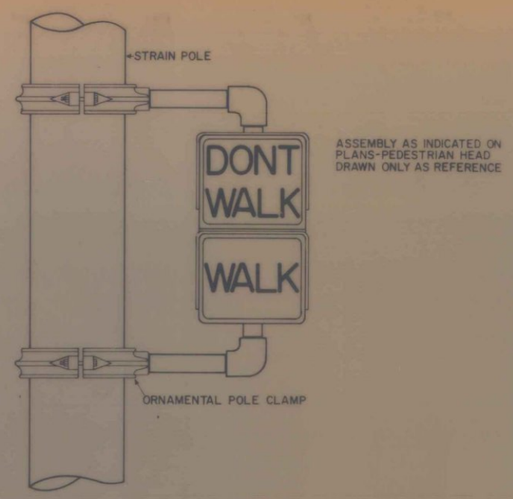
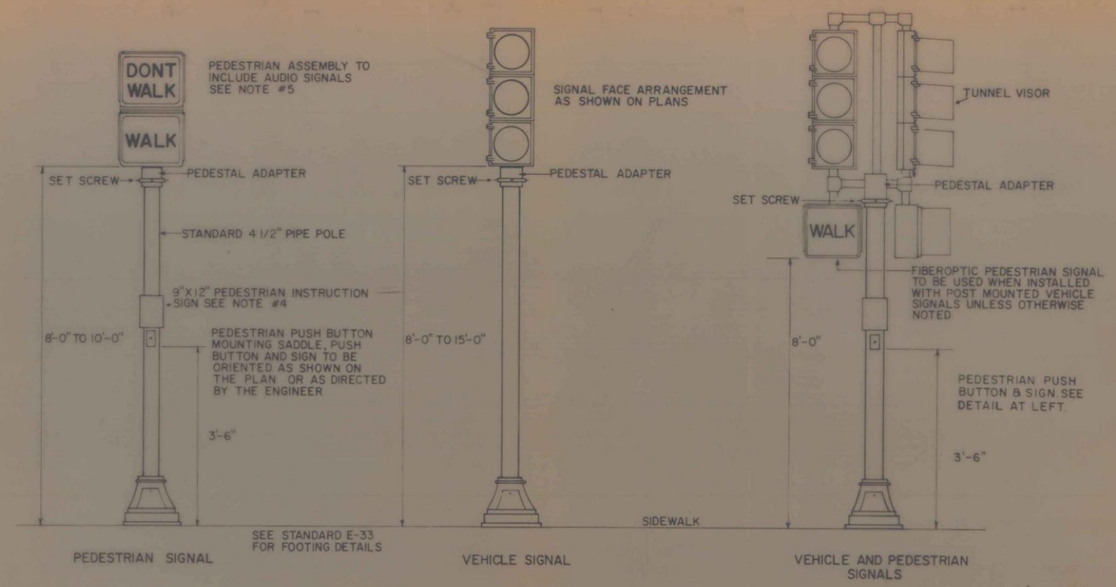
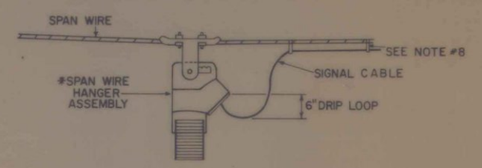



POLE MOUNTING DETAIL



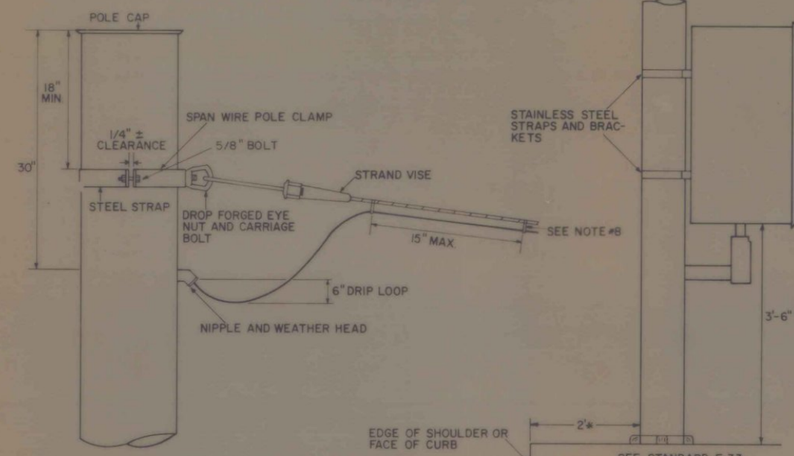

PEDESTAL POLE INSTALLATION




WHERE BACKPLATES ARE REQUIRED, THE SIGNAL IS TO BE LOWER SO THAT THE BACKPLATE IS BELOW MESSENGER CABLE.

*A SWIVEL BALANCE ADJUSTER MAY BE REQUIRED WHEN MULTIFACE SIGNAL HEADS WILL NOT HANG PLUMB.

SPAN WIRE MOUNTING TYPICAL




CABLE INSTALLATION TYPICAL WITH SPAN WIRE POLE CLAMP




*WHEN LOCATED IN AREAS 25 MPH OR LESS, 2', GREATER THAN 25 MPH, 6', IN SIDEWALK AREAS, 1' BEHIND SIDEWALK.

