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# FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLAN

## WALNUT CREEK

### PHASE FOUR

Lots 115 - 159 And  
Non-Buildable Preservation Parcel 'W' & 'X'

(A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)

ZONING: RC-DEO & RR-DEO

TAX MAP NO. 28 GRID Nos. 4, 5, 10-12, 17 AND 18 PARCEL No. 49

ROADWAY INFORMATION CHART			
ROAD NAME	CLASSIFICATION	DESIGN SPEED	R/W WIDTH
LINDERA COURT	PUBLIC ACCESS STREET	30 M.P.H.	50'
CRAPE MYRTLE COURT	PUBLIC ACCESS STREET	30 M.P.H.	50'

APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>[Signature]</i> CHIEF, BUREAU OF HIGHWAYS	4/3/13 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/15/13 DATE
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	4/12/13 DATE

#### GENERAL NOTES

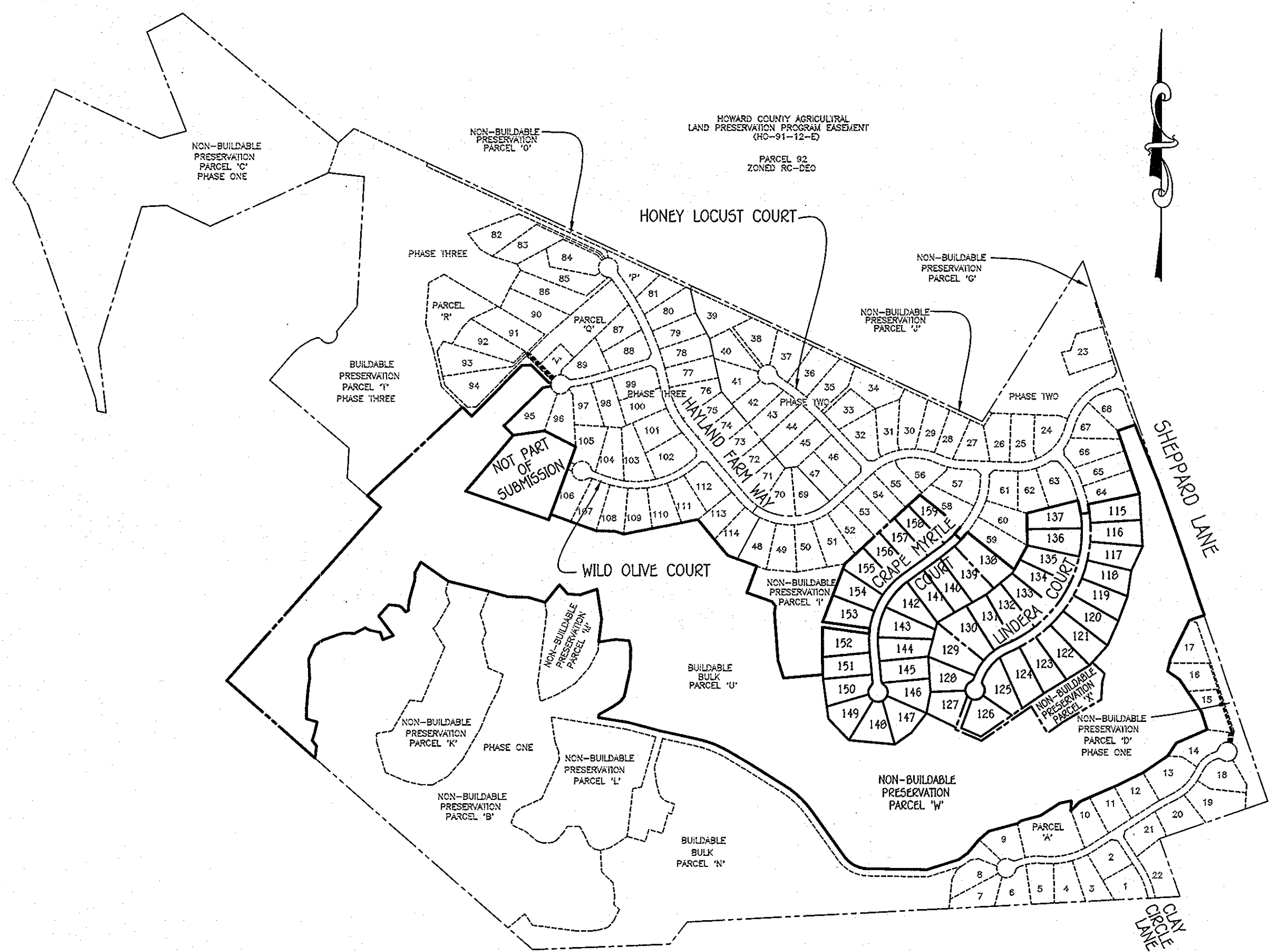
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS NSBA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- COORDINATES BASED ON NAD83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 28 FA AND NO. 28 FB.
 

HOWARD COUNTY MONUMENT NO. 28FA	N 572,455.665	ELEV. = 348.295
	E 1,328,957.66	
HOWARD COUNTY MONUMENT NO. 28FB	N 5707,028.99	ELEV. = 395.804
	E 1,329,954.63	
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED SEPTEMBER, 2005 AND WAS APPROVED UNDER SP-06-07 ON MAY 31, 2006.
- BACKGROUND INFORMATION:
  - SUBDIVISION NAME: WALNUT CREEK
  - TAX MAP NO.: 28
  - PARCEL NO.: 49
  - ZONING: RC-DEO & RR-DEO
  - ELECTION DISTRICT: FIFTH
  - TOTAL TRACT AREA: 141,214 AC. (Phase Four)
  - NO. OF BUILDABLE LOTS: 45 (Phase Four)
  - NO. OF NON-BUILDABLE PRESERVATION PARCELS: 2
  - AREA OF BUILDABLE LOTS: 35,291 AC.
  - AREA OF NON-BUILDABLE PRESERVATION PARCELS: 100,195 AC.
  - TOTAL AREA OF ROADWAY TO BE DEDICATED: 3,028
  - PREVIOUS FILE NOS.: SP-06-007 APPROVAL DATE: 5/31/06, BA-05-52E, BA-06-33E, BA-03-49E & WP-08-007 (SEE NOTE NO. 10 BUILDING, F-07-076 (Phase One), F-08-08 (Phase Two), F-13-026 (Phase Three)).
- ONE CEMETERY EXISTS WITHIN THIS SUBDIVISION (Non-Buildable Preservation Parcel 'Y', Phase Three).
  - THE DEVELOPER AND/OR THE WALNUT CREEK H.O.A. SHALL UPGRADE THE EXISTING SPLIT RAIL FENCE TO FURTHER PROTECT THE EXISTING CEMETERY SITE.
  - THE DEVELOPER AND/OR THE WALNUT CREEK H.O.A. SHALL REGULARLY MAINTAIN THE CEMETERY AREA.
  - THE DEVELOPER AND/OR THE WALNUT CREEK H.O.A. MUST PLACE A CEMETERY MARKER AT THE ENTRANCE OF THE CEMETERY SITE.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-100.
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THE ENTIRE SUBDIVISION WILL BE FULFILLED BY PROVIDING 57.32 ACRES OF ON-SITE FOREST RETENTION AND 36.16 ACRES OF ON-SITE AFFORESTATION FOR A TOTAL OF 93.48 ACRES. THERE IS NO SURETY REQUIRED FOR ON-SITE FOREST RETENTION, SURETY FOR ON-SITE AFFORESTATION @ \$0.50/SF FOR 1,775,130 SF. = \$797,565.00 IS REQUIRED. THE FOREST CONSERVATION PROVIDED WITH PHASE THREE ARE AS FOLLOWS:
 

CREDITED ON-SITE RETENTION OF 14.50 ACRES OF FOREST AND 13.41 ACRES OF ON-SITE AFFORESTATION ARE PROPOSED WITH THIS PHASE FOUR SUBMISSION.
A SURETY FOR ON-SITE AFFORESTATION @ \$0.50/SF FOR 584,140 SF. = \$292,070.00 IS REQUIRED. THE FOREST CONSERVATION SURETY IN THE AMOUNT OF \$292,070.00 IS TO BE PAID AS PART OF THE DPW DEVELOPER'S AGREEMENT.

