



December 29, 2017

Mr. Leo Cosentini  
California State Water Resources Control Board  
Division of Water Quality  
PO Box 100  
Sacramento, CA 95812

**Re: Curb Inlet Full Capture Systems Application for Trash Treatment Control Device Certification**

Dear Mr. Cosentini,

CleanWay Environmental Partners, Inc. is pleased to present our application to the California State Water Resources Control Board for the Curb Inlet Filtration System's use as a Trash Treatment Control Device. This application contains the complete supporting detail of the system according to the *Trash Treatment Control Device Application Requirements*. This includes the following seven sections:

1. Cover Letter
2. Table of Contents
3. Physical Description
4. Installation Information
5. Operation and Maintenance Information
6. Reliability Information
7. Field/Lab Testing Information and Analysis

Thank you for considering this application. Please do not hesitate to contact us if additional information is required.

Sincerely yours,

**CleanWay Environmental Partners, Inc.**

Steve McInnis  
Owner

cc: Bridget Garlinghouse, CleanWay®, Technical Sales Engineer

## **1.0 COVER LETTER**

### **1.A. General description of the Device.**

The Curb Inlet Filtration System is a full capture curb inlet filtration insert comprised of two components: a support pan and sliding collection basket. The stainless steel collection basket has 3/16" (4.8 mm) perforated openings and effectively captures particles 5mm or greater. Under normal conditions stormwater and trash entering the curb inlet vault must pass through the perforated components prior to exiting the vault.

### **1.B. The applicant's contact information and location.**

CleanWay has been manufacturing the stormwater filtration systems in Portland, Oregon since the late 1980s. We can be reached 8am to 5pm Monday through Friday at 800-723-1373.

CleanWay's California Full Capture device contact:

Bridget Garlinghouse, EIT  
Technical Sales Engineer  
CleanWay Environmental Partners, Inc.  
PO Box 30087  
Portland, OR 97294  
503-467-2639  
[bridget.garlinghouse@cleanwayusa.com](mailto:bridget.garlinghouse@cleanwayusa.com)

### **1.C. The Devices' manufacturing location.**

Fabrication of all units occurs at the physical location listed below:

CleanWay Environmental Partners, Inc.  
5410 NE 109<sup>th</sup> Ave  
Portland, OR 97220

### **1.D. A brief summary of any field/lab testing results that demonstrates the Device functions as described within the application.**

The Curb Inlet Filtration System directs all water and particles or trash carried with the water through a screen with <5mm openings. No particles equal to or greater than 5mm diameter can physically escape the system unless the system is in bypass. In addition to the set physical size limitations of the screen, trash collection performance testing is currently being conducted for further characterization of the system. This information is available upon request and will be added as an amendment to the application once finalized.

### **1.E. A brief summary of the Device limitations, and operational sizing and maintenance considerations.**

The Curb Inlet Filtration system is easy to install and maintain, requiring no special tools. These systems are offered in standard sizes and custom designs for varying vault styles. The device is limited to a minimum depth of 12" and inlet manhole size of 16". Inspection and maintenance of the unit should be performed on a monthly basis to ensure the device is working properly. In

addition, the systems are easily maintained with vector or combination trucks for improved safety of service technician and reduction of trash reintroduction.

**1.F. A description or list of locations, if any, where the Devices has been installed. Include the name and contact information of as many as three municipality(s) purchasing the Device.**

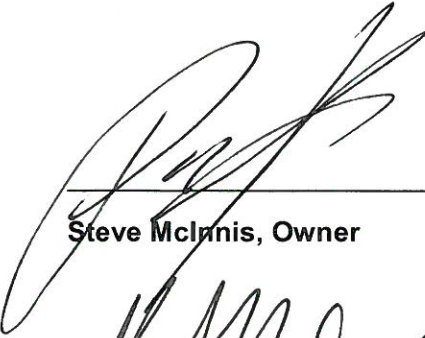
Our systems have been field tested throughout the Pacific Northwest and United States in many locations, including the two municipalities listed below.

City of Riverside, California  
Rick Jackson  
rjackson@riversideca.gov

City of Milwaukie, Oregon  
Brad Albert  
albertb@ci.milwaukie.or.us

**1.G. Certification Statement.**

*I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons that manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

  
\_\_\_\_\_  
Steve McInnis, Owner

12-29-17  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Bridget Garlinghouse, Technical Sales Eng.

12-29-17  
\_\_\_\_\_  
Date

**Application for Curb Inlet Full Capture System Certification  
to the California State Water Resource Control Board**



**CleanWay Environmental Partners, Inc.**  
PO Box 30087  
Portland, OR 97294

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## APPENDICIES

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| Appendix A. | Standard Drawings for Curb Inlet filtration units |
| Appendix B. | Client worksheet: Measure your Curb Inlet         |
| Appendix C. | CleanWay® Limited Product Warranty                |

### 3.0 PHYSICAL DESCRIPTION

#### 3.A. Design drawings for all standard Devices sizes including dimensions, and alternative configurations.

Design drawings for Curb Inlet filtration devices are included in **Appendix A**. Alternative configurations for the Curb Inlet filtration unit are described in Table 1, below.

**Table 1. Alternative configurations for Curb Inlet filtration inserts**

| Item No.     | Description                                                                                                          | Alternative                                                         |
|--------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| CI5MM_X_X_   | Curb Inlet insert with 4.8mm perforations with customer specified dimensions.                                        | For non-standard curb inlet vault with inlet width sized 24" and up |
| CI_X_SED-III | Curb Inlet system type-III with 4.8mm perforations with customer specified dimensions and geotextile fabric element. | For non-standard curb inlet vault sized 16" and up                  |
| CI_X_SED-II  | Curb Inlet system type-II with 4.8mm perforations with customer specified dimensions and geotextile fabric element.  | For non-standard curb inlet vault sized 20" and up                  |

#### 3.B. Description on how the Device works to trap all particles that are 5mm or greater in size and how it is sized for varying flow volumes.

Curb inlet filtration systems include two components: a support pan and sliding collection basket. The modular support pan is designed to conform to the existing vault specifications. It is positioned below the inlet of the curb drain on stainless steel angles that are mounted to the vault walls. The pan's main feature options are stainless steel sheet or perforated stainless steel sheet. The sliding collection basket sits below the vault's manhole opening and is constructed with 3/16" (4.8 mm) perforated stainless steel sheet on 1/4" (6.35 mm) centers. It drops below the pan to sit inside the vault, and includes handles for ease maintenance and vault servicing.

The filtration system is designed for use in both existing and new storm drain infrastructure. Standard curb inlet insert sizes fit vaults that are three feet wide by nine feet long by four feet deep. Since the design is modular, non-standard size variations are available at comparable cost. The modular and scalable portion of the insert is the pan, which houses the collection basket. Collection baskets are offered in sizes to accommodate the vault specifications: one and a half feet wide by three feet long by two feet deep. To ensure 100% capture of trash, the pan is fitted snugly against the vault walls with a two inch lip around the back side of the pan. This design forms a seal between the vault walls, inlet and filtration insert.

Standard sizes include three feet wide by nine feet long by four feet deep curb inlet vaults with two feet deep collection baskets. Sizing variations are designed based on the storm drain specifications and outgoing pipe size. Included variations are custom support pan sizes and various collection basket depths.

### 3.C. The Device maximum trash capture capacity.

See subsection 3.D. for maximum trash capture capacity on standard Curb Inlet filtration units.

### 3.D. The Device hydraulic capacity (flow in cfs) at its maximum trash capture capacity for all standard Device sizes.

Table 2, below, provides the standard design filtration specifications for typical Curb Inlet filtration units including capture capacity and hydraulic capacity.

**Table 2. Curb Inlet standard design filtration specifications**

| Item No.    | Description                                                                                                    | Capture Capacity (ft <sup>3</sup> ) | Hydraulic Capacity (cfs)                    |
|-------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------|
| CI5MM3X9X4  | Curb Inlet insert for 3' x 9' x 4' deep vault, standard 1.5' x 3' x 2' deep collection basket, 20" outlet pipe | 9                                   | <u>Nominal</u> : 0.42<br><u>Max</u> : 0.84  |
| CI5MM4X8X2  | Curb Inlet insert for 45" x 8' x 28" deep vault, 1.5' x 3' x 1.5' deep collection basket, 12" outlet pipe      | 6.5                                 | <u>Nominal</u> : 0.42<br><u>Max</u> : 0.84  |
| CI5MM3X10X5 | Curb Inlet insert for 3' x 10' x 5.5' deep vault, 1.5' x 3' x 2' deep collection basket, 36" outlet pipe       | 8.5                                 | <u>Nominal</u> : 0.42<br><u>Max</u> : 0.84  |
| CI24SED-II  | Curb Inlet system for 24" vault complete with geo-textile fabric element, type II                              | 1.33                                | <u>Nominal</u> : 0.089<br><u>Max</u> : 0.18 |

### 3.E. Conditions under which the Devices re-introduces previously trapped trash.

Trash reintroduction will occur in unit when collection basket is completely filled and floatable trash exits through the open area overflow behind the collection basket and two inch lip of the unit. The overflow area is sized for the vault outlet pipe capacity, and is designed accordingly for each vault installation.

### 3.F. Each material and material grade used to construct the Device.

See subsection 3.G. for material and material grade of the components in the Curb Inlet filtration unit.

### 3.G. Estimated design life of the Device.

Table 3, on the next page, details the materials and material grades used in Curb Inlet filtration products. The design life of hardware components is dependent on housekeeping, maintenance, and frequency of curb inlet vault service. The listed design life is rated for average filter loading, average service frequency, and consistent housekeeping (i.e. sweeping).

**Table 3. Curb Inlet product materials**

| Item No. | Description                                 | Material(s)                                                                    | Material Grade                                                   | Design Life |
|----------|---------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|-------------|
| RPCIPER  | Curb Inlet perforated collection pan        | Stainless Steel<br>or<br>3/16" (4.8mm) perforated<br>on 1/4" centers Stainless | #16 304#2B Stainless<br>or<br>#14 304#2B perforated<br>Stainless | 10 years    |
| RPCIBSK  | Curb Inlet collection basket                | 3/16" (4.8mm) perforated<br>on 1/4" centers Stainless<br>Steel                 | # 14 304#2B Stainless                                            | 10 years    |
| RPCIBM   | Curb Inlet vault 2" x 2"<br>mounting angles | Stainless Steel                                                                | #16 304#2B Stainless                                             | 10 years    |

### 3.H. Engineering plans/diagrams for a typical installation.

Engineering plans/diagrams for a typical installation of the Curb Inlet unit are provided in **Appendix A** along with the standard dimensions.

### 3.I. Photographs, if any, of pre- and post-installation examples.

Figures 1 through 6 illustrate the installation process of a Curb Inlet filtration insert, before and after complete installation. Inserts fit all sizes of vaults, regardless of manhole opening type.



