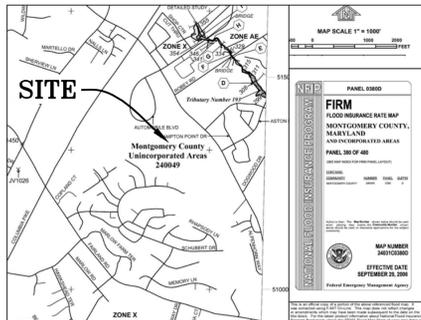


MONTGOMERY AUTO PARK DAM (MD DAM #433) DAM MODIFICATION AND REHABILITATION PLAN (2012)

COLESVILLE (5th) ELECTION DISTRICT MONTGOMERY COUNTY, MARYLAND



SHEET INDEX	
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GENERAL NOTES:

- ONLY APPROVED PLANS THAT HAVE BEEN SIGNED BY THE APPROPRIATE REGULATING AUTHORITY SHALL BE USED FOR THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE DRAWINGS. AUTOCAD FILES OR OTHER ELECTRONIC FILES ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES. THE EXISTING UTILITIES SHOWN HEREON HAVE BEEN LOCATED USING INFORMATION AVAILABLE AT THE TIME THIS PLAN WAS PREPARED. PRIOR TO DIGGING, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VIA TEST PITS WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN AND CONFIRM THAT NO CONFLICTS EXIST. ANY CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF CPJ AND THE OWNER PRIOR TO STARTING CONSTRUCTION. THE PLANIMETRIC INFORMATION SHOWN ON THIS PLAN IS BASED ON COPYRIGHTED GIS DATA FROM M-NCPPC, AND MAY NOT BE COPIED OR REPRODUCED WITHOUT EXPRESS WRITTEN PERMISSION FROM M-NCPPC.
- PRIOR TO VEGETATIVE STABILIZATION, ALL DISTURBED AREAS MUST BE TOP-SOILED PER THE MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL" (SEE SHEET 9).

MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

SEQUENCE OF CONSTRUCTION FOR MONTGOMERY AUTO PARK DAM (#433) DAM MODIFICATIONS AND REHABILITATION

Notes:

- Sediment controls may be added, deleted, or field adjusted by the MCDPS Sediment Control Inspector at any time.
- Existing Observation Wells should be protected from damage and contamination at all times.
- For all stakeholders involving grading of any kind, contractor to provide Owner and Engineer with cut sheet a minimum of 72 hours in advance of grading.

Preconstruction

- Prior to clearing of trees, installing sediment control measures, grading, or any other land disturbing activities, a preconstruction meeting must be conducted on-site with the:
 - Montgomery County Department of Permitting Services (MCDPS) Sediment Control Inspector (240) 777-0811 (48 hours notice)
 - M-NCPPC Forest Conservation Inspector (301) 495-4581 (48 hours notice)
 - Maryland Department of the Environment Dam Safety Division (MDE) Engineer (443) 271-8121 (5 days notice)
 - Owner's representative (240) 777-7723 (5 days notice)
 - Engineer-in-Charge (301) 434-7000 (5 days notice)
 The limits of disturbance must be field-marked prior to holding the preconstruction meeting.

Sediment Control Installation

- Clear and grade for installation of sediment control devices only.
- Install sediment control devices.
- Once the sediment control devices are installed, the contractor must obtain written approval from the MCDPS inspector before proceeding with any additional clearing, grubbing, or grading.

Pond Dredging

Notes:

- Temporary 36" H.D.P.E. diversion pipe is to be provided by the Owner. The Contractor shall pick up the pipe at the Owner's storage site and return to the same site at the end of the project. The Contractor shall provide the necessary fittings to join the two diversion pipes together as shown on the plan. Extreme care shall be taken by the Contractor not to allow dredge material or sediment onto the adjacent Mercedes-Benz dealership site.
- In coordination with the Maryland Transportation Authority (MDTA) representative, install temporary blocking of existing 36" R.C.P. connecting the existing 72" R.C.P. as required for the project.
- Remove the existing fence as adjacent to the pond.
- Strip and store topsoil and existing riprap from the top of embankment and emergency spillway.
- Completely dewater the pond. All water must be pumped through filter bags installed per the plan and appropriate sized for the pump used. Maintain water-right connections on the entire dewatering system at all times. Note: Item 7 may run concurrently with items 6 and 8 but item 8 must occur after item 6. Effluent leaving the site must meet turbidity criteria enforced by local, state and federal inspectors including but not limited to MCDPS, MDE, and the U.S. Army Corps of Engineers.
- Once the pond is completely drained, install downstream diversion wall around riser as shown on the plan.
- Install temporary 36" H.D.P.E. diversion pipe from downstream to upstream as shown on plan.
- Install upstream diversion wall at upstream end of the pond and immediately downstream of the existing 48" R.C.P. storm drain outfall as shown on the plan.
- Install dewatering device over existing pond drain as shown on the plan.
- Demolish and remove the top of riser structure as shown on the plans. Take care not to damage the existing valve, ladder (to be removed, refurbished and re-installed), or manhole covers. Reuse the existing frames and covers if deemed acceptable by the Owner and the Engineer-in-Charge.
- Excavate and remove and grade the top of embankment and emergency spillway to within two feet of the finished grade (elevation 331.20). All hauled off dirt shall be hauled to a permitted site approved by the Owner and the MCDPS Sediment Control Inspector.
- Install containment dikes, silt fence and impervious lining for the temporary dewatering area.
- Dredge the pond within the limits shown. Temporarily dewater dredged material in the temporary dewatering area as shown on the plan. Haul off the dredged material to a permitted site approved by the Owner and the MCDPS Sediment Control Inspector. Hauled off dredge material from the site shall not be allowed to leak onto offsite roadways from trucks. Relocate temporary 36" H.D.P.E. diversion pipes as necessary to accomplish dredging operations.
- Grade the micro-pools in the basin.

Riser Structure Modifications

Notes:

- Core the hole in the northwest (upstream) wall of riser as shown on the plans and install the low flow pipe stub.
- Install the formwork and reinforcement for modifications to the riser structure as shown on the plans. All formwork and reinforcement is to be checked by the geotechnical engineer of record prior to closing the forms.
- Pour the concrete for the riser structure modifications. Forms should not be removed from the riser until the concrete reaches its 7 day design strength.
- Excavate for installation of the mini riser and lateral seepage drains.
- Install the mini riser and lateral seepage drains.
- Excavate for installation of the low flow headwall and the remaining low flow pipe.
- Install the remaining low flow pipe, the low flow head wall, and the low flow trash rack.
- Install valve stem extension replacements, valve and manhole covers on riser, the steel ladder, manhole steps, and trash racks on riser.
- Once all dredged material is removed from the site, the riser is modified, and with the written approval of the MCDPS Sediment Control Inspector, remove the temporary dewatering area and grade the top of embankment and emergency spillway to finished grade.
- Relocate the downstream diversion wall as shown on the plan.
- Remove the upstream diversion walls and temporary diversion pipe.

Chimney Filter Installation

Notes:

- Items 23-26 to be done under supervision of the professional geotechnical engineer of record.
- This work can be done concurrently with item 12.

- Strip and store topsoil and existing riprap from the area of the chimney filter excavation.
- Excavate for installation of the chimney filter.
- Install the chimney filter per the installation notes on the plans from downstream to upstream. Take extreme care not to pollute the filter media as it is installed.
- Backfill the remaining chimney filter excavation in compacted lifts per MD-378 guidelines.

Emergency Spillway Modification

Notes:

- Items 27 and 28 to be done under supervision of the professional geotechnical engineer of record.
- This work can be done concurrently with item 12.

- Complete excavation and grading for emergency spillway.
- Install structural fill within the limits shown on the plan.
- Install gabion mats per manufacturer's specifications.
- Install riprap armoring on the sides of the emergency spillway and along the downstream embankment abutments as shown on plans.

Miscellaneous Repairs and Modifications

- Address all repair items from latest dam safety inspection report as provided by the Owner.
- Install all wetland plantings. Close pond drain valve only enough to inundate wetland plantings.
- Permanently seed and stabilize the remainder of the limits of disturbance.

Project Closeout

- Obtain a punch list inspection from the Engineer-in-Charge.
- Address all punch list items to the satisfaction of the Owner, Engineer-in-Charge, and the MDE Engineer.
- Hold a final inspection with the MDE Engineer.
- Obtain written approval from the MCDPS Sediment Control Inspector to remove all sediment control devices.
- Close the pond drain valve completely.
- Engineer-in-Charge to complete as-built survey and obtain approval of as-built drawings and final report within 60 days of completion of final inspection by the MDE Engineer.



VICINITY MAP
SCALE: 1"=2000'
Map 5165, Grid H5
Map copyright © Kappa Map Group LLC, (800) 829-6277.
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IT IS THE RESPONSIBILITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT:

TYPE OF PERMIT	REQ'D	NOT REQ'D	PERMIT No.	EXPIRATION DATE	WORK RESTRICTION DATES
MCDPS Floodplain District	X		279958		
WATERWAYS/WETLAND(S):					
a. Corps. of Engineers	X		CONCRETE-PILE TIE 100' DEEP MONTGOMERY AUTO PARK, 2011-06968	DEC. 31, 2018	
b. MDE		X			
c. MDE Water Quality Certification		X			
MDE DAM SAFETY	X		11-MR-8068	DEC. 14 2014	
N.P.D.E.S. NOTICE OF INTENT	X		N/A	N/A	DATE FILED 8/30/2012
OTHERS (Please List):		X			
N/A					

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley Governor
Anthony G. Brown Lieutenant Governor
Robert M. Summers, Ph.D. Secretary

TRACKING #: 201160565/11-NT-0133
PROJECT: Montgomery Auto Park /Dam, Montgomery County
SUBJECT: Initial Waterway/Floodplain Review Comments
DATE: May 12, 2011

Dear Mr. Brass:

A copy of your Joint Permit Application was forwarded to us by the Water Management Administration (WMA), Regulatory Services Coordination Office. We have reviewed the application and determined that a **Nontidal Wetlands and Waterways Authorization is not required.**

The proposed project does not impact any nontidal wetlands or wetland buffer. Therefore, it is not subject to the Nontidal Wetlands regulations. Requirements of the Waterway Construction regulations are addressed under the WMA, Dam Safety Division review.

Thank you for the opportunity to review this project. Should you have any questions or comments regarding this matter, please feel free to contact me at (410) 517-4247 or hshrestha@mdc.state.md.us

Sincerely,
Hira Shrestha, P.E.
Regulatory and Compliance Engineer
Waterway Construction Division

CC: U.S. Army Corps of Engineers, Montgomery County
Gene Gopenko, Applicant
Dam Safety, WMA, MDE

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND NATURAL AND GENERAL LAND AND PLANNING COMMISSION

December 22, 2011

Mr. Gene Gopenko
Montgomery County Department of Environmental Protection
255 Rockville Pike, Suite 120
Rockville, MD 20850

Re: Forest Conservation Exemption Request: 42012082E
Property Name: Montgomery Auto Park Dam

Dear Mr. Gopenko:

Based on the review by staff of the Montgomery County Planning Department, the Forest Conservation Exemption Request plan #42012082E submitted on December 8, 2011 for the plan identified above is confirmed. The project site is exempt from Article 23 of the Montgomery County Code, Chapter 22A (Forest Conservation Law, Section 22A-501) because the site is a modification to an existing developed property. (1) the modification will not remove greater than 5,000 square feet of forest, (2) does not affect any forest in a stream buffer or located on property in a special protection area which must submit a water quality plan and (3) the modification does not require approval of a new subdivision plan.

An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged, but before any clearing or grading begins. The property owner should contact the Montgomery County Planning Department inspection staff before construction to verify the limits of disturbance. The property owner, construction superintendent, forest conservation inspector, and Department of Permitting Services (DPS) sediment control inspector should attend this pre-construction meeting.

Any changes from the approved exemption request may constitute grounds to rescind or amend any approval actions taken and to take appropriate enforcement actions, if there are any subsequent modifications planned to the approved plan, a separate amendment must be submitted to M-NCPPC for review and approval prior to those activities occurring.

If you have any questions regarding these actions please feel free to contact me at 301-495-4381 or david.wiggleworth@montgomeryplanning.org.

Sincerely,
David Wiggleworth
Development Application and Regulatory Coordination Division

CC: 42012082E
Adam J. Morman, LA (Avium Engineering)

LEGEND

LIMIT OF DISTURBANCE (L.O.D.)

PROPOSED 2' CONTOURS

PROPOSED 10' CONTOURS

PROPOSED PERMANENT POOL

PROPOSED 1-YR WSEL (CPV)

PROPOSED 10-YR WSEL

PROPOSED 100-YR WSEL (OHWM)

DREDGE LIMITS

EXISTING 2' CONTOURS

EXISTING 10' CONTOURS

EXISTING 2' GIS CONTOURS

EXISTING 10' GIS CONTOURS

EXISTING TREELINE

EXISTING STREAM

ADJACENT PROPERTY LINE

EXISTING FENCE

BLAZE ORANGE CONSTRUCTION FENCE

SILT FENCE

SUPER SILT FENCE

EARTH DIKE

STABILIZED CONSTRUCTION ENTRANCE

SUMP PIT

PUMP

FILTER BAG

GABION MATS

PROPOSED RIPRAP

EXISTING RIPRAP

PROPOSED MICROPOLS

NO PLANTING AREA

PLANTING LIMITS

COVER SHEET
DAM MODIFICATION AND REHABILITATION PLAN (2012)
MD DAM #433
MONTGOMERY AUTO PARK DAM
COLESVILLE (5th) ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

CPJ Charles P. Johnson & Associates, Inc.
Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors

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www.cpja.com • Silver Spring, MD • Gaithersburg, MD • Frederick, MD • Fairfax, VA

CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
255 ROCKVILLE PIKE SUITE 120
ROCKVILLE, MD 20850
CONTACT: GENE GOPENKO
TELEPHONE: (240) 777-7723

PRELIMINARY PLAN NO. N/A
SITE PLAN NO. N/A

DESIGN: JBB SHEET 1 OF 24
DRAFT: MEP SC-1
DATE: NOV. 2012 FILE NO.: SC-4
SCALE: N/A 40-271-241

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MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL, IF THE PROJECT HAS NOT STARTED, UNLESS THE PERMIT HAS BEEN EXTENDED.

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: SEDIMENT CONTROL ONLY

Sediment Control Technical Requirements: 3/1/2013 Date

Administrative Requirements: 3/1/2013 Date

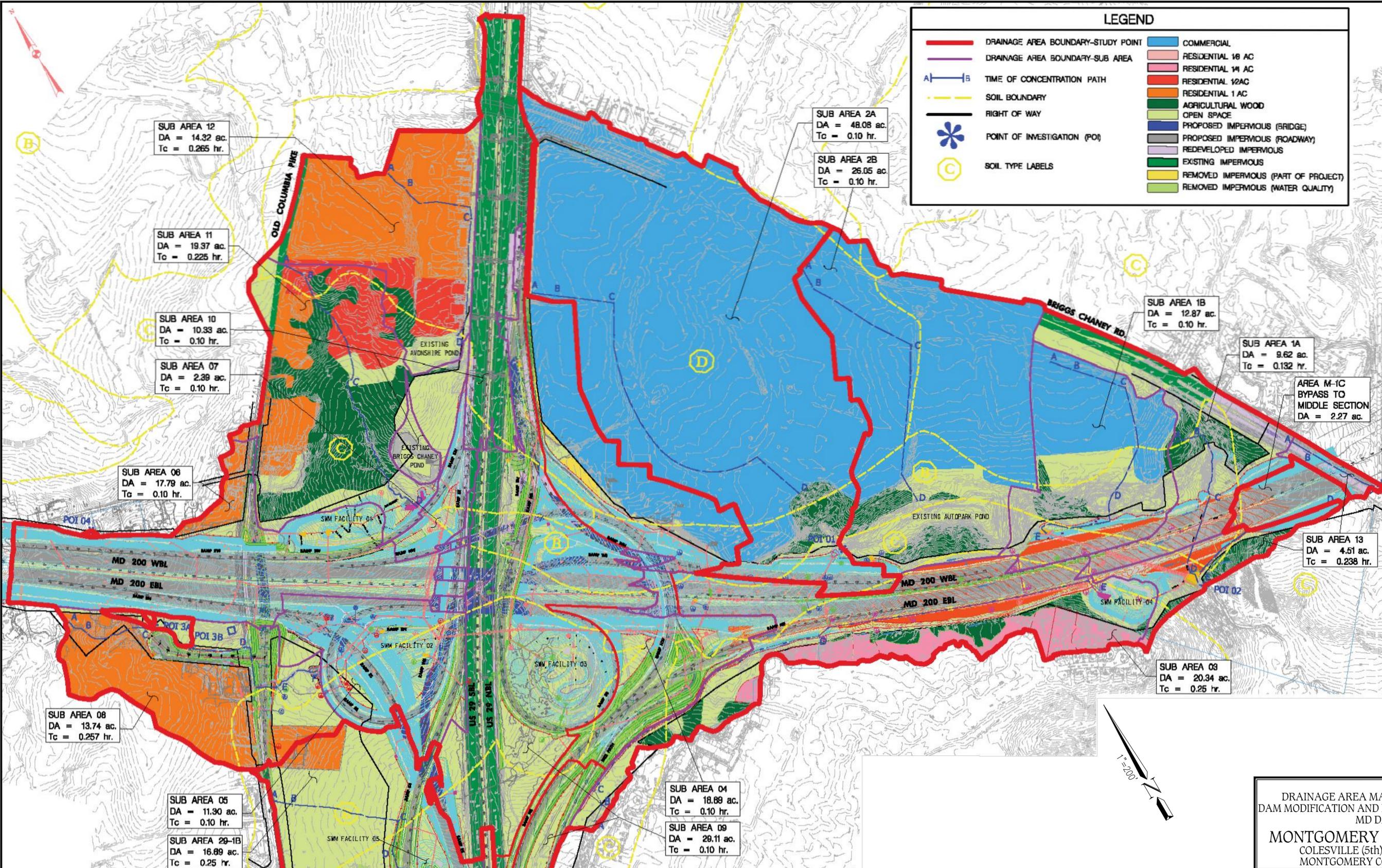
245952
SEDIMENT CONTROL PERMIT No.

Approved Date

S45
S.M.File No.

