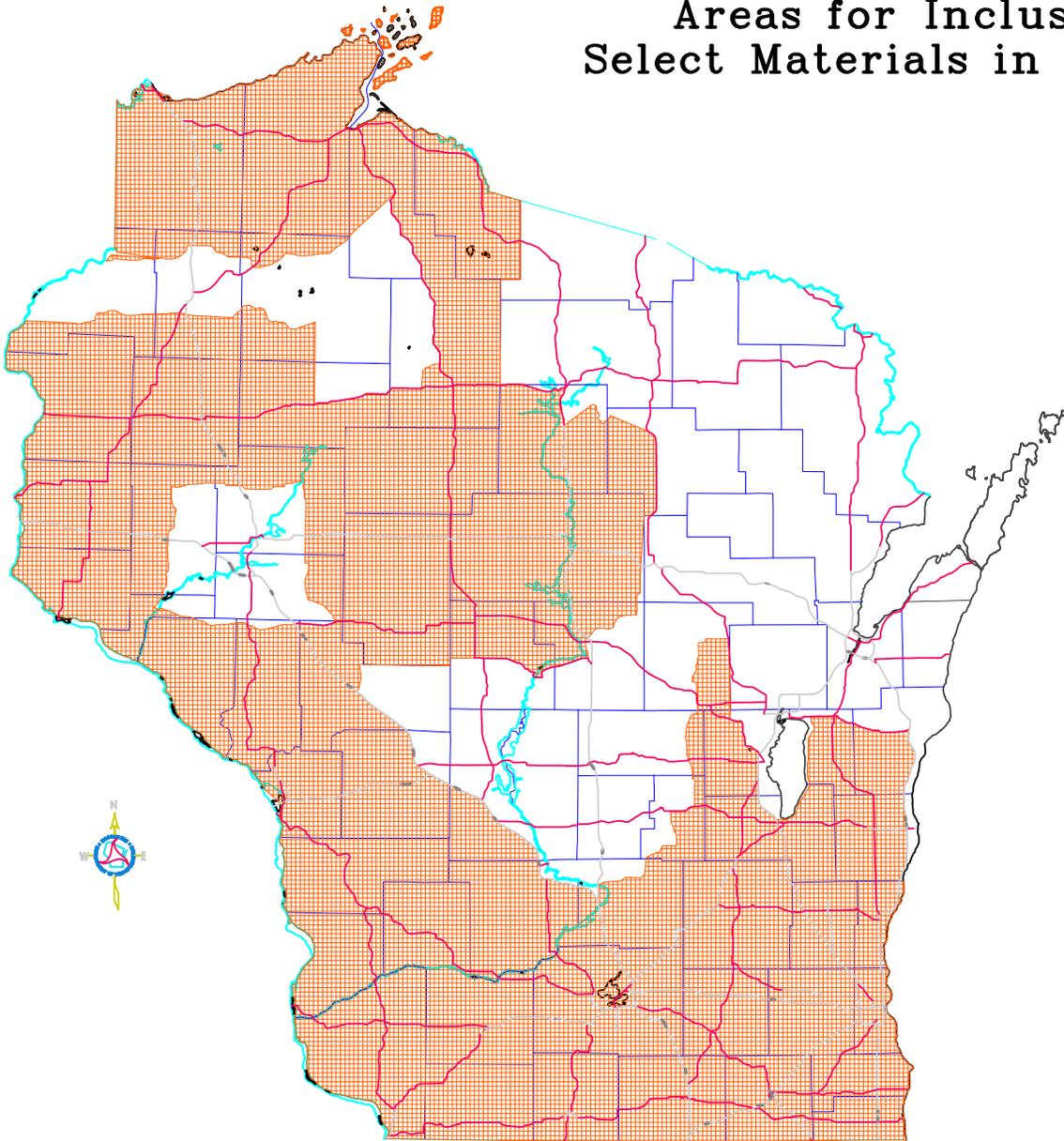
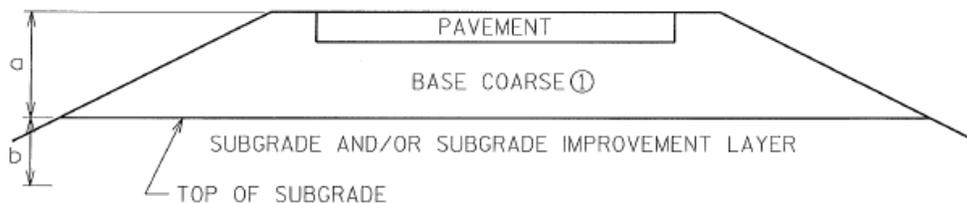


