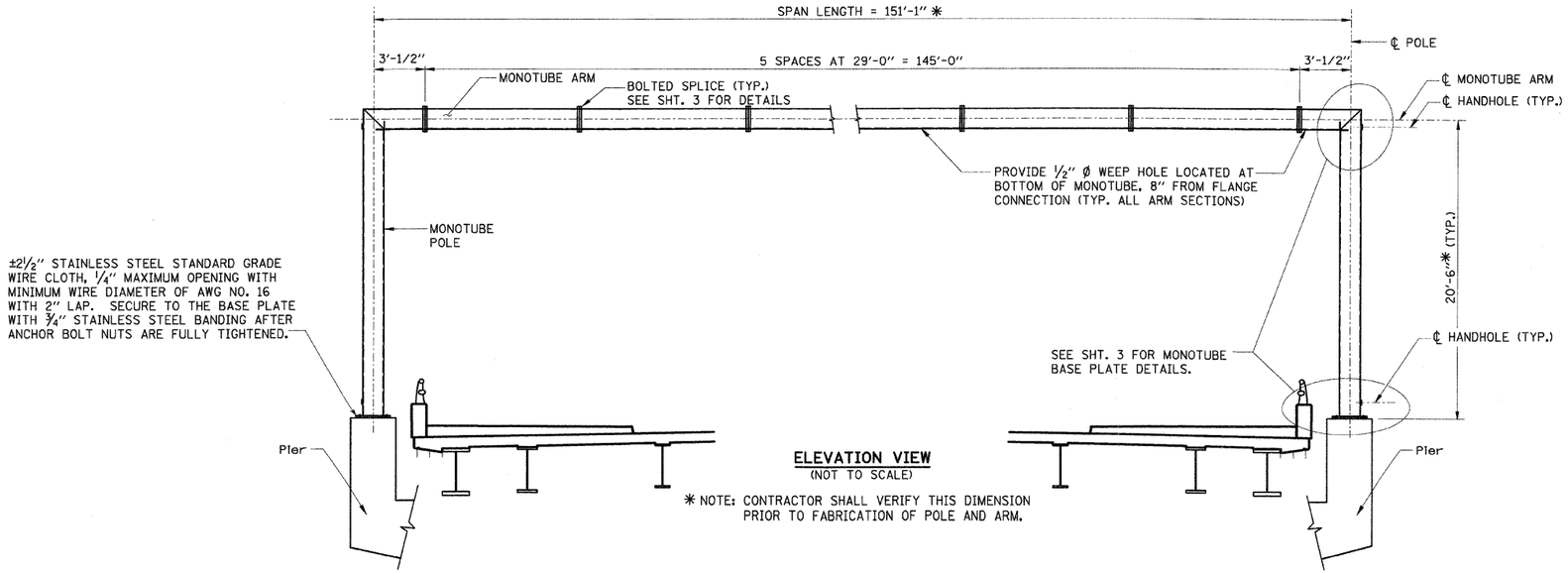
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	MADISON	420	204
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

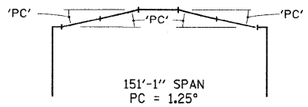
* 60-10K-1, 60-10HB *CONTRACT NO. 76709*



ELEVATION VIEW
(NOT TO SCALE)

* NOTE: CONTRACTOR SHALL VERIFY THIS DIMENSION PRIOR TO FABRICATION OF POLE AND ARM.

* FIELD VERIFY POLE HEIGHTS PRIOR TO FABRICATION.



CAMBER DETAILS

NOTE: FABRICATE WITH ROLLING CAMBER UP.

MONOTUBE SIGNAL STRUCTURE NOTES

1. SIGNAL STRUCTURE MATERIALS SHALL BE AS FOLLOWS:

POLES & MONOTUBE ARM	->	ASTM A618 GRADE II OR A500 GRADE C
HANDHOLE FRAME	->	ASTM A709 GRADE 36
HANDHOLE COVER	->	ASTM A607, GRADE 50, 55 OR 60 KSI
STEEL PLATES	->	ASTM A709 GRADE 50
WELD METAL	->	E70XX
ANCHOR BOLTS	->	SEE ANCHOR ROD ASSEMBLY NOTES
NUTS FOR ANCHOR BOLTS	->	SEE ANCHOR ROD ASSEMBLY NOTES
WASHERS FOR ANCHOR BOLTS	->	SEE ANCHOR ROD ASSEMBLY NOTES
STAINLESS STEEL SCREWS	->	AISI TYPE 316
ALUMINUM NUT COVER	->	ASTM B26 (356-T6)

