

STORMWATER AS-BUILT PLANS

SUBMISSION CHECKLIST

The As-built approval procedure for release of performance surety has multiple steps which include the following: As-built Review, As-built Inspection, and Signature Set Review.

To start the process, you will need to upload documents to the SWM Permit under the Attachment Tab. After the documents are uploaded, go to the Application Tab, and under Awaiting Documents check the Confirm Documents are Uploaded button and save. That should create an asbuilt review task to start the review. If you have issues uploading or after you do an upload to the SWM Permit, please email the County Reviewer to make sure that the system created an As-built Review task.

As-built Review needs the following documents:

1. Redlined Survey of the SWM facility/facilities on the original approved IMPROVEMENT PLAN.
 - a. The survey needs to check the following information: surface contours in and around the SWM facility, filtering area, rip rap, inverts of the outflow and inflows, spillway weirs and orifices, underdrains and cleanouts, flow splitters, key dam structural features, etc.
 - b. Cross-Section and Profiles need to be checked.
 - c. Specifications and Details need to be checked.
 - d. Structural Elevation Tables to be checked.
 - e. Landscaping needs to be checked.
 - f. SWM Summary tables need to be included on the cover sheet. The SWM Summary table needs to include Drainage Area to the SWM facility, Impervious Area Treated, Pe

Required, Pe Addressed, ESDv Required, ESDv Addressed, RCN, and Time of Concertation (Tc).

2. Drainage Area Plans/Maps
3. Redlined marked ups of the Stormwater Management Report documenting all changes that happened during construction.
4. 3rd Party Geotechnical Construction Certification and/or 3rd Party Inspection Report. The 3rd Party Inspection Report must include construction photos, material tickets, and daily inspector logs for the key installation time periods.
5. If the SWM facility is a MD378 facility. The County Permit Staff will require the Soil Conservations District's (SCD) approval of the As-built.
6. Recorded Stormwater Deed of Easement and Declaration of Covenants. The County Permit Staff will tell you if this document is missing from the permit file in their comments.

As-built Inspection, Is setup by the County Permit Staff after they find the Asbuilts submittal acceptable.

7. The SWM facility/facilities will need to pass a field inspection where the County Inspector checks to make sure the SWM facility matches the Asbuilt plans, operating as designed, and not requiring any repairs at this time.

Signature Set Review

8. Updated plans addressing the County Inspector's comments from the Asbuilt Inspection.
9. Signed Signature Set Documents: The permits system will generate, or County Staff will provided Signature Set Document after the SWM facilities pass inspection.



Division of Planning and Permitting
Department of Development
Review Engineering

APPROVED: 12/2/20

Signature:

AS-BUILT

IMPROVEMENT PLANS

FOR

GAS HOUSE PIKE WIDENING HAMPTONS WEST

W/S CONTRACT #411A-SW

LEGEND

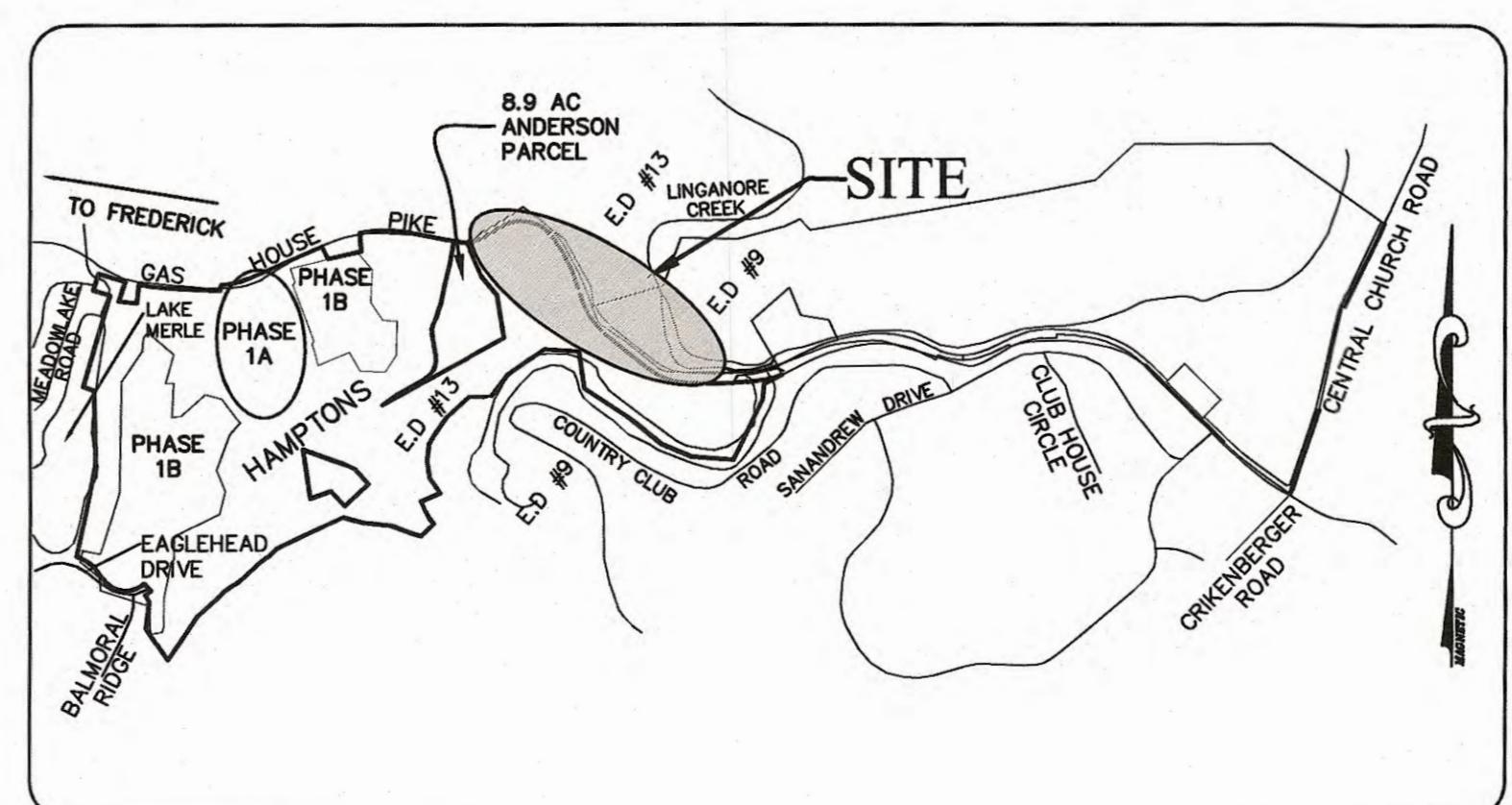
	EXISTING	PROPOSED
INTERIOR LOT LINE	_____	_____
R/W-PROPERTY LINE	_____	_____
CENTERLINE	_____	_____
EASEMENTS	_____	_____
CURBING AND CURB & GUTTER	_____	_____
BUILDINGS	_____	_____
SPOT ELEVATIONS	*296.0	+96.0
BENCH MARK	310	310
CONTOURS	SS	SS
STORM DRAIN	W	W
SANITARY SEWER	G,E,T,	G,E,T,
WATER LINES	_____	_____
U/G GAS,ELEC,OR TELEPHONE	_____	_____
OVERHEAD ELEC. LINES	_____	_____
DRAINAGE FLOW & DIRECTION	→	→
MANHOLE	○	●
INLETS	_____	_____
PLUG OR CAP	_____	_____
WATER VALVE	_____	_____
FIRE HYDRANT	✖	✖
UTILITY POLE	✖	✖
LIGHT POLE	✖	✖
SANITARY SEWER LATERALS	○	●
WATER LATERALS	○	○
REDUCER	_____	_____
FENCE	_____	_____
CONCRETE	_____	_____
LIMIT OF DISTURBANCE	_____	_____
SILT FENCE	_____	_____
EARTH DIKE	_____	_____
STONE CHECK DAM	_____	_____
STABILIZED CONSTRUCTION ENTRANCE	SF	SF
INLET PROTECTION	ED/A-1	ED/A-1
ROCK OUTLET PROTECTION	SCE	SCE
SUPER SILT FENCE	[] SIP,CIP,AGIP	[] SIP,CIP,AGIP
TEST PIT	SSP	SSP
CURLEX MATTING	TP	TP