Areas for Inclusion of Select Materials in Subgrades

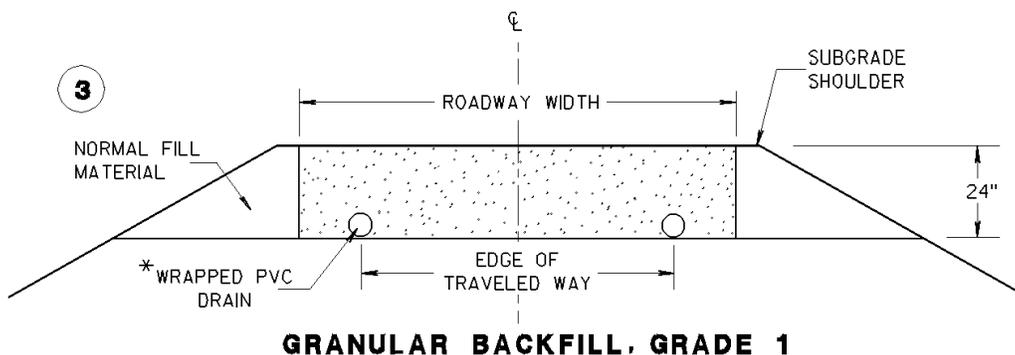
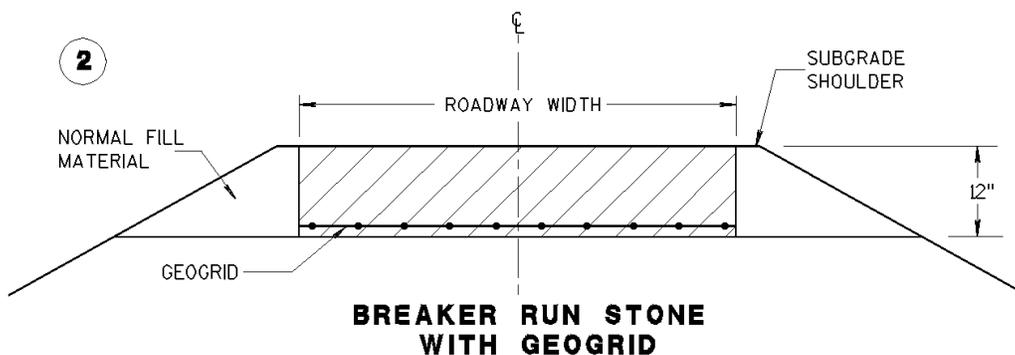
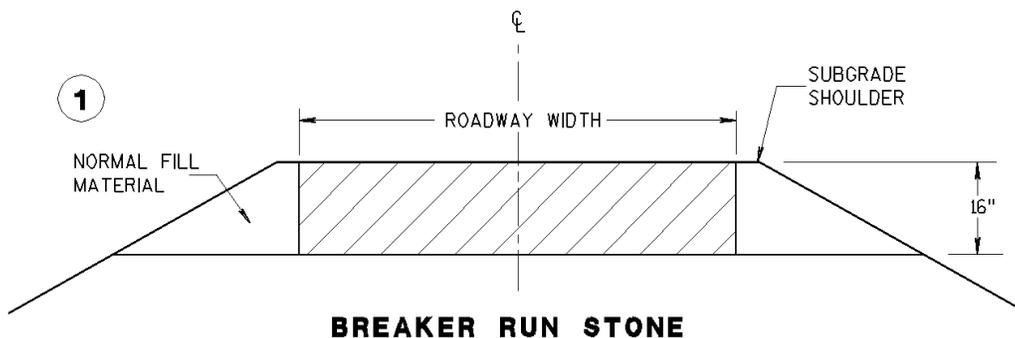