2. DESIGN SPECIFICATIONS: CURRENT (AT TIME OF LETTING) AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
3. PROPOSED LOADING AND CONFIGURATION: AS SHOWN ON SHEET TS-11. TOTAL SIGNAL/SIGN APPLIED WIND AREA NOT TO EXCEED 220 SQ. FT.
4. CONSTRUCTION: CURRENT (AT TIME OF LETTING) ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS. ("STANDARD SPECIFICATIONS") ALL REFERENCES TO "MAST ARM ASSEMBLY AND POLE" ARE APPLICABLE, UNLESS OTHERWISE NOTED.
5. WELDING: ALL WELDS TO BE CONTINUOUS UNLESS OTHERWISE SHOWN. ALL WELDING TO BE DONE IN ACCORDANCE WITH CURRENT AWS D1.1 STRUCTURAL WELDING CODE AND THE STANDARD SPECIFICATIONS.
6. FASTENERS: ALL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS M164, GALVANIZED ACCORDING TO M232 (A153). ALL NUTS SHALL BE "LOCKNUTS" WITH NYLON OR STEEL INSERTS AND SEMIFINISHED HEXAGONAL HEADS EQUIVALENT TO THE FINISHED HEAVY HEX SERIES OF THE AMERICAN NATIONAL STANDARD.
7. THE DESIGN WIND SPEED IS 90 MPH.
8. ALTERNATE DESIGNS FOR THIS STRUCTURE ARE NOT ALLOWED.
9. EXCEPT FOR ANCHOR BOLTS, ALL BOLT HOLE DIAMETERS SHALL BE EQUAL TO THE BOLT DIAMETER PLUS 1/16", PRIOR TO GALVANIZING. HOLE DIAMETERS FOR ANCHOR BOLTS SHALL NOT EXCEED THE BOLT DIAMETER PLUS 3/8".
10. SIGN PANELS AND SIGNALS ATTACHED TO THE MONOTUBE SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS. WIRE ACCESS HOLES SHALL NOT EXCEED 3/4" IN DIAMETER.
11. THE POLE SHALL BE INSTALLED VERTICALLY. ARM CAMBER SHALL BE ACCOUNTED FOR IN THE FLANGE CONNECTIONS.
12. ALL SIGNALS SHALL BE INSTALLED VERTICALLY.
13. MONOTUBE ARM & POLES SHALL BE FABRICATED FROM ROUND PIPE.
14. GALVANIZING: ALL PLATES, SHAPES, AND PIPE SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111.

ANCHOR ROD ASSEMBLY NOTES:

1. ALL DIMENSIONS ARE IN FEET AND INCHES EXCEPT AS NOTED.
2. ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 105 AND GALVANIZED ACCORDING TO STANDARD SPECIFICATION SECTION 1006.09.
3. ANCHOR RODS SHALL MEET CHARPY V-NOTCH (CVN) ENERGY OF 15 FT-LB AT 40° F. NO WELDING SHALL BE PERMITTED ON RODS.
4. ALL NUTS AND WASHERS SHALL BE GALVANIZED. GRADE, FINISH AND STYLE OF NUTS AND WASHERS SHALL CONFORM TO THE RECOMMENDATIONS OF ASTM F1554.
5. FOR ASSEMBLIES THAT EMPLOY COUPLING NUTS, EACH ROD SHALL BE TURNED HALFWAY INTO COUPLER AND SNUG TIGHTENED.
6. FOR ANCHOR ROD INSTALLATION DETAILS, REFER TO SHEET S-61 OF S-68.

SIGN STRUCTURE NUMBER
8M060I055R018.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

MONOTUBE SPAN STRUCTURE ELEVATION, NOTES & CAMBER DETAILS

DESIGNED: JAN DRAWN: HJB
DATE: 4/06 CHECKED: TO CHECKED: JAN

SHT. 1 OF 4

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