 THIS FOREST CONSERVATION PROPOSAL IS SUBJECT TO WP-08-007, APPROVED ON AUGUST 21, 2007 TO THE FOLLOWING CONDITIONS:
  - THE MAVER PETITION APPROVAL APPLIES ONLY TO THE TEMPORARY DEFERRAL FOR ESTABLISHING THE FOREST CONSERVATION EASEMENTS FOR THIS SUBDIVISION BASED ON THE APPO PHASING SCHEDULE FOR THIS PROJECT. EACH SUBSEQUENT PHASE OF DEVELOPMENT MUST ESTABLISH A PROPORTIONATE AREA OF FOREST CONSERVATION EASEMENTS AND PROVIDE THE NECESSARY AREA OF FOREST RETENTION AND AFFORESTATION AS REQUIRED BY THE FOREST CONSERVATION WORKSHEET FOR THIS PROJECT TO SATISFY ITS OBLIGATION. THE ENTIRE AREA OF FOREST CONSERVATION OBLIGATION MUST BE PROVIDED WITH THE PROCESSING AND RECORDING OF THE LAST PHASE OF DEVELOPMENT FOR THIS PROJECT.
  - THE APPLICANT/DEVELOPER MUST CONTINUE PROCESSING THE SUBDIVISION PLANS FOR WALNUT CREEK AND MEET ALL APPLICABLE PROCESSING DEADLINE DATES IN ACCORDANCE WITH THE APPROVED APPO PHASING SCHEDULE.
- STORMWATER MANAGEMENT FACILITIES: S.H.P. NO. 2 (P-1) PRIVATELY OWNED BY THE HOMEOWNER'S ASSOCIATION AND JOINTLY MAINTAINED BY THE HOMEOWNER'S ASSOCIATION AND HOWARD COUNTY, MARYLAND.
  - WET EXTENDED DETENTION FACILITY FOR WQV & CPV. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 376 SPECIFICATIONS. REDUCED VOLUME WILL BE PROVIDED THROUGH THE USE OF GRASS CHANNELS ALONG THE PROPOSED ROADWAYS, WATER QUALITY AND CHANNEL PROTECTION VOLUME WILL BE PROVIDED BY A MICRO-POND, (EXTENDED DETENTION) POND, OVERTANK FLOOD PROTECTION VOLUME AND EXTREME FLOOD VOLUME ARE NOT REQUIRED FOR THIS SITE.
  - ON NOVEMBER 2, 2012, AN ADMINISTRATIVE WAIVER FOR STORMWATER MANAGEMENT WAS APPROVED SUBJECT TO THIS PLANS APPROVED BY MAY 4, 2013 AND CONSTRUCTION BY MAY 4, 2017.
  - FOR THOSE LOTS WHICH DO NOT DRAIN INTO THE SWM POND, SUCH AS LOTS 115-121, 123-128 AND 145-151 OF THIS PHASE IV, SWM SHALL BE PROVIDED BY EITHER THE NATURAL AREA CONSERVATION CREDIT, DISCONNECTION CREDITS AND WHEREVER THESE CREDITS CANNOT BE OBTAINED, A SURETY TO BUFFER CREDIT WITH LEVEL SPREADERS MAY BE USED.
- THE PROPOSED WATER AND SEWER SYSTEMS SHALL BE PRIVATE. SEE CONTRACT NO. 50-4530-D & 50-4773-D FOR LOW PRESSURE SYSTEM.
- THE SUBJECT PROPERTY IS LOCATED OUTSIDE OF THE METROPOLITAN DISTRICT.
- TOPOGRAPHIC CONTOURS BASED ON HARFORD AERIAL SURVEYS, INC. DATED FEBRUARY, 2004.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE IS TO BE PROVIDED AT THE DISCRETION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM DRIVEWAY.
- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HERBST BENSON & ASSOCIATES, INC., DATED SEPTEMBER, 2005 AND APPROVED ON MAY 31, 2006.
- THE FOREST STAND DELINEATION AND WETLAND DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED SEPTEMBER, 2005 AND APPROVED ON MAY 31, 2006.
- THE NON-CRITICAL FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED JULY, 2005, AND SUPPLEMENTED WITH INFORMATION OBTAINED FROM HO. CO. CAPITAL PROJECT D-1028A. THE FLOODPLAIN STUDY WAS APPROVED UNDER SP-06-007 DATED 5/31/06.
- SOILS INFORMATION TAKEN FROM SOIL MAP NO. 18, SOIL SURVEY, HOWARD COUNTY, MARYLAND, JULY 1968 ISSUE.
- THERE ARE STEEP SLOPES LOCATED ON THIS PROPERTY AS DEFINED BY "SLOPES THAT AVERAGE 25% OR GREATER OVER 10 VERTICAL FEET". PER SECTION 16.100(b)(5) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, TOTAL AREA OF 25% OR GREATER SLOPES = 8.9 AC.
- AS PER SECTION 104.F.4.B OF THE ZONING REGULATIONS, ONLY ONE EASEMENT HOLDER IS REQUIRED FOR PRESERVATION PARCELS DESIGNED SOLELY FOR SWM FACILITIES OR COMMUNITY SEWERAGE DISPOSAL SYSTEMS.
 

A. NON-BUILDABLE PRESERVATION PARCEL 'W' OWNED BY PROPERTIES, INC.	B. NON-BUILDABLE PRESERVATION PARCEL 'X' OWNED: HOMEOWNER'S ASSOCIATION
EASEMENT HOLDERS: HOWARD COUNTY, MARYLAND & HOMEOWNER'S ASSOCIATION	EASEMENT HOLDERS: HOWARD COUNTY, MARYLAND
USE: ENVIRONMENTAL CONSERVATION	USE: S.W.M.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAM OR THEIR REQUIRED BUFFERS.
- THE LANDSCAPE SURETY FOR THE 66 SHADE AND 51 EVERGREEN TREES IN THE AMOUNT OF \$27,450.00 FOR PERIMETER LANDSCAPE REQUIREMENTS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION. FINANCIAL SURETY FOR THE REQUIRED 119 STREET TREES WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$35,700.00.
- THIS SUBDIVISION PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 2004 ZONING REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE ZONING HOWARD COUNTY, MARYLAND, BILL NO. 75-2005 AND THE COMP LIFE ZONING REGULATION AMENDMENTS EFFECTIVE 7/28/06. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS OR PARCELS MUST COMPLY WITH ORDINANCE AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF A BUILDING OR GRADING PERMIT APPLICATION.
- WELLS SHALL BE DRILLED ON LOTS PRIOR TO RECORDED OF THE FINAL RECORD PLAT.
- LOTS 115 THRU 159 ARE TO BE SERVED BY A PUBLIC SHARED SEPTIC FACILITY LOCATED ON NON-BUILDABLE PRESERVATION PARCEL 'Y' (F-07-076), WALNUT CREEK, PHASE ONE.
- SIGN POSTS: ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON GALVANIZED STEEL, PRESERATED SQUARE TUBE POST (1 1/2" GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PRESERATED, SQUARE TUBE SLEEVE (1 1/2" GAUGE) - 3' LONG A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THIS PROJECT IS SUBJECT TO WASTEWATER DISCHARGE PERMIT NUMBER 06-0P-3538 AND IS EFFECTIVE FROM AUGUST 1, 2006 UNTIL AUGUST 1, 2011 WHEN IT EXPIRES. THE SHARED SEPTIC SYSTEM CONTRACT NO. IS 50-4441-D AND THE COLLECTION SYSTEM CONTRACT NO. IS 50-4773-D.
- THIS PLAN IS SUBJECT TO MAVER PETITION W/P-13-146, ON APRIL 8, 2013 THE PLANNING BOARD APPROVED A WAIVER FROM SECTION 16.144(b) - REQUIREMENT PAYMENT OF FEES AND POSTING OF FINANCIAL GUARANTEES, AND SECTION 16.144(c) - REQUIREMENT SUBMISSION OF THE FINAL SUBDIVISION PLAN FOR PRESERVATION.



PLAN VIEW

SCALE: 1" = 600'



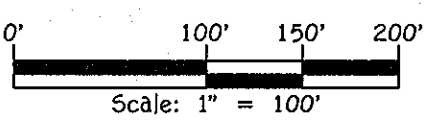
VICINITY MAP

SCALE: 1" = 2000'

## FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	SILT FENCE
---	SUPER-SILT FENCE
---	LIMIT OF DISTURBANCE
---	EARTH DIKE
---	WETLANDS BUFFER
---	WETLANDS LIMITS
---	STORM DRAIN
---	PROPOSED BORING LOCATION
---	EROSION CONTROL MATTING
---	LOW PRESSURE SEWER
---	PROPOSED STREET TREE
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	PROPOSED DRIVEWAY CULVERT

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CONTINENTAL SQUARE OFFICE PARK - 12712 WALKERSVILLE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
(410) 481 - 2895



<b>Owner</b>	<b>Developer</b>
BY Business Trust 15950 North Avenue P.O. Box 482 Lisbon, MD 21765 410-489-7900	Bässler Venture, LLC 15950 North Avenue P.O. Box 482 Lisbon, MD 21765 410-489-7900

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."



