



Storm Water and Environmental Solutions

**West Coast Storm Screen
Automatic Retractable Screen (ARS)
Equipment Design and Specification Report**



Storm Water and Environmental Solutions

**County of Orange, OC Public Works
Automatic Retractable Screen Excluders, Connector Pipe Screen Full Capture Trash
Systems, and Catch Basin Inserts
RFP# 080-591792**

**West Coast Storm Screen
Automatic Retractable Screen
Equipment Design and Specification Report**

(Information provided to the City as requested in the RFQ documents under
Attachment A. Scope of Work)

A. Description/Design/Engineering. The West Coast Storm Screen (Automatic Retractable Screen) Device meets the minimum Hydraulic and Operation Criteria.

The West Coast Storm Automatic Retractable Screen (ARS) prevents trash and debris from entering the catch basin during dry weather and moderate storm flows, thereby maintaining trash and debris within the street to be collected by street sweeping and other equipment. The ARS device opens automatically with minimal obstruction to the curb opening before the depth of the storm flow in the street exceeds 3 inches. This device is an approved ARS by the City and County of Los Angeles utilized in their on-going TMDL projects.

The West Coast Storm Screen is designed, fabricated, and installed according to the County of Los Angeles specifications and is an approved device by the County of Los Angeles Department of Public Works Design Division specifications: “When in the open position, the ARS must not reduce the hydraulic capacity of the catch basin by more than 10% over the mid and high flow range of the catch basin.”

The West Coast Storm Screen devices are utilized in the current City of Los Angeles’ mandated Regional Water Quality Control Board’s Total Maximum Daily Load (TMDL) Catch Basin Opening Screen Cover Project. The County of Los Angeles is included in the City of Los Angeles’ Contract with West Coast Storm, Inc. and all units are subject to daily shop and installation inspections to ensure our products meet the County and City specifications. Additionally, West Coast Storm, Inc. completed the County of Los Angeles River Trash Total Maximum Daily Load Full Compliance, Catch Basin Retrofit-Phase 4 Project, which included installation of CPS and ARS devices.



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West Coast Storm Automatic Retractable Screens Operation Criteria

The ARS device swings open and remains open as long as the flow depth exceeds specified height and return to the mechanically locked and closed position as the flow of water recedes.

The West Coast Storm Screen device meets the following criteria:

- 1) Screens cover the entire existing curb opening. The maximum clear opening between the top, bottom, and sides of the curb opening and the screen or frame of the screen shall be ½ inch.
- 2) The Device has no springs, pulleys, buckets, troughs or protruding tracks, thereby enabling the full capture trash system to function without obstruction.
- 3) In curb openings with support bolts, multiple units shall be installed between the existing support bolt(s) to span the entire curb opening width.
- 4) The existing support bolt(s) shall be protected in place and the operation of the units shall not be hindered by the support of the bolt(s).
- 5) The maximum clear opening between adjacent screens, adjacent fixed frame members, or between the screens and support bolts shall be ½ inch.
- 6) At no point in its range of motion shall any part of the screen or the operating mechanism interfere with the function of a CPS device or its bypass.
- 7) If any part of the frame of the unit is fixed and does not swing open, the maximum allowed width of the fixed part of the frame is 1.5 inches per side per unit. No fixed parts shall obstruct the top or bottom of the catch basin opening.
- 8) All screens shall be fabricated from twelve (12) gauge (0.105 inches), with ¾-inch diameter holes, and with a total open area of not less than 50 percent.
- 9) The edges of the screen shall be ground to remove all sharp edges.
- 10) The ARS device can be adjusted to open (unlock) at a specific height specified.
- 11) The operational (locking) mechanism is isolated from the storm drain and debris. A built in 0.50 inch gap between the main screen and ARS ends also insures the mechanism isolation.



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- 12) All ARS devices have a locking mechanism that in the closed position prevents the brushes of street sweeping equipment from opening the screen when sweeping in front of the screen. The mechanism is a gear designed to automatically release and allow the screen to fully open with the flow of water per Operation Section below.
- 13) The gear locking mechanism for automatically opening the screen is opened by the force of water acting on the inner screen adjusted to open at specified water flow height. Manual release of the screen: push a screwdriver into any lower main screen hole and push the inner screen back to release main screen.
- 14) The main screen extension is adjusted to specified gap from bottom of catch basin curb opening. The main screen extension is used to insure a uniform 1/2 inch gap from the bottom of the screen to the bottom of the catch basin curb opening across uneven surfaces.
- 15) The ARS device must open as required when the screen is partially blocked with trash. Note: As an approved County device, the West Coast Storm Screen passed testing by the County of Los Angeles which included hydro-testing and trash and debris blocking requirements.

Fabrication The ARS device meets the following requirements:

- 1) The ARS device is fabricated with a built in overflow or top gap specified.
- 2) The main screen has 0.75 inch round openings with a 50% open pattern. The main screen extension has 0.75 inch round openings as well.
- 3) Inner screen extension is adjusted for required water height opening (unlocking) per specifications.
- 4) A standard 0.50 inch gap between the main screen and the ARS device ends is built in.
- 5) Parts are CNC punched to +/- 0.005 tolerance.
- 6) All parts are released for fabrication with applicable shop drawings and CNC programs.
- 7) Completed ARS devices are marked with location ID.
- 8) Completed ARS devices include all hardware and extensions.
- 9) ARS devices are shipped completely assembled.



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Device Assembly, Manufacturing. The ARS device is assembled according to the following requirements:

- 1) CNC punch all individual parts.
- 2) Place main screen extension onto main screen with bend facing up.
- 3) Secure extension to main screen using 10-32 screws and washers.
- 4) Place inner screen ends into sides of main screen. Place inner screen over the ends with holes aligned.
- 5) River inner screen to ends as shown insuring there is a minimum amount of lateral play.
- 6) Insert inner screen extension to inner screen. Secure inner screen extension to inner screen using 10-32 CRES screws and washers.
- 7) All screws will have an application of loctite in the field after adjustment to catch basin curb opening.
- 8) Gears assembled into sides and apply loctite. Insure gears move freely.
- 9) Place main screen assembly into ends. Place frame member onto ends and rivet together.
- 10) Seam weld in four places per drawings. Weld anti-theft washers to top pivots according to drawings.
- 11) Follow Quality Control Procedures to insure free movement of screen and locking mechanism functions properly.
- 12) Main screen extension is adjusted by loosening the 4 adjustment screws. The extension is lowered to a minimum 0.50 inch to a maximum 0.75 inch from the bottom of the drain opening.
- 13) Inner screen extension is adjusted by loosening the 3 adjustment screws. The extension can be lowered per specification. For example, if the desired screen opening is 1 inch water depth, the inner screen extension should be lowered to a one inch distance between the bottom of the extension and the bottom of the drain opening.
- 14) In grate installations, a grate filler plate is fabrication to ARS length. See drawings for more details.
- 15) **ARS devices are shipped completely assembled.** Field adjustments are made based on extension needs. No field welding of the ARS device is necessary. All sharp parts/edges are grinded at factory and in field as needed.



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Installation and Removal. The screens are bolted to the concrete walls and soffit of the catch basin. No part of the screen or mechanism shall interfere with the removal of any existing gratings.

Standard Design Elements (ARS): 12 gauge stainless steel screen with 3/4 –inch diameter holes with at total open area of not less than 50%. Locking mechanism prevents the brushes of street sweeping equipment from opening the screen while sweeping. The locking mechanism also prevents tampering of the units. The West Coast Storm Screen is specifically designed to open automatically by force of water during a rain event. The locking mechanism operates on horizontal pressure, not vertical pressure; this design keeps the units free of debris and sediment. The CAM gear design of the locking mechanism means no springs that break, no pulley or counter weights that require frequent maintenance, adjustment, or replacement. The ARS design has few moving parts, a simpler design is a more efficient, ease of maintenance, and working design. The gate closes upon water receding, no drainage of weeping buckets or cleaning out of operation components are needed.