PLANS APPROVED BY
Harold W. Van Aller, P.E.
December 3, 2012
Dam Safety Division
Maryland Dept. of the Environment

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THESE OCCASIONS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE # 3802
EXPIRATION DATE 02/29/2014



MISS UTILITY
 Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

DRAINAGE AREA MAP
 COURTESY OF IC3 TEAM
 -PLOTTED FEBRUARY 22, 2010

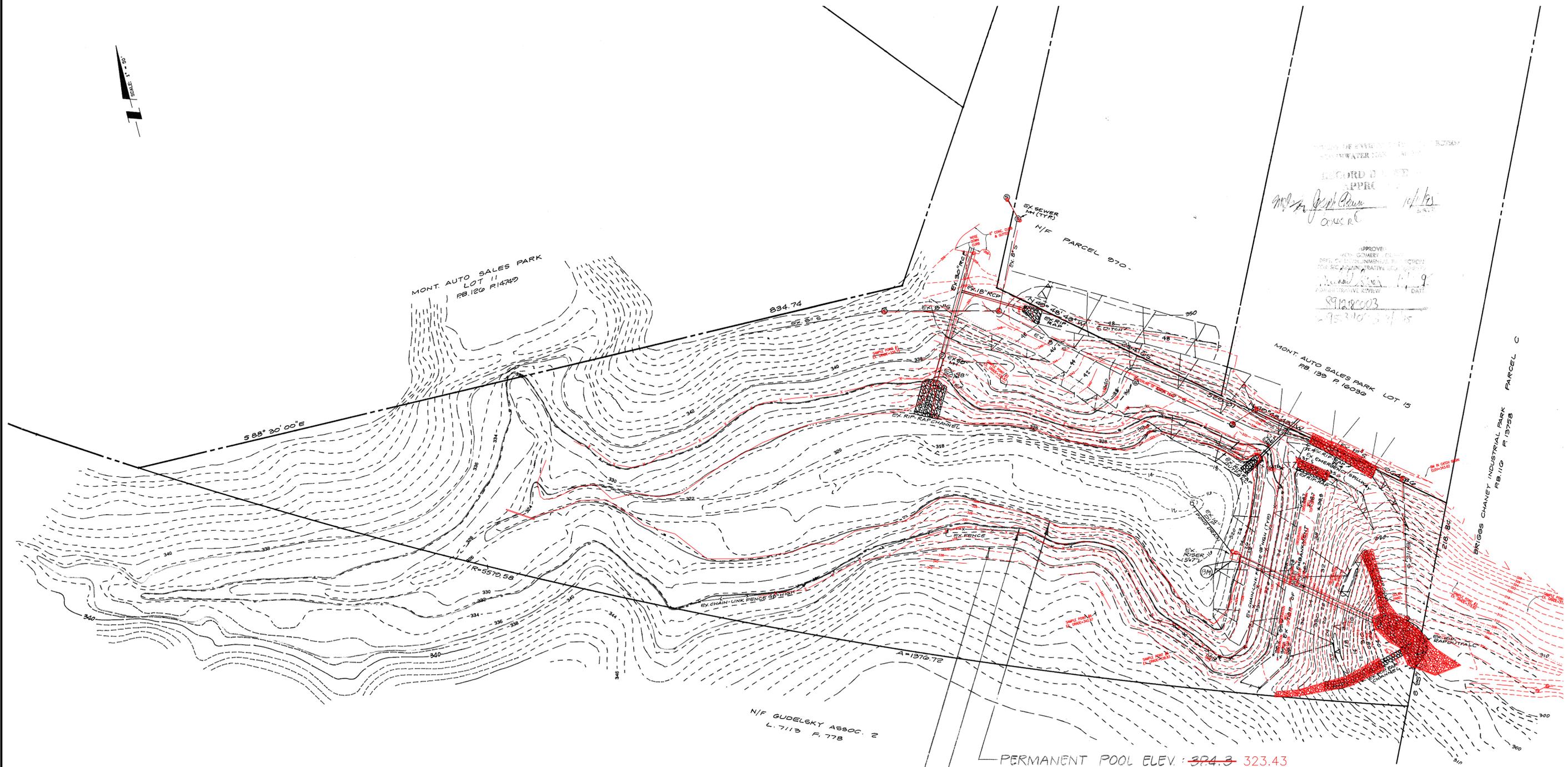
PLANS APPROVED BY
 Harold W. Van Aller, P.E.
 December 3, 2012
 Dam Safety Division
 Maryland Dept. of the Environment



DRAINAGE AREA MAP - BY OTHERS (P ≤ 8.53")
 DAM MODIFICATION AND REHABILITATION PLAN (2012)
 MD DAM #433
MONTGOMERY AUTO PARK DAM
 COLESVILLE (5th) ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND

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 www.cpj.com • Silver Spring, MD • Gaithersburg, MD • Frederick, MD • Fairfax, VA

CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENE GOPEWKO TELEPHONE: (240) 777-7725	PRELIMINARY PLAN NO: N/A	SITE PLAN NO: N/A
DESIGN: JBB	SHEET: 3	OF: 24
DRAFT: MEP	DATE: NOV. 2012	FILE NO: 40-271-241
DATE: NOV. 2012	SCALE: 1"=200'	



RECORD DRAWING
 APPROVED
 8/12/2013
 2/25/2013

PERMANENT POOL ELEV.: ~~324.3~~ 323.43
 2 YEAR ELEV.: ~~332.5~~ 331.95
 100 YEAR ELEV.: ~~337.6~~ 334.78

AS-BUILT CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF THAT THE POND IS CONSTRUCTED AS PER THE APPROVED STORMWATER MANAGEMENT PLAN OR SUBSEQUENT REVISIONS AND SUBSTANTIALLY MEETS AND/OR EXCEEDS THE REQUIREMENTS OF THE SOIL CONSERVATION SERVICE MD378 "STANDARDS AND SPECIFICATIONS FOR PONDS".

Michael T. Wiley 2/11/13
 MICHAEL T. WILEY, P.E. DATE
 MD. REG. NO. 18221

NOTE: SHEETS 3 AND 4 ARE THE ORIGINAL AS-BUILT PLANS. REDLINES REPRESENT EXISTING CONDITIONS AS SURVEYED BY CPJ FEBRUARY 14-15, 2011.

13
#7

MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

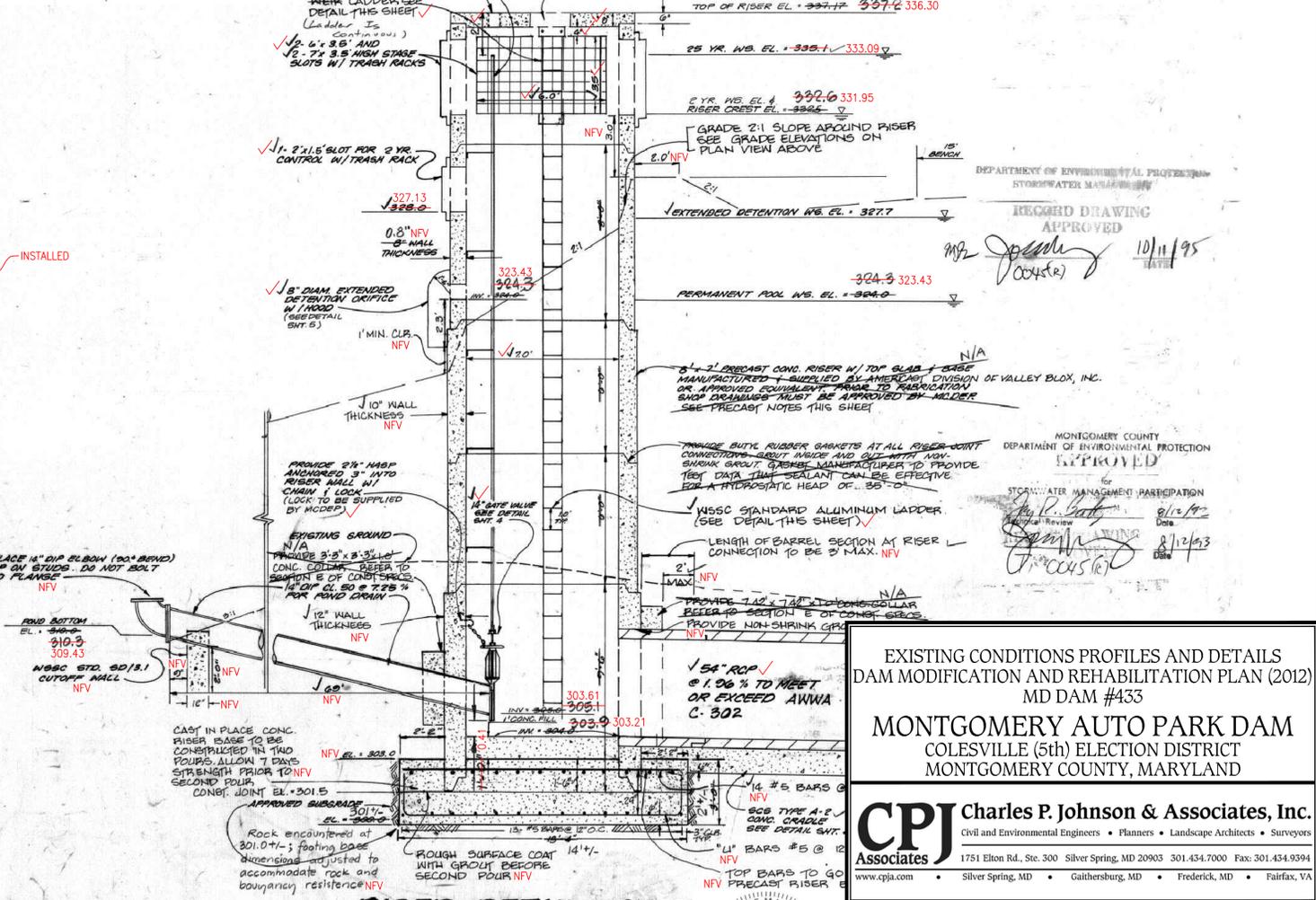
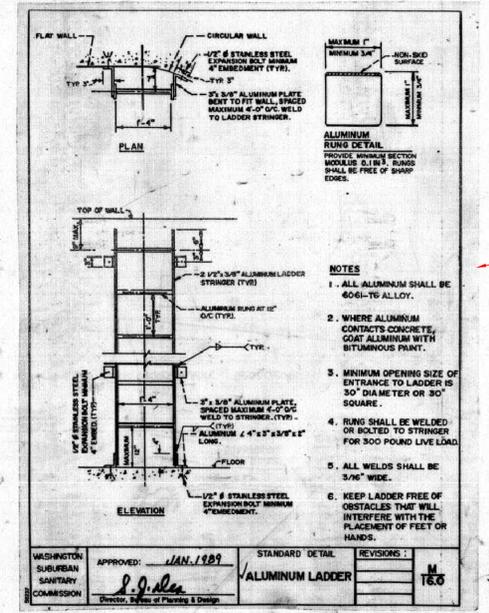
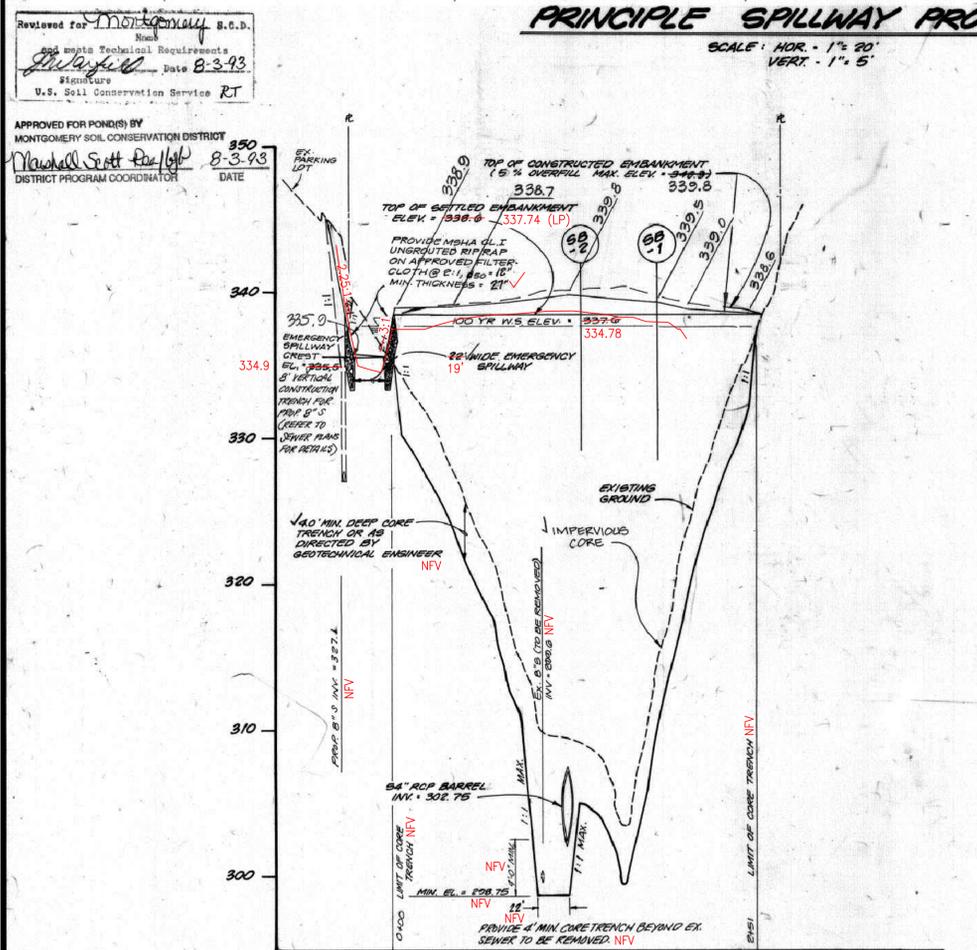
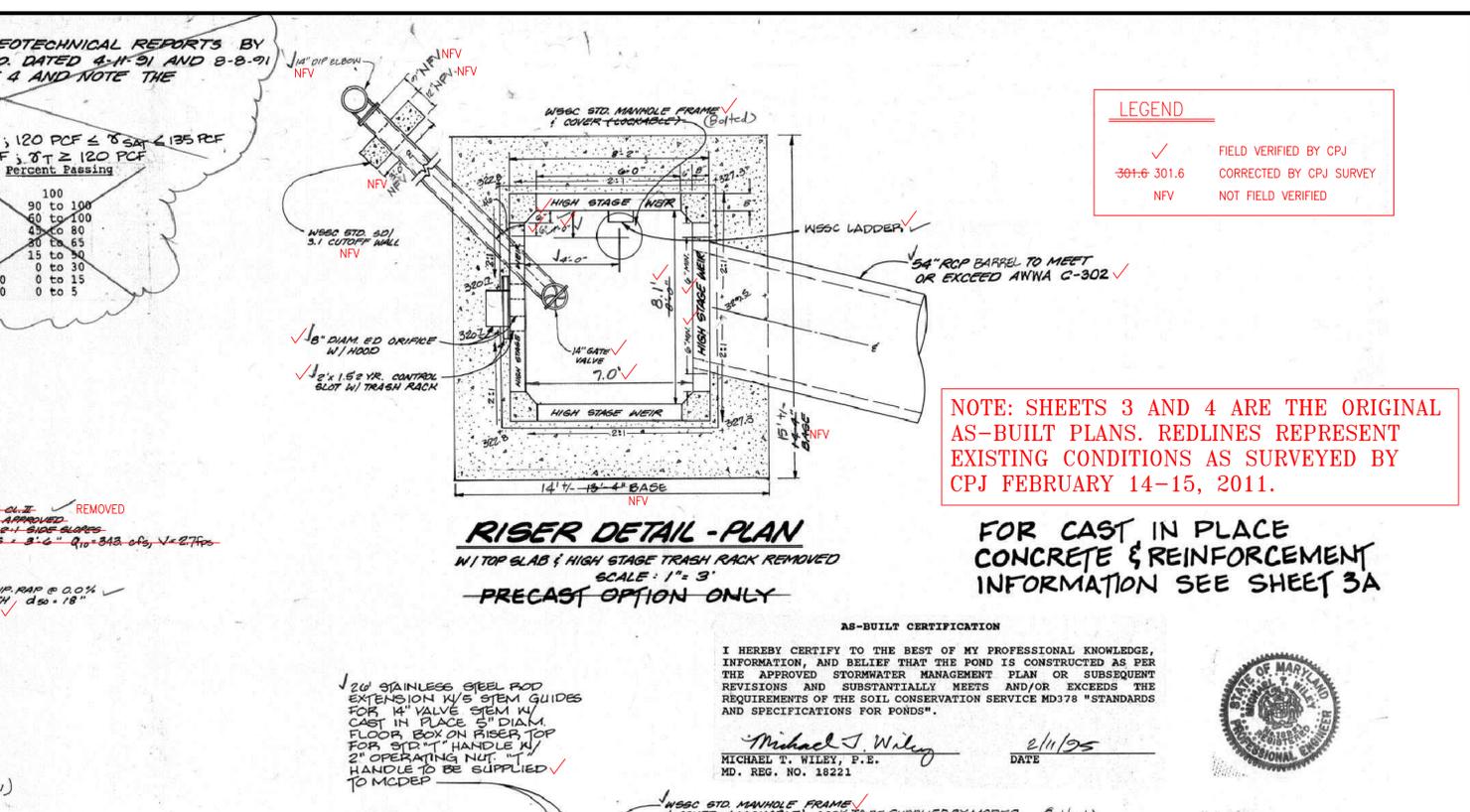
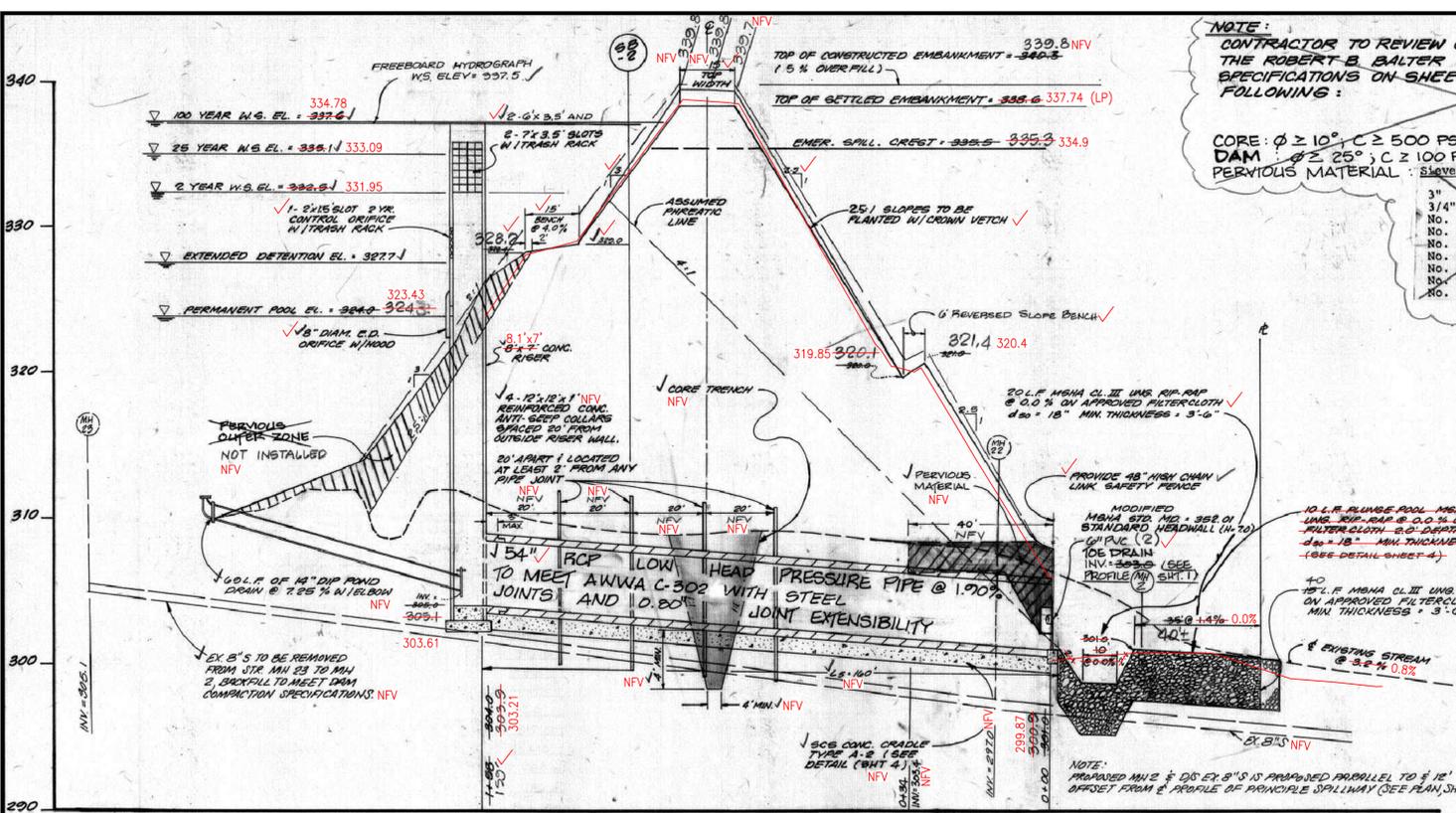
PLANS APPROVED BY
 Harold W. Van Aller, P.E.
 December 3, 2012
 Dam Safety Division
 Maryland Dept. of the Environment



EXISTING CONDITIONS PLAN
 DAM MODIFICATION AND REHABILITATION PLAN (2012)
 MD DAM #433
MONTGOMERY AUTO PARK DAM
 COLESVILLE (5th) ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND

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Reviewed for Montgomery Co. S.C.D.
Montgomery Technical Requirements
Date: 8-3-93
Signature: [Signature]
U.S. Soil Conservation Service RT

APPROVED FOR POND(S) BY
MONTGOMERY SOIL CONSERVATION DISTRICT
District Program Coordinator
Date: 8-3-93

APPROVED: JAN. 1989
STANDARD DETAIL
ALUMINUM LADDER
REVISIONS: M T E S

WASHINGTON SUBURBAN SANITARY COMMISSION
Director, Office of Planning & Design

PLANS APPROVED BY
Harold W. Van Aller, P.E.
December 3, 2012
Dam Safety Division
Maryland Dept. of the Environment

EXISTING CONDITIONS PROFILES AND DETAILS DAM MODIFICATION AND REHABILITATION PLAN (2012) MD DAM #433

MONTGOMERY AUTO PARK DAM
COLESVILLE (5th) ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