3/20/13  
DATE

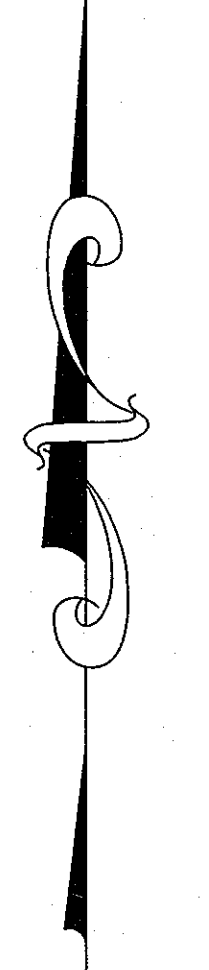
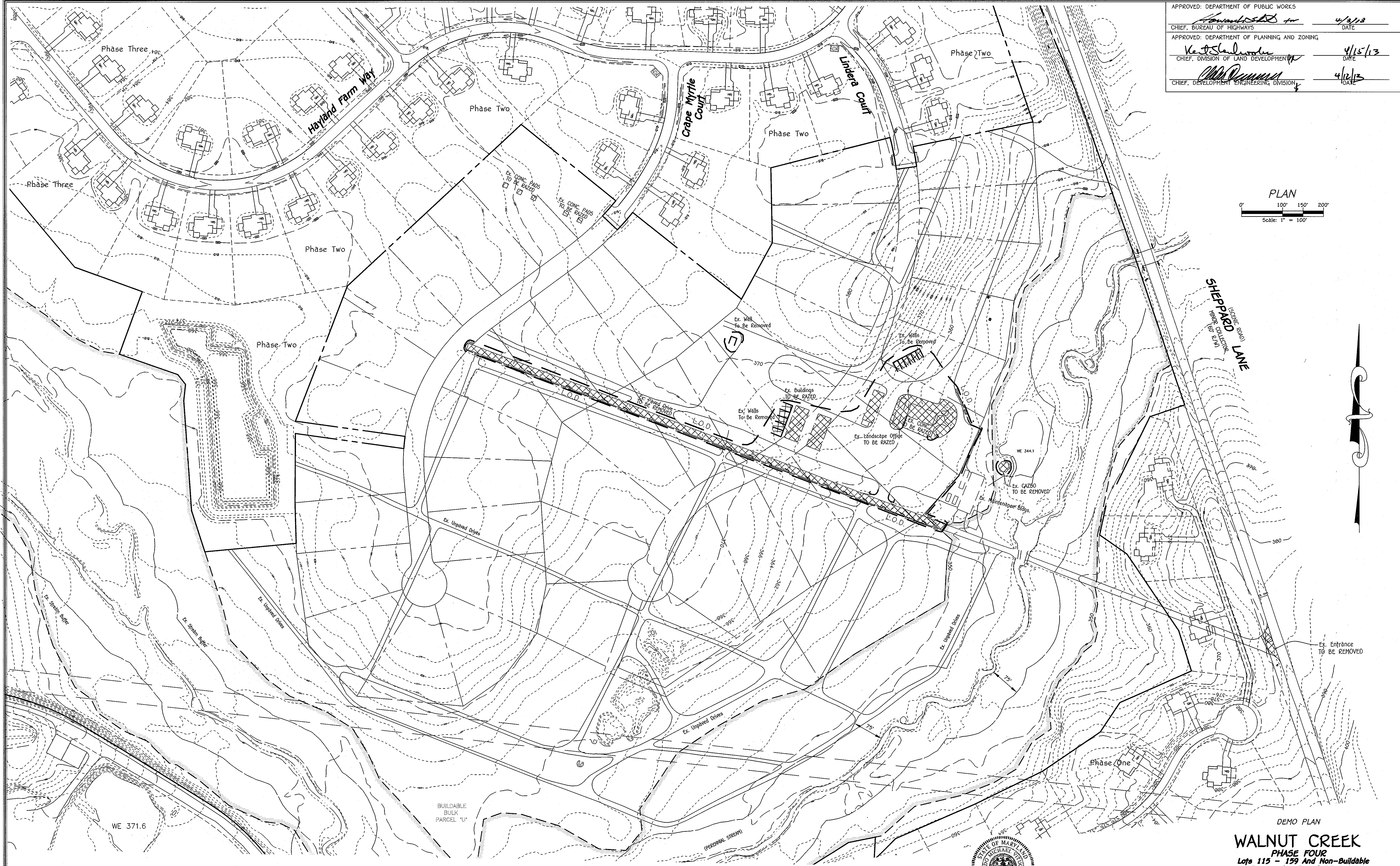
**WALNUT CREEK**  
PHASE FOUR  
Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'  
(A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
ZONED: RC-DEO & RR-DEO  
TAX MAP NO. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: MARCH 20, 2013  
SHEET 1 OF 23

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 [Signature] 4/13/13  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 4/15/13  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 4/12/13  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PLAN  
 0' 100' 150' 200'  
 Scale: 1" = 100'



DEMO PLAN  
**WALNUT CREEK**  
**PHASE FOUR**  
 Lots 115 - 159 And Non-Buildable  
 Preservation Parcel 'W' & 'X'  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & RR-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 2 OF 23

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Bassler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

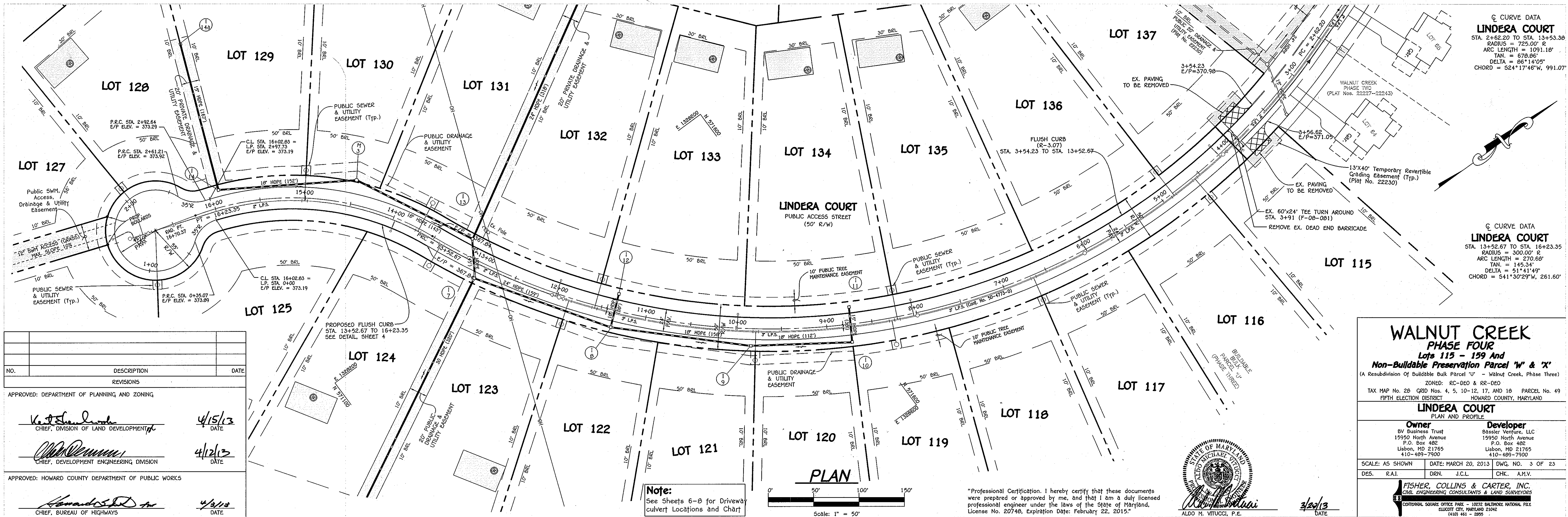
"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."