Below is an example of an installation in Coral Gables, Florida demonstrating an area where install conditions were good.





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Below is an installation of a long length drain at an Orange County installation site Buena Vista and Olive, EN showing multiple cell installations. Whether the drain is long or short, West Coast Storm, Inc. is able to retrofit according to needs.





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Tailored Design Elements: Device is manufactured to specification based on curb inlet height and length. The design can accommodate small to long inlets, any height, any curb length. Curved inlets can be fitted to meet capture needs, variable heights accommodations, out of square configurations. Drop down attachments allow unit conformity in even the most challenging dimensions, irregularities, and poor masonry workmanship. See the South Carolina installation photo below where the drain conditions were far from perfect. Installation was successful and assisted Richland County to remain in compliance.





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**CAD Files for the West Coast Storm Screen Device
Automatic Retractable Screens**



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REVISIONS				1
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	PRODUCTION RELEASE	5/1/08	VJ
	B	UPDATED ALL DRAWINGS	7/1/09	VJ

DRAWING INDEX BY PAGE NUMBER:

1. ARS UNIT OVERVIEW PAGE 1 AND INDEX
2. ARS UNIT OVERVIEW PAGE 2 GENERAL NOTES
3. ARS ROUND FRONT UNIT
4. ARS TOP GAP OVERFLOW CONSIDERATIONS
5. ARS UNIT VIEWS AND ADJUSTMENTS
6. ARS PROTECTION BAR OPTION
7. ARS UNIT THEORY OF OPERATION
8. MAIN SCREEN ASSEMBLY DRAWING
9. ARS UNIT ASSEMBLY DRAWING
10. PART DRAWING 85-001 ARS ENDS
11. PART DRAWING 85-002 & 85-003 MAIN SCREEN AND EXTN.
12. PART DRAWING 85-005 FRAME MEMBER
13. PART DRAWING 85-007 MAIN GEAR
14. PART DRAWING ISA-1 & ISA-2 INNER SCREEN AND EXTN.
15. PART DRAWING ISA-3 INNER SCREEN ENDS
16. INSTALLATION, ARS MOUNTING BRACKETS 85-010 & 85-011
17. INSTALLATION, ARS SCREEN ADJUSTMENT
18. INSTALLATION, SINGLE UNIT INSTALL
19. INSTALLATION, MULTUNIT INSTALL
20. INSTALLATION, FRONT MOUNT INSTALL
21. INSTALLATION, GRATE INSTALL

PATENT PENDING

ITEM	REQ.	PART NO.	DESCRIPTION	GAGE	REV.
1	2	85-001	6 INCH UNIVERSAL ENDS	12	B
2	1	85-002-X	MAIN SCREEN, H X L	12	B
3	1	85-003-X	MAIN SCREEN EXTENSION INS	12	B
4	1	ISA-1	INNER SCREEN X LENGTH	20	B
5	1	ISA-2	INNER SCREEN EXTENSION	20	B
6	1	85-005-X	FRAME MEMBER X LENGTH	12	B
7	2	85-007	MAIN GEAR	12	B

UNLESS OTHERWISE SPECIFIED	NAME	DATE	DRAWN	CHECKED	DATE	TITLE
DRAWING: 85-001	VJ	5/1/08				WEST COAST STORM INC ARS UNIT OVERVIEW SHEET 1
ANALYSIS: 85-002						
DESIGN: 85-003						
CONSTRUCTION: 85-004						
<p>304 stainless steel</p> <p>SCALE: N/A</p> <p>SHEET 1 OF 21</p>						



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GENERAL NOTES:	
1.	UNIT HEIGHT - THE ARS UNIT WILL FIT INTO STORM DRAINS WITH A HEIGHT FROM 5 INCHES TO 13 INCHES.
2.	UNIT LENGTH - THE ARS UNIT WILL FIT INTO STORM DRAINS WITH A LENGTH FROM 8 INCHES TO 60 INCHES FOR A SINGLE UNIT LENGTH. MULTIPLE UNITS OF APPROPRIATE LENGTHS CAN BE USED TOGETHER FOR LONGER LENGTHS.
3.	EACH UNIT IN A STORM DRAIN INSTALLATION WORKS INDEPENDENTLY.
4.	THE ARS UNIT IS FABRICATED WITH A BUILT IN OVERFLOW OR TOP GAP WHICH IS SPECIFIED BY THE CUSTOMER. SEE PAGE 4 FOR OVERFLOW CONSIDERATIONS.
5.	THE ARS UNIT CAN BE ADJUSTED TO OPEN (UNLOCK) AT A SPECIFIC HEIGHT SPECIFIED BY THE CUSTOMER.
6.	THE GAP BETWEEN THE BOTTOM OF THE MAIN SCREEN AND THE BOTTOM OF THE STORM DRAIN OPENING CAN BE ADJUSTED TO CUSTOMER SPECIFICATIONS. THE SPECIFIED GAP CAN BE PRECISELY MAINTAINED EVEN OVER UNEVEN SURFACES.
7.	THE ARS UNIT IS CONSTRUCTED OF 12 GAGE TYPE 304 STAINLESS STEEL EXCEPT FOR THE INNER SCREEN WHICH IS 20 GAGE TYPE 304 STAINLESS STEEL.
8.	THE MAIN SCREEN HAS A BLANK AREA WHICH CAN BE IMPRINTED WITH THE CUSTOMER NAME.
9.	THE MAIN SCREEN HAS .75 INCH ROUND OPENINGS WITH A 50% OPEN PATTERN.
10.	THE OPERATIONAL (LOCKING) MECHANISM IS ISOLATED FROM THE STORM DRAIN AND DEBRIS. A BUILT IN .50 INCH GAP BETWEEN THE MAIN SCREEN AND ARS ENDS ALSO INSURES THE MECHANISM ISOLATION.
11.	THE ARS UNIT CARRIES A 10 YEAR WARRANTY.