POLE MOUNTED CONTROL CABINET TYPICAL

NOTES

1) Dimension "D" as shown on Standard E-33 shall not be less than 16'-6", unless otherwise stated.

2) For solid state equipment, the traffic signal equipment design and performance shall meet or exceed all requirements of the NEMA Standards for traffic control systems.

3) All electrical wire and cable shall be copper. Electrical signal cable from traffic signal controller to signal heads shall be composed of A.W.G. #12 stranded conductors.

4) Pedestrian push buttons should be mounted 3.5 feet above the sidewalk or ground with the "PUSH BUTTON FOR WALK SIGNAL" sign mounted immediately above or incorporated in the Push Button Unit. The unit shall include a pilot light which upon actuation, shall be illuminated until the "WALK" **indication, steady or flashing, is displayed.**

5) The pedestrian signal heads shall have audio signals to indicate allowable pedestrian movement for the visually impaired during the pedestrian phase. They shall be of the type normally used for such an installation and be wired in such a way as to be easily disconnected. The audio signal shall be a steady tone during the walk interval. The contractor shall submit the proposed system for review prior to installation.

6) Signal timing is approximate and is not to be considered final. All necessary hardware to change the timing shall be on hand when the lights are installed. The Resident Engineer shall perform checks during the AM and PM peak periods to insure optimum settings. If required, appropriate timing changes shall be made to "tune" the controller to its best efficiency prior to final inspection. Timing changes will be established by a representative of the VAOT Traffic Design Section. Timing adjustments shall be subsidiary to Item 678.15 Traffic Control Signals.

7) The traffic signal strain poles shall be back raked before the wires and signals are installed so that the poles will have a pleasing appearance when dead load deflection due to span wire and signal heads occurs. The amount of set back shall be as shown on the plans.

8) The stranded conductor signal cable shall be attached to the span wire by galvanized steel cable rings every 15 inches or attached to the span wire with stainless alloy, 430 lashing (spinning) wire.

9) When street lights are installed on a traffic signal strain pole, the luminaires and mast arms are included under the Item 678.15 Traffic Control Signals. Particular attention should be given to Section 679 Street Lighting to ensure compliance with all the requirements of that section.

10) When pavement markings are included as contract items, the contractor shall be responsible for the maintenance of the pavement markings until the project is accepted. If the markings become discolored, faded or worn, they shall be replaced at no additional cost. Pavement markings shall be applied as soon as the roadway surface is completed. The signal system shall not operate without the appropriate pavement markings.

11) The signal heads shall be covered with an opaque covering until such time as the signal system is functional. At no time should the heads be viewed without having some form of signal indication i.e. flashing operation or sequencing as per plan.

12.) THE CONFLICT MONITOR SHALL BE CAPABLE OF DETECTING A LACK OF RED SIGNAL AS WELL AS THE GREEN, YELLOW & WALK SIGNALS.

13.) THE CABINET AMPLIFIERS & PHASE MODULES INSIDE THE CONTROLLER CABINET SHALL HAVE LABELS TO INDICATE WHICH MOVEMENT GOES WITH EACH. THE LABELS SHALL BE 1/2" WIDE PLASTIC SELF STICKING TAPE WITH RAISED LETTERS.

14.) PEDESTRIAN PUSH BUTTONS SHALL BE INSTALLED AT EACH END OF EACH CROSSWALK WHERE ACTUATED PEDESTRIAN SIGNALS ARE INSTALLED OR AS SHOWN ON THE PLANS.

15.) THE CONTRACTOR SHALL PROVIDE TWO COPIES OF THE INSTRUCTION MANUALS FOR THE CONTROLLER, LOOP DETECTORS, CONFLICT MONITORS AND ANY OTHER EQUIPMENT INCLUDED IN THE CABINET, ONE COPY IS TO BE KEPT IN THE CABINET AND THE OTHER GIVEN TO THE PARTY RESPONSIBLE FOR MAINTENANCE OF THE SIGNAL SYSTEM.

16.) FOR PROGRAMABLE SOLID STATE CONTROLLERS TWO COPIES OF THE FINAL PROGRAM LISTING SHALL BE PROVIDED AND DISTRIBUTED AS DETAILED IN NOTE 15.

17.) PHASING CHANGES, IF REQUESTED AND FEASIBLE, SHALL BE CONSIDERED AS PART OF THE CONTRACT. EXTRA COMPENSATION FOR THE CHANGES, WILL BE AUTHORIZED FOLLOWING APPROVAL OF THE ESTIMATE.

DSP
Have Dale put these old standards in the drawer. I'll show him where it no one knows the location
ASR

REVISIONS AND CORRECTIONS

DATE: 8/23/82 NOTES 12, 13 & 14 ADDED TO PLANS
3/22/83 Notes 15, 16, 17 added to sheet
FEB. 3, 1986 — UPDATED TO 1986 SPECIFICATIONS

APPROVED: JULY 31, 1981
DATE

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

TRANSPORTATION DESIGN ENGINEER

# TRAFFIC SIGNAL ITEM DETAILS

VERMONT AGENCY OF TRANSPORTATION

STANDARD

E-34