

**CITY OF ISLE OF PALMS, SOUTH CAROLINA  
REQUEST FOR BIDS (RFB) 2021.02  
34TH AND HARTNETT DRAINAGE PROJECT**

The City of Isle of Palms is seeking bids from qualified contractors for the installation of drainage infrastructure and grading to address a drainage issue at the intersection of Hartnett Boulevard and 34<sup>th</sup> Avenue. During rain events, stormwater puddles in this intersection and this work would provide a passageway for the stormwater to enter an existing inlet in the 34<sup>th</sup> Avenue right-of-way adjacent to 3401 Hartnett Boulevard. This request is being made and awarded pursuant to the City's procurement ordinance. The City reserves the right to reject any and all proposals and to waive irregularities.

Proposals should be submitted to the following:

Douglas Kerr  
Director of Building and Planning  
City of Isle of Palms  
1207 Palm Boulevard  
Post Office Box 508  
Isle of Palms, South Carolina 29451

**Deadline for Questions**

The deadline for questions is 5:00pm, Eastern Time, April 12, 2021. Bidders should send questions regarding this Request for Bids to Douglas Kerr, Director of Building and Planning, in writing or email to [dkerr@iop.net](mailto:dkerr@iop.net). Questions received before this deadline will be answered via addendum posted on the City's website at <http://www.iop.net/requests-for-bids-proposals>. Questions received after this deadline will not be answered.

If an addendum is issued, Bidders must acknowledge receipt of the addendum with their bid.

**Deadline for Submissions**

The deadline for submission is 10:30am, local time April 23, 2021. Bids will be received at 1207 Palm Boulevard, Isle of Palms, South Carolina 29451 in a sealed envelope. Sealed envelopes must be clearly marked "RFB 2021.02- 34<sup>th</sup> and Hartnett Drainage Project" and include one (1) hard copy and one (1) electronic copy saved to a USB flash drive. It will be the responsibility of the bidders to verify receipt by the City.

Bids may be delivered by hand or by mail, but no bid shall be considered which is not actually received by the City at the place, date and time appointed by the City and the

City shall not be responsible for any failure, misdirection, delay or error resulting from the selection by any bidder of any particular means of delivery.

Proprietary and/or Confidential Information: Your bid is a public document under the South Carolina Freedom of Information Act (FOIA), except as to information that may be treated as confidential as an exception to disclosure under the FOIA. If you cannot agree to this standard, please do not submit your bid. All information that is to be treated as confidential and/or proprietary must be CLEARLY identified, and each page containing confidential and/or proprietary information, in whole or in part, must be stamped and/or denoted as CONFIDENTIAL, in bold, in a font of at least 12-point type, in the upper right-hand corner of the page. All information not so denoted and identified will be subject to disclosure by the City.

Bidders acknowledge and agree that the City will not be liable for any costs, expenses, losses, damages (including damages for loss of anticipated profit) or liabilities incurred by the respondent or any member of the respondent's organization as a result of, or arising out of, submitting a bid, negotiating changes, or due to the City's acceptance or non-acceptance of the bid or the rejection of any and all bids. Bidders are responsible for submission of accurate, adequate and clear descriptions of the information requests. Neither issuance of the RFB, preparation and submission of a response, nor the subsequent receipt and evaluation of any response by the City of Isle of Palms will commit the City to award a contract to any respondent even if all the requirements in the RFB have been met.

Bidders must have or be able to procure an Isle of Palms Business License.

Contractors considering submission under this RFB will be expected to have read and be prepared to enter into the attached contract, which is a part of this RFB. The City of Isle of Palms reserves the right to accept or reject any and all bids, or any parts thereof; to waive irregularities or informalities in any bid received to allow the bid to be considered; to negotiate terms and conditions with Bidders; and to select a Bidder or to cancel in whole or in part this RFB, if it is in the best interest of the City to do so. Those bids determined not to be in compliance with provisions of this RFB and the applicable laws and or regulations will not be processed.

By signing its bid, Bidder certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide the City upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Bidder and its subcontractors or sub-subcontractors; or (b) that Bidder and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony and, upon conviction, must be fined within the discretion of the court or

imprisoned for not more than five years, or both.” Bidder agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14 and (b) include in their contracts with subcontractors, language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14.

### **Scope of Work**

A site visit to the intersection of 34<sup>th</sup> Avenue and Hartnett Boulevard is encouraged. Please contact Robert Asero, at (843) 981-4026, to schedule the site visit.

The Scope of work for the project includes, but is not limited to the following:

- Install 18” Nyloplast inline drain basin with standard H-20 rated grate;
- Install 60’ of 12” HPDE pipe to tie the existing inlet into the new inlet;
- Install 130’x3’ of surface level asphalt drainage swale on the edge of the existing asphalt around the corner to lead stormwater into the top of the newly install inlet;
- Cut a three-foot-wide section across Hartnett Boulevard in the lowest area;
- Repave the 20’x3’ section at an elevation that will allow water collected on the southeast side of Hartnett to cross over to the northwest side;
- Regrade and sod all disturbed roadway shoulders.

The chosen contractor shall provide all materials, equipment, supplies, freight, state sales tax, labor and supervision as necessary.

Time is of the essence for this project and all work associated with this RFB must be completed within 60 days of the execution of the contract and the issuance of the Notice to Proceed.

### **Bid Format**

In responding to this request, contractors should provide a price quote for the scope of work to accomplish this work on the attached “BID FORM.”

If any addenda(um) are issued, the contractor must acknowledge reviewing the addenda(um) by listing them on the BID FORM.

In addition to submitting the completed BID FORM, contractors submitting bids should provide examples of experience with similar projects. Provide a brief description of similar projects of comparable size and complexity for which the Bidder provided services within the past five (5) years. Limit information to no more than five (5) projects.

All such descriptions should include:

1. Project location.
2. Renovation and/or Replacement.
3. Description of original project budget versus actual cost.
4. Name and contact information for a reference with knowledge of the Bidder's work on the specified project.

Provide the Contractor(s) and if possible the names and bids of all sub-consultants that will be part of the Bidder's Team and identify the specific work the sub-consultant will perform. Once the City issues a contract, no change in sub-consultants assigned to the project will be permitted without prior written approval from the City.

### **Evaluation Criteria**

The City will evaluate bids based on the factors outlined within this RFB and the City's procurement ordinance, which shall be applied to all eligible, responsive bids in selecting the successful contractor. The City reserves the right to disqualify any bid from a bidder it deems as non-responsive and/or non-responsible. The City reserves the right to make such investigations of the Bidders as it deems appropriate.

Award of any contract may be made without discussion with Bidders after bids are received. The City reserves the right to cease contract negotiations if it is determined that the Bidder cannot perform the services specified in their response.

Recommendation of award for contract will be made based not only on price, which is an important factor, but also on quality of bid, qualifications, experience, technical expertise, references and ability to execute the work. After careful evaluation, the Public Works Committee will make a recommendation to City Council for award of a contract.

**BID FORM**

BID OF: \_\_\_\_\_  
(Contractor)

BID TO: The City of Isle of Palms  
(Owner)

PROJECT NAME: Harnett Boulevard and 34<sup>th</sup> Avenue Drainage Project

PROJECT NUMBER: RFB 2021.02

BID DATE: \_\_\_\_\_

**BASE BID AGREEMENT**

The undersigned, having examined all the Bidding Documents, including all Addendum(a) as follows:

shall execute the entire Work in the Bidding Documents described as the Base Bid for the lump sum of:

\_\_\_\_\_  
Dollars

(\$ \_\_\_\_\_) which sum is hereafter called the BASE BID.

## **DATE FOR COMMENCEMENT AND SUBSTANTIAL COMPLETION**

The Date for Commencement shall be established in the Notice to Proceed. The Contractor shall not incur any expense until the contract has been awarded. An award requires that either the Contract be signed by both the awarding authority and the contractor or a Notice to Proceed is executed.

All work for additions shall be substantially completed (as evidenced by the date on the CERTIFICATE OF SUBSTANTIAL COMPLETION) within: SIXTY (60) calendar days from the date set forth in the NOTICE TO PROCEED, subject to adjustments as provided in the Contract Documents.

Final completion of all work shall be performed within: THIRTY (30) calendar days from the scheduled contract time for substantial completion, subject to adjustments as provided in the Contract Documents.

The undersigned further agrees that from the compensation to be paid, the owner may retain as liquidated damages the sum of one thousand dollars (\$1,000) for each calendar day the actual contract time for Substantial Completion for the project exceeds the specified or adjusted contract time for Substantial Completion as provided in the Contract Documents.

THIS AGREEMENT IS SUBJECT TO BINDING ARBITRATION PURSUANT TO SOUTH CAROLINA CODE SECTION 15-48-10, ET SEQ., AS AMENDED

STATE OF SOUTH CAROLINA ) 34<sup>th</sup> Avenue and Hartnett Boulevard  
 ) Drainage Project  
 COUNTY OF CHARLESTON )

THIS AGREEMENT (“Agreement”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2021, by and between the City of Isle of Palms, S.C., a South Carolina municipal corporation (“City”), and \_\_\_\_\_ (“Contractor”).

WHEREAS, Contractor was the successful bidder under the City’s solicitation for bids for the 34<sup>th</sup> Avenue and Hartnett Boulevard Drainage Project; and

WHEREAS, the parties hereto desire to enter into this Agreement to set forth the exact rights, duties and obligations of each party regarding the services to be performed by Contractor pursuant to the bid.

THEREFORE, in consideration of the mutual covenants and promises set forth herein,

City and Contractor agree as follows:

1. SCOPE OF WORK.

A. Contractor agrees to provide all labor, equipment, tools, materials, supplies, and incidentals necessary for the 34<sup>th</sup> Avenue and Hartnett Boulevard Drainage Project, pursuant to the bid submitted by Contractor to City dated \_\_\_\_\_ (the “Bid”), a copy of which is attached hereto as “Exhibit I” and made a part of this Agreement by reference thereto. In the event of any conflict between the provisions of this Agreement and the Solicitation, the term of this Agreement shall control.

B. Contractor agrees to use its best skill and attention and be solely responsible for all means, methods, techniques, sequences, and procedures in the performance of the work on the Project. Contractor hereby warrants to City that all work on the Project shall be performed in a good and workmanlike manner. Contractor agrees to comply with all applicable federal, state and local laws, rules and regulations regarding all work performed by Contractor pursuant to this Agreement.

2. CONTRACT PRICE. For all work under this Agreement, City agrees to pay to

Contractor the sum of \_\_\_\_\_ (\$ \_\_\_\_\_) Dollars, payable upon completion of the Project.

3. CHANGE ORDERS. The City has the right to require alterations or changes ("Change Orders") to the Project and in such case Contractor agrees to make such alterations or changes; provided, however, that the details and additional cost or credit of such Change Order must be agreed to by the City and Contractor in writing prior to the commencement of the Change Order.

4. COMPLETION SCHEDULE. TIME IS OF THE ESSENCE. Contractor agrees to complete the Project within sixty (60) days from the date of this Agreement. Provided, however, that if performance by the Contractor is delayed for reasons or causes beyond the control of Contractor (including but not limited to, acts of God, weather conditions, site conditions, labor or material shortages, delays caused by City, and casualty losses) the Project completion date shall be extended accordingly.

5. INSURANCE. Contractor agrees to maintain comprehensive general liability insurance coverage on the work under the Project in an amount not less than \$1,000,000.00 per person, \$2,000,000.00 per claim, and \$250,000.00 per claim for property damage. Contractor also agrees to maintain worker's compensation coverage on its employees as required by the State of South Carolina workers' compensation laws. All insurance coverage required hereunder shall be with companies approved in advance by City, who shall be named as an additional insured on all such policies. Proof of such insurance shall be provided to City prior to commencement of any work by Contractor.

6. PERMITS, FEES AND LICENSES. Contractor agrees to apply for, obtain and pay for all permits, fees, licenses and inspections by governmental agencies necessary for the Contractor's proper performance and completion of the Project, including, but not limited to, a City business license.

7. INDEMNIFICATION. Contractor agrees to hold harmless and indemnify City and its officers, agents and employees from and against any loss or damage, including all reasonable attorney's fees and expenses, incurred as a result of any and all claims, demands, causes of action, suits, judgments, fines or penalties (including but not limited to all fees and expenses incurred as a result of death or injury to persons or for loss of or damage to property) arising out of or in connection with Contractor's performance of the work under this Agreement.

8. SITE INVESTIGATION. Contractor acknowledges that Contractor has inspected the service areas, has determined the nature of the work and the difficulties and facilities attending performance of the work, and all other matters which Contractor contemplates may in any way affect the work under this Agreement.



9. **BINDING ARBITRATION.** Any dispute or controversy arising under or in connection with this Agreement shall be submitted to binding arbitration in accordance with the requirements of the South Carolina Uniform Arbitration Act as then in effect (“SCUAA”). All arbitration proceedings shall be conducted in Charleston County, South Carolina. The arbitrators shall be selected as provided in the SCUAA, and the arbitrators shall render a decision on any dispute within ninety (90) days after the last of the arbitrators has been selected. If any party to this Agreement fails to select an arbitrator with regard to any dispute submitted to Arbitration under this Section within thirty (30) days after receiving notice of the submission to arbitration of such dispute, then the other party or parties shall select an arbitrator for such nonselecting party, and the decision of the arbitrators shall be final and binding upon all the parties to the dispute, their personal representatives, legal representatives, heirs, successors and assigns. The prevailing party in any such proceeding shall be entitled to reimbursement by the losing party, in addition to any damages awarded, for all reasonable costs and expenses, including attorney’s fees, incurred in any such proceeding, including all trial and appellate levels. Nothing contained in this Section shall preclude either party from seeking injunctive relief through a court of competent jurisdiction in connection with the Arbitration, and the prevailing party shall also be entitled to reimbursement by the losing party for all reasonable fees and costs, including attorney’s fees, incurred in the proceedings seeking injunctive relief.

10. **BREACH.**

A. In the event that either party breaches any provision of this Agreement, and the same continues for a period of seven (7) days after receipt of written notice thereof, then the nonbreaching party may exercise any and all remedies at law or in equity regarding the breach of this Agreement. Without prejudice to any other rights or remedies available for the said breach, the non-breaching party may terminate this Agreement and cease further performance under this Agreement.

B. Unless authorized by this Agreement, if the Contractor completely ceases work on the Project for a period of fifteen (15) days, or defaults or persistently fails or neglects to carry out the Project, the City may, after seven (7) days’ written notice to the Contractor, complete the Project and if the unpaid balance of the contract price exceeds the City’s actual cost of completing the Project, such excess shall be paid to the Contractor, but if such expense exceeds the unpaid balance, the Contractor shall pay the difference to the City.

11. **EFFECT OF WAIVER OR CONSENT.** A waiver or consent, express or implied, to or of any breach or default by a party in the performance of its obligations under this Agreement is not a consent or waiver to or of any other breach or default in the performance by that party of the same or any other obligations of that party with respect

to this Agreement. Failure on the part of a party to complain of any act of the other party or to declare a party in default with respect to this Agreement, irrespective of how long that failure continues, does not constitute a waiver by that party of its rights with respect to that default until the applicable statute-of-limitation period has run.

12. SUB-CONTRACT OR ASSIGNMENT. Contractor agrees not to enter into any subcontracts or assignments pertaining to the performance of all or any part of this Agreement, either voluntarily or by operation of law, without prior written approval of City.

13. BINDING AGREEMENT. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

14. GOVERNING LAW; SEVERABILITY. This Agreement is governed by and shall be construed and interpreted in accordance with the laws of the State of South Carolina. If any provision of this Agreement is held invalid or unenforceable to any extent by a court of competent jurisdiction, the remainder of this Agreement is not affected thereby and that provision shall be enforced to the greatest extent permitted by law.

15. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement between the parties hereto relating to the subject matter hereof, and supersedes and nullifies all prior or contemporaneous contracts, agreements, understandings or representations, whether oral or written, which are not expressly stated in this agreement. Neither party is relying upon any representation not expressly contained herein. This Agreement may be amended and modified from time to time only upon the written mutual consent of City and Contractor.