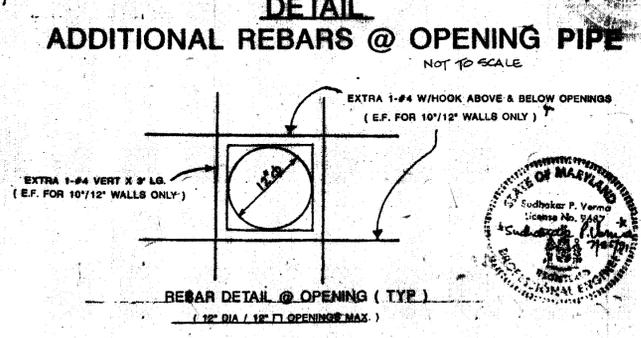
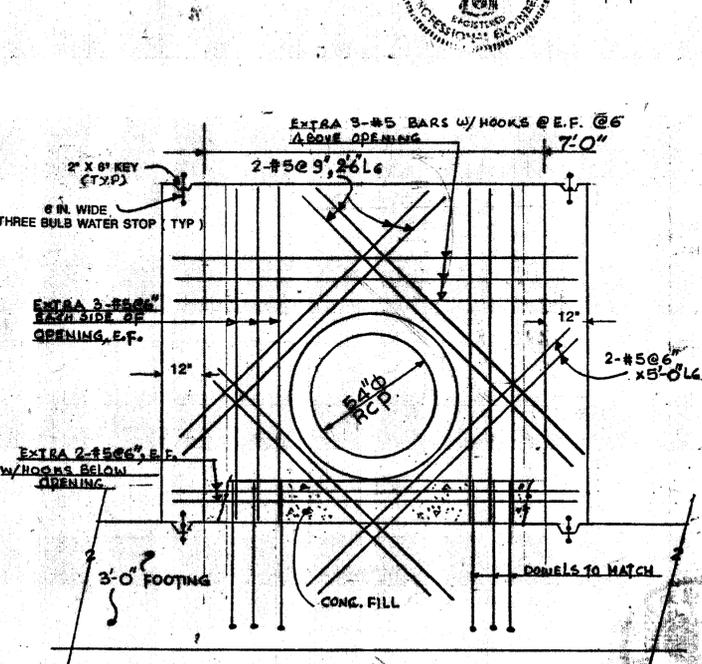
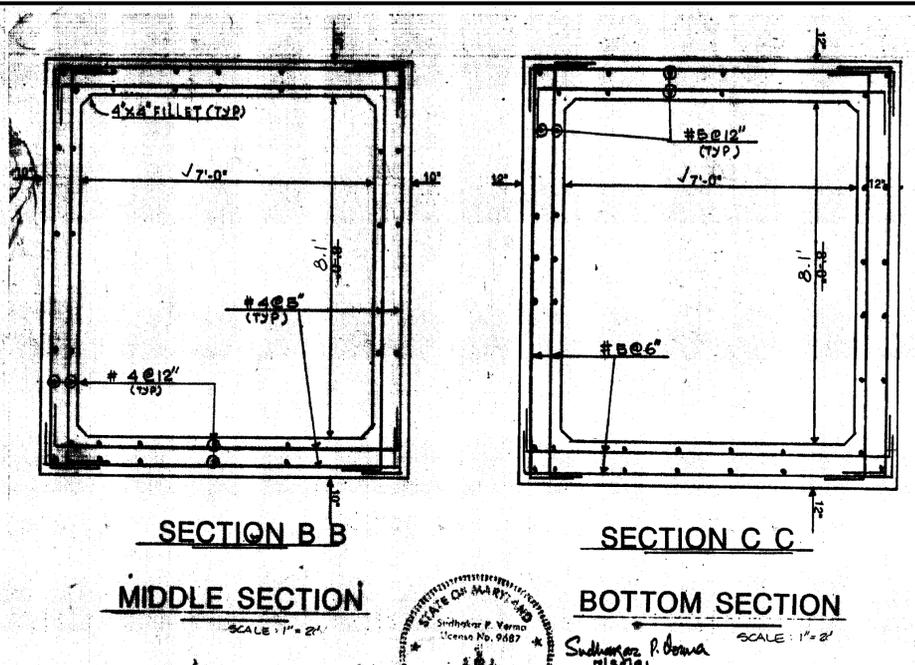
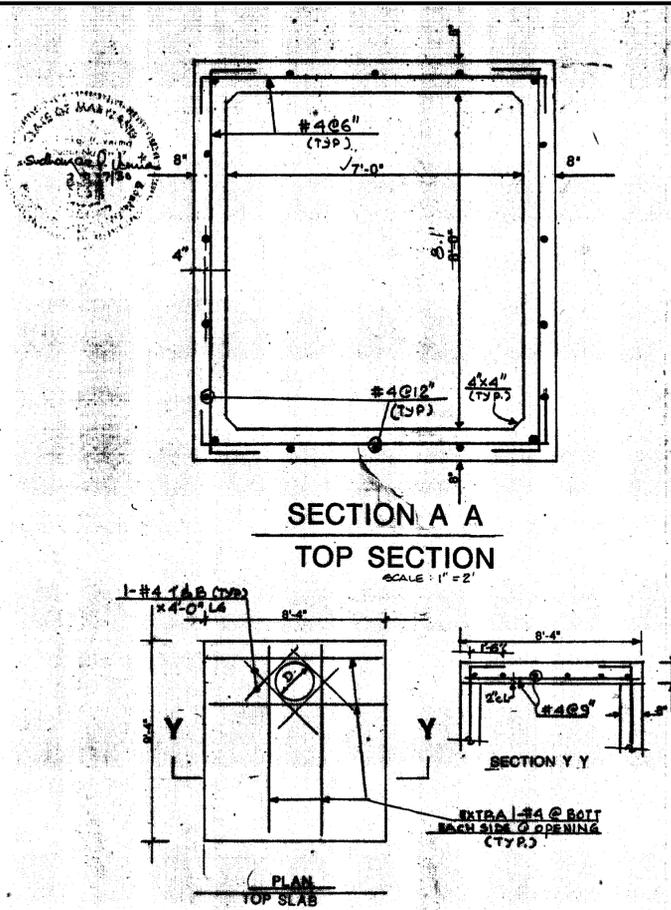
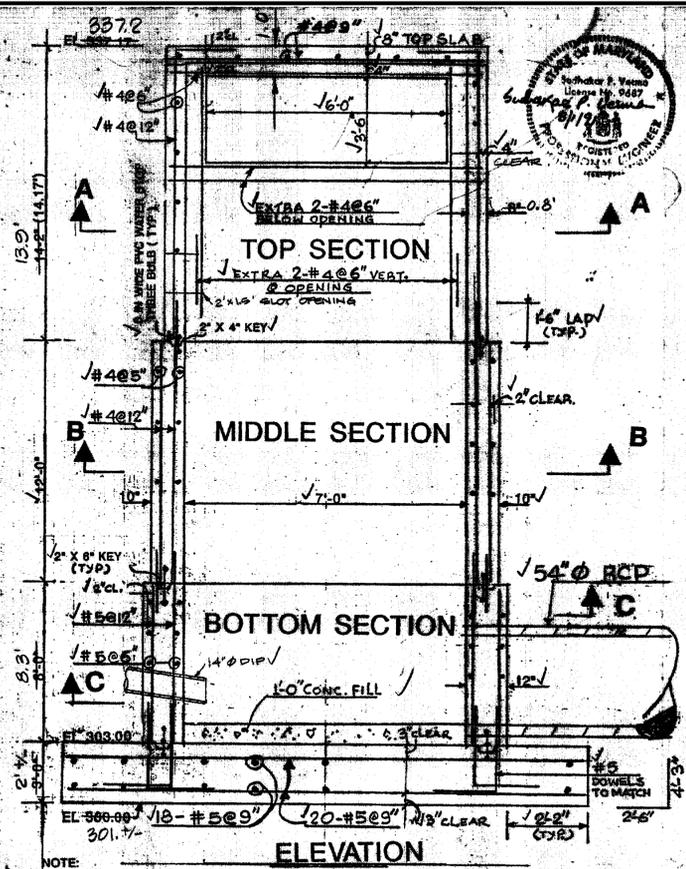
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CLIENT:	MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION	PRELIMINARY PLAN NO:	N/A	SITE PLAN NO:	N/A
DESIGN:	JBB	SHEET:	5	OF:	24
DRAFT:	MEP	DATE:	NOV. 2012	FILE NO.:	
SCALE:	N.T.S.				40-271-241

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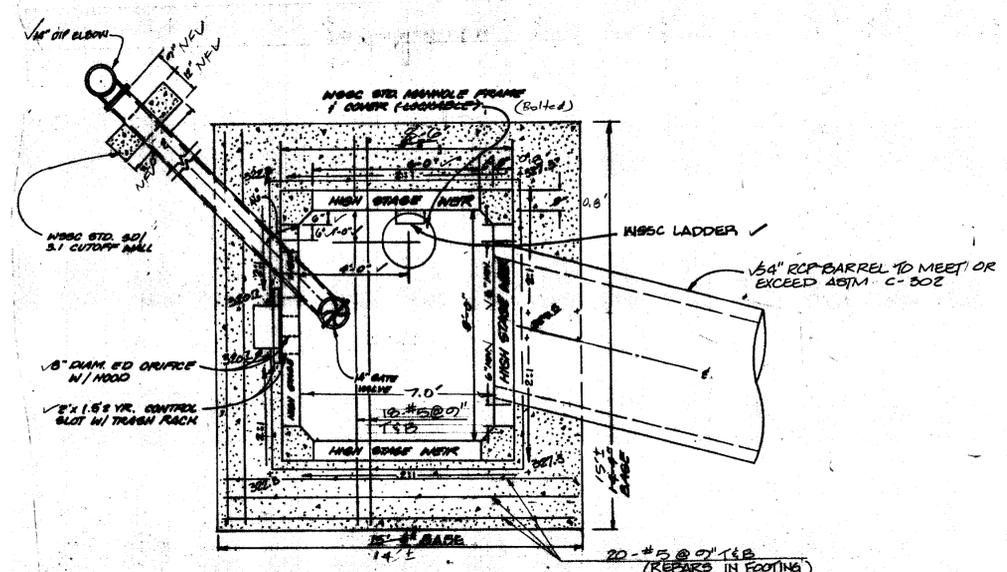
Client: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
255 ROCKVILLE PIKE SUITE 120
ROCKVILLE, MD 20850
CONTACT: GENE GOVENKO
TELEPHONE: (240) 777-2725

DATE: NOV. 2012
SCALE: N.T.S.



Reviewed for *[Signature]* S.C.D.
 and meets Technical Requirements
 Signature *[Signature]* Date 8-3-93
 U.S. Soil Conservation Service RT

APPROVED FOR POND(S) BY
 MONTGOMERY SOIL CONSERVATION DISTRICT
Michael T. Wilby 8-3-93
 DISTRICT PROGRAM COORDINATOR DATE



AS-BUILT CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF THAT THE POND IS CONSTRUCTED AS PER THE APPROVED STORMWATER MANAGEMENT PLAN OR SUBSEQUENT REVISIONS AND SUBSTANTIALLY MEETS AND/OR EXCEEDS THE REQUIREMENTS OF THE SOIL CONSERVATION SERVICE MD378 "STANDARDS AND SPECIFICATIONS FOR PONDS".

Michael T. Wilby
 MICHAEL T. WILBY, P.E.
 MD. REG. NO. M8221

DATE 2/11/95

DEPARTMENT OF ENVIRONMENTAL PROTECTION
 STORMWATER MANAGEMENT

RECORD DRAWING APPROVED

[Signature] 10/11/95
 DATE

APPROVED
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 STORMWATER MANAGEMENT

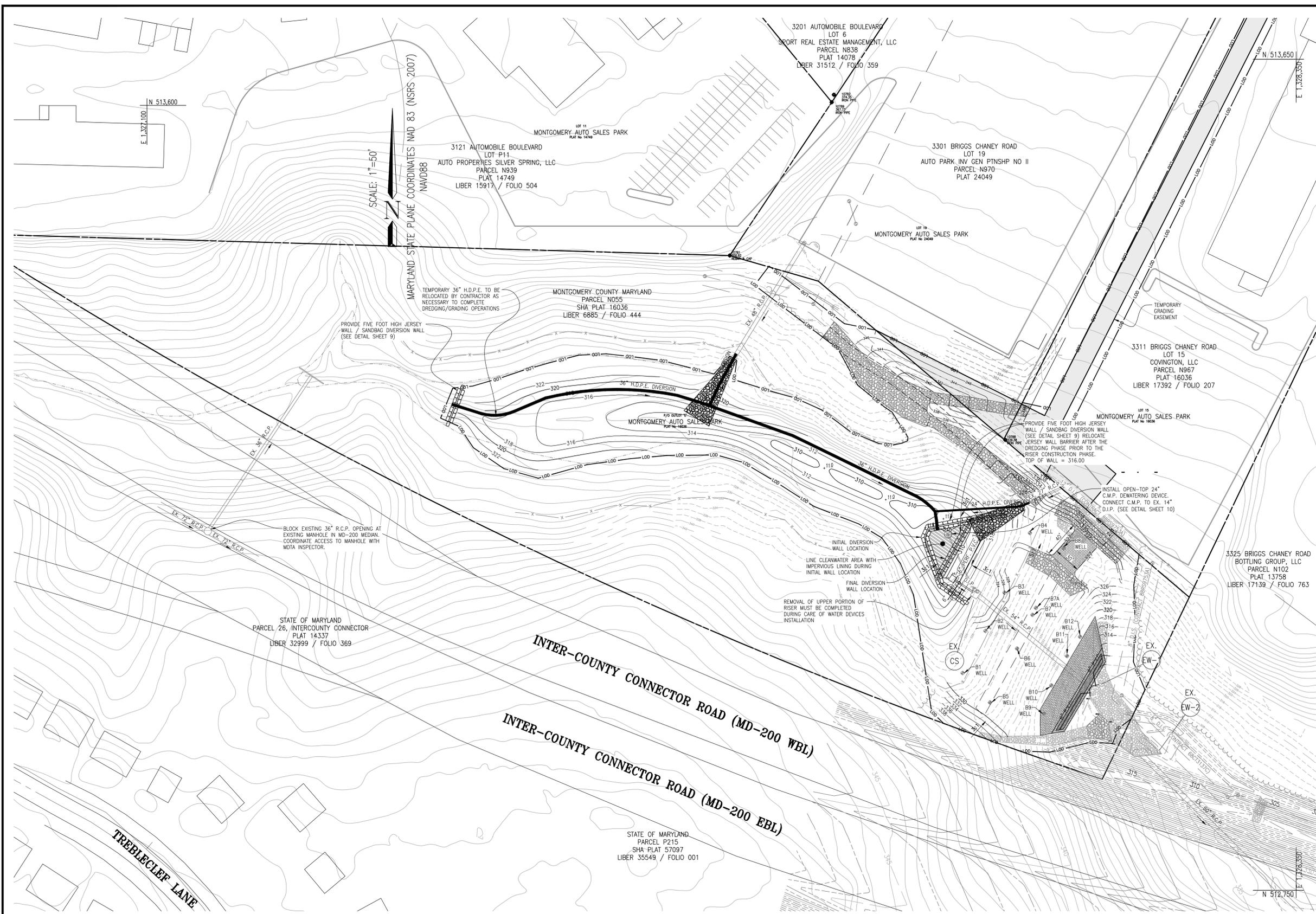
Michael T. Wilby 8/1/93
John R. Barty 8/1/93
 DATE

891218203
 950301003 10/11/95

EXISTING CONDITIONS STRUCTURAL DRAWINGS DAM MODIFICATION AND REHABILITATION PLAN (2012) MD DAM #433			
MONTGOMERY AUTO PARK DAM COLESVILLE (5th) ELECTION DISTRICT MONTGOMERY COUNTY, MARYLAND			
CPJ Charles P. Johnson & Associates, Inc. Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors		1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301.434.7000 Fax: 301.434.9394 www.cpj.com • Silver Spring, MD • Gaithersburg, MD • Frederick, MD • Fairfax, VA	
CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENE GOVENSKO TELEPHONE: (240) 777-7725	PRELIMINARY PLAN NO: N/A DESIGN: JBB DRAFT: MEP	SITE PLAN NO: N/A SHEET: 6 OF: 24	DATE: NOV. 2012 SCALE: N.T.S.
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PLANS APPROVED BY
 Harold W. Van Aller, P.E.
 December 3, 2012
 Dam Safety Division
 Maryland Dept. of the Environment





NOTE:
 TEMPORARY 36" H.D.P.E. DIVERSION PIPE TO BE PROVIDED BY THE OWNER. CONTRACTOR IS TO PICK UP PIPE FROM OWNER'S STORAGE SITE AND RETURN TO SAME SITE AT THE END OF THE PROJECT. 24" HDPE AND ALL FITTINGS, COUPLINGS, ETC. TO BE PROVIDED BY CONTRACTOR

LEGEND	
PROPOSED 2' CONTOURS	— — — — —
PROPOSED 10' CONTOURS	— — — — —
EXISTING 2' CONTOURS	- - - - -
EXISTING 10' CONTOURS	- - - - -
LIMIT OF DISTURBANCE (L.O.D.)	— LOD — LOD —
SUPER SILT FENCE	— S S F — S S F — S S F —
EXISTING FOREST	~~~~~
EXISTING PIPE	— EX. 36" R.C.P. —
DIVERSION PIPE	— 36" H.D.P.E. DIVERSION —
DEWATERING DEVICE	⊙
JERSEY BARRIER/DIVERSION WALL	⊞

**CARE OF WATER DURING CONSTRUCTION
 DAM MODIFICATION AND REHABILITATION PLAN (2012)
 MD DAM #433
 MONTGOMERY AUTO PARK DAM
 COLESVILLE (5th) ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND**

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CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENS GOPPENKO TELEPHONE: (240) 777-7725	PRELIMINARY PLAN NO: N/A SITE PLAN NO: N/A	DESIGN: JBB DRAFT: MEP	SHEET 7 OF 24
DATE: NOV., 2012	FILE NO: 40-271-241	SCALE: 1"=50'	

MISS UTILITY
 Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

THE EXISTING UTILITIES SHOWN HEREON HAVE BEEN LOCATED USING INFORMATION AVAILABLE AT THE TIME THIS PLAN WAS PREPARED. PRIOR TO DIGGING, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VIA TEST PIT WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN AND CONFIRM THAT NO CONFLICTS EXIST. ANY CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF CPJ AND THE OWNER PRIOR TO STARTING CONSTRUCTION.

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 December 3, 2012
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STANDARD EROSION AND SEDIMENT CONTROL NOTES

- August 2008
- The permittee shall notify the Department of Permitting Services (DPS) forty-eight (48) hours before commencing any land disturbing activity and, unless waived by the Department, shall be required to hold a pre-construction meeting between them or their representative, their engineer and an authorized representative of the Department.
 - The permittee must obtain inspection and approval by DPS at the following points:
 - All the required pre-construction meeting.
 - Following installation of sediment control measures and prior to any other land disturbing activity.
 - During the installation of a sediment basin or stormwater management structure at the required inspection points (see Inspection Checklist on plan). Notification prior to commencing construction is mandatory.
 - Prior to removal or modification of any sediment control structure(s).
 - Prior to final acceptance.
 - The permittee shall construct all erosion and sediment control measures per the approved plan and construction sequence, shall have them inspected and approved by the Department prior to beginning any other land disturbing activity, shall ensure that all runoff from disturbed areas is directed to the sediment control devices, and shall not remove any erosion or sediment control measure without prior permission from the Department.
 - The permittee shall protect all points of construction ingress and egress to prevent the deposition of materials onto traversed public thoroughfares. All materials deposited onto public thoroughfares shall be removed immediately.
 - The permittee shall inspect periodically and maintain continuously in effective operating condition, all erosion and sediment control measures until such time as they are removed with prior permission from the Department. The permittee is responsible for immediate repairs or replacing any sediment control measures which have been damaged or removed by the permittee or any other person.
 - All sediment basins, trap embankments, perimeter dikes, and all disturbed slopes steeper or equal to 3:1 shall be stabilized with sod, seed, and anchored straw mulch, or other approved stabilization measures, within seven (7) calendar days of establishment. All areas disturbed outside of the perimeter sediment control system must be stabilized and stabilized immediately. Maintenance must be performed as necessary to ensure continued stabilization.
 - The permittee shall apply sod, seed, and anchored straw mulch, or other approved stabilization measures to all disturbed areas within fourteen (14) calendar days after stripping and grading activities have ceased on that area. Maintenance shall be performed as necessary to ensure continued stabilization. Active construction areas, such as borrow or stockpile areas, roadway improvements, and areas within fifty (50) feet of a building under construction may be exempt from this requirement, provided that erosion and sediment control measures are installed and maintained to protect those areas.

