

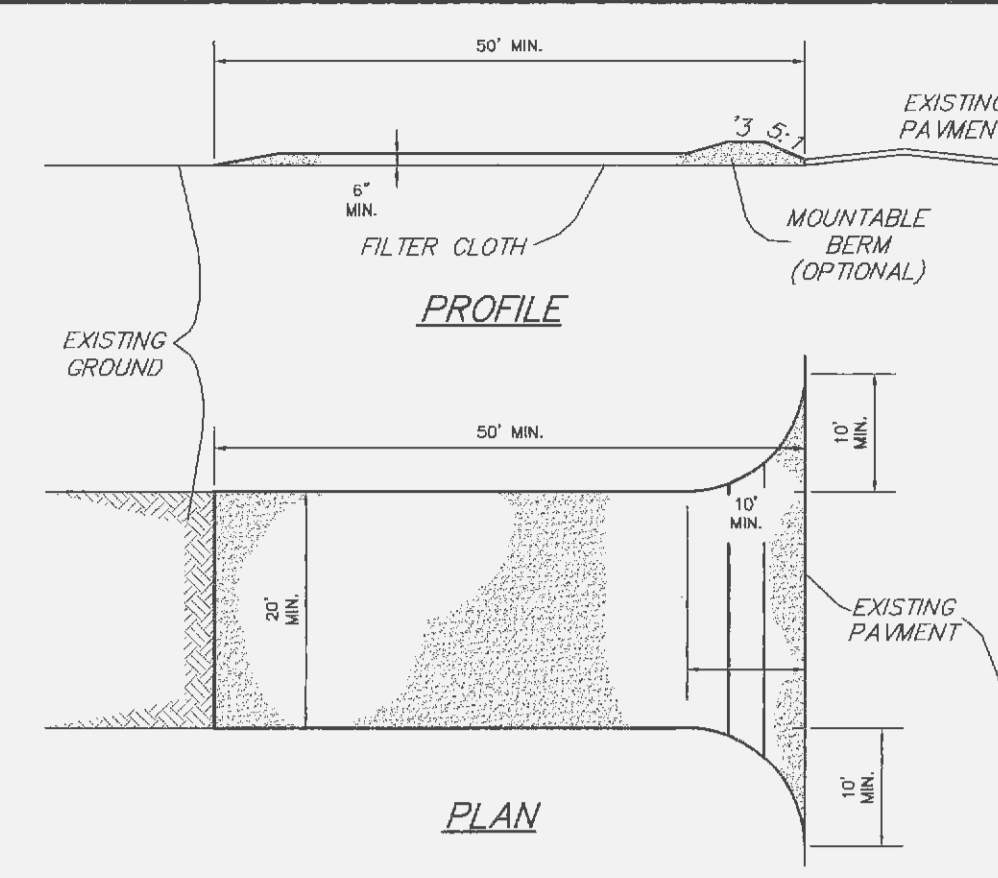
STORM SEWER PROFILES
SCALE: 1"=40' HORIZONTAL
1"=10' VERTICAL

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SCALE: 1"=40' HORIZONTAL
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BAX PROJECT NAME: Synergetics Building Addition
BAX PROJECT NO.: 02-11793D
DESIGN DATE: 10-19-04
DESIGNED BY: ALJ
15 Year Design Storm

