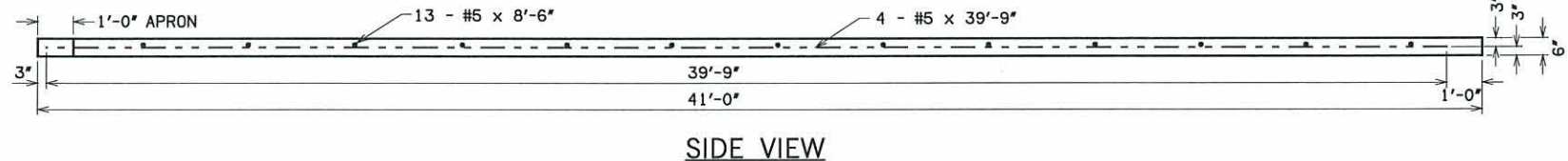
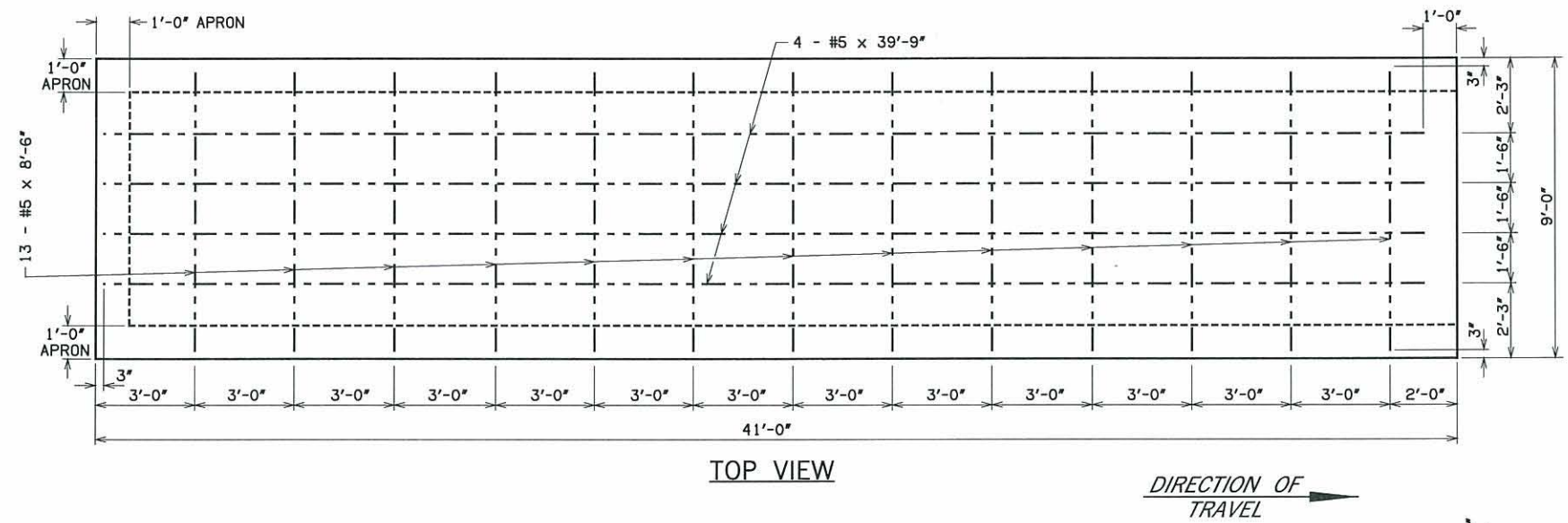
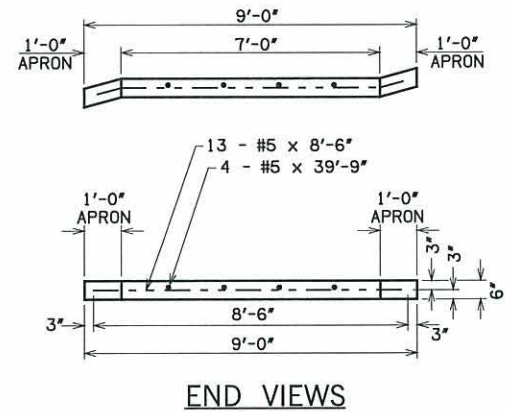