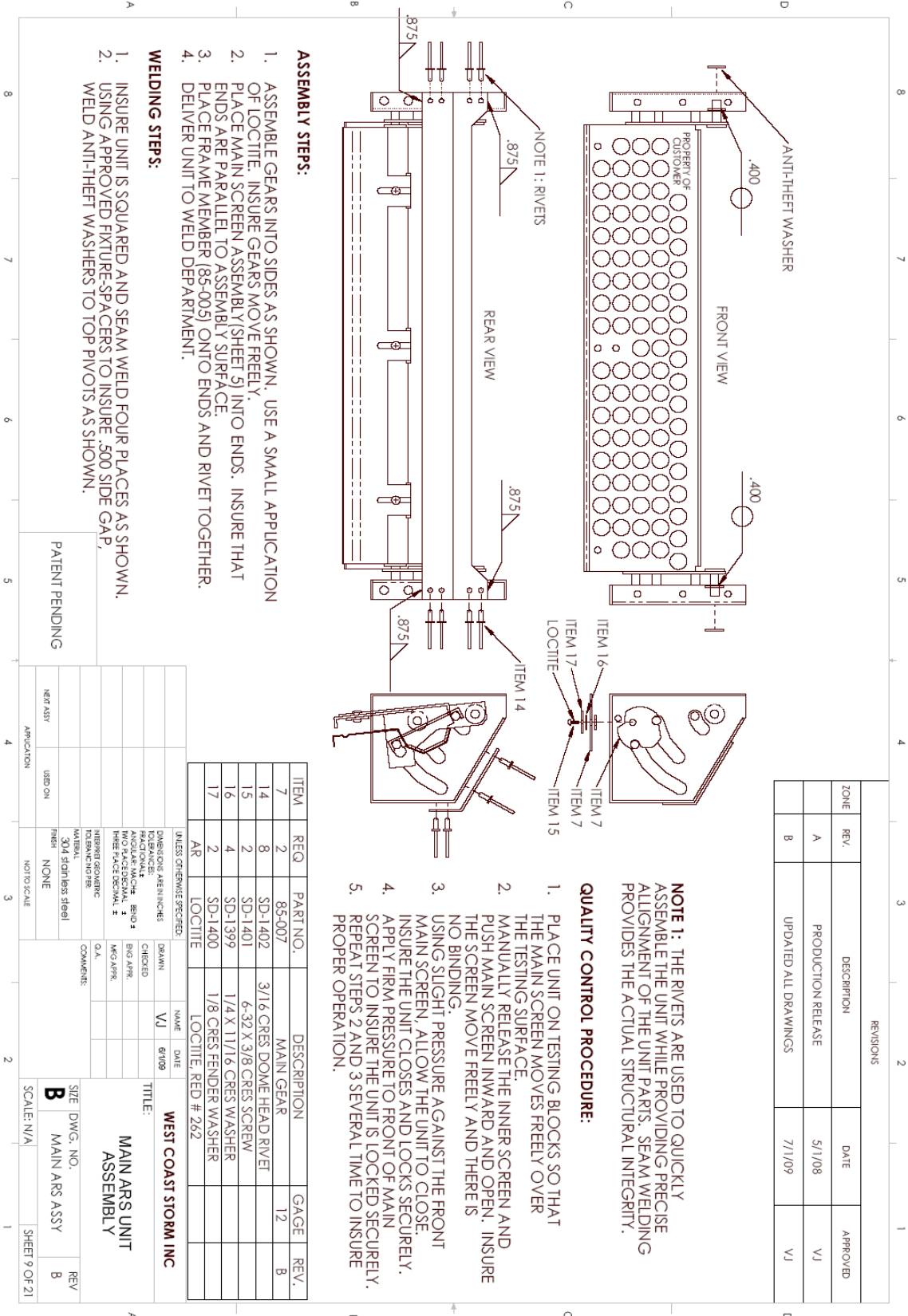
UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	DRAWN
FINISHES	CHECKED
ANGULAR WORK - 90°	BY: JPP
TWO PLACE DECIMAL	DATE: 7/1/09
THREE PLACE DECIMAL	Q.A.
INTERIOR GEOMETRIC	COMMENTS:
INTERIOR FINISH	
304 Stainless Steel	
NEET ASY	USED ON
APPLICATION	FROM
NONE	NONE
NOT TO SCALE	

