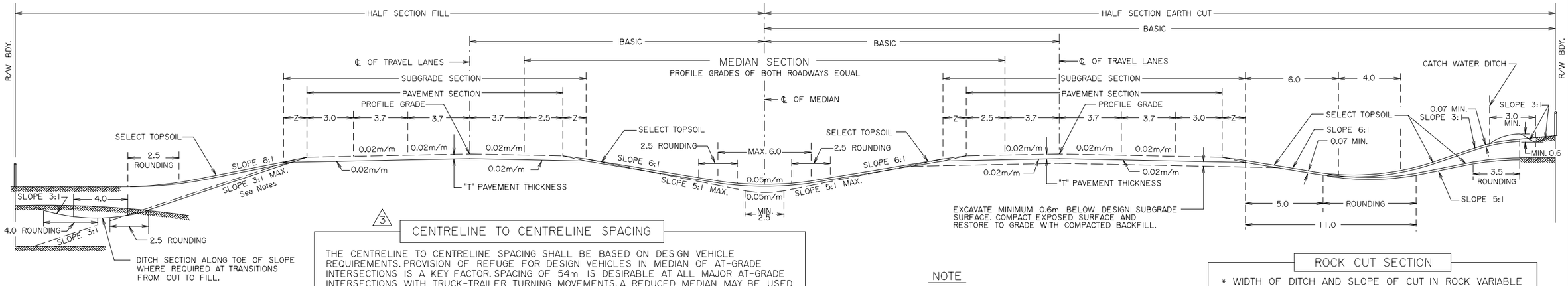


3 CENTRELINE TO CENTRELINE SPACING

THE CENTRELINE TO CENTRELINE SPACING SHALL BE BASED ON DESIGN VEHICLE REQUIREMENTS. PROVISION OF REFUGE FOR DESIGN VEHICLES IN MEDIAN OF AT-GRADE INTERSECTIONS IS A KEY FACTOR. SPACING OF 54m IS DESIRABLE AT ALL MAJOR AT-GRADE INTERSECTIONS WITH TRUCK-TRAILER TURNING MOVEMENTS. A REDUCED MEDIAN MAY BE USED BETWEEN INTERSECTIONS IF REQUIRED DUE TO CONSTRAINTS.

3 NOTES:

* Z = 5T
* T PAVEMENT THICKNESS IS DEPENDENT ON SURFACING DESIGN. A GREATER PAVEMENT DEPTH MAY BE USED ON THE LANES CARRYING HEAVIER VEHICLE LOADS.
* WIDTH OF SUBGRADE SECTION IS DEPENDENT ON THE DEPTH OF SURFACING MATERIAL A GUIDE FOR DETERMINATION OF TOTAL SUBGRADE WIDTH MAY BE BASED ON FIG. C-8.a OF DESIGN GUIDE.
* THE PROFILE GRADES ARE AT THE CROWN POINTS ON THE FINISHED PAVEMENT SURFACE AS SHOWN ON THE CROSS-SECTIONS ABOVE.
* SUPERELEVATION IS NORMALLY ATTAINED BY ROTATING INDIVIDUAL ROADWAYS ABOUT THE CENTRE LINE OF TRAVEL LANES.

FILL SECTION

SLOPES:

* 6:1 FOR AVERAGE FILLS TO 2.5m.
* 5:1 FOR AVERAGE FILLS 2.5m TO 4m.
* 4:1 FOR AVERAGE FILLS 4m TO 6m.
* 4:1 SLOPES CAN BE USED ON SHORT SECTIONS OF HIGHWAY FILL UP TO 14m IN HEIGHT (TO ELIMINATE THE NEED FOR GUARDRAIL), PROVIDING THERE ARE NO OBSTRUCTIONS WITHIN OR NEAR THE RIGHT-OF-WAY LIMITS.
* 3:1 SLOPES TO BE USED IN AREAS WHERE GUARDRAIL IS TO BE INSTALLED.
* THE CHOICE BETWEEN 4:1 SLOPE AND GUARDRAIL INSTALLATION ON HIGH EMBANKMENTS IS GENERALLY MADE BASED ON LIFE-CYCLE COST-EFFECTIVENESS.
* 3:1 SLOPES ARE TO BE USED ON ALL FILLS ADJACENT TO DRAINAGE STRUCTURES OVER 1200mm IN DIAMETER, CATTLE PASSES, OPEN WATER, ETC. WHERE GUARDRAIL INSTALLATION IS NECESSARY FOR HIGHWAY SAFETY.
* BERM ALSO TO BE CONSTRUCTED ADJACENT TO OPEN WATER.
* TRANSITION BETWEEN 6 :1 AND 3 :1 SLOPES SHALL BE ATTAINED BY USING UNIFORMLY VARYING SLOPES; GENERALLY THE MINIMUM LENGTH OF TRANSITION SHALL BE NOT LESS THAN 100m.