PERMANENT SEEDING AND SODDING SPECIFICATIONS

- All disturbed areas shall be seeded and mulched.
 - Seeded preparation - apply 2 tons per acre of lime and 100 lb. Per acre of 10-10-10 fertilizer or equivalent. Thoroughly mix into soil to a minimum of 3".
 - Seeding - use 40% Kentucky bluegrass, 10% annual rye and 25% red fescue at the rate of 250 lb. Per acre.
 - Mulching - use clean, unweathered, unchopped small grain straw at the rate of 1 1/2 to 2 tons per acre anchored down with cutback asphalt at the rate of 5-8 gallons per 1000 sq. Ft.
 - Discing and harrowing shall be done on contour.
 - Sod shall be state "approved sod" inspected and approved by Md. Dept. of Agriculture. All sod shall be laid on site no more than 36 hours after harvest, and shall be a mixture of 60% (min.) Kentucky 31 tall fescue and 40% (min.) Kentucky bluegrass.
 - Sod pegs or stakes be untreated wood pegs driven through, and flush with sod. All slopes with a grade 3 to 1 or steeper shall be pegged at a minimum of 4 pegs per square yard of sod.
 - Soil preparation weeds and undesired grasses growing on existing grade that is to be seeded and/or sodded must be cut and removed before soil preparation begins. Before seeding or sodding all soils shall be loosened by means of tilling and/or disking. All trash, debris, roots, brush, wire, rocks, stone and other foreign debris over one inch in diameter shall be removed prior to seeding and/or sodding, to a depth of four (4") inches.
 - Sodding, seeding and mulching - may be done immediately after final grading, provided that bed has remained in good, friable condition and has not become muddy or hard. If it has become hard, it shall be filled to friable condition again.
 - Seed shall be worked into the top 1/4" of soil by means of raking, wire drag or other approved equipment. During periods of high temperature and/or drought, the soil shall be watered immediately prior to laying the sod. All sod shall be laid at right angles to slopes. No sod shall be applied to frozen ground and no frozen sod is to be laid. Watering shall commence immediately during or after the laying operation, and shall be sufficient to thoroughly wet the sod roots and the soil below.
- Permanent seeding: shall be done february 1 through 30, and may 1 through october 31. Irrigation for permanent seeding shall be done between may 1 and august 14.
- Temporary seeding: shall be done between february 1 through april 30 and august 15 through november 30. All other disturbed areas requiring stabilization not within the seeding dates shall be mulched.
- Sediment control devices (ditches - dikes - traps, etc.) are to remain in place until contributing watershed has been stabilized. Maintenance to sediment control devices during the under going grading, construction and development should be done as necessary. Removal of these devices shall be with the approval of the montgomery county sediment control inspector.

Temporary Seeding Specifications

- All temporary seeded areas shall be mulched immediately after seeding. Mulch materials should be unweathered, unchopped, small grain straw spread at a rate of 1 1/2 to 2 tons per acre. The mulch shall be anchored immediately after placement with asphalt, peg and twine, plastic nettings or by a mulch anchoring tool.
- Lime and fertilizer shall be required for temporary seeding in accordance with the following procedures:
 - Pulverized dolomitic limestone is to be applied at the rate of 46 lbs. Per 1,000 sq. Ft.
 - Fertilizer shall be 10-10-10 or equivalent and applied at the rate of 12 to 18 lbs. Per 1,000 sq. Ft.

Seeding preparation
 The top layer of soil shall be loosened by disking or raking (shall be done on contour) at a depth of at least 3", before seeding occurs.

Seeding
 LIME: 50 lbs. Of dolomitic limestone per 1,000 sq. Ft.
 FERTILIZER: 15 lbs. Of 10-10-10 per 1,000 sq. Ft.
 SEED: Italian rye or perennial rye at 0.92 Lbs. Per 1,000 sq. Ft. (Notes: february 1st-april 30th, or august 15-november 1st) millet - same rate as above (date: november 2-january 31, mulch only)
 MULCH: same rate as above (date: november 2-january 31, mulch only) planting depth: 1" to 2" for all of the above.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL			
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition
 Placement of topsoil over prepared subsoil prior to establishment of permanent vegetation.

Purpose
 To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies
 This practice is limited to areas having 2:1 or flatter slopes.
 For the purpose of these Standards and Specifications, areas having slopes steeper than 2: 1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2: 1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications
 Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications.
 Topsoil Specifications - Soil to be used as topsoil must meet the following:
 1. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by DPS. Regardless, topsoil shall not be a mixture of contrasting textured subsoils, and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.

The subsoil shall be tilled to a minimum depth of 6 inches before placement of topsoil.

Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 lbs. per 1000 sq. ft) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil.

Topsoil shall be tested and amended as per soil test recommendations.

Topsoil Application.
 1. When topsoiling, maintain needed erosion and sediment control practices.
 2. Topsoil shall be uniformly distributed in a 4-8 inch layer and lightly compacted to a minimum thickness of 4 inches. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 3. Topsoil shall not be placed while the topsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

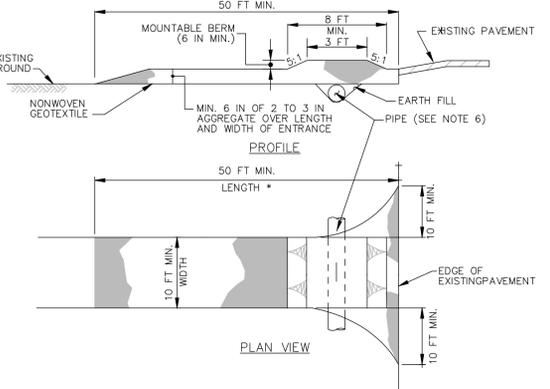
THIS PLAN SHALL ONLY BE USED FOR CONSTRUCTION OF SEDIMENT CONTROL AND ASSOCIATED SEDIMENT CONTROL IMPROVEMENTS AS SHOWN. THIS PLAN SHALL NOT BE USED FOR ANY OTHER CONSTRUCTION PURPOSE. THIS PLAN SHALL NOT BE USED FOR GRADING OF THE SITE.

ALL SEDIMENT CONTROLS ARE TO BE MAINTAINED TO THE SATISFACTION OF THE MCDPS SEDIMENT CONTROL INSPECTOR AT ALL TIMES AT NO ADDITIONAL COST TO THE OWNER

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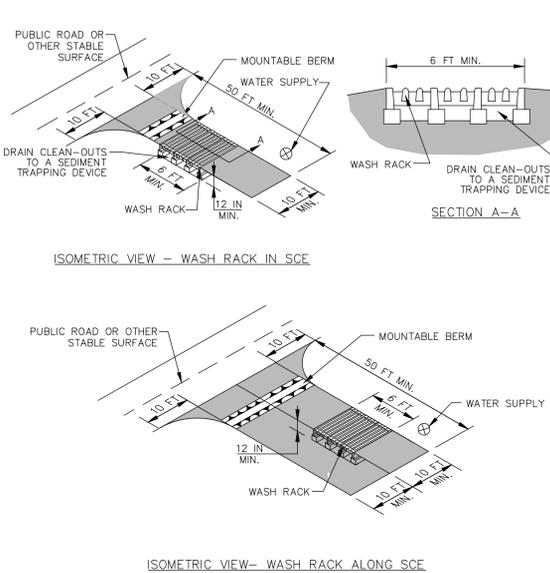
DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE



- CONSTRUCTION SPECIFICATIONS**
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (+30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
 - PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
 - PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
 - PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
 - MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL			
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

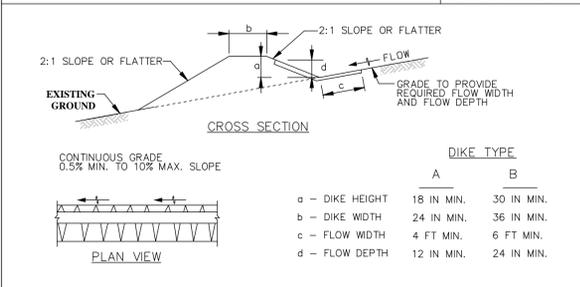
DETAIL B-2 WASH RACK OPTION



- CONSTRUCTION SPECIFICATIONS**
- USE A WASH RACK DESIGNED AND CONSTRUCTED/MANUFACTURED FOR THE ANTICIPATED TRAFFIC LOADS. CONCRETE, STEEL, OR OTHER MATERIALS ARE ACCEPTABLE. PRE-FABRICATED UNITS SUCH AS CATTLE GUARDS ARE ACCEPTABLE. USE MINIMUM DIMENSION OF 6 FEET x 10 FEET. ORIENT DIRECTION OF RIBS AS SHOWN ON THE DETAIL.
 - INSTALL PRIOR TO, ALONG SIDE OF, OR AS PART OF THE SCE.
 - DIRECT WASH WATER TO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - KEEP AREA UNDER WASH RACK FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, REPAIR OR REPLACE WASH RACK.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL			
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

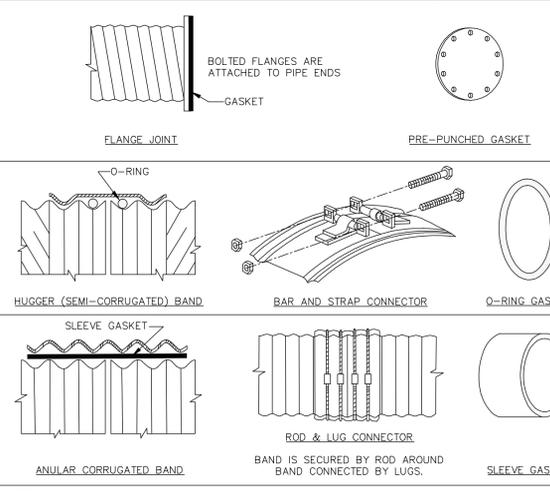
DETAIL C-1 EARTH DIKE



- FLOW CHANNEL STABILIZATION**
- SEED WITH STRAW MULCH AND TACK. (NOT ALLOWED FOR CLEAR WATER DIVERSION.)
 - SEED WITH SOIL STABILIZATION MATTING OR LIME WITH SOD.
 - 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL. A MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.
- CONSTRUCTION SPECIFICATIONS**
- REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
 - EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
 - COMPACT FILL.
 - CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
 - PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
 - STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
 - MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
 - UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL			
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DETAIL G-2-5 TYPES OF COUPLERS FOR CORRUGATED STEEL PIPE



- NOTE:** UNDER NO CIRCUMSTANCE IS A DIMPLE (UNIVERSAL) BAND ACCEPTABLE FOR USE IN A SEDIMENT CONTROL OR STORMWATER MANAGEMENT STRUCTURE.
- CONSTRUCTION SPECIFICATIONS**
- USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE ROLLED WITH AN ADEQUATE NUMBER OF CORRUGATIONS TO ACCOMMODATE THE BAND WIDTH.
 - FOR PIPES LESS THAN 24 INCHES IN DIAMETER, PROVIDE ONE OF THE FOLLOWING TYPES OF CONNECTIONS:
 - FLANGED JOINTS WITH 3/8 INCH CLOSED CELL GASKET THE FULL WIDTH OF THE FLANGE, PRE-PUNCHED TO THE FLANGE BOLT CIRCLES, SANDWICHED BETWEEN ADJACENT FLANGES, OR
 - 12 INCH WIDE HUGGER TYPE BAND WITH O-RING GASKET HAVING A MINIMUM DIAMETER OF 1/2 INCH GREATER THAN THE CORRUGATION DEPTH.
 - FOR PIPES 24 INCHES IN DIAMETER AND LARGER, PROVIDE ONE OF THE FOLLOWING TYPES OF CONNECTIONS:
 - 24 INCH WIDE ANULAR CORRUGATED BAND WITH 24 INCH WIDE BY 3/8 INCH THICK CLOSED CELL CIRCULAR SLEEVE GASKET WITH 12 INCHES ON THE END OF EACH PIPE, CONNECTED WITH A MINIMUM OF 4 RODS AND LUGS, 2 ON EACH CONNECTING PIPE END, OR
 - FLANGED JOINTS WITH 3/8 INCH CLOSED CELL GASKET THE FULL WIDTH OF THE FLANGE, PRE-PUNCHED TO THE FLANGE BOLT CIRCLES, AND SANDWICHED BETWEEN ADJACENT FLANGES.

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:
SEDIMENT CONTROL ONLY	Reviewed: <i>[Signature]</i> 3/1/2013 Date	Reviewed: <i>[Signature]</i> 3/1/2013 Date
Reviewed: _____ Date	Approved: <i>[Signature]</i> 3/1/2013 Date	245952
Approved: _____ Date	545 S.M.File No.	SEDIMENT CONTROL PERMIT No.

DESIGN CERTIFICATION

I hereby certify that this plan has been prepared in accordance with the "1994 Maryland Standards and Specification for Soil Erosion and Sediment Control," Montgomery County Department of Permitting Services Executive Regulations 5-90, 7-02AM and 36-90, and Montgomery County Department of Public Works and Transportation "Storm Drain Design Criteria" dated August 1988.

Design Engineer Signature: *[Signature]* Date: 02/15/13
 Printed Name: Jeffrey Bloss Registration Number: 32457

CUT AND FILL CERTIFICATION

I hereby certify that the estimated total amount of excavation and fill as shown on these plans has been computed to be 6,300 cu. yds. of excavation and 50 cu. yds. of fill and the total area to be disturbed as shown on these plans has been determined to be 156,898 sq. ft. (5.27 AC).

Signature (P.E.): *[Signature]* 32457
 Printed Name: Jeffrey Bloss Registration No. 32457
 Date: 02/15/13

OWNERS/DEVELOPER CERTIFICATION

I/We hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project.

Owner/Developer Signature: *[Signature]* Date: 2-15-13
 Printed Name and Title: Gene Gopenko

**SEDIMENT CONTROL DETAILS
 DAM MODIFICATION AND REHABILITATION PLAN (2012)
 MD DAM #433
 MONTGOMERY AUTO PARK DAM
 COLESVILLE (5th) ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND**

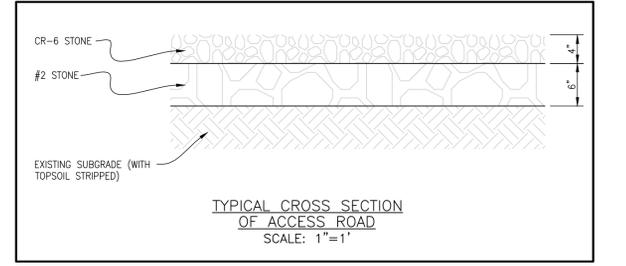
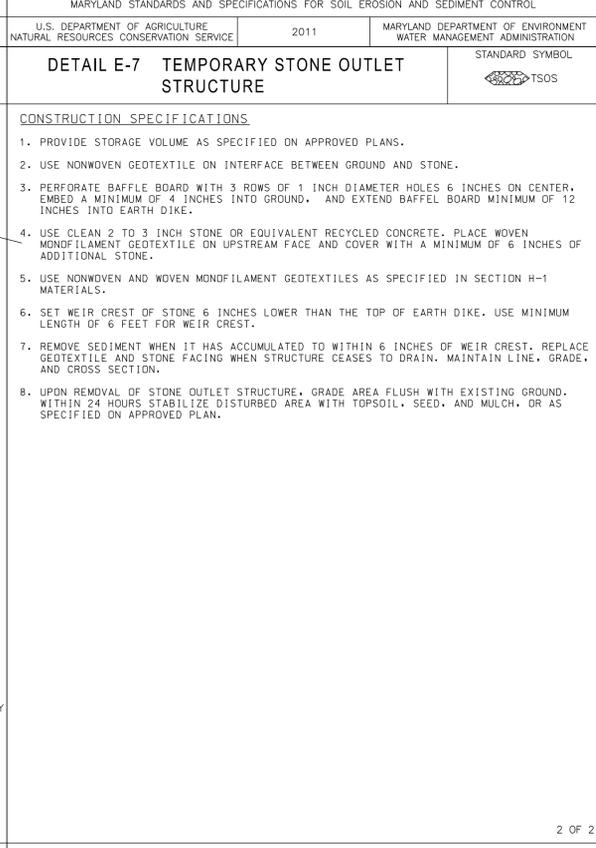
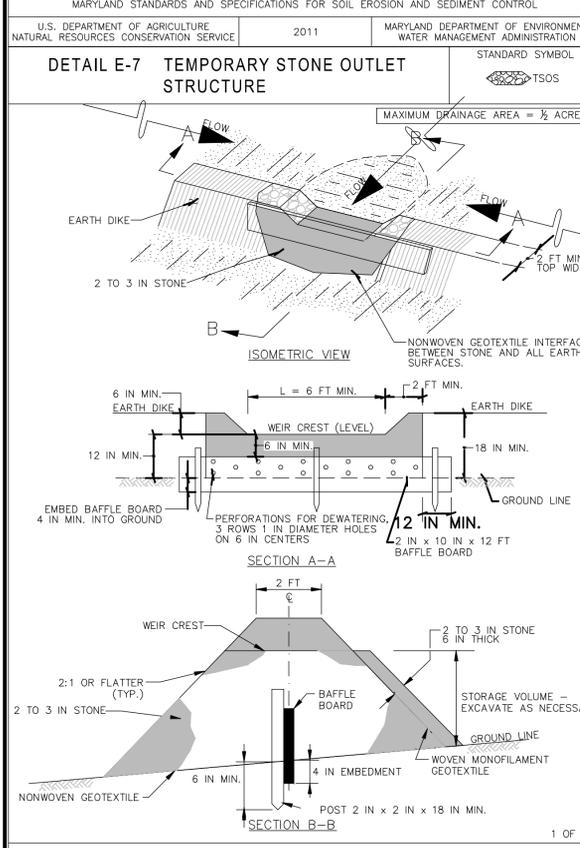
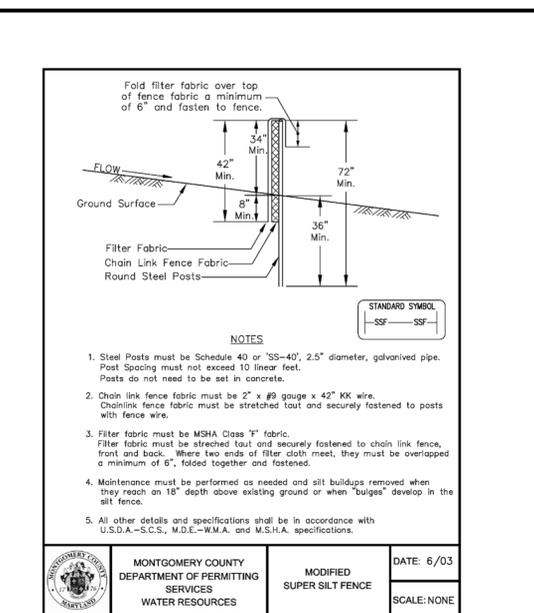
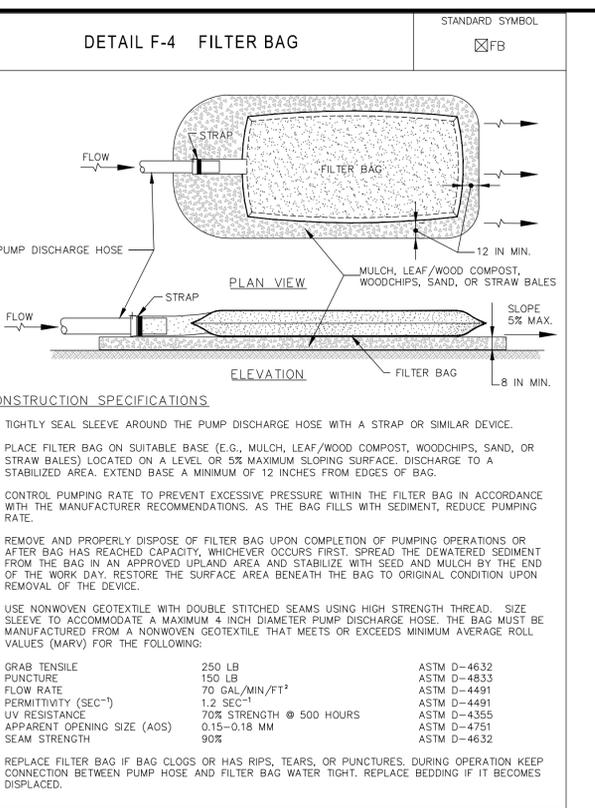
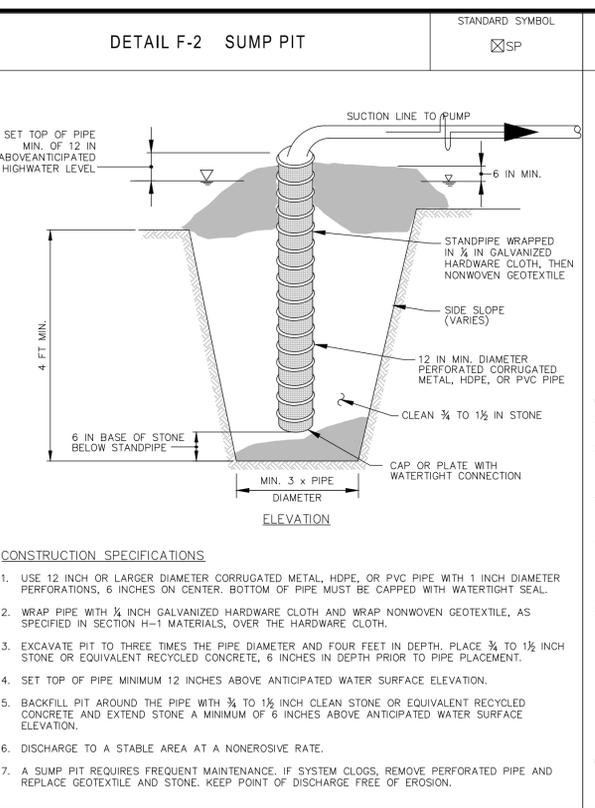
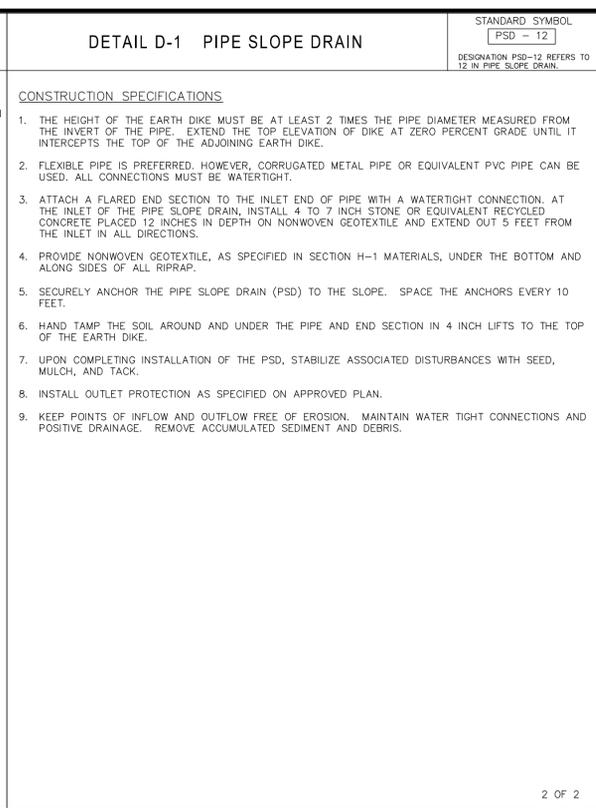
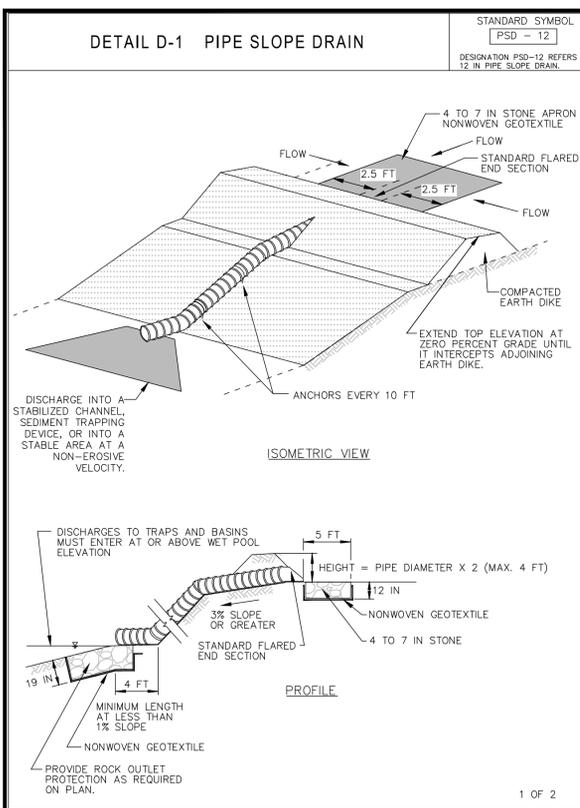
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CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENE GOPENKO TELEPHONE: (240) 777-7723	PRELIMINARY PLAN NO: N/A DESIGN: JBB DRAFT: MEP DATE: NOV. 2012 SCALE: N/A	SITE PLAN NO: N/A SHEET: 9 OF 24 SC: SC-4 FILE NO: 40-271-241
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FOR SEDIMENT CONTROL ONLY