WEST COAST STORM INC	
TITLE: ARS UNIT OVERVIEW SHEET 2	
SHEET: DWG. NO. B	REV B
SCALE: N/A	SHEET 2 OF 21







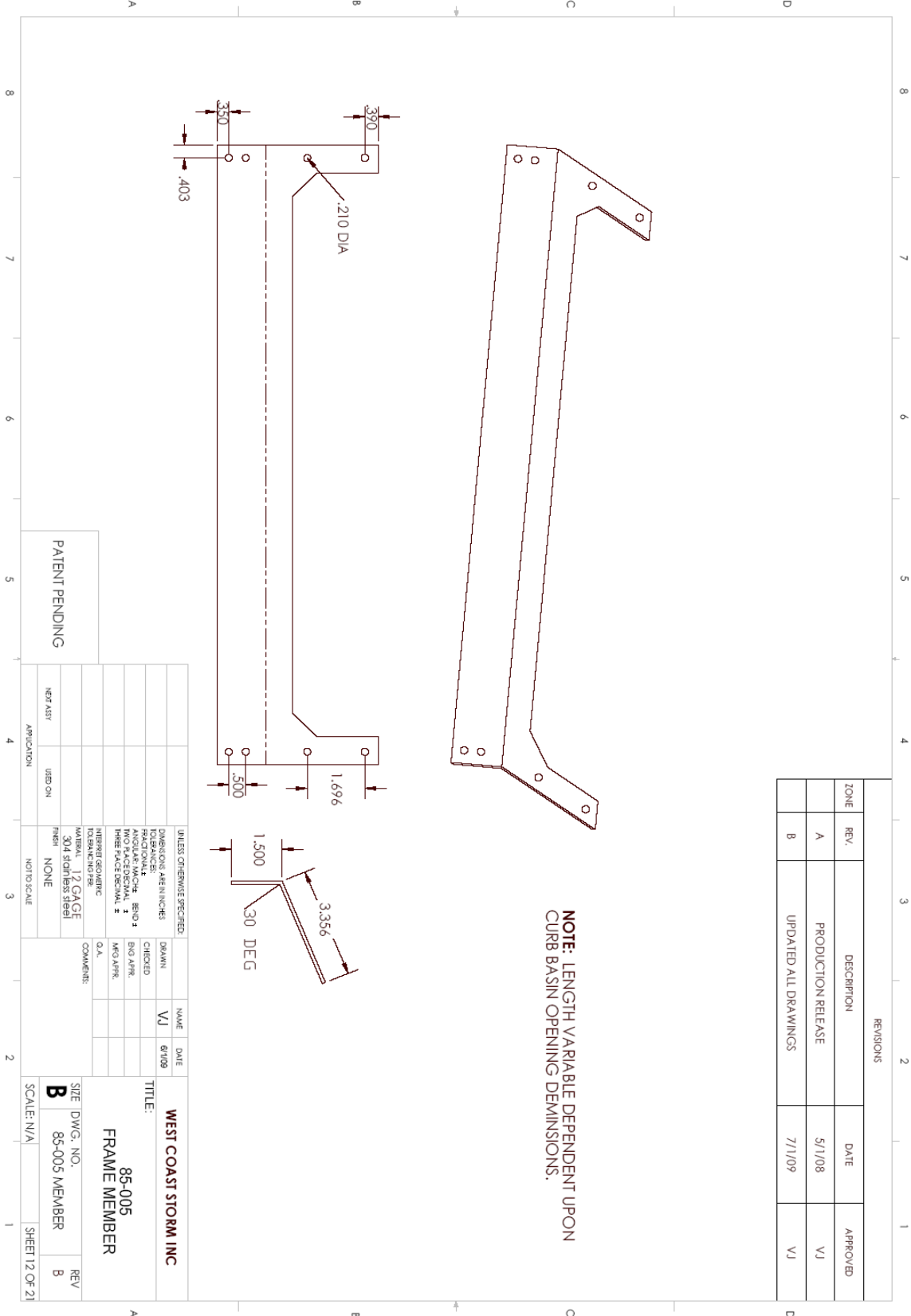






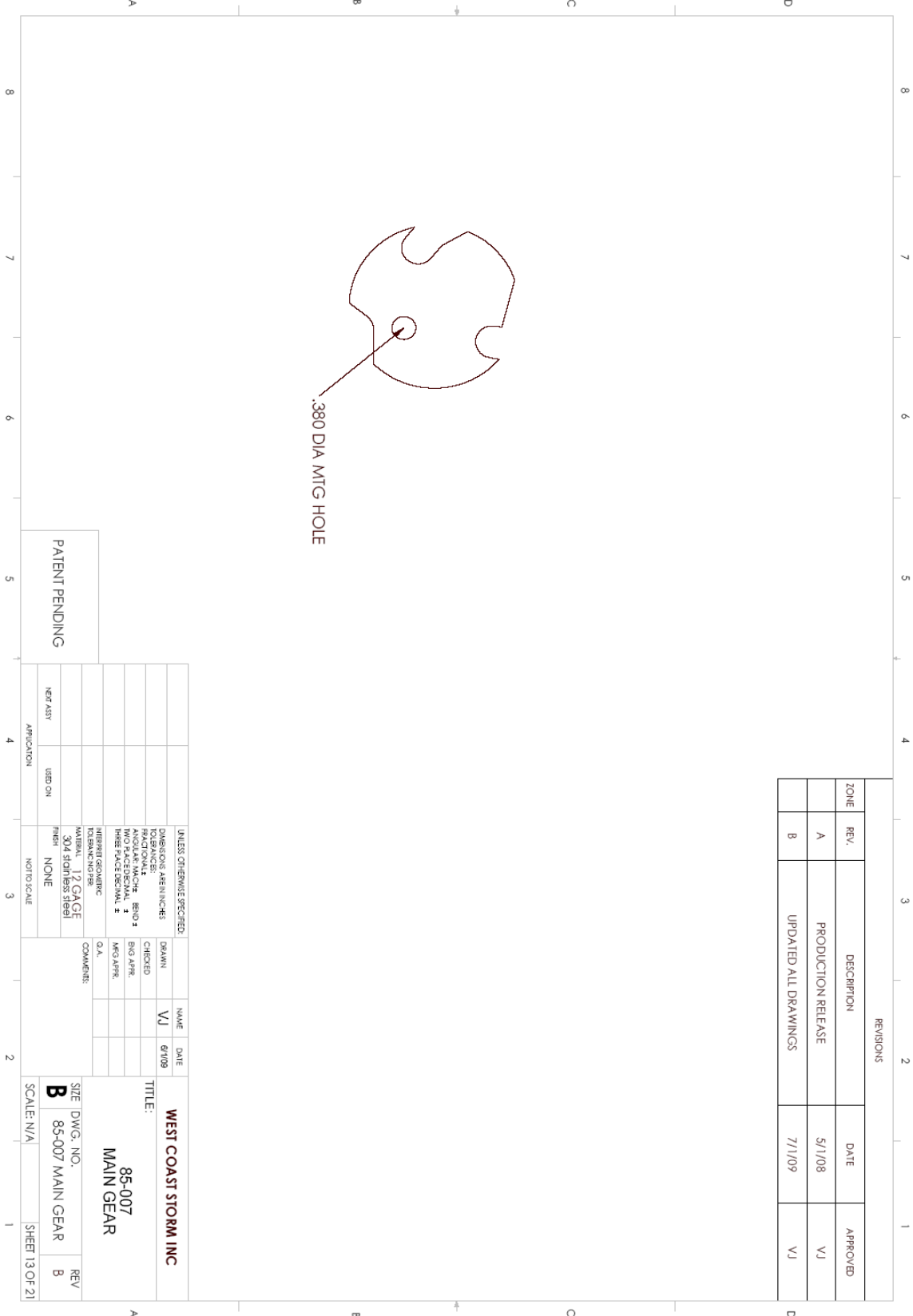


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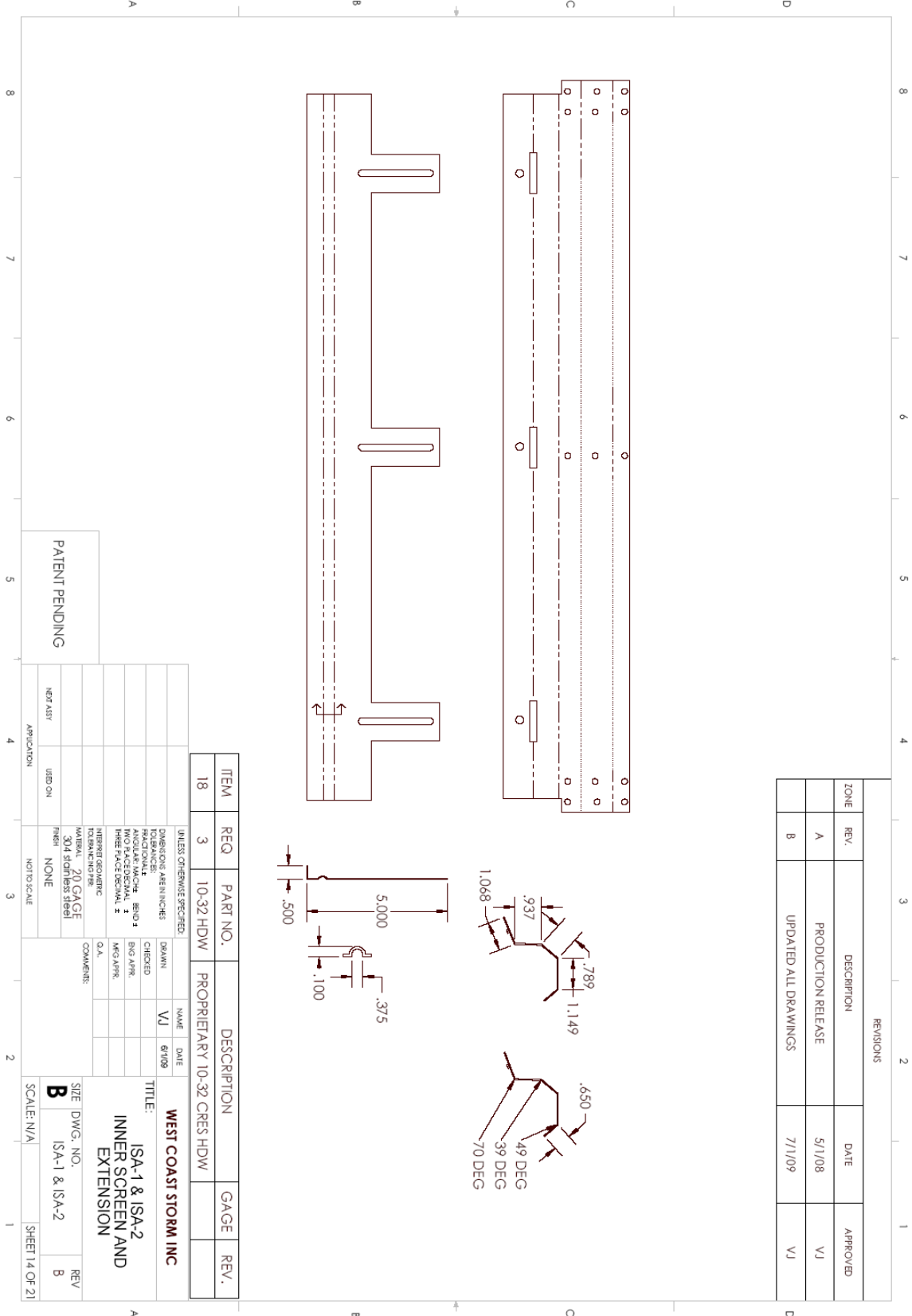