Asbuilt Professional Seal and
Certification

PREPARED BY:

**HARRIS
SMARIGA**
PLANNERS • ENGINEERS • SURVEYORS

125 S. CARROLL STREET
SUITE 100
FREDERICK
MARYLAND 21701
P.301.662.4488
F.301.662.4906
www.harrissmariga.com

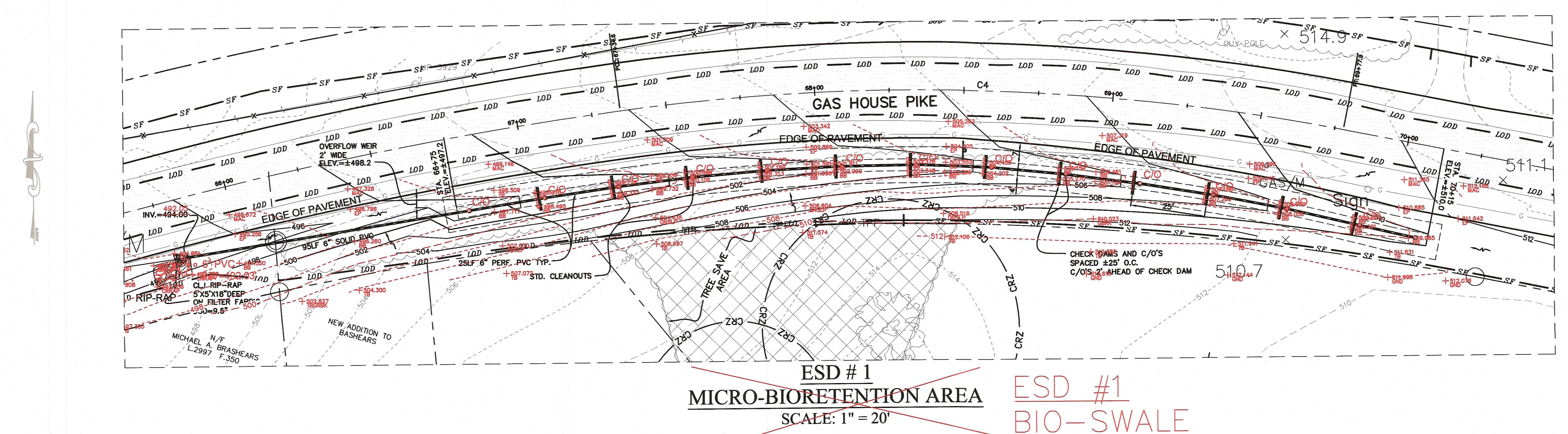




Division of Planning and Permitting
Department of Development
Review Engineering

APPROVED: 02/09/21

Signature:



HILLIS-CARNES

ENGINEERING ASSOCIATES

April 19, 2022

Mr. Gene Bollinger
Project Manager
Elm Street Development
1355 Beverly Rd. Suite 240
McLean, VA 22101
✉ gballinger@elmstreetdev.com

1660 Bowman Farm Road, Suite 105
Frederick, MD 21701
Phone (301) 662-2522
Fax (301) 662-5575
www.hcea.com

Re: Report of Construction Materials Testing and Inspection
Hamptons West – Gas House Pike Widening
Micro-Bioretention ESD #1 & ESD #2
New Market, MD 21774
HCEA Project No.: 02219A

Mr. Bollinger,

As requested, Hillis Carnes Engineering Associates, Inc. representatives were on-site to observe and document the construction of the above referenced bio-retentions located within Hamptons West – Gas House Pike Widening. Our services included observing the excavation of the bio-retentions, the installation the associated pipes, layers of stone, pea gravel, planting media and documentation of the various construction phases of the bio-retentions.

It was observed that the bio-retentions, including 6" perforated PVC pipe, 8" gravel layer (#57 stone), 4" pea gravel and 24" planting media layer were observed to be installed per the provided documents.

To the best of our knowledge, understanding, and belief, the bio-retentions have been constructed in general conformance with the available contract drawings and specifications. Should you have any questions concerning this report or require further information, please feel free to contact our office.

Sincerely,
Hillis-Carnes Engineering Associates, Inc.


Robert Brown
Project Manager

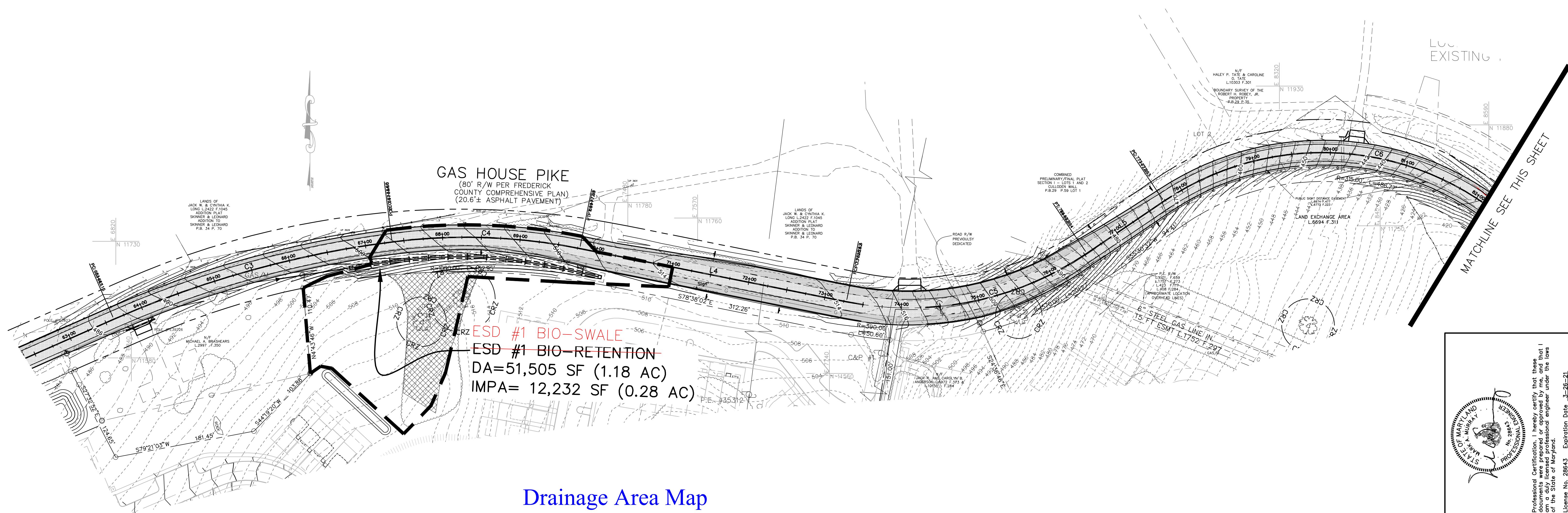


Rajesh K. Goel, P.E.
Principal Engineer

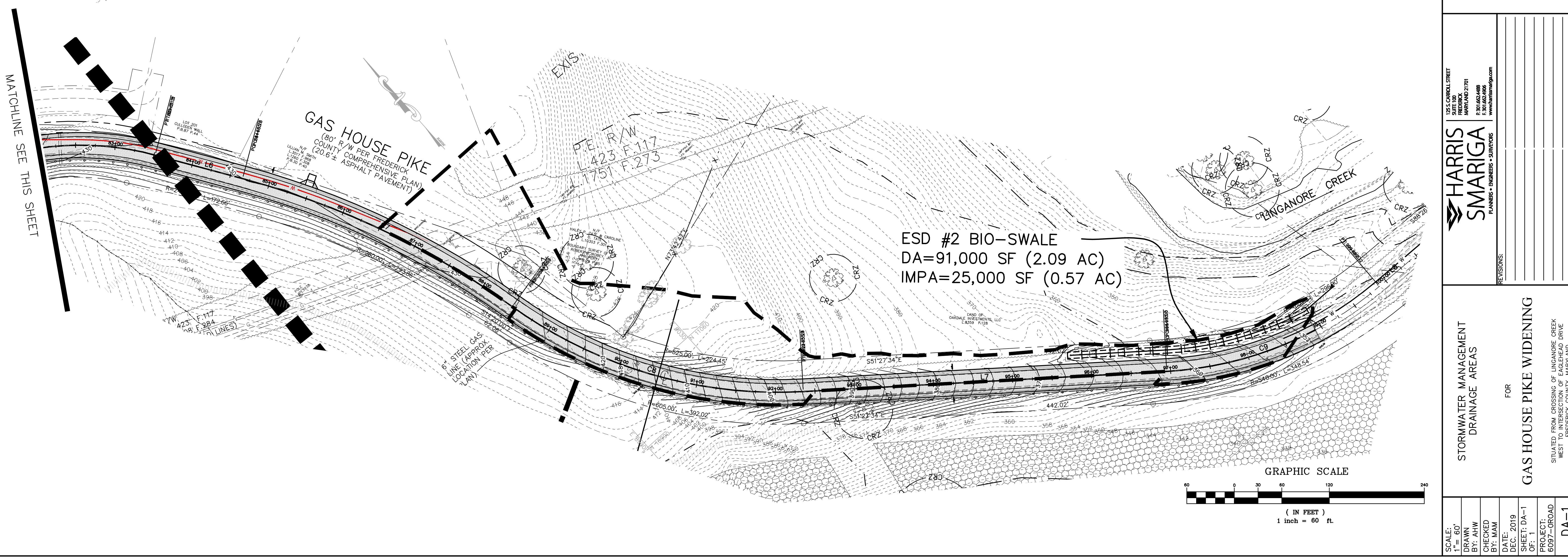
Corporate Headquarters - Annapolis Junction, MD
Maryland • Washington, DC • Delaware • Pennsylvania • Virginia • Caribbean