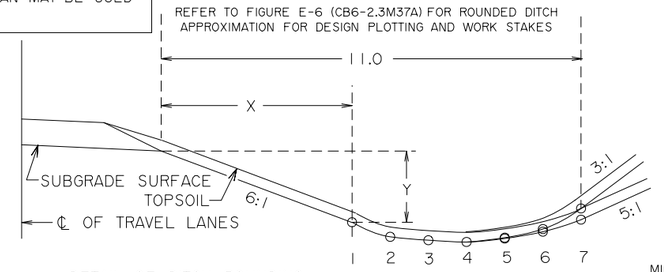
MEDIAN SECTION

SLOPES:

* NORMAL SLOPE 6 :1
* MAXIMUM 5 :1 TO BE USED ONLY WHERE MAXIMUM DIFFERENCE BETWEEN INDEPENDENT GRADES OCCUR AND WHERE ESSENTIAL FOR DEVELOPMENT OF MEDIAN DRAINAGE.
* MINIMUM DEPTH OF MEDIAN DITCH 0.5m BELOW SUBGRADE SHOULDER.

NOTE

REFER TO FIGURE E-6 (CB6-2.3M37A) FOR ROUNDED DITCH APPROXIMATION FOR DESIGN PLOTTING AND WORK STAKES



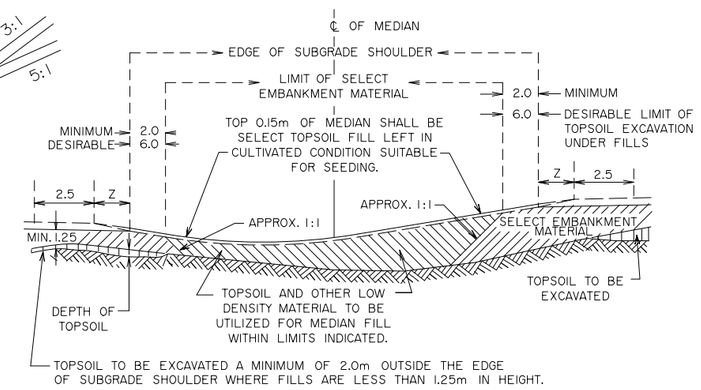
DETAIL OF DITCH ROUNDING

TABLE I

ROUNDED DITCH COORDINATE	1	2	3	4	5	6	7
X (METRES)	5	6	7	8	9	10	11
Y (METRES) 5 :1 BACKSLOPE	0.83	0.97	1.04	1.06	1.02	0.94	0.80
Y (METRES) 3 :1 BACKSLOPE	0.83	0.97	1.04	1.06	1.01	0.91	0.67

ROCK CUT SECTION

* WIDTH OF DITCH AND SLOPE OF CUT IN ROCK VARIABLE DEPENDING ON MATERIAL.
* SHALE ROCK CUTS ON PRAIRIE SHALL BE TAKEN OUT AS SHOWN FOR TYPICAL CROSS-SECTION ON TANGENT.
* MEDIAN SLOPES OF 4 :1 OR STEEPER MAY BE USED ON ROCK SECTION.
* WHERE THE MEDIAN SLOPE IS 4 :1 OR STEEPER, A GUARDRAIL ALONG THE UPPER ROADWAY IS REQUIRED.



DETAIL FOR CONSTRUCTION OF MEDIAN SECTION

NOTE: ALL DIMENSIONS ARE EXPRESSED IN METRES UNLESS OTHERWISE NOTED.