-  Standard Non-inclusion Areas
-  Standard Inclusion Areas

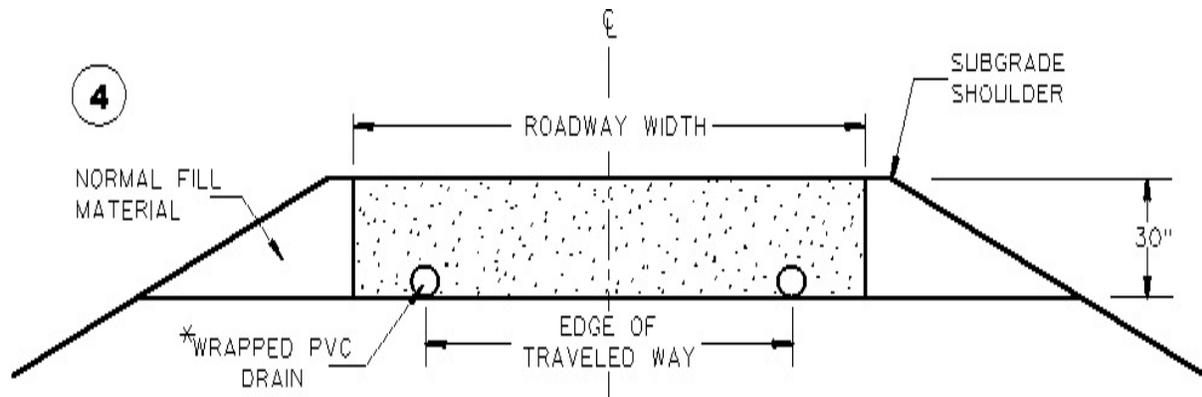


a = Pavement Structure
b = Subgrade

① BASE COARSE MATERIALS INCLUDE 3/4-INCH / 1/4-INCH / 3-INCH DENSE GRADED BASE AS DEFINED IN WI STANDARD SPEC SECTION 301 AND 305