16. SECTION HEADINGS. The headings of Sections or paragraphs used in this Agreement have been inserted for convenience only and are not to be used in determining the contents contained herein.

IN WITNESS WHEREOF, the City and Contractor have hereunto set their hands and seals, by and through the undersigned officers, as of the day and year first above written.

WITNESS:

Contractor:

\_\_\_\_\_  
(#1 as to Contractor)

By: \_\_\_\_\_

\_\_\_\_\_  
(#2 as to Contractor)

Title: \_\_\_\_\_

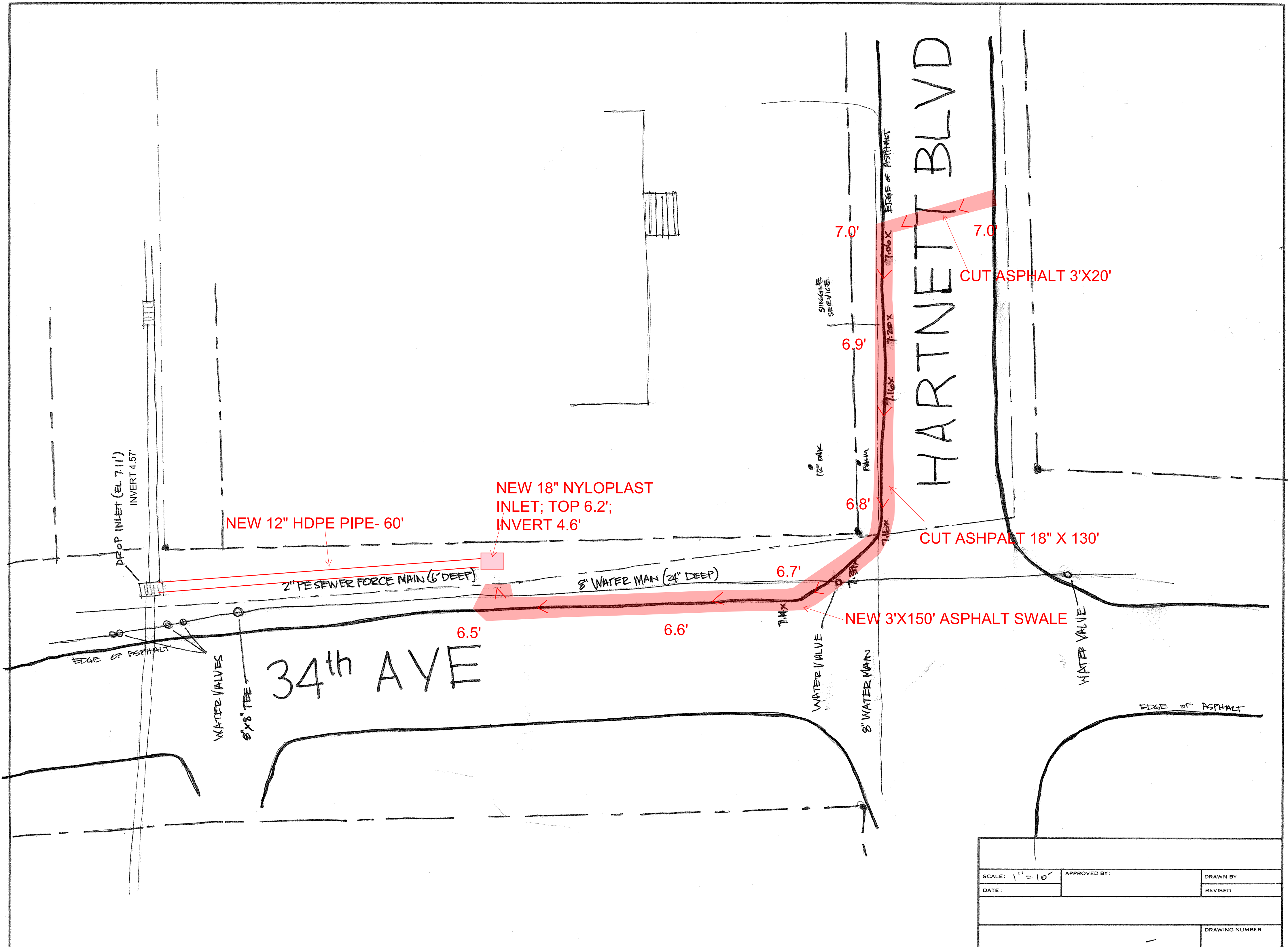
The City of Isle of Palms, S.C.:

\_\_\_\_\_  
(#1 as to City)

By: \_\_\_\_\_

\_\_\_\_\_  
(#2 as to City)

Title: \_\_\_\_\_



NEW 12" HDPE PIPE- 60'

NEW 18" NYLOPLAST  
INLET; TOP 6.2';  
INVERT 4.6'

2" PESEWER FORCE MAIN (6' DEEP)

8" WATER MAIN (24" DEEP)

NEW 3'X150' ASPHALT SWALE

CUT ASHPALT 18" X 130'

CUT ASPHALT 3'X20'

34th AVE

HARTNETT BLVD

SCALE: 1" = 10'	APPROVED BY:	DRAWN BY:
DATE:		REVISED:
		DRAWING NUMBER:

# *Product Guide*



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# Quick Reference

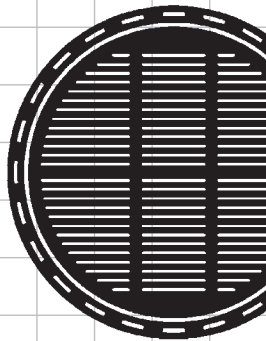
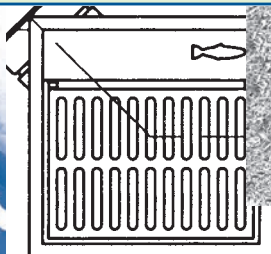
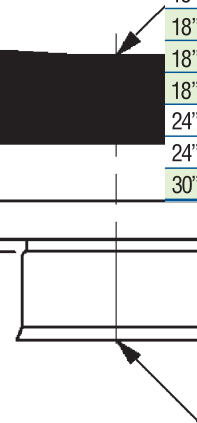
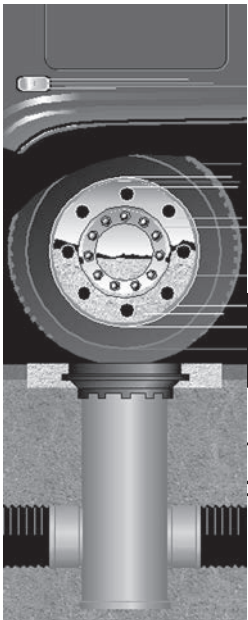
## Minimum Angle Chart

### Minimum Angle Between Adapters

This chart is not for Snout or Weir Structures.

Contact Nyloplast for Snout and Weir Structure minimum angles.

Adapter Size	8" Basin Min Angle	10" Basin Min Angle	12" Basin Min Angle	15" Basin Min Angle	18" Basin Min Angle	24" Basin Min Angle	30" Basin Min Angle
4"-04"	70°	55°	50°	42°	35°	25°	24°
4"-06"	75°	70°	55°	47°	40°	29°	25°
4"-08"	100°	80°	65°	55°	45°	35°	28°
4"-10"	•	95°	75°	62°	52°	40°	32°
4"-12"	•	•	85°	70°	55°	45°	40°
4"-15"	•	•	•	80°	65°	51°	44°
4"-18"	•	•	•	•	76°	60°	50°
4"-24"	•	•	•	•	•	75°	62°
4"-30"	•	•	•	•	•	•	75°
6"-06"	90°	75°	65°	55°	44°	33°	30°
6"-08"	115°	85°	75°	63°	51°	39°	34°
6"-10"	•	105°	85°	70°	55°	43°	38°
6"-12"	•	•	95°	75°	63°	48°	45°
6"-15"	•	•	•	86°	72°	56°	48°
6"-18"	•	•	•	•	84°	63°	55°
6"-24"	•	•	•	•	•	77°	66°
6"-30"	•	•	•	•	•	•	75°
8"-08"	165°	90°	80°	70°	55°	44°	35°
8"-10"	•	115°	88°	76°	63°	48°	45°
8"-12"	•	•	102°	83°	70°	52°	48°
8"-15"	•	•	•	95°	78°	60°	55°
8"-18"	•	•	•	•	90°	70°	60°
8"-24"	•	•	•	•	•	82°	70°
8"-30"	•	•	•	•	•	•	80°
10"-10"	•	160°	90°	82°	70°	53°	48°
10"-12"	•	•	115°	85°	75°	58°	50°
10"-15"	•	•	•	103°	85°	65°	58°
10"-18"	•	•	•	•	97°	72°	65°
10"-24"	•	•	•	•	•	88°	75°
10"-30"	•	•	•	•	•	•	85°
12"-12"	•	•	150°	90°	82°	64°	56°
12"-15"	•	•	•	112°	87°	69°	60°
12"-18"	•	•	•	•	102°	78°	68°
12"-24"	•	•	•	•	•	92°	80°
12"-30"	•	•	•	•	•	•	90°
15"-15"	•	•	•	150°	90°	77°	69°
15"-18"	•	•	•	•	110°	84°	75°
15"-24"	•	•	•	•	•	98°	85°
15"-30"	•	•	•	•	•	•	96°
18"-18"	•	•	•	•	150°	90°	78°
18"-24"	•	•	•	•	•	108°	88°
18"-30"	•	•	•	•	•	•	100°
24"-24"	•	•	•	•	•	150°	90°
24"-30"	•	•	•	•	•	•	115°
30"-30"	•	•	•	•	•	•	150°





**HOW DO YOU BUILD A PART NUMBER?  
See page (32) for Inline Drains**

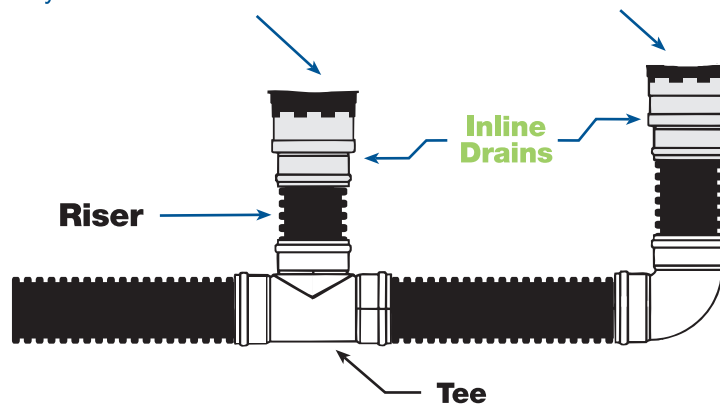
Part#/Prefix	Product Description	Available Outlets
2708AG__X	8" Inline Drain	4" thru 8"
2710AG__X	10" Inline Drain	4" thru 10"
2712AG__X	12" Inline Drain	4" thru 12"
2715AG__X	15" Inline Drain	4" thru 15"
2718AG__X	18" Inline Drain	4" thru 18"
2724AG__X	24" Inline Drain	4" thru 24"
2730AG__X	30" Inline Drain	4" thru 30"

Includes any grate option except bronze and domed. Bronze grates are available in 8", 10", 12", or 15" for Drain Basins and Inline Drains only.

## When are Inline Drains Used?

To enter a new or existing line by means of a riser and a tee.

At the beginning of a drain line.

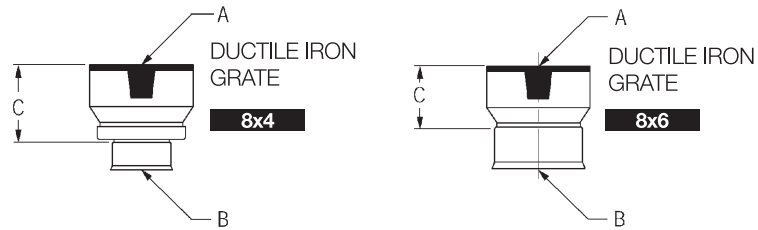




# 8" & 10" Inline Drains

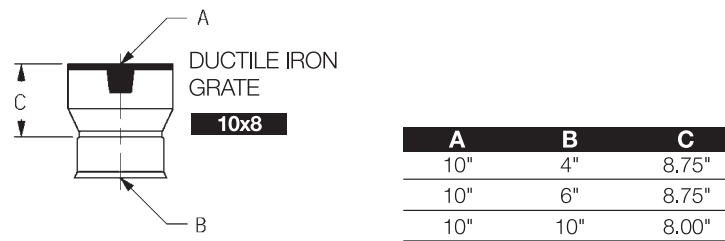
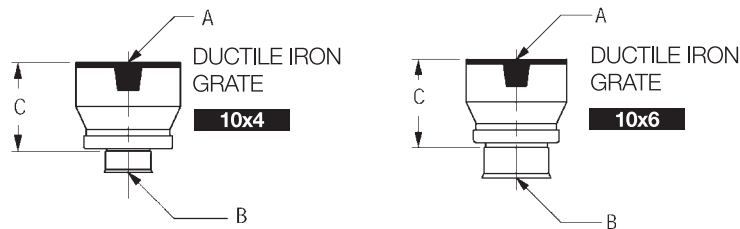
Part#/Prefix	Product Description	Available Outlets
2708AG__X	8" Inline Drain	4" thru 8"
2710AG__X	10" Inline Drain	4" thru 10"

## 8" Inline Drains



A	B	C
8"	4"	7.50"
8"	6"	5.25"
8"	8"	6.50"

## 10" Inline Drains



## 8" & 10" Grate Options

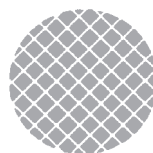
Light Duty Bronze Grate Available (see pg. 24)



(see pg. 23 for detailed explanation)



Standard



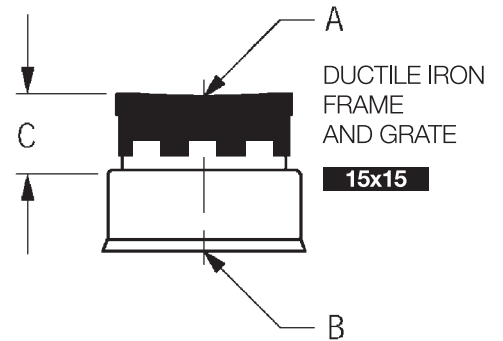
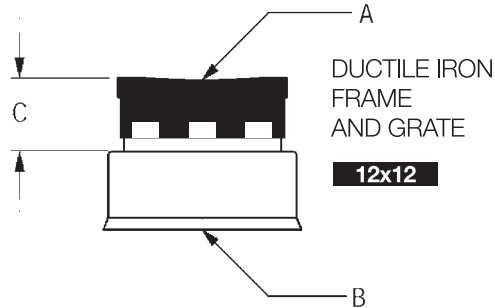
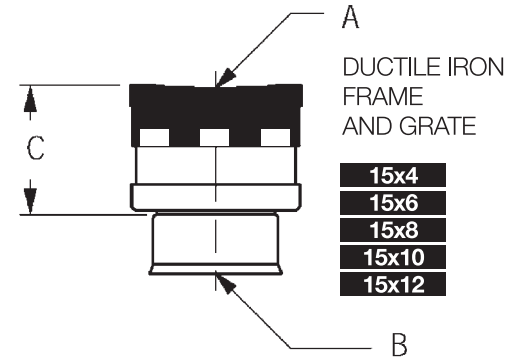
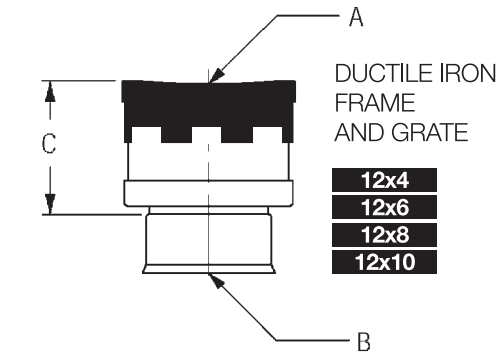
Solid



Domed

# 12" & 15" Inline Drains

Part#/Prefix	Product Description	Available Outlets
2712AG__X	12" Inline Drain	4" thru 12"
2715AG__X	15" Inline Drain	4" thru 15"