DESCRIPTION	REVISIONS	DATE
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IMPACT ATTENUATOR PAD DETAIL



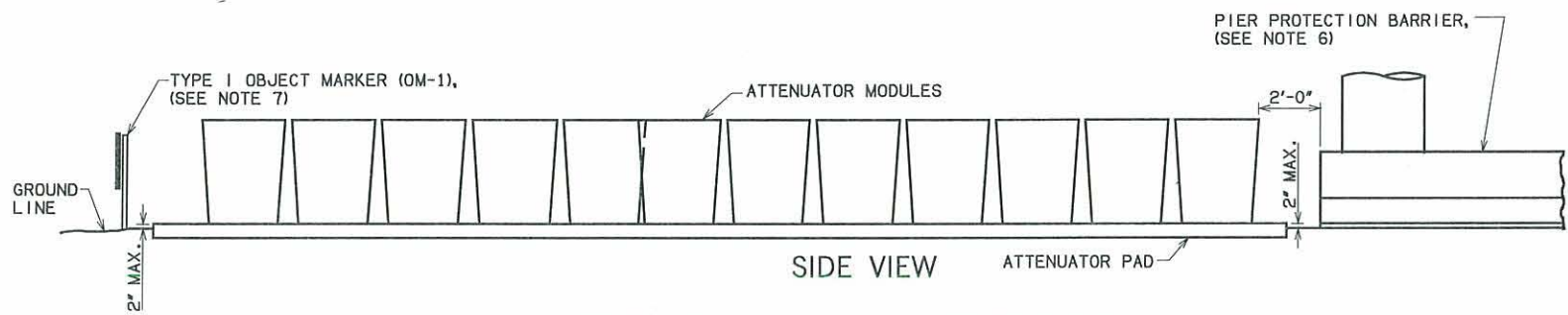
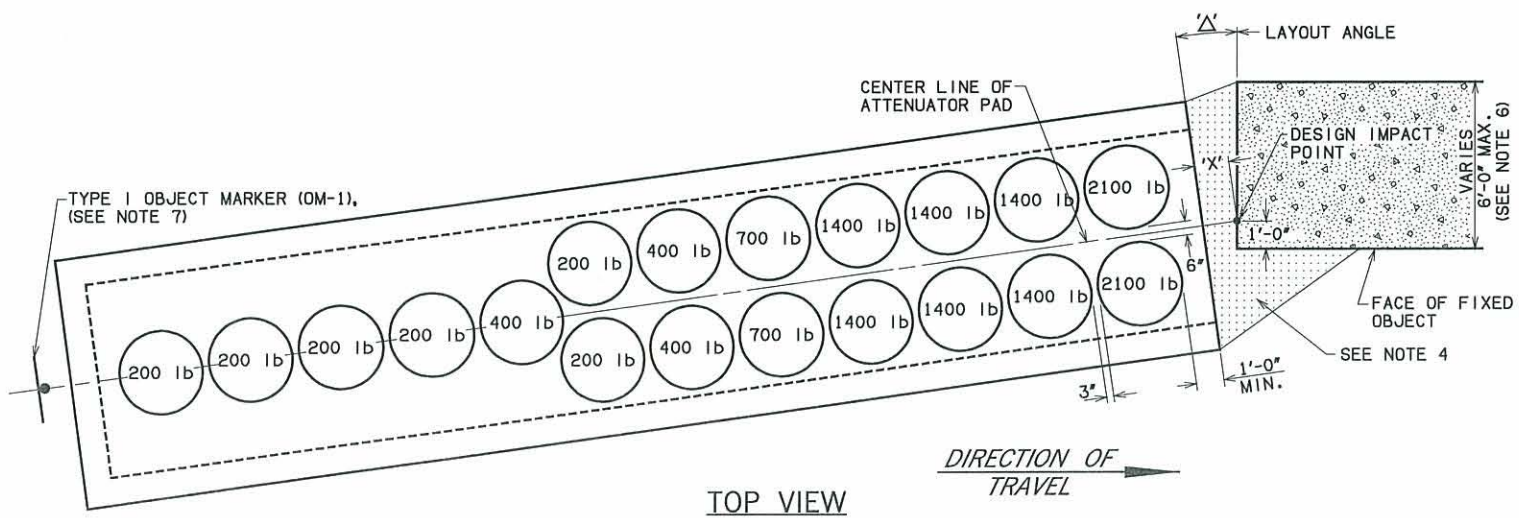
END VIEWS

