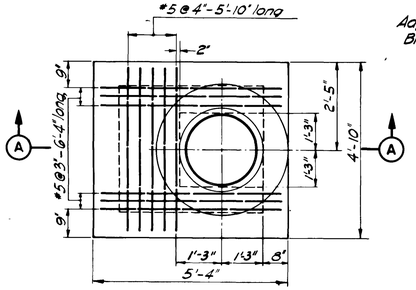
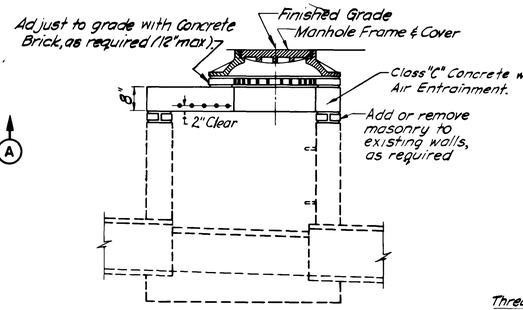


PLAN



SECTION A-A

CONVERTING EXISTING INLET TO MANHOLE

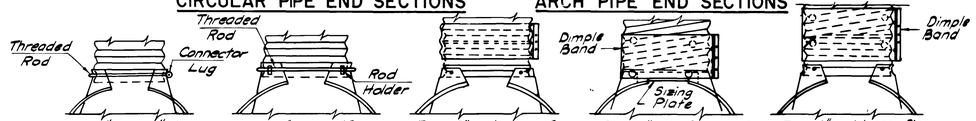
Pipe Dia.	Ga. (Min)	Dimensions A (1'±)	B (Max)	H* (1'±)	L (1½'±)	W (2'±)	Slope	Body
12".	16	6	6	6	21	24	2-½	1 Pc.
15"	16	7	8	6	26	30	2-½	1 Pc.
18"	16	8	10	6	31	36	2-½	1 Pc.
24"	16	10	13	6	41	48	2-½	1 Pc.
30"	14	12	16	8	51	60	2-½	1 Pc.
36"	14	14	19	9	60	72	2-½	2 Pc.
42"	12	16	22	11	69	84	2-½	2 Pc.
48"	12	18	27	12	78	90	2-½	2 Pc.
54"	12	18	30	12	84	102	2	2 Pc.
60"	10	18	33	12	87	114	1-¾	3 Pc.
66"	10	18	36	12	87	120	1-½	3 Pc.
72"	10	18	39	12	87	126	1-½	3 Pc.

CIRCULAR PIPE END SECTIONS

Span/Rise	Ga (Min)	Dimensions A (1'±)	B Max.	H* (1'±)	L (1½'±)	W (2'±)	Slope	Body
18"x11"	16	7	9	6	19	30	2½	1 Pc.
22"x13"	16	7	10	6	23	36	2½	1 Pc.
25"x16"	16	8	12	6	28	42	2½	1 Pc.
29"x18"	14	9	14	6	32	48	2½	1 Pc.
36"x22"	14	10	16	6	39	60	2½	1 Pc.
43"x27"	14	12	18	8	46	75	2½	1 Pc.
50"x31"	12	13	21	9	53	85	2½	2 Pc.
58"x36"	12	18	26	12	63	90	2½	2 Pc.
65"x40"	12	18	30	12	70	102	2½	2 Pc.
72"x44"	10	18	33	12	77	114	2½	3 Pc.
79"x49"	8	18	36	12	77	126	2	3 Pc.
85"x54"	8	18	39	12	77	138	2	3 Pc.

ARCH PIPE END SECTIONS

* Dimension H to be 2" for all C.M. End Sections with Stone Riprap Aprons. (May be cut to suit in the field.)



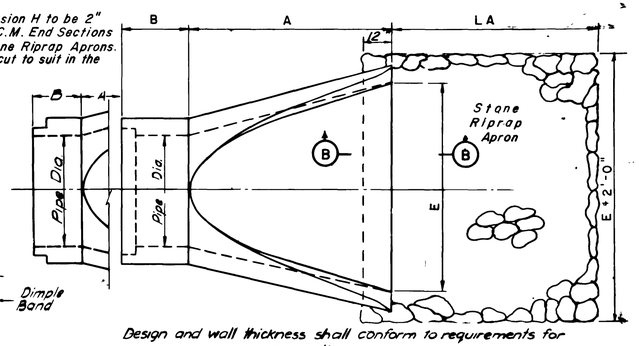
For 12" thru 24" Pipe only.