3rd Party Geotechnical Certification
added to the plans

 No. 28943 Expiration Date 3-26-21	
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION PROFESSIONAL ENGINEER No. 28943 Expiration Date 3-26-21	
HARRIS SMARIGA PLANNERS, ENGINEERS • SURVEYORS 125 CHURCH STREET FREDERICK MARYLAND 21701 P 301.662.4698 F 301.662.4696 www.harrisengineering.com	
SCALE: AS SHOWN DRAWN BY: RLP CHECKED BY: MAM DATE: DEC. 2019 SHEET: AB-4 	STORMWATER MANAGEMENT -CERTIFICATIONS- FOR 2/25/20 REV. PER FCO & SCD CHANTS 4/17/20 REV. PER FCO & SCD CHANTS 7/10/20 REV. PER FCO CHANTS 9/1/20 REV. PER FCO CHANTS 11/10/20 REV. PER FCO CHANTS 12/15/20 REV. PER FCO CHANTS 12/23/20 REV. PER FCO CHANTS
GAS HOUSE PIKE WIDENING SITUATED FROM CROSSING OF EAGLEHEAD DRIVE WEST TO INTERSECTION OF EAGLEHEAD DRIVE FREDERICK COUNTY, MARYLAND 4/19/2022 3:14:18 PM	



Drainage Area Map



**ASBUILT ENGINEERING COMPUTATIONS
FOR
STORMWATER MANAGEMENT**

Asbuilt SWM Report

**GAS HOUSE PIKE WIDENING
HAMPTONS WEST
JOB NO. 6097-0ROAD**

**HARRIS, SMARIGA & ASSOCIATES, INC.
125 S. CARROLL STREET, SUITE 100
FREDERICK, MARYLAND 21701
TEL: (301) 662-4488
FAX: (301) 662-4906**

**April 2022
Rev. May 2022**

**Professional Certification. I hereby certify that these
documents were prepared or approved by me, and that I
am a duly licensed professional engineer under the laws
of the State of Maryland.**

**License No. 28643
Expiration Date: 3-26-23**



5/5/22

TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE NUMBER</u>
STORMWATER MANAGEMENT NARRATIVE.....	3
ASBUILT ESD COMPUTATIONS	9-12
PREV. APPROVED COMPS.....	13-15
Attachment: SWM DA MAP.....	DA-1

NARRATIVE

PROJECT DESCRIPTION:

The total site, a portion of Gas House Pike, is located in the central-western portion of Frederick County, MD running from Linganore Creek Bridge west to the intersection with Eaglehead Drive, and is within the existing Lake Linganore Planned Unit Development at New Market. These plans and computations cover the proposed widening and safety improvements for Gas House Pike to meet Frederick County minor arterial standards along the frontage of the Hamptons West Development per the APFO LOU executed 7/11/13 between Oakdale Investments and Frederick County. Being that the primary objective of the project is safety improvements to an existing roadway, constrained by limited right-of-way and steep slopes and containing no concentrated discharge points, only stormwater treatment for new impervious area is proposed.

This portion of Gas House Pike lies within the Lake Linganore watershed, and crosses Linganore Creek just beyond its eastern extent. The site consists of hydrologic "B" soils per the Frederick County Soils Manual.

As-built Conclusion

	ESDv design	ESDv provided	ESDv Reqd
Bio Swale	2,830 CF	2,830 CF	2,830 CF
Bio Swale	5,478 CF	5,097 CF	5,478 CF
TOTAL	8,308 CF	7,927 CF	7,454 CF

7927 ≥ 7454

Therefore requirement has been met.

AS-BUILT SWM STRUCTURAL REQUIREMENTS

ESD # 1

Bio-Swale

Drainage Area (DA) =	51,505 sf		
Impervious Area (I) =	12,232 sf	=	23.7 % Impervious
Surface Area of Practice (Af) =	1,310 sf		
Rv = 0.05+0.009(I)			
Rv = 0.264			

Surface Area Check

Af shall be at least 2% of contributing surface area

Af min = .02 x DA

Af min. = 1030 sf

Provided Af = 1,310 sf

The maximum amount of runoff that can be captured by this practice is limited to the 1-year 24-hour storm, which is 2.5" for Frederick County, MD:

$$\text{ESDv} = \frac{(\text{PE})(\text{RV})(\text{A})}{12} = 2,830 \text{ cf} = \text{Max. allowable}$$

Volume Provided :

The bio-swale has a surface area of 1,310 sf

A ponding depth of 1.0' will be provided. The filter media and gravel layer will be 3.0' deep.

Given that the porosity (n) for these layers is 0.4, the total combined storage within this practice is

$$Vf = ((Af)(hf)) + ((Af)(df)(n))$$

Where: Af = 1,310 provided surface area
 hf = 1 ponding depth in landscaping
 df = 3.0 Depth of media
 n = 0.4 porosity of media

$$Vf = 2,882$$

The treated volume is controlled by the smaller of the two amounts:

Vf < Max. allowable therefore,
 Treated Volume = 2,830 CF

$$\text{Provided Pe: Pe} = (12)(\text{ESDv})/(\text{Rv})(\text{A})$$

$$\text{Pe} = 2.5 \text{ inches}$$

$$\text{Post RCN} = 55$$

AS-BUILT SWM STRUCTURAL REQUIREMENTS

ESD # 2

Bio-Swale

Drainage Area (DA) =	91,000 sf		
Impervious Area (I) =	25,000 sf	=	27.5 % Impervious
Surface Area of Practice (Af) =	2,317 sf		
Rv = 0.05+0.009(I)			
Rv = 0.297			

Surface Area Check

Af shall be at least 2% of contributing surface area

Af min = .02 x DA

Af min. = 1820 sf

Provided Af = 2,317 sf

The maximum amount of runoff that can be captured by this practice is limited to the 1-year 24-hour storm, which is 2.5" for Frederick County, MD:

ESDv = (PE) (RV) (A) = 5,635 cf = Max. allowable
12

Volume Provided :

The bio-swale has a surface area of 2,317 sf

A ponding depth of 1.0 will be provided. The filter media and gravel layer will be 3.0' deep.

Given that the porosity (n) for these layers is 0.4, the total combined storage within this practice is

$V_f = ((Af)(hf)) + ((Af)(df)(n))$

Where: Af = 2,317 provided surface area
hf = 1.0 ponding depth in swale
df = 3.0 Depth of media
n = 0.4 porosity of media

$V_f = 5,097$

The treated volume is controlled by the smaller of the two amounts:

$V_f < \text{Max. allowable}$ therefore,
Treated Volume = 5,097 CF

Provided Pe: $Pe = (12)(ESDv)/(Rv)(A)$

Pe	=	2.3 inches
Post RCN	=	55

AS-BUILT SWM STRUCTURAL REQUIREMENTS

SITE DESIGN ASSESSMENT:

SITE TARGET Pe = 1.6 "

SITE TARGET ESDv = 7,454 cf

TOTAL: 142,505 37,232 3,627 **7,927**

7,927 > **7,454** Full ESDv Requirement Met

SUBTOTAL ESD VOLUME: = **7,927 cf**

SITE PROVIDED $P_E = 12 * (ESDv) / (Rv) * (A) = 1.70$ RCN = 55

Therefore min. requirement has been met.