**Figure 1. Cleaned curb inlet for CleanWay's Curb Inlet filtration insert**



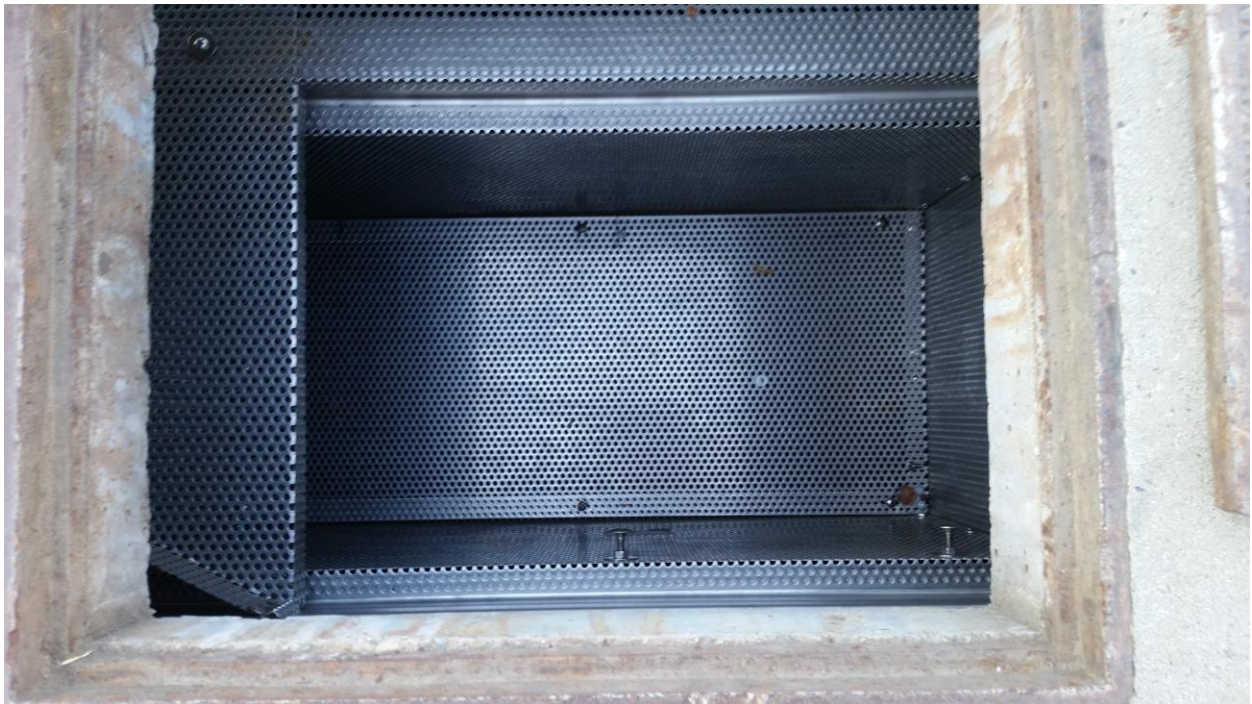
Figure 2. Installation of Curb Inlet insert and vector control access point behind perforated pan



Figure 3. Installed Curb Inlet insert 100% collection at front vault wall



**Figure 4. Installed Curb Inlet insert 100% connection at rear vault wall**



**Figure 5. Collection basket view through manhole during operation and use**



Figure 6. Collection basket view through manhole during vault cleaning and maintenance; vector control access point; jetting, cleaning, camera and confined space services accessible without removing parts

**3.J. If the device is designed with an internal bypass, explain how the bypass only operates with flows greater than the design storm.**

During rainfall events that receive flows that are greater than the design storm of a one-year, one-hour storm in the subdrainage area bypass of the filter can be activated. The bypass of the filtration unit occurs when flows exceed 0.84 cfs. Bypass is when water flows over the top of the two inch lip at the back of the filtration insert, near the rear of the basin. When flows are less than that of the design storm, bypass cannot be activated unless heavy buildup of trash is occurring.

## 4.0 INSTALLATION INFORMATION

### 4.A. Device installation procedures and considerations.

The specifications detailed in the client worksheet, provided in **Appendix B**, are used to design your Curb Inlet. Installation procedures are described in the steps below. This information is also provided upon purchase and the delivery of a Curb Inlet insert.

1. Thoroughly clean curb inlet vault. Remove debris inside and in front of the vault. We recommend the host fixture is pressure washed and vacuumed prior to filter installation.
2. Install side angles (x2) ¼" below the curb inlet opening using the redhead anchors and fender washers. Tighten down all the way.
3. Install inlet front angle ¼" below the curb inlet opening using the redhead anchors and fender washers. Do not tighten all the way, leave 1/8" opening for pan lip.
4. Slide middle basket guide bar on outside angles using the slots XX" from the inlet opening as shown in drawing. Drill holes from underside up and bolt cross bar to angle.
5. Assemble the basket inside vault. Nuts and bolts for basket construction are attached to sheets labeled A, B and C.
  - A. Short sides (16.13" x 24")
  - B. Long sides (36" x 24")
  - C. Bottom (16.13" x 36)
6. Slide back basket guide bar on outside angles using slots XX" from the middle guide. Test basket inside vault to ensure basket guide bar is installed at accurate distance. Drill holes from underside up and bolt cross bar to angle.
7. Slide in large triangular pan in to right/left side (from street view) of vault.
8. Slide small XX" wide pan in to right/left side (from street view) of vault. This pan will overlap under the large triangular pan.
9. Once top pans are set in place, tighten redhead anchors on front angle

### 4.B. Methods for diagnosing and correcting installation errors.

The filtration unit's modular design reduces installation errors since it is fabricated with the vaults specific specification. The two bullets below are diagnoses for common errors.

A. If angles or pan pieces do not fit in vault: check pieces to determine if the corrected piece is selected for install location. If it does not fit, contact the customer support line at 800-723-1373.

B. If basket does not fit on sliding track: check for obstructions on vault floor and ensure vault is clean prior to install. If basket still does not fit, contact the customer service team at 800-723-1373.

## **5.0 OPERATION AND MAINTENANCE INFORMATION**

### **5.A. Device inspection procedures and inspection frequency considerations.**

Visual monitoring of the curb inlet filtration unit to check performance should occur on a monthly basis, during routine inspection. During the wet season, October through April, the unit should be inspected after a heavy rainfall event. Inspection of loading can be performed through the manhole cover to determine whether cleaning is required. To inspect the unit performance and status a tool to lift grate is necessary (i.e. a grate hook). Observe the capture capacity of the unit's basket to determine if cleaning is required. Check all hardware components to ensure unit is structural sound.

### **5.B. Maintenance procedures, including a description of necessary equipment and materials.**

Servicing of the Curb Inlet filtration unit requires a grate hook to lift the manhole cover. We recommend using a vacuum or combination truck to accomplish maintenance for safety of the operator/technician and 100% containment of pollutants and trash.

1. Remove manhole cover to access unit for cleaning. Curb inlet unit performs up to 100% capacity of collection basket. We recommend cleaning prior to maximum capacity, at 75% capacity, to eliminate potential trash bypass during a rain event.
2. Use pressure wash spray nozzle to rinse collected trash into collection basket.
3. With vacuor equipment: Using a notched tube attachment, vacuum trash from the collection basket. Release air and slide basket with grate hook using handles to access remaining trash in basket.
4. With grate hook, slide the basket entire distance. Once basket is clear of manhole opening, vault can be accessed for grouting, jetting, camera, etc. Basket cleaning is not necessary for storm sewer line or vault maintenance.
5. Inspect vault for any overflow trash. Use vacuum to collect any remaining trash in vault, if applicable.
6. Slide basket back into place. Ensure that the basket is all the way back against the wall of the vault and no gaps are visible.

\*Check with your local disposal authority for proper disposal of materials removed from the system.

Maintenance is easy with your CleanWay filter; watch a service technician preform maintenance at the following YouTube link: <https://youtu.be/3L980PJUyHQ>.

### **5.C. Maintenance frequency considerations, including the effects of delay.**

Maintenance of the unit should occur at 75% capture capacity. The frequency of this should be determined during routine monthly inspections of the unit. High Priority Land Use areas with a history of frequent vault cleaning and litter clean-up will potentially require weekly servicing. This

will depend on whether other BMPs are in place, such as sweeping, litter control, etc. Delayed servicing and maintenance of the unit will re-introduce trash and debris into the MS4 system.

#### **5.D. Device maintenance and vector control accessibility.**

The Curb Inlet filtration insert provides easy maintenance and vector control access through the manhole and below the sliding collection basket, with access to the sump of the vault. In addition, the sump can be accessed behind the filtration unit without opening the manhole cover. Figures 7 and 8 display where vector control maintenance can be performed.



**Figure 7. Curb Inlet vector control point of access underneath sliding collection basket**



**Figure 8. Curb Inlet vector control point of access behind unit lip on end opposite of collection basket**

## 6.0 RELIABILITY INFORMATION

### 6.A. Device sensitivity to loadings other than trash (i.e., leaves, sediment).

CleanWay Environmental Partners® has been field testing storm drain filtration units for over 20 years. The company was started in 1995 in the Pacific Northwest, and has worked alongside environmental service providers to ensure offered products are effective in achieving removal goals and easily managed by the end user. The smooth design of the support pan and collection basket will prevent snagging and catching of leaves and other fibrous debris that has a tendency to stick to rough surfaces. Sediment will not cause any issues with the removal effectiveness, as any particle larger than 5mm will entrap inside the collection basket.

### 6.B. Warranty Information.

Warranty information is provided in **Appendix C**. Upon receiving the Curb Inlet filtration insert, inspect all components for quality. Notify your sales associate or our customer service team if any defects are discovered during inspection. Do not install any portion of the insert. CleanWay does not accept returns on used filtration elements under the manufacturer's warranty.

### 6.C. Applicant's customer support.

Customer support is available 8am – 5pm PT at 800-723-1373 or [support@cleanwayusa.com](mailto:support@cleanwayusa.com). Feel free to call one of our representatives to answer any questions or concerns.

## 7.0 FIELD/LAB TESTING INFORMATION AND ANALYSIS

**Provide any available field or lab testing information that demonstrates the Device functionality. If device does not include a 5 mm screen within its design, the applicant must provide adequate testing that demonstrates it traps trash particles of 5 mms or more.**

The Curb Inlet Filtration System directs all water and particles or trash carried with the water through a screen with <5mm openings. No particles equal to or greater than 5mm diameter can physically escape the system unless the system is in bypass. In addition to the set physical size limitations of the screen, trash collection performance testing is currently being conducted for further characterization of the system. This information is available upon request and will be added as an amendment to the application once finalized.

