

Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

Consultants



T.B.P.E. FIRM REGISTRATION NO. F - 303

PHONE 972-717-5151 FAX 972-717-2178
4500 FULLER DRIVE - SUITE 220 IRVING, TEXAS 75038

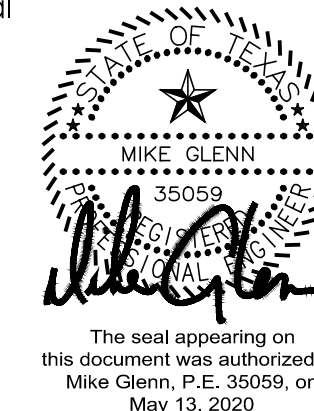
Notes



8 - RH #40	RAH	CMG	2020.05.13
7 - RH #79 - FC 20 - REV	RAH	CMG	2020.03.13
6 - RH #116 AND #117	RAH	CMG	2020.01.13
5 - RH #20 AND #21	RAH	CMG	2019.07.23
4 - RH #16	RAH	CMG	2019.07.12
3 - CITY COMMENTS	RAH	CMG	2019.04.30
2 - ASI #1 -CITY COMMENTS	RAH	CMG	2019.04.02

100%CD - For Bidding and Construction	RAH	CMG	2019.03.01
Issued	By	Appd	YYYY.MM.DD

Permit-Seal



Client/Project

Rockwall ISD

Elementary School #15

2911 Greenway Drive
Rockwall, TX 75087

Title

**STORM
DETAILS 4**

Project No.

214000654

Revision

8

Scale

AS SHOWN

Drawing No.