The total calculated ESDv captured is greater than the target ESDv, therefore the site is considered to have been designed to the MEP and ESD requirements met

From Prev. Approved. Comps

SWM STRUCTURAL REQUIREMENTS

ESD # 1

~~Micro-Bioretention~~

Bio-Swale

Drainage Area (DA) = 51,505 sf
 Impervious Area (I) = 12,232 sf = 23.7 % Impervious
 Surface Area of Practice (Af) = ~~1,747 sf~~ 1,310 sf
 $Rv = 0.05 + 0.009(I)$
 $Rv = 0.264$

Surface Area Check

Af shall be at least 2% of contributing surface area

$$Af \text{ min} = .02 \times DA$$

$$Af \text{ min.} = 1030 \text{ sf}$$

$$\text{Provided Af} = \cancel{1,747 \text{ sf}} \quad 1,310 \text{ sf}$$

The maximum amount of runoff that can be captured by this practice is limited to the 1-year 24-hour storm, which is 2.5" for Frederick County, MD:

$$\frac{ESDv = (PE)(RV)(A)}{12} = 2,830 \text{ cf} = \text{Max. allowable}$$

Volume Provided :

The bio-swale has a surface area of ~~1,747 sf~~ ~~1,310 sf~~

A ponding depth of 1.0' will be provided. The filter media and gravel layer will be 3.0' deep.

Given that the porosity (n) for these layers is 0.4, the total combined storage within this practice is

$$Vf = ((Af)(hf)) + ((Af)(df)(n))$$

Where: $Af = \cancel{1,747}$ provided surface area $1,310$

$hf = 1$ ponding depth in landscaping

$df = 3.0$ Depth of media

$n = 0.4$ porosity of media

$$Vf = \cancel{3,843} \quad Vf = 2,882$$

The treated volume is controlled by the smaller of the two amounts:

$Vf > \text{Max. allowable}$ therefore,

$$\text{Treated Volume} = \underline{2,830 \text{ CF}}$$

$$\text{Provided Pe: } Pe = (12)(ESDv)/(Rv)(A)$$

$$Pe = 2.5 \text{ inches}$$

$$\text{Post RCN} = 55$$

From Prev. Approved Comps

SWM STRUCTURAL REQUIREMENTS

ESD # 2

Bio-Swale

Drainage Area (DA) =	91,000 sf		
Impervious Area (I) =	25,000 sf	=	27.5 % Impervious
Surface Area of Practice (Af) =	2,490 sf		
Rv = 0.05+0.009(I)			
Rv =	0.297		

Surface Area Check

Af shall be at least 2% of contributing surface area

Af min = .02 x DA

Af min. = 1820 sf

Provided Af = 2,490 sf

The maximum amount of runoff that can be captured by this practice is limited to the 1-year 24-hour storm, which is 2.5" for Frederick County, MD:

$\text{ESDv} = \frac{(\text{PE})(\text{RV})(\text{A})}{12}$ = 5,635 cf = Max. allowable

Volume Provided :

The bio-swale has a surface area of 2,490 sf

A ponding depth of 1.0 will be provided. The filter media and gravel layer will be 3.0' deep.

Given that the porosity (n) for these layers is 0.4, the total combined storage within this practice is

$$V_f = ((Af)(hf)) + ((Af)(df)(n))$$

Where: Af = 2,490 provided surface area
hf = 1.0 ponding depth in swale
df = 3.0 Depth of media
n = 0.4 porosity of media

$$V_f = 5,478$$

The treated volume is controlled by the smaller of the two amounts:

$V_f < \text{Max. allowable}$ therefore,
Treated Volume = 5,478 CF

Provided Pe: $\text{Pe} = (12)(\text{ESDv})/(\text{Rv})(\text{A})$

Pe	=	2.4 inches
Post RCN	=	55

From Prev. Approved Comps

SWM STRUCTURAL REQUIREMENTS

SITE DESIGN ASSESSMENT:

SITE TARGET Pe = 1.6 "

SITE TARGET ESDv = 7,454 cf

TOTAL: 142,505 37,232 4,237 8,308

8,308 > **7,454** Full ESDv Requirement Met

SUBTOTAL ESD VOLUME: = **8,308 cf**

SITE PROVIDED $P_F = 12 * (ESDv) / (Rv) * (A) =$ **1.78** RCN = **55**

Therefore min. requirement has been met.

The total calculated ESDv captured is greater than the target ESDv, therefore the site is considered to have been designed to the MEP and ESD requirements met

Signed Signature Set Document



DIVISION OF PLANNING & PERMITTING FREDERICK COUNTY, MARYLAND

30 North Market Street . Frederick, Maryland 21701
Phone (301) 600-1138 . Fax (301) 600-1645 <http://www.frederickcountymd.gov>

Signature Set-Approved As-Builts

S/SP	S829S	Subdivision / Site Name	Gas House Pike Widening
AP# (Imp. Plan)	PW257626	Approved date	12/28/2020
A/P# (AS-Built)	319986	Approved date	7/15/2022

Engineering- Final As-built submission to be uploaded into the SWM permit via the portal:

1 APPROVED

- Redlined plan set
- Drainage area map plan
- SWM Computations
- Geotechnical Reports

SWM DATA TABLES (to be placed on cover sheet of red-lined as-built plan set)

**CD/DVD to be mailed to 30 North Market Street, Frederick MD 21701
Attn: GIS – 2nd Floor**

-Redlined plan set submission in the Digital Submission Standards listed below
-DA Map
-SWM Computations

The Applicant hereby certifies under the penalties of perjury, and agrees as follows: 1) That he/she is authorized to make this application on behalf of all property owners, 2) That the information is correct, 3) That he/she will comply with all regulations of Frederick County, which are applicable hereto.

Mark A. Murray
Printed name of Owner or Agent

Mark A. Murray
Signature of Owner or Agent

DEVELOPMENT CONDITION	DA (ACRES)	RCN	TC (HRS)	1-YR Elev.	Storage Volume (CFS)	10-YR Elev.	Storage Volume (CFS)	100-YR Elev.	Storage Volume (CFS)	Top of Dam	Free Board	Pe Req'd Targeted	Pe Addressed
Pre-Developed DA-6	49.05	61	0.34	4.49	62.30	131.40							
ORIGINAL BOWMAN DESIGN													
Post-Developed - DA-68 into SWM STR. 6B	12.77	84	0.21	18.70	54.21	183.65							
Post-Developed - DA-68 SWM STR 6B Discharge	12.77	84	0.21	14.13	522.27	529.55	525.56		328	2.44			
Post-Developed - DA-68 into SWM STR. 6B	12.77	84	0.21	18.70	54.21	83.65							
RETROFIT													
Post-Developed - DA-68 SWM STR 6B Discharge	12.77	84	0.21	1.90	323.54	1.65 AC-FT	30.92	324.56	2.32 AC-FT	44.09	325.33	2.82 AC-FT	327.50
													2.17
													1.6
													1.61

NOTES:

1. Field investigations were conducted for the conformity of the approved impervious areas within the drainage area for SWM Pond 6B in 2021. The field investigations confirms Frederick County's confirmation with the acceptance of the public streets the impervious areas located within the right-of-way are in general conformance with the Frederick County approved improvement plan. On lot construction of dwellings, driveways and leader walks appear to be in general conformance with Frederick County approved improvement plan at time of field investigation in 2021. This as-built certification does not cover private on-lot impervious areas that may or may not have been installed at time of field investigation or occur after field investigation as constructed by individual home owners.

2. The 1.61 Pe provided number is based on 1. Phases 1A-1D, Phase 2, and Phase 3 as-built for SWM ESDs, 2, Pond 6A as-built, 3, Pond 6B as-built, and 4, Per Bowman Consulting Group approved SWM Report Phase 4 SWM ESDs.

