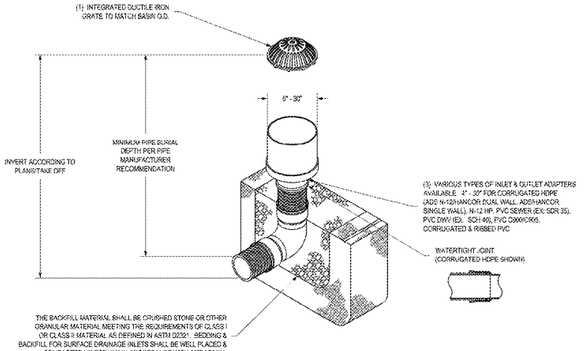
NYLOPLAST INLINE DRAIN WITH DOME GRATE



1 - 6" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 65-45-12.
2 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12HANCOR DUAL WALL), N-12 HP, & PVC SEWER (SDR 35).
3 - 6" - 30" DOME GRATES HAVE NO LOAD RATING

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONVEY, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TOOLING INFORMATION IN WHOLE OR PART. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY	EBG	MATERIAL
DATE	03-25-10	
APPD BY	CCA	PROJECT NO. NAME
DATE	05-27-13	
DWG SIZE	A	SCALE: 1:40 SHEET 1 OF 1

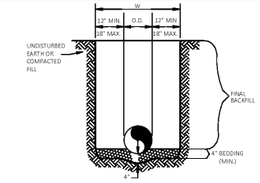
Nyloplast — 2400 VERONA AVE, BUFORD, GA 30518, PHN (770) 932-2442, FAX (770) 932-2499, www.nyloplast-us.com

TITLE: INLINE DRAIN WITH DOME GRATE — QUICK SPEC INSTALLATION DETAIL

DWG NO. 7003-110-DET — REV C

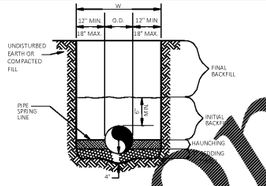
23A

RIGID PIPE



N.T.S. 28A

FLEXIBLE PIPE



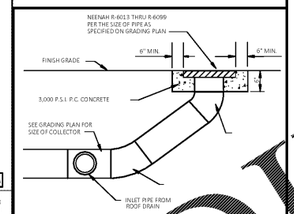
N.T.S. 28A

GENERAL NOTES:

1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR. (SEE SPECIFICATIONS FOR GRADATION)
2. HAUNCHING SHALL BE WORKED AROUND BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS II COMPACTED TO 85% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND OR CLASS I-B OR LIGHT COMPACTED TO 85% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III OR MATERIAL NOT CONTAINING ROCK LARGER THAN 6" COMPACTED AS NEEDED IN NOTE 4.
5. FINAL BACKFILL SHALL BE CLASS I, II OR III COMPACTED AS NEEDED IN NOTE 4.
7. ALL MATERIALS SHALL BE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
8. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 5".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

STORM SEWER TRENCH AND BEDDING

N.T.S.

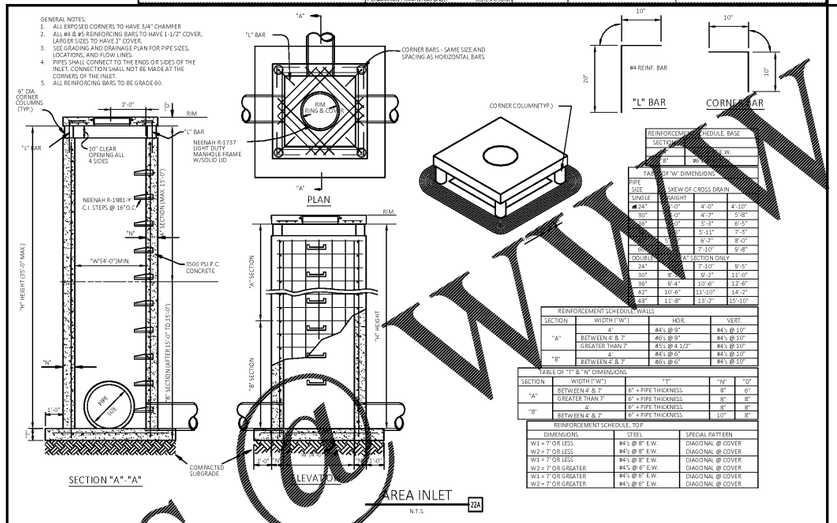


STORM DRAIN CLEAN-OUT

N.T.S. 27A

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT THE CORNERS OF THE INLET.
5. ALL REINFORCING BARS TO BE GRADE 60.



REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 8" E.W.
"B"	#5's @ 8" E.W.