C

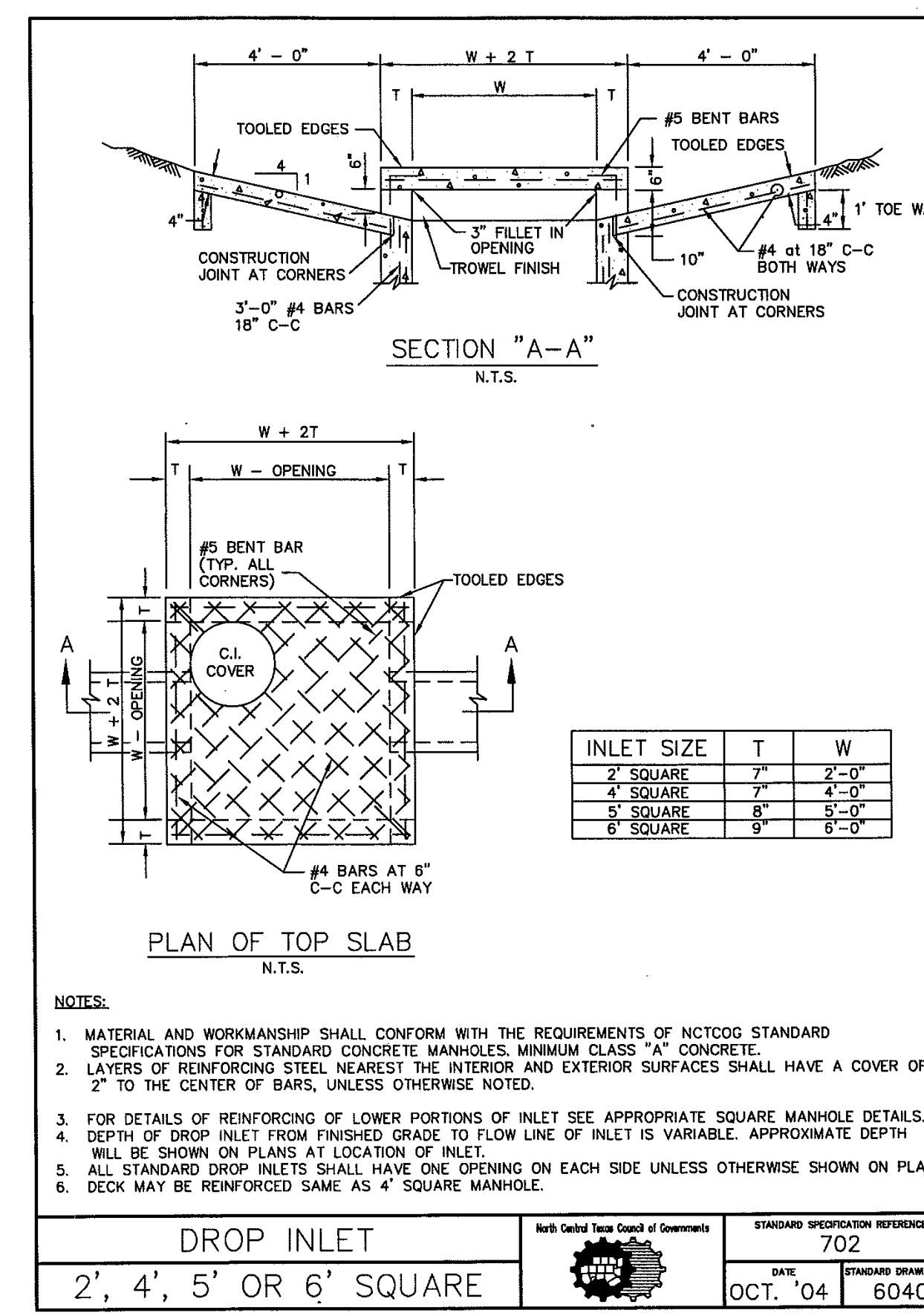
05.16



8

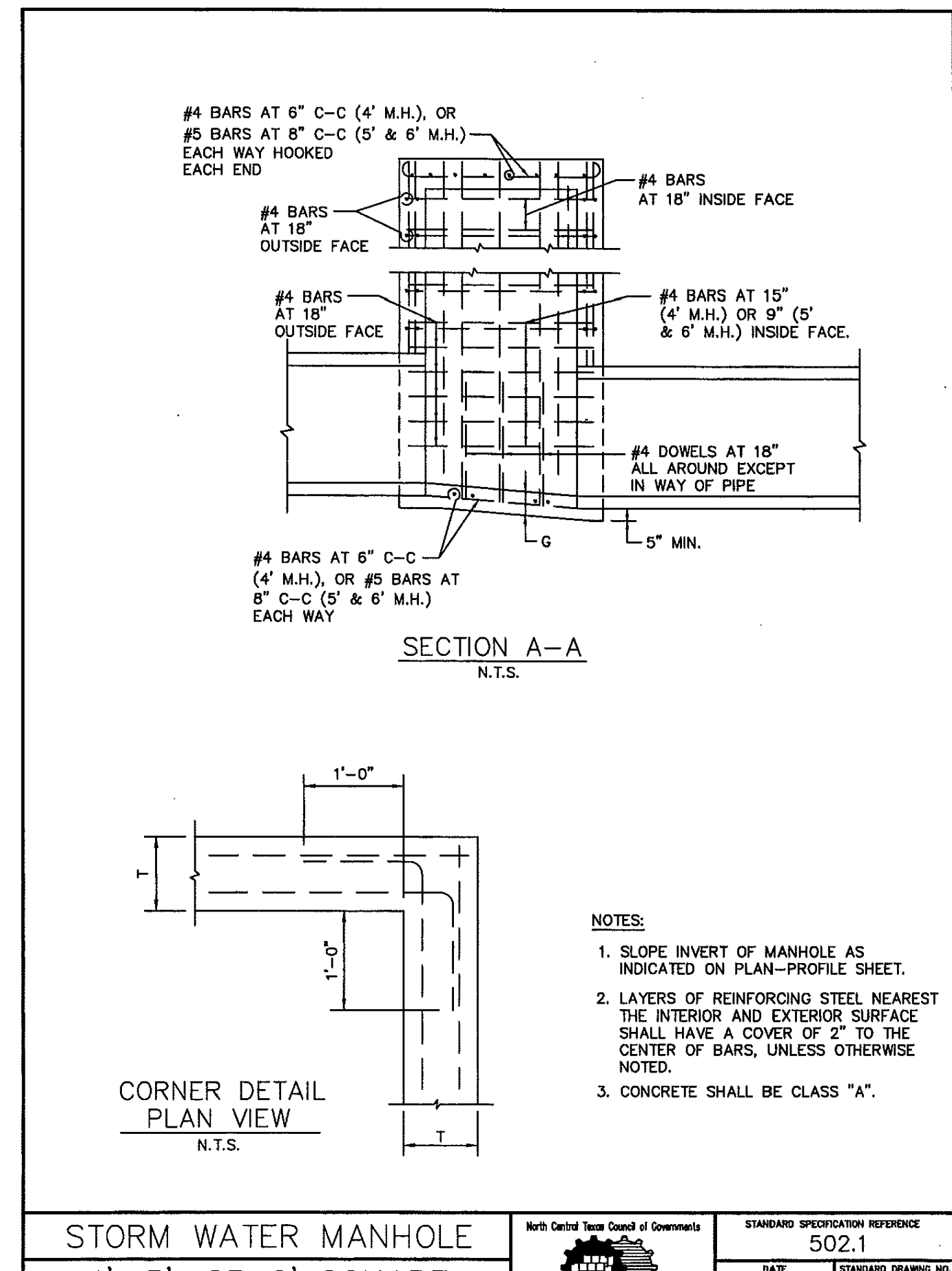
C

05.16



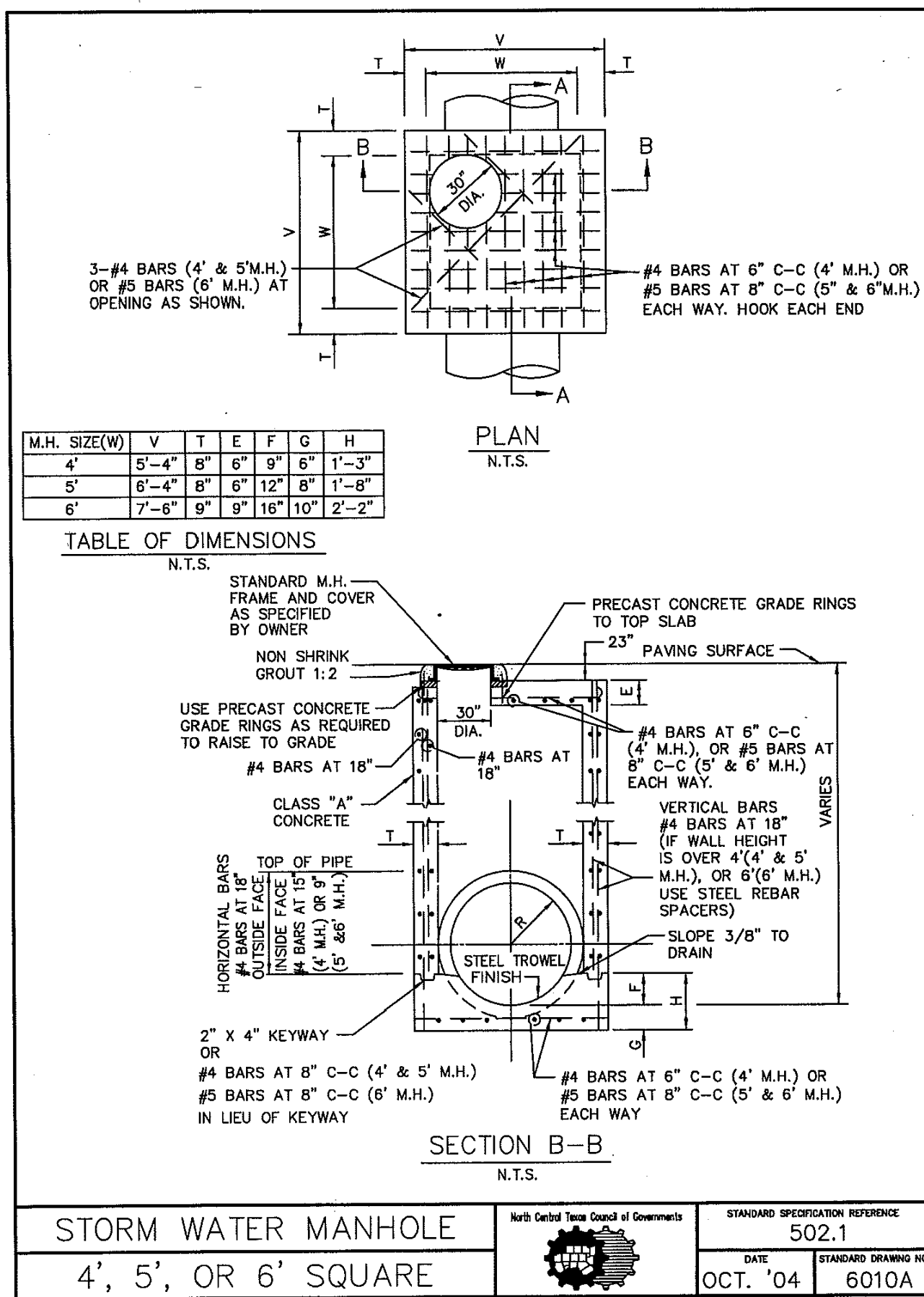
NOTES:
1. MATERIAL AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF NCTCOG STANDARD SPECIFICATIONS FOR STANDARD CONCRETE MANHOLES, MINIMUM CLASS "A" CONCRETE.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACES SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. FOR DETAILS OF REINFORCING OF LOWER PORTIONS OF INLET SEE APPROPRIATE SQUARE MANHOLE DETAILS.
4. DEPTH OF DROP INLET FROM FINISHED GRADE TO FLOW LINE OF INLET IS VARIABLE. APPROXIMATE DEPTH WILL BE SHOWN ON PLANS AT LOCATION OF INLET.
5. ALL STANDARD DROP INLETS SHALL HAVE ONE OPENING ON EACH SIDE UNLESS OTHERWISE SHOWN ON PLANS.
6. DECK MAY BE REINFORCED SAME AS 4' SQUARE MANHOLE.