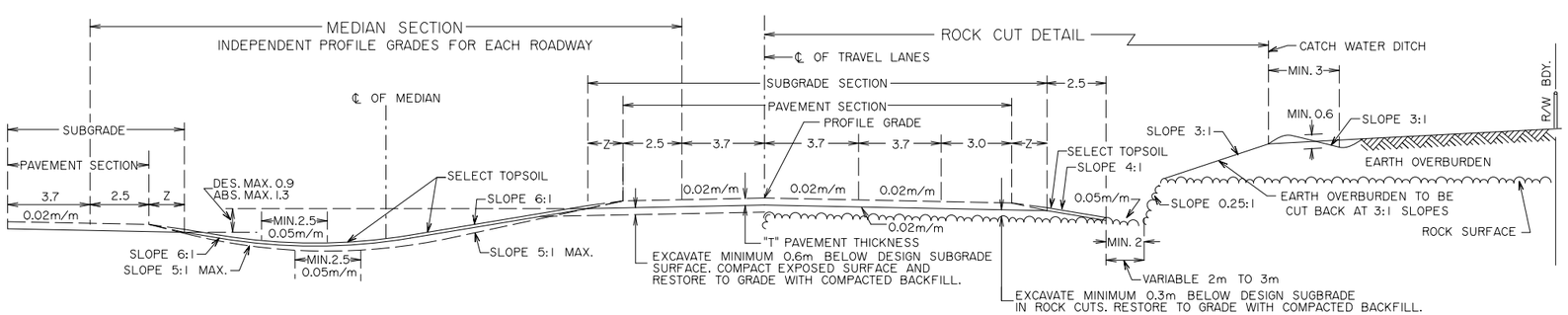
USE OF TOPSOIL

* SELECT TOPSOIL SHALL BE REMOVED WITHIN THE CONSTRUCTION LIMITS TO THE DEPTH AND WIDTH AS DIRECTED BY THE ENGINEER AND THE SALVAGED TOPSOIL STOCKPILED AT DESIGNATED POINTS WITHIN THE RIGHT-OF-WAY LIMITS FOR REDISTRIBUTION ON THE MEDIAN SECTION AND ON CUT OR FILL SLOPES AS REQUIRED.
* WHERE DETERMINED FEASIBLE, THE ENGINEER WILL REQUIRE THE EXCAVATED SELECT TOPSOIL TO BE MOVED TO ITS FINAL POSITION WITHOUT DOUBLE HANDLING.
* SURPLUS TOPSOIL AND OTHER MATERIAL DESIGNATED BY THE ENGINEER AS BEING UNSUITABLE FOR SALVAGE SHALL BE UTILIZED FOR CONSTRUCTION WITHIN THE MEDIAN AS INDICATED ON THE PLAN.
* REFER TO SPECIFICATION 2.6 "TOPSOILING" FOR DETAILS REGARDING PLACEMENT OF TOPSOIL ON MEDIAN SLOPES, CUT AND FILL SLOPES.

EARTH CUT SECTION

SLOPES:

* 6 :1 SIDESLOPE
* 5 :1 BACKSLOPE FOR AVERAGE CUT LESS 2m MEASURED FROM DITCH BOTTOM.
* 3 :1 BACKSLOPE FOR AVERAGE CUT GREATER THAN 2m.
* BACKSLOPES ARE TO BE UNIFORM THROUGHOUT EACH CUT.
* TRANSITION BETWEEN CUT AND FILL SHALL BE ATTAINED BY USING VARIABLE SLOPES BETWEEN 6 :1 AND 3 :1 LIMITS.
* DITCH WIDTH AND ROUNDING OF BACKSLOPE TO BE INCREASED AT BEGINNING AND END OF CUT SECTIONS FOR AESTHETICS.



No.	REVISIONS	BY	DATE
3	ADDED CENTRELINE SPACING NOTE	B.K.	06/97
2	FILL NOTES	B.K.	06/93
1	DRAWING SIZE CHANGE: NOTE ADDED	B.K.	07/91

Approved:

ORIGINAL SIGNED BY ALLAN KWAN

Executive Director
Technical Standards Branch

Date: DECEMBER 1989

Alberta TRANSPORTATION AND UTILITIES

SUPERSEDED

STANDARD CROSS-SECTION FOR SIX LANE DIVIDED HIGHWAY RFD/RAD-616.6-130

Prepared By: R.T.	Checked By: B.K.	Scale: N.T.S.	Dwg No: CB6-2.3M14

GRAPHICS FILE:cb623m14.man