TABLE OF 'W' DIMENSIONS

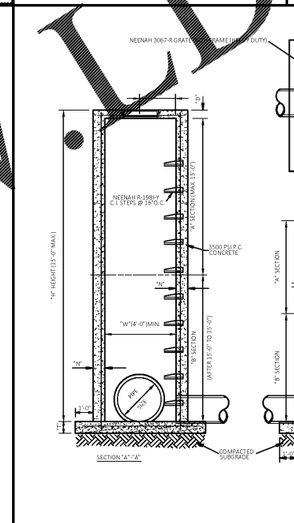
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT		
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-4"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-4"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 8"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 8"	#4's @ 10"

TABLE OF "T" & "N" DIMENSIONS

SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	8" + PIPE THICKNESS	8"	8"
"B"	4'	8" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	8" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER



GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF INLET.
5. ALL REINFORCING BARS TO BE GRADE 60.

REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.
"B"	#5's @ 6" E.W.

TABLE OF 'W' DIMENSIONS

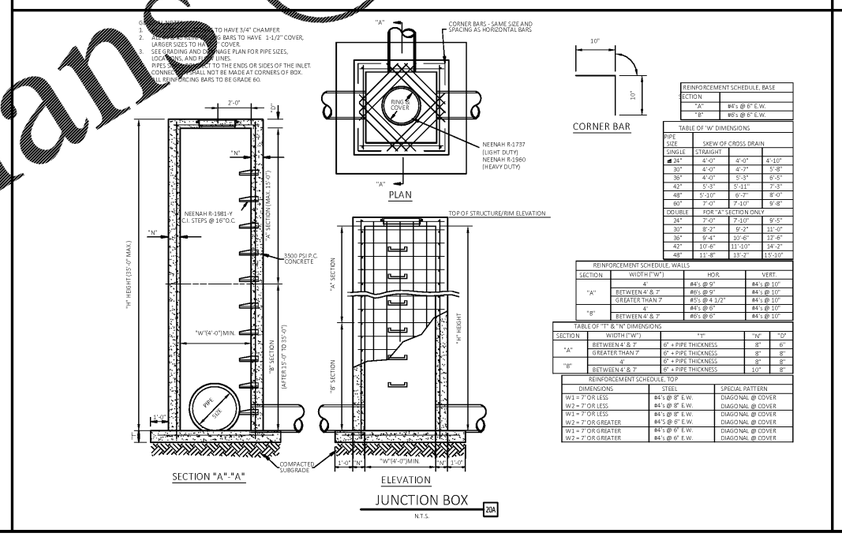
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT		
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-4"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-4"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 8"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 8"	#4's @ 10"

TABLE OF "T" & "N" DIMENSIONS

SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	8" + PIPE THICKNESS	8"	8"
"B"	4'	8" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	8" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER



REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.
"B"	#5's @ 6" E.W.

TABLE OF 'W' DIMENSIONS

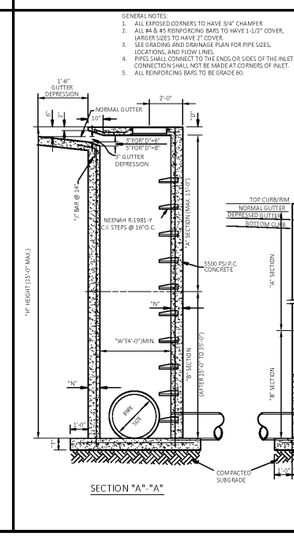
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT		
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-4"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-4"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 8"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 8"	#4's @ 10"

TABLE OF "T" & "N" DIMENSIONS

SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	8" + PIPE THICKNESS	8"	8"
"B"	4'	8" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	8" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER



REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.
"B"	#5's @ 6" E.W.

TABLE OF 'W' DIMENSIONS

PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT		
24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-4"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-4"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 8"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 8"	#4's @ 10"

TABLE OF "T" & "N" DIMENSIONS

SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	8" + PIPE THICKNESS	8"	8"
"B"	4'	8" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	8" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7'-0" OR GREATER	#4's @ 8" E.W.	DIAGONAL @ COVER

Order Plans @ WWW.LDline.com

JOB # 29944 DRAWING: 29944-CS.dwg LAST SAVED BY: RHARTY

CEI Engineering Associates, Inc.
Civil Engineers • Land Planners • Surveyors
1004 Corporate Exchange Drive, Suite 200, Morrisville, NC 27560
(919) 463-0999 FAX (919) 463-0998
License # C-0832

Firestone COMPLETE AUTO CARE

THIS DRAWING IS THE PROPERTY OF BRIDGESTONE RETAIL OPERATIONS, LLC AND IS LOANED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY FURNISHED, AND THAT ITS USE IS NOT TO BE GRANTED TO ANY PERSON, FIRM OR CORPORATION WITHOUT THE PRIOR WRITTEN ACCEPTANCE OF THIS DRAWING BY BRIDGESTONE RETAIL OPERATIONS, LLC.

NEW FCAC STORE
8-BAY-FCAC-ER-RIGHT
1900 RICHMOND RD
WILLIAMSBURG, VA

6 DIGIT NO.: 785533
4 DIGIT NO.: 6868
ENTITY ID NO.: 756595
SITE ID NO.: 1412
PROPERTY NO.: 167739

FILE NAME: 29944-CS.dwg
CEI PROJECT NUMBER: 29944
REVISION: REV-1 DATE: 08/14/17

SHEET TITLE:
DETAIL SHEET III

CEI JOB NUMBER 29944

SHEET NUMBER:
C12