. 230 -Services
 - 2. 340 -Overcurrent Protection
 - 3. 310 - Conductors for General Wiring

1.4 SUBMITTALS

- A. Provide product data for the following:
 - 1. Underground ductbank materials.
 - 2. Utility instrument transformer enclosure.
 - 3. Meter channel.
- B. Send three copies of shop drawings to the utility company for review. Include one utility company approved copy with submittals for review.

PART 2 - PRODUCTS

2.1 SECONDARY SERVICE FROM UTILITY PAD MOUNTED TRANSFORMER

A. Electric Service Characteristics:

1. 208Y/120 volts, three phase, four wire, grounded wye connected, 60 Hz.

B. Primary Raceway Requirements:

1. Provide (2) 4" PVC Schedule 80, direct buried conduits from utility company riser pole. Coordinate exact termination requirements of conduit with the utility.
2. Install primary conduit to a minimum depth of 30". Slope conduit at least 2" per foot towards the manhole.
3. All sweeps shall be rigid steel minimum of 42" radius for 4" conduit, and 48" for 5" conduit.
4. Maximum cable pulling length shall be as follows:

Pad to pole, with one 90° bend at each end	200'
Handhole to handhole	425'
Handhole to handhole with one 90° bend at the feed-in end	400'
Handhole to handhole with one 90° bend at the pulling end	225'

Provide handholes or manholes where pulling lengths are in excess of the above distances.

C. Transformer Pad:

1. Provide flat transformer pad with curb and crushed stone as detailed on the drawings and required by the utility.
2. Locate transformer pad as shown on the site plan, a minimum of 10' from any building or overhang, and 10' from the property line.
3. Where the transformer is installed near vehicular traffic, provide steel fender posts on 4' centers around the transformer pad. Bury post 4' in the ground, and extend minimum 42" above ground. Fill post with concrete and provide a rounded cap.
4. Install conduits in the pad such that the transformer doors will be facing the street.

D. Secondary Service Entrance Feeder:

1. Provide type and quantity of conduits from the transformer pad to the service entrance equipment as called for on the drawings.

2. Provide conductors from the utility transformer to the service entrance equipment as called for on the drawings.
 3. Terminate conduit and conductors at the transformer and service entrance as required by the utility.
- E. Metering:
1. All meters and metering transformers shall be furnished by the utility company and installed by the electrical contractor.
 2. Install metering current transformers in the utility transformer
 3. Provide 1 ½" rigid steel conduit from the metering transformers to the utility meter. Conduit run shall be maximum 30' long, with no more than two 90° bends.

PART 3 - EXECUTION

3.1 GENERAL

- A. Coordinate new service installation with the utility prior to the bid. Make adjustments to plans as required to meet all utility requirements. Include all associated utility costs as part of the bid.

END OF SECTION

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