3. See below the Pe provided calculations:

CPv of Pond 6A = 132,145 cf (As-Built)

CPv of Pond 6B = 24,525 cf (As-Built)

Per as-built and approved SWM report storage volume within ESDs = 142,567 cf (Per Approved SWM Report)

Total ESDv = (CPv of Pond 6A + CPv of Pond 6B + Storage Volume within ESDs) (provided) = (132,145 cf + 24,525 cf + 142,567 cf) = 299,237 cf

Pe (Provided) = Total ESDv x 12

RV X Area

Where: RV = 0.33 (Per Approved SWM Report)

Area = 155.17 Acres = 6,759.205 sf (Per Approved SWM Report)

Pe (Provided) = $0.33 \times 6,759.205 = 1.61$

Pe (Provided) = 1.61

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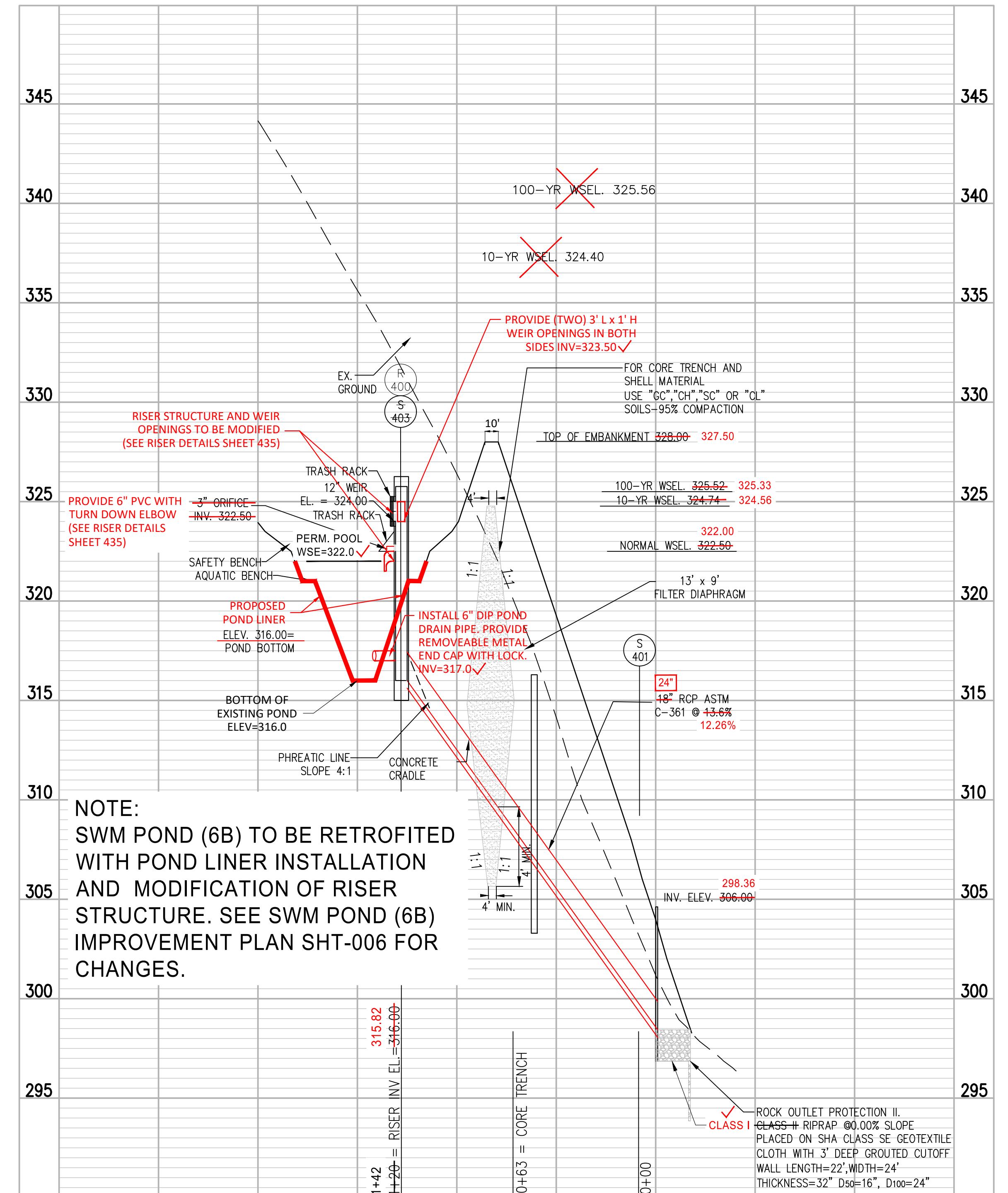
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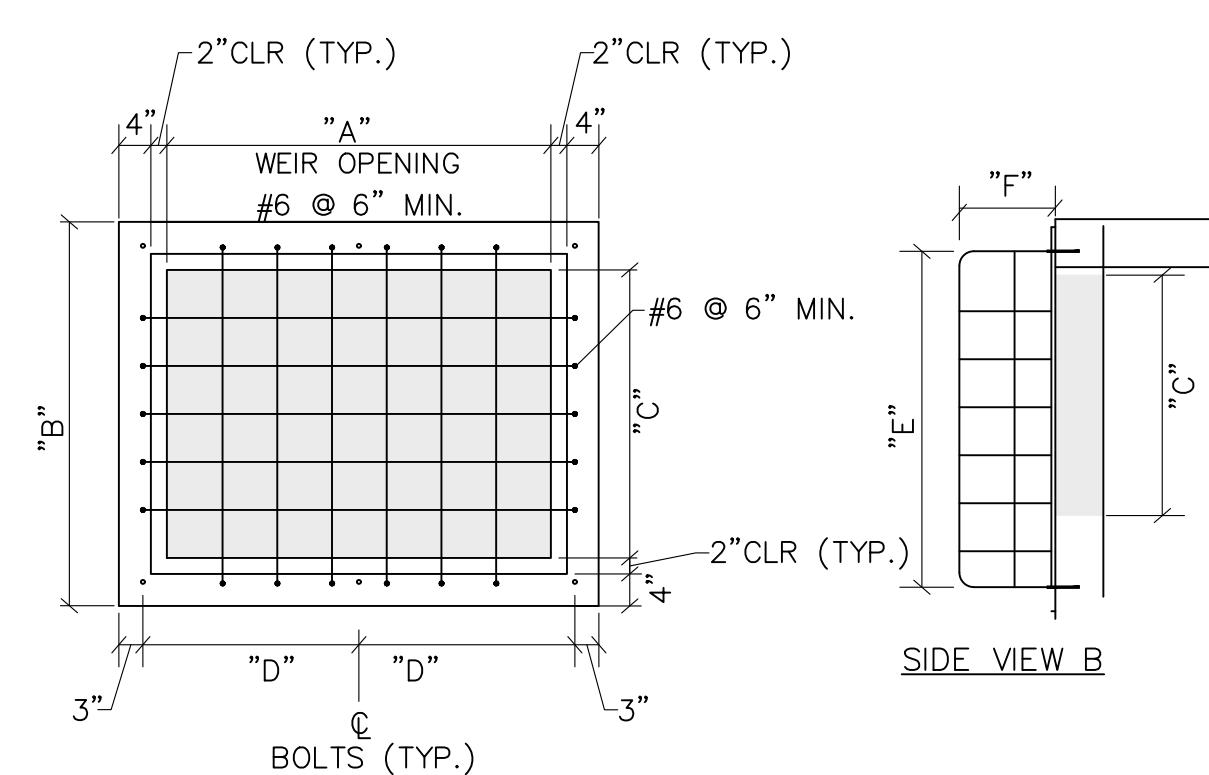
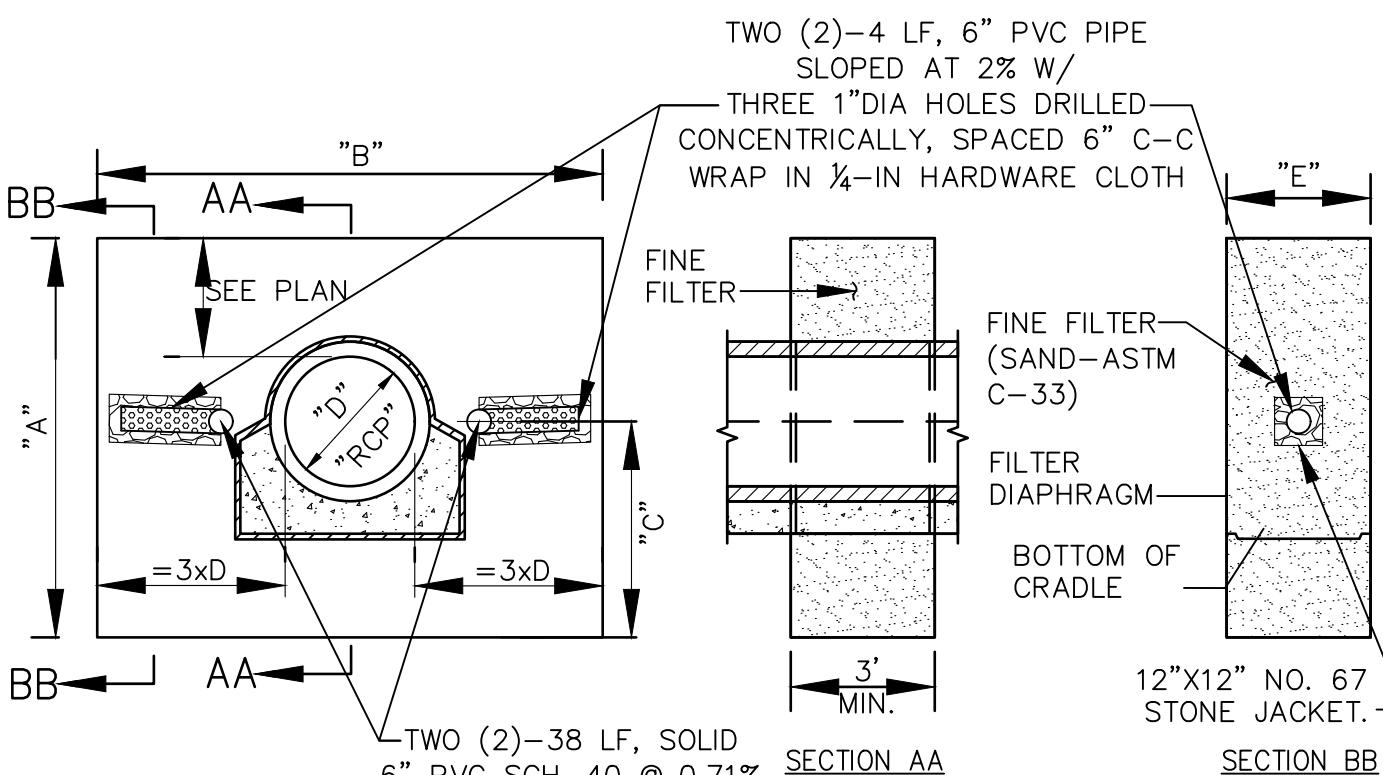
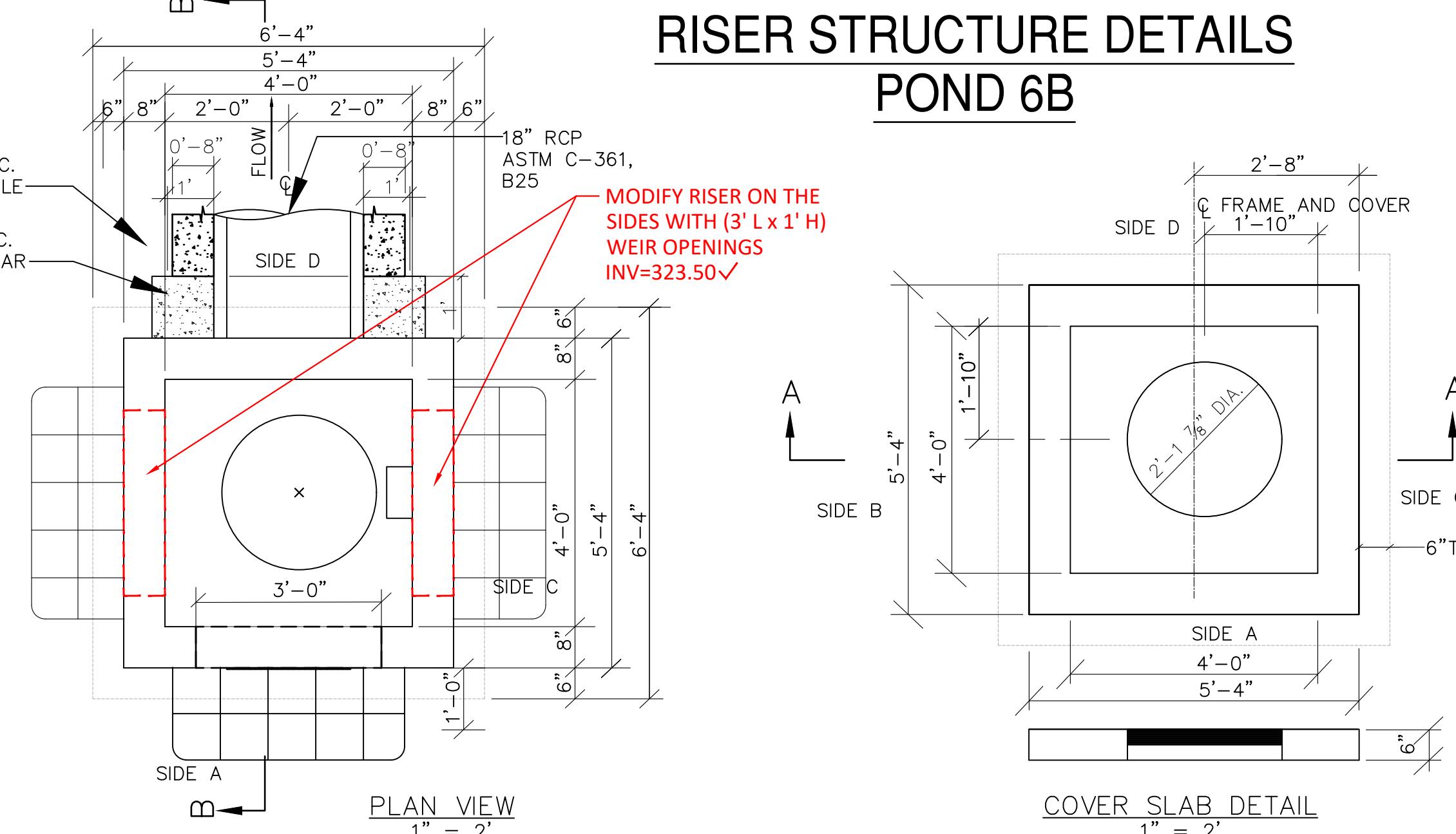
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RISER STRUCTURE DETAILS