PLANS APPROVED BY
[Signature]
 Harold W. Van Aller, P.E.
 December 3, 2012
 Dam Safety Division
 Maryland Dept. of the Environment



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

THIS PLAN SHALL ONLY BE USED FOR CONSTRUCTION OF SEDIMENT CONTROL AND ASSOCIATED SEDIMENT CONTROL IMPROVEMENTS AS SHOWN. THIS PLAN SHALL NOT BE USED FOR ANY OTHER CONSTRUCTION PURPOSE. THIS PLAN SHALL NOT BE USED FOR GRADING OF THE SITE.

ALL SEDIMENT CONTROLS ARE TO BE MAINTAINED TO THE SATISFACTION OF THE MCDPS SEDIMENT CONTROL INSPECTOR AT ALL TIMES AT NO ADDITIONAL COST TO THE OWNER.

THE EXISTING UTILITIES SHOWN HEREON HAVE BEEN LOCATED USING INFORMATION AVAILABLE AT THE TIME THIS PLAN WAS PREPARED. PRIOR TO DIGGING, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VIA TEST PIT WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN AND CONFIRM THAT NO CONFLICTS EXIST. ANY CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF CPJ AND THE OWNER PRIOR TO STARTING CONSTRUCTION.

FOR SEDIMENT CONTROL ONLY

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: SEDIMENT CONTROL ONLY

Sediment Control Technical Requirements: Reviewed 3/1/2013 Date Approved 3/1/2013 Date

Administrative Requirements: Reviewed 3/1/2013 Date

245952

SEDIMENT CONTROL PERMIT No.

545 S.M.File No.

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL, IF THE PROJECT HAS NOT STARTED, UNLESS THE PERMIT HAS BEEN EXTENDED.

PLANS APPROVED BY
Harold W. Van Acker, P.E.
December 3, 2012
Dam Safety Division
Maryland Dept. of the Environment

SEDIMENT CONTROL DETAILS
DAM MODIFICATION AND REHABILITATION PLAN (2012)
MD DAM #433

MONTGOMERY AUTO PARK DAM
COLESVILLE (5th) ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

CPJ Charles P. Johnson & Associates, Inc.
Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors
1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301.434.9394 Fax: 301.434.9394
www.cpj.com • Silver Spring, MD • Gaithersburg, MD • Frederick, MD • Fairfax, VA

CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
255 ROCKVILLE PIKE SUITE 120
ROCKVILLE, MD 20850
CONTACT: GENS GOPPENKO
TELEPHONE: (240) 777-7725

PRELIMINARY PLAN NO: N/A SITE PLAN NO: N/A

DESIGN: JBB SHEET: 10 OF 24

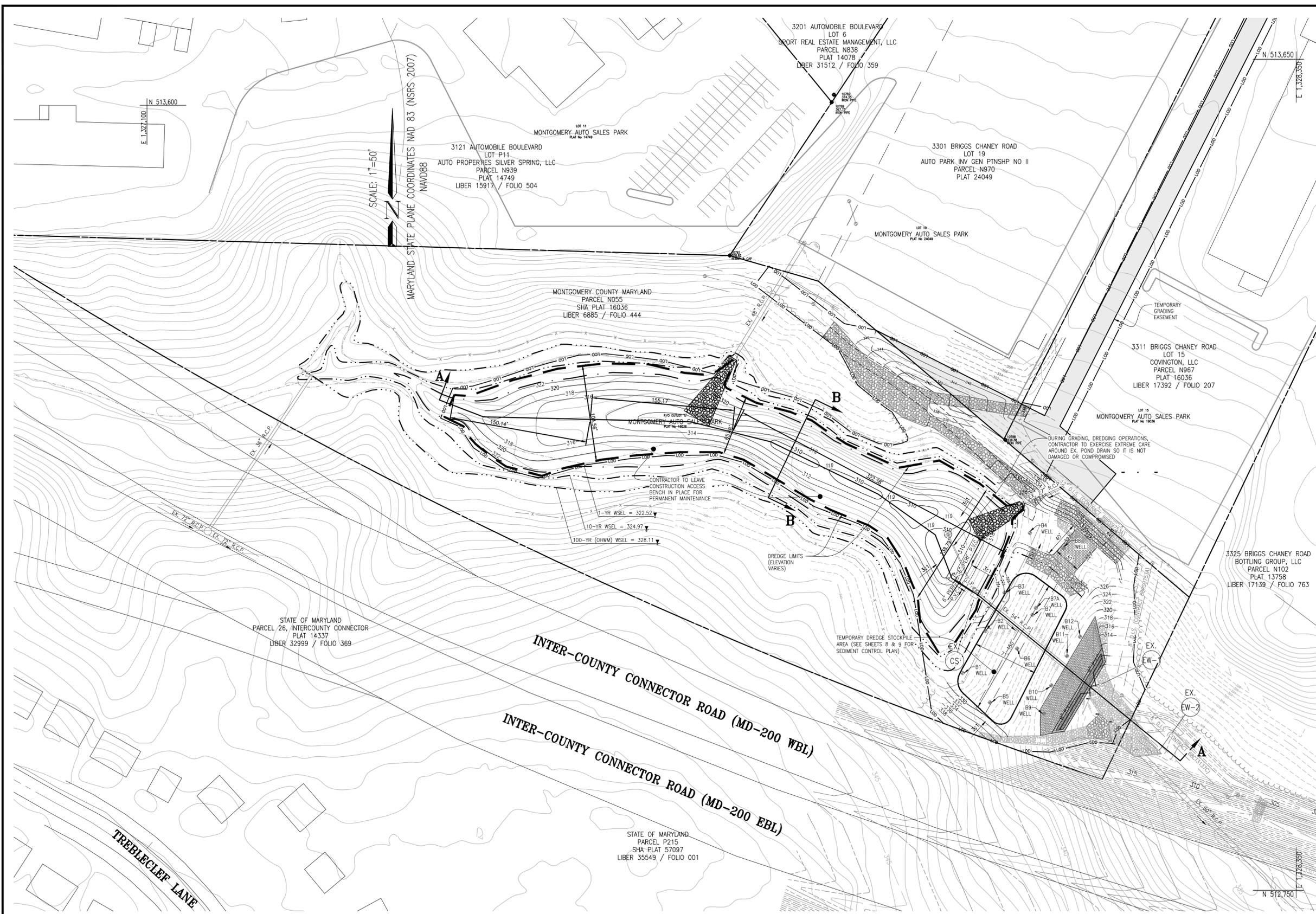
DRAFT: MEP

DATE: NOV. 2012

SCALE: N/A FILE NO: 40-271-241

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- DREDGING NOTES:**
1. EMBANKMENT EXCAVATION / GRADING OPERATIONS TO BE COMPLETED PRIOR TO DREDGING OPERATIONS.
 2. DREDGE MATERIAL TO BE TEMPORARILY STOCKPILED ON TOP OF DAM (70'x150' AREA).
 3. CONTRACTOR TO PROVIDE ADEQUATE CONTROLS FOR TEMPORARY STOCKPILE AND DEWATERING AREA INCLUDING BUT NOT LIMITED TO:
 - a. EARTH CONTAINMENT DIKES
 - b. SUPER SILT FENCE
 - c. FILTER BAGS
 4. SEE SHEET 8 FOR SEDIMENT CONTROL PLAN.
 5. CONTROLS SHALL BE INSPECTED AND REPAIRED

LEGEND

PROPOSED 2' CONTOURS	— — — — —
PROPOSED 10' CONTOURS	— — — — —
DREDGE LIMITS	— — — — —
EXISTING 2' CONTOURS	- - - - -
EXISTING 10' CONTOURS	- - - - -
LIMIT OF DISTURBANCE (L.O.D.)	· · · · ·

MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

NOTE:

- THIS SHEET TO BE USED FOR DREDGING OPERATIONS ONLY.
- THE EXISTING UTILITIES SHOWN HEREON HAVE BEEN LOCATED USING INFORMATION AVAILABLE AT THE TIME THIS PLAN WAS PREPARED. PRIOR TO DIGGING, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VIA TEST PIT WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN AND CONFIRM THAT NO CONFLICTS EXIST. ANY CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF CPJ AND THE OWNER PRIOR TO STARTING CONSTRUCTION.

TOTAL DISTURBED AREA=3.57 Ac.

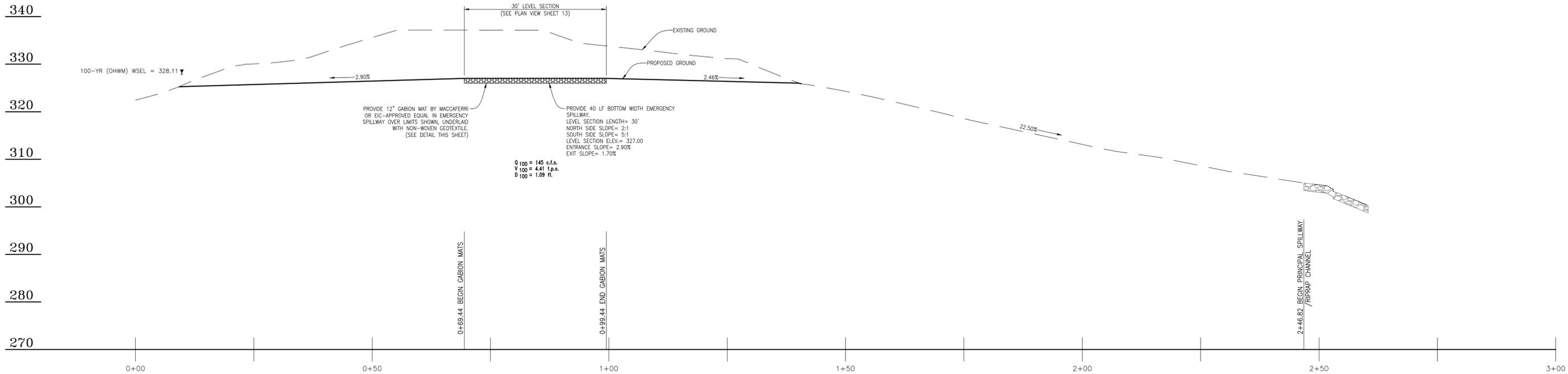
PLANS APPROVED BY
 Harold W. Van Aller, P.E.
 December 3, 2012
 Dam Safety Division
 Maryland Dept. of the Environment



DREDGING PLAN VIEW
DAM MODIFICATION AND REHABILITATION PLAN (2012)
 MD DAM #433
MONTGOMERY AUTO PARK DAM
 COLESVILLE (5th) ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND

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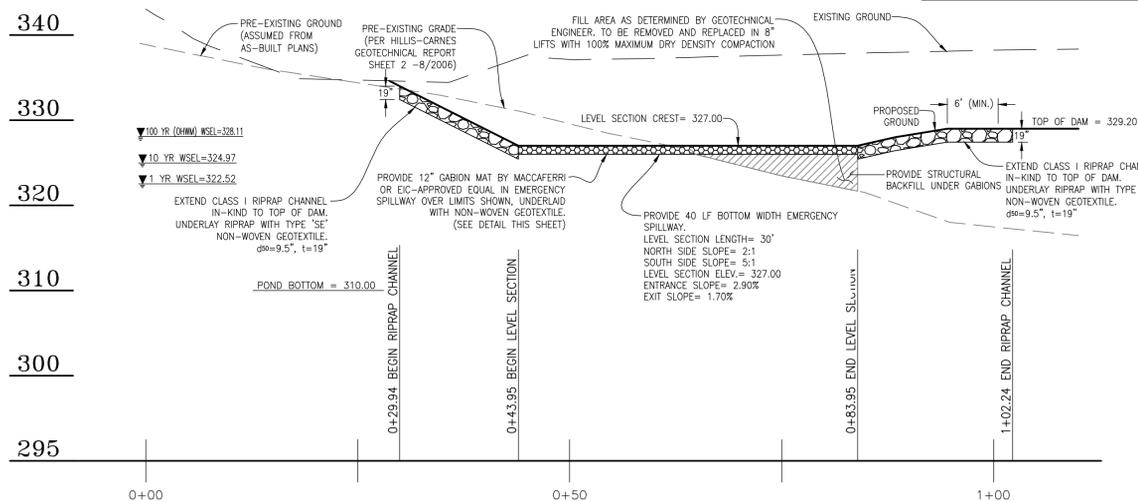
CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENS GOPPENKO TELEPHONE: (240) 777-2725	PRELIMINARY PLAN NO: N/A SITE PLAN NO: N/A	DESIGN: JBB DRAFT: MEP DATE: NOV., 2012 SCALE: 1"=50'	SHEET: 11 OF 24 FILE NO.: 40-271-241
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NOTE:
ALL GEOTEXTILES ARE TO BE KEYED IN
24" MINIMUM INTO GROUND.

EMERGENCY SPILLWAY PROFILE (SECTION E-E)

SCALE: 1" = 10'



EMERGENCY SPILLWAY CROSS SECTION G-G

SCALE: 1" = 10'

MACCAFERRI

MACCAFERRI warrants the right to amend product specifications without notice and specifies are required to check as to the validity of the specifications they are using.

Reno Mattress - Galvanized & PVC Coated

May 2005

1.0 Description

1.1 Materials

1.2 Woven Wire Mesh

1.3 PVC Polyethylene Chloride Coating

1.4 The contractor shall provide the following:

1.5 The contractor shall provide the following:

1.6 Method of Measurement

1.7 Basis of Payment

MACCAFERRI

MACCAFERRI warrants the right to amend product specifications without notice and specifies are required to check as to the validity of the specifications they are using.

Woven Wire Mesh Type 68

1.0 Description

1.1 Materials

1.2 Fabrication

1.3 Method of Measurement

1.4 Basis of Payment

MACCAFERRI

MACCAFERRI warrants the right to amend product specifications without notice and specifies are required to check as to the validity of the specifications they are using.

RENO MATTRESS GALVANIZED & PVC COATED

1.0 Product Description

1.1 Materials

1.2 Fabrication

1.3 Method of Measurement

1.4 Basis of Payment

MACCAFERRI

MACCAFERRI warrants the right to amend product specifications without notice and specifies are required to check as to the validity of the specifications they are using.

Standard Unit Size

Length (ft)	Width (ft)	Weight (lb)	Area (sq ft)
120	60	6,000	7,200
120	60	6,000	7,200
120	60	6,000	7,200
120	60	6,000	7,200

1.0 Construction Requirements

1.1 Assembly

1.2 Installation

1.3 Filling

1.4 Lid Closing

1.5 Mesh cutting and bedding

1.6 Method of Measurement

1.7 Basis of Payment

MACCAFERRI

MACCAFERRI warrants the right to amend product specifications without notice and specifies are required to check as to the validity of the specifications they are using.

Construction Requirements

1.0 Assembly

1.1 Installation

1.2 Filling

1.3 Lid Closing

1.4 Mesh cutting and bedding

1.5 Method of Measurement

1.6 Basis of Payment

MACCAFERRI

MACCAFERRI warrants the right to amend product specifications without notice and specifies are required to check as to the validity of the specifications they are using.

Quality Request

1.0 Quality Request

1.1 Quality Request

1.2 Quality Request

1.3 Quality Request

1.4 Quality Request

PLANS APPROVED BY
Harold W. Van Allen, P.E.
December 3, 2012
Dam Safety Division
Maryland Dept. of the Environment

THIS PLAN SHALL ONLY BE USED FOR THE CONSTRUCTION OF DAM REPAIR AND ASSOCIATED DAM REPAIR IMPROVEMENTS AS SHOWN. THIS PLAN SHALL NOT BE USED FOR ANY OTHER CONSTRUCTION PURPOSE. THIS PLAN SHALL NOT BE USED FOR GRADING OF THE SITE OTHER THAN AREAS WITHIN THE SWM EASEMENT.

THE EXISTING UTILITIES SHOWN HEREON HAVE BEEN LOCATED USING INFORMATION AVAILABLE AT THE TIME THIS PLAN WAS PREPARED. PRIOR TO DIGGING, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VIA TEST PIT WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN AND CONFIRM THAT NO CONFLICTS EXIST. ANY CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF CPJ AND THE OWNER PRIOR TO STARTING CONSTRUCTION.

MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

EMERGENCY SPILLWAY PROFILE AND SECTIONS DAM MODIFICATION AND REHABILITATION PLAN (2012) MD DAM #433

MONTGOMERY AUTO PARK DAM COLESVILLE (5th) ELECTION DISTRICT MONTGOMERY COUNTY, MARYLAND

CPJ Charles P. Johnson & Associates, Inc.

Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors

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CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850
CONTACT: GENS GOZEWINK
TELEPHONE: (301) 777-7723

PRELIMINARY PLAN NO: N/A
SITE PLAN NO: N/A

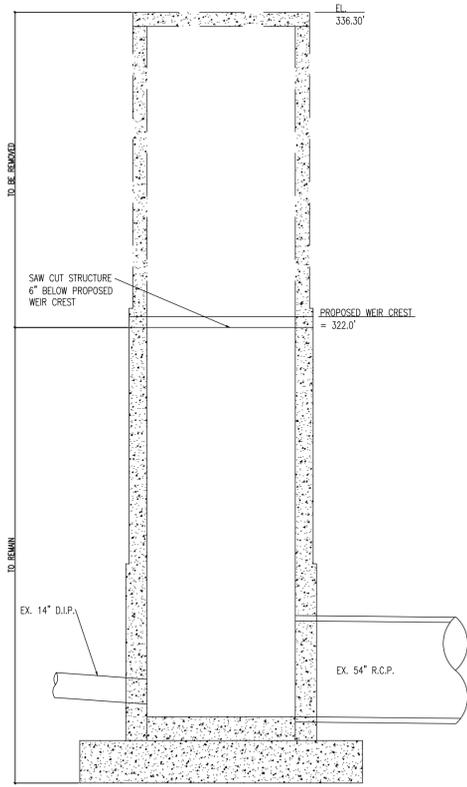
DESIGN: JBB
SHEET: 16 OF 24

DRAFT: MEP

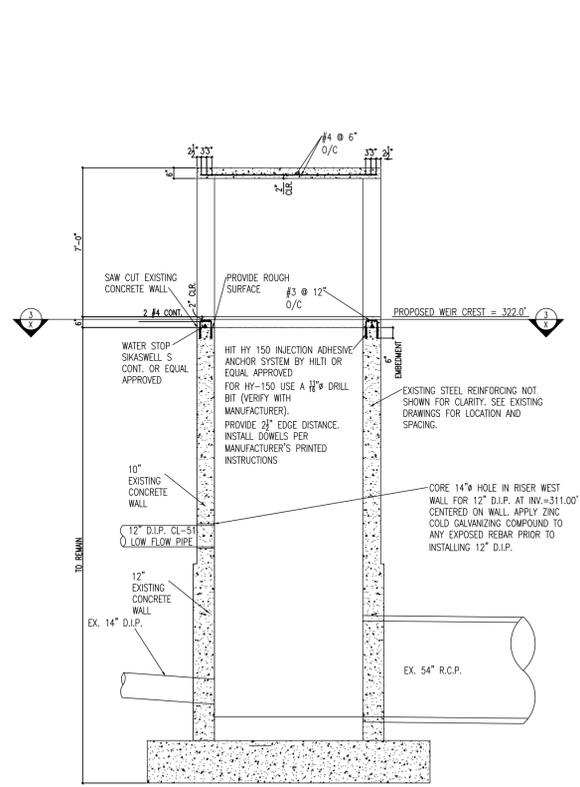
DATE: NOV. 2012
SCALE: AS SHOWN

FILE NO: 40-271-241

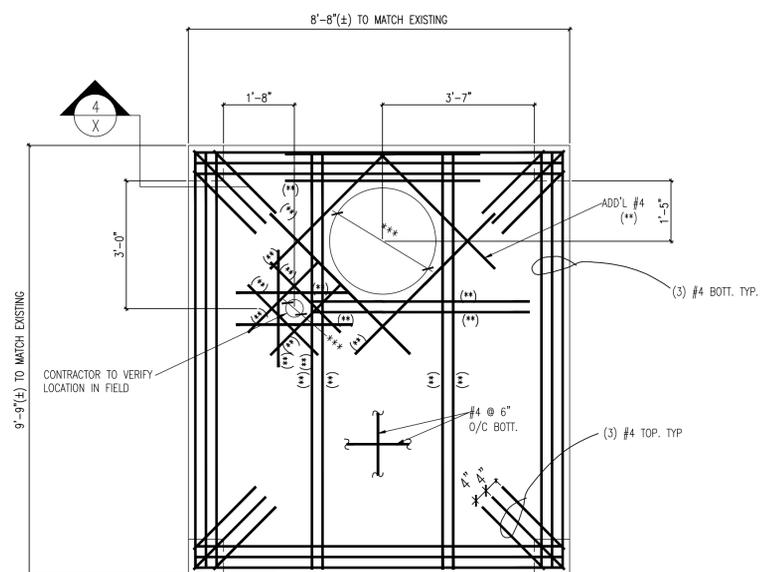
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SECTION 1
SCALE 1/2" = 1'-0"

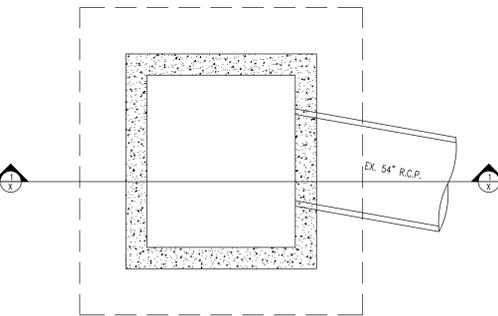


SECTION 2
SCALE 1/2" = 1'-0"

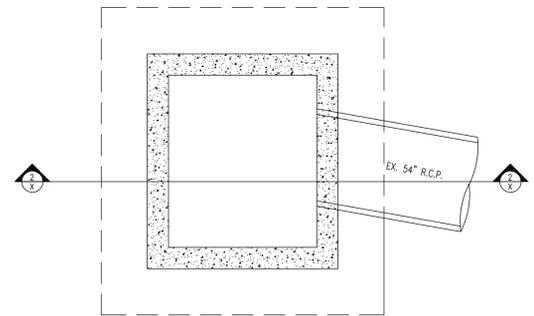


NEW TOP SLAB FRAMING PLAN
SCALE 1/2" = 1'-0"

*** OPENINGS TO BE DETERMINED BY MANHOLE AND VALVE FRAMES AND COVERS USED.

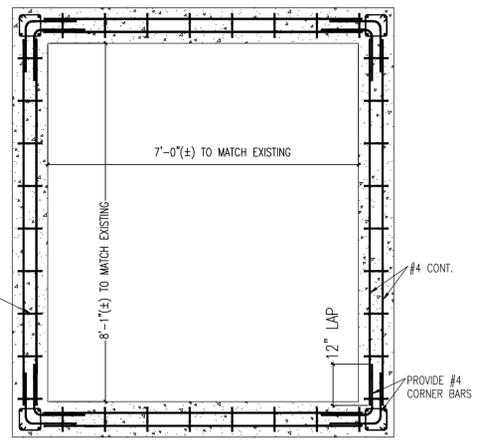


EXISTING FOUNDATION PLAN (DEMOLITION PHASE)
SCALE 1/2" = 1'-0"

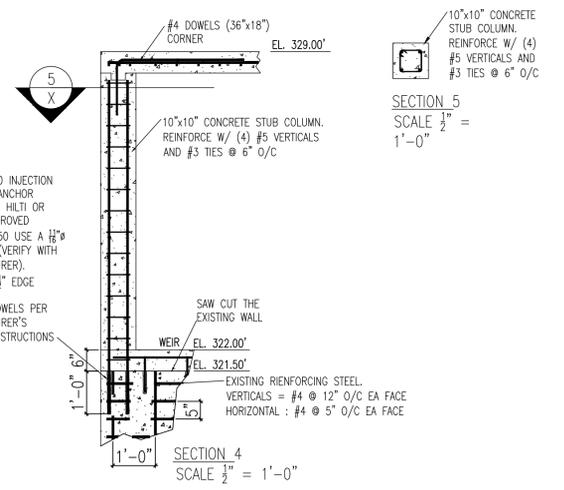


EXISTING FOUNDATION PLAN (NEW WORK PHASE)
SCALE 1/2" = 1'-0"

NOTE: DOWEL EMBEDMENT TO BE 12" AT VERTICAL PIERS AND 6" AT WEIRS.



SECTION 3
SCALE 1/2" = 1'-0"



SECTION 4
SCALE 1/2" = 1'-0"

SECTION 5
SCALE 1/2" = 1'-0"

STRUCTURAL NOTES

1. BUILDING CODES
 - A. ALL CONSTRUCTION SHALL CONFORM WITH THE 2009 INTERNATIONAL BUILDING CODE AND ALL SUBSEQUENT SUPPLEMENTS.
 - B. IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH THE GOVERNING LOCAL BUILDING CODE.

REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIAL CONSTRUCTION
2. MISCELLANEOUS
 - A. THE CONTRACTOR SHALL REVIEW CIVIL DRAWINGS PREPARED BY CPJ ASSOCIATES, DATED NOVEMBER, 2012 FOR LOCATION AND DIMENSION OF CHASES, INSERTS, OPENINGS, SLEEVES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS WHICH IMPACT THE STRUCTURAL COMPONENTS.
 - B. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS BEFORE PROCEEDING WITH CONSTRUCTION. ALL DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
 - C. THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL CONTRACT DOCUMENTS AS SHOP DRAWINGS.
 - D. SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
3. CAST IN PLACE CONCRETE
 - A. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES (ACI 350) LATEST LOCAL APPROVED

- B. IN ADDITION TO THE ABOVE, ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING:
 1. RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING (ACI 305)
 2. RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 306)
 3. RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI 347)
- C. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL BE STONE AGGREGATE CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI (SHA MIX #6). ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR ENTRAINMENT OF 5% ±1% NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED. MAXIMUM AGGREGATE SIZE SHALL BE 1". WATER/CEMENT RATIO SHALL BE 0.45, MAXIMUM SLUMP SHALL BE 4". ALL CONCRETE, EXCEPT FOOTINGS, SHALL CONTAIN A WATER REDUCING ADMIXTURE. PORTLAND CEMENT SHALL CONFORM TO ASTM C 150 AND NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C 33.
- D. ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A 615 GRADE 60. ALL WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A 185. LAP ALL REINFORCING BARS A MINIMUM OF 48 BAR DIAMETERS AND ALL W.W.F. A MINIMUM OF TWO FULL GRIDS, UNLESS OTHERWISE INDICATED.
- E. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICES", ACI 318 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", ACI SP 66 "DETAILING MANUAL".
- F. ALL CONCRETE MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CONCRETE.
- G. ALL CONCRETE SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE PLACING OF ANY CONCRETE.
- H. GROUND BLAST FURNACE SLAG CAN NOT BE USED TO REPLACE THE PORTLAND CEMENT IN A CONCRETE MIX, AND FLY ASH OR POZZOLAN CAN NOT BE USED TO REPLACE THE PORTLAND CEMENT IN A CONCRETE MIX.

1. MINIMUM COVER FOR ALL REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:

FOUNDATIONS	3 INCHES
WALLS	2 INCHES
4. RETAINING WALLS
 - A. RETAINING WALLS HAVE BEEN DESIGNED WITH BACKFILL MATERIAL HAVING THE FOLLOWING CHARACTERISTICS:

EARTH PRESSURE CALCULATED BASED EQUIVALENT FLUID PRESSURE OF 60H
--

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSURE THE BACK FILL MATERIAL MEETS THESE CHARACTERISTICS.
 - B. RETAINING WALLS HAVE BEEN DESIGNED FOR THE FOLLOWING MINIMUM FACTORS OF SAFETY:

OVERTURNING	2.0 OR BETTER
SLIDING	1.5 OR BETTER
BOUYANCY	1.5 OR BETTER
 - C. DO NOT BACKFILL UNTIL CONCRETE HAS REACHED ITS DESIGN STRENGTH AT 28 DAYS.
5. CONCRETE REMOVAL
 - A. ALL EXISTING DOWELS AND DEFORMED BARS SHALL BE SAWED OFF AT THE INTERFACE OF THE REMOVAL LIMITS. CONCRETE SHALL BE SAWED FOR FULL DEPTH OF CONCRETE WALL.
 - B. OVERSAWING OF ADJACENT CONCRETE WALLS IS NOT PERMITTED.
 - C. THE CONTRACTOR SHALL TAKE EXTREME CAUTION TO AVOID ANY DAMAGE TO THE EXISTING STRUCTURE. ALL COSTS ASSOCIATED WITH THE REPAIRS AS A RESULT OF DAMAGE SHALL BE INCURRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

STRUCTURAL CERTIFICATION

I hereby certify that the structural design of this stormwater management facility is in accordance with applicable codes and that the plan for this has been designed for specified loading(s) as indicated on the drawings.

Jeffrey Blass
 Printed Name: Jeffrey Blass Registration Number: 32457
 Design Loading

MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

PLANS APPROVED BY
 Harold W. Van Aller, P.E.
 Dam Safety Division
 Maryland Dept. of the Environment
 December 3, 2012

**RISER MODIFICATION STRUCTURAL DESIGN
 DAM MODIFICATION AND REHABILITATION PLAN (2012)
 MD DAM #433**

**MONTGOMERY AUTO PARK DAM
 COLESVILLE (5th) ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND**

CPJ Charles P. Johnson & Associates, Inc.
 Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors
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 www.cpj.com • Silver Spring, MD • Gaithersburg, MD • Frederick, MD • Fairfax, VA

CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENS GOPPENKO TELEPHONE: (240) 777-7725	PRELIMINARY PLAN NO: N/A SITE PLAN NO: N/A
DESIGN: JBB DRAFT: MEP	SHEET 18 OF 24
DATE: NOV. 2012	FILE NO: 40-271-241
SCALE: AS SHOWN	

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These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM, MSHA, and AASHTO specifications apply to the most recent version.

A. Construction Inspection by Designated Engineer

The construction of the pond and embankment shall be under the supervision of a Registered Professional Engineer. The engineer must submit written certification that the pond and embankment have been built in accordance with the approved plans to the Department of Permitting Services (DPS) along with a record drawing, soil compaction tests, concrete tests, and other required construction documentation. This must be done immediately following the completion of the project, unless otherwise designated on the plans. The engineer shall have the responsibility and authority to make minor changes in the plans in order to compensate for unusual soil conditions encountered during construction as long as changes do not adversely affect the integrity of the dam. Major changes to design, which may result from site conditions encountered during construction, must be reviewed and approved by the Design Engineer, DPS, and the Montgomery Soil Conservation District prior to initiation of construction.

B. Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed, and stumped of topsoil. All trees, vegetation, roots, and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish, and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the structure shall be cleared.

C. Earth Fill

Material: The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 4 inches, frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #20 sieve. Consideration must be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the ability to support vegetation of the quality required to prevent erosion of the embankment. Placement: Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portion of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction: The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be treated by no less than one treat track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball, it will not crumble, yet, not be so wet that water can be squeezed out.

The density of each lift shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and it to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor). **Cut Off Trench:** The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the design and shall be excavation with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be one to one or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

D. Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material must fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a concrete fill of 24 inches or greater over the structure or pipe.

E. Pipe Conduits

All pipes shall be circular in cross section. **Compacted Metal Pipe:** All of the following criteria shall apply for compacted metal pipe: 1. Materials - (Plymer Coated Steel Pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-245 & M-246 with watertight coupling bands or flanges.

- Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
- Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connections to the riser shall be welded all around where the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight. All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be provided an adequate number of couplings to accommodate the band width. Pipe ends must be matched and numbered by the manufacturer. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, pre-punched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8 inch thick, closed cell circular neoprene gasket; and a 12-inch wide hugger type band with spring gaskets having a minimum diameter of 1/4 inch greater than the coupling depth. Pipes 24 inches in diameter and larger shall be connected by a 24-inch long standard corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end, per current DPS band detail. A 2-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8-inch closed cell gaskets the full width of the flange is also acceptable.
- Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.
- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe: All of the following criteria shall apply for reinforced concrete pipe: 1. Materials - RCP shall have bell and o-ring joints with rubber gaskets and shall meet ASTM Designation C-391. Pipes must be loaded in full accordance with ASTM C-391, including the ASTM C-391 designation on the inside of each section of pipe, and all pipes must be clearly marked by the manufacturer prior to delivery to the job site. Pipes with multiple designations will be rejected.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding/grade for their entire length. This bedding/grade shall consist of high slump concrete placed under the pipe and on the sides of the pipe to least 50% of its outside diameter with a minimum thickness of 4 inches. Where a concrete grade is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Good bedding is not permitted.

3. Laying Pipe - Bell and o-ring pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within four feet from the riser.

4. Backfilling shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe: The following criteria shall apply for plastic pipe: 1. Materials - PVC pipe shall be PVC-U-120 or PVC-U-120 conforming to ASTM D-1785 or ASTM D-2241, Compogated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4 - 10 inch pipe shall meet the requirements of AASHTO M252 Type S, and 12 through 24 inch shall meet the requirements of AASHTO M254 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Backfilling shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

F. Drainage Diaphragms
When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction of the diaphragm.

G. Concrete
Concrete design shall meet the requirements of ACI 309, Environmental Engineering Concrete Structures, with freezing and thawing exposures. Concrete shall be a type II or III cement, with a 28 day compressive strength of 4000 psi for cast in place and 5000 psi for precast structures. Concrete shall also meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 420, Mix No. 6.

H. Rock Rip-rap
Rock rip-rap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specification for Construction and Materials, Section 311. Gravel shall be placed under all rip-rap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 300, Class C.

I. Care of Water during Construction
All work on permanent structures shall be carried out in areas free from water. The contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the area to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled, and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works, and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until all flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the dewatering and compacting of material in required excavations the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to pumps from which the water shall be pumped.

J. Stabilization
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

K. Erosion and Sediment Control
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. Site and soil loss concerning siltation abatement shall be included in construction plans that detail erosion and sediment control measures to be employed during the construction process.

Notes: 1. All dimensions are in feet and inches. 2. All dimensions are to be maintained throughout the construction process. 3. All dimensions are to be maintained throughout the construction process.