UPP STR	LOW STR	L DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH BY GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	TUNC LOSS	TURN LOSS	CURVE LOSS	STR LOSS	INL CHZ	DR ARSA	PI	Q	TQ	FILE CAB	REMARKS	
GI 204 FE	203	31	12 522.50	522.00	0.61	526.50	2.15	524.35	523.00	0.02140	0.67	6.63	0.68	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.21	4.51	1	HW=523.00
GI 202 GI	201	129	12 524.78	523.49	0.00	528.78	3.66	525.12*	524.49	0.00660	0.08	1.09	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	3.57	2	HW=523.00
GI 201 FE	200	40	12 523.29	522.00	3.20	528.40	4.79	523.61*	523.00	0.01170	0.07	1.88	0.06	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.48	6.37	3	
GI 206 GI	205	111	18 523.68	522.57	0.00	526.61	1.10	525.51	525.33	0.00110	0.12	1.95	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.44	10.51	4	
GI 205 EX	108	108	21 522.37	521.29	0.00	529.40	4.07	525.33	525.22	0.00080	0.09	1.90	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.58	15.86	5	
EX 108 EX	107	157	21 521.09	520.02	0.68	526.42	1.20	525.22	524.23	0.00450	0.70	4.40	0.30	0.28	0.01	0.00	0.00	0.00	0.00	0.00	0.00	10.59	13.09	6	
EX 107 EX	103	37	24 519.82	519.56	0.71	528.50	4.27	524.23	524.03	0.00330	0.12	4.13	0.27	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	12.98	19.09	7	
EX FE EX	WH	11	36 527.71	527.13	0.48	530.59	0.00	530.59	530.13	0.00310	0.03	5.29	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.40	156.17	8	
EX WH EX	104	100	36 522.28	521.55	0.73	532.78	7.16	525.62	524.71	0.00310	0.31	5.29	0.43	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	37.40	56.95	9	
EX 104 EX	103	39	36 521.35	519.56	4.63	529.00	4.29	524.71	524.03	0.00310	0.12	5.29	0.43	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	37.40	143.50	10	
EX 103 EX	102	128	36 519.36	518.54	0.64	529.00	4.97	524.03	522.66	0.00570	0.73	7.13	0.79	0.45	0.19	0.00	0.00	0.00	0.00	0.00	0.00	30.38	53.45	11	
EX 102 EX	101	77	36 518.34	517.95	0.31	527.50	4.84	522.66	522.18	0.00590	0.45	7.22	0.81	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.07	47.45	12	
EX 101 EX	100	135	36 517.75	517.05	0.52	528.00	5.82	522.18	520.35	0.00590	0.79	7.22	0.81	0.52	0.52	0.00	0.00	0.00	0.00	0.00	0.00	51.07	48.02	13	
EX 100 EX	CT	32	36 516.85	516.39	1.43	530.35	10.00	520.35	519.19	0.00610	0.19	7.35	0.84	0.50	0.47	0.00	0.00	0.00	0.00	0.00	0.00	51.93	79.82	14	HW=519.19

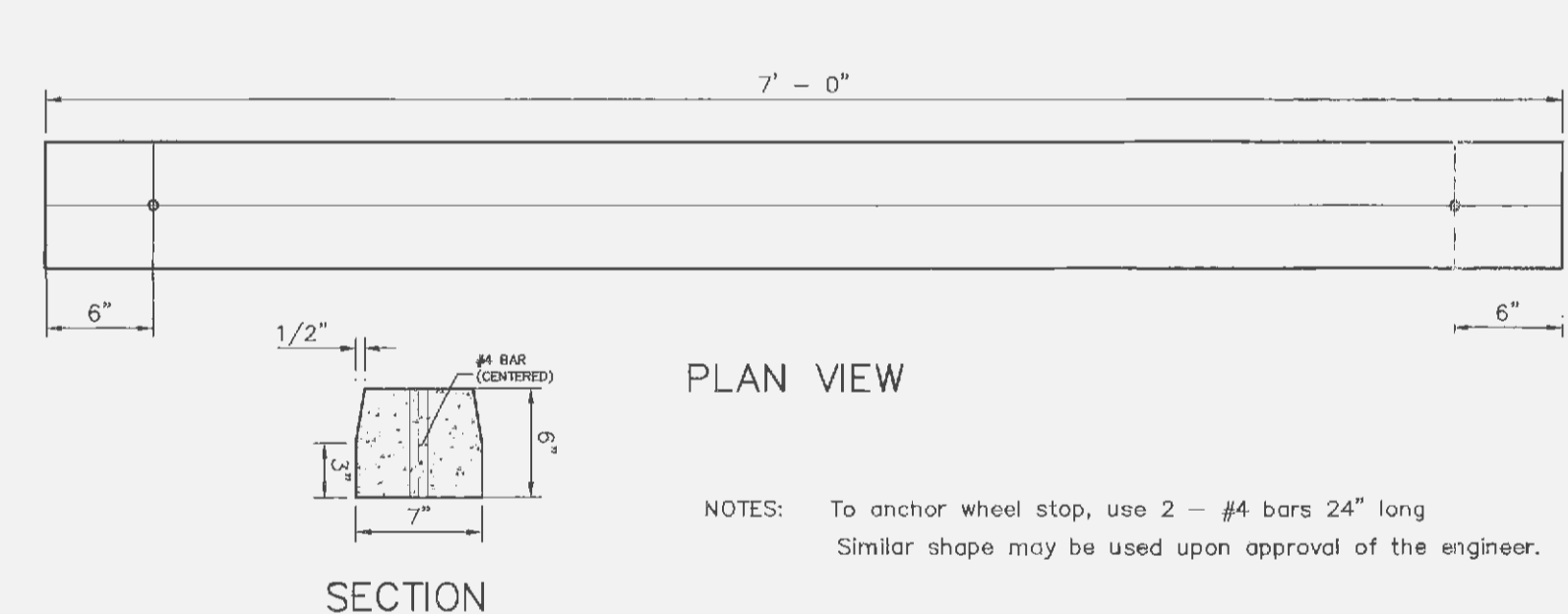
* INDICATES CRITICAL DEPTH



CONSTRUCTION SPECIFICATIONS

- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
- Thickness - Not less than six (6) inches.
- Width - Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE/WASHDOWN AREA
NOT TO SCALE

