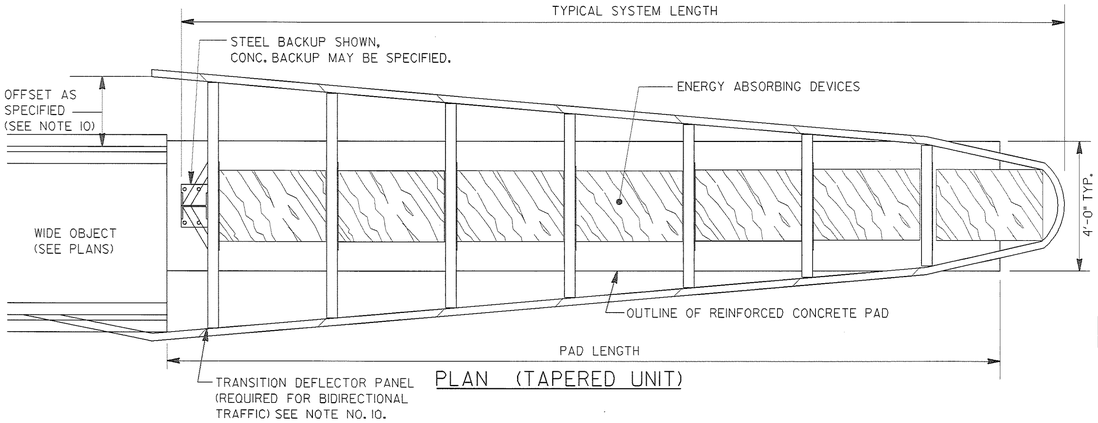
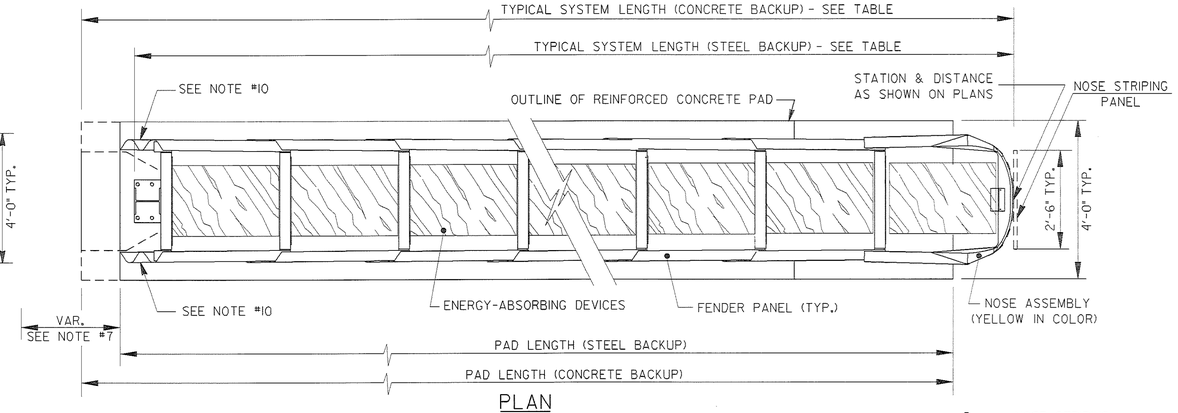
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| GA. | | 361 | 584 |

NOTE: PLAN & ELEVATION VIEWS ARE SHOWN AS TYPICAL AND MAY VARY PER THE MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 648.




PLAN (TAPERED UNIT)

