

**SEEDING GUIDELINES:**

**1. SEEDBED PREPARATION**

THE SEEDBED SHOULD BE WELL-SETTLED AND FIRM, BUT FRIABLE ENOUGH THAT THE SEED CAN BE PLACED AT THE SPECIFIED DEPTHS. COMPETITIVE STANDS OF WEEDS THAT ARE PRESENT BEFORE SEEDING MUST BE CONTROLLED BY SHALLOW TILLAGE OR BY APPLICATION OF HERBICIDES. SOILS THAT HAVE BEEN OVER-COMPACTED BY TRAFFIC OR EQUIPMENT, ESPECIALLY WHEN WET, SHOULD BE TILLED TO BREAK UP ROOTING-RESTRICTIVE LAYERS, THEN HARROWED, ROLLED, OR PACKED TO PREPARE THE REQUIRED FIRM SEEDBED.

**2. FERTILIZER**

FERTILIZER SHOULD BE APPLIED AT A RATE OF 50 POUNDS OF AVAILABLE NITROGEN PER ACRE AND 40 POUNDS OF AVAILABLE PHOSPHATE PER ACRE. THE TIME OF APPLICATION SHOULD BE IMMEDIATELY PRIOR TO SEEDING, AT THE TIME OF SEEDING, OR IMMEDIATELY FOLLOWING SEEDING, DEPENDING ON THE KIND OF FERTILIZER AND TYPE OF EQUIPMENT USED.

**3. SEEDING**

SEED SHOULD BE PLANTED WITH A GRASS DRILL ON ALL SLOPES OF 3:1 (3:1) OR FLATTER. SEED MAY BE BROADCAST BY HAND, BY MECHANICAL SPREADER, OR BY HYDRAULIC EQUIPMENT ON AREAS THAT ARE SMALL, TOO STEEP, OR NOT ACCESSIBLE FOR SEED DRILL OPERATIONS.

SEED PLANTED WITH A DRILL SHOULD BE COVERED WITH SOIL TO A DEPTH OF 1/4 TO 3/4 INCH. SEED PLANTED BY THE BROADCAST METHOD SHALL BE INCORPORATED INTO THE SOIL SURFACE, NOT TO EXCEED A DEPTH OF 3/4 INCH, BY RAKING, HARROWING, OR OTHER PROVEN METHOD.

THE TIME OF SEEDING IS FROM OCTOBER 15TH - MAY 31ST. SEED PLANTED IN THE LATE FALL WILL REMAIN DORMANT UNTIL SPRING, WHEN IT WILL GERMINATE.

**4. MULCHING**

SEEDED AREAS SHOULD BE MULCHED TO CONSERVE MOISTURE; PREVENT SURFACE COMPACTION OR CRUSTING; REDUCE RUNOFF AND EROSION; CONTROL INSECTS; AND HELP ESTABLISH PLANT COVER.