A	B	C
12"	4"	10.50"
12"	6"	11.50"
12"	8"	11.50"
12"	10"	11.25"
12"	12"	6.00"

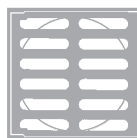
A	B	C
15"	4"	13.25"
15"	6"	12.75"
15"	8"	12.25"
15"	10"	13.50"
15"	12"	12.75"
15"	15"	7.00"

## 12" & 15" Grate Options

Light Duty Bronze Grate Available (see pg. 24)



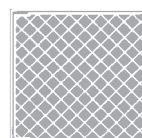
(see pg. 23 for detailed explanation)



Standard H-20 Rated



Pedestrian H-10 Rated



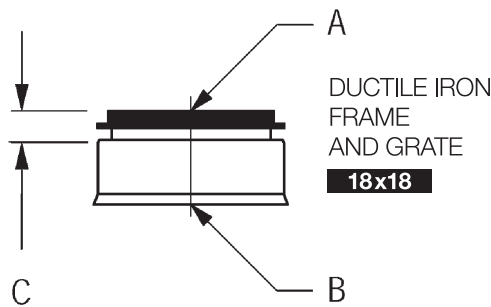
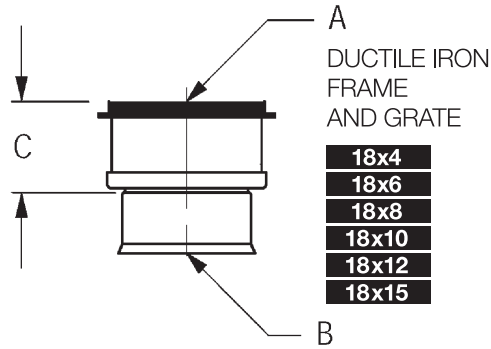
Solid



Domed

# 18" Inline Drains

Part#/Prefix	Product Description	Available Outlets
2718AG_X	18" Inline Drain	4" thru 18"



A	B	C
18"	4"	14.00"
18"	6"	14.00"
18"	8"	14.00"
18"	10"	14.00"
18"	12"	14.00"
18"	15"	13.50"
18"	18"	8.25"

## 18" Grate Options



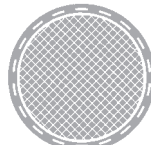
(see pg. 23 for detailed explanation)



Standard  
H-20 Rated



Pedestrian  
H-10 Rated



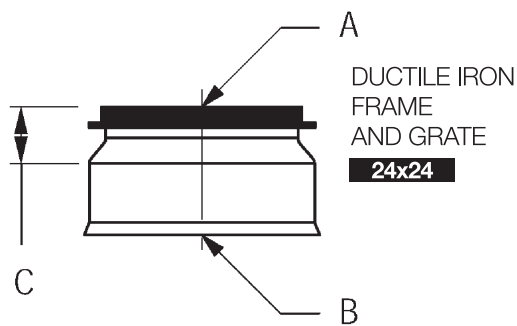
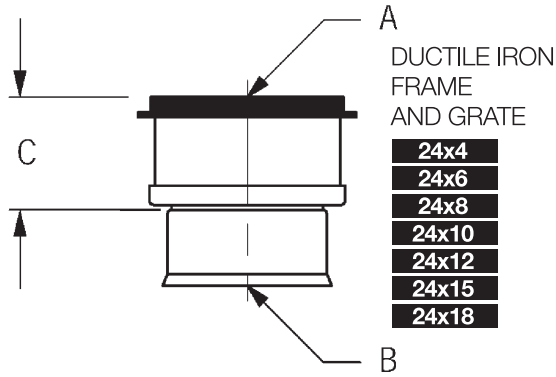
Solid



Domed

# 24" Inline Drains

Part#/Prefix	Product Description	Available Outlets
2724AG_X	24" Inline Drain	4" thru 24"



A	B	C
24"	4"	15.00"
24"	6"	15.00"
24"	8"	15.00"
24"	10"	15.00"
24"	12"	15.00"
24"	15"	15.00"
24"	18"	10.00"
24"	24"	10.25"

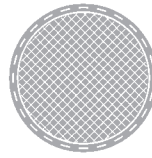
## 24" Grate Options



Standard  
H-20 Rated



Pedestrian  
H-10 Rated



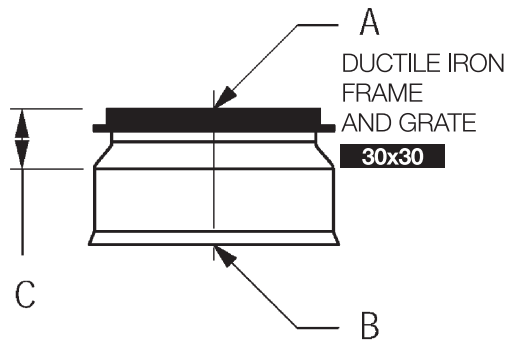
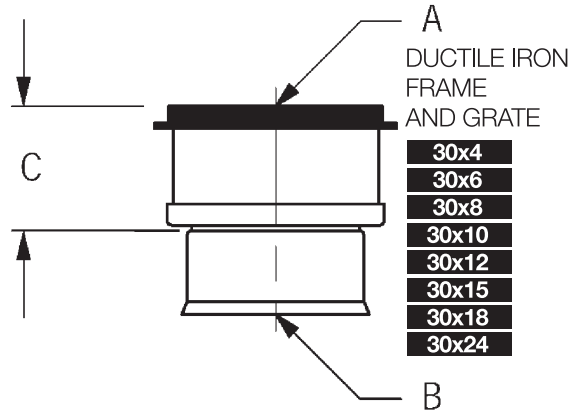
Solid



Domed

# 30" Inline Drains

Part#/Prefix	Product Description	Available Outlets
2730AG_X	30" Inline Drain	4" thru 30"



A	B	C
30"	4"	15.25"
30"	6"	15.50"
30"	8"	15.75"
30"	10"	16.00"
30"	12"	16.50"
30"	15"	17.00"
30"	18"	17.75"
30"	24"	14.00"
30"	30"	9.50"

## 30" Grate Options



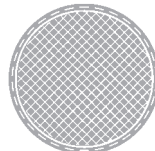
(see pg. 23 for detailed explanation)



Pedestrian  
H-20 Rated



Standard  
H-20 Rated



Solid



Domed



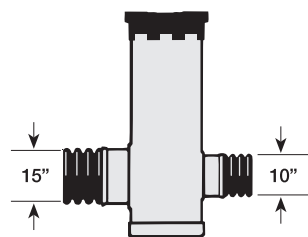
## HOW DO YOU BUILD A PART NUMBER? See page (32) for Drain Basins

A riser will be supplied with structures over 84".

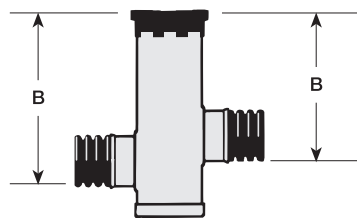
Part#/Prefix	Product Description	Available Outlets
2808AG__X	8" Custom Basin	4" thru 8"
2810AG__X	10" Custom Basin	4" thru 10"
2812AG__X	12" Custom Basin	4" thru 12"
2815AG__X	15" Custom Basin	4" thru 15"
2818AG__X	18" Custom Basin	4" thru 18"
2824AG__X	24" Custom Basin	4" thru 24"
2830AG__X	30" Custom Basin	4" thru 30"

Includes any grate option except bronze and domed. Bronze grates are available in 8", 10", 12", or 15" for Drain Basins and Inline Drains only.

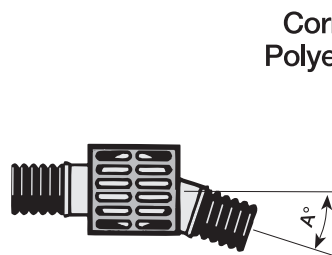
## When are Drain Basins Used?



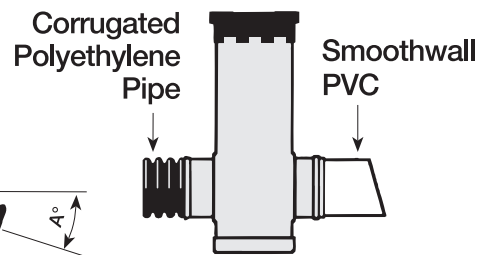
**Change Diameter**



**Change Elevation**



**Change Direction**

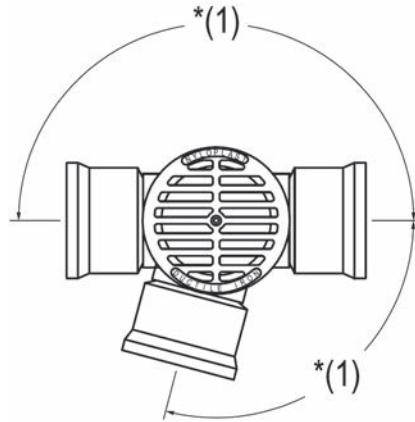


**Change Pipe**

# 8" & 10" Drain Basins

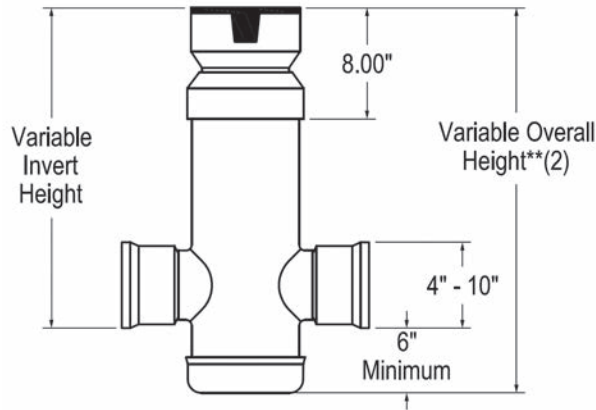
Part#/Prefix	Product Description	Available Outlets
2808AG__X	8" Custom Basin	4" thru 8"
2810AG__X	10" Custom Basin	4" thru 10"

All 8" & 10" custom basins will have a drop-in grate



\*(1) Adapters can be mounted on any angle 0° to 359°.

To determine minimum angle between adapters please see chart on page (1).



\*\* (2) Maximum recommended overall height 10'

## 8" & 10" Grate Options

Light Duty Bronze Grate Available (see pg. 23-24)



(see pg. 23 for detailed explanation)



Standard



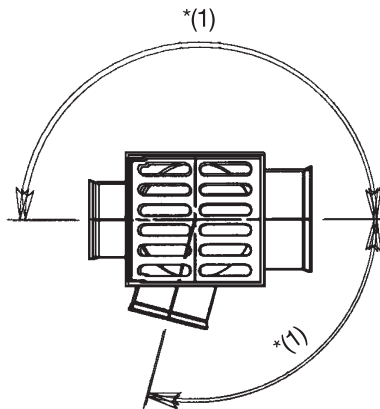
Solid



Domed

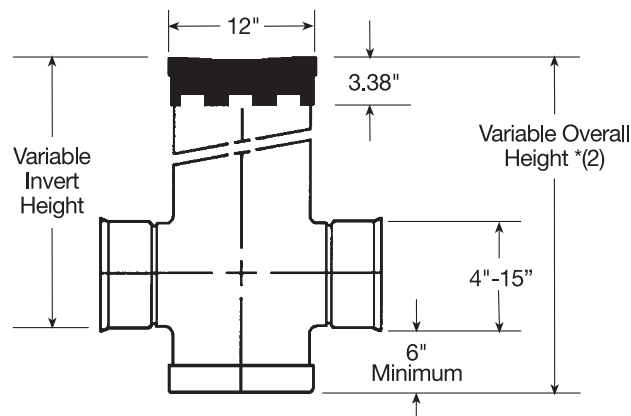
# 12" & 15" Drain Basins

Part#/Prefix	Product Description	Available Outlets
2812AG__X	12" Custom Basin	4" thru 12"
2815AG__X	15" Custom Basin	4" thru 15"



\*(1) Adapters can be mounted on any angle 0° to 359°.

To determine minimum angle between adapters please see chart on page (1).



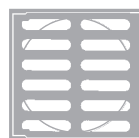
\*(2) Maximum recommended overall height 10'

## 12" & 15" Grate Options

Light Duty Bronze Grate Available (see pg. 23-24)



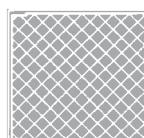
(see pg. 23 for detailed explanation)



Standard H-20 Rated



Pedestrian H-10 Rated



Solid

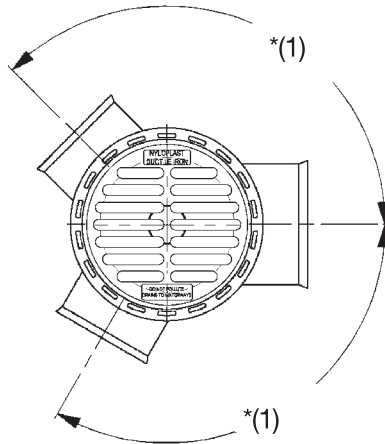


Domed



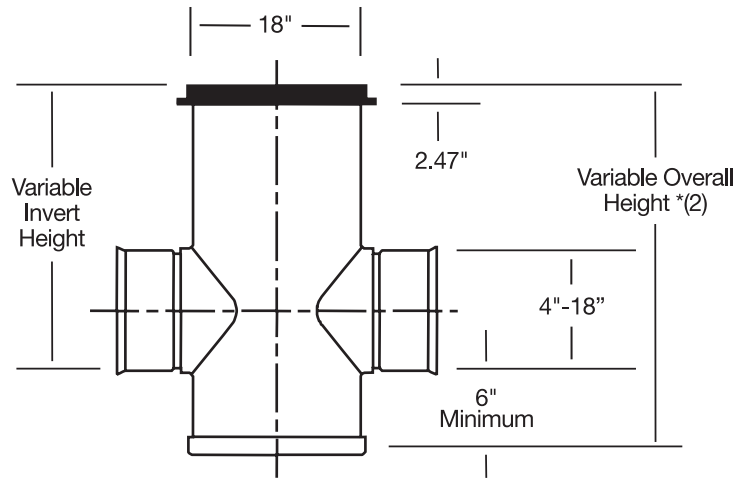
# 18" Drain Basins

Part#/Prefix	Product Description	Available Outlets
2818AG__X	18" Custom Basin	4" thru 18"



\* (1) Adapters can be mounted on any angle 0° to 359°.

To determine minimum angle between adapters please see chart on page (1).



\* (2) Maximum recommended overall height 10'

## 18" Grate Options



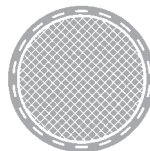
(see pg. 23 for detailed explanation)



Standard  
H-20 Rated



Pedestrian  
H-10 Rated



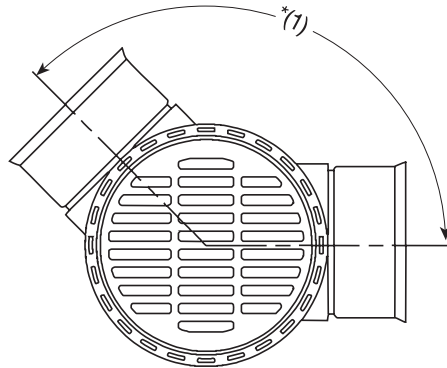
Solid



Domed

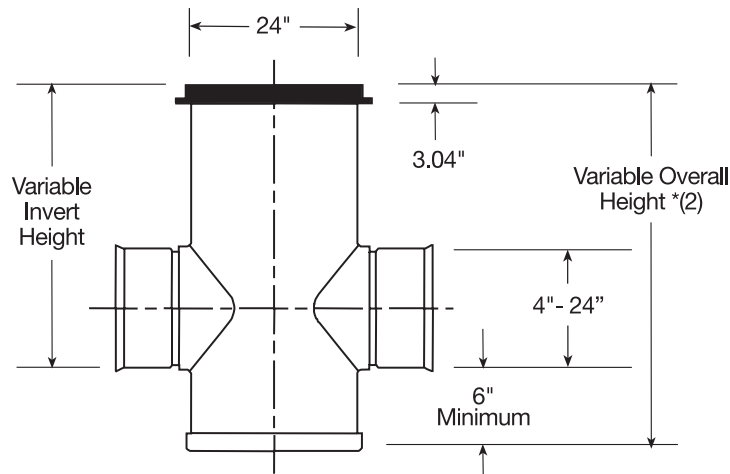
# 24" Drain Basins

Part#/Prefix	Product Description	Available Outlets
2824AG__X	24" Custom Basin	4" thru 24"



\*(1) Adapters can be mounted on any angle 0° to 359°.