For 30" and 36" Pipe and for 18"x11" thru 58"x36" Arch.

For 42" and larger Pipe and 65"x40" and larger Arch.

For 12"x36" Pipe and for 18"x11" thru 58"x36"

For 42" and larger Pipe and for 65"x40" and larger Arch.

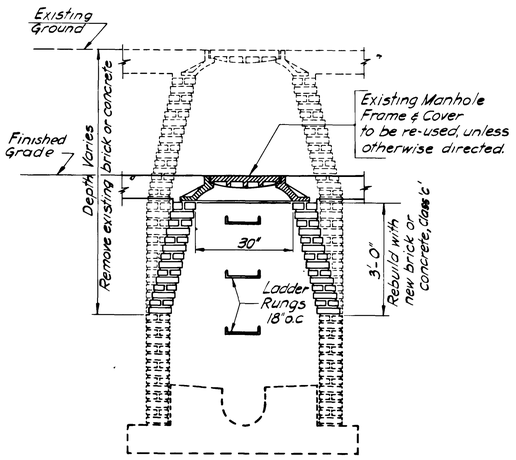


Design and wall thickness shall conform to requirements for connecting pipe.

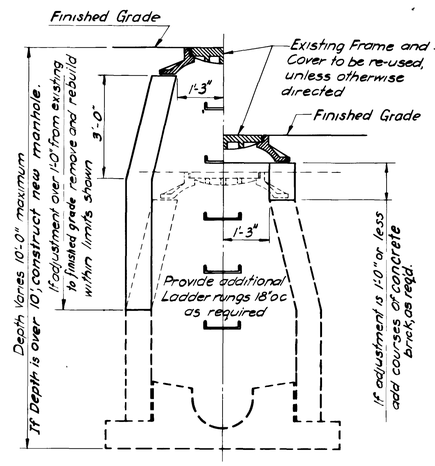
FLARED END SECTION FOR CONCRETE PIPE

Pipe Dia.	A	B	C	E	L A
12"	24"	24"	5"	24"	48"
15"	24"	24"	7½"	28"	48"
18"	24"	24"	9"	34"	54"
24"	24"	24"	10"	48"	60"
30"	30"	26"	14"	60"	72"
36"	36"	26"	14"	72"	75"
42"	60"	36"	21"	78"	78"
48"	60"	36"	24"	84"	84"
54"	60"	36"	27"	90"	90"
60"	60"	36"	31"	96"	96"
72"	63"	36"	36"	108"	108"

C - Dimension is vertical height of section at end of flare.