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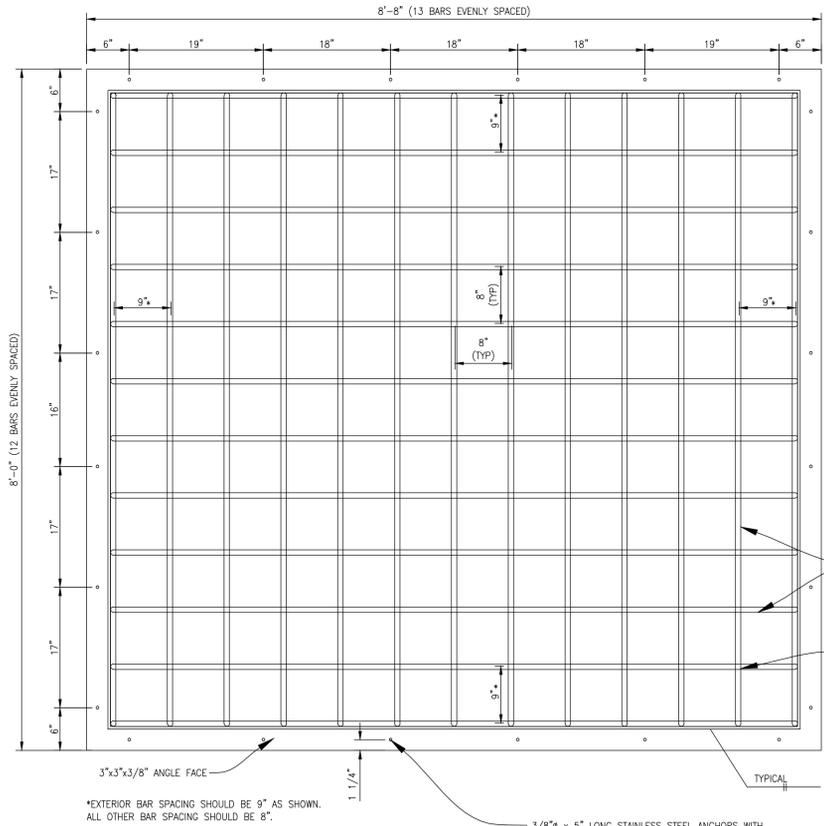
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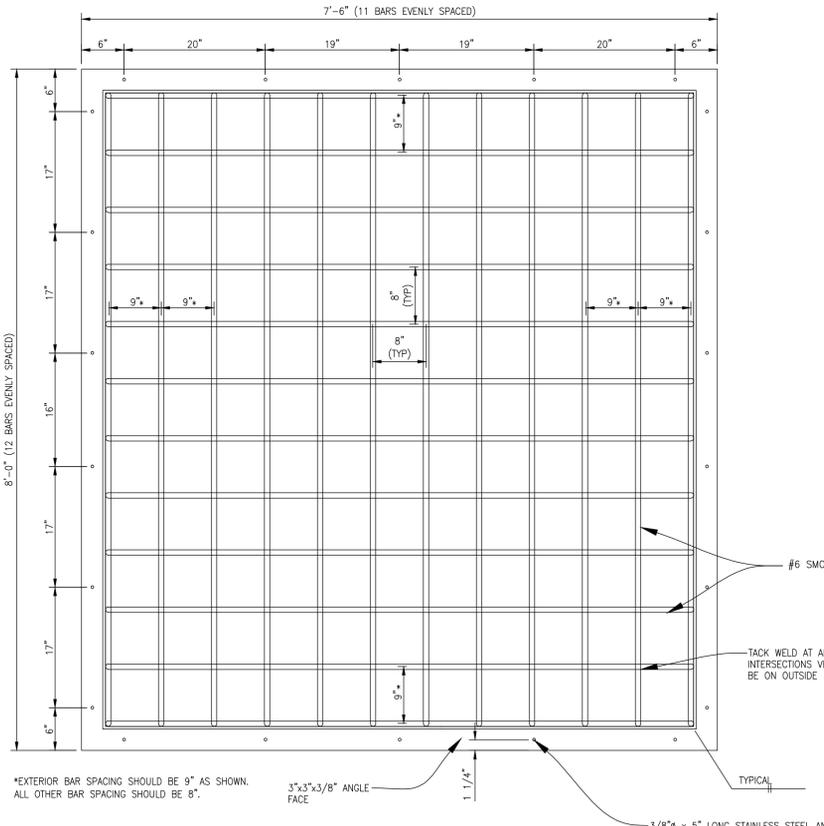
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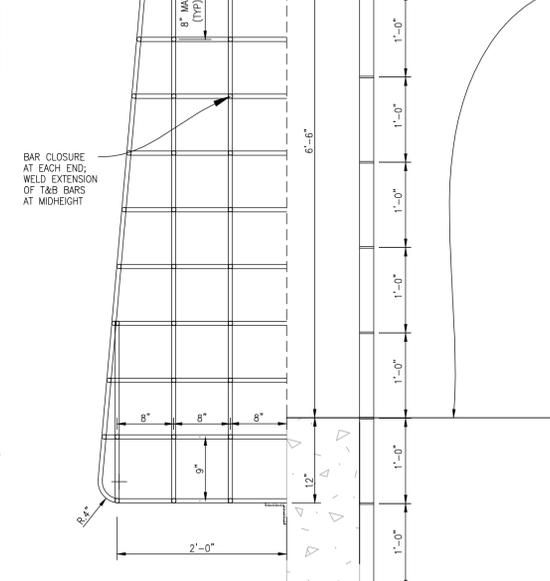
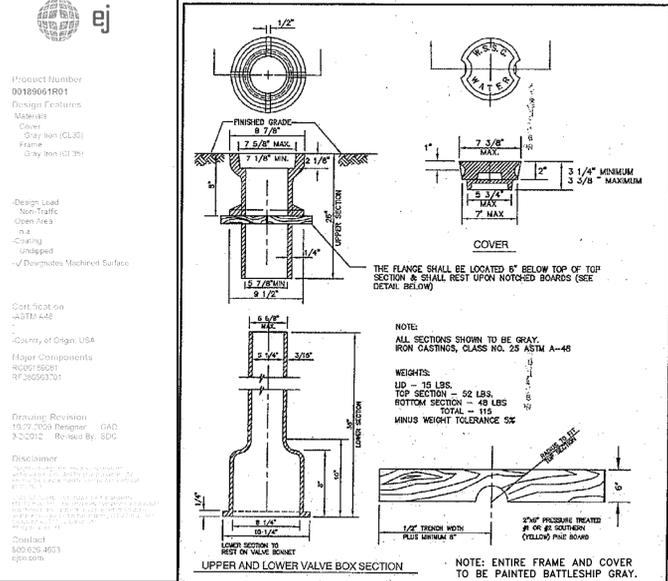
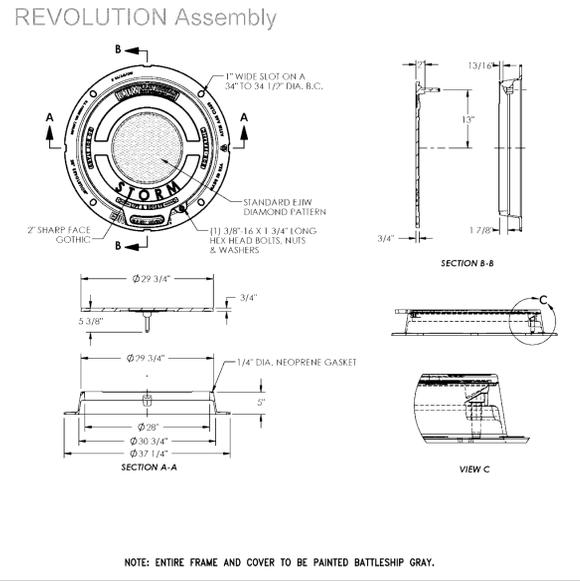
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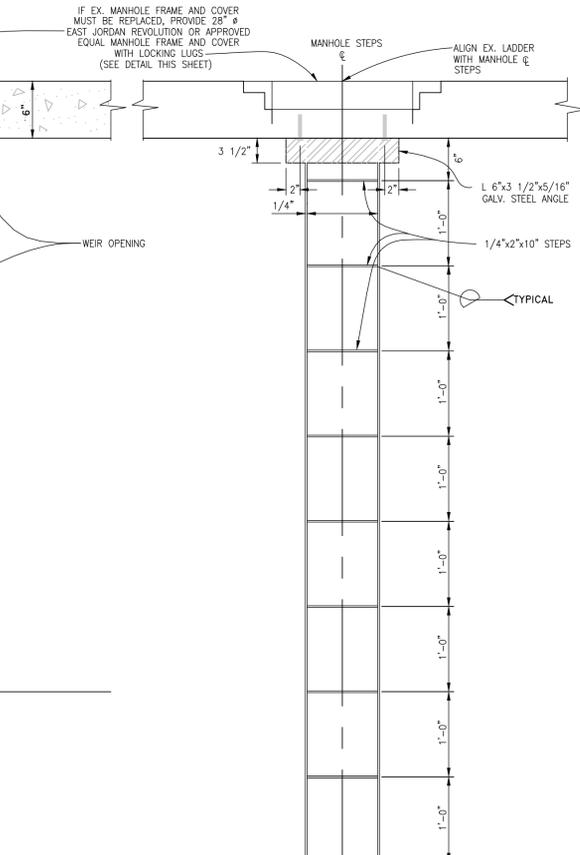
TYPICAL FRONT FACE ((2) REQUIRED)
TRASH RACK
SCALE: 1"=1'



TYPICAL SIDE FACE ((2) REQUIRED)
TRASH RACK
SCALE: 1"=1'



EX. LADDER & TRASH RACK
SIDE VIEW
SCALE: 1"=1'



EX. LADDER
FRONT VIEW
SCALE: 1"=1'

PLANS APPROVED BY
Harold W. Van Aller, P.E.
December 3, 2012
Dam Safety Division
Maryland Dept. of the Environment

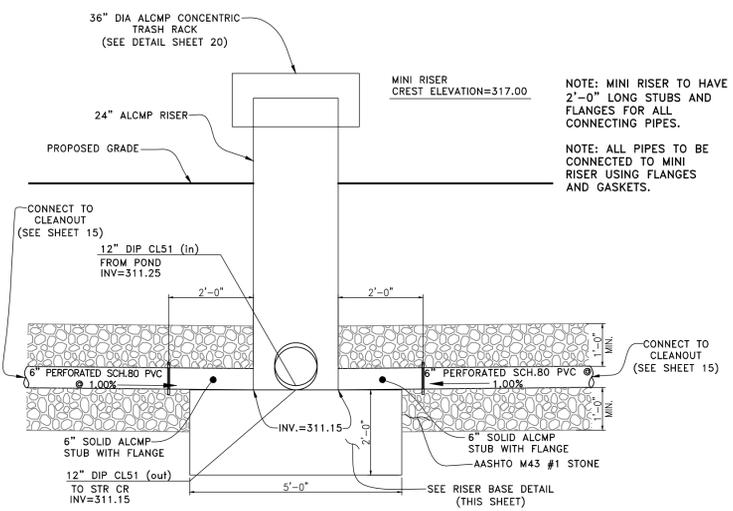
RISER DETAILS
DAM MODIFICATION AND REHABILITATION PLAN (2012)
MD DAM #433
MONTGOMERY AUTO PARK DAM
COLESVILLE (5th) ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

CPJ Charles P. Johnson & Associates, Inc.
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1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301.434.7000 Fax: 301.434.9394
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CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENE GOPPENKO TELEPHONE: (240) 771-7725	PRELIMINARY PLAN NO: N/A DESIGN: JBB DRAFT: MEP DATE: NOV. 2012 SCALE: N/A	SITE PLAN NO: N/A SHEET: 19 OF 24 FILE NO: 40-271-241
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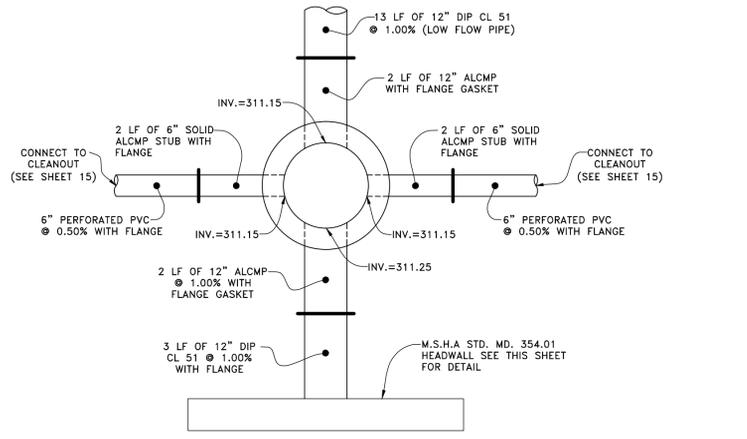
MISS UTILITY
Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all utilities with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

WASHINGTON SANITARY COMMISSION APPROVED: JUNE 17, 2004
STANDARD DETAIL: ADJUSTABLE VALVE BOX ROUND HEAD SLIDING TYPE
W. 2.1



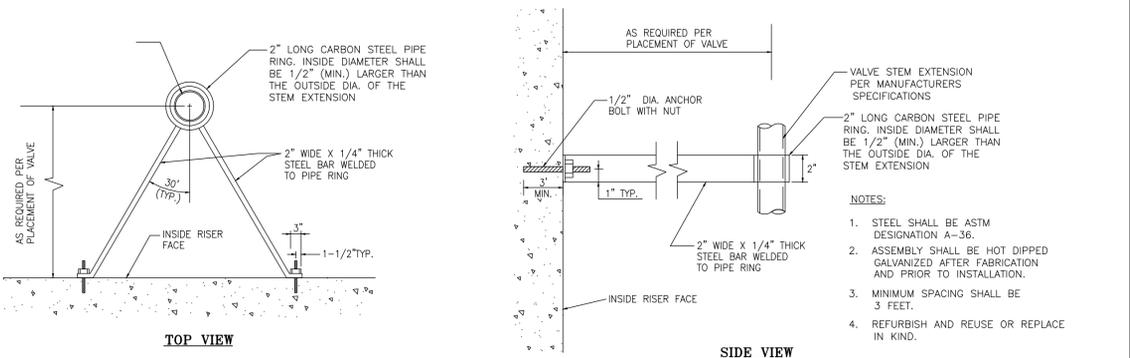
PROPOSED MINI RISER DETAIL (MR)

SCALE: 1"=2'



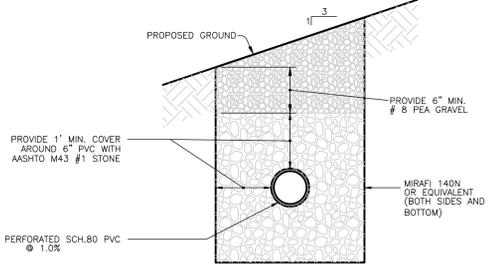
PROPOSED MINI RISER PLAN VIEW

SCALE: 1"=2'



VALVE STEM EXTENSION GUIDE DETAIL

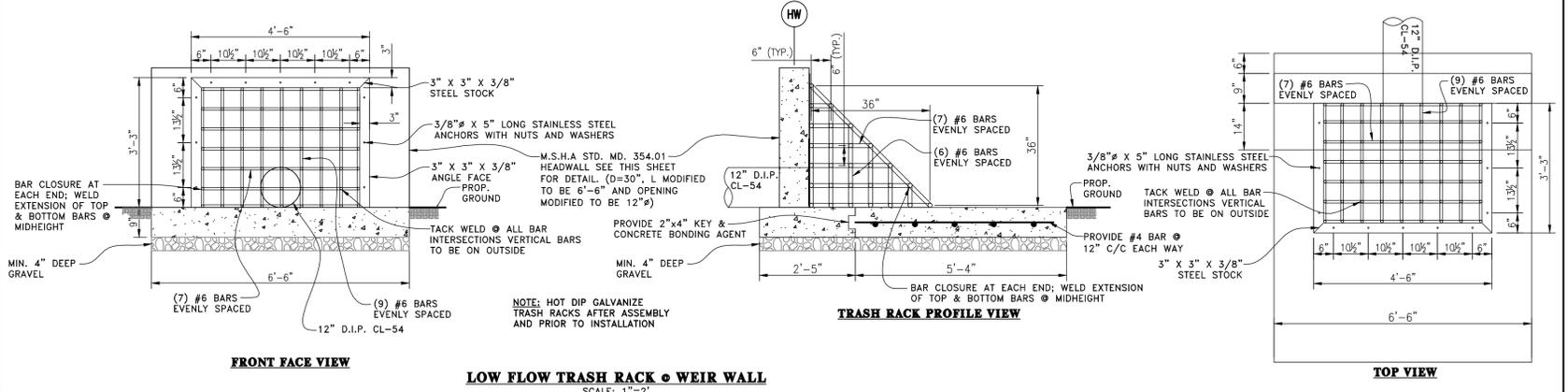
NOT TO SCALE



TILE DRAIN DETAIL

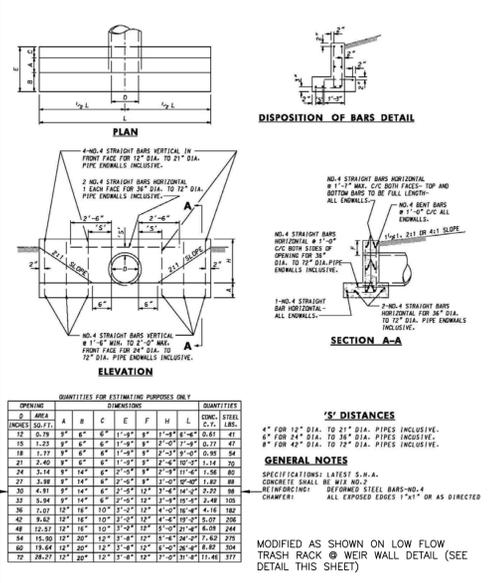
PVC SCH 80 PERFORATION DETAIL

(SCALE: 1"=1')



LOW FLOW TRASH RACK & WEIR WALL

SCALE: 1"=2'



DISPOSITION OF BARS DETAIL

OPENING	AREA	A	B	C	F	H	CONC. (CY)	STRENGTH
12	15.71	6"	6"	12"	12"	12"	2.71	1800
15	22.5	6"	6"	15"	15"	15"	4.71	1800
18	31.42	6"	6"	18"	18"	18"	6.71	1800
21	42.41	6"	6"	21"	21"	21"	8.71	1800
24	55.51	6"	6"	24"	24"	24"	10.71	1800
27	70.71	6"	6"	27"	27"	27"	12.71	1800
30	88.01	6"	6"	30"	30"	30"	14.71	1800
33	107.41	6"	6"	33"	33"	33"	16.71	1800
36	128.81	6"	6"	36"	36"	36"	18.71	1800
39	152.21	6"	6"	39"	39"	39"	20.71	1800
42	177.61	6"	6"	42"	42"	42"	22.71	1800
45	205.01	6"	6"	45"	45"	45"	24.71	1800
48	234.41	6"	6"	48"	48"	48"	26.71	1800
51	265.81	6"	6"	51"	51"	51"	28.71	1800
54	299.21	6"	6"	54"	54"	54"	30.71	1800
57	334.61	6"	6"	57"	57"	57"	32.71	1800
60	372.01	6"	6"	60"	60"	60"	34.71	1800
63	411.41	6"	6"	63"	63"	63"	36.71	1800
66	452.81	6"	6"	66"	66"	66"	38.71	1800
69	496.21	6"	6"	69"	69"	69"	40.71	1800
72	541.61	6"	6"	72"	72"	72"	42.71	1800

STANDARD TYPE C ENDWALL METAL OR CONCRETE ROUND PIPE

STANDARD NO. MD 354.01

MARYLAND Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

APPROVED: [Signature] DATE: 12/12/12

DESIGNED BY: [Signature] DATE: 12/12/12

CHECKED BY: [Signature] DATE: 12/12/12

DATE: 12/12/12

SCALE: 1"=1'

NOT TO SCALE

NOTE: HOT DIP GALVANIZE TRASH RACKS AFTER ASSEMBLY AND PRIOR TO INSTALLATION

NOTE: PROVIDE 2"x4" KEY & CONCRETE BONDING AGENT

NOTE: TACK WELD ALL BAR INTERSECTIONS VERTICAL BARS TO BE ON OUTSIDE

NOTE: BAR CLOSURE AT EACH END; WELD EXTENSION OF TOP & BOTTOM BARS @ MIDHEIGHT

NOTE: TACK WELD @ ALL BAR INTERSECTIONS VERTICAL BARS TO BE ON OUTSIDE

NOTE: PROVIDE #4 BAR @ 12" C/C EACH WAY

NOTE: 3" x 3" x 3/8" STEEL STOCK

NOTE: 3/8" x 5" LONG STAINLESS STEEL ANCHORS WITH NUTS AND WASHERS

NOTE: M.S.H.A. STD. MD. 354.01 HEADWALL SEE THIS SHEET FOR DETAIL (D=30", L MODIFIED TO BE 6'-6" AND OPENING MODIFIED TO BE 12")

NOTE: TACK WELD @ ALL BAR INTERSECTIONS VERTICAL BARS TO BE ON OUTSIDE

NOTE: 3" x 3" x 3/8" ANGLE FACE PROP. GROUND

NOTE: 3" x 3" x 3/8" STEEL STOCK

NOTE: (7) #6 BARS EVENLY SPACED

NOTE: (9) #6 BARS EVENLY SPACED

NOTE: 12" D.I.P. CL-54

NOTE: 6" (TYP.)

NOTE: 6" (TYP.)

NOTE: 36"