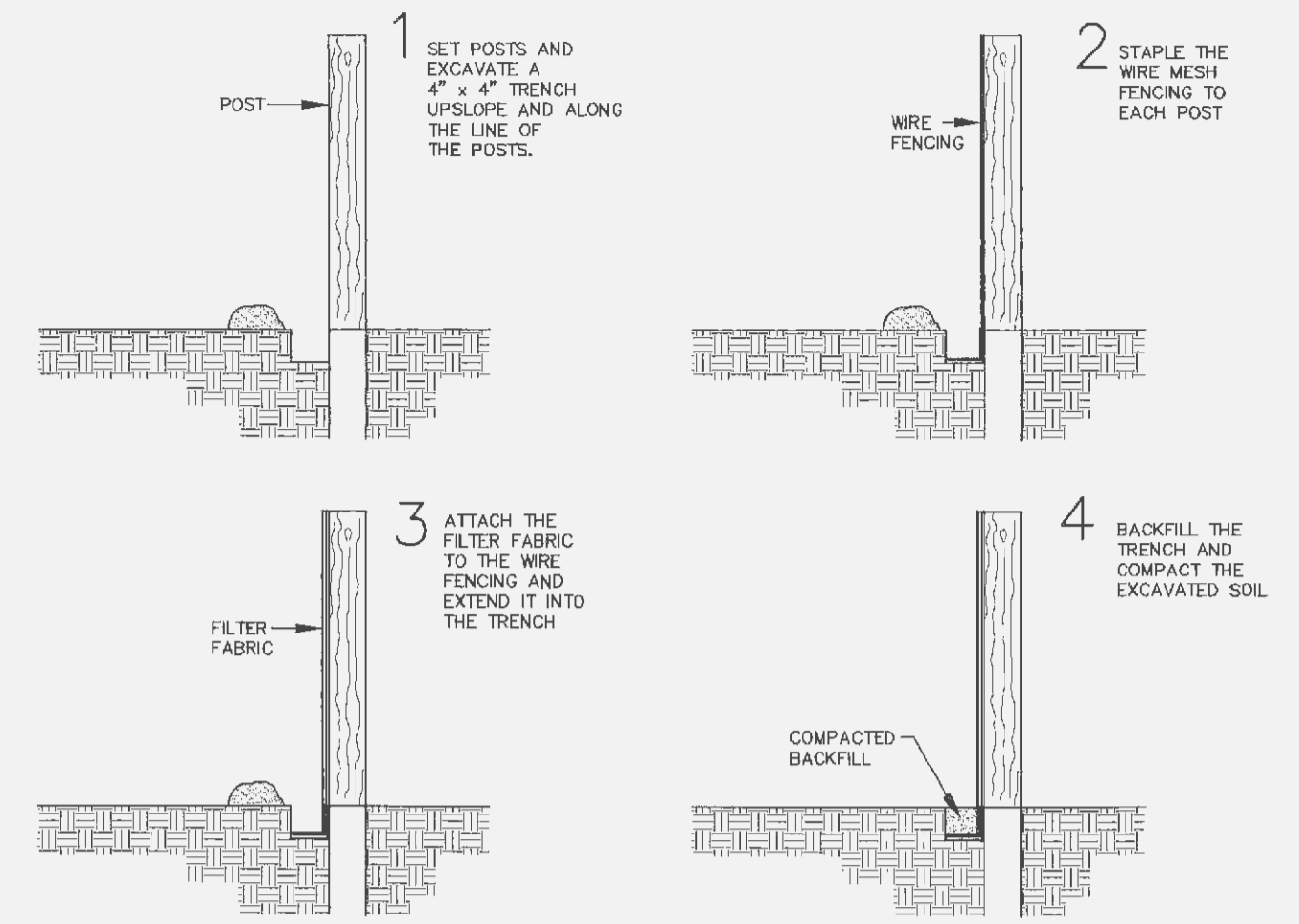


PLAN VIEW

SECTION

NOTES: To anchor wheel stop, use 2 - #4 bars 24" long. Similar shape may be used upon approval of the engineer.