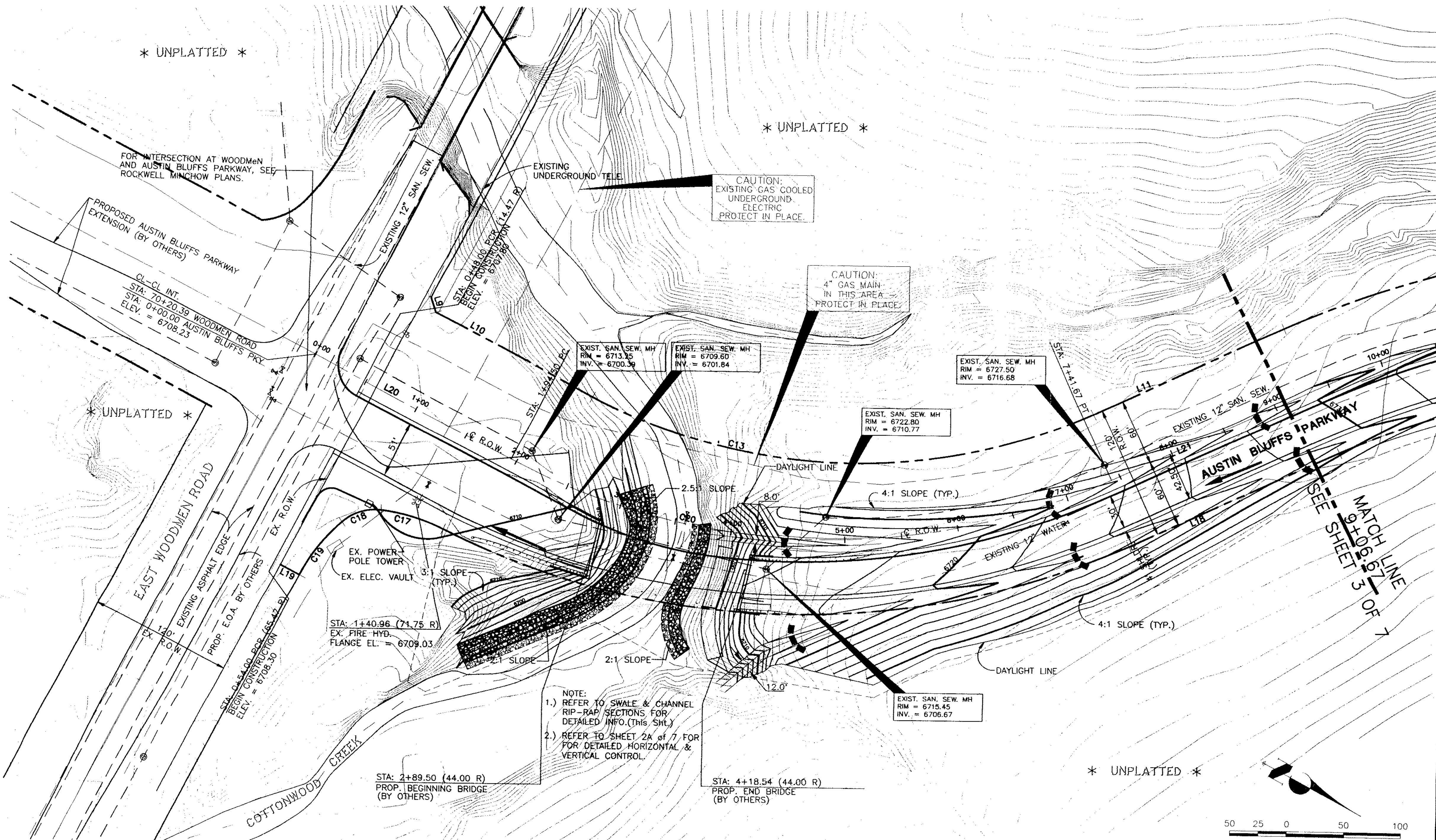
NATIVE HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 4,000 POUNDS PER ACRE AND CRIMPED INTO THE GROUND. ON SLOPES GREATER THAN 3:1, AN AGRONOMY BLANKET SHOULD BE USED.

**5. SUPPLEMENTAL WATER**

IN LOW RAINFALL AREAS, WHERE WATER IS AVAILABLE AND WHERE RAPID ESTABLISHMENT IS NEEDED, IRRIGATION OF NEW SEEDING SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON. WATER SHOULD BE APPLIED AT APPROXIMATELY ONE WEEK INTERVALS, AT A RATE OF 3/4 TO 1 INCH PER APPLICATION, WHEN RAINFALL IS DEFICIENT FOR PLANT DEVELOPMENT.

CURVE DATA TABLE				
CURVE	RADIUS	LENGTH	DELTA	REMARKS
C13	500.00'	455.98'	52°15'04"	R.O.W.
C16	700.00'	624.12'	51°05'06"	R.O.W.
C17	164.50'	57.06'	19°52'24"	R.O.W.
C18	44.50'	37.22'	47°55'16"	R.O.W.
C19	164.50'	60.41'	21°02'22"	R.O.W.
C20	600.00'	547.17'	52°15'04"	CENTERLINE