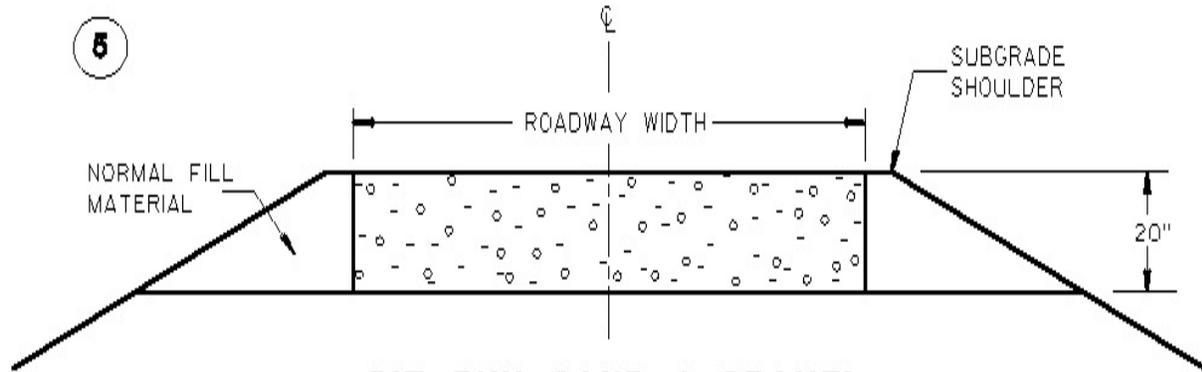


* MAY BE ELIMINATED IF GRANULAR BACKFILL SLOPES ARE COVERED WITH 3"-4" OF BASE AGGREGATE DENSE

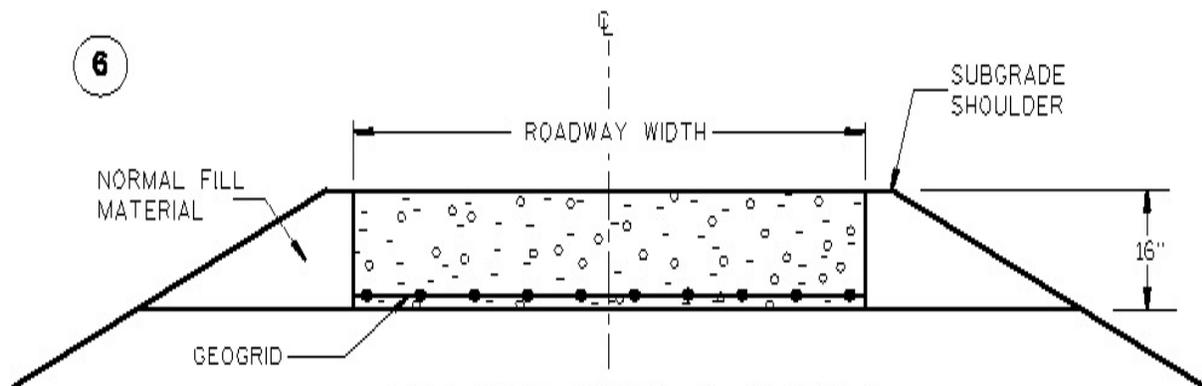


**GRANULAR BACKFILL, GRADE 2
OR SELECT BORROW**

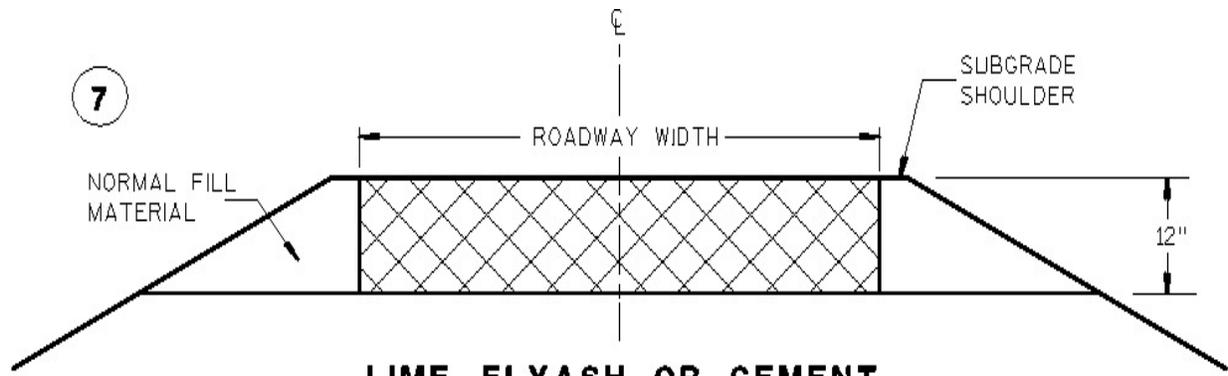
* MAY BE ELIMINATED IF GRANULAR BACKFILL SLOPES ARE COVERED WITH 3"-4" OF CABC



PIT RUN SAND & GRAVEL

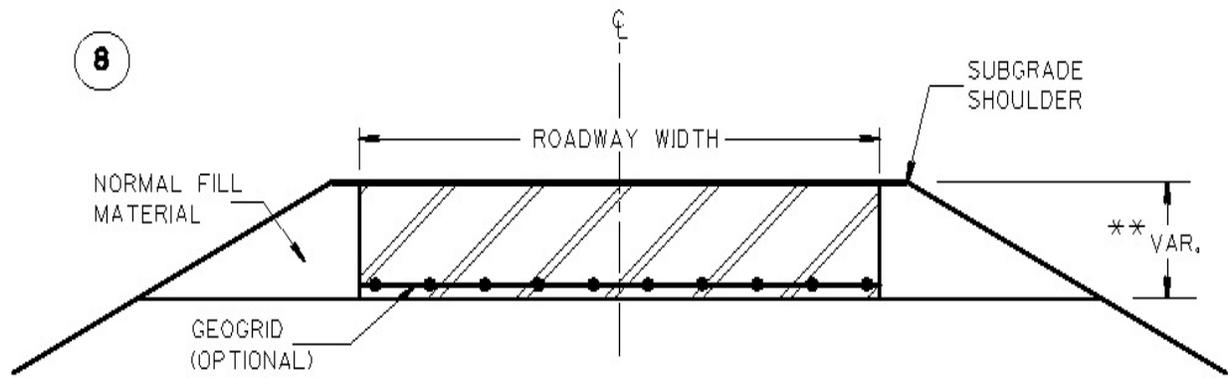


**PIT RUN SAND & GRAVEL
WITH GEOGRID**



**LIME, FLYASH OR CEMENT
STABILIZED SOIL**