To determine minimum angle between adapters please see chart on page (1).



\*(2) Maximum recommended overall height 10'

## 24" Grate Options



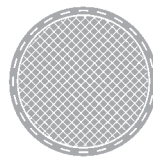
(see pg. 23 for detailed explanation)



Standard  
H-20 Rated



Pedestrian  
H-10 Rated



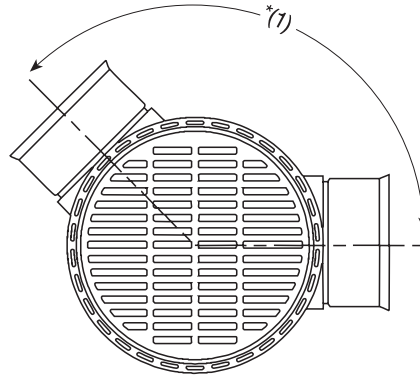
Solid



Domed

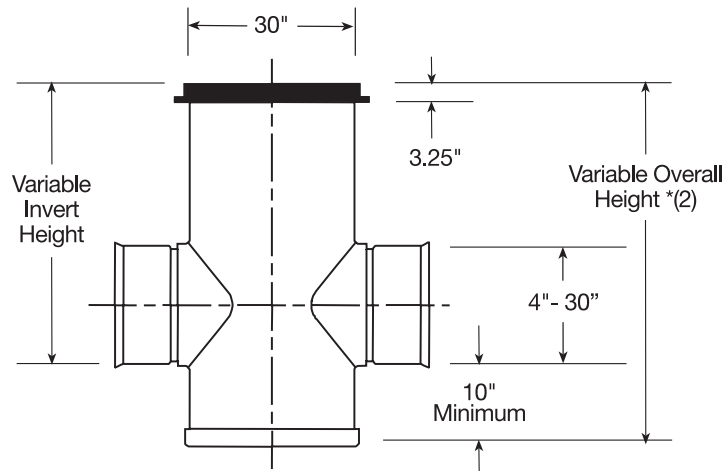
# 30" Drain Basins

Part#/Prefix	Product Description	Available Outlets
2830AG__X	30" Custom Basin	4" thru 30"



\*(1) Adapters can be mounted on any angle 0° to 359°.

To determine minimum angle between adapters please see chart on page (1).



\*(2) Maximum recommended overall height 10'

## 30" Grate Options



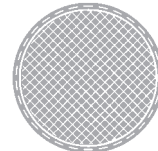
(see pg. 23 for detailed explanation)



Pedestrian H-20 Rated



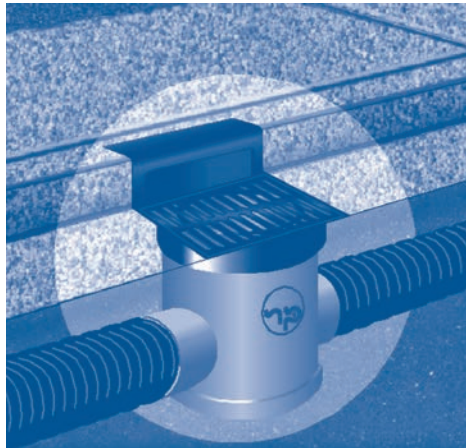
Standard H-20 Rated



Solid



Domed



**HOW DO YOU BUILD A PART NUMBER?  
See page (33) for Curb Inlet Structures**

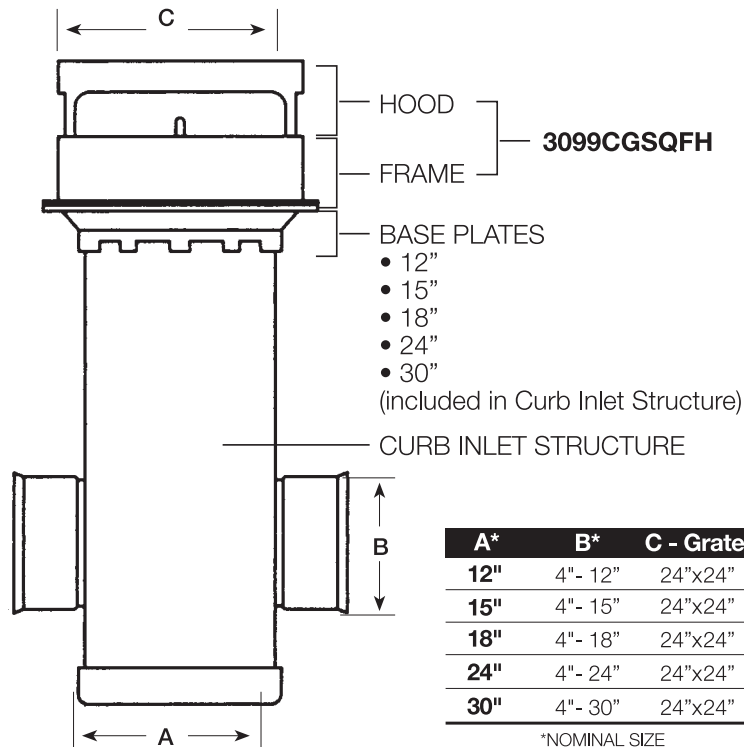
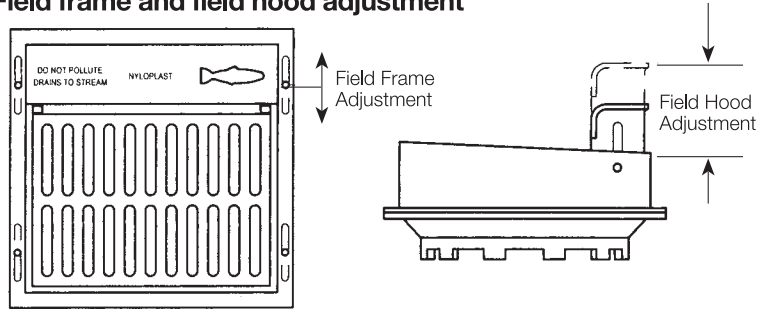
A riser will be supplied with structures over 84”.

Part#/Prefix	Product Description	Available Outlets
<b>12” Curb Inlet Structure</b> 3012AGS__X	<b>(page 15)</b> 2’x2’ Series Square Grate	4” thru 12”
<b>15” Curb Inlet Structure</b> 3015AGS__X	<b>(page 15)</b> 2’x2’ Series Square Grate	4” thru 15”
<b>18” Curb Inlet Structure</b> 3018AGS__X	<b>(page 15)</b> 2’x2’ Series Square Grate	4” thru 18”
<b>18” Curb Inlet Structure</b> 3018AGR__X	<b>(page 16)</b> 2’x3’ Series Rectangular Grate	4” thru 18”
<b>24” Curb Inlet Structure</b> 3024AGS__X	<b>(page 15)</b> 2’x2’ Series Square Grate	4” thru 24”
<b>24” Curb Inlet Structure</b> 3024AGR__X	<b>(page 16)</b> 2’x3’ Series Rectangular Grate	4” thru 24”
<b>30” Curb Inlet Structure</b> 3030AGS__X	<b>(page 15)</b> 2’x2’ Series Square Grate	4” thru 30”
<b>30” Curb Inlet Structure</b> 3030AGR__X	<b>(page 16)</b> 2’x3’ Series Rectangular Grate	4” thru 30”

# Curb Inlets with 2'x2' Grate

See chart on page (14) for 2'x2' part numbers

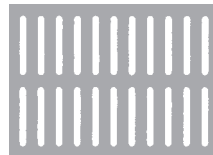
## Field frame and field hood adjustment



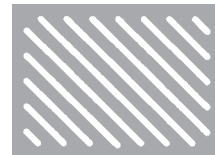
## 2'x2' Grate Options



(see pg. 23 for detailed explanation)



Standard H-20

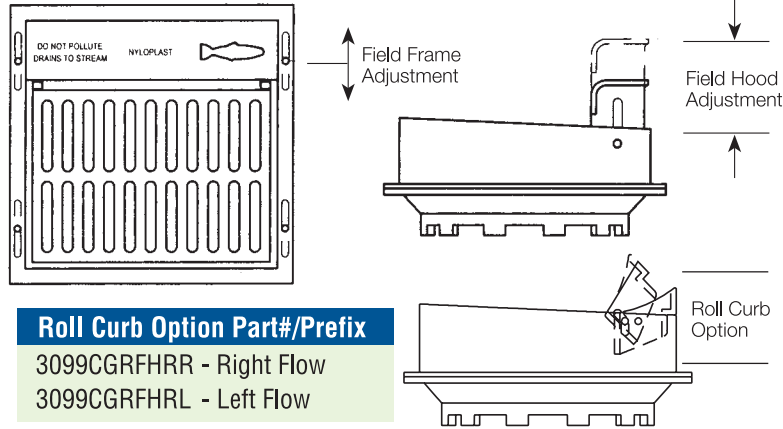


Diagonal Flow H-20

# Curb Inlets with 2'x3' Grate

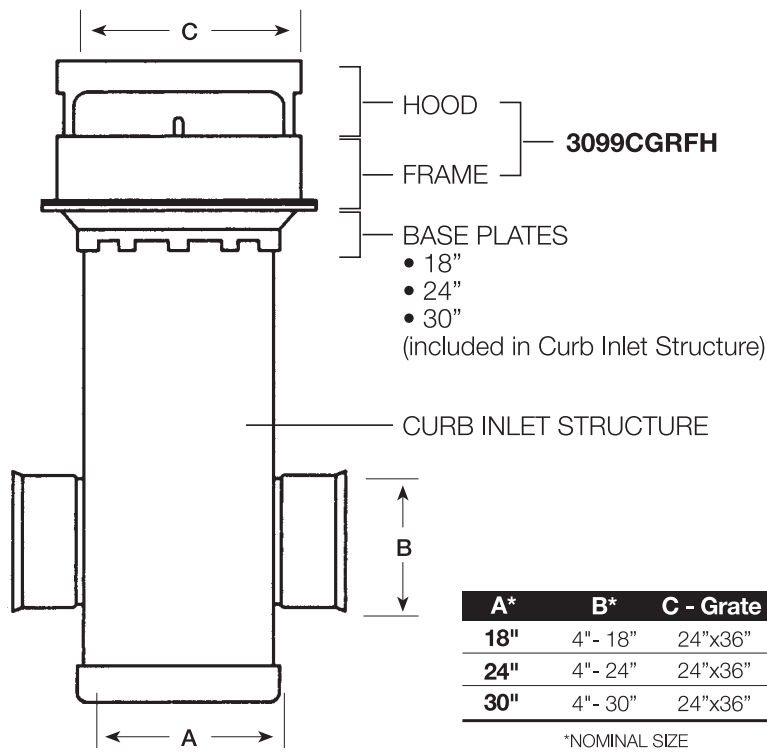
See chart on page (14) for 2'x3' Curb Inlet part numbers

## Field frame and field hood adjustment



### Roll Curb Option Part#/Prefix

- 3099CGRFHRR - Right Flow
- 3099CGRFHRL - Left Flow



## 2'x3' Grate Options



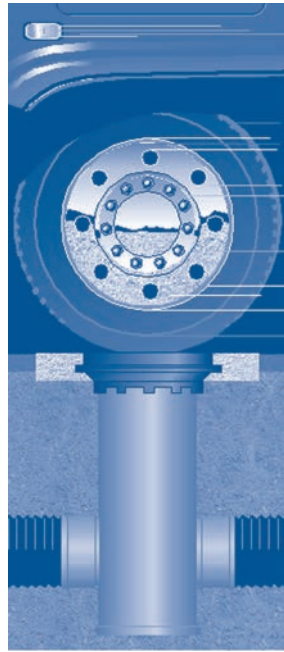
(see pg. 23 for detailed explanation)



Diagonal Flow



High Flow Vane  
(Roll Curb - right flow or left flow)



**HOW DO YOU BUILD A PART NUMBER?  
See page (34)  
for Road & Highway Structures**

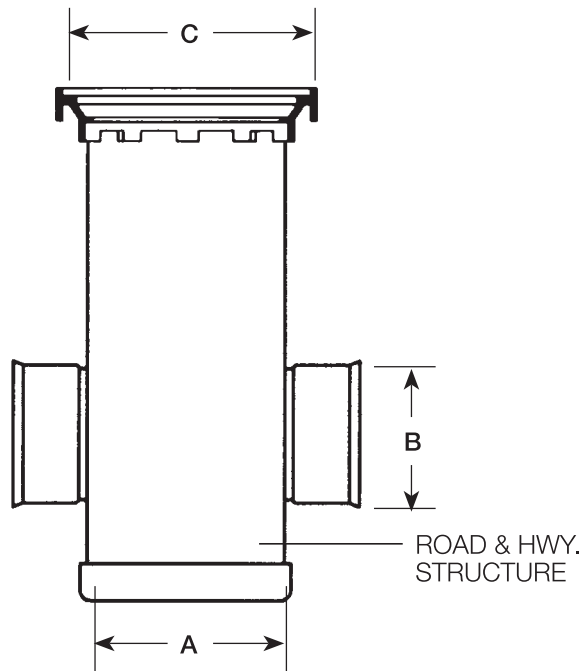
A riser will be supplied with structures over 84”.