[Signature] 4/13/13  
 DATE

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE: 10272 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 481-2295

I:\2004\04001\WALNUT CREEK PHASE FOUR FINALS\C-02\_F-13-034.dwg demo plan.dwg SHEET 2, 3/20/2013 7:12:13 AM, 1:1



NO.	DESCRIPTION	DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
	<i>Kevin J. Shand</i>	4/15/13
	CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
	<i>John J. DeWitt</i>	4/12/13
	CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		
	<i>Howard S. S. S.</i>	4/3/13
	CHIEF, BUREAU OF HIGHWAYS	DATE

**WALNUT CREEK PHASE FOUR**  
Lots 115 - 159 And  
Non-Buildable Preservation Parcel 'W' & 'X'  
(A Resubdivision of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)

ZONING: RC-DEO & RR-DEO  
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FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

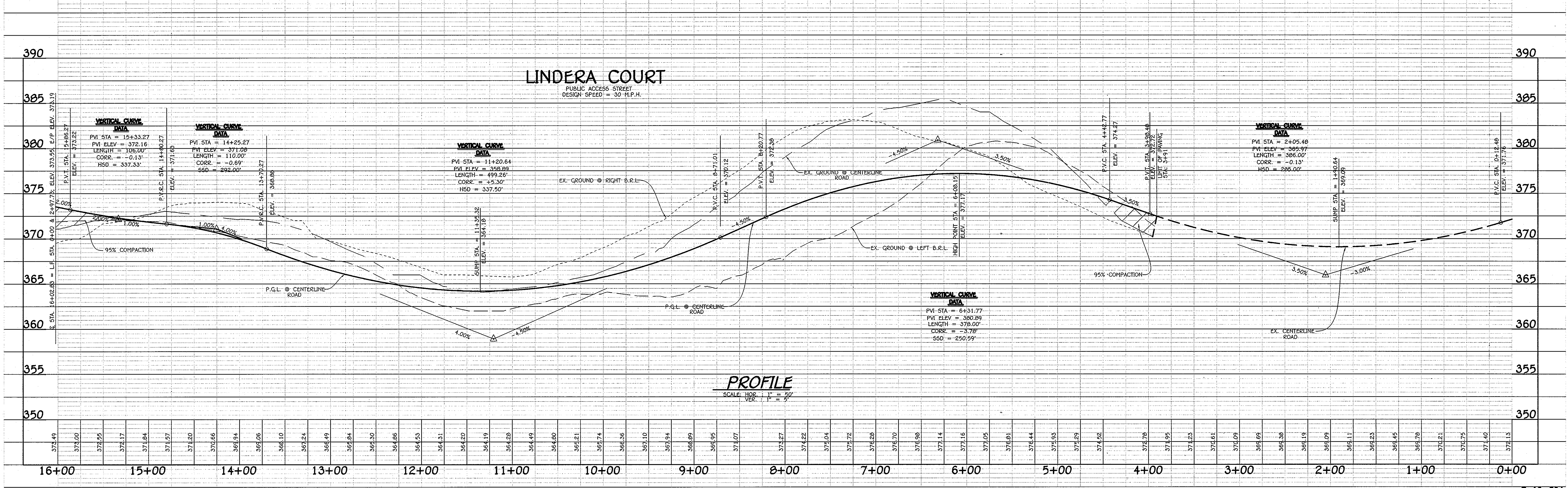
**LINDERA COURT**  
PLAN AND PROFILE

**Owner:** BV Business Trust  
15950 North Avenue  
P.O. Box 482  
Lisbon, MD 21765  
410-489-7900

**Developer:** Bassler Venture, LLC  
15950 North Avenue  
P.O. Box 482  
Lisbon, MD 21765  
410-489-7900

SCALE: AS SHOWN DATE: MARCH 20, 2013 DWG. NO. 3 OF 23  
DES. R.A.I. DRN. J.C.L. CHK. A.J.V.

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - SUITE BALTHAZAR NATIONAL PLACE  
ELKWOOD CITY, MARYLAND 21740  
(410) 481-2225



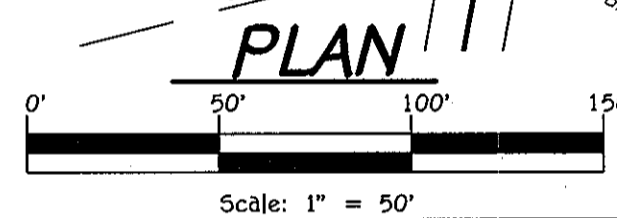
I:\2004\0401\WALNUT CREEK PHASE FOUR FINALS\C-03\_F-13-034 road plan.dwg, SHEET 3, 3/20/2013 7:14:54 AM, 11

**CRABE MYRTLE COURT**  
 STA. 2+50.12 TO STA. 5+77.71  
 RADIUS = 700.00' R  
 ARC LENGTH = 327.59'  
 TAN. = 1.65.85°  
 DELTA = 26°48'49"  
 CHORD = 540°06'25"W, 324.61'

**CRABE MYRTLE COURT**  
 STA. 8+38.29 TO STA. 12+89.54  
 RADIUS = 435.00' R  
 ARC LENGTH = 447.25'  
 TAN. = 245.65°  
 DELTA = 59°54'32"  
 CHORD = 524°03'33"W, 427.81'

NO.	DESCRIPTION	DATE
	REVISIONS	
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
	<i>W. J. Schuman</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/15/13 DATE
	<i>W. J. Schuman</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	4/12/13 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		
	<i>Howard S. ...</i> CHIEF, BUREAU OF HIGHWAYS	4/3/13 DATE

**Note:**  
 See Sheets 6-8 for Driveway  
 culvert Locations and Chart



"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."



3/24/13  
DATE

**WALNUT CREEK PHASE FOUR**  
 Lots 115 - 159 And  
 Non-Buildable Preservation Parcel 'W' & 'X'  
 (A Resubdivision of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)

ZONED: RC-DEO & RR-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CRABE MYRTLE COURT**  
 PLAN AND PROFILE

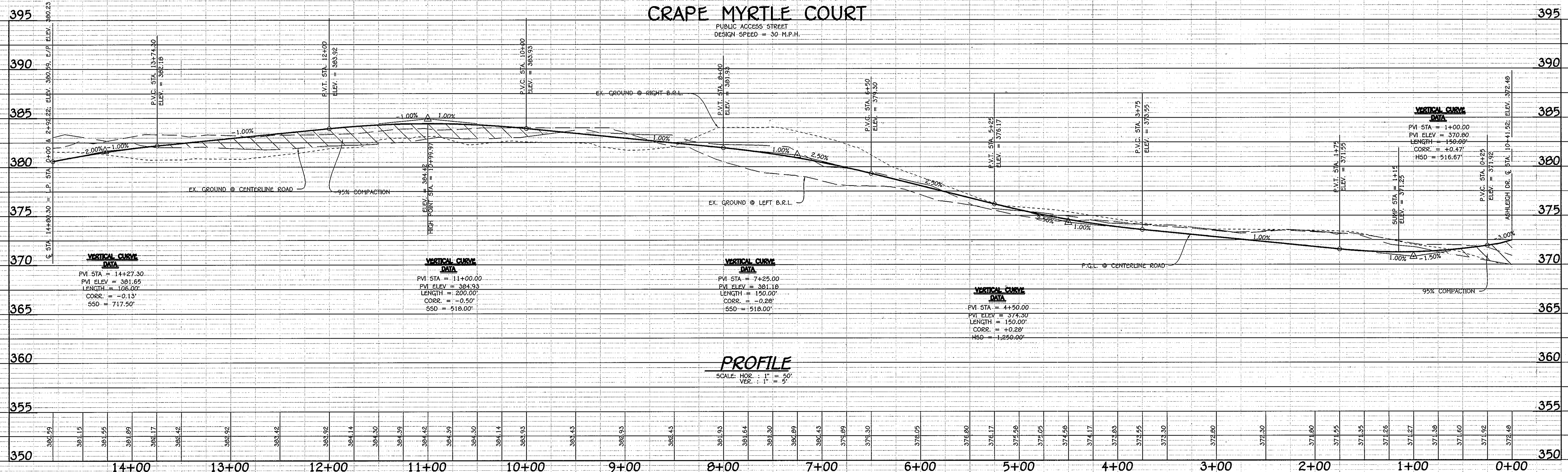
<b>Owner</b> BY Business Trust 15950 North Avenue P.O. Box 482 Lisbon, MD 21765 410-489-7900	<b>Developer</b> Baseler Venture, LLC 15950 North Avenue P.O. Box 482 Lisbon, MD 21765 410-489-7900
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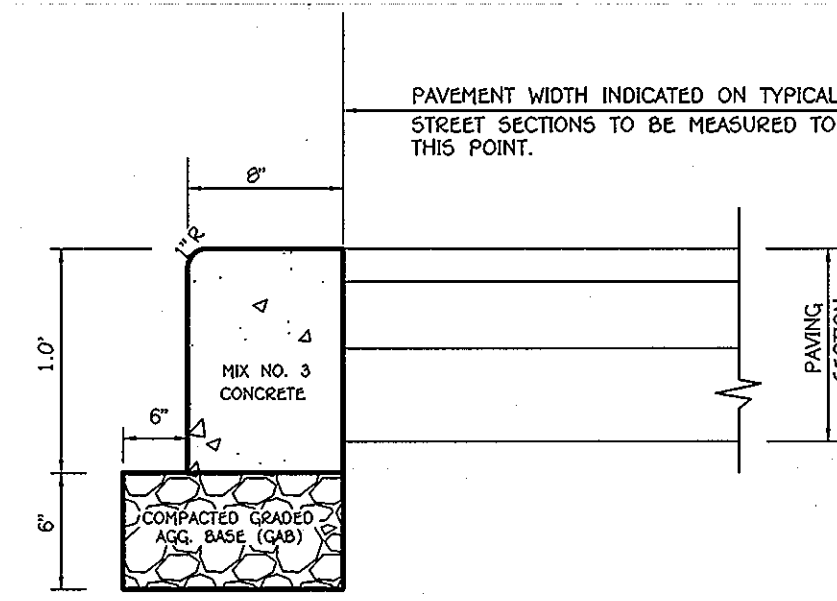
SCALE: AS SHOWN DATE: MARCH 20, 2013 DWG. NO. 4 OF 23  
 DES. R.A.I. DRN. J.C.L. CHK. A.M.V.

