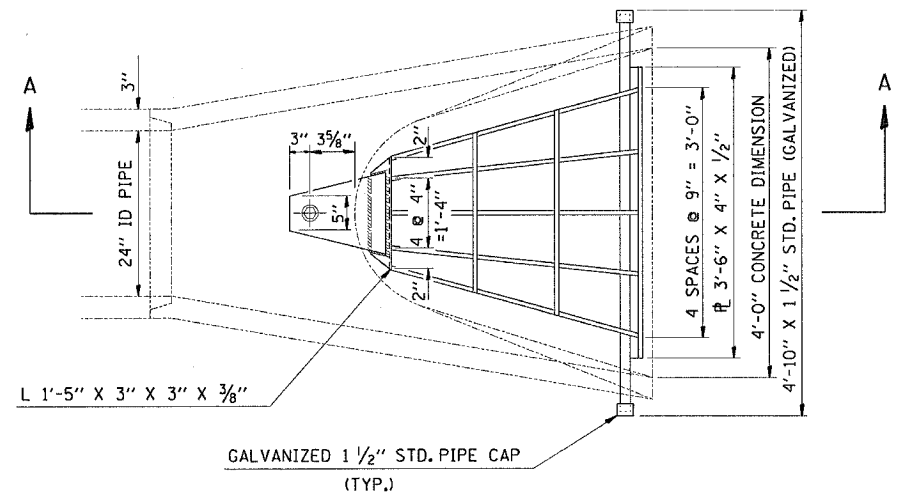


GRATING FOR ARCH DIAMETER CONCRETE FLARED END SECTION (24, 30 & 36" PIPE)

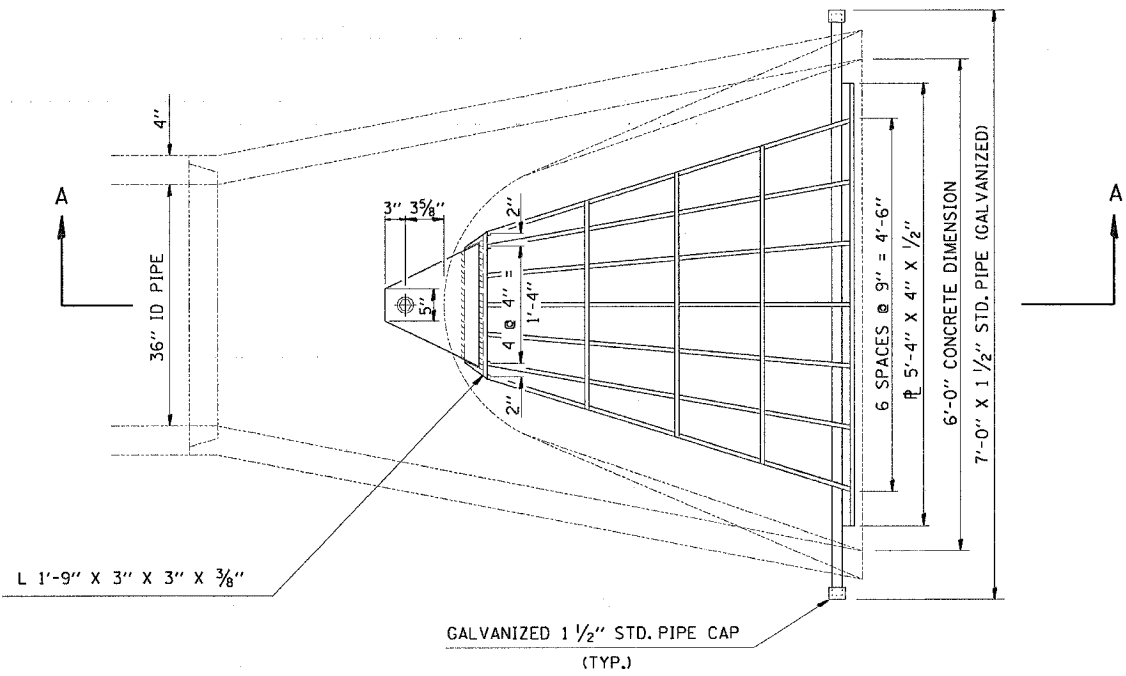
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	3TR-2	OGLE	389	161
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #64157				



GALVANIZED 1 1/2" STD. PIPE CAP (TYP.)

PLAN

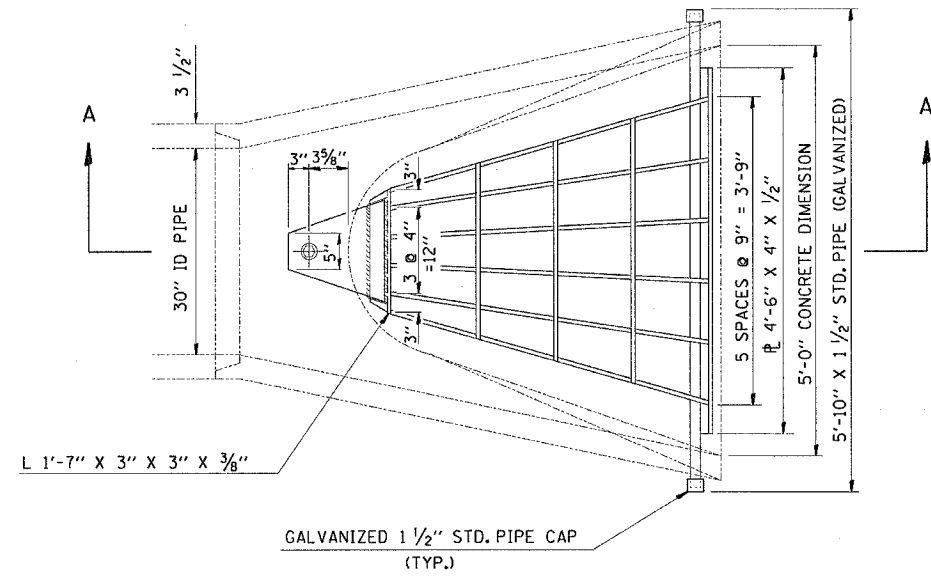
APPROX. WEIGHT OF STEEL = 140 LBS.