Part#/Prefix	Product Description	Available Outlets
<b>12” Road &amp; Hwy. Structure</b> (page 18)		
3212AGS__X	2’x2’ Series Square Grate	4” thru 12”
<b>15” Road &amp; Hwy. Structure</b> (page 18)		
3215AGS__X	2’x2’ Series Square Grate	4” thru 15”
<b>18” Road &amp; Hwy. Structure</b> (page 18)		
3218AGS__X	2’x2’ Series Square Grate	4” thru 18”
<b>18” Road &amp; Hwy. Structure</b> (page 19)		
3218AGR__X	2’x3’ Series Rectangular Grate	4” thru 18”
<b>24” Road &amp; Hwy. Structure</b> (page 18)		
3224AGS__X	2’x2’ Series Square Grate	4” thru 24”
<b>24” Road &amp; Hwy. Structure</b> (page 19)		
3224AGR__X	2’x3’ Series Rectangular Grate	4” thru 24”
<b>30” Road &amp; Hwy. Structure</b> (page 18)		
3230AGS__X	2’x2’ Series Square Grate	4” thru 30”
<b>30” Road &amp; Hwy. Structure</b> (page 19)		
3230AGR__X	2’x3’ Series Rectangular Grate	4” thru 30”

**For Steel Bar Grate And Frame**

Part#/Prefix	Product Description
3299CGSQFSB__	2’ x 2’ Steel Bar Grate with Frame
3299CGRFSB__	2’ x 3’ Steel Bar Grate with Frame

See chart on page (17)  
for 2'x2' Road & Highway Structure part numbers



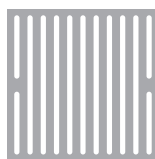
A*	B*	C - Grate
12"	4" - 12"	24"x24"
15"	4" - 15"	24"x24"
18"	4" - 18"	24"x24"
24"	4" - 24"	24"x24"
30"	4" - 30"	24"x24"

\*NOMINAL SIZE

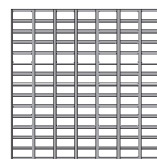
## 2'x2' Grate Options



(see pg. 23 for detailed explanation)



Ductile Iron Grate

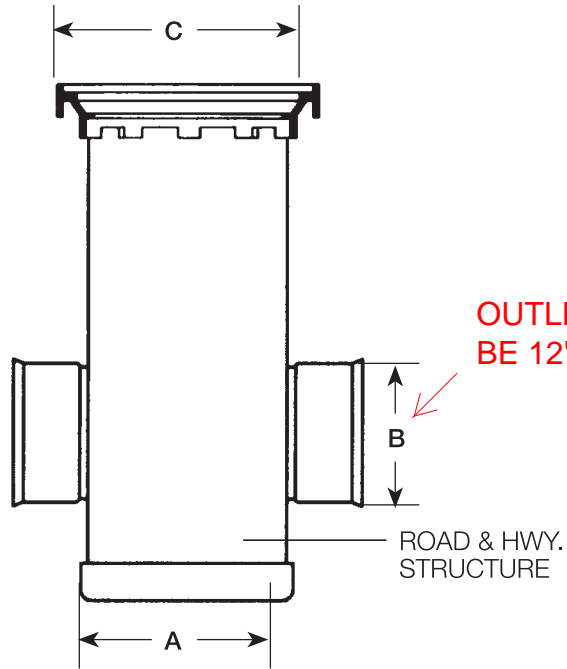


Steel Bar Grate



# Road & Highway with 2'x3' Grate

See chart on page (17)  
for 2'x3' Road & Highway Structure part numbers



OUTLET MUST BE 12" HPDE

THIS STRUCTURE MUST BE BID

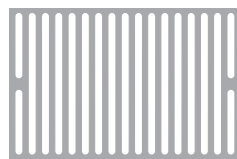
A*	B*	C - Grate
18"	4" - 18"	24"x36"
24"	4" - 24"	24"x36"
30"	4" - 30"	24"x36"

\*NOMINAL SIZE

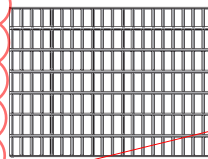
## 2'x3' Grate Options



(see pg. 23 for detailed explanation)



Ductile Iron Grate



Steel Bar Grate

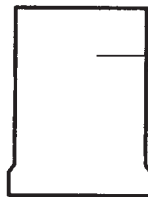
THIS GRATE MUST BE BID



**HOW DO YOU BUILD A PART NUMBER?**  
 See page (32) for Riser Section

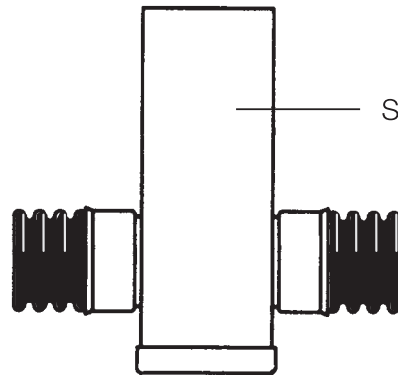


GRATE



**RISER SECTION**

Used to add height to existing structures. Order as each, and note length of riser.



STRUCTURE

## Riser Section Overview Chart

Part#/Prefix	Product Description
2908AG__X	8" Riser Section
2910AG__X	10" Riser Section
2912AG__X	12" Riser Section
2915AG__X	15" Riser Section
2918AG__X	18" Riser Section
2924AG__X	24" Riser Section
2930AG__X	30" Riser Section

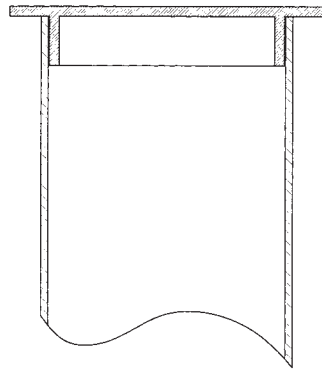
# Drop In Grates



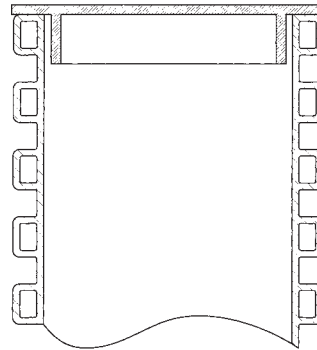
(see pg. 23 for detailed explanation)

**Drop in grates are ductile iron.  
These are for light duty, turf and  
landscape applications only.**

**Fits Inside  
Sewer SDR-35 Pipe**



**Fits Inside  
Corrugated Polyethylene Pipe**



## Drop In Grates Overview Chart

Part#/Prefix	Product Description
0601DI	6" Drop In Grate
0801DI	8" Drop In Grate
1001DI	10" Drop In Grate
1201DI	12" Drop In Grate
1501DI	15" Drop In Grate
1801DI	18" Drop In Grate
2401DI	24" Drop In Grate

### Grates for Inline Drains and Drain Basins

Formula: \_\_ **99 CG x** Blank= size of grate.

Choose from 08,10,12,15,18,24,30 depending on size of structure

- (x) = Style.   **S** Standard  
                  **SL** Standard Locking  
                  **P** Pedestrian - available in 8"- 24"  
                  **PL** Pedestrian Locking - available in 8"- 24"  
                  **C** Solid Cover  
                  **CL** Solid Cover Locking  
                  **B** Bronze - available in 8", 10", 12" & 15"  
                  **BL** Bronze Locking - available in 8", 10", 12" & 15"  
                  **D** Domed - available in 8"- 30"  
                  **DL** Domed Locking - available in 8"- 30"

### Drop-In Grates

Formula: \_\_ **01 DI** Blank= size of grate.

Choose from 06,08,10,12,15,18,24 depending on size of pipe

### Curb Inlet Grate Assembly

Order 3099CGSQFH and either 3099CGSQ or 3099CGSQDF:

- 3099CGSQFH** 2'x 2' Frame & Hood Assembly (12" - 30")  
**3099CGSQ** 2'x 2' Standard Grate (12" - 30")  
**3099CGSQDF** 2'x 2' Diagonal Flow Grate (12" - 30")

or

Order 3099CGRFH and choose either 3099CGRDF or 3099CGRHF:

- 3099CGRFH** 2'x 3' Frame & Hood Assembly (18" - 30")  
**3099CGRFHR** 2'x 3' Frame & Adjustable Roll Curb Assembly - Right Flow (18" - 30")  
**3099CGRFHL** 2'x 3' Frame & Adjustable Roll Curb Assembly - Left Flow (18" - 30")  
**3099CGRDF** 2'x 3' Standard Grate (18" - 30")  
**3099CGRHF** 2'x 3' High Flow Vane Grate (18" - 30")

### Road & Highway Grate Assembly

Order 1 each of the following:

- 3299CGSQF12** 12" Road & Hwy Square Grate and Frame  
**3299CGSQF15** 15" Road & Hwy Square Grate and Frame  
**3299CGSQF18** 18" Road & Hwy Square Grate and Frame  
**3299CGSQF24** 24" Road & Hwy Square Grate and Frame  
**3299CGSQF30** 30" Road & Hwy Square Grate and Frame  
**3299CGSQSB** \_\_ 2' x 2' Steel Bar Grate with Frame  
  
**3299CGRF18** 18" Road & Hwy Rectangle Grate and Frame  
**3299CGRF24** 24" Road & Hwy Rectangle Grate and Frame  
**3299CGRF30** 30" Road & Hwy Rectangle Grate and Frame  
**3299CGRSB** \_\_ 2' x 3' Steel Bar Grate with Frame

# Grate Options

for Inline Drains & Drain Basins

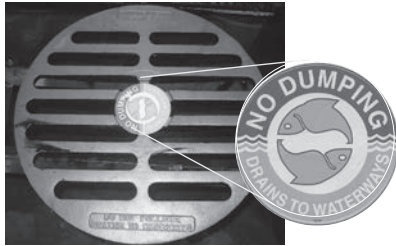
## Grate Markers

Public education and outreach is part of the NPDES requirement. Storm drain marking is an established method of involving the public and increasing community awareness about non-point source pollution.

Many Nyloplast castings come with a recessed area on the grate designed to accommodate these grate markers.

Nyloplast keeps inventory of only the featured marker shown below, however, other markers may be purchased in 100 piece lots as custom orders.

**Call for details.**



## Grate Riser Extensions



Round

Road & Hwy.

Extension rings can be used to quickly raise the grade of existing grates when resurfacing is required. Nyloplast extension rings are only to be used with Nyloplast ductile iron castings.

Size	Part#
18" Round with 2.0" Rise	1899CGER200
24" Round with 2.0" Rise	2499CGER200
30" Round with 2.0" Rise	3099CGER200
18" Round with 1.5" Rise	1899CGER150
24" Round with 1.5" Rise	2499CGER150
30" Round with 1.5" Rise	3099CGER150
<b>Road &amp; Highway</b>	
2'x 2' with 2.0" Rise	3299CGSQER200
2'x 3' with 2.0" Rise	3299CGSREER200



8" & 10"  
Dome  
Light-Duty



8" & 10"  
Standard  
Light-Duty  
*(also available  
in bronze)*



8" & 10"  
Solid  
Light-Duty



12" & 15"  
Dome  
Light-Duty



12" & 15"  
Standard  
H-20

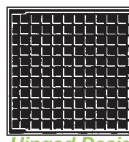
*Hinged Design*



12" & 15"  
Pedestrian  
H-10

*Also available  
in bronze  
(bronze are not hinged  
and are locking)*

*Hinged Design*



12" & 15"  
Solid  
H-20

*Hinged Design*



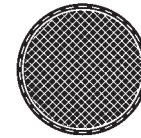
18", 24" & 30"  
Dome  
Light-Duty



18", 24" & 30"  
Standard  
H-20



18", 24" & 30"  
Pedestrian  
H-10



18", 24" & 30"  
Solid  
H-20



Pedestrian Safe  
(ADA Compliant)



Bicycle Safe



Light Duty  
7,500 lb



Medium Duty  
H-10



Heavy Duty  
H-20

## Curb Inlet and Road & Highway Grates



Curb Inlet  
2'x 2'  
Standard  
Grate



Curb Inlet  
2'x 2'  
Diagonal Flow  
Grate



Curb Inlet  
2'x 3'  
Diagonal Flow  
Grate

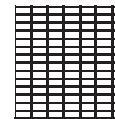


Curb Inlet  
2'x 3'  
High Flow  
Vane Grate

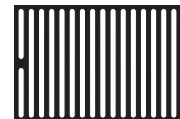
Roll Curb  
right flow or left flow



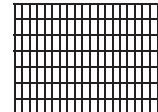
Road & Hwy.  
2'x 2'  
Square Grate



Road & Hwy.  
2'x 2'  
Steel Bar Grate  
and Frame



Road & Hwy.  
2'x 3'  
Rectangular  
Grate



Road & Hwy.  
2'x 3'  
Steel Bar Grate  
and Frame

# Grate Only

for Inline Drains & Drain Basins

## Grate Only Part Numbers and Description

Part#	Product Description
0899CGS	8" Standard Light-Duty Grate
0899CGC	8" Solid Cover
0899CGD	8" Domed Grate
0899CGB	8" Bronze Light-Duty Grate
1099CGS	10" Standard Light-Duty Grate
1099CGC	10" Solid Cover
1099CGD	10" Domed Grate
1099CGB	10" Bronze Light-Duty Grate
1299CGS	12" Standard H-20 Grate
1299CGP	12" Pedestrian Grate
1299CGC	12" Solid H-20 Cover
1299CGD	12" Domed Grate
1299GPB	12" Bronze Light-Duty Grate
1599CGS	15" Standard H-20 Grate
1599CGP	15" Pedestrian Grate
1599CGC	15" Solid H-20 Cover
1599CGD	15" Domed Grate
1599GPB	15" Bronze Light-Duty Grate
1899CGS	18" Standard H-20 Grate
1899CGP	18" Pedestrian Grate
1899CGC	18" Solid H-20 Cover
1899CGD	18" Domed Grate
2499CGS	24" Standard H-20 Grate
2499CGP	24" Pedestrian Grate
2499CGC	24" Solid H-20 Cover
2499CGD	24" Domed Grate
3099CGS	30" H-20 Standard Grate
3099CGP	30" Pedestrian Grate
3099CGC	30" Solid H-20 Cover
3099CGD	30" Domed Grate
3099CGSQ	Curb Inlet 2'x2' Square w/ Standard Grate
3099CGSQDF	Curb Inlet 2'x2' Square w/ Diagonal Flow Grate
3099CGSQFH	Curb Inlet 2'x2' Square Frame & Hood
18BASEG	Base Plate 2'x2' for 18" Structure
24BASEG	Base Plate 2'x2' for 24" Structure
30BASEG	Base Plate 2'x2' for 30" Structure
3099GRDF	Curb Inlet 2'x3' Rectangular w/ Diagonal Flow Grate
3099GRHF	Curb Inlet 2'x3' Rectangular w/ High Flow Vane Grate
3099GRTWG	Curb Inlet 2'x3' Rectangular w/ Two Way Grate
3099GRFH	Curb Inlet 2'x3' Rectangular Frame & Hood
3099GRFHRL	Roll Curb Inlet 2'x3' Rectangular Frame - Left
3099GRFHRR	Roll Curb Inlet 2'x3' Rectangular Frame - Right
18BASER	Base Plate 2'x3' for 18" Structure
24BASER	Base Plate 2'x3' for 24" Structure
30BASER	Base Plate 2'x3' for 30" Structure
Grate excludes base plate	
3299CGSQF12	12" Road & Hwy Square Grate and Frame
3299CGSQF15	15" Road & Hwy Square Grate and Frame
3299CGSQF18	18" Road & Hwy Square Grate and Frame
3299CGSQF24	24" Road & Hwy Square Grate and Frame
3299CGSQF30	30" Road & Hwy Square Grate and Frame
3299CGSQSB__	2' x 2' Steel Bar Grate with Frame
3299GRF18	18" Road & Hwy Rectangle Grate and Frame
3299GRF24	24" Road & Hwy Rectangle Grate and Frame
3299GRF30	30" Road & Hwy Rectangle Grate and Frame
3299GRSB__	2' x 3' Steel Bar Grate with Frame

Locking - Add "L" to the end of any grate #



## INSERTA TEE® Manifold Adaptors Fit Any Mainline or Structure

### Air-Testable, Watertight and Versatile

INSERTA TEE is a three piece service connection consisting of a PVC Hub, Rubber Sleeve and Stainless Steel Band. INSERTA TEE is compression fit into the cored wall of a mainline and requires no special tooling. INSERTA TEEs are designed to connect 2" (51 mm) through 30" (750 mm) services to all known solidwall, profile, closed profile and corrugated pipe manufactured today.

INSERTA TEE allows for tapping of existing lines without disturbing the bedding. It eliminates glues, epoxies, grout and awkward gaskets and the need to retighten bands around the mainline.

INSERTA TEE is designed to match the internal radius of any pipe and services can be connected where needed. It allows for easier grading of the mainline. It also greatly reduces costs by reducing labor hours and pipe materials. Hole saws are available for sale for all sizes of INSERTA TEEs. The use of installation methods or hole saws not purchased from Inserta Fittings will void the performance warranty of the product.



