COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC STANDARDS
SIGNING

10/29/76

BUREAU OF TRAFFIC ENGINEERING
DESIGN CRITERIA

DESIGN SPECIFICATIONS - NO ROLLING LOADS (i.e., VEHICLE) STANDARDS TO BE APPLICABLE TO STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNS EXCEPT AS NOTED HEREIN.

KIND SPEED - 60 MILES PER HOUR

COEFFICIENT OF HORIZONTAL RESISTANCE - 0.04

SHAKE COEFFICIENT - TRUSS CHORDS = 2.89
                       TRUSS NEST = 2.66
                       TRUSS = 3.6
                       CABLE = 2.86
                       TOWER = 0.66

CONCRETE - EL = 3,000 P.S.I.

REINFORCEMENT - fy = 20,000 P.S.I.

STRUCTURAL STEEL - fy = 36,000 P.S.I.

FATIGUE LOADING LOADS EQUIS TO THE END DUE TO DESIGN WIND MOPRESSURE. FATIGUE STRENGTH FACTORS ARE PER CYCLE OF ALLOWABLE STRESS RANGE. CONSIDER 2,000,000 CYCLES OF LOADING.

MAXIMUM FOUNDATION BEARING PRESSURE - 15 TONS PER SQ. FT.

LOCATION OF RESISTANT CENTER OF PRESSURE UNDER FOUNDATION WITHIN MIDDLE ONE-HALF OF FOUNDATION DIMENSION PERPENDICULAR TO CENTER OF TRUSS AND WITHIN MIDDLE ONE-HALF OF FOUNDATION DIMENSION PERPENDICULAR TO CENTER OF TOWER.

DEAD LOAD AND WIND LOAD RESULTING FROM CATWALK HAVE BEEN INCLUDED IN THE DESIGNS SHOWN IN TABLES ON SHEET 2.

OVERHEAD SIGN STRUCTURE STANDARDS

STEEL SPANS GREATER THAN 120 FEET

GENERAL INFORMATION

DESIGN INSTRUCTIONS AND CRITERIA

Commonwealth of Pennsylvania
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC ENGINEERING

Overhead Sign Structure Standards

Sheet No. 1-1

Architect: John Doe
Engineer: Jane Smith

Date: October 15, 2023

TC-7718