NOTE: 3/8" x 5" LONG STAINLESS STEEL ANCHORS WITH NUTS AND WASHERS

NOTE: TACK WELD @ ALL BAR INTERSECTIONS VERTICAL BARS TO BE ON OUTSIDE

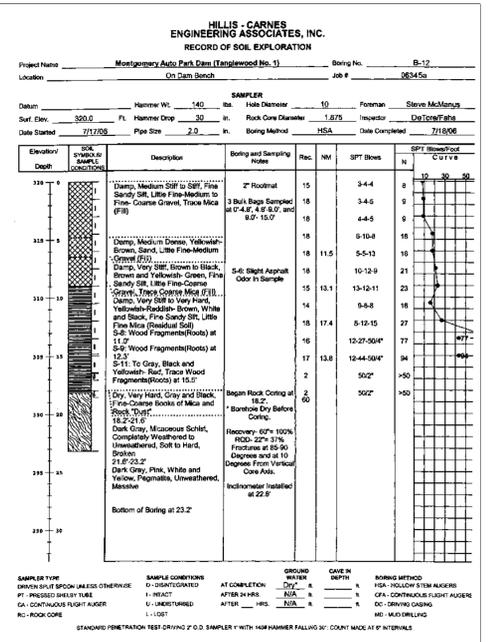
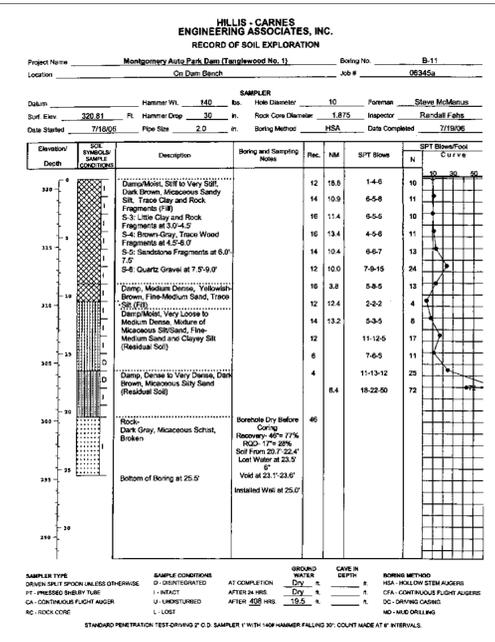
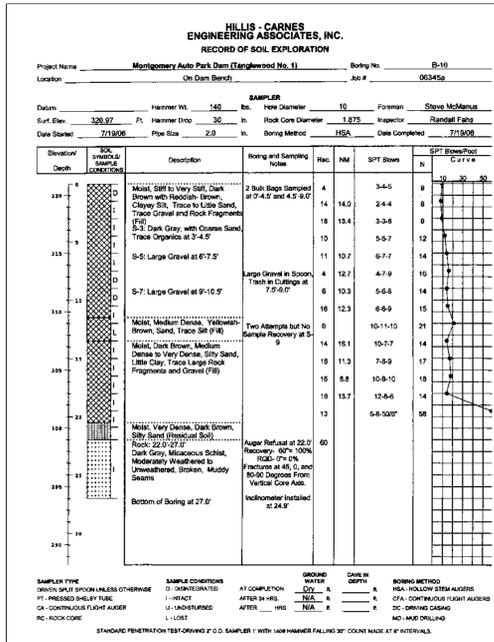
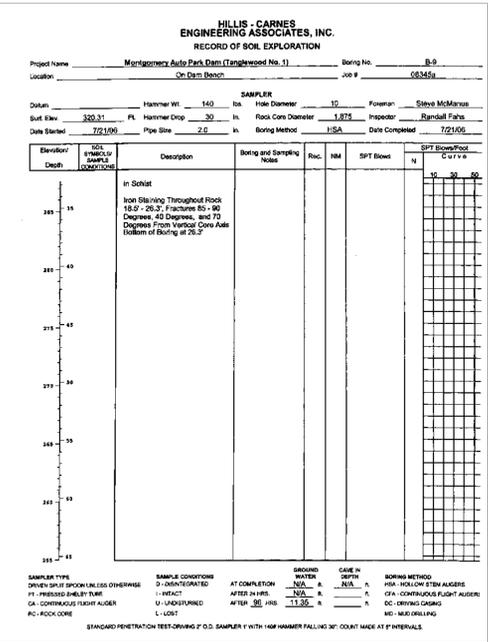
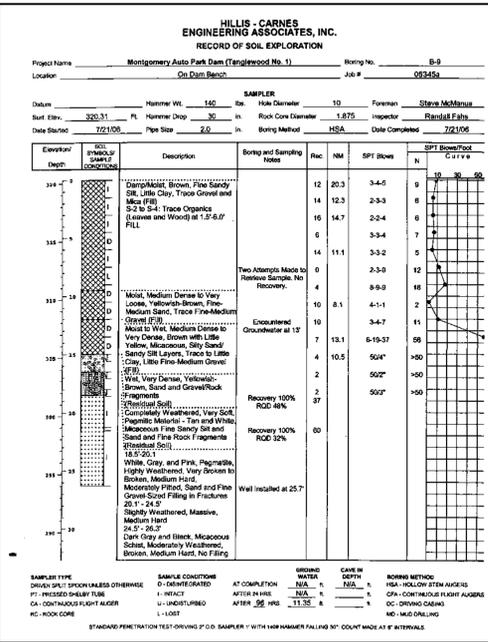
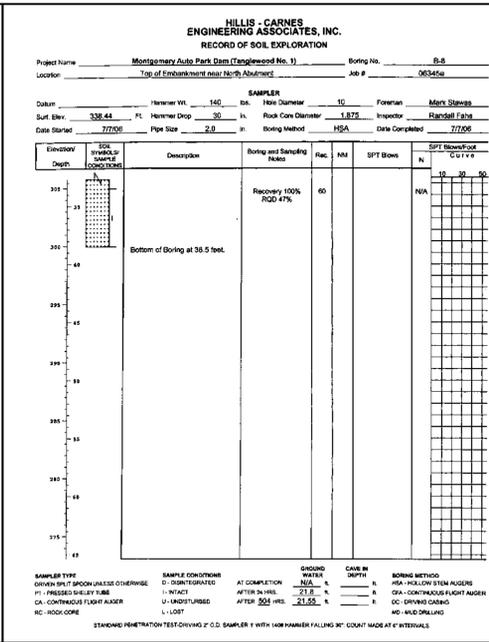
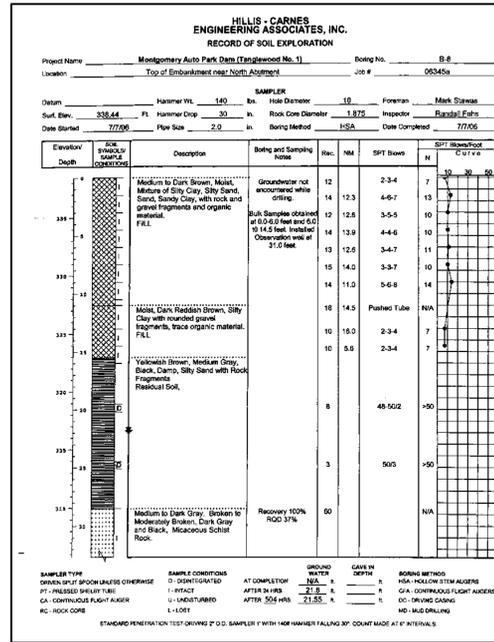
NOTE: PROVIDE #4 BAR @ 12" C/C EACH WAY

NOTE: 3" x 3" x 3/8" STEEL STOCK

NOTE: 6'-6"

NOTE: 4'-6"

NOTE: 6'-6"



MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

PLANS APPROVED BY
Harold V. Van Aller, P.E.
December 3, 2012
Dam Safety Division
Maryland Dept. of the Environment



SOIL BORING LOGS (2)
DAM MODIFICATION AND REHABILITATION PLAN (2012)
MD DAM #433
MONTGOMERY AUTO PARK DAM
COLESVILLE (5th) ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

CPJ Associates Charles P. Johnson & Associates, Inc.
Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors
1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301.434.7000 Fax: 301.434.9394
www.cpja.com • Silver Spring, MD • Gaithersburg, MD • Frederick, MD • Fairfax, VA

CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENE GOPPENKO TELEPHONE: (240) 777-7725	PRELIMINARY PLAN NO: N/A SITE PLAN NO: N/A	DESIGN: JBB DRAFT: MEP	SHEET: 22 OF 24
DATE: NOV. 2012	FILE NO: 40-271-241	SCALE: N/A	



PLANT SCHEDULE

ZONE 2 - 0'-12" BELOW WSEL	QTY	BOTANICAL NAME	COMMON NAME	CONT	REMARKS
	1,192	Carex stricta	Tussock Sedge	1 gal@ 18" oc	
	695	Chelone glabra	White Turtle-head	1 gal@ 18" oc	
	1,482	Lobelia cardinalis	Cardinal Flower	1 gal@ 18" oc	
ZONE 3 - 0'-12" ABOVE WSEL	QTY	BOTANICAL NAME	COMMON NAME	CONT	REMARKS
	1,751	Coreopsis verticillata	Tickseed	1 gal@ 18" oc	
	792	Lobelia siphilitica	Great Lobelia	1 gal@ 18" oc	
	1,100	Verbena hastata	Blue Vervain	1 gal@ 18" oc	
ZONE 4 - 1'-4" ABOVE WSEL	QTY	BOTANICAL NAME	COMMON NAME	CONT	REMARKS
	944	Aquilegia canadensis	Canadian Columbine	1 gal@ 18" oc	

NOTES

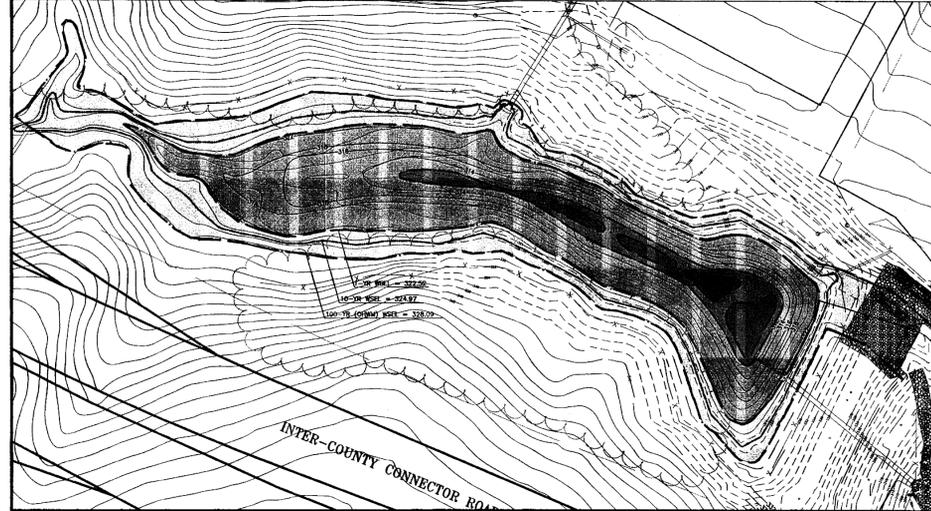
- 1) Plant list categories reflect the lowest zone each plant will tolerate. However, plants may cross into multiple planting zones. See planting plan for actual limits of all plant materials.
- 2) All disturbed areas shall be seeded, unless noted otherwise on the plan.
- 3) No mulch shall be used anywhere on this project.

LEGEND

PROPOSED CONTOURS	
EXISTING 2' CONTOURS	
EXISTING 10' CONTOURS	
EXISTING LIDAR CONTOURS	
EXISTING TREELINE	
EXISTING STORMDRAIN	
EXISTING SEWER LINE	
EXISTING SEWER MANHOLE	
EXISTING STREAM	
EXISTING FENCE	
PROPOSED RIPRAP	
EXISTING RIPRAP	
PROPOSED STORM DRAIN	
LIMIT OF DISTURBANCE (L.O.D.)	

Hydrologic Zones (N.T.S.)

Zone #	Zone Description	Hydrologic Conditions
1	Deep Water Pool	1'-6 ft Depth Below Normal Pool Elevation
2	Shallow Water Bench (Low Marsh)	0'-12" Depth Below Normal Pool Elevation
3	Shoreline Fringe (High Marsh)	0'-12" Elevation Above Normal Pool Elevation (Regularly Inundated)
4	Riparian Fringe	1'-4 ft Elevation Above Normal Pool Elevation (Periodically Inundated)
5	Floodplain Terrace	2yr to 10yr Water Surface Elevation (Infrequently Inundated)
6	Upland Slopes	100yr Water Surface Elevation and Above (Seldom or Never Inundated)



LANDSCAPE ARCHITECT CERTIFICATE
 I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT AND TAKEN FROM AVAILABLE PLANS AND RECORDS.
 ADAM J. MORMAN
 REGISTERED LANDSCAPE ARCHITECT
 MD. #3189
 2/15/12
 DATE



WETLAND PLANTING & LANDSCAPING PLAN
DAM MODIFICATION AND REHABILITATION PLAN (2012)
 MD DAM # 433
MONTGOMERY AUTO PARK DAM
 COLESVILLE (5th) ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:
Reviewed _____ Date _____	Reviewed _____ Date _____	Reviewed _____ Date _____
Approved _____ Date _____	Approved _____ Date _____	SEDIMENT CONTROL PERMIT No. _____

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.
 MCDPS APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE OF APPROVAL. IF THE PROJECT HAS NOT STARTED, UNLESS THE PERMIT HAS BEEN EXTENDED, REPRODUCTION IS PROHIBITED.

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CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 255 ROCKVILLE PIKE SUITE 120
 ROCKVILLE, MD 20850
 CONTACT: GENE GOPENKO
 TELEPHONE: (240) 777.7723

PRELIMINARY PLAN NO. N/A SITE PLAN NO. N/A
 DESIGN LET SHEET 23 OF 24
 DRAFT LET
 DATE FEB. 2012
 SCALE 1"=20' FILE NO.: 40-271-24.1

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MISS UTILITY
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PLANS APPROVED BY
 Harald W. Van Aller, P.E.
 December 3, 2012
 Dam Safety Division
 Maryland Dept. of the Environment

LANDSCAPE NOTES

- ALL PLANT MATERIAL SHALL CONFORM TO THE SIZES GIVEN IN THE PLANT LIST AND SHALL BE IN ACCORDANCE WITH THE "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION.
- ALL PLANTING SHALL BE IN ACCORDANCE WITH STANDARD AMERICAN ASSOCIATION OF NURSERYMEN PROCEDURES AND SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY THE CORRECT LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO INSTALLATION OF ANY PLANT MATERIALS.
- ALL PLANT BEDS AND PLANTING AREAS TO BE MULCHED TO A DEPTH OF 3", UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFICATIONS.
- ALL DISTURBED AREAS SHALL BE FINE GRADED AND SEEDED OR SODDED AS NOTED ON THE PLANTING PLAN.
- ALL DISTURBED AREAS SHALL BE CONTAINED WITH A SPADED EDGE UNLESS OTHERWISE NOTED ON DRAWINGS.
- OBTAIN APPROVAL FROM THE LANDSCAPE ARCHITECT BEFORE MAKING ANY SUBSTITUTIONS OR CHANGES.
- QUANTITIES SHOWN ON PLANT LIST ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY AND ARE NOT GUARANTEED TO BE ACCURATE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLAN AND QUANTITIES SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL APPLY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING OUT THE LOCATION OF EACH PLANT. THE STAKEOUT SHALL CLEARLY IDENTIFY THE TYPE OF PLANT. THE STAKEOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY PLANT.
- PLANTS SHALL NOT BE INSTALLED ON TOP OF DRAINAGE PIPES, UNDERDRAIN OUTLET PIPES, PERMANENT ROAD DRAINS, UNDERGROUND UTILITIES, CONDUIT, ETC.

LANDSCAPE SPECIFICATIONS

LANDSCAPE SPECIFICATIONS SHALL BE AS OUTLINED BELOW. ANY ITEM OR PROCEDURE NOT MENTIONED BELOW SHALL BE AS SPECIFIED IN THE LANDSCAPE SPECIFICATIONS GUIDELINES PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION (LATEST EDITION).

PLANT MATERIALS

THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP, AND TRANSPLANT ALL OF THE PLANT MATERIALS CALLED FOR ON THE DRAWINGS AND/OR LISTED IN THE PLANT SCHEDULE.

PLANT NAMES

PLANT NAMES USED IN THE PLANT SCHEDULE SHALL BE IDENTIFIED IN ACCORDANCE WITH HORTUS THIRD, BY L.H. BAILEY, 1976.

PLANT STANDARDS

ALL PLANT MATERIALS SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (HEREAFTER REFERRED TO AS AAN STANDARDS). ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, SHALL HAVE A NORMAL HABIT OF GROWTH, AND SHALL BE OF GOOD QUALITY, SOUND, VIGOROUS, WELL-BRANCHED AND WITH HEALTHY, WELL-FURNISHED ROOT SYSTEMS. THEY SHALL BE FREE OF DISEASE, INSECT PESTS AND MECHANICAL INJURIES.

ALL PLANTS SHALL BE NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER THE SAME CLIMATIC CONDITIONS AS THE LOCATIONS OF THIS PROJECT FOR AT LEAST TWO YEARS BEFORE PLANTING. NEITHER HEEL-IN PLANTS NOR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

COLLECTED PLANTS OR TRANSPLANTED TREES MAY BE CALLED FOR BY THE LANDSCAPE ARCHITECT AND USED, PROVIDED, HOWEVER, THAT LOCATIONS AND SOIL CONDITIONS WILL PERMIT PROPER BALLING.

PLANT MEASUREMENTS

ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE.

ALL PLANT MATERIAL SHALL GENERALLY AVERAGE THE MEDIAN FOR THE SIZE RANGES INDICATED ABOVE AND AS INDICATED IN THE "AAN STANDARDS."

PLANTING METHODS

ALL PROPOSED PLANT MATERIAL THAT MEETS THE SPECIFICATIONS IN THE SECOND PARAGRAPH OF PLANT STANDARDS (ABOVE) ARE TO BE PLANTED IN ACCORDANCE WITH THE FOLLOWING PLANTING METHODS DURING THE PROPER SEASONS AS DESCRIBED BELOW.

PLANTING SEASONS

A PROFESSIONAL HORTICULTURALIST/NURSERYMAN SHALL BE CONSULTED TO DETERMINE THE PROPER TIME, BASED ON PLANT SPECIES AND WEATHER CONDITIONS, TO MOVE AND INSTALL PARTICULAR PLANT MATERIAL TO MINIMIZE STRESS TO THE PLANT. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING THE WINTER MONTHS, PROVIDED THERE IS NO FROST IN THE GROUND AND FROST-FREE TOP SOIL PLANTING MIXTURES ARE USED.

DIGGING

ALL PLANT MATERIAL SHALL BE DUG, BALLED AND BURLAPPED (B4B) OR BARE ROOT IN ACCORDANCE WITH THE "AAN STANDARDS."

EXCAVATION OF PLANT PITS

THE LANDSCAPE CONTRACTOR SHALL EXCAVATE ALL PLANT PITS, VINE PITS, HEDGE TRENCHES AND SHRUB BEDS AS FOLLOWS:

ALL PITS SHALL BE GENERALLY CIRCULAR IN OUTLINE, WITH VERTICAL SIDES. THE TREE PIT SHALL BE DEEP ENOUGH TO ALLOW 1/8" OF THE BALL TO BE ABOVE THE EXISTING GRADE. PLANTS SHALL REST ON UNDISTURBED & EXISTING SOIL OR WELL COMPACTED BACKFILL. THE TREE PIT MUST BE A MINIMUM OF NINE (9) INCHES LARGER ON EVERY SIDE THAN THE BALL OF THE TREE.

IF AREAS ARE DESIGNATED AS SHRUB BEDS OR HEDGE TRENCHES, THEY SHALL BE CULTIVATED TO AT LEAST 1 8" DEPTH MINIMUM. AREAS DESIGNATED FOR GROUNDCOVERS AND VINES SHALL BE CULTIVATED TO AT LEAST 1 2" IN DEPTH MINIMUM.

STAKING, GUYING AND WRAPPING

SEE THE LANDSCAPE SPECIFICATION GUIDELINES

PLANT PRUNING, EDGING AND MULCHING

EACH TREE, SHRUB OR VINE SHALL BE PRUNED IN AN APPROPRIATE MANNER TO ITS PARTICULAR REQUIREMENTS, IN ACCORDANCE WITH ACCEPTED STANDARD PRACTICE. BROKEN OR BRUISED BRANCHES SHALL BE REMOVED WITH CLEAN CUTS MADE ON AN ANGLE FROM THE BARK RIDGE TO THE BRANCH COLLAR, NO FLUSH CUTS, TO MINIMIZE THE AREA CUT. ALL CUTS SHALL BE MADE WITH SHARP TOOLS. TRIM ALL EDGES SMOOTH. NO "TREE WOUND" SHALL BE APPLIED.

ALL TRENCHES AND SHRUB BEDS SHALL BE EDGED AND CULTIVATED TO THE LINES SHOWN ON THE DRAWING. THE AREAS AROUND ISOLATED PLANTS SHALL BE EDGED AND CULTIVATED TO THE FILL DIAMETER OF THE PIT. SOD WHICH HAS BEEN REMOVED AND STACKED SHALL BE USED TO TRIM THE EDGES OF ALL EXCAVATED AREAS TO THE NEAT LINES OF THE PLANT PIT SAUCERS, THE EDGES OF THE SHRUB AREAS, HEDGE TRENCHES AND VINE POCKETS.

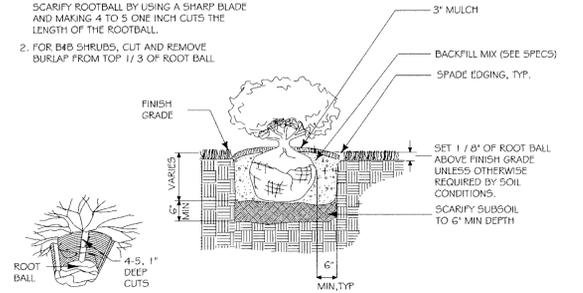
AFTER CULTIVATION, ALL PLANT MATERIALS SHALL BE MULCHED WITH A 2"-3" LAYER OF TAN BARK, PEAT MOSS, OR ANOTHER APPROVED MATERIAL OVER THE ENTIRE AREA OF THE BED OR SAUCER.

SEEDING AND SODDING

ALL SEEDING AND SODDING SHALL BE AS PER "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN URBANIZING AREAS" AS PUBLISHED BY THE MARYLAND DEPARTMENTS OF NATURAL RESOURCES.

NOTES:

- FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-BIODEGRADABLE CONTAINERS AND SCARIFY ROOTBALL BY USING A SHARP BLADE AND MAKING 4 TO 5 ONE INCH CUTS THE LENGTH OF THE ROOTBALL.
- FOR B4B SHRUBS, CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL.



SHRUB PLANTING DETAIL

NOT TO SCALE

PLANS APPROVED BY
Harold W. Van Aller, P.E.
December 3, 2012
Dam Safety Division
Maryland Dept. of the Environment

LANDSCAPE ARCHITECT CERTIFICATE

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT AND TAKEN FROM AVAILABLE PLANS AND RECORDS.

ADAM J. MORMAN
REGISTERED LANDSCAPE ARCHITECT
MD. #3189

2/6/12
DATE

Seal not valid without signature

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:			NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.			
Stormwater Management	Sediment Control Technical Requirements	Administrative Requirements	Reviewed	Date	Reviewed	Date
Reviewed	Date	Approved	Date	Sediment Control Permit No.		
Approved	Date					
S.W. Title No.			WRITTEN APPROVAL OF THIS PLAN IS REQUIRED AND SHALL BE THE DATE OF APPROVAL IF THE PROJECT HAS NOT YET STARTED, UNLESS THE PERMIT HAS BEEN GRANTED.			

WETLAND PLANTING & LANDSCAPING PLAN
DAM MODIFICATION AND REHABILITATION PLAN (2012)
MD DAM #433
MONTGOMERY AUTO PARK DAM
COLESVILLE (5th) ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND

CPJ Charles P. Johnson & Associates, Inc.
Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors
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CLIENT: MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 255 ROCKVILLE PIKE SUITE 120 ROCKVILLE, MD 20850 CONTACT: GENE GOPENKO TELEPHONE: (240) 777-7723	PRELIMINARY PLAN NO: N/A	SITE PLAN NO: N/A
DESIGN LET	SHEET 24	OF 24
DRAFT LET		
DATE JAN., 2012		
SCALE as shown	FILE NO: 40-271-24.1	

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