Rubber Sleeve



Stainless Steel Band



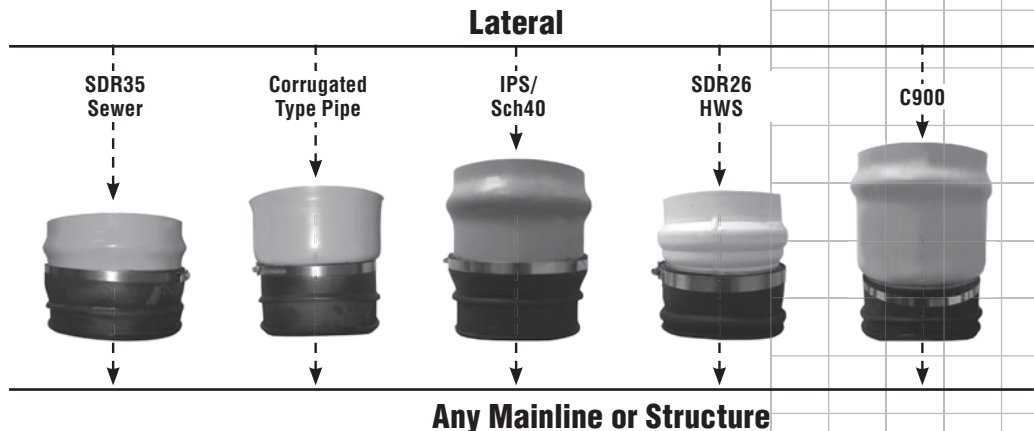
Gasketed PVC Hub

### Applications:

- Sanitary Sewers
- Pipe Bursting (HDPE/PVC)
- Fold-and-Formed Products
- Manholes
- Drainage
- Catch Basins
- Storm Sewers
- Sliplining
- Cured-In-Place Products
- Wet Wells
- Irrigation
- Electrical Vaults Available 2009

### INSERTA TEE Fittings For All Gravity Flow Pipe And Manholes

Ductile Iron	Spirolite	Ultra Rib™	Pro 21®
Fiberglass	Hi Q®/Sure-Lok®	PermaLok®	Polyethylene
PVC	Vylon®	Corrugated Metal	Truss®
Ultra Corr™	N-12®	Solflo® Max	A2000®
GOLDFLO®	Kor-Flo™	Concrete	Clay
Weholite®	Asbestos Cement	HP Storm	SaniTite® HP
DuroMaxx®			





## EnviroHood Structure

The Nyloplast EnviroHood™ is an innovative stormwater management device attached to the inside of a catch basin or manhole designed to prevent the outflow of floating debris and oil.

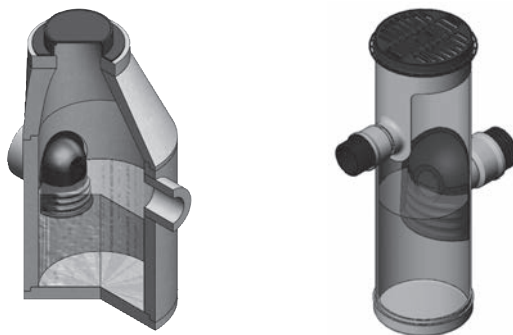
The need for cleaner stormwater has caused municipal leaders to demand forward-thinking solutions to improve their overall water quality. The EnviroHood offers lower installed costs and less intrusive installations than competitive devices.

### Engineered for Optimal Performance

The innovative design incorporates the same proven corrugation technology used on ADS N-12® pipe products. This delivers maximum strength to weight ratio and ensures the structure is capable of supporting the hydraulic forces of a rainfall event.

### Features & Benefits:

- Molded from High Density Polyethylene (HDPE) for lightweight and sturdy design
- Corrugated design eliminates flat surfaces and provides increased structural capacity
- Effective low-cost solution for storm water treatment
- Easy to clean
- Highly corrosion-resistant for long service life



## How to Order an EnviroHood Structure

Verify that requirements of the Drain Basin are met:

1. Size of Basin (must be 18", 24" or 30")
  2. Number of Stubs
  3. **Contact Nyloplast for EnviroHood and Weir** minimum angles (standard chart does not apply).
  4. Sump depth sufficient (see table page 28 for minimum sump requirement)
- Must have part # and price on individual line on order.
  - The **EnviroHood** should be ordered on the specific **EnviroHood** order form on page 33
  - Part # specifies the size of stub, but should also be notated on the drawing / order form must also signify which stub will accept the **EnviroHood**.



# NPDES Phase II Accessories

## FLEXSTORM® CATCH-IT® Reusable Inlet Protection

State DOTs and Municipalities across the country now have a universal structural BMP to address the issue of storm sewer inlet protection: FLEXSTORM CATCH-IT Inlet Filters—the temporary and reusable solution.

The FLEXSTORM CATCH-IT system is the preferred choice for temporary inlet protection and storm water runoff control. FLEXSTORM CATCH-IT Inlet Filters will fit any drainage structure and are equipped with high-efficiency filter bags. Whether you're the specifier or the user, it's clear to see how FLEXSTORM CATCH-IT Inlet Filters outperform the competition.

### Applications:

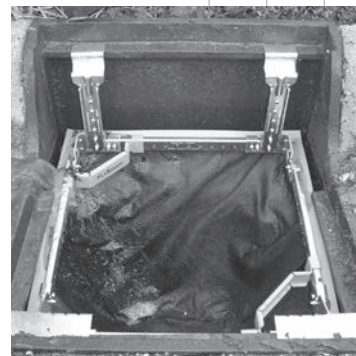
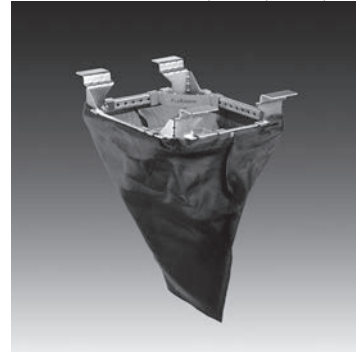
- DOT
- Commercial
- Industrial
- Residential Developments
- Road Construction
- Parking Lots
- Maintenance

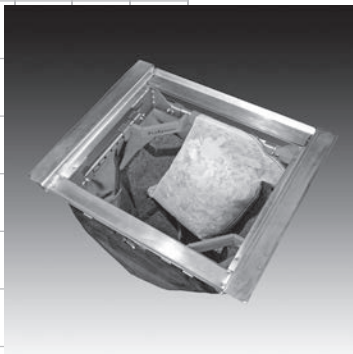
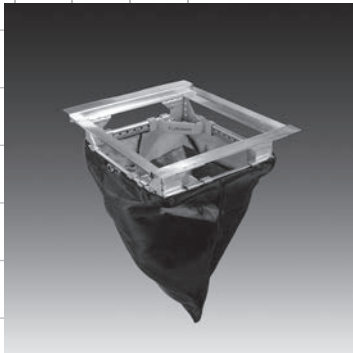
### Features

- **Configurable:** steel frames configured and guaranteed to fit ANY storm drainage structure
- **Adjustable:** although shipped to fit your inlet, rectangular framing may be field adjusted in 1/2" increments if necessary
- **Reusable:** galvanized framing will last year after year in harsh conditions, while geotextile filter bags are easily replaced after several years of use
- **Effective:** works below grade; overflow feature allows streets to drain with full bag; third party testing results of the FX filter bag show 82%
- **Affordable:** low per-unit cost; installs in seconds; easily maintained with Universal Removal Tool (no machinery required)

### Benefits

- Reduce jobsite flooding and keep projects running
- Minimize residential complaints with cleaner, dryer streets during all construction phases
- Prevent hazardous road icing conditions by eliminating ponding at curb inlets
- Significantly reduce cleanup costs
- Prevent siltation and pollution of rivers, lakes, and ponds
- Helps prevent fines; NPDES PHASE II Compliant
- Lowest cost alternative for the highest level of Inlet Protection
- Available through 5,000 ADS distributors nationwide
- Ships within 48 hours





## FLEXSTORM® PURE Permanent Inlet Protection

The FLEXSTORM PURE system is the preferred choice for permanent inlet protection and storm water runoff control. Constructed of versatile stainless steel, FLEXSTORM PURE Inlet Filters will fit any drainage structure and are available with site-specific filter bags providing various levels of filtration. Whether you're the specifier or the user, it's clear to see how FLEXSTORM PURE Inlet Filters outperform the competition.

### Applications:

- Car Washes
- Commercial
- Loading Ramps
- Industrial
- Gas Stations
- Parking Lots
- Dock Drains
- Maintenance

### Features

- Stainless Steel filter framing is custom configured to fit perfectly into any drainage structure, whether a standard design or obstructed inlet opening
- Filtered Flow Rates and Ultimate Bypass Rates are designed to meet your specific inlet requirements
- Multiple Filter Bags are available targeting site specific removal of trash, litter, leaves, or small particles, oil and grease
- Filters work below grade with an ultimate bypass allowing inlet area to drain with a full bag
- Units install in seconds and are easily maintained with the FLEXSTORM Universal Removal Tool (no heavy machinery required)

### Benefits

- Receive payback on your investment: durable stainless steel framing provides extended service life while replaceable filter bags handle loads with a safety factor of 5
- Meet stringent removal requirements:
  - FX filter bags are rated for > 80% removal efficiency of street sweep-size particles
  - PC/PC+ filter bags have been tested to 99% TSS removal of OK-110 US Silica Sand and 97% TPH (total petroleum hydrocarbon) removal
- Help prevent fines: FLEXSTORM Inlet Filters comply with EPA NPDES initiatives as a temporary or permanent BMP
- Available through 5,000 ADS distributors nationwide
- If not in stock, orders up to 100 pcs can ship within 48 hours

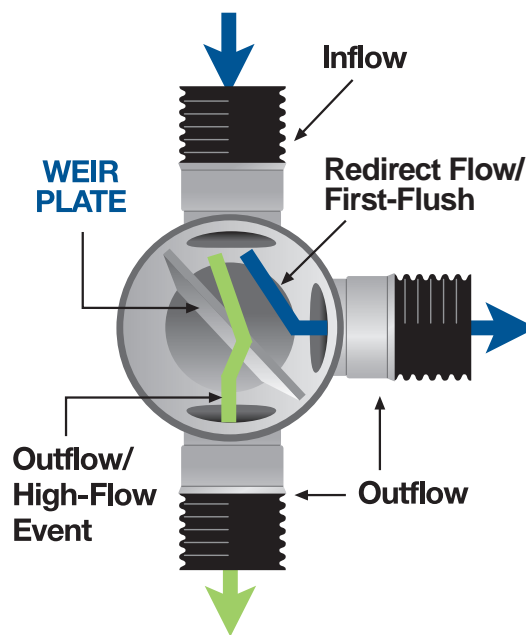
## Weir Structure

### How the Weir Structure Works:

- Storm water flows into the Nyloplast catch basin structure.
- The water flow is diverted to a desired outlet from the catch basin, typically to a water quality device, in order to effectively capture pollutants during the “first flush” of a storm event.
- The Weir Structure may also serve to restrict or regulate the flow of water exiting the drainage system. The restriction is determined by height of the weir and/or the size of the orifice hole in the weir plate.

### Weir Structure Benefits:

- Simple and effective method to direct the inlet flow into a storm water management system or water quality device.
- Simple and effective method to regulate outlet flow from a storm water management system.
- Enhances ability of a water quality device to capture pollutants from storm event.
- Allows for flexibility to re-direct water flow during a high-flow event.
- Proven technology used for many years in the irrigation market.
- Nyloplast can customize Weir Structures (at the direction of the design engineer) to provide a variety of weir functions for site-specific needs, including “key way slot” and “v-notch” weir designs, and high flow or low flow orifice hole designs to further regulate the flow of storm water.



## How to Order a Weir Structure

Verify that requirements of the Drain Basin are met:

1. Size of Basin
  2. Number of Stubs
  3. Contact Nyloplast for Snout and Wier minimum angles (standard chart does not apply).
- Get pricing estimate. (Pricing aid will be supplied for this procedure. If price cannot be determined, contact Nyloplast.)
  - The Weir Structure should be ordered on the specific Weir Structure order form on page 33
  - Contact Nyloplast for lead-time and relay information to customer. This will be determined on a case-by-case scenario.

## Weir - Overview Chart

Part#/Prefix	Product Description
<b>24" Drain Basin with Weir Structure</b>	
2824AG __ XWE	24" Custom Basin with Grate & Weir
<b>30" Drain Basin with Weir Structure</b>	
2830AG __ XWE	30" Custom Basin with Grate & Weir
<b>24" Curb Inlet Structure with Weir - 2'x 2' Series Square Grate</b>	
3024AGS __ XWE	24" Curb Inlet Structure with Grate & Weir
<b>24" Curb Inlet Structure with Weir - 2'x 2' Series Rectangular Grate</b>	
3024AGR __ XWE	24" Curb Inlet Structure with Grate & Weir
<b>30" Curb Inlet Structure with Weir - 2'x 2' Series Square Grate</b>	
3030AGS __ XWE	30" Curb Inlet Structure with Grate & Weir
<b>30" Curb Inlet Structure with Weir - 2'x 3' Series Rectangular Grate</b>	
3030AGR __ XWE	30" Curb Inlet Structure with Grate & Weir
<b>24" Road &amp; Highway Structure with Weir - 2'x 2' Series Square Grate</b>	
3224AGS __ XWE	24" Road & Highway Structure with Grate & Weir
<b>24" Road &amp; Highway Structure with Weir - 2'x 3' Series Rectangular Grate</b>	
3224AGR __ XWE	24" Road & Highway Structure with Grate & Weir
<b>30" Road &amp; Highway Structure with Weir - 2'x 2' Series Square Grate</b>	
3230AGS __ XWE	30" Road & Highway Structure with Grate & Weir
<b>30" Road &amp; Highway Structure with Weir - 2'x 3' Series Rectangular Grate</b>	
3230AGR __ XWE	30" Road & Highway Structure with Grate & Weir

## Pour Ring

The pour ring is used with 8" and 10" structures. This allows for removal of the grate when body is encased.

Part#/Prefix	Product Description
2708AGCPR	8" pour ring
2710AGCPR	10" pour ring

## Perforations

Perforations can be added to any structure for an additional charge. (Holes are 3/8 inch diameter)

Please make note on the drawing/order and include information or diagram for placement. Consult the **Perforation Schedule** below details.

Basin Size	Angle Between Holes	No. of Holes	Distance Between Holes	Diameter of Holes
8"	90	4	2.00	0.375
10"	90	4	2.00	0.375
12"	60	6	2.00	0.375
15"	60	6	2.00	0.375
18"	45	8	2.00	0.375
24"	45	8	2.00	0.375
30"	36	10	2.00	0.375

## Alternate Pipe Connections

An additional charge per adapter applies to all products adapting to:

- 4"- 24" gasketed C900 / C905
- 4"- 24" gasketed IPS
- 24" DWV
- 24" gasketed SWR
- RCP, CMP, Others

# Drain Basin Configurator

## Do-It-Yourself Nyloplast Drain Basin Configurator

The Basin Configurator design program automatically designs a Nyloplast drain structure quickly and easily online. Entering just minimal information enables the proprietary software to customize a basin for any project. Input sections include type of pipe, basin diameter, and details for each branch including diameter, angle plus invert height. Any miscalculations are reduced as the program automatically guides you to suggested measurement(s). The program then provides a drawing and list of components that can be immediately ordered or saved in the user's private account.

The Custom Basin Configurator can be found at [www.ads-pipe.com](http://www.ads-pipe.com), or at [www.basinconfigurator.com](http://www.basinconfigurator.com)

### Features & Benefits:

- Automatic design is quick and easy
- Customizable for any project
- Private online accounts can store multiple projects
- Custom products can be ordered immediately or saved for a later date
- Products arrive on the job site ready to install
- Installation is quick, safe and simple
- Minimal labor contributes to immediate cost savings all around

The screenshot shows the 'Custom Basin Configurator' web application. At the top, there is a navigation bar with a 'Go Back to My Dashboard' link. Below the header, a message states 'Project Test has been created.' The main content area is titled 'Start Here' and provides instructions: 'Follow the steps below to create your custom drain basin. Be sure to use the Help Buttons below if you need guidance and examples. Also be sure to pay attention to any messages you receive on the left side of the configurator. These messages will let you know if you need to adjust your configuration.'

The configuration steps are as follows:

- Please select your basin diameter:** A dropdown menu is set to '18"'. A help button asks 'What is the basin diameter?'. A preview window titled 'My Custom Drain Basin' shows a circular diagram with a blue segment and angles of 270, 90, and 180 degrees.
- Branch 1:** Fields for 'DIAMETER' (set to '6"'), 'ANGLE' (set to '13'), and 'INVERT HEIGHT' (set to '13 inches'). A 'PIPE' dropdown is set to 'ADS HP'. A help button asks 'I need help configuring this branch.' and an 'Add a Branch' button is present.
- Please enter your rim height:** A field is set to '70 inches'. A help button asks 'What is the rim height?'.
- Specify your grate size. If unsure, match your basin diameter:** A dropdown is set to '18"'. A 'Locking grate needed?' checkbox is checked.
- Grate Type:** A dropdown is set to 'Pedestrian'. A help button asks 'I need help choosing my grate options.' and buttons for 'Request Pricing' and 'Specify This Part' are at the bottom.