## **APPENDIX A:       Standard Drawings for Curb Inlet filtration units**

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CA Curb Inlet details.dwg

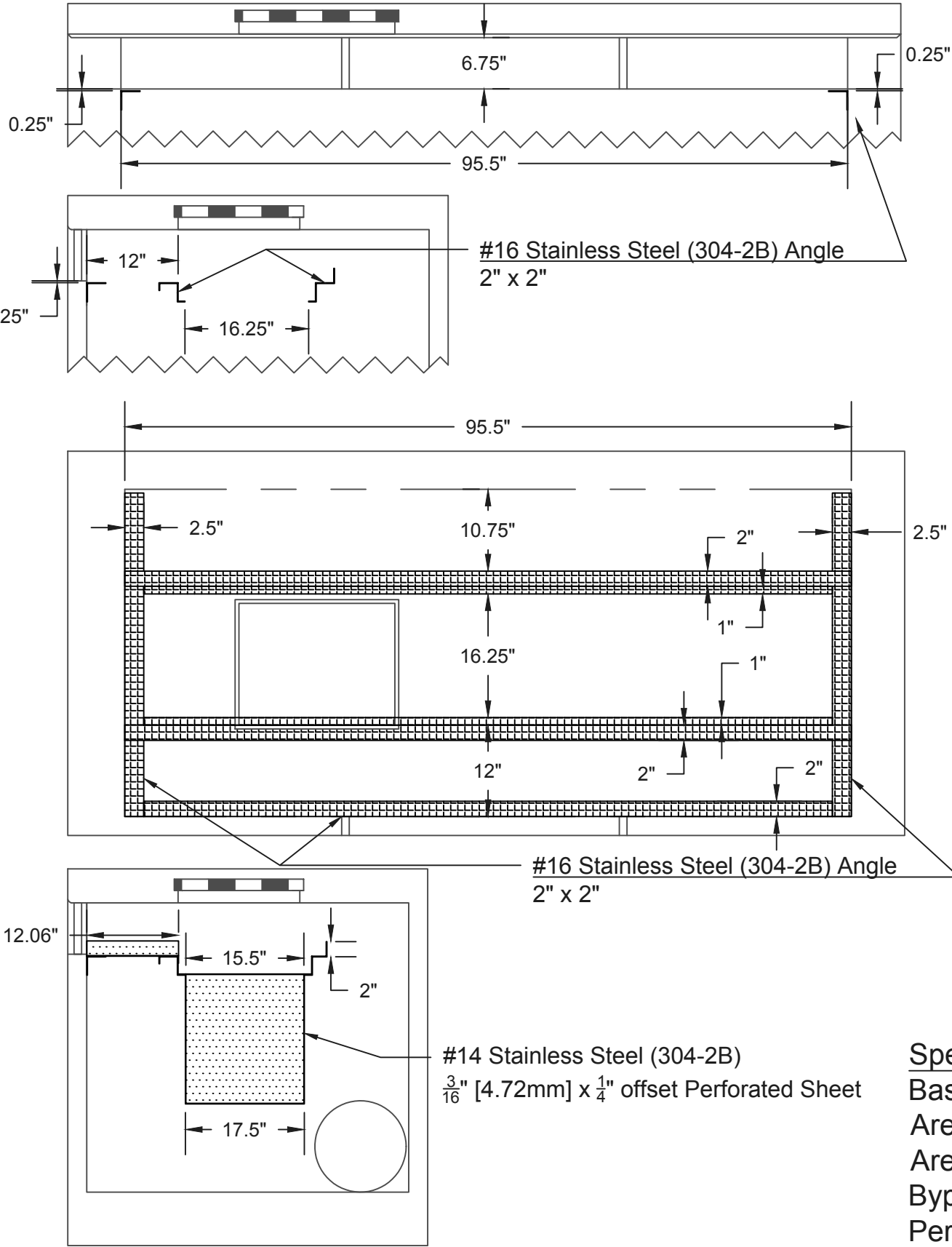
20.12.2017

bridget.garlinghouse

ELEVATION: Angle Placement

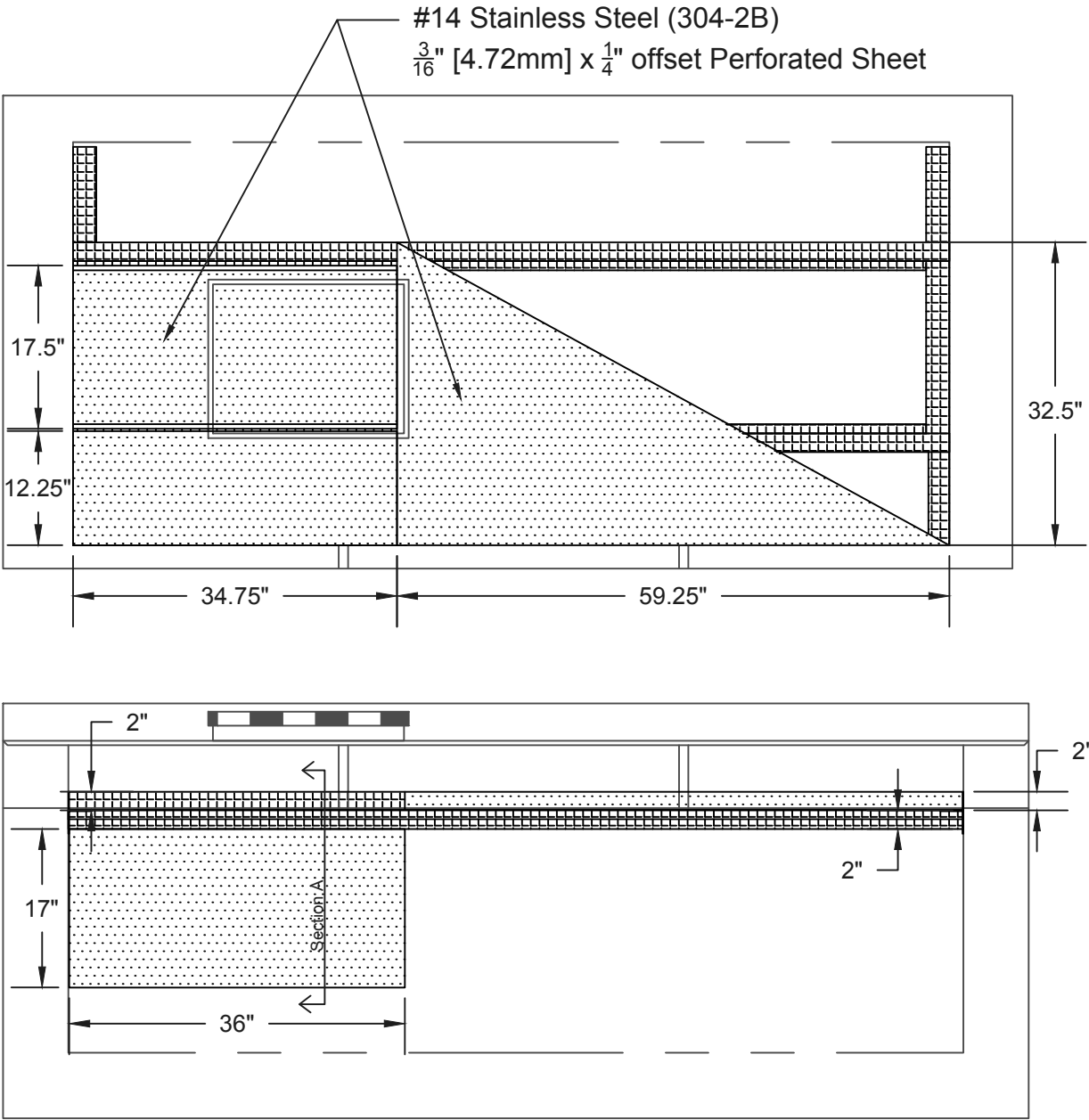
PLAN: Angle Placement

ELEVATION: Basket



PLAN: Complete Unit

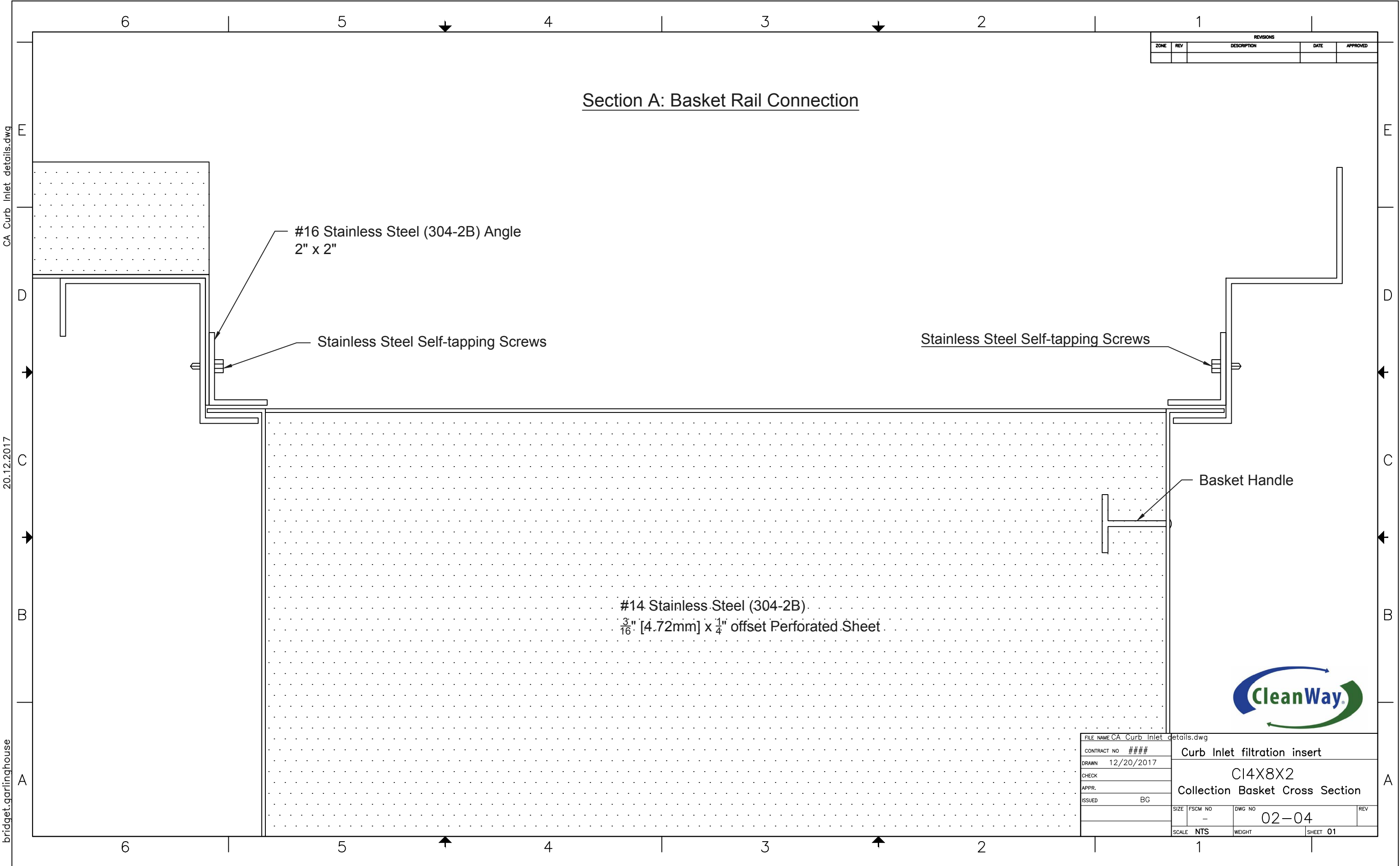
ELEVATION: Complete Unit



**Specifications**  
Basket Capacity: 5.5 cf  
Area of Inlet: 4.5 sf  
Area of Overflow: 13.8 sf  
Bypass Capacity: 300%  
Perforated Sheet: 51% open area



|                                     |            |                                            |          |
|-------------------------------------|------------|--------------------------------------------|----------|
| FILE NAME CA Curb Inlet details.dwg |            |                                            |          |
| CONTRACT NO                         | ####       | Curb Inlet filtration Insert               |          |
| DRAWN                               | 12/20/2017 | CI4X8X2                                    |          |
| CHECK                               |            | Complete Perforated Stainless Steel Design |          |
| APPR.                               |            |                                            |          |
| ISSUED                              | BG         |                                            |          |
| SIZE                                | FSCM NO    | DWG NO                                     | REV      |
|                                     |            | 01-04                                      |          |
| SCALE                               | NTS        | WEIGHT                                     | SHEET 01 |



| REVISIONS |     |             |      |          |
|-----------|-----|-------------|------|----------|
| ZONE      | REV | DESCRIPTION | DATE | APPROVED |
|           |     |             |      |          |



|                                     |  |                                 |         |          |
|-------------------------------------|--|---------------------------------|---------|----------|
| FILE NAME CA_Curb_Inlet_details.dwg |  |                                 |         |          |
| CONTRACT NO                         |  | Curb Inlet filtration insert    |         |          |
| DRAWN                               |  | C14X8X2                         |         |          |
| CHECK                               |  | Collection Basket Cross Section |         |          |
| APPR.                               |  |                                 |         |          |
| ISSUED                              |  |                                 |         |          |
|                                     |  | SIZE                            | FSCM NO | DWG NO   |
|                                     |  |                                 | -       | 02-04    |
|                                     |  | SCALE                           | NTS     | WEIGHT   |
|                                     |  |                                 |         | SHEET 01 |