GALVANIZED 1 1/2" STD. PIPE CAP (TYP.)

PLAN

APPROX. WEIGHT OF STEEL = 270 LBS.



GALVANIZED 1 1/2" STD. PIPE CAP (TYP.)

PLAN

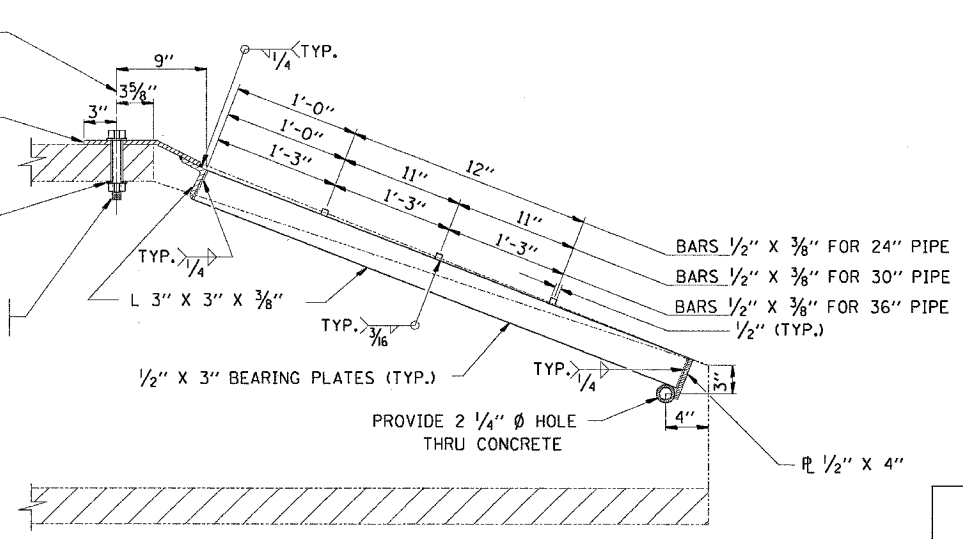
APPROX. WEIGHT OF STEEL = 190 LBS.

1/8" Ø HOLE THRU 3/8" PLATE
1/4" Ø HOLE THRU CONCRETE

3/8" PLATE SHALL CONFORM TO SURFACE SHAPE OF CONCRETE FLARED END SECTION

1/4" X 4" X 4" PLATE WASHER
1/16" Ø HOLE

1" Ø BOLT WITH FLAT WASHER AND HEX NUT



SECTION A-A

GENERAL NOTES

GRATING DETAILS SHOWN ARE INTENDED FOR USE WITH PARTICULAR SIZES OF PRECAST REINFORCED CONCRETE FLARED END SECTIONS AS SHOWN ON STANDARD 542601.

STRUCTURAL STEEL SHAPES AND PLATES SHALL BE IN ACCORDANCE WITH ARTICLE 1006.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

GALVANIZED STEEL PIPE SHALL BE IN ACCORDANCE WITH ARTICLE 542.07 (d) OF THE STANDARD SPECIFICATIONS. STEEL PIPE SHALL CONFORM TO ASTM A-53 (TYPE E OR S) GRADE B SCHEDULE 40. BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS.

ALL FABRICATION SHALL BE COMPLETED AND READY FOR ASSEMBLY BEFORE GALVANIZING.

THE CORED HOLES IN THE PRECAST CONCRETE FLARED END SECTIONS SHALL BE TO THE DIAMETERS NOTED. IF CONE-OUT ON THE OTHER END OF THE HOLE OCCURS, THE HOLE SHALL BE FILLED WITH GROUT TO CORRECT DIAMETER OF THE HOLE.

APPROXIMATE WEIGHT OF STEEL SHOWN INCLUDES TOTAL WEIGHT OF GRATING, BOLTS, WASHERS, NUTS AND STEEL PIPE.

THE CONTRACT UNIT PRICE " EACH " FOR GRATING FOR CONCRETE FLARED END SECTION EQUIVALENT ROUND-SIZE OF THE SIZE INDICATED SHALL INCLUDE FABRICATION AND INSTALLATION OF THE GRATING AS DETAILED HEREON, INCLUDING FABRICATION OF THE NECESSARY MOUNTING HOLES IN THE FLARED END SECTION, THIS PRICE DOES NOT INCLUDE THE COST OF THE PRECAST CONCRETE FLARED END SECTION.

DATE-TIME
DRAWN-SPEC.
REF
REV
REF
REF
REF

86.1

<p>GRATING FOR ARCH DIAMETER CONCRETE FLARED END SECTION (FOR 24", 30", & 36" PIPE)</p>
<p>STANDARD 542311 (SPECIAL)</p>