GENERAL NOTES

LAKE COUNTY
LAK.- 20-14-30
LAK.- 86-0-25
AND WASHINGTON STREET
AND ST. CLAIR STREET

625 COVERING OF TRAFFIC SIGNAL HEADS

All traffic signal heads, (vehicular) erected at locations where traffic will be maintained prior to energizing of the signal, shall be covered.

The covering shall be a sturdy opaque material approved by the Engineer. They shall be firmly attached and completely cover the signal head without damage to the head. The covering shall be maintained in place at all times while traffic is using the area and the signal is not in operation.

Payment shall be at the unit price bid per each for Item 625 ''Covering of Traffic Signal Heads which shall be full compensation for all labor, materials and equipment required to erect, maintain and remove the covering.

MAINTENANCE OF EXISTING SIGNAL INSTALLATION

The existing traffic signal(s) shall be kept in operation until the new signal is operational. If existing items are to be incorporated into the new signal, such items shall not be reinstalled until all other new work which can be done prior to the relocation work is completed. At this time, the existing signal may be turned off. When not in operation, signal heads shall be bagged. When no signal is in operation, at the location traffic shall be maintained through the use of (Stop Signs;)

Signal control of the intersection shall not be interrupted during the hours of 6 a.m. to 8:30 a.m. and 3:30 p.m. to 6:00 p.m. on weekdays. Signals shall be inoperative no longer than six consecutive hours.

Payment will be included in the lump sum price bid for Item 614 Maintaining Traffic.

202 REMOVAL OF EXISTING SIGNAL INSTALLATION

In accordance with standard specification 202, this item shall include the removal of the signal heads, controller, strain poles, pole foundation cables, messenger wires, and all other portions of the existing traffic signal which are not to be reused in the new installation.

With the exception of items to be relocated and incorporated into the new installations or whose removal is otherwise necessary to permit the installation of the new signal equipment, no item shall be removed until the new installation is in full operation unless otherwise directed by the Engineer.

Payment for Item 202, ''Removal of Existing Signal Installation'' will be made at the unit price bid per each intersection wherein existing signal equipment is to be removed.

816 SIGNAL STRAIN POLE

This item of work shall consist of furnishing and erection of poles as shown and specified in the plans.

Shafts shall be tapered tubes.

Each pole shall be galvanized and include the furnishing of anchor bolts, rigid ferrous metal 3'' conduit ell and 3/4'' electrical metallic tubing ell for grounding lead for installation in foundations plus handhole with cover, ''J'' hook, pole clamp, and cable service entrance with blind halfcoupling for each pole in accordance with details on Sheet 36.

The poles shall be installed and adjusted to the proper rake so that the weight of the signal installation will not cause the poles to be off vertical alignment by more than 1%.

Basis of payment shall be at the contract bid price per each 816 Signal Strain Pole, ga, by size, including all labor, material, equipment and incidentals related to this item of work.

816 SIGNAL SUPPORT (BY SIZE) WITH MAST ARM

This item of work shall consist of furnishing and erecting the signal supports as shown and specified in the plans. Vertical shafts and mast arms shall be tapered tubes fabricated from steel having a minimum yield strength of 52,000 PSI, and galvanized. The mast arms shall be attached to the pole by four high strength steel bolts. This connection shall develop the full moment resisting capabilities of the arm.

This item shall also include the furnishing of anchor bolts, rigid ferrous metal 3'' conduit ells, and a 3/4'' electrical metallic tubing ell for grounding lead for installation in the foundation plus a (4'' x 8'') curved, flush handhole with cover.

Basis of payment, shall be at the contract price bid per each 816. Signal support, (by size) with mast arm including all labor, material, equipment and incidentals related to this item of work.