The screenshot shows the landing page for the 'Nyloplast Drain Basin Configurator'. The header features the 'nyloplast' and 'ADS' logos, and a 'LOGIN TO PROJECT CENTER' button. The main heading is 'Nyloplast Drain Basin Configurator' with the tagline 'A first-in-industry efficiency tool for creating custom Nyloplast drain basins.' Below this is a 'GET STARTED NOW' button.

The page features three main action buttons, each with an icon and a brief description:

- Configure:** Icon of a pipe and grate. Text: 'Our easy-to-use configurator takes the pain out of creating custom drain basins.'
- Specify:** Icon of a document with a checklist. Text: 'Get the documentation you need for your project to specify your custom basin.'
- Get Pricing:** Icon of a speech bubble with a dollar sign. Text: 'Send your custom drain basin to the ADS sales team to get a price quote.'

## Prefixes:

**27** = Inline Drain    **29** = Riser    **32** = Road & Highway  
**28** = Drain Basin    **30** = Curb Inlet Structure    Structure

## Inline Drains

**Formula:** **27** \_ \_ **AG** \_ \_ **X**

The first set of blanks is the size of the body  
(Choose from 08,10,12,15,18,24,30)

The second set of blanks is the size of pipe adapting to  
(Choose from 04,06,08,10,12,15,18,24,30)

The **X** represents the type of pipe adapting to. Replace **X** with one of the following:

**N** = ADS / Hancor dual wall pipe

**D** = DWV PVC (Sch 40 or Sch 80)

**S** = SWR PVC (ASTM D 3034: SDR 35 SWR & SDR 26 SWR PVC)

**O** = Big O / Armtex

If type of pipe does not fit any of these, leave X blank and note type of pipe and outside diameter of pipe.

## Drain Basins

**Formula:** **28** \_ \_ **AG** \_ \_ **X**

The first set of blanks is the size of the body  
(Choose from 08,10,12,15,18,24,30)

The second set of blanks is the number of branches (Choose from 01 thru 05)

The **X** represents the type of pipe adapting to. Replace **X** with one of the following:

**N** = ADS / Hancor dual wall pipe

**D** = DWV PVC (Sch 40 or Sch 80)

**S** = SWR PVC (ASTM D 3034: SDR 35 SWR & SDR 26 SWR PVC)

**DR** = ADS / Hancor single wall pipe

If branches are mixed (two or more different types of pipe), leave X as blank.

If type of pipe does not fit any of these, please note type of pipe and outside diameter of pipe and call Nyloplast at **(866) 888-8479** for technical assistance.

## Risers

**Formula:** **29** \_ \_ **AGX**

The blanks are the size of the body (Choose from 08,10,12,15,18,24,30)

The **X** represents **01** = 1 foot, **02** = 2 foot.

Please order as Qty of each and line note the height of the riser.

Example: 3 each 2912AG (12" riser section)

Line note: 3 each - 2 ft tall

# How to Build a Part Number

## Prefixes:

**27** = Inline Drain    **30** = Curb Inlet Structure  
**28** = Drain Basin    **32** = Road & Highway Structure  
**29** = Riser

## Curb Inlet Structures

### 2'x 2' Series Square Grate

**Formula:** **30** \_ \_ **AGS** \_ \_ **X**

The first set of blanks is the size of the body  
(Choose from 12,15,18,24,30)

The second set of blanks is the number of branches (Choose from 01 thru 05)

The **X** represents the type of pipe adapting to. Replace **X** with one of the following:

**N** = ADS / Hancor dual wall pipe  
**D** = DWV PVC (Sch 40 or Sch 80)  
**S** = SWR PVC (ASTM D 3034: SDR 35 SWR & SDR 26 SWR PVC)  
**DR** = ADS / Hancor single wall pipe

If branches are mixed (two or more different types of pipe), leave X as blank.

If type of pipe does not fit any of these, please note type of pipe and outside diameter of pipe and call Nyloplast at **(866) 888-8479** for technical assistance.

## Curb Inlet Structures

### 2'x 3' Series Rectangular Grate

**Formula:** **30** \_ \_ **AGR** \_ \_ **X**

The first set of blanks is the size of the body  
(Choose from 18,24,30)

The second set of blanks is the number of branches (Choose from 01 thru 05)

The **X** represents the type of pipe adapting to. Replace **X** with one of the following:

**N** = ADS / Hancor dual wall pipe  
**D** = DWV PVC (Sch 40 or Sch 80)  
**S** = SWR PVC (ASTM D 3034: SDR 35 SWR & SDR 26 SWR PVC)  
**DR** = ADS / Hancor single wall pipe

If branches are mixed (two or more different types of pipe), leave X as blank.

If type of pipe does not fit any of these, please note type of pipe and outside diameter of pipe and call Nyloplast at **(866) 888-8479** for technical assistance.

## Prefixes:

**27** = Inline Drain    **30** = Curb Inlet Structure  
**28** = Drain Basin    **32** = Road & Highway Structure  
**29** = Riser

## Road & Highway Structures

### 2'x 2' Series Square Grate

**Formula:** **32** \_ \_ **AGS** \_ \_ **X**

The first set of blanks is the size of the body  
(Choose from 12,15,18,24,30)

The second set of blanks is the number of branches (Choose from 01 thru 05)

The **X** represents the type of pipe adapting to. Replace **X** with one of the following:

**N** = ADS / Hancor dual wall pipe  
**D** = DWV PVC (Sch 40 or Sch 80)  
**S** = SWR PVC (ASTM D 3034: SDR 35 SWR & SDR 26 SWR PVC)  
**DR** = ADS / Hancor single wall pipe

If branches are mixed (two or more different types of pipe), leave X as blank.

## Road & Highway Structures

### 2'x 3' Series Rectangular Grate

**Formula:** **32** \_ \_ **AGR** \_ \_ **X**

The first set of blanks is the size of the body  
(Choose from 18,24,30)

The second set of blanks is the number of branches (Choose from 01 thru 05)

The **X** represents the type of pipe adapting to. Replace **X** with one of the following:

**N** = ADS / Hancor dual wall pipe  
**D** = DWV PVC (Sch 40 or Sch 80)  
**S** = SWR PVC (ASTM D 3034: SDR 35 SWR & SDR 26 SWR PVC)  
**DR** = ADS / Hancor single wall pipe

If branches are mixed (two or more different types of pipe), leave X as blank.

If type of pipe does not fit any of these, please note type of pipe and outside diameter of pipe and call Nyloplast at **(866) 888-8479** for technical assistance.



# Drainage Structure Cost Comparison



## Pre-Cast Concrete

### Materials Cost

**CONCRETE BOX**  
Complete w/ Bottom,  
Adapter Top and Outlets \_\_\_\_\_

Frame & Grate or  
Frame, Grate & Hood \_\_\_\_\_

5g Buckets of Non-Shrink Grout  
@ \$ \_\_\_\_\_ per Bucket \_\_\_\_\_

Grade Rings or Brick \_\_\_\_\_

### Installation Cost

**TRACK HOE & OPERATOR**  
Equipment, Wages, Benefits  
& Taxes  
\_\_\_\_\_ hours @ \$ \_\_\_\_\_ per hr. \_\_\_\_\_

**LABORER; 1, 2, 3 MEN**  
Wages, Benefits & Taxes  
(Knock Out Holes, Set the Structure,  
Installing Frame & Grate and  
Grouting Inlets & Outlets)  
\_\_\_\_\_ hours @ \$ \_\_\_\_\_ per hr. \_\_\_\_\_

**TOTAL COST** \_\_\_\_\_

## Built-In-Place

### Materials Cost

**BRICK STRUCTURE**  
Brick \_\_\_\_\_  
Mortar \_\_\_\_\_

Frame & Grate or  
Frame, Grate & Hood \_\_\_\_\_

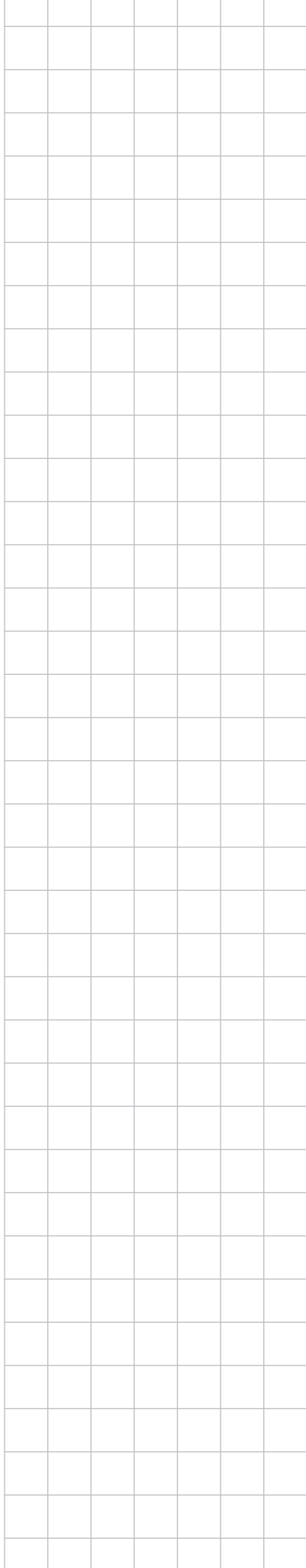
**CAST-IN-PLACE**  
Framing Lumber \_\_\_\_\_  
Concrete \_\_\_\_\_

### Installation Cost

**TRACK HOE & OPERATOR**  
Equipment, Wages, Benefits  
& Taxes  
\_\_\_\_\_ hours @ \$ \_\_\_\_\_ per hr. \_\_\_\_\_

**LABORER; 1, 2, 3 MEN**  
Wages, Benefits & Taxes  
\_\_\_\_\_ hours @ \$ \_\_\_\_\_ per hr. \_\_\_\_\_

**TOTAL COST** \_\_\_\_\_



## Nyloplast® PVC Structure



### Materials Cost

#### COMPLETE UNIT

Basin, Frame, Grate  
and Hood, ASTM  
F-477 Gasket -----

#### H-20 RATED

1/3 Cubic Yard of Concrete  
(for H-20 Rated Only) -----

### Installation Cost

#### RUBBER-TIRE BACK HOE & OPERATOR

Equipment, Wages, Benefits & Taxes  
\_\_\_\_ hours\* @ \$\_\_\_\_\_ per hr. -----

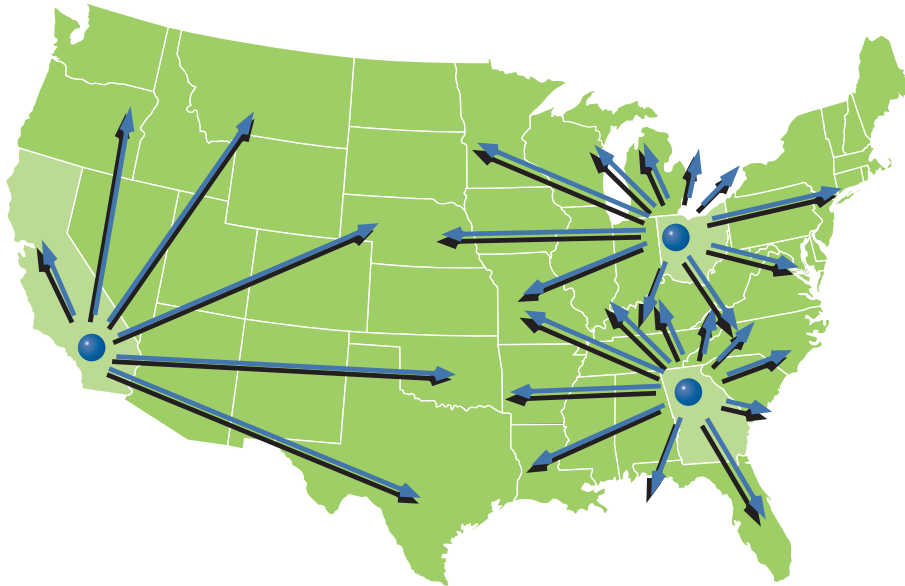
#### LABORER; 1, 2 MEN

Wages, Benefits & Taxes  
\_\_\_\_ hours\* @ \$\_\_\_\_\_ per hr. -----

#### \*Hours to Install

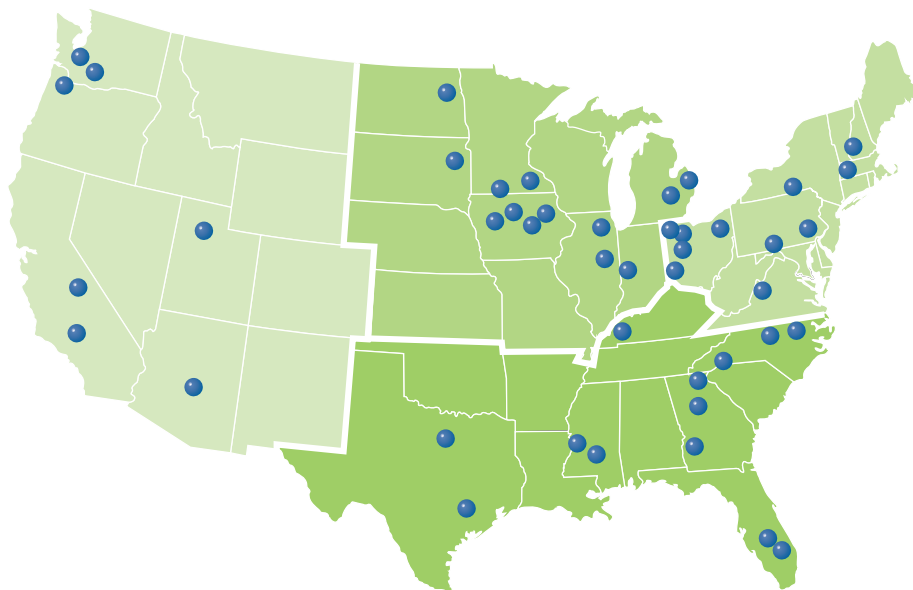
Inline Drain	.77 hr.
Drain Basin (Non H-20 Rated)	1 hr.
Drain Basin (H-20 Rated)	1.33 hr.
Road & Highway	1.5 hr.
Curb Inlet	1.75 hr.

### TOTAL COST \_\_\_\_\_



## Strategic Nyloplast Locations

The strategic location of Nyloplast's manufacturing facilities located in Buford, Georgia, Bakersfield, California and Findlay, Ohio makes for fast arrival just about anywhere in North America. In fact, once you've worked with our products and experienced our service, we're confident you'll be impressed.



**● ADS and Hancor Pipe Manufacturing Locations**

### Customer Service Locations

- Northeast Zone Office** Findlay, OH • 1-888-367-7473
- Midwest Zone Office** London, OH • 1-800-733-9554
- Southern Zone Office** Franklin, TN • 1-800-733-9987
- Western Zone Office** Vancouver, WA • 1-800-733-8523

## Freight Policy:

For Nyloplast structures, *freight prepaid* on orders *\$2,500 and over*, FOB Buford, GA, Bakersfield, CA or Findlay, OH. This includes any orders shipping from other facilities within the continental US.

This policy may change without notice. Always confirm Nyloplast freight policy before ordering.