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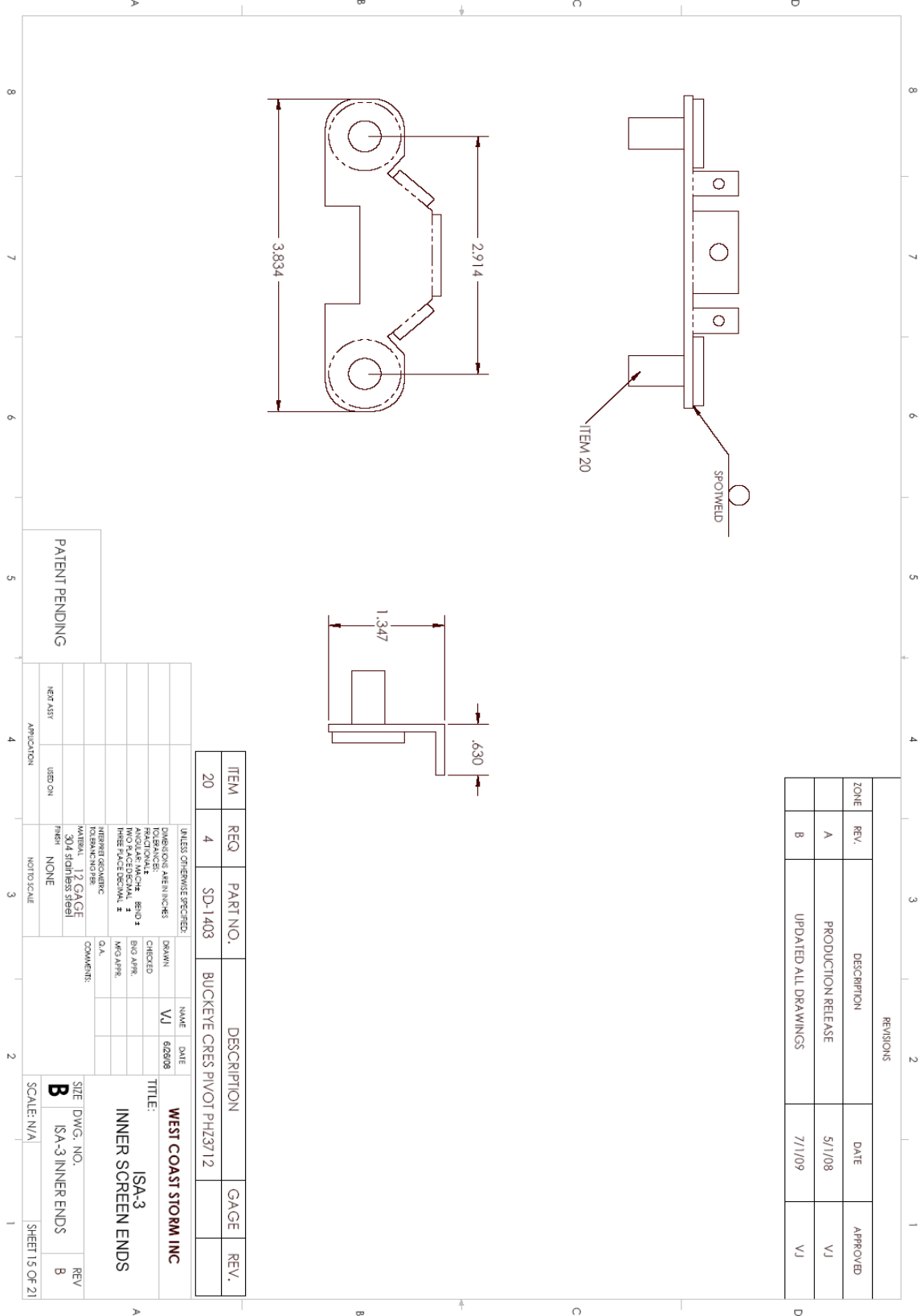


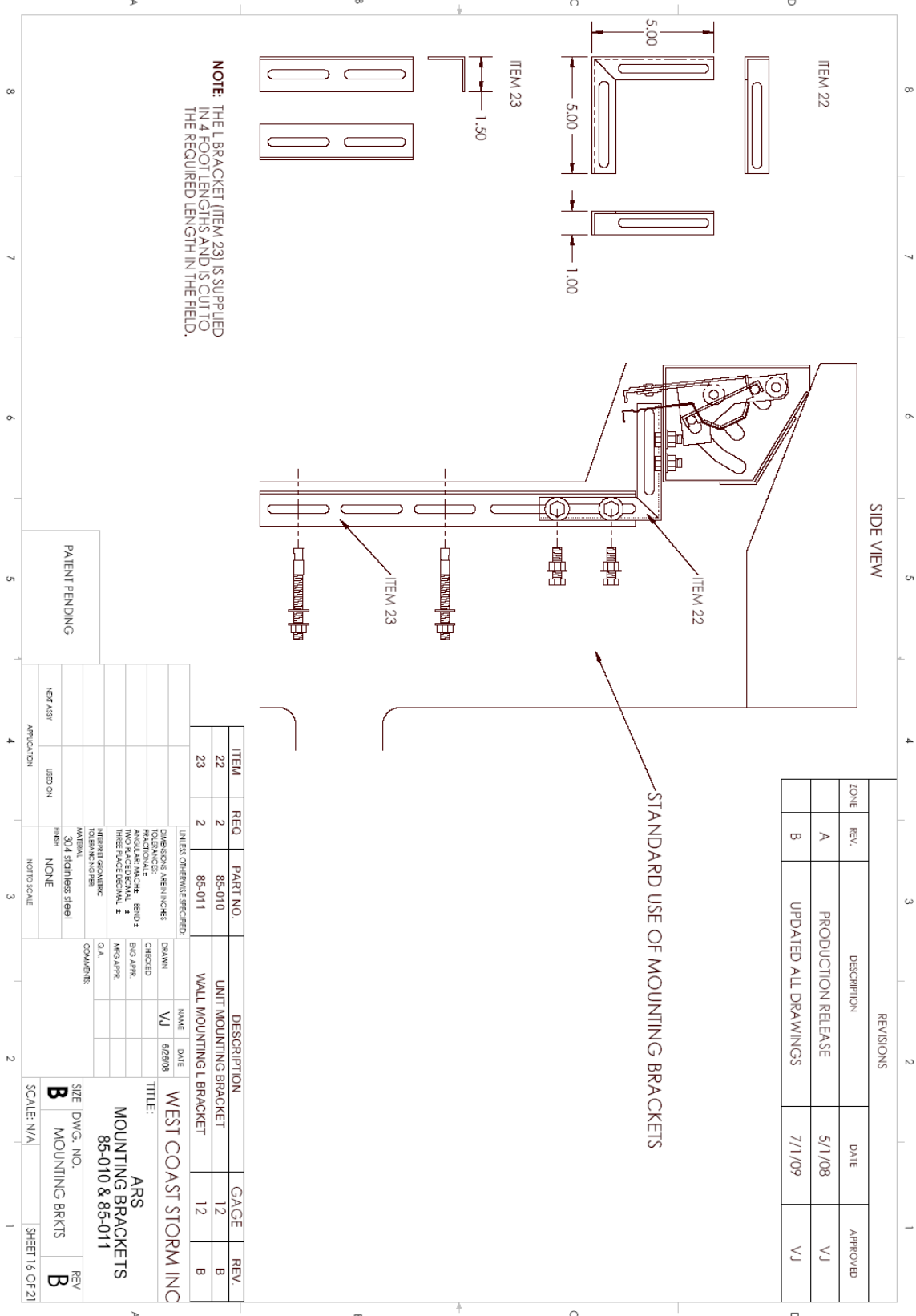
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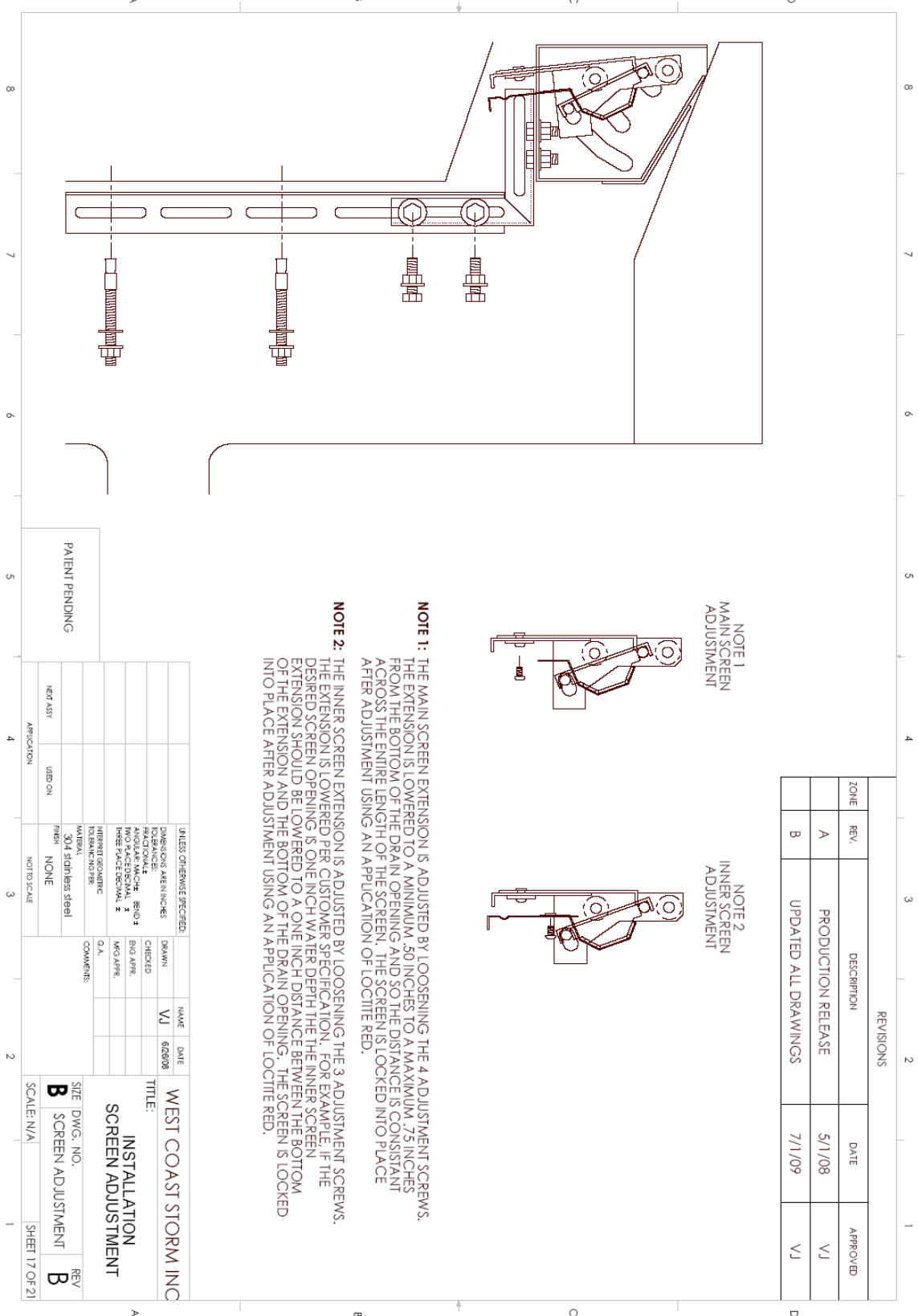