816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS
816 CONCRETE FOR SIGNAL SUPPORT FOUNDATIONS

Traffic signal pole foundations shall be constructed as shown in the plans. The Contractor shall stake the longitudinal and lateral location and the elevation of the top of each foundation subject to the approval of the Engineer. The Contractor shall be responsible for the proper elevation, offset and level of each foundation. Excavations shall be made to the dimensions shown on the plans and shall be performed by means of an earth auger of the specified diameter unless otherwise directed by the Engineer. Where sub-surface obstructions are encountered, the Engineer may require the Contractor to remove the obstruction or to replace the excavated material and relocate the foundation. If caving of the foundation occurs, the Contractor shall excavate to the specified depth, maintaining the sidewalls as nearly vertical as possible. No payment shall be made for any excavation, concrete, or reinforcing steel used in excess of the planned quantities.

Portland cement concrete shall be used and shall conform with class ''C'' of the current construction of material specifications by the Department of Transportation of the State of Ohio.

The concrete shall be placed against undisturbed soil of compacted embankment. The foundation shall have anchor bolts and conduit accurately held in position with a templet when concrete is poured. Forms shall be used for the upper portion of all foundations and no backfilling shall be permitted from the bottom to within 6 inches below ground level. No grouting of concrete shall be permitted between the foundation and the steel pole.

Payment for Item 816 ''Concrete for Signal Support Foundations'' and 816 "Concrete for Sign Support Foundations" shall be made per cubic yard for each foundation details and shall include concrete, reinforcing steel, excavation and backfill.

816 CONCRETE FOR CONTROLLER AND PEDESTAL FOUNDATION

Controller and pedestal foundations shall be constructed as shown in the plan. The Contractor shall stake the longitudinal and lateral location and elevation of the top of each foundation subject to the approval of the Engineer. The Contractor shall be responsible for the proper elevation, offset and leveled each foundation. Excavations shall be made to the dimensions shown on the plans. Where sub-surface obstructions are encountered, the Engineer may require the Contractor ro remove the obstruction or to replace the excavated material and relocate the foundation. If caving of the excavation occurs, the Contractor shall excavate to the specified depth, maintaining the sidewalls as nearly vertical as possible. No payment shall be made for any excavation or concrete used in excess of the planned quantities.

Portland cement concrete shall be used and shall conform with Class ''C'' of the current construction of material specifications prepared by the Department of Transportation of the State of Ohio. The concrete shall be placed against undisturbed soil or compacted embankment. The foundation shall have anchor bolts and conduit accurately held in position with a templet when concrete is poured. Forms shall be used for the upper portion of all foundations and no backfilling shall be permitted from the bottom to within 6 inches below ground level.

Payment for Item 816 ''Concrete for Controller and Pedestal Foundation'' shall be made per cubic yard for each foundation constructed in accordance with the typical foundation details and shall include concrete, excavation and backfill.

ESTIMATED QUANTITIES

Specific locations and usage of estimated quantities set up on the plan to be used '' as directed by the Engineer'' shall be made a matter of record by incorporation into the final change order governing completion of this project. Estimated quantities of material shall not be ordered for delivery to the project unless authorized by the Engineer.

UNDERGROUND UTILITIES

Extreme caution should be exercised in areas with underground electrical conduit or cable, sewers, and placement of sign support foundations, protective guardrail, delineators and the like.

COOPERATION WITH UTILITY COMPANIES

The Contractor is advised that throughout these plans the utility companies have been called upon to perform necessary functions. The Contractor shall cooperate with and arrange suitable work schedules, subject to the approval of the Engineer, to permit the utility companies to work and operate equipment necessary to carrying out these functions.

Painesville Municipal Power
7 Richmond Street
Painesville, Ohio
(216) 357-5371

Cleveland Electric Illuminating Company
2210 South Ridge West
Ashtabula, Ohio
(216) 998-3131

The Ohio Bell Telephone Company
820 Superior Avenue, N.W.
Cleveland, Ohio 44113
(216) 383-1333

Compensation for the above cooperation shall be incidental to the various pay items included within this construction project.