## Return Policy:

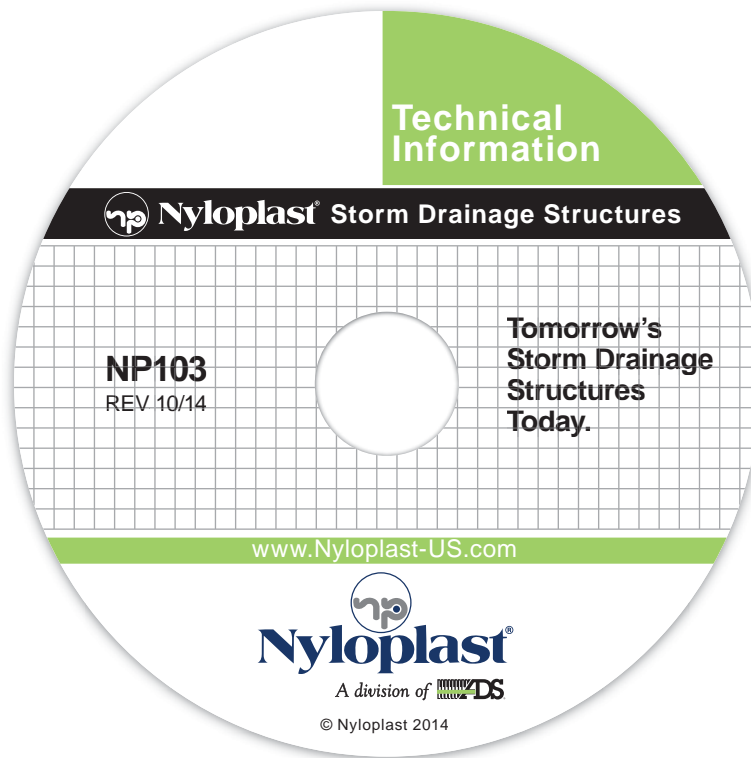
Due to the fact that each structure is custom made, drain basins, curb inlet structures, road and highway structures, EnviroHood structures, weir structures are all *Non-cancelable* and *Non-returnable*.

Returns of Inline Drains or Grates must be pre-approved by Nyloplast Management. Standard restocking fee on Inline Drains and Grates is 25%. All products should be returned to the Nyloplast plant in Buford, GA, Bakersfield, CA or Findlay, OH unless the product is a standard stocking item at the nearest pipe plant or distribution center. All return freight to be paid by customer.

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## Interactive CD Rom Available

We are always working to improve the tools and information available for our customers. The latest interactive CD Rom gives you technical information, photographs and drawings to assist you in specifying storm drainage products for all your future projects.



For a copy of our latest CD Rom and other promotional literature please call us at: **(866) 888-8479**

ADS "Terms and Conditions of Sale" are available on the ADS website, [www.ads-pipe.com](http://www.ads-pipe.com)  
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A division of  ADS

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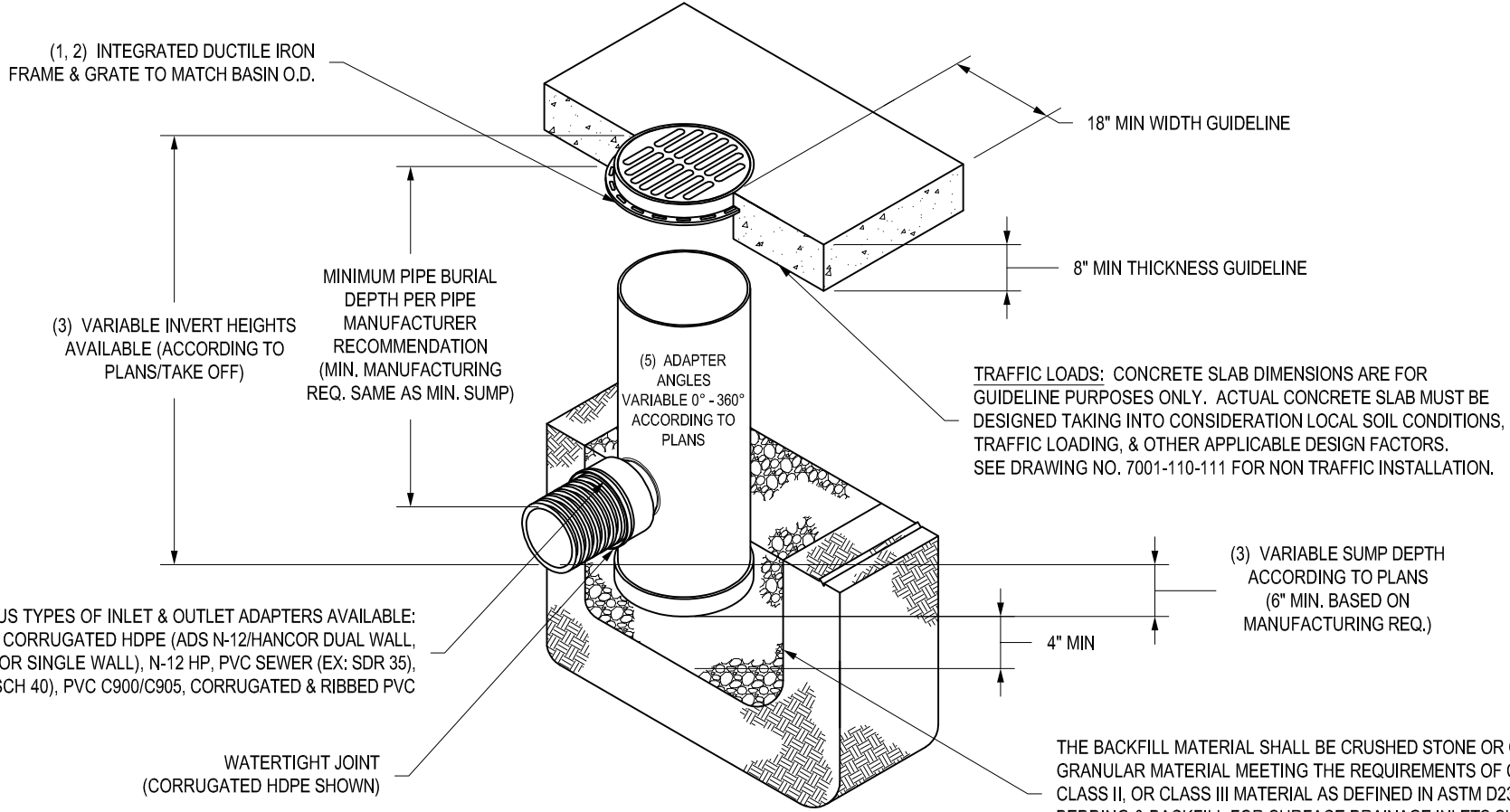
Advanced Drainage Systems, Inc.  
4640 Trueman Blvd. Hilliard, OH 43026

1-800-821-6710

[www.ads-pipe.com](http://www.ads-pipe.com)



# NYLOPLAST 18" DRAIN BASIN: 2818AG \_\_ X




GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1899CGP	7001-110-212
STANDARD	MEETS H-20	1899CGS	7001-110-213
SOLID COVER	MEETS H-20	1899CGC	7001-110-214
DOME	N/A	1899CGD	7001-110-215
DROP IN GRATE	LIGHT DUTY	1801DI	7001-110-074

- 1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
- 4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
- 5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DRAWN BY	EBC	MATERIAL
DATE	04-03-06	
REVISED BY	NMH	PROJECT NO./NAME
DATE	03-14-16	
DWG SIZE	A	SCALE 1:30 SHEET 1 OF 1



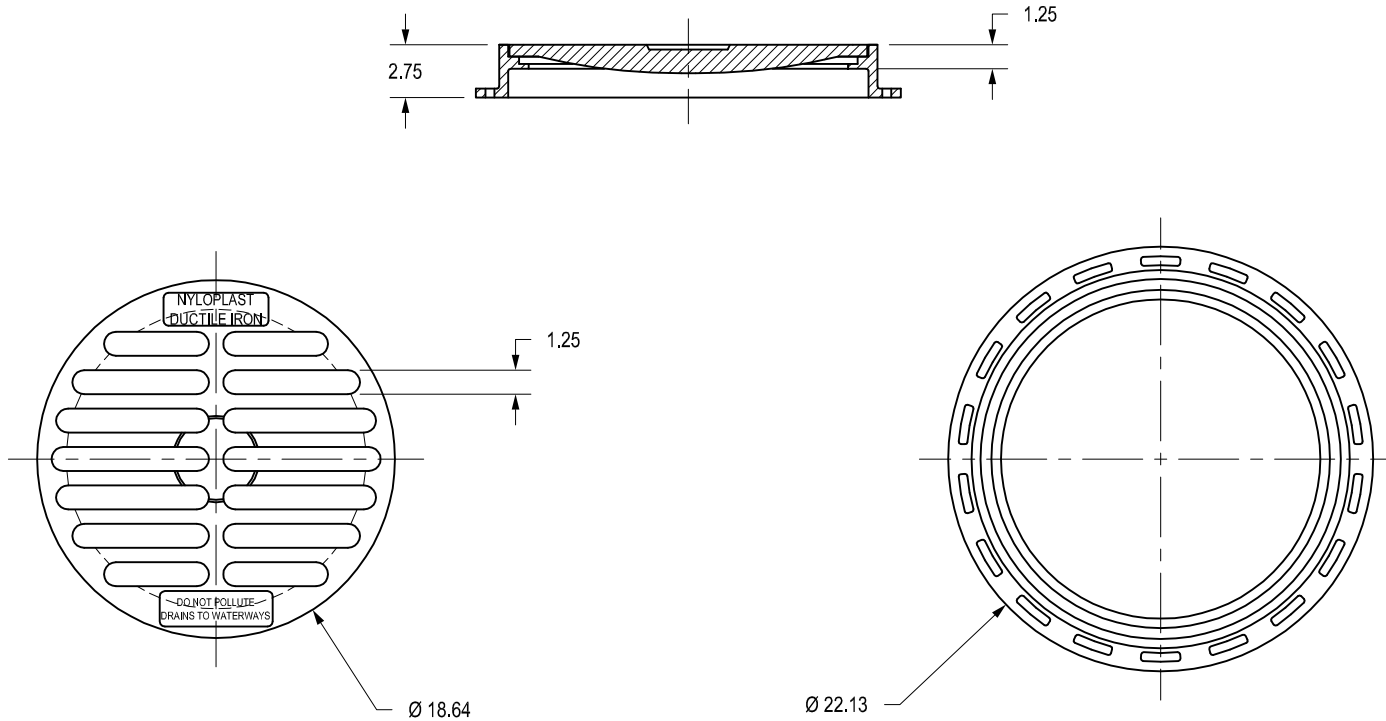
3130 VERONA AVE  
 BUFORD, GA 30518  
 PHN (770) 932-2443  
 FAX (770) 932-2490  
 www.nyloplast-us.com

TITLE  
 18 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-191 REV E

# 1899CGS

APPROX. DRAIN AREA = 116.72 SQ IN  
 APPROX. WEIGHT WITH FRAME = 68.50 LBS



DIMENSIONS ARE FOR REFERENCE ONLY

ACTUAL DIMENSIONS MAY VARY

DIMENSIONS ARE IN INCHES

GRATE MEETS H-20 LOAD RATING

QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05

PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT

LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO.

7001-110-029

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DRAWN BY	EBC	MATERIAL
DATE	03-08-06	DUCTILE IRON
REVISED BY	CCA	PROJECT NO./NAME
DATE	08-30-13	
DWG SIZE	A	SCALE 1:10 SHEET 1 OF 1



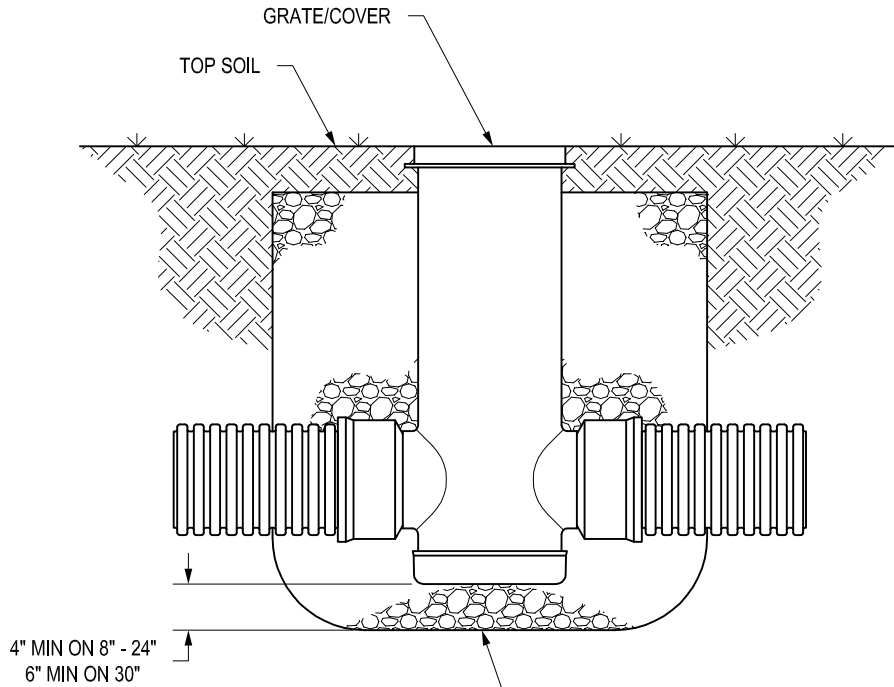
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 FAX (770) 932-2490  
[www.nyloplast-us.com](http://www.nyloplast-us.com)

TITLE	18 IN STANDARD GRATE ASSEMBLY - TYPE C	
DWG NO.	7001-110-213	REV D



# NON TRAFFIC INSTALLATION

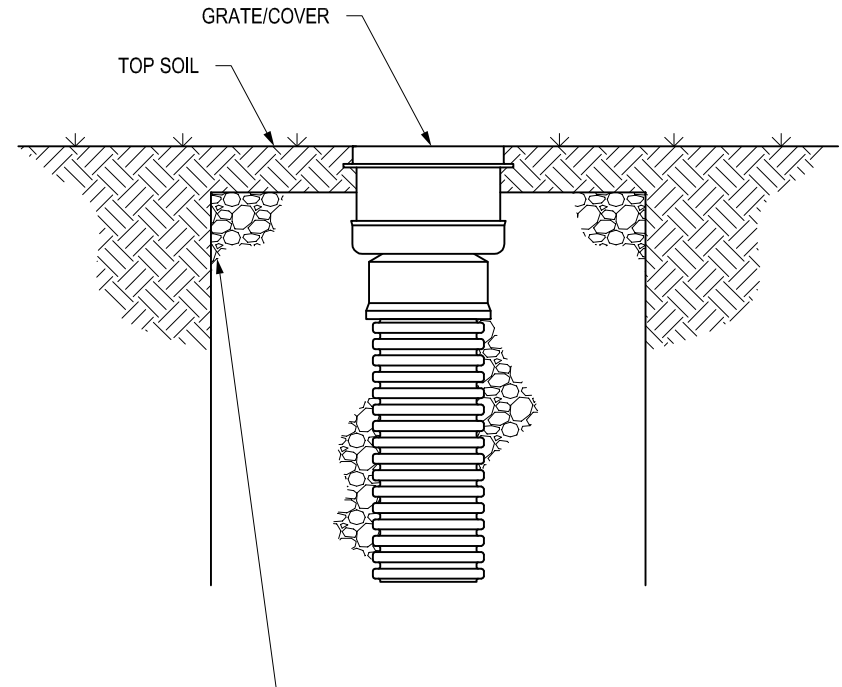
## DRAIN BASIN



4" MIN ON 8" - 24"  
6" MIN ON 30"

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

## INLINE DRAIN



THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

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DATE	9-30-99	
REVISED BY	NMH	PROJECT NO./NAME
DATE	03-11-16	
DWG SIZE	A	SCALE 1:25 SHEET 1 OF 1



**Nyloplast**

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TITLE	
DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION	
DWG NO.	7001-110-111 REV E

## Section 2721

### Engineered Surface Drainage Products

**GENERAL**

PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.


**MATERIALS**

The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermoforming process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

The grates and frames furnished for all surface drainage inlets shall be ductile iron for sizes 8", 10", 12", 15", 18", 24" and 30" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting various wheel loads as specified by Nyloplast. 12" and 15" square grates will be hinged to the frame using pins. Ductile iron used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05. Grates and covers shall be provided painted black.

**INSTALLATION**

The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For load rated installations, a concrete slab shall be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.

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	DATE	3-10-00	PROJECT NO./NAME						
	REVISED BY	NMH	TITLE						
	DATE	03-11-16	8 IN - 30 IN DRAIN BASIN SPECIFICATIONS						
DWG SIZE	A	SCALE	1:1	SHEET	1 OF 1	DWG NO.	7001-110-011	REV	H