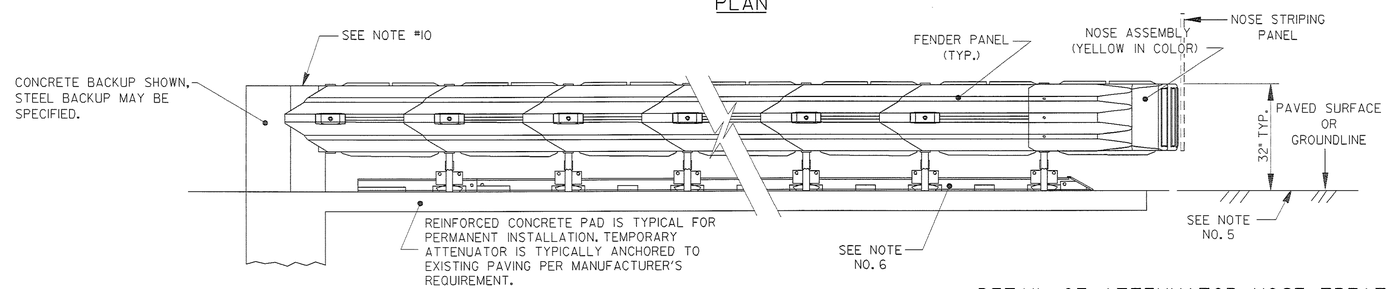



PLAN

| DESIGN SPEED (mph) | TYPICAL SYSTEM LENGTHS (FT.) | | |
|---|---|---|---|
| | STANDARD LENGTH (WITH STEEL BACK-UP) | MODIFIED FOR CONC. BACK-UP | WITH 10 FT. CONC. TRANS. |
| TO 35 | 10 | 11.5 | 20 |
| 40-45 | 13 | 14.5 | 23 |
| 50 | 16 | 17.5 | 26 |
| 55 | 19 | 20.5 | 29 |
| 60 | 22 | 23.5 | 32 |
| 65 | 26 | 27.5 | 36 |
| 70 | 31 | 32.5 | 41 |
| 75 | 34 | 35.5 | 44 |

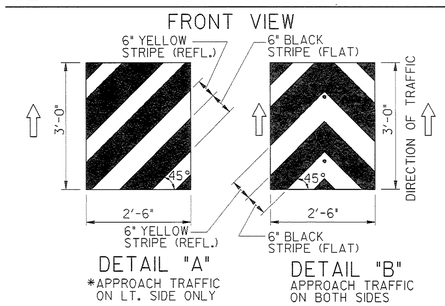
STANDARD STEEL BACK-UP SHALL BE USED UNLESS SPECIFIED OTHERWISE. CONCRETE BACK-UP MAY BE USED AS AN ALTERNATE AT LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.

THE LENGTHS IN ABOVE TABLE ARE COMMON OVERALL APPROXIMATE LENGTHS. VARIATIONS MAY BE SUBMITTED FOR APPROVAL. SEE SUB-SECTION 648.3.05




ELEVATION

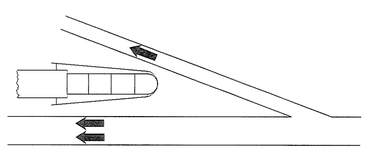
## DETAIL OF ATTENUATOR NOSE TREATMENT




* STRIPES SHALL SLOPE DOWNWARD AT AN ANGLE OF 45 TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS, LEFT SHOWN, RIGHT NOT SHOWN, BUT MAY BE SPECIFIED.
THE 6" YELLOW STRIPES SHALL BE REFLECTIVE SHEETING, TYPE IX.
THE 6" BLACK STRIPES SHALL BE FLAT (NON-GLOSS) PAINT OR ANY OTHER APPROVED APPLICATION.
COLORS SHALL BE ACCORDING TO THE MUTCD.
STRIPING SHALL BE APPLIED TO A 0.04" THICK ALUMINUM PLATE.
OBJECT MARKER SHALL BE SECURED TO NOSE FRONT WITH THREE GALVANIZED 5/16" DIA. BOLTS WITH NUT AND WASHERS AS DIRECTED BY THE ENGINEER.

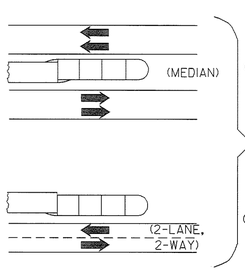
## TRAFFIC FLOW DESIGNATIONS (TYP.)

SEE SUB-SECTION 648.3.04



UNI-DIRECTIONAL (U)

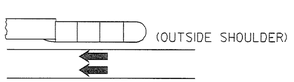
TRAFFIC IN SAME DIRECTION ON BOTH SIDES




BI-DIRECTIONAL (B)

OPPOSITE DIRECTIONS

NOTE:
WHEN ORDERING ATTENUATOR, TRAFFIC SHALL BE SPECIFIED AS "U" OR "B" OR "S" FOR EACH UNIT. SEE SECTION 648 FOR ADDITIONAL DESCRIPTION.