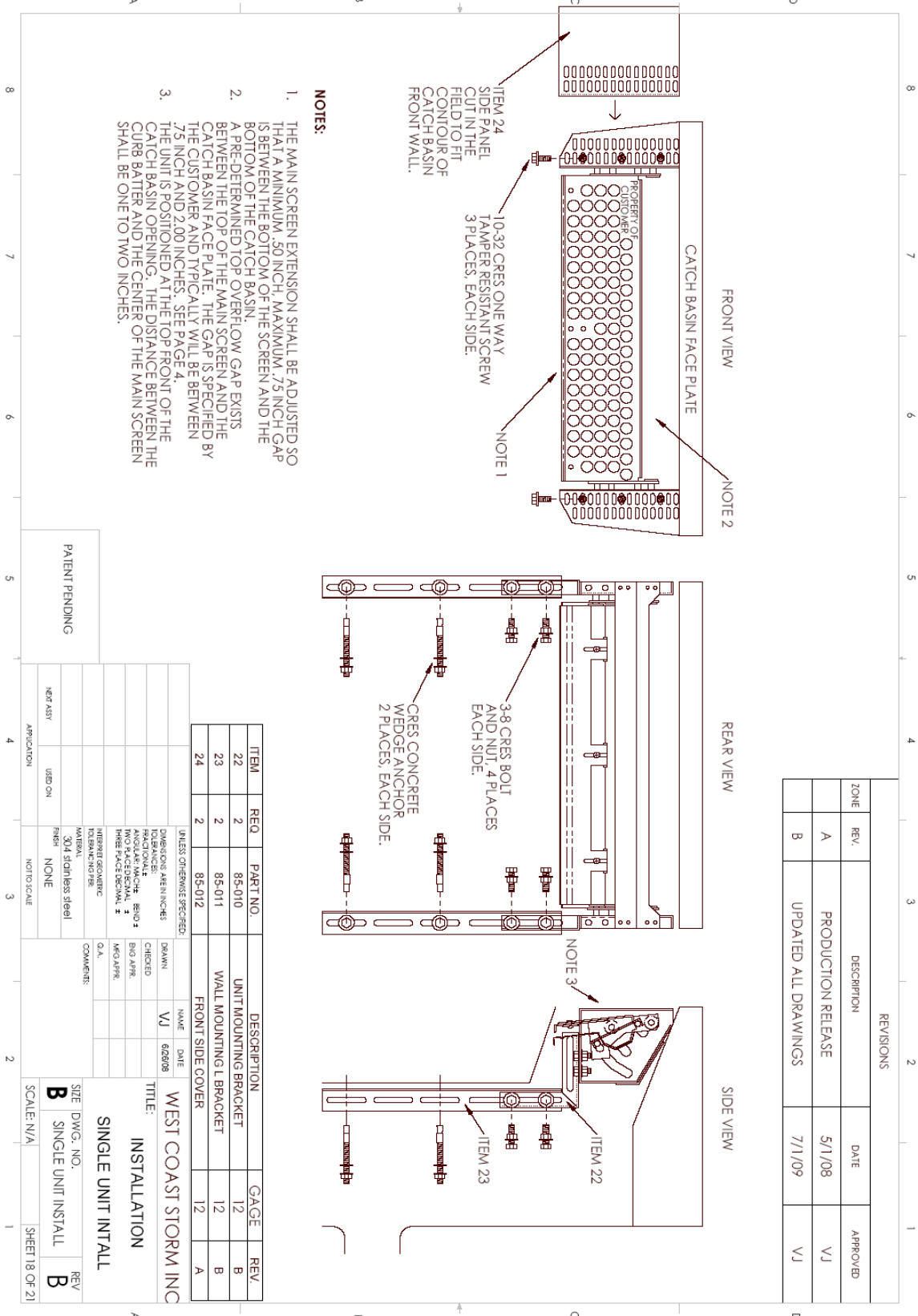


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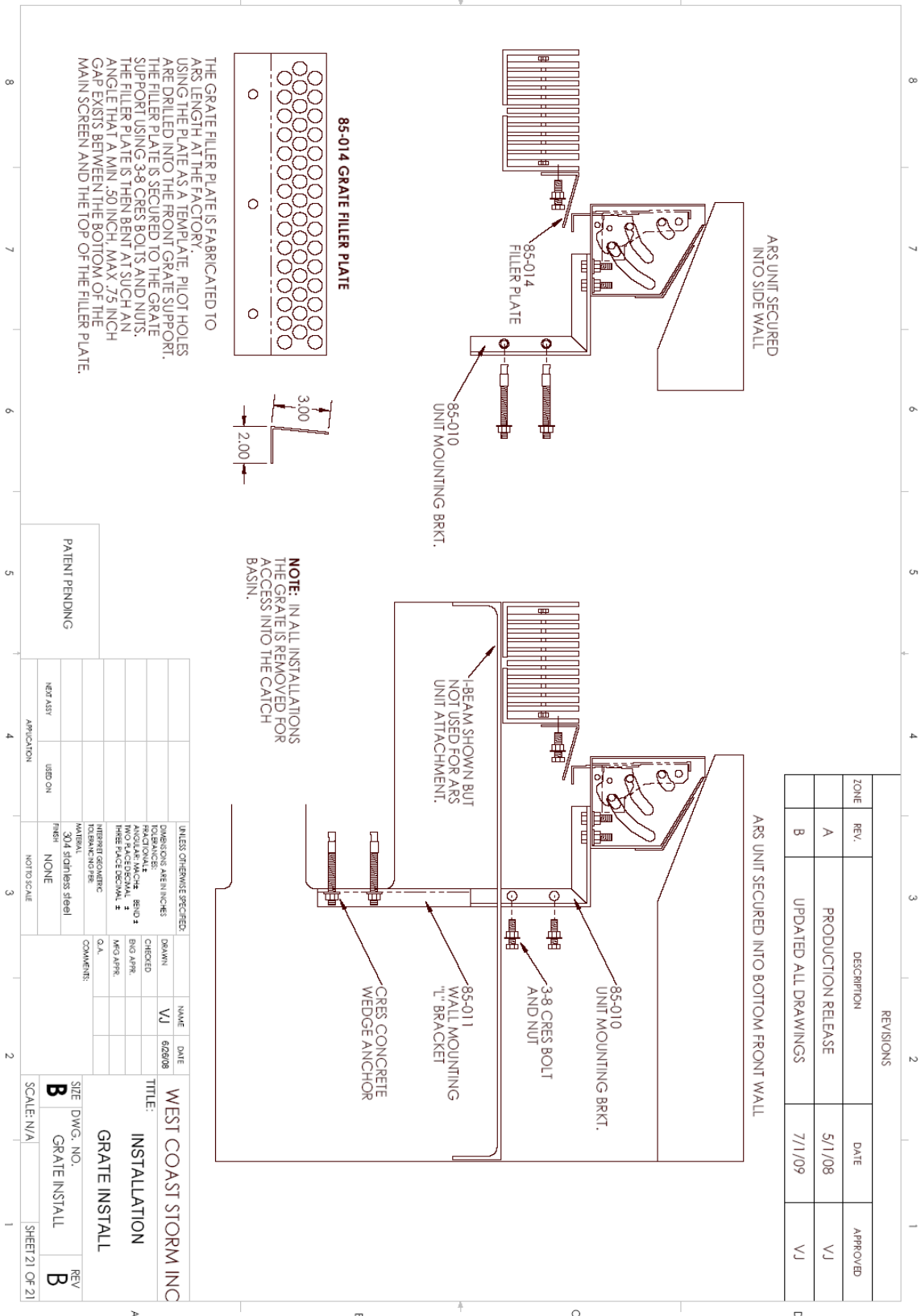