625 INSTALLATION OF MASTER CONTROLLER

This item shall include the installation of the Master Controller and its connection to the interconnect cable. The interconnect cable shall be* installed on the existing poles in the City Hall parking lot as shown on Sheet No. 11. The interconnect cable shall be attached to the outer wall on the City Hall as detailed on Sheet No. 26. The Master Controller shall be installed and anchored to existing concrete slab. *The master controller shall be furnished as a separate bid item.*

**Furnished and*

Payment for Item 625 "Installation of the Master Controller" shall be made at the lump sum price and shall include installation of the Master Controller and furnishing and installing interconnect cable from Pole PC 4027 to the Master Controller as shown on Sheet Nos. 11 and 26 completed and accepted including wiring, terminals, junction box, conduit, conduit hangers and fittings, brackets, splicing, testing and all incidentals necessary.

815 SIGNS, FLAT SHEET TYPE, AS PER PLAN

The aluminum flat sheet sign blanks shall be fabricated in accordance with Sheet 35 (Drawing SBD.)

Mounting hardware, i.e., bolts, washers, bearing plates, and nuts shall be included as part of the signs. The number and sizes furnished of each of these items shall conform with that shown on Sheets 35,38 (Drawings SBD, SOW, and TPS-1 31,)

Sign face background material shall be reflective sheeting, Type F.

The typical sign legend shall be silk screened and include letters, digits, symbols, borders and outlines. The following color coding shall be shown on shop drawing submitted for review and approval:

CODE	COLOR
RSTR	Silver-White, Grade 2, with reverse screen transparent red
RSY	Yellow
RSW-B	Silver-White, Grade 1
RSTRB	Silver-White, Grade 2 with reverse screen transparent blue and red
RSTB	Silver-White, Grade 2, with reverse screen transparent blue
RSTG	Silver-White, Grade 2 with reverse screen transparent green
RSG	Green

For Type Code_____Signs, direct applied sheeting shall be used for legend including letters, digits, symbols, borders and outlines. The following color coding shall be shown on shop drawings submitted for review and approval:

CODE	DESCRIPTION
RSW-A	Reflective Sheeting, Type F (Silver-White, Grade A)
SPBK	Silk Screen Paste (Black)
DAW	Reflective Sheeting, Direct Applied (Silver-White, Grade A)
DAB	Non-reflective Sheeting, Direct Applied (Black)

The unit price bid per square foot 815 Signs, Flat Sheet Type, as per plan, shall include payment for all required legend hardware, plus all necessary equipment, labor and tools to furnish and erect the signs including packaging, delivery, and storage when needed.

SIGN LEGENDS

Sign legend shall be in accordance with the American Association of State Highway Officials ''Manual for Signing and Pavement Marking of the National System of Interstate and Defense Highways'' 1970 edition. Sign lettering when indicated as a series type such as C, D, etc., shall be designed in accordance with the ''Standard Alphabets for Highway Signs,'' published by the Federal Highway Administration. Copies of the above references are on file in the Department of Transportation, Bureau of Design Services, 25 South Front Street, Columbus, Ohio 43215.

CLEAR COATING OF REFLECTIVE SHEETING

The provisions of Section 815.09 apply except where pressure sensitive reflective sheeting is used. Pressure sensitive reflective sheeting shall not be clear coated and only the edge sealer is required for this type of sheeting.

COLORS

Colors proposed and shown on each sign layout shop drawing submitted for review shall conform to those shown in the Ohio Manual of Uniform Traffic Control Devices for Streets and Highway, current edition, latest revision, or in special circumstances, as may be indicated in the plans.

In addition to the requirements of Supplemental Specification 815, colors for reflective sheeting shall conform to the latest edition of Color Tolerance charts produced by the Federal Highway Administration.

PROCESSING OF SIGN SHOP DRAWINGS

1. The State will furnish the following information to the contractor upon the award of the contract:
   a. Sign Design Layout Standards for Directional Guide Signs.
   b. Traffic Standard Drawings for regulatory, warning, and route marker signs.
   c. Special design layout criteria as applicable.
2. The contractor shall submit 8 copies of individual shop drawings as follows:
   a. Each separate sign message layout including legend size and spacing with reference and/or code number. Shop drawings for standard warning, regulatory, and route marker signs are not required unless specifically requested by the State in information furnished under Item 1 above.

Rev. 6-3-75