CA Curb Inlet details.dwg

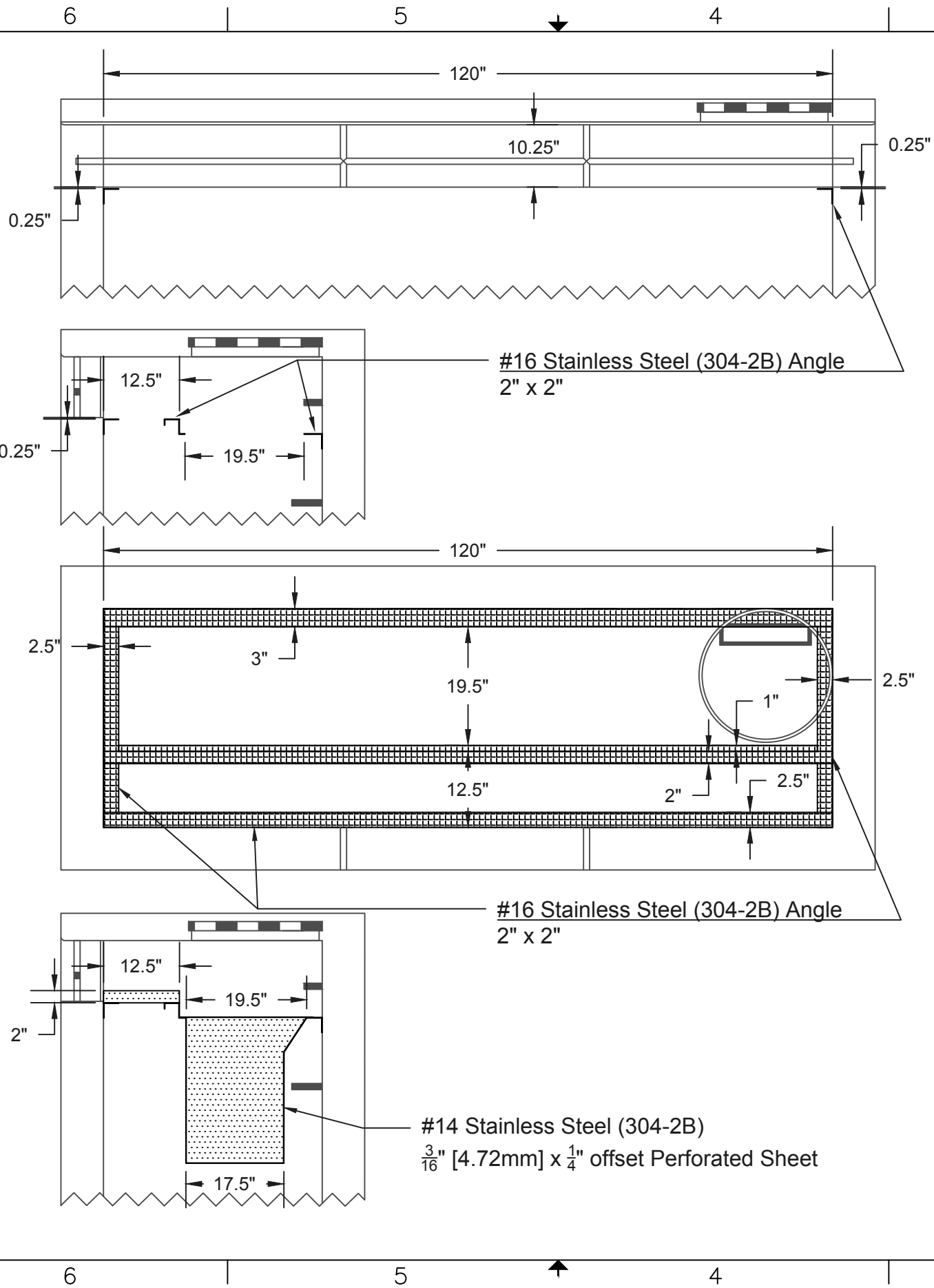
20.12.2017

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ELEVATION: Angle Placement

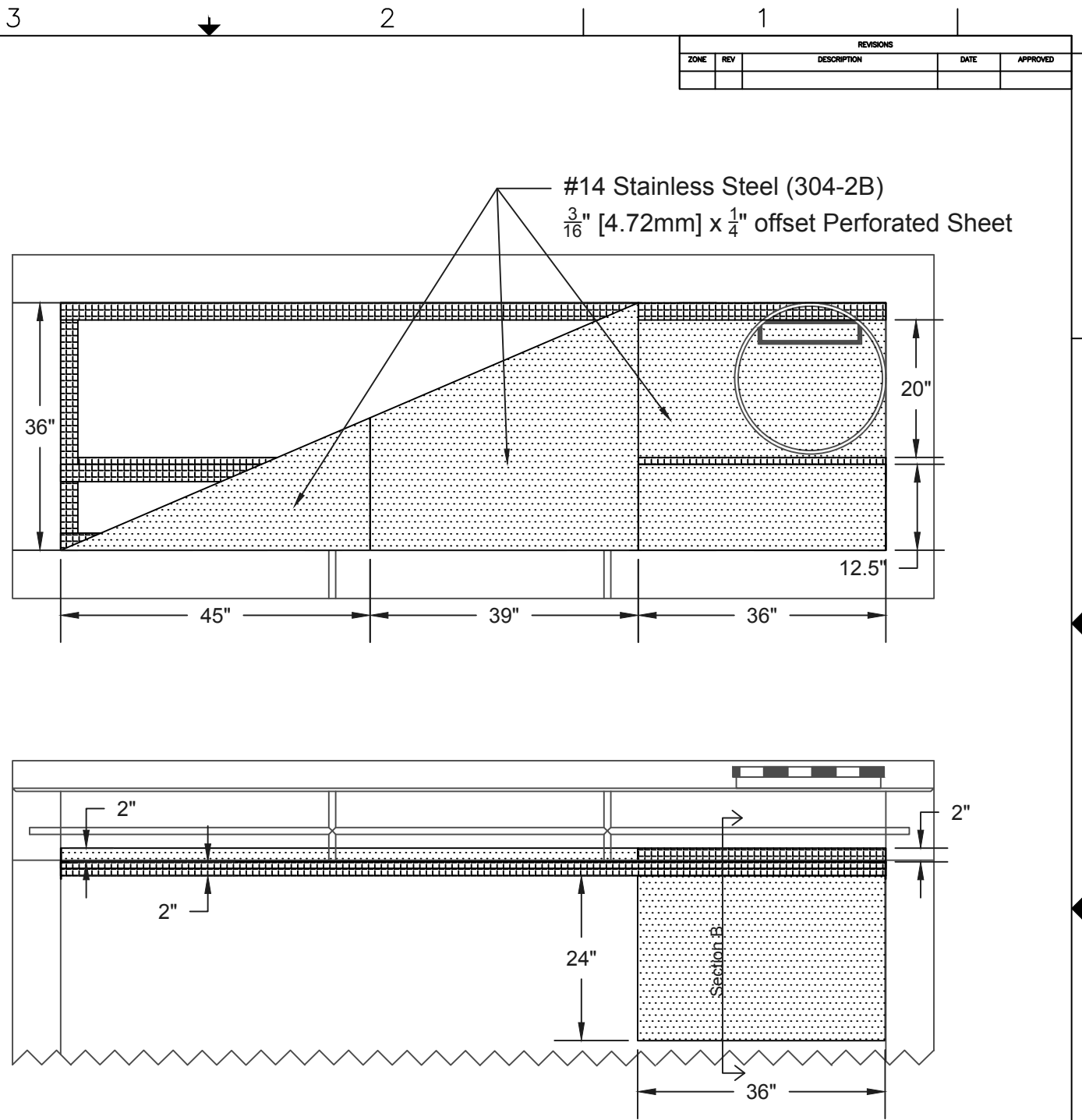
PLAN: Angle Placement

ELEVATION: Basket



PLAN: Complete Unit

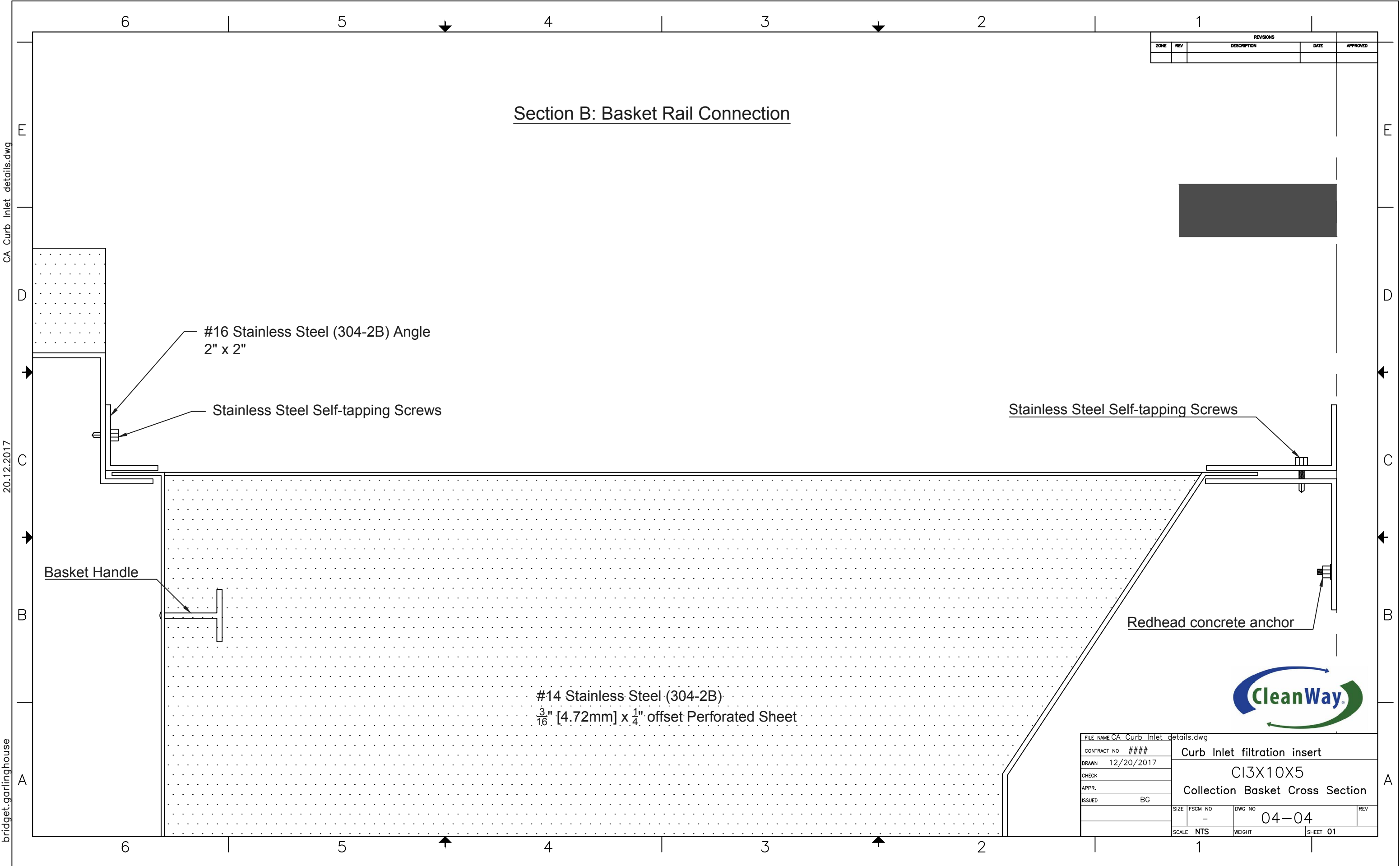
ELEVATION: Complete Unit



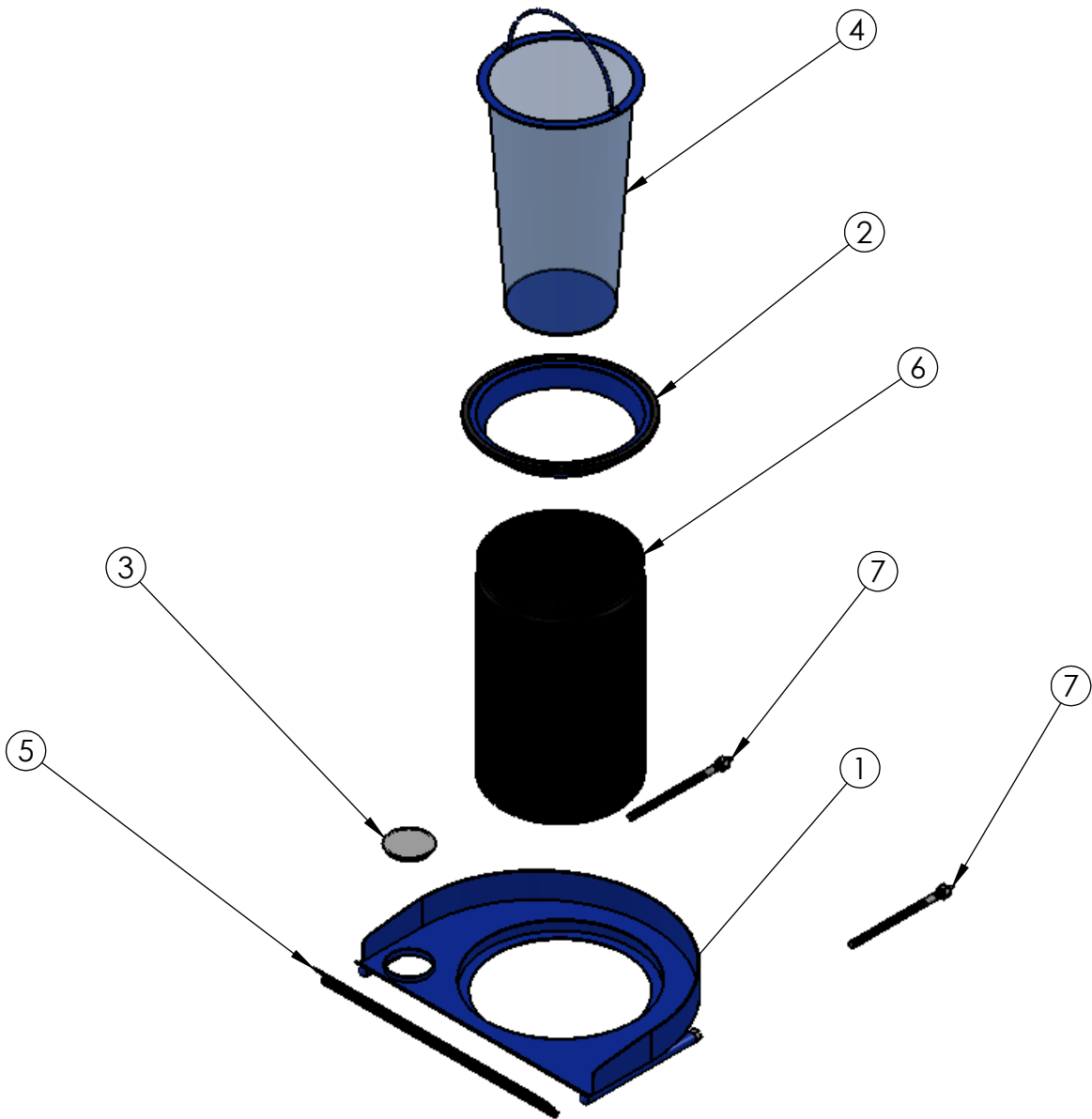
Specifications  
Basket Capacity: 8.5 cf  
Area of Inlet: 8.5 sf  
Area of Overflow: 10.5 sf  
Bypass Capacity: 120%  
Perforated Sheet: 51% open area



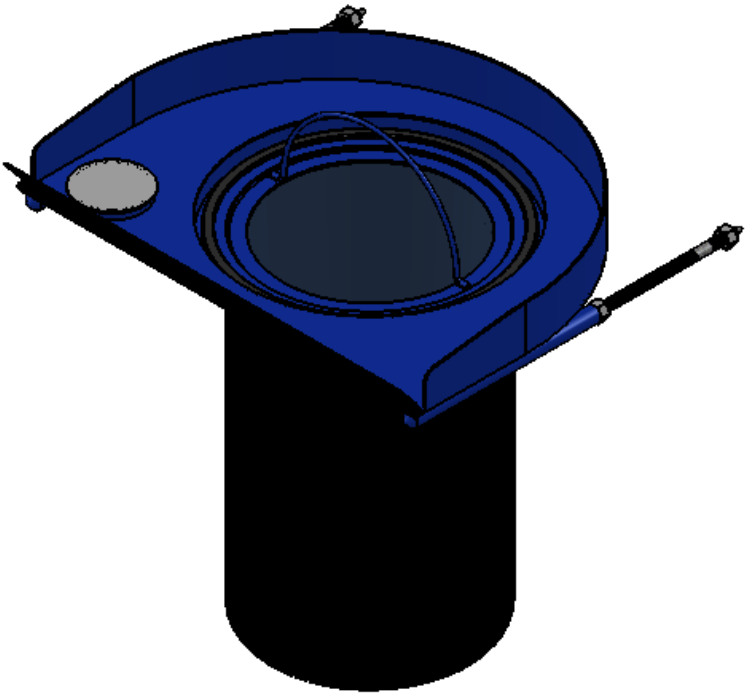
|                                     |            |                                            |          |
|-------------------------------------|------------|--------------------------------------------|----------|
| FILE NAME CA Curb Inlet details.dwg |            |                                            |          |
| CONTRACT NO                         | ####       | Curb Inlet filtration insert               |          |
| DRAWN                               | 12/20/2017 | CI3X10X5                                   |          |
| CHECK                               |            | Complete perforated stainless steel design |          |