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10232 BALTIMORE NATIONAL PIKE  
 GAITHERSBURG CITY, MARYLAND 21040  
 (410) 461-2895

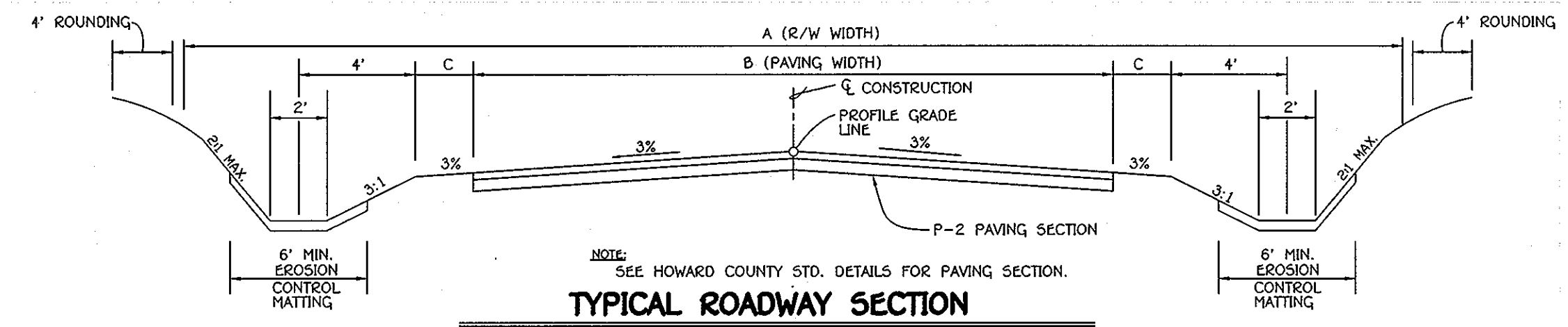
**CRABE MYRTLE COURT**

PUBLIC ACCESS STREET  
 DESIGN SPEED = 30 M.P.H.





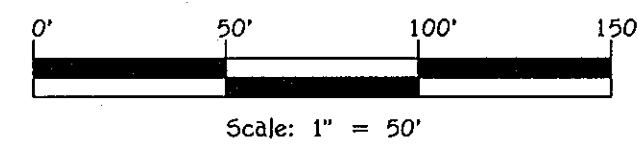
**FLUSH CURB (R-3.07)**  
NO SCALE



**TYPICAL ROADWAY SECTION**  
NO SCALE

ROADWAY INFORMATION CHART									
ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	A	B	C	± STATION LIMITS	PAVING SECTION	
LINDERA COURT	PUBLIC ACCESS STREET	30 M.P.H.	RC-DEO	20'	24'	3'	±91 TO 16+70.37	P-2	
GRAPE MYRTLE COURT	PUBLIC ACCESS STREET	30 M.P.H.	RC-DEO	20'	24'	3'	±43 TO 15+45.04	P-2	

NO.	DESCRIPTION	DATE
REVISIONS		
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
	<i>K. J. Shanley</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/15/13 DATE
	<i>M. J. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	4/12/13 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		
	<i>...</i> CHIEF, BUREAU OF HIGHWAYS	4/3/13 DATE



\*Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015.\*



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FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

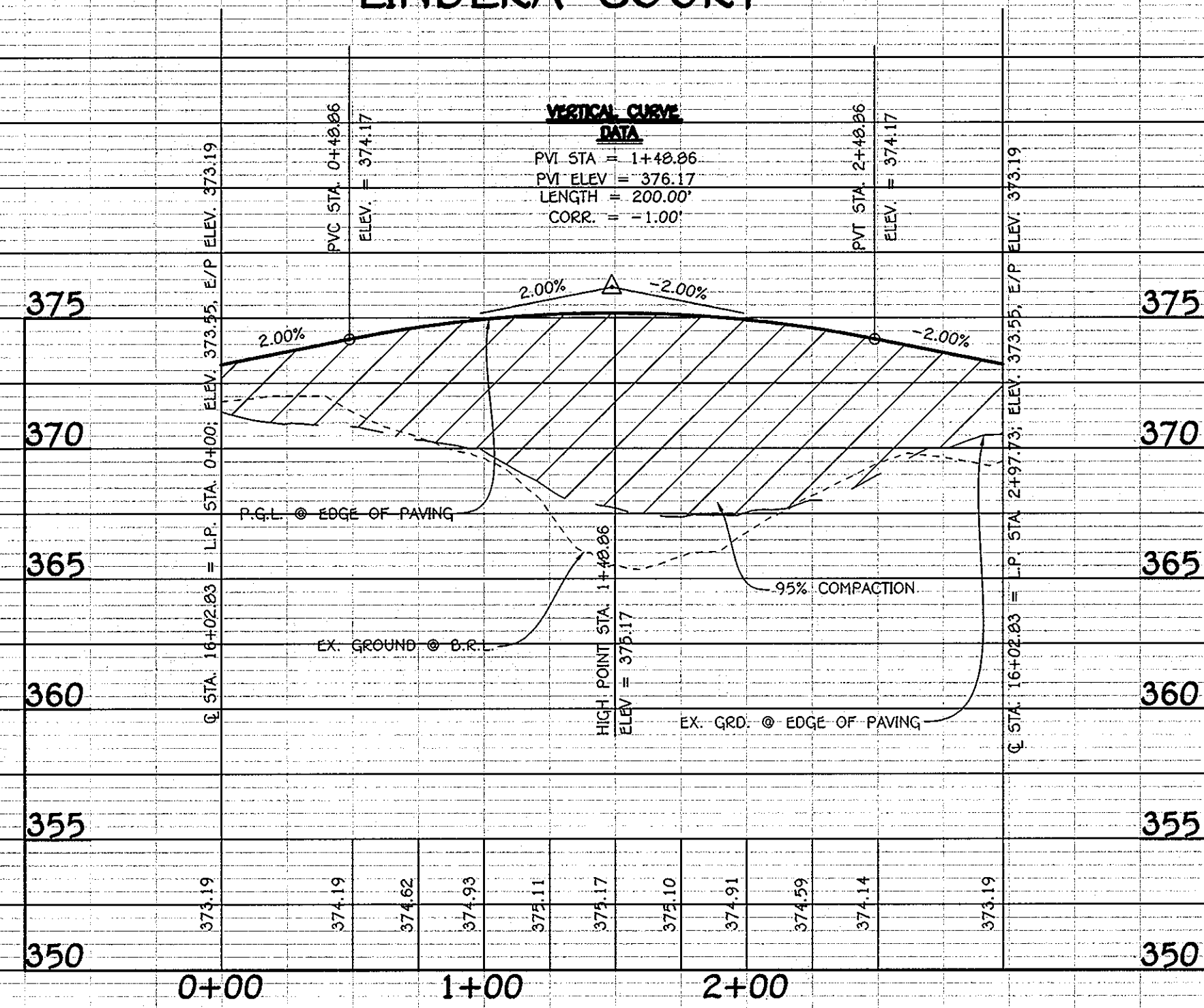
**LINEAR PROFILES & ROADWAY DETAILS**

Owner	Developer
BY Business Trust 15950 North Avenue P.O. Box 482 Lisbon, MD 21765 410-489-7900	Bassler Venture, LLC 15950 North Avenue P.O. Box 482 Lisbon, MD 21765 410-489-7900

SCALE: AS SHOWN DATE: MARCH 20, 2013 DWG. NO. 5 OF 23  
DES. R.A.I. DRN. J.C.L. CHK. A.M.V.