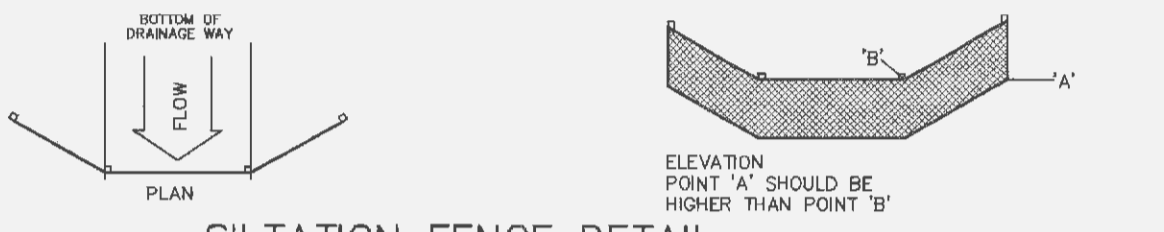
PRECAST CONCRETE WHEELSTOP



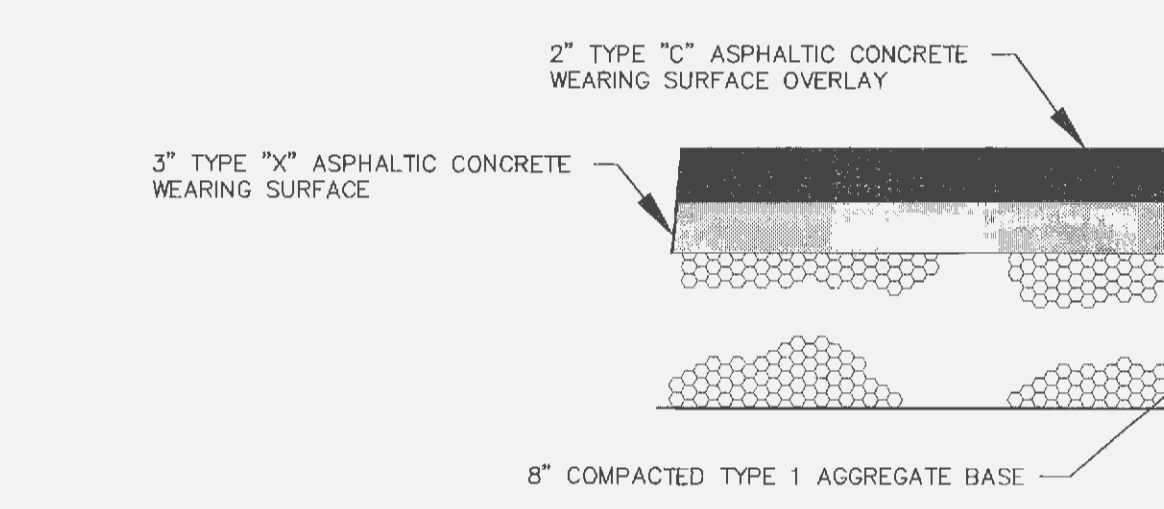
SILTATION FENCE DETAIL

- SET POSTS AND EXCAVATE A 4" x 4" TRENCH UPSLOPE AND ALONG THE LINE OF THE POSTS.
- STAPLE THE WIRE MESH FENCING TO EACH POST.
- ATTACH THE FILTER FABRIC TO THE WIRE FENCING AND EXTEND IT INTO THE TRENCH.
- BACKFILL THE TRENCH AND COMPACT THE EXCAVATED SOIL.

1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DISINTEGRATE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDDED.



ELEVATION POINT 'A' SHOULD BE HIGHER THAN POINT 'B'