| APPR.                               |            |                                            |          |
| ISSUED                              | BG         |                                            |          |
| SIZE                                | FSCM NO    | DWG NO                                     | REV      |
|                                     |            | 03-04                                      |          |
| SCALE                               | NTS        | WEIGHT                                     | SHEET 01 |



STANDARD DRAWING - ONE OF MANY CONFIGURATIONS



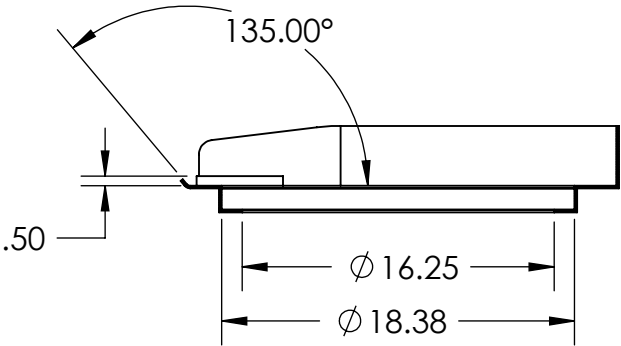
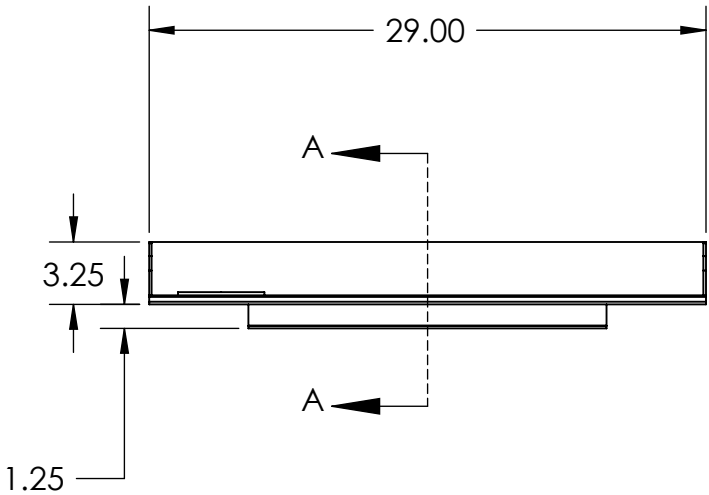
| ITEM NO. | PART NUMBER            | DESCRIPTION      | QTY. |
|----------|------------------------|------------------|------|
| 1        | Assembly_pan           | SHEET 2          | 1    |
| 2        | Assembly_filter_insert | SHEET 3          | 1    |
| 3        | Sample Port Plug       | PURCHASED PART   | 1    |
| 4        | Assembly Basket        | SHEET 4          | 1    |
| 5        | flap seal              | PN 8B100B3X1/16E | 1    |
| 6        | filter                 | PURCHASED PART   | 1    |
| 7        | Assembly_threaded_rod  | SHEET 5          | 2    |