SINGLE DIRECTION (S)

SINGLE SIDE ONLY EXPOSED TO TRAFFIC

## GENERAL NOTES

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION AND SUPPLEMENTS THERETO. SEE SECTION 648.
2. ALL ATTENUATORS WILL BE OF TYPE WHICH HAS BEEN APPROVED BY THE GA. D.O.T. AND FEDERAL HIGHWAY ADMINISTRATION AS MEETING AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) REQUIREMENTS AND HAS BEEN CLASSIFIED AS "ACCEPTED" BY THE GDOT OFFICE OF MATERIALS AND RESEARCH AND LISTED ON QPL 64.
3. THE WIDTH OF THE SYSTEM SHALL BE 2'-6" UNLESS SPECIFIED OTHERWISE. UNITS HAVING A REAR WIDTH LESS THAN THE BASE OF THE SHIELDED OBJECT SHALL REQUIRE A CONCRETE TRANSITION, EXCEPT WHERE THE UNIT IS LOCATED ON THE OUTSIDE SHOULDER.
4. WHERE OBJECT BEING SHIELDED IS WIDER THAN THE DESIGNATED ATTENUATOR WIDTH, A TRANSITION WILL BE REQUIRED EITHER (a) BY PROVIDING A SPECIAL DESIGN CONCRETE TAPERED TRANSITION (SEE SEPARATE DETAILS) AS PART OF THE BACK-UP SYSTEM OR (b) BY MATCHING ATTENUATOR REAR WIDTH TO OBJECT SIZE UTILIZING A TAPERED ATTENUATOR MODEL WHICH INCREASES IN WIDTH FROM NOSE TO REAR (PER MANUFACTURER'S TAPERED MODEL NO.) WITH A STANDARD BACK-UP UNIT.
5. CROSS SLOPE OF PAD SHALL NOT EXCEED 8% AND NOT VARY MORE THAN 2% FROM FRONT TO BACK. THE ATTENUATOR SYSTEM SHALL BE LOCATED ON A RELATIVE FLAT AREA CLOSE TO OR AT ROADWAY LEVEL.
6. ALL ATTENUATOR UNITS SHALL BE CORRECTLY ANCHORED TO REINFORCED CONCRETE PAD OR OTHER APPROVED PAVED SURFACE PER MANUFACTURER'S RECOMMENDATIONS.
7. THE AREA IMMEDIATELY BACK OF THE ATTENUATOR SHALL BE CLEAR OF OBSTRUCTIONS THAT WOULD PREVENT THE REAR PANELS FROM SLIDING BACKWARD UPON IMPACT FOR A DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
8. PAYMENT FOR IMPACT ATTENUATOR OF THE TYPE SPECIFIED SHALL INCLUDE THE ENTIRE UNIT WITH ALL ACCESSORIES, THE CONCRETE PAD, THE BACKUP SYSTEM, ANY TRANSITION REQUIRED, THE NOSE STRIPING PANEL WITH ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE SYSTEM.
9. BEFORE WORK BEGINS, THE CONTRACTOR SHALL OBTAIN THE MANUFACTURER'S INSTALLATION MANUAL, ASSEMBLY DETAILS, ANCHORING REQUIREMENTS, REINFORCING STEEL FOR CONCRETE RECOMMENDATIONS, AND ALL OTHER GUIDES AND INSTRUCTIONS NECESSARY FOR PROPER INSTALLATION AND PROVIDE COPIES OF SAME TO THE ENGINEER. THE CONTRACTOR SHALL INFORM THE MANUFACTURER OF ATTENUATOR OF SITE CONDITIONS INCLUDING FURNISHING ANY PLAN SHEETS OR SKETCHES AS NEEDED TO SHOW TRAFFIC FLOW DIRECTIONS, LOCATION AND DESIGN OF SHIELDED OBJECT, AND AVAILABLE ARES SIZE FOR LOCATION OF UNIT.
10. TO PREVENT VEHICLE SNAGGING, AN OFFSET AND/OR A TRANSITION DEFLECTION PANEL OR A CONCRETE TRANSITION SECTION IS REQUIRED AT ATTENUATOR REAR ON EACH SIDE SUBJECT TO TRAFFIC. SEE MANUFACTURER'S REQUIREMENTS.

| BY | REVISION | DATE |
|---|---|---|
| GLO | REV. TITLE BLOCK AND AND GENERAL NOTE 1 AND 2. | 7-21-11 |
| GLO | REV. REFLECTIVE SH. TYPE | 4-10-06 |

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL
IMPACT ATTENUATOR UNITS
TYPE P - - - } SUB-SEC.
TYPE S - - - } 648.3.04

NO SCALE

REV. & REDR. MAR., 2001

NUMBER G-11