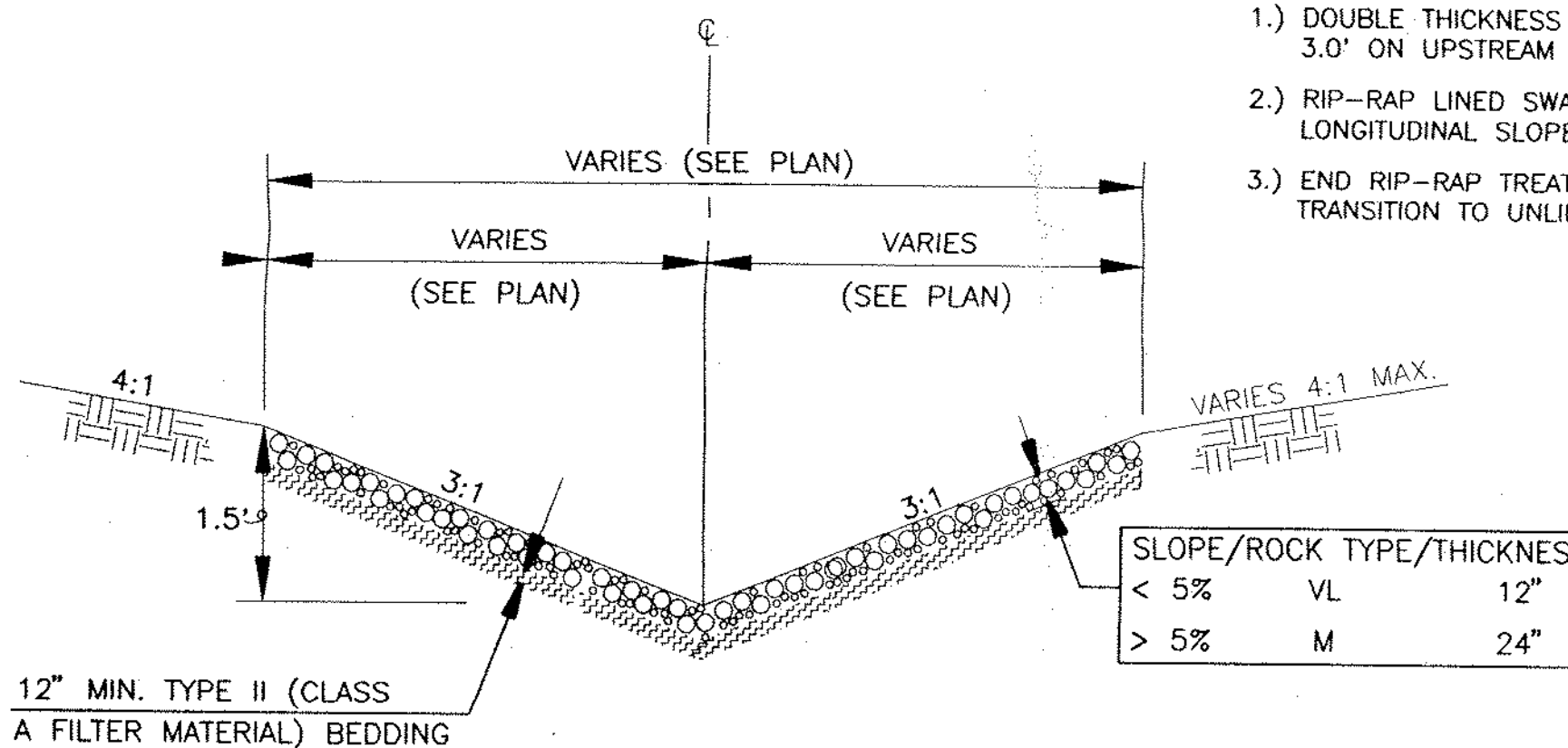
LINE DATA TABLE			
LINE	DIRECTION	DISTANCE	REMARKS
L9	N44°26'26"E	14.14'	R.O.W.
L10	N00°33'34"W	156.92'	R.O.W.
L11	N52°48'38"W	155.53'	R.O.W.
L18	N52°48'38"W	173.73'	R.O.W.
L19	N00°33'34"W	19.00'	R.O.W.
L20	N00°33'34"W	194.50'	CENTERLINE
L21	N52°48'38"W	165.00'	CENTERLINE