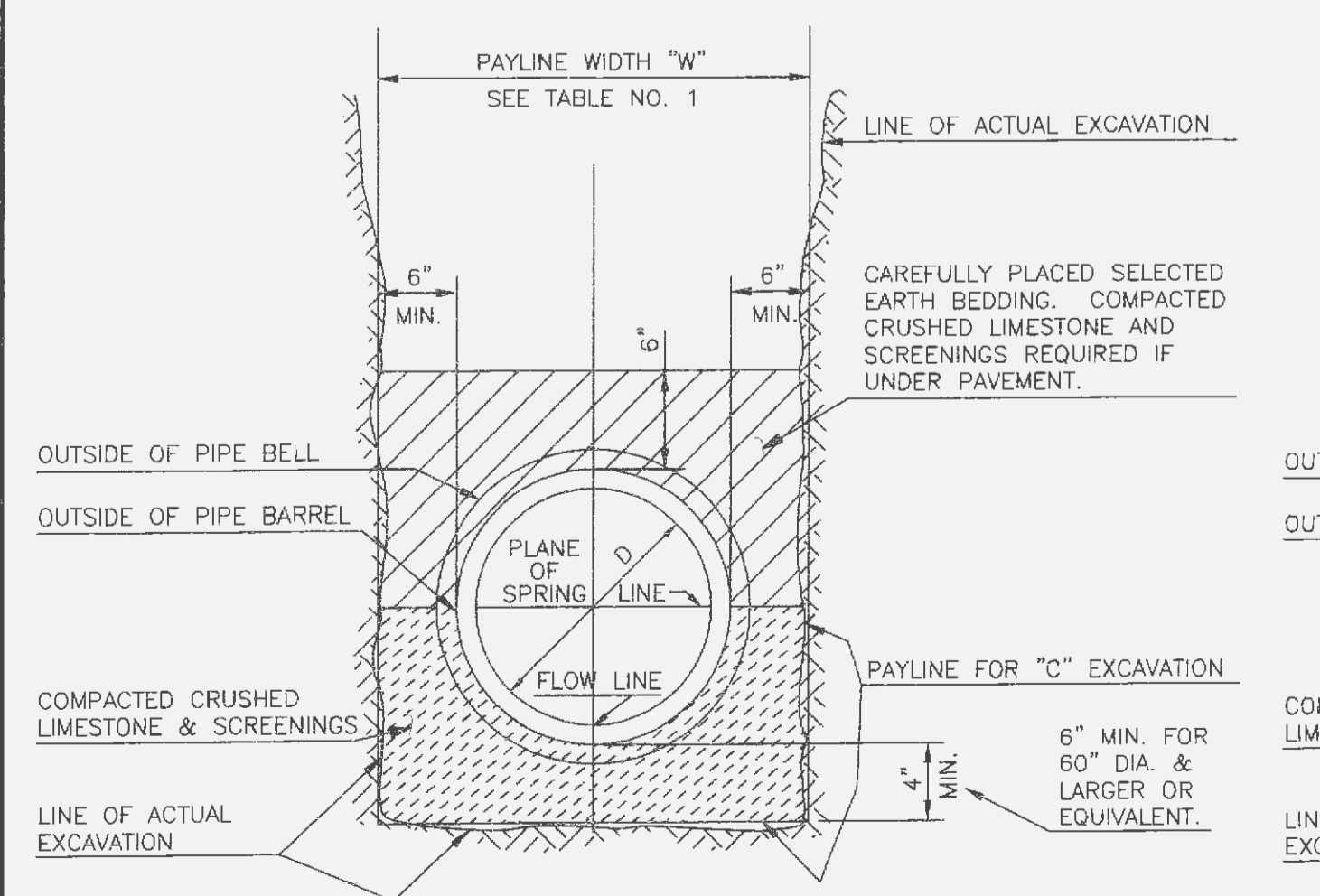


DUAL LAYERED ASPHALT PAVEMENT DETAIL
NOT TO SCALE

INSTALLATION OF WATER MAINS

ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (Inches)	"W" Payline Width of Trench (Inches)	"W" Payline Width of Trench (Feet)	Pay-volumes cu. ft. per ft. Concrete Encasement	Inside Diameter of Pipe (Inches)	"W" Payline Width of Trench (Inches)	"W" Payline Width of Trench (Feet)	Pay-volumes cu. ft. per ft. Concrete Encasement
4	28	2.33	3.20				
6	28	2.33	3.46				
8	28	2.33	3.70				
10	28	2.33	3.86				
12	28	2.33	3.98				
15	32	2.67	4.89				
18	35	2.92	5.63	14 X 23	41	3.42	5.94