POND 6B



LOCATION	TRASH RACK DIMENSIONS					
	QTY. REQD.	A	B	C	D	E
SIDE A	1	3'-0"	2'-0"	1'-0"	0'-8"	2'-4"
RETROFIT		3'-0"		1'-0"		

AS-BUILT

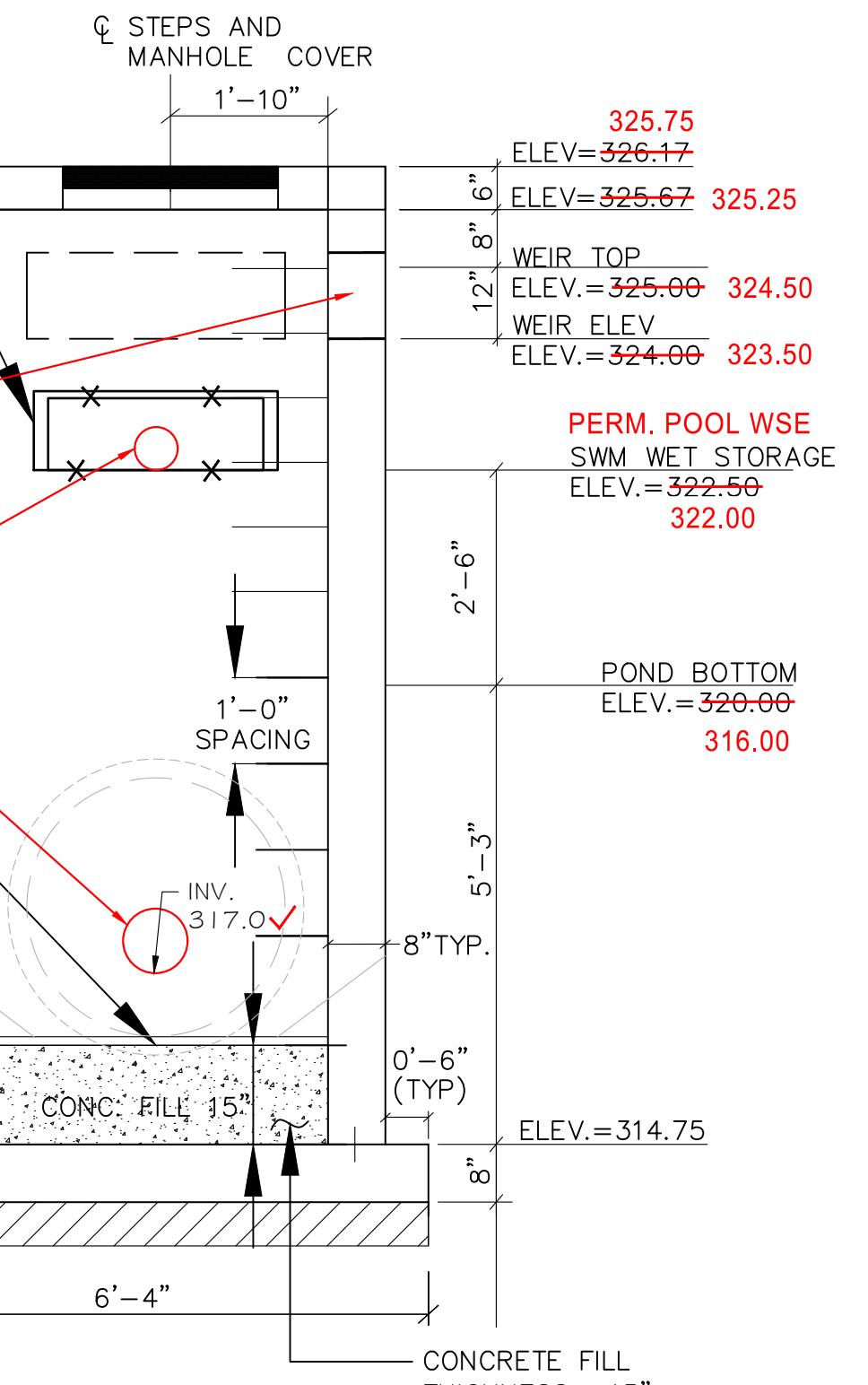
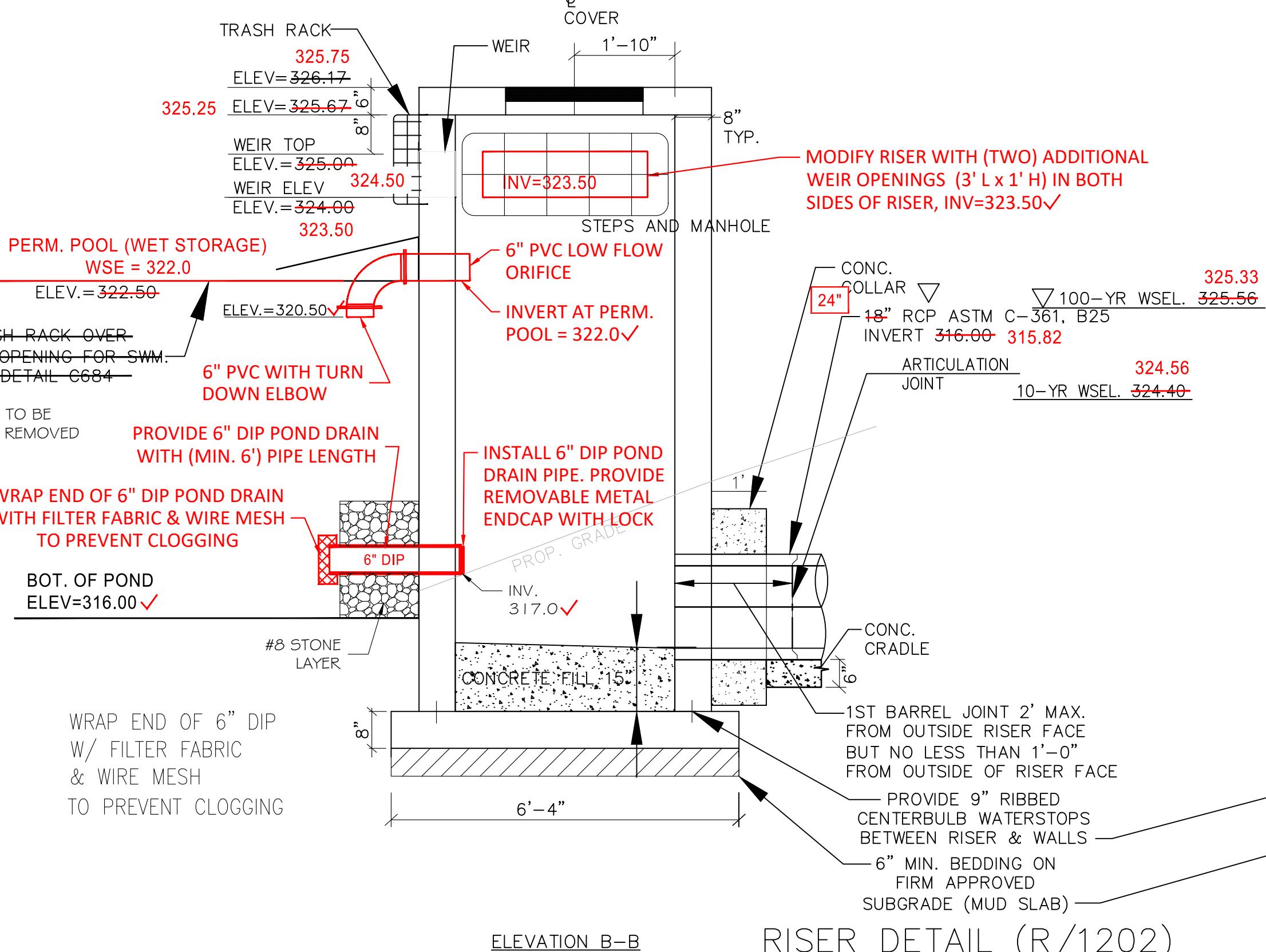
3.00' 1.00'

NOTE: TRASH RACK TO BE MODIFIED ADDED (TWO) SIDES

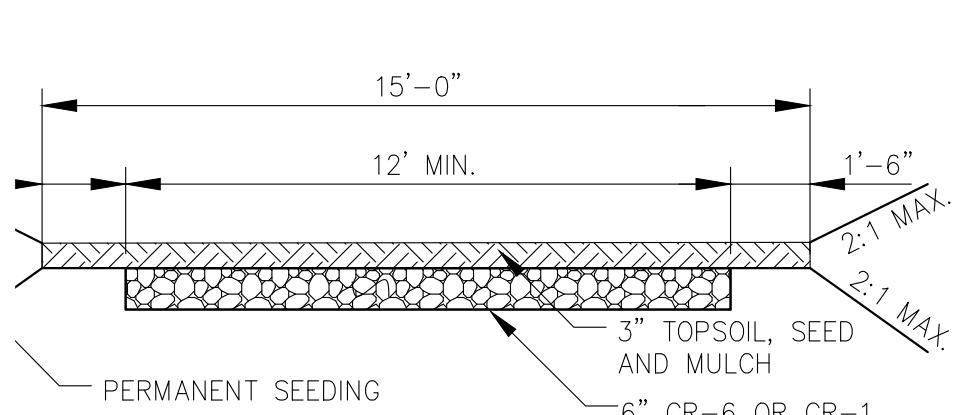
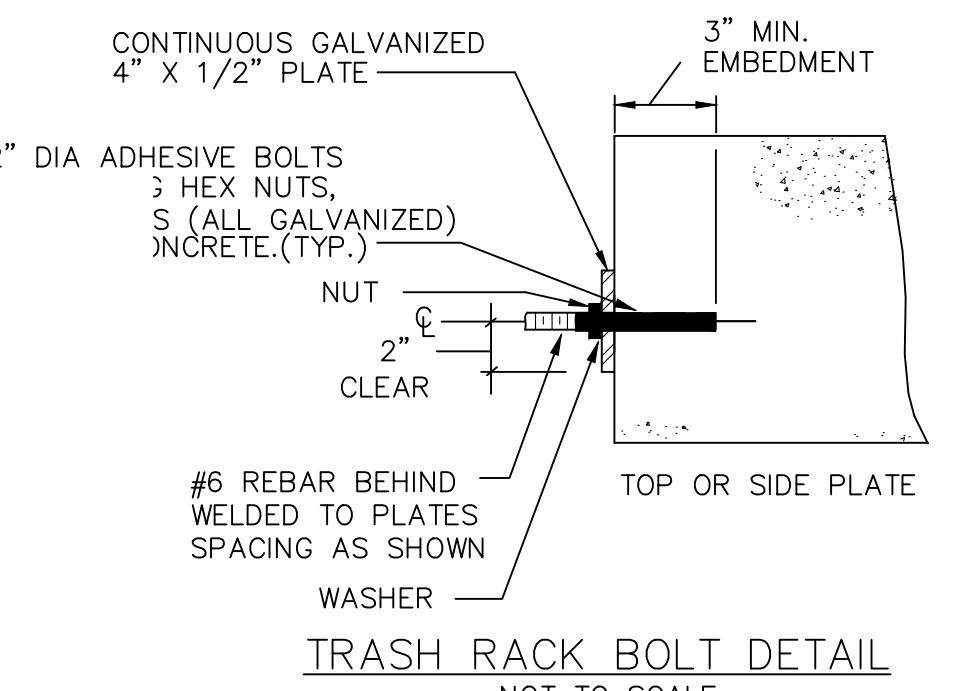
NOTES