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
1200 NATIONAL SQUARE OFFICE FLOOR - 10725 BALTHAZAR NATIONAL Pkwy  
ELLSWORTH CITY, MARYLAND 21042  
(410) 461-2225

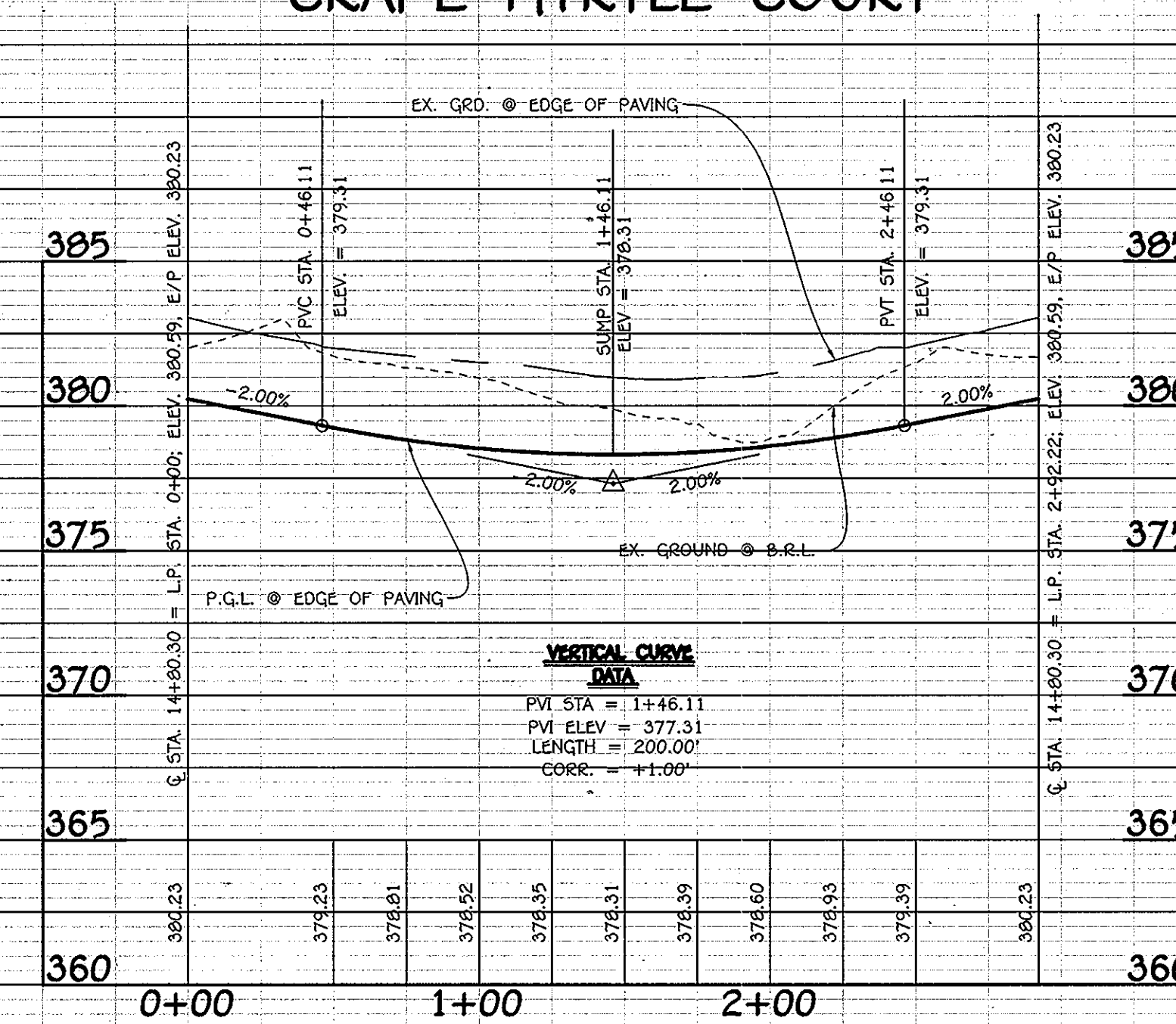
**LINDERA COURT**



**LINEAR PROFILE**

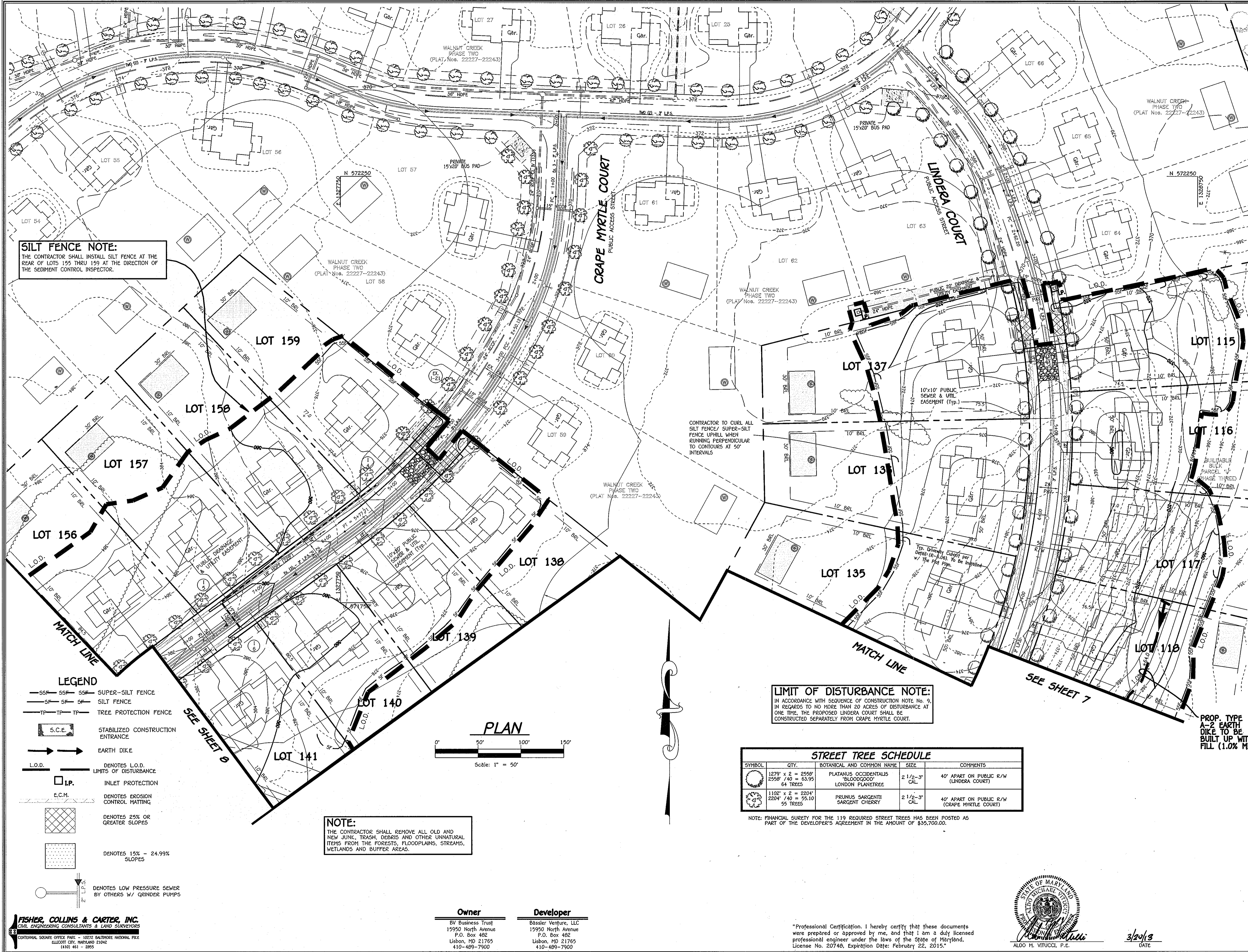
SCALE: HOR. : 1" = 50'  
VER. : 1" = 5'

**GRAPE MYRTLE COURT**



**LINEAR PROFILE**

SCALE: HOR. : 1" = 50'  
VER. : 1" = 5'



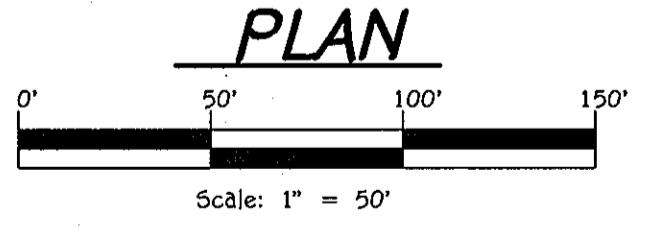
**SILT FENCE NOTE:**  
 THE CONTRACTOR SHALL INSTALL SILT FENCE AT THE REAR OF LOTS 155 THRU 159 IN THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

CONTRACTOR TO CURL ALL SILT FENCE/ SUPER-SILT FENCE UP HILL WHEN RUNNING PERPENDICULAR TO CONTOURS AT 50' INTERVALS

**LIMIT OF DISTURBANCE NOTE:**  
 IN ACCORDANCE WITH SEQUENCE OF CONSTRUCTION NO. 9, IN REGARDS TO NO MORE THAN 20 ACRES OF DISTURBANCE AT ONE TIME, THE PROPOSED LINDERA COURT SHALL BE CONSTRUCTED SEPARATELY FROM CRAPE MYRTLE COURT.