**AUSTIN BLUFFS PARKWAY**

**RIP-RAP NOTES:**

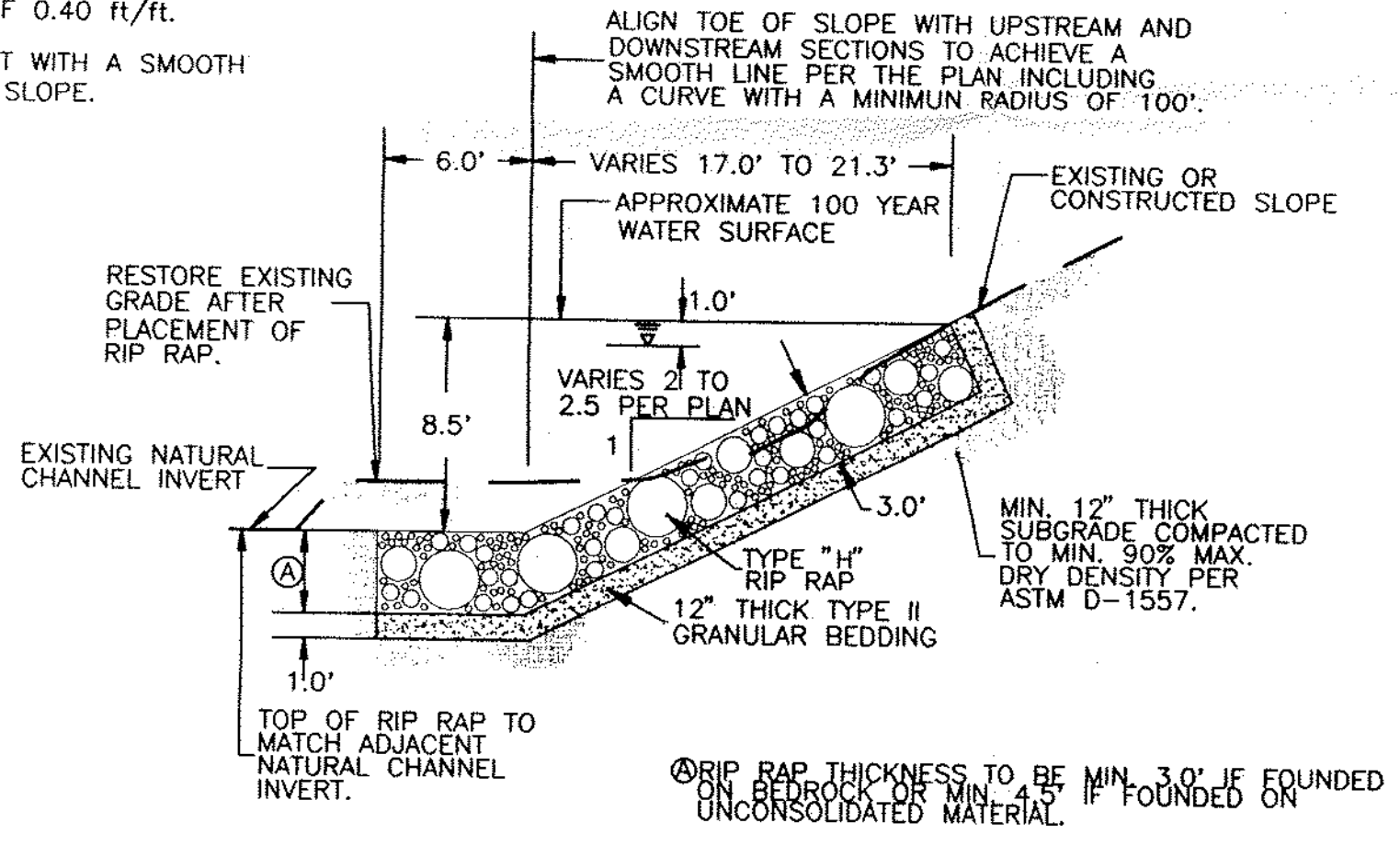
- DOUBLE THICKNESS OF ALL RIP-RAP LINING FOR 3.0' ON UPSTREAM AND DOWNSTREAM EDGES.
- RIP-RAP LINED SWALES SHALL NOT EXCEED LONGITUDINAL SLOPES OF 0.40 ft/ft.
- END RIP-RAP TREATMENT WITH A SMOOTH TRANSITION TO UNLINED SLOPE.



NOTE: ELIMINATE RIP-RAP IN SWALE WHERE BOTTOM OF SWALE IS EXCAVATED INTO SOUND BEDROCK.