APPLIES ONLY TO SUBGRADE SOILS CLASSIFIED AS CLAY SOILS

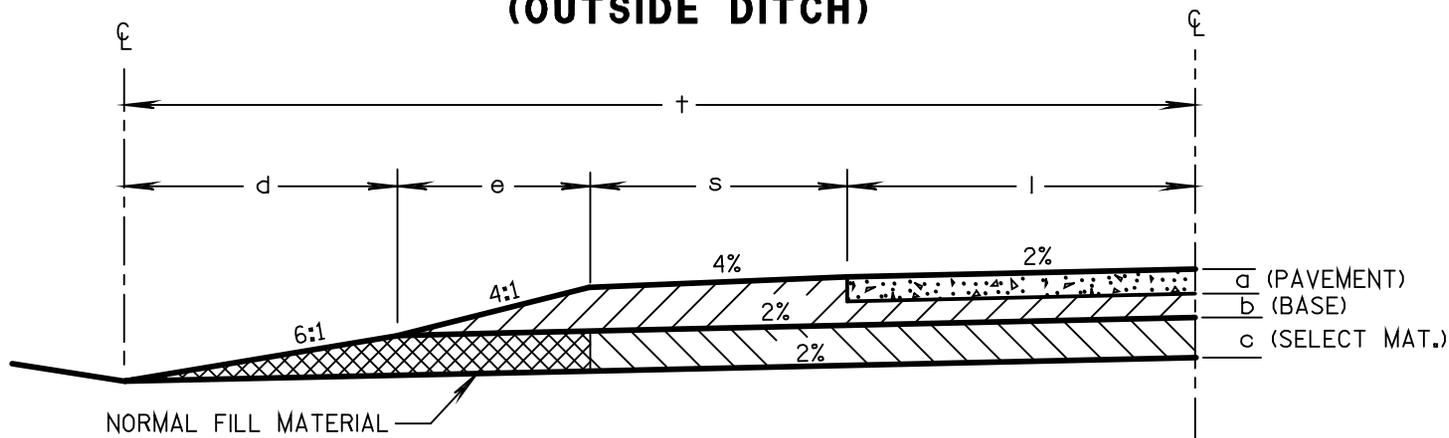


**RECYCLED CONCRETE, STEEL SLAG,
FOUNDRY SLAG, BOTTOM ASH,
RECYCLED ASPHALTIC PAVEMENT WITH GEOGRID**

** SEE RECOMMENDATION IN SOILS REPORT

THE RELIEF TRENCH DETAIL SHOWN IN FIGURE 3 SHALL BE USED IN CONJUNCTION WITH ALL THE SELECT MATERIAL SYSTEMS EXCEPT #7.

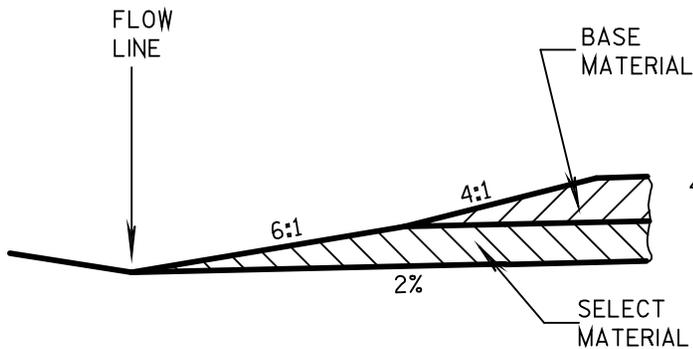
TYPICAL HALF SECTION WITH SELECT MATERIALS (OUTSIDE DITCH)