**NOTE:**  
 THE CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH, DEBRIS AND OTHER UNNATURAL ITEMS FROM THE FORESTS, FLOODPLAINS, STREAMS, WETLANDS AND BUFFER AREAS.

- LEGEND**
- SS— SUPER-SILT FENCE
  - SF— SILT FENCE
  - TF— TREE PROTECTION FENCE
  - S.C.E. STABILIZED CONSTRUCTION ENTRANCE
  - EARTH DIKE
  - L.O.D. DENOTES L.O.D. LIMITS OF DISTURBANCE
  - IP. INLET PROTECTION
  - E.C.M. DENOTES EROSION CONTROL MATTING
  - Denotes 25% OR GREATER SLOPES
  - Denotes 15% - 24.99% SLOPES
  - Denotes LOW PRESSURE SEWER BY OTHERS W/ GRINDER PUMPS



**STREET TREE SCHEDULE**

SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
	1279' x 2 = 2558' 2558' / 40 = 63.95 64 TREES	PLATANUS OCCIDENTALIS "BLOODGOOD" LONDON PLANETREE	2 1/2"-3" CAL.	40' APART ON PUBLIC R/W (LINDERA COURT)
	1102' x 2 = 2204' 2204' / 40 = 55.10 55 TREES	PRUNUS SARGENTII SARGENT CHERRY	2 1/2"-3" CAL.	40' APART ON PUBLIC R/W (CRAPE MYRTLE COURT)

NOTE: FINANCIAL SURETY FOR THE 119 REQUIRED STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$35,700.00.

By the Developer:  
 I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.

Signature of Developer: *Timothy W Feaga* 3/24/13  
 Printed Name of Developer: **Timothy W Feaga**

By the Engineer:  
 I Certify That This Plan For Road Construction, Erosion And Sediment Control Represents A Practical And Feasible Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion.

Signature of Engineer: *John R. Roberts* 3/29/13  
 Printed Name of Engineer: **John R. Roberts**

Approved: Department of Public Works  
 Signature: *[Signature]* 4/3/12  
 Chief, Bureau of Highways

Approved: Department of Planning And Zoning  
 Signature: *[Signature]* 4/15/13  
 Chief, Division Of Land Development

Approved: Department of Engineering  
 Signature: *[Signature]* 4/12/13  
 Chief, Department Engineering Division

**AS-BUILT CERTIFICATION**  
 I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

Signature: \_\_\_\_\_ P.E. No. \_\_\_\_\_  
 Date: \_\_\_\_\_

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or Imply A Guarantee Of The Engineer Nor Does An Engineer's Certification Release Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

REVISIONS

NO.	DESCRIPTION	DATE

**Walnut Creek - Phase 4  
 Driveway Culverts**

Lot	Slope (%)	Q10 (cfs)	DW Pipe Size
115	3.33	2.4	15" CMP
116	2.86	1.9	15" CMP
117	TOVC	0.2	NO PIPE
118	1.8	1.5	15" CMP
119	3.85	2.6	15" CMP
120	3.33	1.2	15" CMP
121	2.08	0.6	STANDARD
122	1.44	1.9	15" CMP
123	2.80	3.3	15" CMP
124	4.00	6.0	15" CMP
125	1.70	2.5	15" CMP
126	TOVC	0.8	NO PIPE
127	TOVC	0.4	NO PIPE
128	2.50	1.3	STANDARD
129	1.53	0.6	STANDARD
130	2.85	1.0	STANDARD
131	3.33	1.3	STANDARD
132	3.33	1.8	STANDARD
133	3.33	4.4	15" CMP
134	4.34	0.3	STANDARD
135	2.63	1.0	STANDARD
136	TOVC	0.2	STANDARD
137	3.03	2.4	15" CMP
138	2.38	3.6	15" CMP
139	2.38	2.2	15" CMP
140	1.90	0.4	STANDARD
141	1.04	2.2	15" CMP
142	1.04	1.1	STANDARD
143	TOVC	0.1	NO PIPE
144	1.70	1.2	STANDARD
145	1.10	1.2	STANDARD
146	2.15	2.0	15" CMP
147	2.10	4.3	15" CMP
148	2.10	4.9	15" CMP
149	2.15	3.9	15" CMP
150	1.10	2.4	15" CMP
151	1.70	1.2	STANDARD
152	1.70	1.3	STANDARD
153	TOVC	0.1	NO PIPE
154	TOVC	0.3	NO PIPE
155	1.00	1.8	STANDARD
156	1.00	2.3	15" CMP
157	1.82	0.1	NO PIPE
158	2.50	1.1	STANDARD
159	2.40	0.4	STANDARD

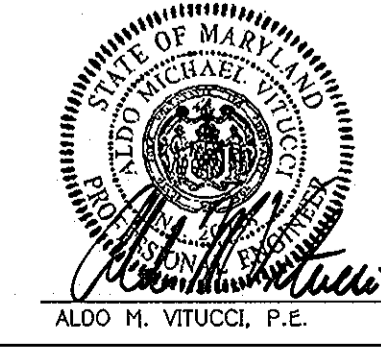
ALL Q's HAVE BEEN EXTRAPOLATED FROM THE 10 YEAR STORM DRAIN COMPUTATIONS  
 STANDARD = HOWARD COUNTY STANDARD 12" CIRCULAR OR 14" x 9" ARCH PIPE  
 TOVC = LOCATED NEAR THE TOP OF A VERTICAL CURVE

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10222 BALTIMORE NATIONAL PARK  
 GAITHERSBURG CITY, MARYLAND 21042  
 (410) 461-8255

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Bassler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 20748, Expiration Date: February 22, 2015."



3/29/13  
 DATE

**STREET TREE, GRADING & SEDIMENT CONTROL PLAN**  
**WALNUT CREEK**  
 PHASE FOUR  
 Lots 115 - 159 And Non-Buildable  
 Preservation Parcel 'W' & 'X'  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)

ZONED: RC-DEO & RR-DEO  
 TAX MAP No. 28 G0D Nos. 4, 7, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2012  
 SHEET 6 OF 23

By The Developer:  
 I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Employ A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature of Developer: *T. W. Feagay* Date: 3/29/13

Printed Name of Developer: **T. W. Feagay**

By The Engineer:  
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Feasible Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Noticed The Developer's Plans And He Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Within 30 Days Of Completion."

Signature of Engineer: *Alfred M. Vucich* Date: 3/29/13

Printed Name of Engineer: **Alfred M. Vucich**

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Signature: *John R. Roberts* Date: 3/25/13

Printed Name: **John R. Roberts**

Chief, Bureau of Highways

Approved: Department of Public Works

Signature: *Howard S. ...* Date: 4/3/12

Chief, Bureau of Highways

Approved: Department of Planning And Zoning

Signature: *Victor ...* Date: 4/15/13

Chief, Division of Land Development

Signature: *William ...* Date: 4/2/13

Chief, Development Engineering Division

AS-BUILT CERTIFICATION  
 I hereby certify that the Facility shown on this Plan was constructed as shown on the "As-Built" Plans and Meets the Approved Plans and Specifications.

Signature: \_\_\_\_\_ P.E. No. \_\_\_\_\_ Date: \_\_\_\_\_

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NO.	REVISIONS	DESCRIPTION	DATE

TYPE OF REQUIREMENT	VOLUME REQUIRED	VOLUME PROVIDED AND NOTES
Recharge Vol. for Entire Site	10.04 Acres	12.4 Acres w/ % Area Method
Design Point #1	0.35 acre-feet	0.35 ac. ft. @ BMP Facility #2
Design Point #1	0.4092 acre-feet	0.4092 ac. ft. @ BMP Facility #2

NOTE: Both Op (Overbank Flood Protection or 10-year storm) and of (Extreme Flood Volume of 100-year storm) are not required for this since this watershed area is not classified as one of the sensitive watershed areas for Howard County.