GENERAL NOTES

1. THE ATTENUATOR PAD MAY BE SLOPED 1/2" PER FOOT PERPENDICULAR TO THE DIRECTION OF TRAVEL TO AVOID UNDESIRABLE EXCAVATION OF MEDIAN SLOPE.
2. APRON AREA MAY BE PLACED INTEGRAL OR SEPERATE FROM THE PAD AND MAY BE SLOPED TO FIT EXISTING GROUND CONTOUR.
3. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
4. THE AREA BETWEEN THE FIXED OBJECT AND THE ATTENUATOR PAD SHALL BE BACKFILLED WITH ASPHALT OR CLASS "C" CONCRETE IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
5. THE MEDIAN OR BACK SLOPE AT AN ATTENUATOR LOCATION MAY REQUIRE RESHAPING FOR PROPER INSTALLATION. THIS WORK, IF REQUIRED, SHALL BE PERFORMED IN A MANNER APPROVED BY THE ENGINEER. THE COST FOR MATERIALS AND LABOR SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "C" CONCRETE.
6. DESIGN IMPACT POINT SHOWN FOR FIXED OBJECTS 3'-3" TO 6'-0" WIDE. WHEN FIXED OBJECT IS LESS THAN 3'-3" WIDE THE LEFT SIDE OF THE MODULES SHOULD BE SO ALIGNED AS TO NOT EXTEND BEYOND LEFT FACE OF FIXED OBJECT.
7. MOUNT TYPE 1 OBJECT MARKER (OM-1) ON DELINEATOR POST IN FRONT OF ATTENUATOR PAD, OR THE OBJECT MARKER MAY BE MOUNTED ON THE FIRST DRUM IN A MANNER APPROVED BY THE ENGINEER.
8. THE RECOMMENDED NUMBER OF REPLACEMENT MODULES FOR SAND FILLED IMPACT ATTENUATORS SHALL CONSIST OF 35% OF THE TOTAL NUMBER OF MODULES REQUIRED FOR THE PROJECT.
EXAMPLE: 1,000 MODULES x 0.35 = 350
THE PERCENTAGE OF EACH SIZE SHALL BE AS FOLLOWS:
200-400 LB. MODULES USE 35% (350 x 0.35 = 123)
700 LB. MODULES USE 30% (350 x 0.30 = 105)
1,400 LB. MODULES USE 25% (350 x 0.25 = 87)
2,100 LB. MODULES USE 10% (350 x 0.10 = 35)
FOR 200-400 LB. MODULES THE INNER CONTAINER IS THE SAME SIZE FOR BOTH WEIGHTS.
9. DESIGN VELOCITY = 70 MPH. FOR OTHER DESIGN SPEEDS, CONTACT THE TRAFFIC ENGINEER FOR DETAILS.

INSTALLATION SEQUENCE OF IMPACT ATTENUATORS

- STEP 1**
PUT ALL EMPTY MODULES IN PLACE TO CONFORM WITH THE PLAN FOR SITE WITH APPROXIMATELY 2'-0" CLEARANCE TO FIXED OBJECT FOR ACCESS. LEAVE ABOUT 3" BETWEEN MODULES TO FACILITATE LID PLACEMENT.
- STEP 2**
OUTLINE, IN PAINT, THE LOCATION OF THE MODULES FOR FUTURE REFERENCE. A CAN OF PRESSURIZED PAINT IN A CONTRASTING COLOR IS CONVENIENT FOR THIS PURPOSE.
- STEP 3**
MOVE MODULES TO THE SIDE AND USING PAINT INDICATE THE WEIGHT SPECIFIED FOR EACH MODULE AS SHOWN ON THE SPECIFIC SITE PLAN.
- STEP 4**
MAKE SURE THAT ALL MODULES HAVE THE PROPER SIZE INNER CONTAINERS OR CORES INSTALLED FOR THE SAND MASS REQUIRED AT EACH LOCATION, AS RECOMMENDED BY THE MANUFACTURER.
- STEP 5**
BEGINNING NEAR THE FIXED OBJECT, PLACE A ROW OF MODULES IN THE PROPER LOCATION AND FILL WITH PRESCRIBED AMOUNT OF SAND. CONTINUE ONE ROW AT A TIME, AWAY FROM THE FIXED OBJECT UNTIL ALL MODULES ARE COMPLETE AND ALL LIDS ARE SECURELY SNAPPED ON.

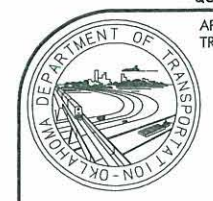


ATTENUATOR MODULE PLACEMENT DETAIL

BASIS OF PAYMENT			
ITEM NO.	ITEM	UNIT	TOTAL
509(D)	CLASS "C" CONCRETE	C.Y.	6.83
511(A)	REINFORCING STEEL	LB.	281.00
870(A)	SAND FILLED IMPACT ATTEN. MODULE	EA.	19.00

QUANTITIES PER ATTENUATOR PAD

DESIGN	DISTANCE FROM FACE OF FIXED OBJECT TO EDGE OF TRAVEL LANE.	LAYOUT ANGLE	DISTANCE FROM CENTER LINE OF PAD TO DESIGN IMPACT POINT
A	4' TO 10'	0°	0"
A-1	10' TO 15'	3°	4"
A-2	15' AND OVER	8°	1'-3"



APPROVED BY TRAFFIC ENGINEER: *Chad J. Smart* DATE: 8/5/10

TRAFFIC STANDARD
IMPACT ATTENUATOR AND PAD DETAILS
FOR 70 MPH DESIGN VELOCITY
(SAND FILLED)