$$e = 4.35 (a+b - .02s)$$

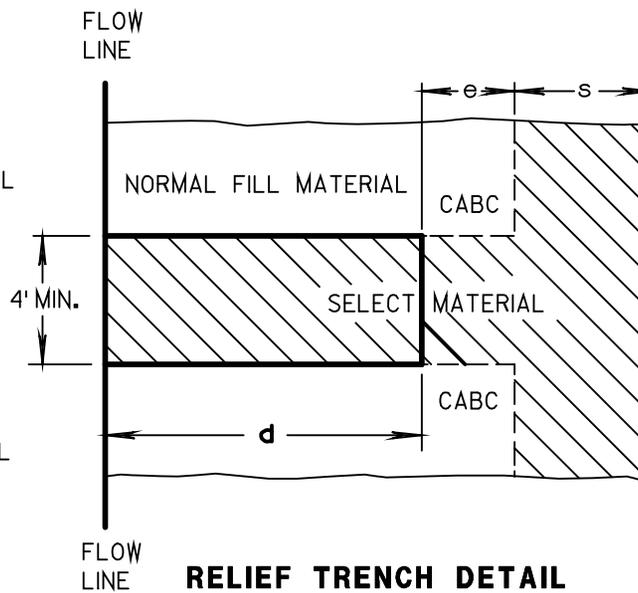
$$d = 6.82c \text{ @ } 6:1$$

$$d = 4.35c \text{ @ } 4:1$$



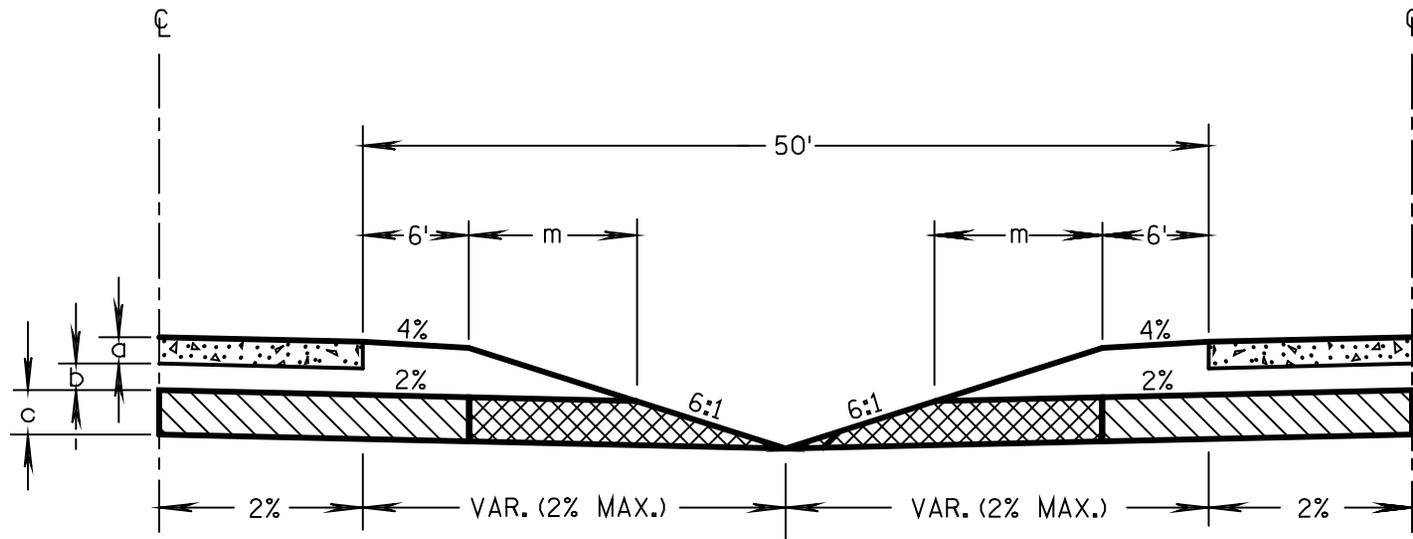
RELIEF TRENCH DETAIL PROFILE VIEW

* Construct relief trench at sag points or every 250 ft.