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Materials. The West Coast Storm Screen ARS device meets the following requirements:

- 1) The ARS device is fabricated from S-304 stainless steel. The structural members have a minimum thickness of 3/16 inches.
- 2) All S-304 structural shall be welded by a certified welder.
- 3) The ARS device is constructed of 12 gauge S-304 stainless steel except for the inner sail which is 20 gauge S-304 stainless steel.
- 4) All mounting hardware, bolts, screws, anchors, nuts, and washers are comprised of S-304 stainless steel.
- 5) Main Gear (locking mechanism) is integrated in the device. The locking mechanism is isolated from the storm drain and debris. A built in 0.50 inch gap between the main screen and ARS ends also insures the mechanism isolation.

Flow or Range of Flows. The West Coast Storm screen is an approved automatic retractable screen device passing certain testing and specifications set forth by the City and County of Los Angeles. The West Coast Storm Screen is designed, fabricated, and installed according to the County of Los Angeles specifications and is an approved device by the County of Los Angeles Department of Public Works Design Division specifications: "When in the open position, the ARS must not reduce the hydraulic capacity of the catch basin by more than 10% over the mid and high flow range of the catch basin."

The West Coast Storm Screen is also an approved device by the San Francisco Bay Regional Water Quality Control Board.

Estimated Design Life. 25 years.



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B. Performance Effectiveness for Connector Pipe Screens and Catch Basin Inserts.

Automatic retractable screen are utilized to prevent trash from entering the storm drain during dry weather. Southern California's dry climate in a majority of the year. It is imperative to prevent trash from entering storm drains, enabling easy trash removal. According to a study carried out by the City of Los Angeles and approved by the Los Angeles Regional Water Quality Control Board. According to the City of Los Angeles, the effectiveness of the ARS helps reduce trash levels in storm drains by approximately 80%.

C. Siting, Operational, and Maintenance.

Installation Process.

1. Prior to installation, measuring information is input into the ACCESS database. The sharing municipality can look at the information provided. This reporting process gives the municipality the information it needs to decide whether to proceed with installing at sites specified or not.
2. Our Santa Ana location provides West Coast Storm, Inc. with the ability to get our products and crews to any location within the County of Orange in minutes, not hours.
3. Up to 25 Two-man installation crews are ready to begin work. Each Crew consists of a Supervisor responsible for completion of all paperwork, correct Confined Space Entry procedures and traffic control protocol. All crews are equipped with a Company marked van, all installation tools and equipment necessary to complete the job. All traffic control devices, confined space entry equipment including 4-gas meter, man-lift tripod and harness are kept in the van. Vans are equipped with storage of all installation parts, and spare parts as needed.
4. Crews must set up traffic control and confined space procedures prior to installation. All of West Coast Storm field personnel, including Project Managers, are annually confined space rescue, confined space entry, and traffic control trained.
5. Project Managers meet with crews prior to installations daily. The Project Manager oversees units staging and distribution, parts distribution, and leads the mandatory daily tailgate safety meeting according to OSHA requirements.



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6. Installation crews are provided a scheduled list of drains for installation on a daily basis. Each crew must report all confined space entries on forms provided. Each installation is reported on a BMP report form to record all installation procedures and quality control tests.
7. Crews are required to call into the office upon completion of every drain installation: time spent at drain, ARS length, CPS type, and any additional information. This real-time dispatch enables health & safety tracking, OSHA logs for confined space entry, and maintain cost controls for labor.
8. Paperwork from the day's installation includes BMP report forms on every install, work orders, time sheets, and confined space entry logs. When the paperwork arrives to the office the data from BMP report forms and the real-time dispatch is entered into the ACCESS database. Entering installation information on a daily basis ensures each drain is tracked and reported timely and accurately.
9. In addition to database input, a daily installation report of installs is sent to the municipality. Communication of daily installs ensures the job is progressing and continuing as scheduled.
10. Project Managers perform QAQC: Quality Assessment and Quality Control everyday. Managers are required to visit installations sites and perform health and safety checks. This process ensures public safety, workforce safety, no damage to property, as well as device installation ensuring it is complete and functioning properly.
11. Estimated time required to install each device is 20 minutes.

West Coast Storm Screen Installation Process.

1. Before cutting the child safety bar you must slide the ARS unit into the drain opening for a test fit. If the unit slides in, pull the units back out and cut the child safety bars off if necessary. **Do not** cut the vertical support bar off.
2. Set the ARS unit(s) in front of the drain numerically from left to right.
3. Attach the mounting brackets (85-009) and hand-tighten the 3/8-16 hex nuts onto the ARS unit(s).
4. Place the unit(s) in the catch basin opening with the technician.
5. The technician will slide the unit 1-inch from curb batter. Using a tape measure, verify 1-inch horizontally from center of front screen to curb batter line.



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6. Place a level on the front end (85-001), and verify the unit is vertically level. Upon adjustment of the unit to vertical level position, ensure positioning is 1-inch horizontally from center of front screen to curb batter line.
 7. Once the unit is level and proper positioning is verified, the technician will secure the unit for installation.
 8. Slide the mounting brackets (85-009) up and/or down until they meet the wall face.
 9. Tighten the 3/8-16 hex nuts to the ARS unit utilizing Loctite Red (thread locker).
 10. Utilizing the Hammer Drill, drill two 3/8-inch pilot holes into the concrete. Drill the two holes a minimum of 6 inches apart in the sidewalls.
 11. Hammer the 3/8-inch drop anchor SS sleeve as straight as possible until it is imbedded a minimum of 3-inches into the wall.
 12. Place the standard washer and 3/8-16 nuts onto the 3/8-inch concrete drop anchor. Drill the two holes a minimum of 6 inches apart in the sidewalls.
 13. Use a 14mm open-end wrench or socket ratchet and tighten until secure. Utilize Loctite Red (thread locker) before securing.

Site-specific Measurements Required.

West Coast Storm, Inc. requires minimum information prior to measuring, only drain location. In the even there is not clear data on drain locations, we can locate them upon municipality approval. Information provided to municipalities will include GPS coordinates, address, as well as catch basin measurements. We can and will work with municipal staff to acquire the proper information needed to import into a GIS mapping layer database. Equipped with an industry leading ACCESS database helps us export the information to create GIS mapping layers.



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Regulatory Permits Required for Installation. Confined space entry permitting is required on all drain installations. 40-hour HAZWOPER training is required for storm drain entry.

Maintenance Requirements. Preventative Maintenance of regular street sweeping will prevent debris from building up in front of the unit.