TABLE NO. 1
PAYLINE WIDTHS OF TRENCH AND
PAY-QUANTITIES OF CONCRETE

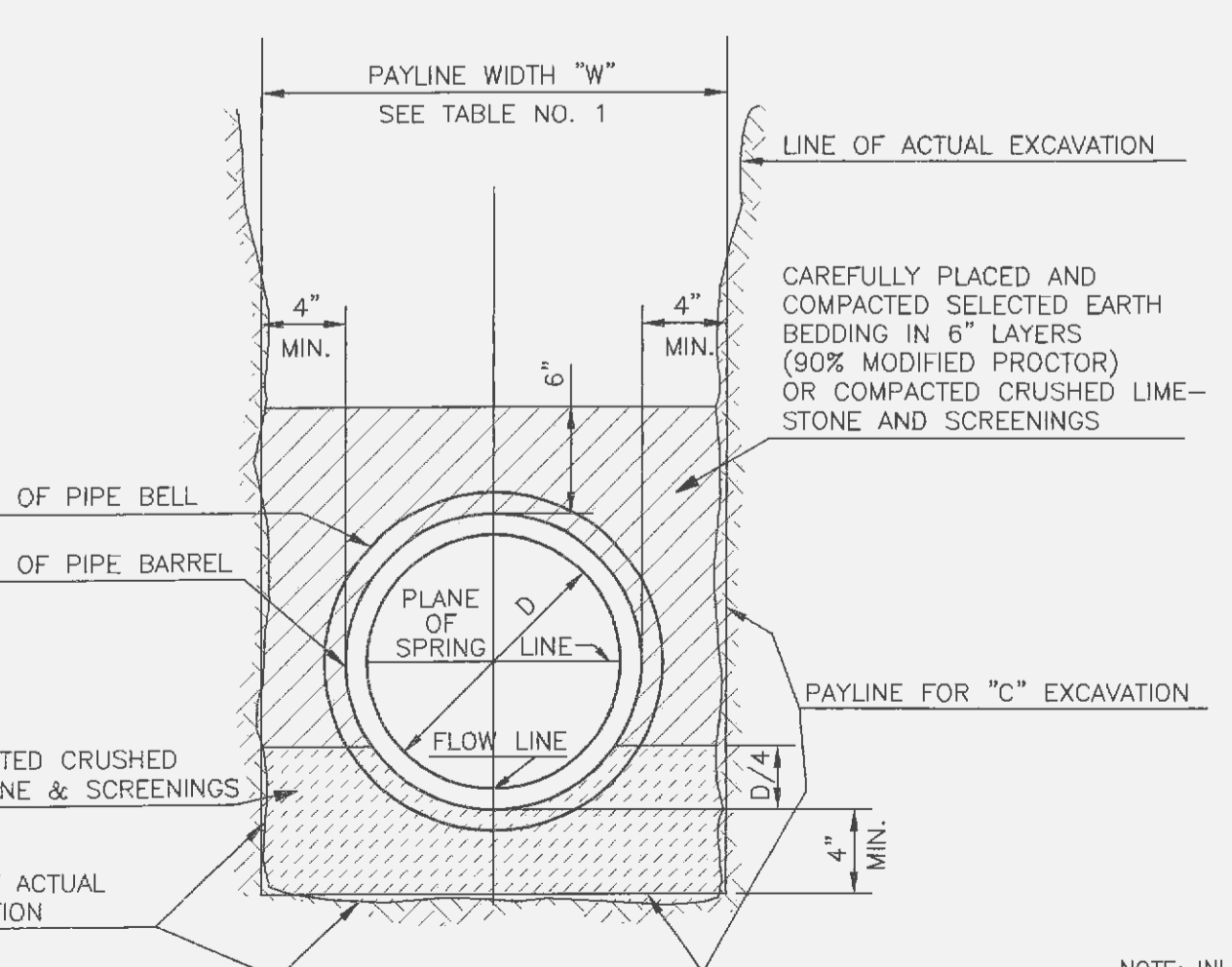


PIPE BEDDING CLASS "C"
(MODIFIED FOR REINFORCED
CONCRETE PIPE)