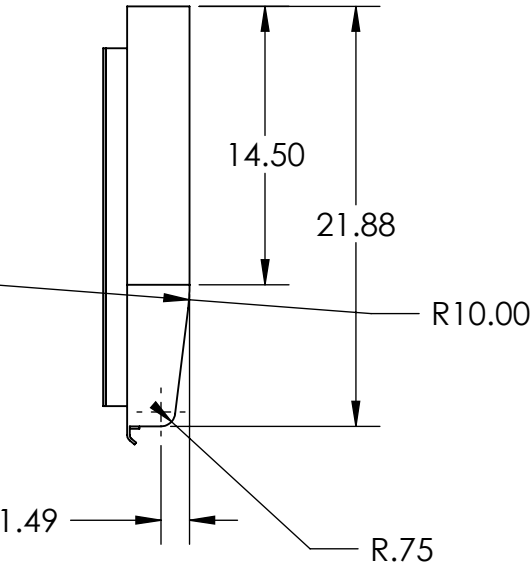
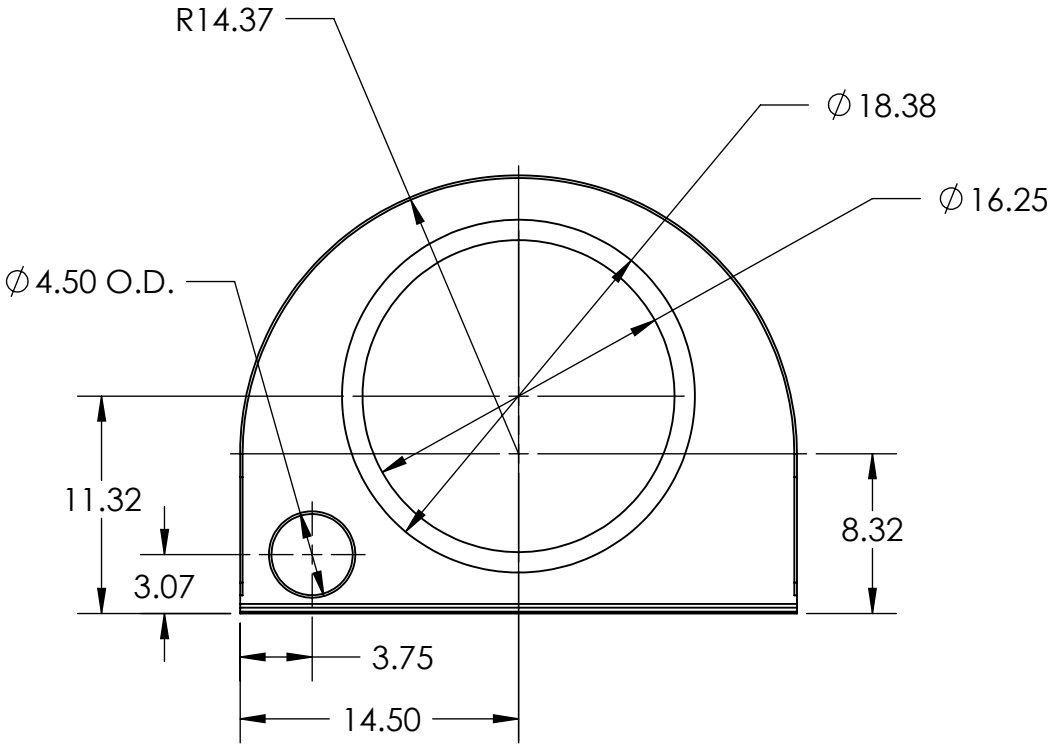
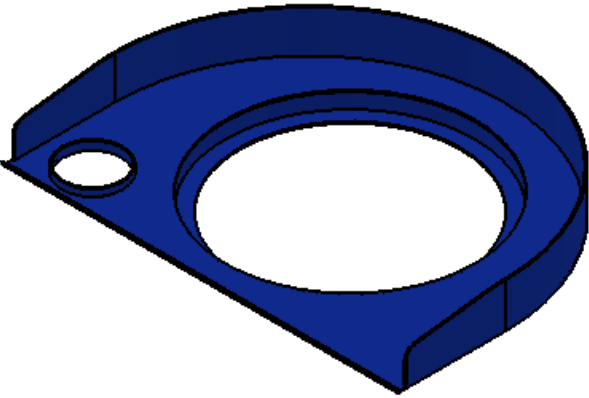
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|             |         |                                         |           |      |                   |                                            |  |         |              |  |                 |
|-------------|---------|-----------------------------------------|-----------|------|-------------------|--------------------------------------------|--|---------|--------------|--|-----------------|
|             |         | UNLESS OTHERWISE SPECIFIED:             | NAME      | DATE | <b>CI24SED-II</b> |                                            |  |         |              |  |                 |
|             |         | DIMENSIONS ARE IN INCHES                | DRAWN     | TM   | 2/16/2010         | TITLE:<br><b>CURB INLET<br/>FILTRATION</b> |  |         |              |  |                 |
|             |         | TOLERANCES:<br>FRACTIONAL ±             | CHECKED   |      |                   |                                            |  |         |              |  |                 |
|             |         | ANGULAR: MACH ±    BEND ±               | ENG APPR. |      |                   |                                            |  |         |              |  |                 |
|             |         | TWO PLACE DECIMAL    ±                  | MFG APPR. |      |                   |                                            |  |         |              |  |                 |
|             |         | THREE PLACE DECIMAL    ±                |           |      |                   |                                            |  |         |              |  |                 |
|             |         | INTERPRET GEOMETRIC<br>TOLERANCING PER: | Q.A.      |      |                   | SIZE<br><b>B</b>                           |  |         |              |  |                 |
|             |         | MATERIAL                                | COMMENTS: |      |                   |                                            |  |         | DWG. NO.     |  | REV<br><b>A</b> |
|             |         | FINISH                                  |           |      |                   |                                            |  |         |              |  |                 |
| NEXT ASSY   | USED ON |                                         |           |      |                   | SCALE: N/A                                 |  | WEIGHT: | SHEET 1 OF 6 |  |                 |
| APPLICATION |         | DO NOT SCALE DRAWING                    |           |      |                   |                                            |  |         |              |  |                 |

STANDARD DRAWING - ONE OF MANY CONFIGURATIONS



SECTION A-A  
SCALE 1 : 10



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|             |         |                                                                                                                                      |                                  |      |            |                               |          |                 |
|-------------|---------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------|------------|-------------------------------|----------|-----------------|
|             |         | UNLESS OTHERWISE SPECIFIED:                                                                                                          | NAME                             | DATE | CI24SED-II |                               |          |                 |
|             |         | DIMENSIONS ARE IN INCHES<br>TOLERANCES:<br>FRACTIONAL ±<br>ANGULAR: MACH ±    BEND ±<br>TWO PLACE DECIMAL ±<br>THREE PLACE DECIMAL ± | DRAWN                            | TM   | 2/16/2010  | TITLE:<br><br>PAN<br>ASSEMBLY |          |                 |
|             |         |                                                                                                                                      | CHECKED                          |      |            |                               |          |                 |
|             |         |                                                                                                                                      | ENG APPR.                        |      |            |                               |          |                 |
|             |         |                                                                                                                                      | MFG APPR.                        |      |            |                               |          |                 |
|             |         |                                                                                                                                      | Q.A.                             |      |            |                               |          |                 |
|             |         | INTERPRET GEOMETRIC<br>TOLERANCING PER:                                                                                              | COMMENTS:                        |      |            | SIZE<br><b>B</b>              | DWG. NO. | REV<br><b>A</b> |
|             |         | MATERIAL<br>3/16 PLATE                                                                                                               |                                  |      |            |                               |          |                 |
| NEXT ASSY   | USED ON | FINISH<br>BLUE PAINTED                                                                                                               |                                  |      |            |                               |          |                 |
| APPLICATION |         | DO NOT SCALE DRAWING                                                                                                                 | SCALE: 1:20 WEIGHT: SHEET 2 OF 6 |      |            |                               |          |                 |

STANDARD DRAWING - ONE OF MANY CONFIGURATIONS

Top View Dimensions:  
Outer Diameter:  $\varnothing 17.00$   
Inner Diameter:  $\varnothing 15.00$

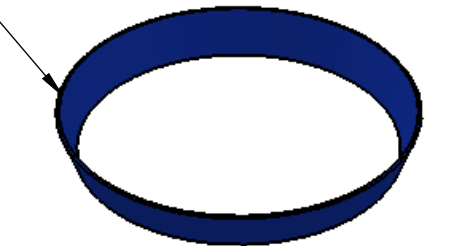
Side View Dimensions:  
Top Width:  $\varnothing 15.00$   
Bottom Width:  $\varnothing 13.75$   
Height: 2.00

Isometric View Labels:  
SEAL, PURCHASED PART #11B100B3X1/16A  
TOP RING  
BEVELED RING

**Clean Way**  
ENVIRONMENTAL PARTNERS, Inc

|             |  |                                      |  |                      |      |                                                     |                  |           |                 |
|-------------|--|--------------------------------------|--|----------------------|------|-----------------------------------------------------|------------------|-----------|-----------------|
|             |  | UNLESS OTHERWISE SPECIFIED:          |  | NAME                 | DATE | <b>CI24SED-II</b><br>TITLE:<br><b>BASKET INSERT</b> |                  |           |                 |
|             |  | DIMENSIONS ARE IN INCHES             |  | DRAWN                | TM   |                                                     |                  | 2/16/2010 |                 |
|             |  | TOLERANCES:                          |  | CHECKED              |      |                                                     |                  |           |                 |
|             |  | FRACTIONAL $\pm$                     |  | ENG APPR.            |      |                                                     |                  |           |                 |
|             |  | ANGULAR: MACH $\pm$ BEND $\pm$       |  | MFG APPR.            |      |                                                     | SIZE<br><b>B</b> | DWG. NO.  | REV<br><b>A</b> |
|             |  | TWO PLACE DECIMAL $\pm$              |  | Q.A.                 |      |                                                     |                  |           |                 |
|             |  | THREE PLACE DECIMAL $\pm$            |  | COMMENTS:            |      |                                                     |                  |           |                 |
|             |  | INTERPRET GEOMETRIC TOLERANCING PER: |  |                      |      |                                                     | SCALE: 1:4       |           |                 |
|             |  | MATERIAL                             |  |                      |      |                                                     | WEIGHT:          |           |                 |
|             |  | 3/16 PLATE                           |  |                      |      |                                                     | SHEET 3 OF 6     |           |                 |
| NEXT ASSY   |  | USED ON                              |  | FINISH               |      |                                                     |                  |           |                 |
|             |  |                                      |  | BLUE PAINTED         |      |                                                     |                  |           |                 |
| APPLICATION |  |                                      |  | DO NOT SCALE DRAWING |      |                                                     |                  |           |                 |