Suggested Yearly Maintenance. Inspections consist of visually inspecting the unit from street level and performing an opening-lock function check.

Visual Inspection:

1. Clean away any built-up debris and foreign object debris. Remove any visible debris that may be on, in front of, and nearby the unit.
2. Look for any visible signs of vandalism or damage that may compromise the unit's ability to properly function. Attempted vandalism and slight damage should be inspected closely to ensure no future damage may result.

Opening-Lock Function Check:

1. Using a pen or screwdriver, insert it through the perforated openings at the center of the main screen in order to make contact with the sail (locking mechanism).
2. Push forward until the screen unlocks and hinges open.
3. Place your opposite hand against the screen so it does not close, slowly remove the pen or screwdriver from hole.
4. Slowly guide the screen down just before it locks, remove your hand letting the weight of the screen lock itself.
5. If the unit is not opening and closing to the standard in which it was installed and the unit is not hindered by debris or F.O.D. (foreign object debris) then the unit may be damaged and replacement may be necessary. Contact West Coast Storm, Inc. for further assistance.



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Durability. The West Coast Storm Screen locking mechanism prevent tampering and opening of the unit during street sweeping. No components of the unit protrude beyond the curb face whether in the locked or open position. Therefore, parked cars, moving cars, bicyclists, or pedestrians are not exposed to any protruding safety hazards and cannot damage the unit as a result. The unit's stainless steel construction allows us to offer a ten year warranty without hesitation.

Availability of Replacement Parts and Life Expectancy. Manufacturing all components in-house is key, we are not subject to outside vendors or distributors out of inventory. In the event, replacement parts are needed, we will have your item readily available. Life expectancy is minimum 25 years. Stainless steel components should last the lifetime of the drain itself.

Waranty. All parts and labor is covered for 10 years.

Aesthetics and Safety. All manufacturing is performed with aircraft precision equipment. No manufacturing of units are performed in the field. Units are delivered assembled and ready for installation. All parts are put through a timesaver deburring rough edges, resulting in a product that has no sharp edges. No components of the unit protrude beyond the curb face whether in the locked or open position. Therefore, parked cars, moving cars, bicyclists, or pedestrians are not exposed to any protruding safety hazards and cannot damage the unit as a result.

Uniqueness. The locking mechanism operates on horizontal pressure, not vertical pressure; this design keeps the units free of debris and sediment. The CAM gear design of the locking mechanism means no springs that break, no pulley or counter weights that require frequent maintenance, adjustment, or replacement. The ARS design has few moving parts, a simpler design is a more efficient, ease of maintenance, and working design. The gate closes upon water receding, no drainage of weeping buckets or cleaning out of operation components are needed.



Storm Water and Environmental Solutions

**County of Orange, OC Public Works
Automatic Retractable Screen Excluders, Connector Pipe Screen Full Capture Trash
Systems, and Catch Basin Inserts
RFP# 080-591792**

**West Coast Storm Screen
Automatic Retractable Screen
Equipment Design and Specification Report**

(Information provided to the City as requested in the RFQ documents under
Attachment A. Scope of Work)

D. Vendor's Installation Background.

West Coast Storm, Inc. is a General A Engineering contractor with a hazardous substances removal certification combining storm water services and manufacturing in one company. Certified welders, certified fabrication machine operators, and up to 25 Two-man installation crews are ready to begin work. Our Santa Ana location provides West Coast Storm, Inc. with the ability to get our products and crews to any location within the County of Orange in minutes, not hours.

All of West Coast Storm, Inc. operations personnel are fully trained under the following minimum requirements:

- 40-Hour Hazardous Waste Operations Emergency Response (HAZWOPER) training in accordance with 29 Code of Federal Regulations (CFR) 1910.120
- 8-Hour Hazardous Waste Operations Refresher training in accordance with 29 CFR 1910.120
- Confined Space Rescue and Entry training in accordance with 29 CFR 1910

In Addition, every operating employee of West Coast Storm, Inc. is enrolled in the Department of Motor Vehicles (DMV) Employee Pull Notice (EPN) Program as well as a Department of Transportation (DOT) Approved Random Drug and Alcohol Testing Program.

All installation crews undergo rigorous installation training, emphasizing safety and quality control. Installers have hours of experience on many ARS & CPS installation projects performed countrywide.



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West Coast Storm, Inc. (WCS) has extensive experience in projects similar to that called for by present RFP. WCS has worked with public and private entities. All operations for the measuring, manufacturing and installation of the products are handled solely by WCS, no subcontractors are needed. Experience in municipal ARS & CPS projects includes finding drain locations, measuring and compiling reports to municipalities on the status of drains measured, upon release of the measured drains by the municipality (Purchase Order) manufacturing operations begin as soon as measurements are released by WCS, shipments are sent daily from Santa Ana to install crews, meeting sites are coordinated by Project Managers to best accommodate installation areas, installations are performed with proper traffic control measures and confined space entry protocol, real-time dispatch reporting from field to WCS office upon completion of each drain, daily reports are comprised and sent to the municipality upon QC, direct contact liaison relationships are established between project managers, office personnel, and municipalities. Handling the job from beginning to finish had proven to clients we are a simple, effective, and efficient way to do business.

Similar product installations of Connector Pipe Screen and/or Automatic Retractable Screen projects include the County of Los Angeles, City of Rancho Palos Verdes, City of Anaheim, City of Beverly Hills, City of San Bernardino, City of Perris, City of Burlingame, City of Oceanside, City of Pico Rivera, City of Torrance, City of Fort Worth, Texas, Richland County (South Carolina), the State of Florida Department of Transportation and many others.



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Automatic Retractable Screen

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E. Operating Locations, References, and Certifications.

Install Locations.

City of Anaheim

Installation Site: Coronado Street and Blue Gum Street

Location: East South Corner





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City of Anaheim
Installation Site: Coronado Street and Blue Gum Street
Location: North East Corner





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County of Orange, OC Public Works

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County of Orange

Installation Site: Buena Vista and Olive

Location: East North Corner



County of Orange

Installation Site: Buena Vista and Olive

Location: North East Corner





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Los Angeles Metro
Installation Site: Central and E 6th Ave



Los Angeles Metro
Installation Site: Bauchet and Vignes





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City of Torrance
Installation Site: Crenshaw and Sepulveda
Location: North West Corner





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References.

County of Los Angeles
Contact: Akbar Gadim
Telephone: 818-786-9411
900 S. Fremont, 8th Floor, Alhambra, CA

County of Los Angeles River Trash Total Maximum Daily Load Full Compliance, Catch Basin Retrofit-Phase 4: drain cleaning, measuring, manufacturing, and installation of over 1,800 Connector Pipe Screen (CPS) devices and 2,500 Automatic Retractable Screen (ARS) devices.

1. Date of Service: 11/09/2009-05/01/2010
2. Contract Amount: \$1,231,807

City of Los Angeles
Contact: Shahram Kharaghani
Telephone: 213-485-0587
1149 S. Broadway, 10th Floor, Los Angeles, CA

Mandated Regional Water Quality Control Board's Total Maximum Daily Load (TMDL) regulatory requirements in order to reduce the trash in the Los Angeles River and Ballona Creek by 10% per year. Under the Catch Basin Opening Screen Cover Project, to date, we have manufactured and installed over 28,000 Automatic Retractable Screen (ARS) devices in approximately 12,500 drains.

1. Date of Service: 6/1/2008 to Present
2. Contract Amount: \$42,000,000



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City of Beverly Hills
Contact: Vincent Chee
Telephone: 310-285-2507
345 Foothill Road, Beverly Hills, CA

Installation of Debris Screen Devices Storm Water Catch Basins at Various Locations within the City of Beverly Hills. Five Hundred drains measured, and Nine Hundred West Coast Storm Screen Devices manufactured, and installed.

1. Date of Service: 04/01/2010-07/01/2010
2. Contract Amount: \$ 247,500.00