*MODIFICATIONS
1. ALL CONCRETE STRUCTURES SHALL BE CLASS F (4200 PSI, MINIMUM 6.5 SACK CEMENT)
2. NO FLY ASH ALLOWED IN CONCRETE FOR STRUCTURES

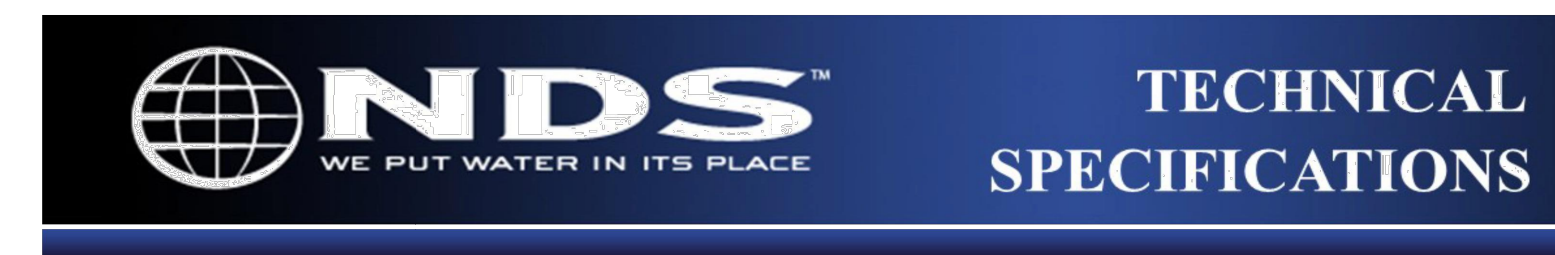


NOTES:
1. SLOPE INVERT OF MANHOLE AS INDICATED ON PLAN-PROFILE SHEET.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACE SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. CONCRETE SHALL BE CLASS "A".

*MODIFICATIONS
1. ALL CONCRETE STRUCTURES SHALL BE CLASS F (4200 PSI, MINIMUM 6.5 SACK CEMENT)
2. NO FLY ASH ALLOWED IN CONCRETE FOR STRUCTURES



*MODIFICATIONS
1. ALL CONCRETE STRUCTURES SHALL BE CLASS F (4200 PSI, MINIMUM 6.5 SACK CEMENT)
2. NO FLY ASH ALLOWED IN CONCRETE FOR STRUCTURES



18" x 18" Square Grate

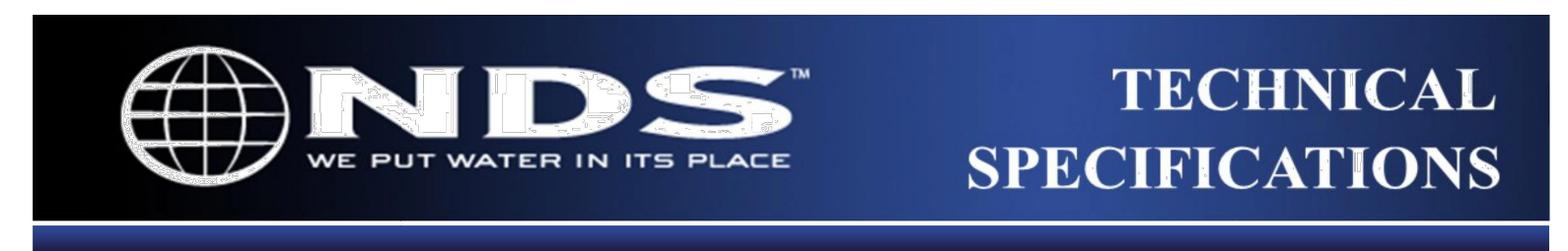
Part #: 1810, 1811 and 1812
Material: (HDPE) High Density Polypropylene
Color: #1810 (Gray), #1811 (Black) and #1812 (Green)
Fits: Catch Basin #1882, #1884, #1800, #1804, #1816, #1830 and #1840.
Grate Opening: 7/16"
Open Surface Area: 86.31 Sq. Inches
Head Pressure / Flow Rate:
Head (inches) - Max Flow
1" = 373.40 GPM
1/2" = 264.03 GPM
UV inhibitor.
Weigh Per Each: 7.71 lbs.
Made in USA.