RELIEF TRENCH DETAIL PLAN VIEW

TYPICAL HALF SECTIONS FOR FOUR LANE DIVIDED HIGHWAYS WITH SELECT MATERIALS (MEDIAN DITCH) 50' MEDIAN



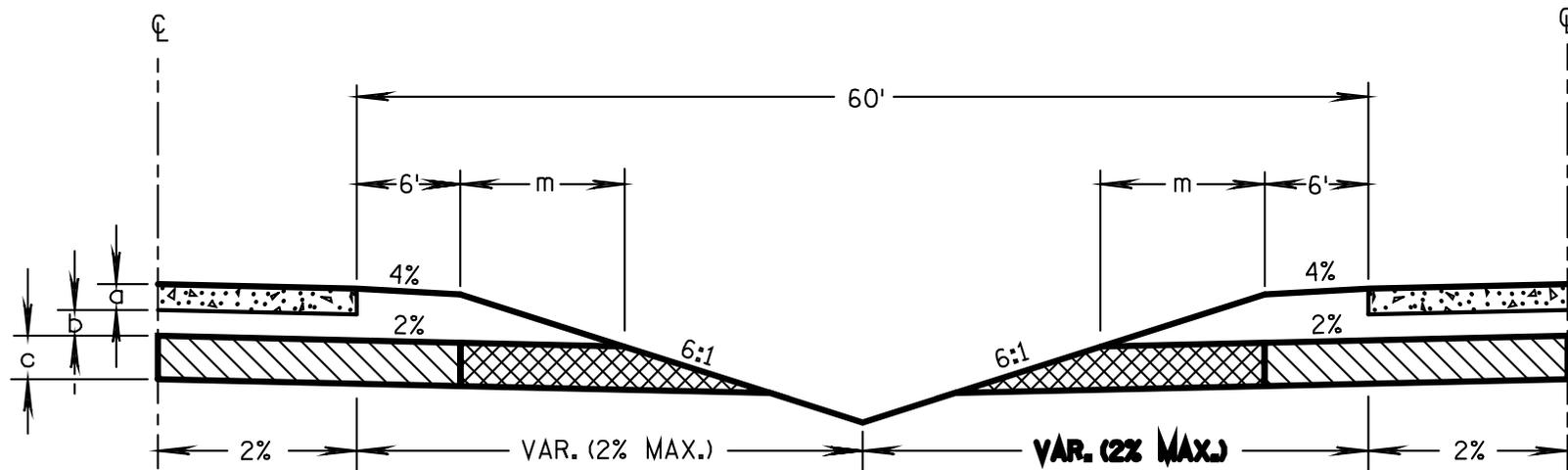
$$m = 6.82 (a+b - 0.12)$$

WITH 2% SLOPE: $C_{\max} = 2.91 - (a+b)$

WITH FLAT SLOPE: $C_{\max} = 3.41 - (a+b)$

NOTE: Construct relief trenches as shown in Figure 3 at ditch sag points or every 250 ft.