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BEVELED RING-



SHEET 3 OF 6

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DO NOT SCALE DRAWING

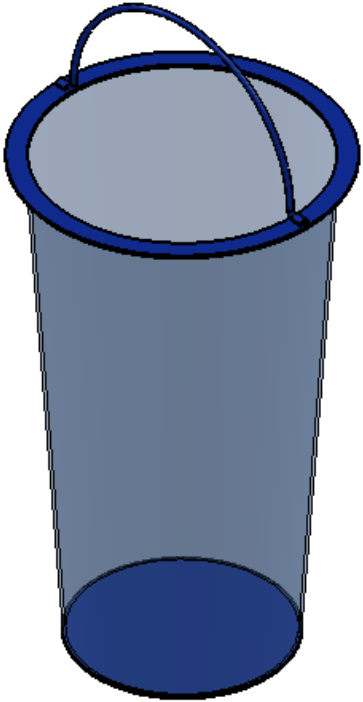
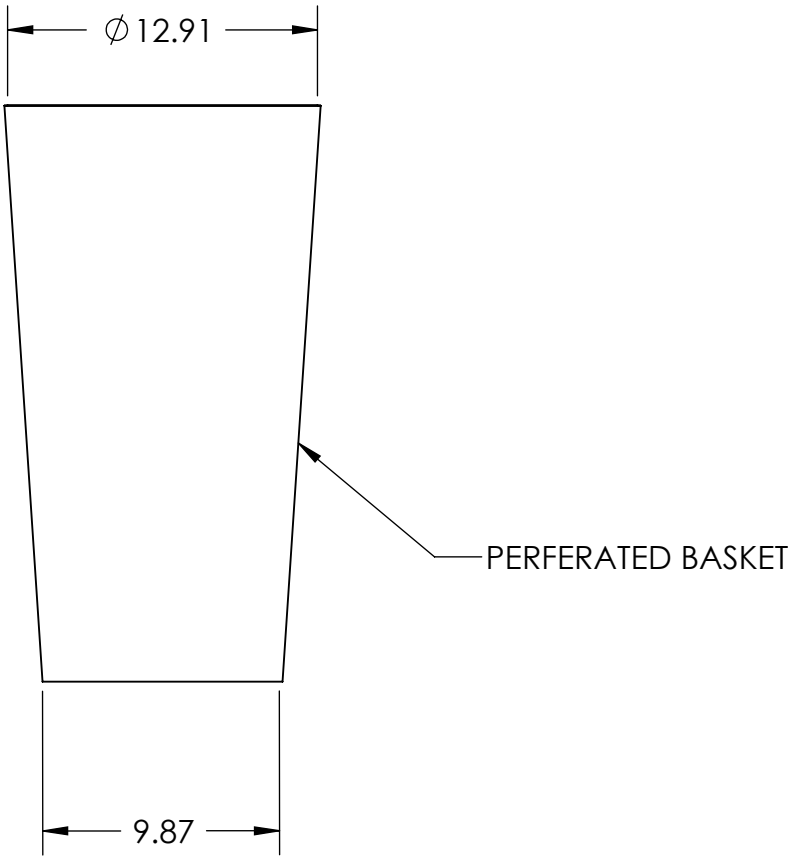
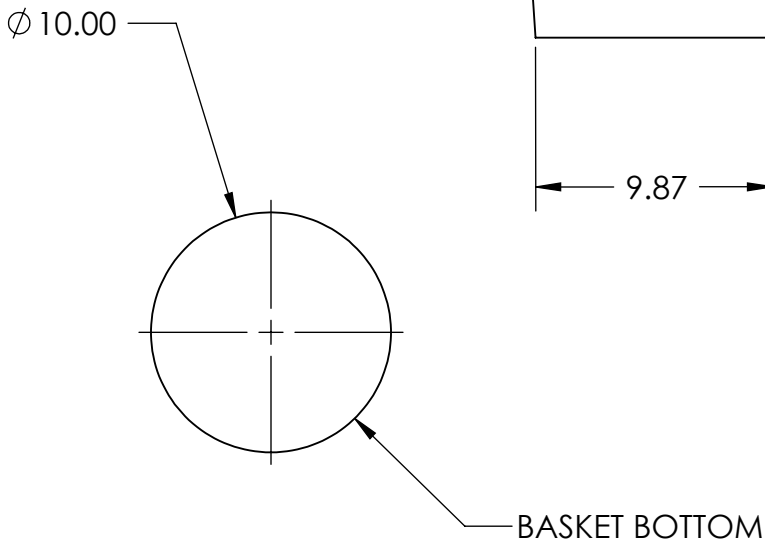
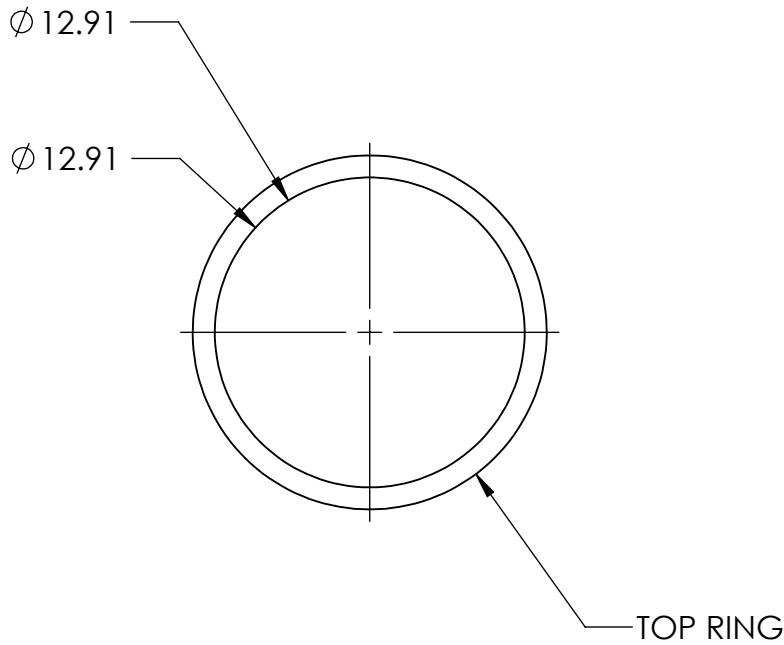
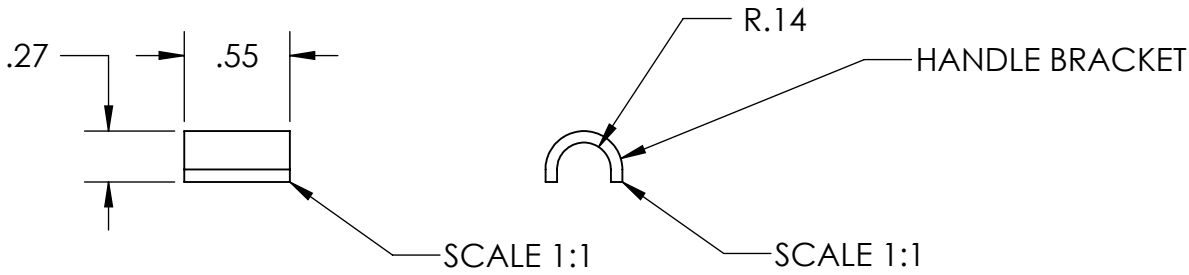
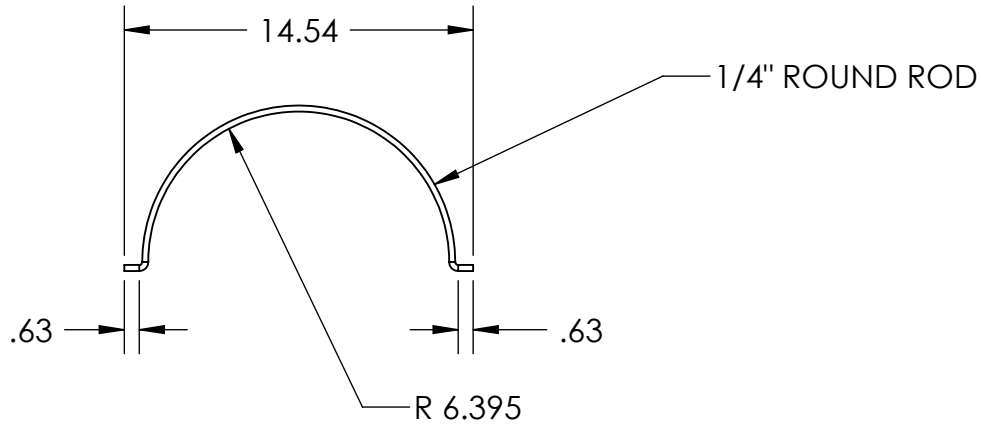
STANDARD DRAWING - ONE OF MANY CONFIGURATIONS

D

C

B

A



D

C

B

A



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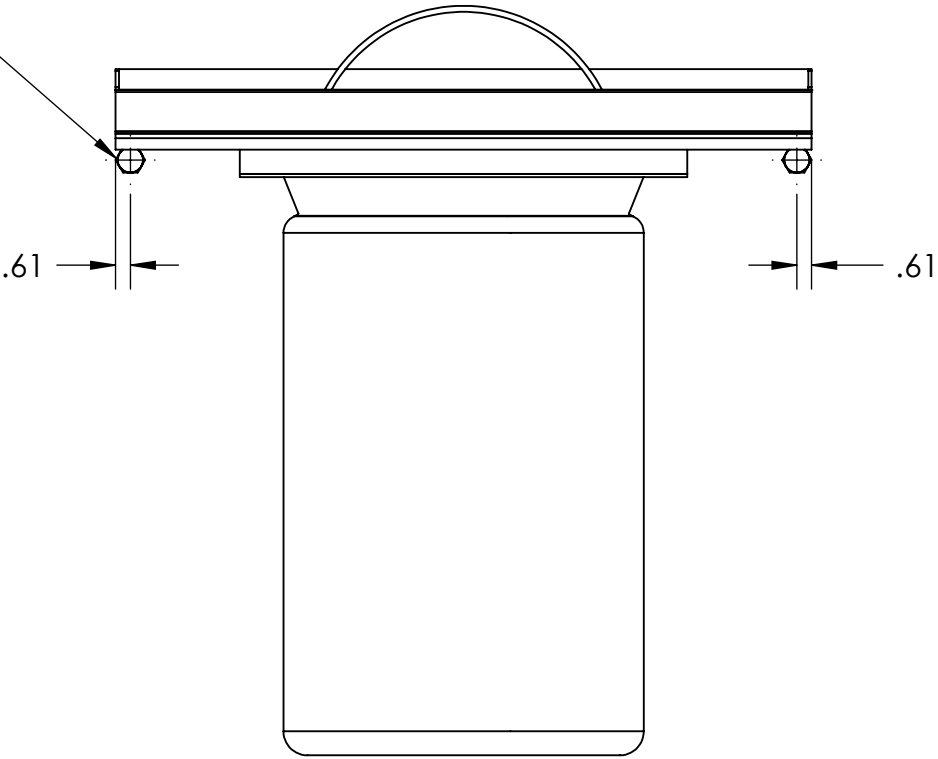
|             |         |                             |           |      |           |                                          |  |  |
|-------------|---------|-----------------------------|-----------|------|-----------|------------------------------------------|--|--|
|             |         | UNLESS OTHERWISE SPECIFIED: |           | NAME | DATE      | CI24SED-II                               |  |  |
|             |         | DIMENSIONS ARE IN INCHES    | DRAWN     | TM   | 2/16/2010 | TITLE:<br><div>BASKET<br/>ASSEMBLY</div> |  |  |
|             |         | TOLERANCES:                 | CHECKED   |      |           |                                          |  |  |
|             |         | FRACTIONAL ±                | ENG APPR. |      |           |                                          |  |  |
|             |         | ANGULAR: MACH ±    BEND ±   | MFG APPR. |      |           |                                          |  |  |
|             |         | TWO PLACE DECIMAL ±         | Q.A.      |      |           |                                          |  |  |
|             |         | THREE PLACE DECIMAL ±       | COMMENTS: |      |           | SIZE    DWG. NO.    REV                  |  |  |
|             |         | INTERPRET GEOMETRIC         |           |      |           | B    A                                   |  |  |
|             |         | TOLERANCING PER:            |           |      |           |                                          |  |  |
|             |         | MATERIAL                    |           |      |           |                                          |  |  |
|             |         | 3/16 PLATE                  |           |      |           |                                          |  |  |
| NEXT ASSY   | USED ON | FINISH                      |           |      |           | SCALE: 1:8    WEIGHT:    SHEET 4 OF 6    |  |  |
| APPLICATION |         | DO NOT SCALE DRAWING        |           |      |           |                                          |  |  |