1. TRASH RACK TO BE SECURELY ATTACHED TO STRUCTURE AROUND THE PERIMETER OF THE OPENING. THE TRASH RACK SHALL PROTRUDE FROM THE FACE OF THE RISER 12 INCHES MIN., EXTEND 3-INCHES BEYOND EACH SIDE OF OPENING, AND HAVE NO OPENINGS GREATER THAN $\frac{1}{2}$ THE BARREL CONDUIT DIAMETER OR 1/2 THE VERTICAL OPENING (WHICHEVER IS SMALLER), BUT IN NO CASE LESS THAN 6-INCHES.
2. STEEL TO CONFORM TO ASTM A-36.
3. ENTIRE TRASH RACK TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
4. TRASH RACK TO BE FASTENED TO THE WALL WITH 1/2" MASONRY ANCHORS, TRASH RACK TO BE REMOVABLE.
5. TRASH RACK TO BE CENTERED OVER OPENING.
6. STEEL TO CONFORM TO ASTM A-36.
7. ENTIRE TRASH RACK TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
8. CONTRACTOR SHALL PROVIDE ADEQUATE QUANTITY OF BARS TO ACHIEVE THE REQUIRED SPACING.

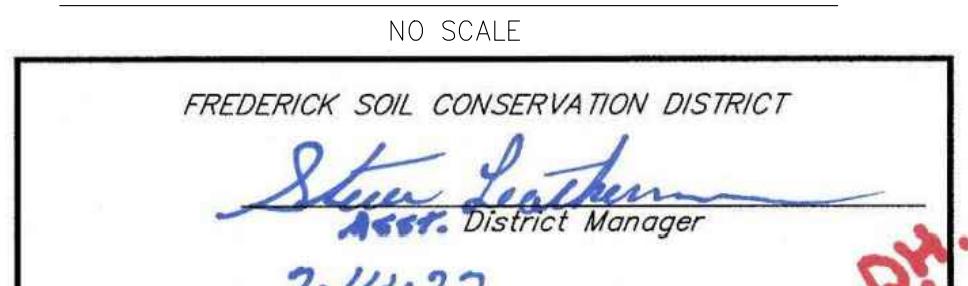
Redlined Details



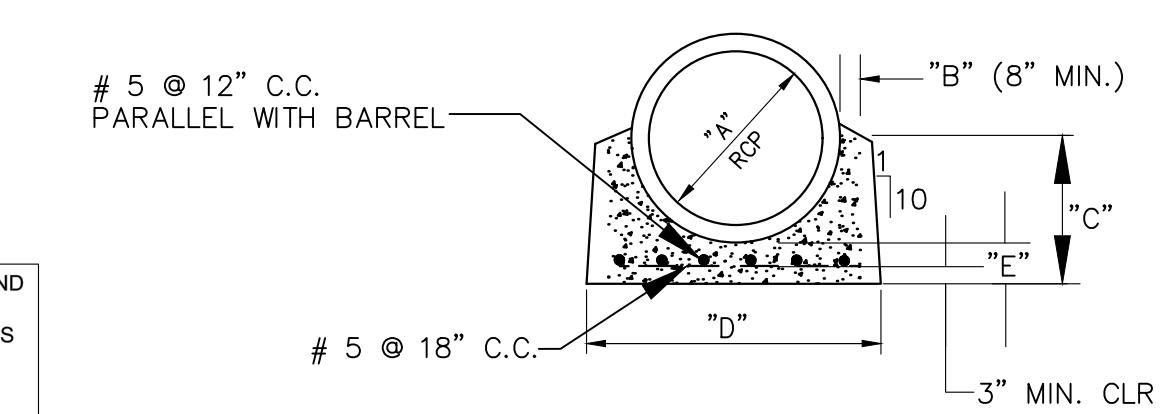
NOTE: SWM POND (6B) TO BE RETROFITTED WITH POND LINER INSTALLATION AND MODIFICATION OF RISER STRUCTURE. SEE SWM POND (6B) IMPROVEMENT PLAN SHT-006 FOR CHANGES.



ACCESS RAMP/ROAD DETAIL



SCD and NRCS approval for sediment and erosion control is contingent upon issuance of all applicable regulatory permits.



CRADLE NOTES:

1. CRADLE CONCRETE TO BE CLASS SHA MIX #3.
2. SUFFICIENT SUPPORT BLOCK SHALL BE PROVIDED TO SUPPORT THE PIPE TO THE REQUIRED LINE AND GRADE. THE CONTRACTOR SHALL DETERMINE THE NUMBER AND THE SIZE OF THE BLOCKS REQUIRED.
3. SOIL ADJACENT TO CRADLE TO BE STIFF NATURAL SOIL OR COMPACTED TO SOILS ENGINEER RECOMMENDATIONS.
4. MAINTAIN 3" MIN. COVER FROM REBAR.

CONCRETE CRADLE DETAIL

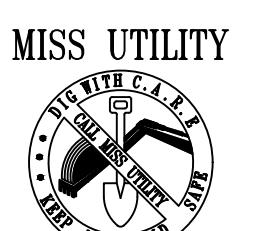
LOCATION	CONCRETE CRADLE DIMENSION SCHEDULE				
	A	B	C	D	E
POND 6B	10"	8"	1'-5"	3'-3"	6"
AS-BUILT	24"				

NOT TO SCALE

REV.	DATE	REVISION / DESCRIPTION FILL IN THESE BLOCKS FOR REVISIONS ONLY	CONSULTANT: DATE AND INITIAL	DEV. REVIEW: DATE AND INITIAL
4	10/15/17	IP RE-APPROVAL WITH NO REVISIONS	BB	11-6-17
5	07/31/19	Rev. 5 Reapproval with No Proposed Changes	BB	08/02/19

AM/KK/MB DESIGN DRAWN	JS CHKD
SCALE: H: V:	
JOB No. 5747-01-003	
DATE: SEPTEMBER 2015	
SWM-33	
AM/KK/MB DRAWN	

SHEET 435-A 6 of 8



OWNER / DEVELOPER
MS. GLADHILL FARM, LLC
8401 GREENSBORO DRIVE, SUITE 450
MCLEAN, VA 22102
PHONE: 703-821-2500
CONTACT PERSON: BOB SPALDING

PLAN STATUS	DATE	DESCRIPTION
	07/01/21	SWM POND 6-B RETROFIT DESIGN PLAN & CONVERSION
	10/27/2021	SWM POND 6-B RETROFIT SCD RESUBMISSION
	11/30/2021	SWM POND 6-B RETROFIT SCD UPDATED CALCS
	12/07/2021	SWM POND 6-B RETROFIT SCD FOREBAY UPDATE
	06/20/2022	SWM POND 6-B FINAL ASBUILT



REDLINE RETROFIT STRUCTURAL DETAILS - POND 6B
IMPROVEMENT PLAN
TALLYN RIDGE FINAL ASBUILT POND 6B
TAX MAP 78, GRID 20, PARCEL 742, LOTS 1-4, TAX MAP 78, GRID 19, PARCEL 55, ACCT. # 09317546, # 09317554, # 09317562 & # 09317570
LIBER 9283 AT FOLIO 068
NEW MARKET, ELECTION DISTRICT NO. 9

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