TYPICAL HALF SECTIONS FOR FOUR LANE DIVIDED HIGHWAYS WITH SELECT MATERIALS 60' MEDIAN



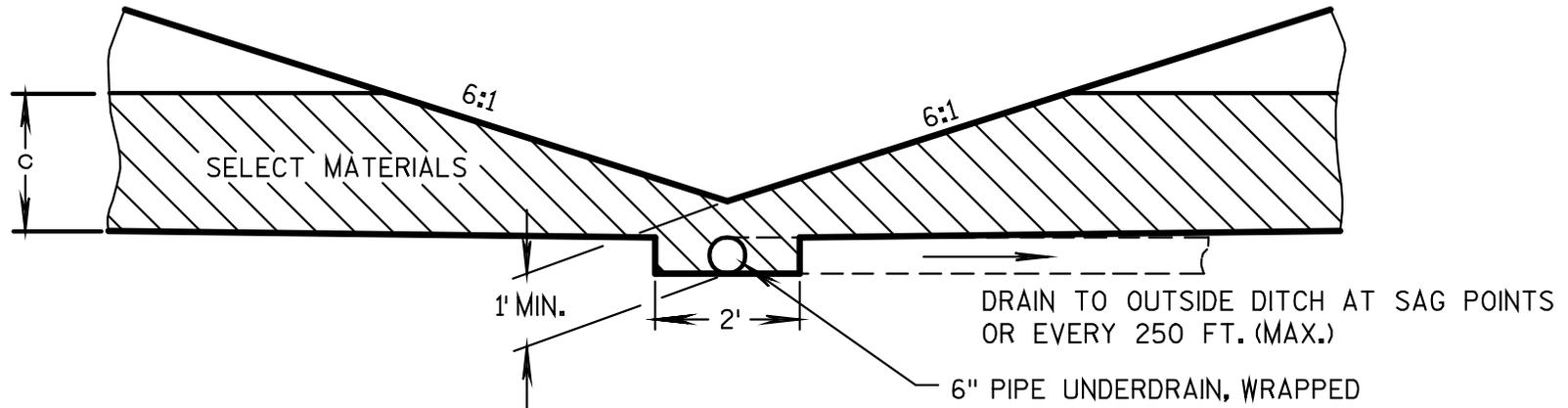
$$m = 6.82 (a+b - 0.12)$$

WITH 2% SLOPE: $C_{max} = 3.64 - (a+b)$

WITH FLAT SLOPE: $C_{max} = 4.24 - (a+b)$

NOTE: Construct relief trenches as shown in Figure 3 at ditch sag points or every 250 ft.

MEDIAN DRAIN DETAIL FOR SELECT MATERIALS LAYERS GREATER THAN c_{max}



FOR A 50' MEDIAN: $c_{max} = 3.41 - (a+b)$

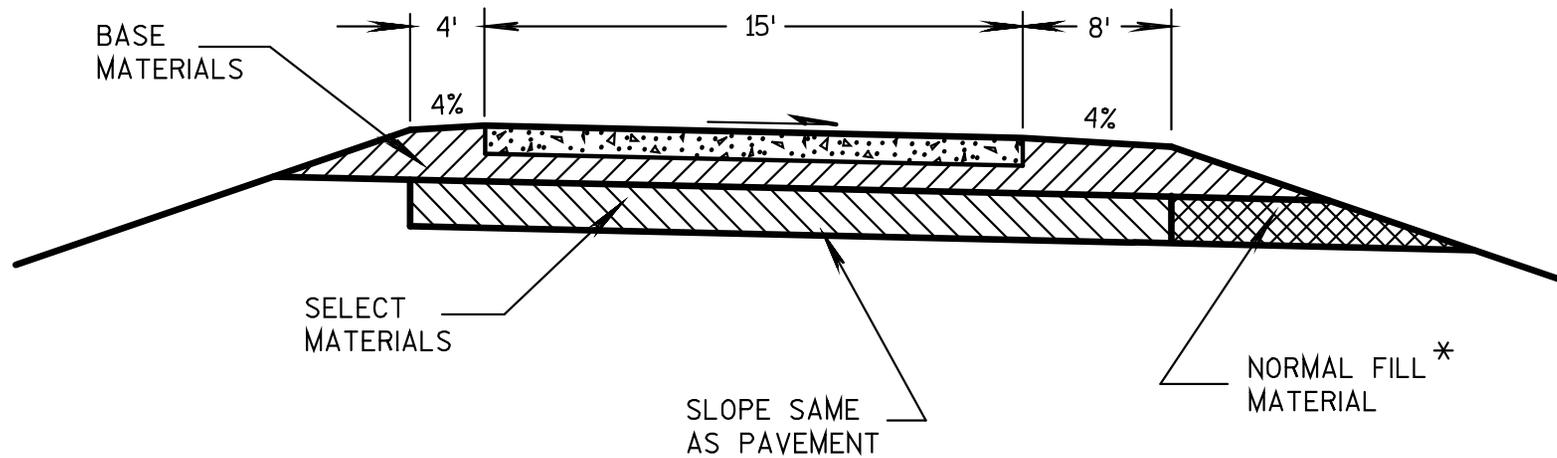
FOR A 60' MEDIAN: $c_{max} = 4.24 - (a+b)$

a = PAVEMENT THICKNESS, FT.

b = TOTAL BASE THICKNESS, FT.

c = SELECT MATERIAL THICKNESS, FT.

TYPICAL SECTION FOR ONE LANE RAMP WITH SELECT MATERIALS



* NOTE: Construct relief trenches as shown in Figure 3 every 250 ft.