Load Recommendation Guide

Class B

- Loads of 61-175 psi.
- Recommended for medium-duty pneumatic tire traffic, autos and light trucks at speeds less than 20 m.p.h.

ADA Compliant



18" ONE PIECE CATCH BASIN

Material: UV Protected High Density Polyethylene (HDPE)
Weight: 9.65 lbs
Colors: Black

- 18" One Piece Catch Basin with 2 Openings (1882)
Includes 2 #1890 Reducer Rings
- 18" One Piece Catch Basin with 4 Openings (1884)
Includes 4 #1890 Reducer Rings

Requires either #1206, #1242, #1245, #1266, #1888, or #1889 universal outlet to connect pipe

Precast Drainage Structures

Pipe Dia. (in)	Slope	"D" (in)	"E" (in)	"H" (in)	"J" (in)	"L" (in)	"M" (in)	Weight (Lbs.)
12	3:1	17,000	17,500	28,00	28,250	34,500	0.75	1,328
	4:1	17,000	17,500	28,00	28,250	46,000	0.75	1,558
	6:1	17,000	17,500	28,00	28,250	69,000	0.75	2,017
15	3:1	20,500	17,500	28,00	28,250	34,500	0.75	1,243
	4:1	20,500	17,500	28,00	28,250	46,000	0.75	1,472
	6:1	20,500	17,500	28,00	28,250	69,000	0.75	1,931
18	3:1	24,000	21,000	30,00	30,000	45,000	1.00	1,751
	4:1	24,000	21,000	30,00	30,000	60,000	1.00	2,018
	6:1	24,000	21,000	30,00	30,000	80,000	1.00	2,631
24	3:1	31,000	27,500	37,00	37,000	64,500	1.50	2,831
	4:1	31,000	27,500	37,00	37,000	86,000	1.50	3,398
	6:1	31,000	27,500	37,00	37,000	129,000	1.50	4,818
30	3:1	38,500	34,500	41,00	44,500	85,500	2.25	4,082
	4:1	38,500	34,500	41,00	44,500	114,000	2.25	5,082
	6:1	38,500	34,500	41,00	44,500	171,000	2.25	7,080
36	3:1	45,500	41,000	47,00	51,500	105,000	2.50	5,544
	4:1	45,500	41,000	47,00	51,500	140,000	2.50	6,827
	6:1	45,500	41,000	47,00	51,500	210,000	2.50	8,722

Note:
1. The Safety End Treatment option shown on this sheet should only be utilized in the following instances:
A.) On cross-drainage structures for 36" or smaller diameter pipes.
B.) On parallel-drainage structures for 30" or smaller pipes.
2. Cross & Parallel drainage structures larger than the requirements listed above shall utilize other safety end treatment designs shown elsewhere in the plans.
3. All exposed corners shall be chamfered 3/4".
4. Manufacture of this product shall conform to the requirements of Item 487 except that minimum reinforcing shall be #4 @ 6" (Grade 40) or #4 @ 9" (Grade 60) each way or 6 x 6 - W12 x W12 or 5 x 5 - W10 x W10 welded wire fabric.
5. Concrete for precast (steel formed) sections shall be a minimum of Class "C" (4,000 psi).
6. At the option and expense of the contractor, the next larger size of Safety End Treatment may be furnished as long as the "D" dimension cast is that of the required size of pipe.

-No Scale-
All dimensions subject to allowable specification tolerances.

TITLE	PLANT	STATE	SECTION/PAGE	DATE
Precast Safety End Treatment For Reinforced Concrete Pipe	Grand Prairie Houston	TX	7.4	Feb 2016

851 N. Harvard Avenue
Emeryville, CA 94647
888-726-1994

Visit ndspro.com for specs, detail drawings, and case studies.

851 N. Harvard Avenue
Emeryville, CA 94647
888-726-1994

Visit ndspro.com for specs, detail drawings, and case studies.

NCTCOG DETAILS HAVE BEEN MODIFIED BY THE CITY OF ROCKWALL. SEE NOTES DESIGNATED *MODIFICATIONS FOR THOSE REVISED.

Plotted: Jun 1, 2020, 2:33 PM by user: john - Saved: 7/12/2019 by user: john
R:\ROCKWALL\STONE CREEK ELEM\BID\SET\STONE CREEK DETAILS ONLY.dwg