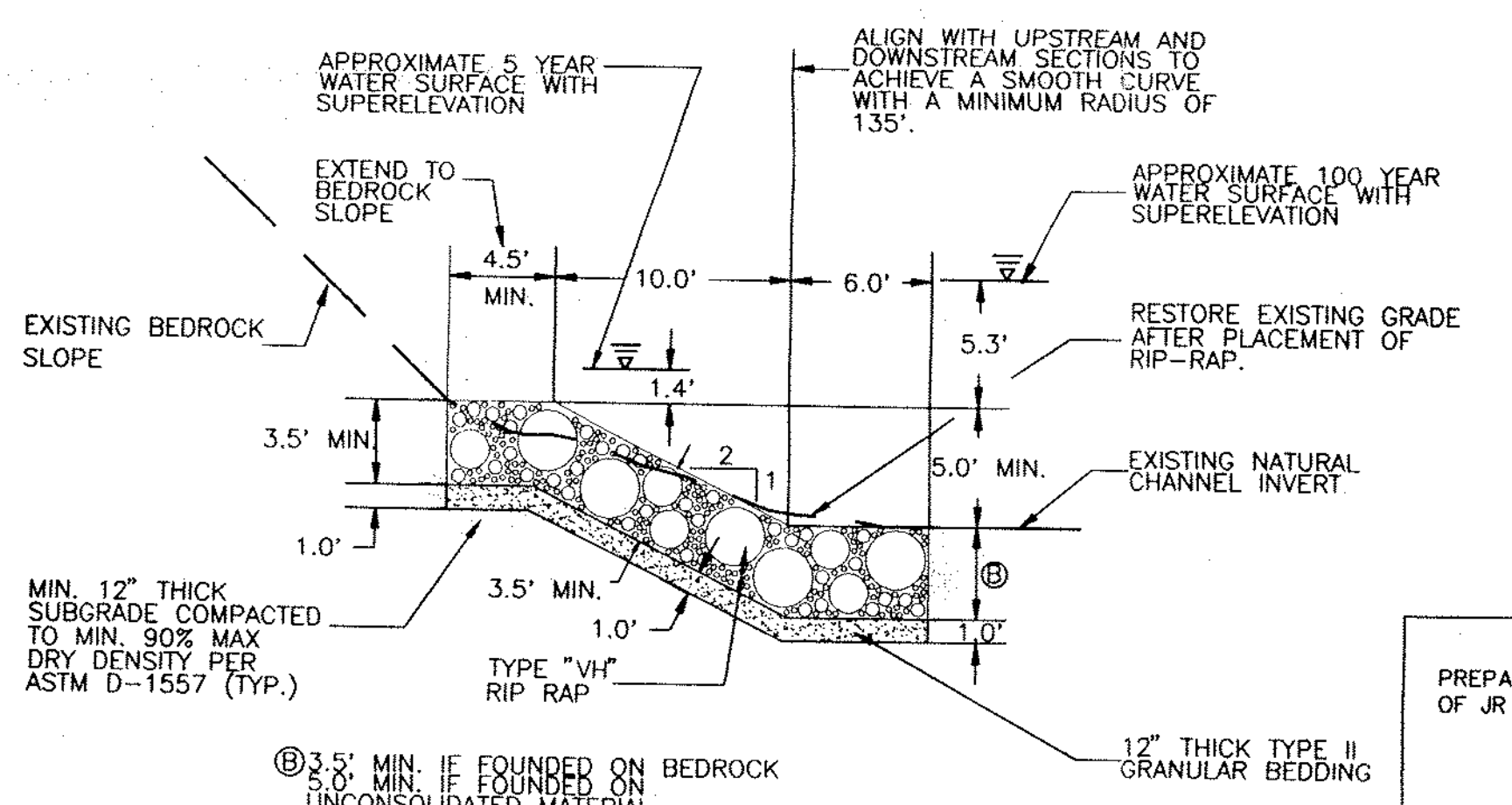
**TEMPORARY RIP-RAP SWALE DETAIL**

NOT TO SCALE



**RIP-RAP SOUTH SIDE OF CHANNEL**

N.T.S.



**RIP-RAP NORTH SIDE OF CHANNEL**

N.T.S.

NOTE: FOR ALL STREET DIMENSIONS, REFER TO STREET IMPROVEMENT PLAN AND PROFILES SHEETS 5 TO 7 OF 7.

**LEGEND**

- STRAW BALE CHECK DAM
- FLOW DIRECTION
- EXISTING GROUND CONTOUR
- PROPOSED FINISHED CONTOUR
- RIP-RAP (SIDE OF CHANNEL PROTECTION)
- RIP-RAP (SWALE PROTECTION)

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF JR ENGINEERING, LTD.

KYLE R. CAMPBELL, COLORADO P.E. #29794 DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY AGENCY OR ENGINEER, THE APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY THE AUTHORITY.

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CITY OF COLORADO SPRINGS DEPT. OF UTILITIES  
GAS, ELECTRIC, WATER AND WASTEWATER

JR Engineering, Ltd.  
4935 North 30th Street  
Colorado Springs, Colorado 80919  
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NO.	DATE	REVISION	BY	DATE
1	3/27/97	REVISED PER CITY REVIEW	PAK	3/27/97
2	5/29/97	REVISED PER CITY REVIEW	BAP	5/29/97

SCALE	DATE	DES. BY	CHK. BY	DWN. BY
1"=50'	1/31/97	PAK		

AUSTIN BLUFFS PARKWAY (PILOT ROAD)	GRADING AND EROSION CONTROL PLANS	OVERLOT GRADING PLAN
SHEET 2 OF 7	STA. 0+00 TO STA. 9+06.67	
JOB NO.	8715.71	

PATH: X:\871571\DRAWINGS\ROAD-PP\...  
DATE: 8/25/07  
XREFS: 8715-EC1, 871571H2, 871571R2

THIS DRAWING IS INCOMPLETE WITHOUT SHEETS 1 THROUGH 7