## A

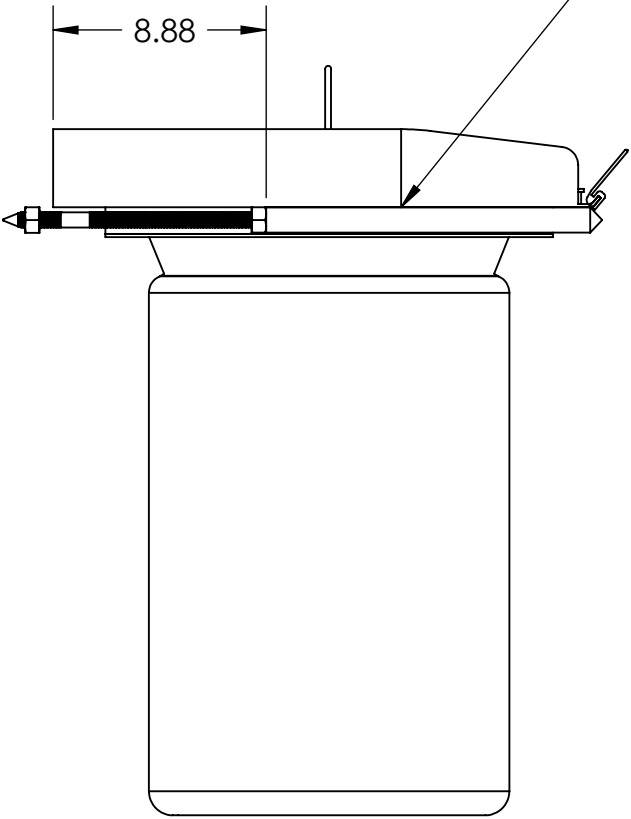
[illegible]

STANDARD DRAWING - ONE OF MANY CONFIGURATIONS

WELD JACKSCREW ASSEMBLY  
HERE, BOTH SIDES



WELD JACKSCREW ASSEMBLY  
HERE, BOTH SIDES



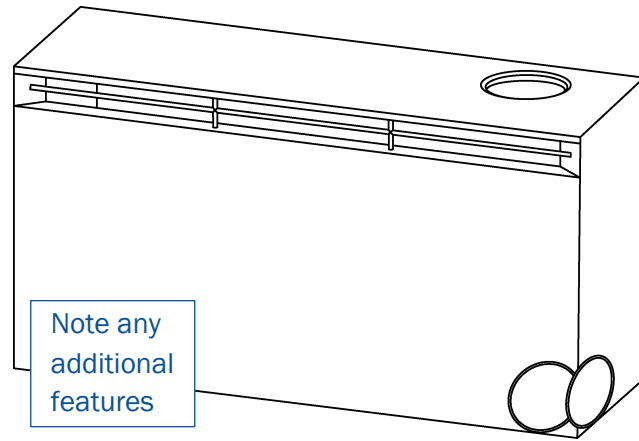
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|             |         |                                      |                  |      |                             |          |                 |           |
|-------------|---------|--------------------------------------|------------------|------|-----------------------------|----------|-----------------|-----------|
|             |         | UNLESS OTHERWISE SPECIFIED:          | NAME             | DATE | CI24SED-II                  |          |                 |           |
|             |         | DIMENSIONS ARE IN INCHES             | DRAWN            | TM   |                             |          |                 | 2/16/2010 |
|             |         | TOLERANCES:                          | CHECKED          |      |                             |          |                 |           |
|             |         | FRACTIONAL ±                         | ENG APPR.        |      |                             |          |                 |           |
|             |         | ANGULAR: MACH ±    BEND ±            | MFG APPR.        |      |                             |          |                 |           |
|             |         | TWO PLACE DECIMAL ±                  | Q.A.             |      | TITLE:<br><br>PIPE LOCATION |          |                 |           |
|             |         | THREE PLACE DECIMAL ±                | COMMENTS:        |      |                             |          |                 |           |
|             |         | INTERPRET GEOMETRIC TOLERANCING PER: | SIZE<br><b>B</b> |      |                             | DWG. NO. | REV<br><b>A</b> |           |
|             |         | MATERIAL                             |                  |      |                             |          |                 |           |
|             |         | N/A                                  |                  |      |                             |          |                 |           |
| NEXT ASSY   | USED ON | FINISH<br><br>BLUE PAINTED           | SCALE: 1:20      |      |                             | WEIGHT:  | SHEET 6 OF 6    |           |
| APPLICATION |         | DO NOT SCALE DRAWING                 |                  |      |                             |          |                 |           |

## **APPENDIX B:      Client Worksheet**

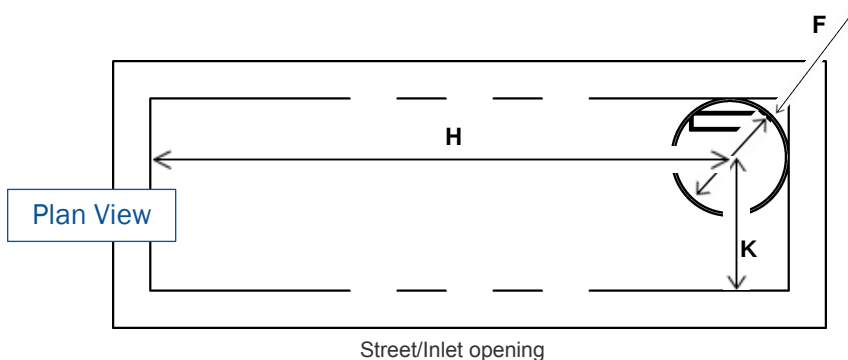
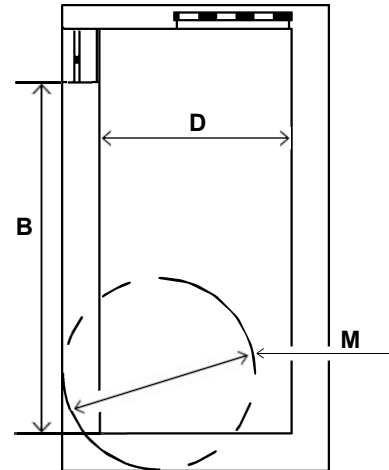
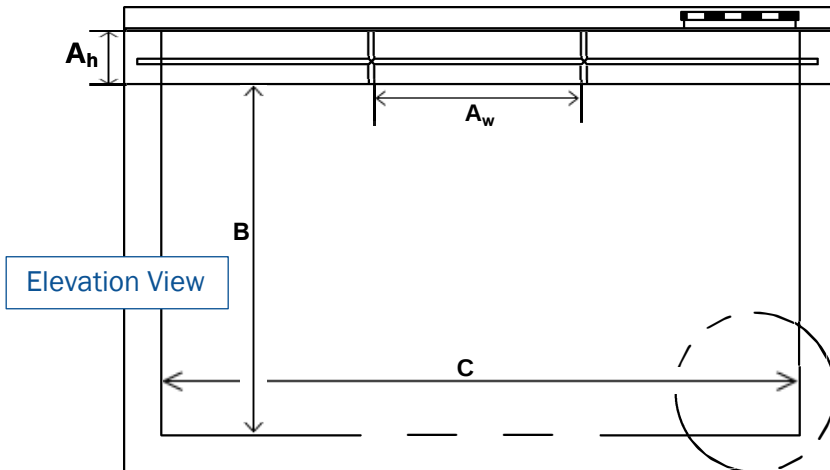
# MEASURE YOUR CURB INLET

Date: \_\_\_\_\_ Email: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Site Address: \_\_\_\_\_  
 Curb Inlet Part Number (if applicable) \_\_\_\_\_



|                      | Curb Inlet / Vault                      | Measurement |          | Curb Inlet / Vault                       | Measurement |
|----------------------|-----------------------------------------|-------------|----------|------------------------------------------|-------------|
| <b>A<sub>h</sub></b> | Inlet height (total and b/w cross bars) |             | <b>F</b> | Manhole diameter (width if rectangle)    |             |
| <b>A<sub>w</sub></b> | Inlet width between cross bars          |             | <b>G</b> | Manhole length (rectangular)             |             |
| <b>B</b>             | Sump depth from street level            |             | <b>H</b> | Length: inner wall to manhole centerline |             |
| <b>C</b>             | Inside Vault length                     |             | <b>K</b> | Width: inner wall to manhole centerline  |             |
| <b>D</b>             | Inside Vault width                      |             | <b>L</b> | Manhole location (right or left)         |             |
| <b>E</b>             | Drainage slope ( $E_h/E_l$ )            |             | <b>M</b> | Outlet pipe diameter                     |             |

*Please send any photos of your curb inlet, on exterior and interior, to assist with accurate sizing.*



Check one:  
right or  
left

☐ Right
 

☐ Left
 



## **APPENDIX C:      Product Warranty**



[www.cleanwayusa.com](http://www.cleanwayusa.com)

## **CleanWay Limited Product Warranty Statement**

---

### **Extent of Limited Warranty**

CleanWay Environmental Partners Inc. (CleanWay) warrants to the end-user customer that CleanWay products will be free from defects in material and workmanship for a period of one year (12 months).

CleanWay does not warrant that the operation of any product will be uninterrupted or error free.

CleanWay's limited warranty covers only those defects that arise as a result of normal use of the product and does not cover any other problems, including those that arise as a result of: (i) improper installation, maintenance or modification; (ii) media, parts or supplies not provided or supported by CleanWay; (iii) operation outside the product's specifications; or (iv) unauthorized modification or misuse.

If CleanWay receives, during the applicable warranty period, notice of a defect in any product which is covered by CleanWay's warranty, CleanWay shall either repair or replace the product, at CleanWay's option.

CleanWay shall have no obligation to repair or replace until the customer returns at their expense the defective product to CleanWay.

The customer shall be responsible for any shipping and handling charges incurred in delivery of products covered under warranty.

Any replacement product may be either new or like-new, provided that it has functionality at least equal to that of the product being replaced.

CleanWay replacement products may contain remanufactured parts, components, or materials equivalent to new in performance.

CleanWay's Limited Warranty Statement is valid in any country where the covered CleanWay product is distributed by CleanWay.

### **Limitations of Warranty**

TO THE EXTENT ALLOWED BY LOCAL LAW, NEITHER CLEANWAY NOR ITS THIRD PARTY SUPPLIERS MAKES ANY OTHER WARRANTY OR CONDITION OF ANY KIND, WHETHER EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE.

### **Limitations of Liability**

To the extent allowed by local law, the remedies provided in this Limited Warranty Statement are the customer's sole and exclusive remedies.

TO THE EXTENT ALLOWED BY LOCAL LAW, EXCEPT FOR THE OBLIGATIONS SPECIFICALLY SET FORTH IN THIS WARRANTY STATEMENT, IN NO EVENT SHALL CLEANWAY OR ITS THIRD PARTY SUPPLIERS BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY AND WHETHER ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.