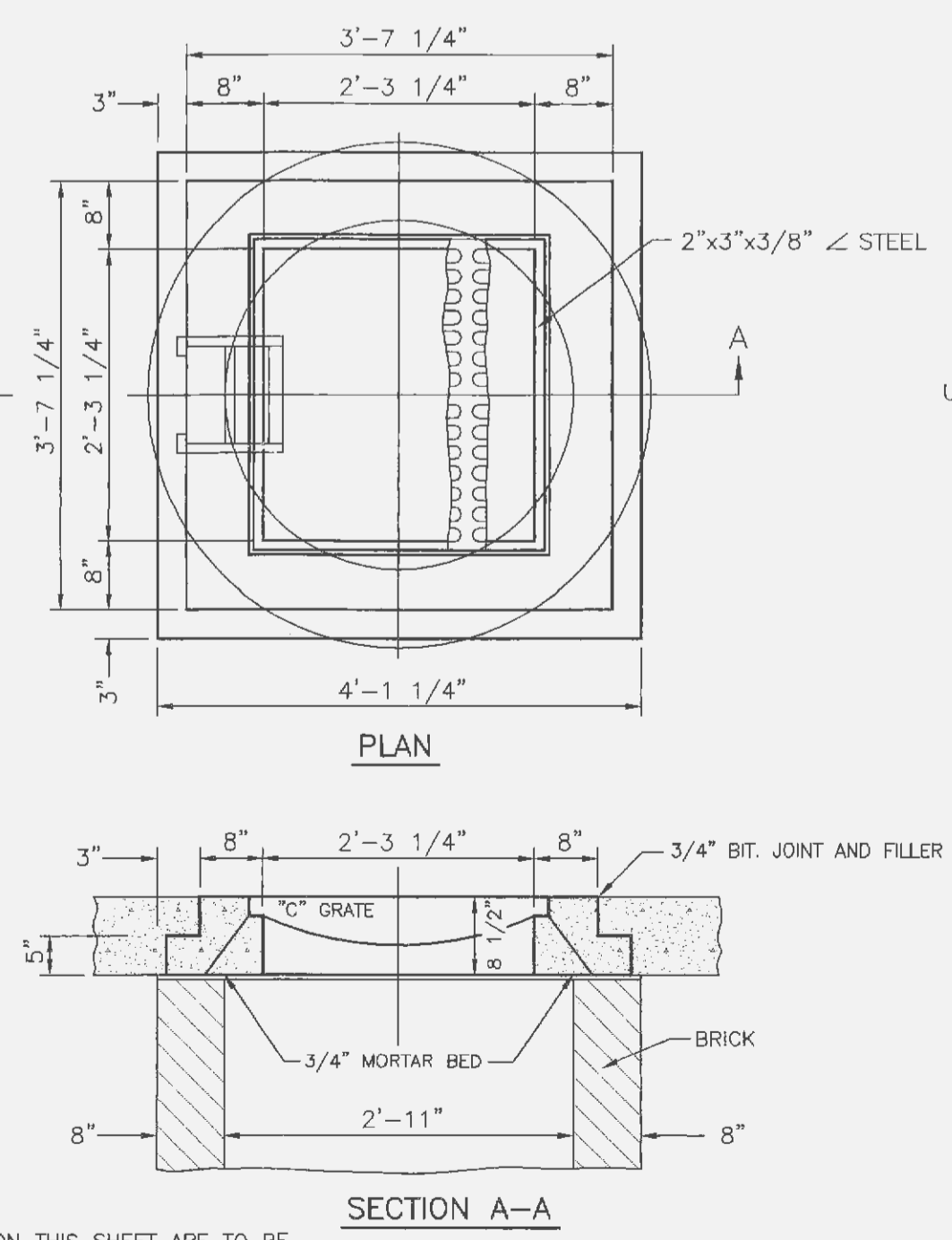


STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE. GALVANIZED U CHANNEL POST 8'-0" LONG, SET 3'-0" INTO GRADE, SET BOTTOM OF SIGN 5'-0" ABOVE FINISHED GRADE.