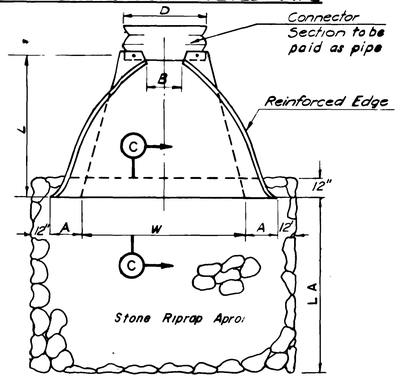


LOWERING EXISTING MANHOLE



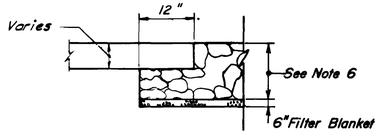
RAISING EXISTING MANHOLE

CONNECTIONS FOR RIVETED PIPE

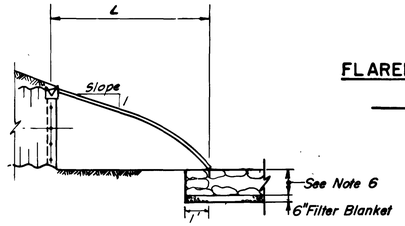


PLAN

CONNECTIONS FOR HELICALLY CORRUGATED PIPE



SECTION B-B

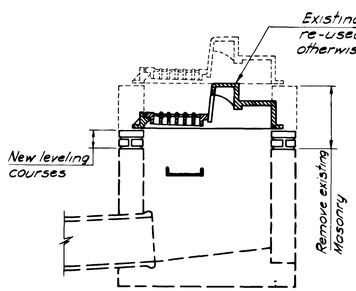


SECTION C-C

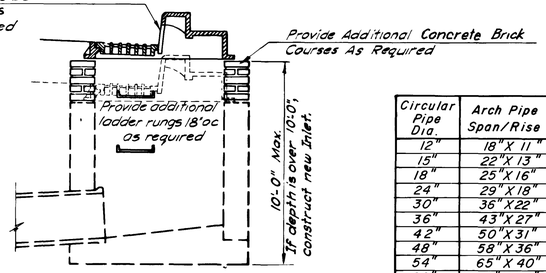
TABLE OF DIMENSIONS FLARED END SECTIONS FOR CONCRETE PIPE WITH STONE RIPRAP APRON

NOTES:

1. Ladder Rungs to be provided in all drop inlets over 4' deep.
2. Frames to be reset in a full bed of stiff mortar.
3. Stone Riprap Aprons are req'd. with Flared End Sections for all pipes larger than 18" diameter, and where specified on the Plans.
4. C.M. Flared End Sections specified without Stone Riprap Aprons shall be furnished with Toe Plate Extensions.
5. If called for in the Supplemental Specifications, Filter Fabric is to be used in lieu of Filter Blanket.
6. For thickness, Gradation and payment of Stone Riprap Apron, See Standard Drawing DR-8.



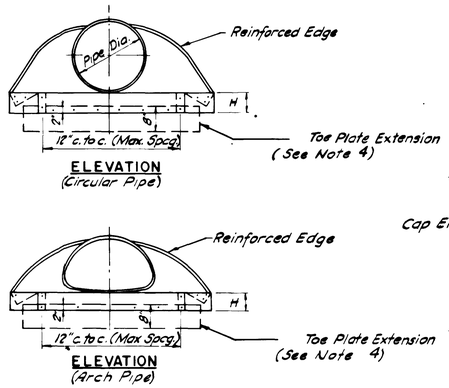
LOWERING EXISTING INLET



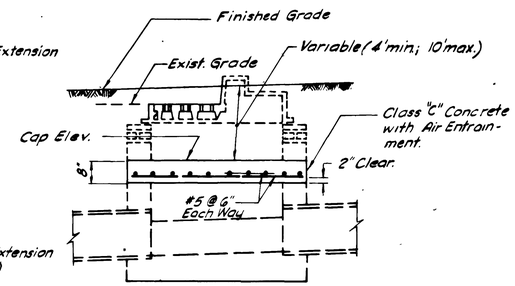
RAISING EXISTING INLET

Circular Pipe Dia.	Arch Pipe Span/Rise	L A
12"	18"X 11"	48"
15"	22"X 13"	48"
18"	25"X 16"	54"
24"	29"X 18"	60"
30"	36"X22"	72"
36"	43"X 27"	75"
42"	50"X 31"	85"
48"	58"X 36"	90"
54"	65"X 40"	102"
60"	72"X 44"	114"
66"	79"X 49"	126"
72"	85"X 54"	138"

DIMENSION LA FOR STONE RIPRAP APRON WITH C.M.P. FLARED END SECTIONS



FLARED END SECTIONS FOR CORRUGATED METAL PIPES



CAPPING EXISTING DRAINAGE STRUCTURE

NOTE: Manholes to be capped in a similar manner.

0 ½ 1 2 3 4

ORIGINAL SIZE IN INCHES

APP.	NO.	DATE	REVISION
	1	5/88	Minor Revisions
		3/87	Reissued, Conforms to 1987 Specs.

NEW JERSEY TURNPIKE AUTHORITY

NEW JERSEY TURNPIKE

ALTERATIONS OF MANHOLES AND INLETS & MISC. DETAILS

OFFICE OF THE CHIEF ENGINEER
NEW BRUNSWICK NEW JERSEY

1987 STANDARD DRAWING DR-4

CONTRACT NO. SHEET NO. OF