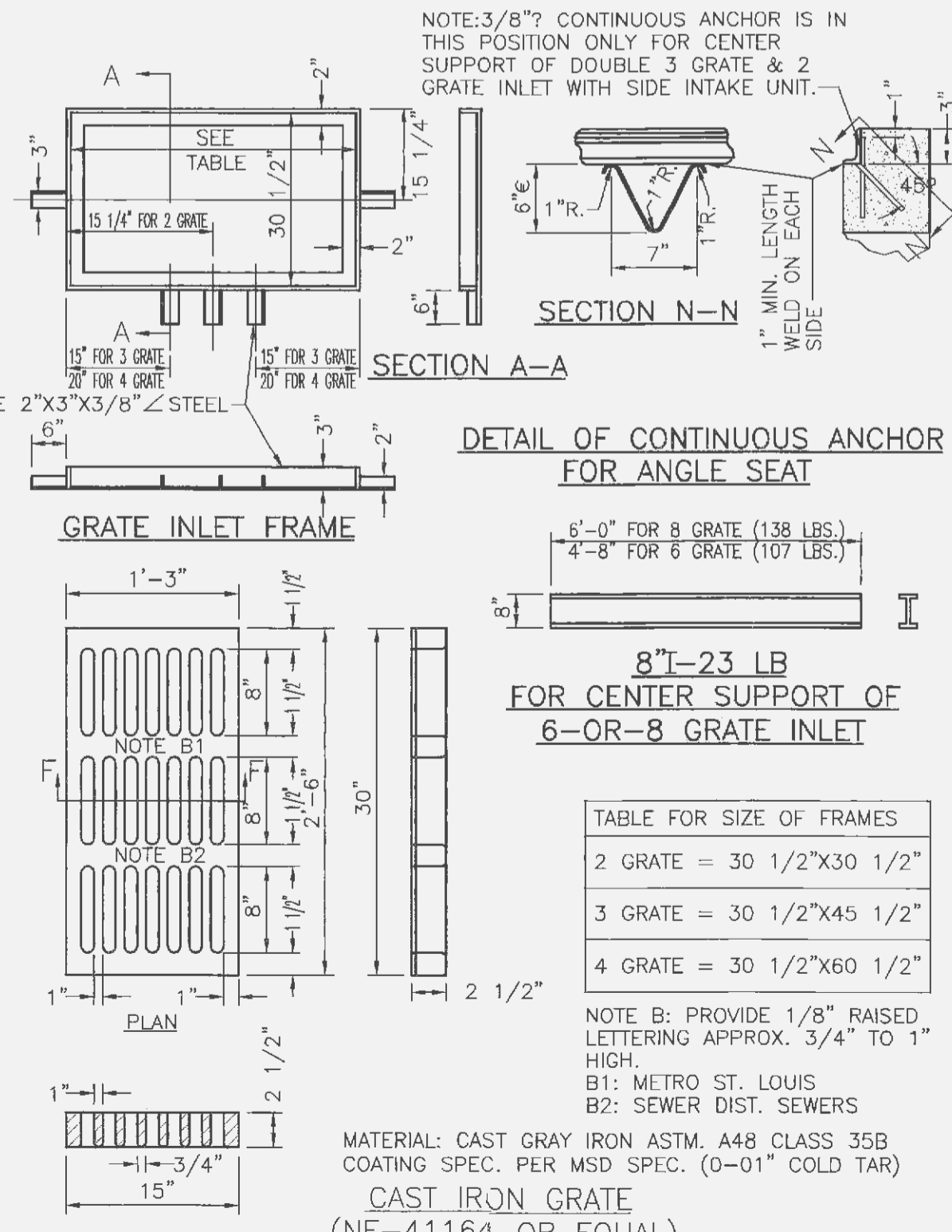
VAN ACCESSIBLE
HANDICAP PARKING SIGN



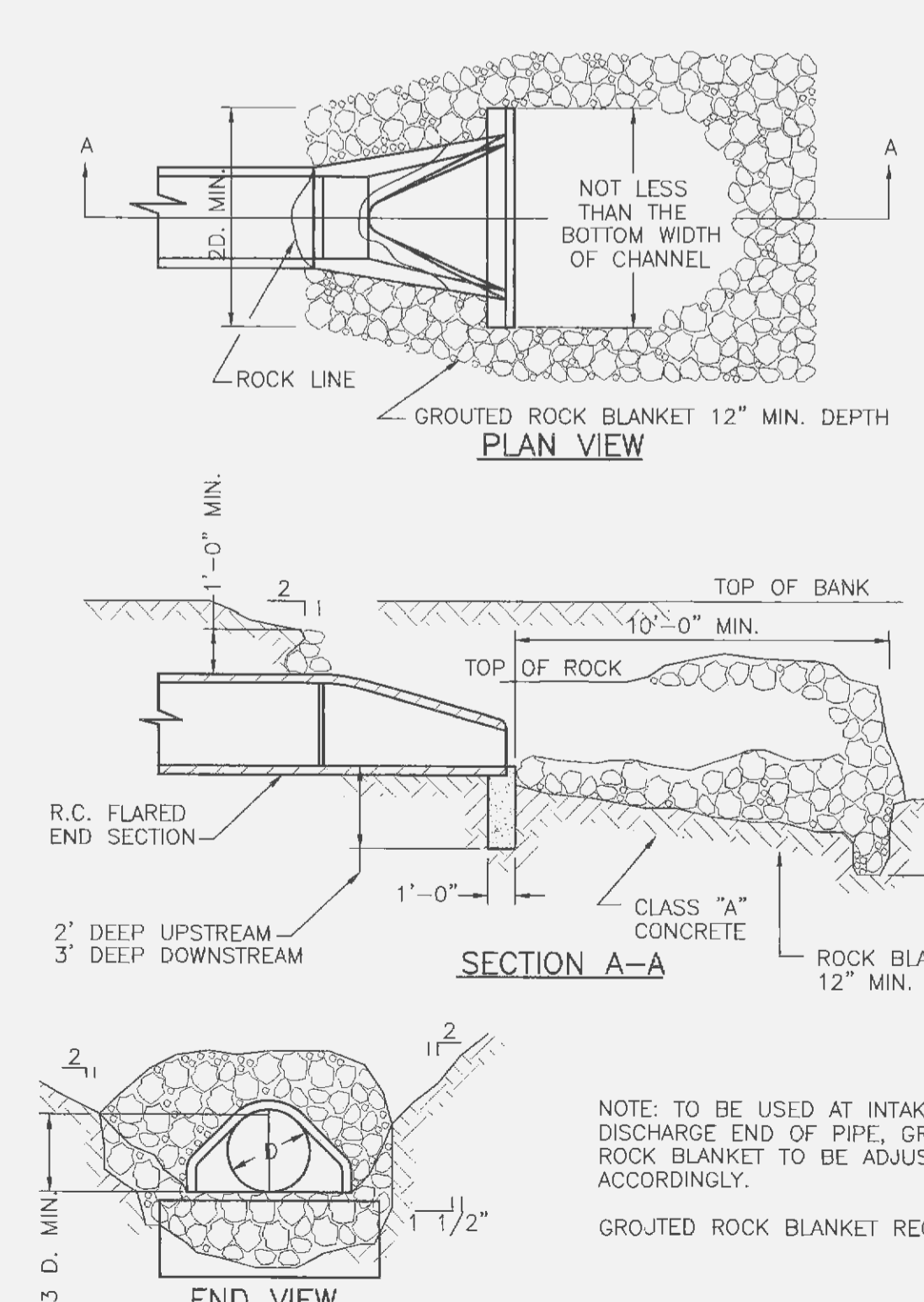
PIPE BEDDING CLASS "C"
(FOR ALL PIPE EXCEPT
REINFORCED CONCRETE PIPE)



2 GRATE INLET



DETAILS OF INLET
FRAME AND GRATES



FLARED END SECTION
O'FALLON FILE # 502.03