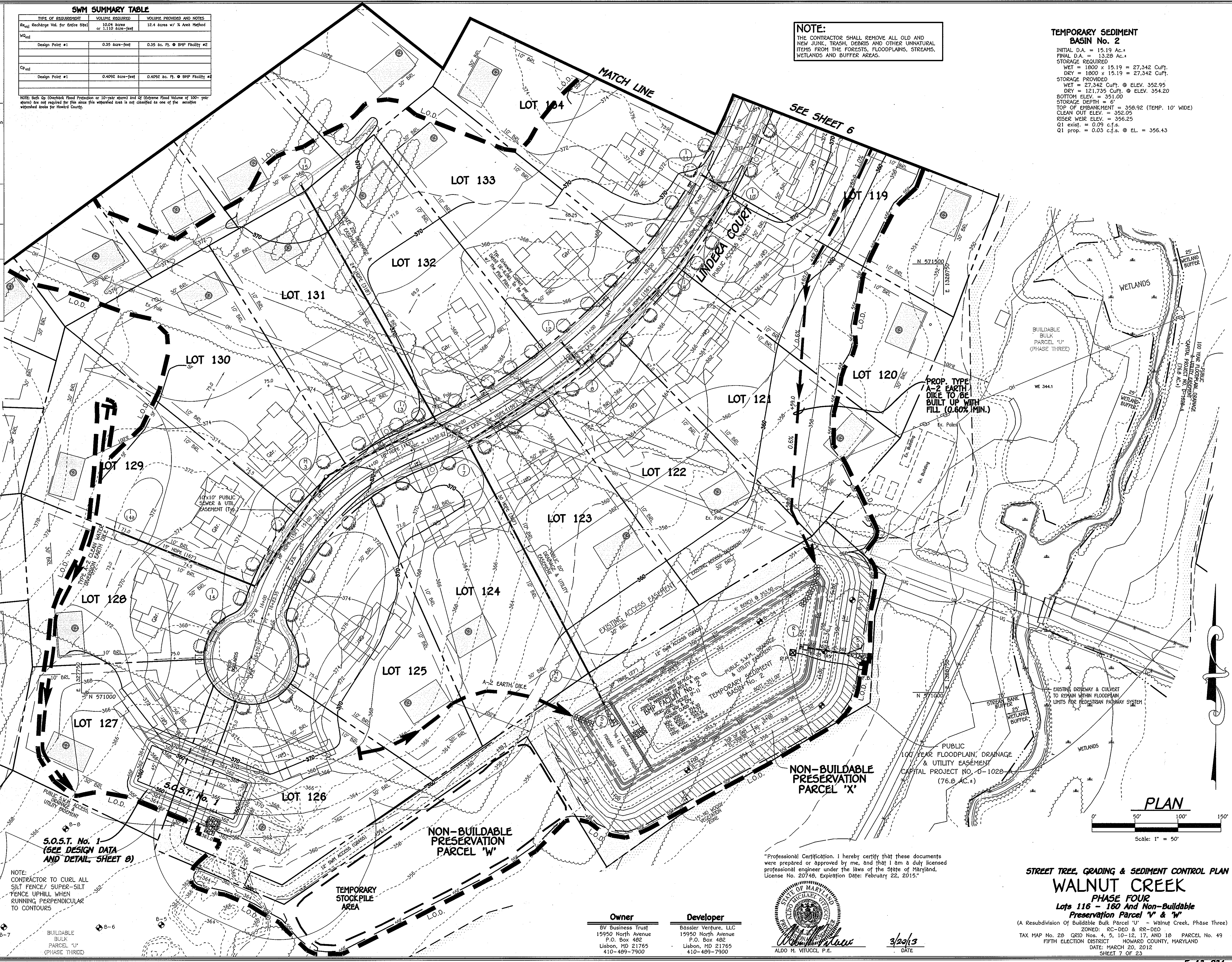
NOTE:  
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TEMPORARY SEDIMENT BASIN No. 2

INITIAL D.A. = 15.19 Ac.  
 FINAL D.A. = 13.28 Ac.  
 STORAGE REQUIRED  
 WET = 1800 x 15.19 = 27,342 Cuft.  
 DRY = 1800 x 15.19 = 27,342 Cuft.  
 STORAGE PROVIDED  
 WET = 27,342 Cuft. @ ELEV. 352.95  
 DRY = 121,735 Cuft. @ ELEV. 354.20  
 BOTTOM ELEV. = 351.00  
 STORAGE DEPTH = 6'  
 TOP OF EMBANKMENT = 358.92 (TEMP. 10' WIDE)  
 CLEAN OUT ELEV. = 352.05  
 RISER WEIR ELEV. = 356.25  
 Q1 exist. = 0.09 c.f.s.  
 Q1 prop. = 0.03 c.f.s. @ EL. = 356.43

**LEGEND**

- SSP-SSP-SSP SUPER-SILT FENCE
- SF-SF-SF SILT FENCE
- TP-TP-TP TREE PROTECTION FENCE
- S.C.E. STABILIZED CONSTRUCTION ENTRANCE
- EARTH DIKE
- L.O.D. DENOTES L.O.D. LIMITS OF DISTURBANCE
- E.C.M. DENOTES EROSION CONTROL MATTING
- ▨ DENOTES 25% OR GREATER SLOPES
- ▤ DENOTES 15% - 24.99% SLOPES
- DENOTES LOW PRESSURE SEWER BY OTHERS W/ GRINDER PUMPS
- RIP-RAP INFLOW PROTECTION
- R.P.S. REMOVABLE PUMPING STATION
- F.B. FILTER BAG
- 100 YEAR FLOODPLAIN
- WETLANDS
- WETLAND BUFFER
- STREAM BANK BUFFER



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015.



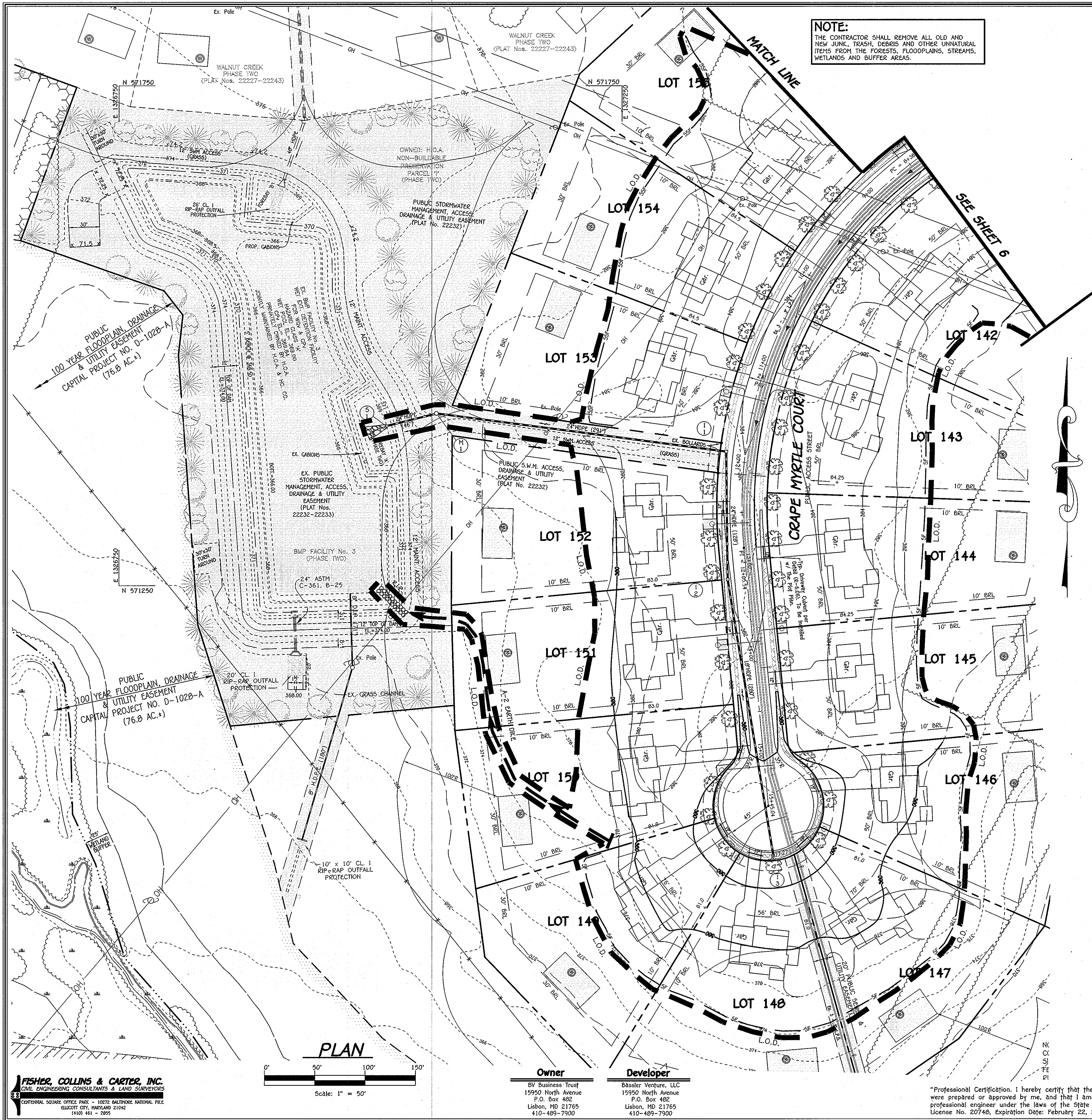
3/29/13 DATE

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
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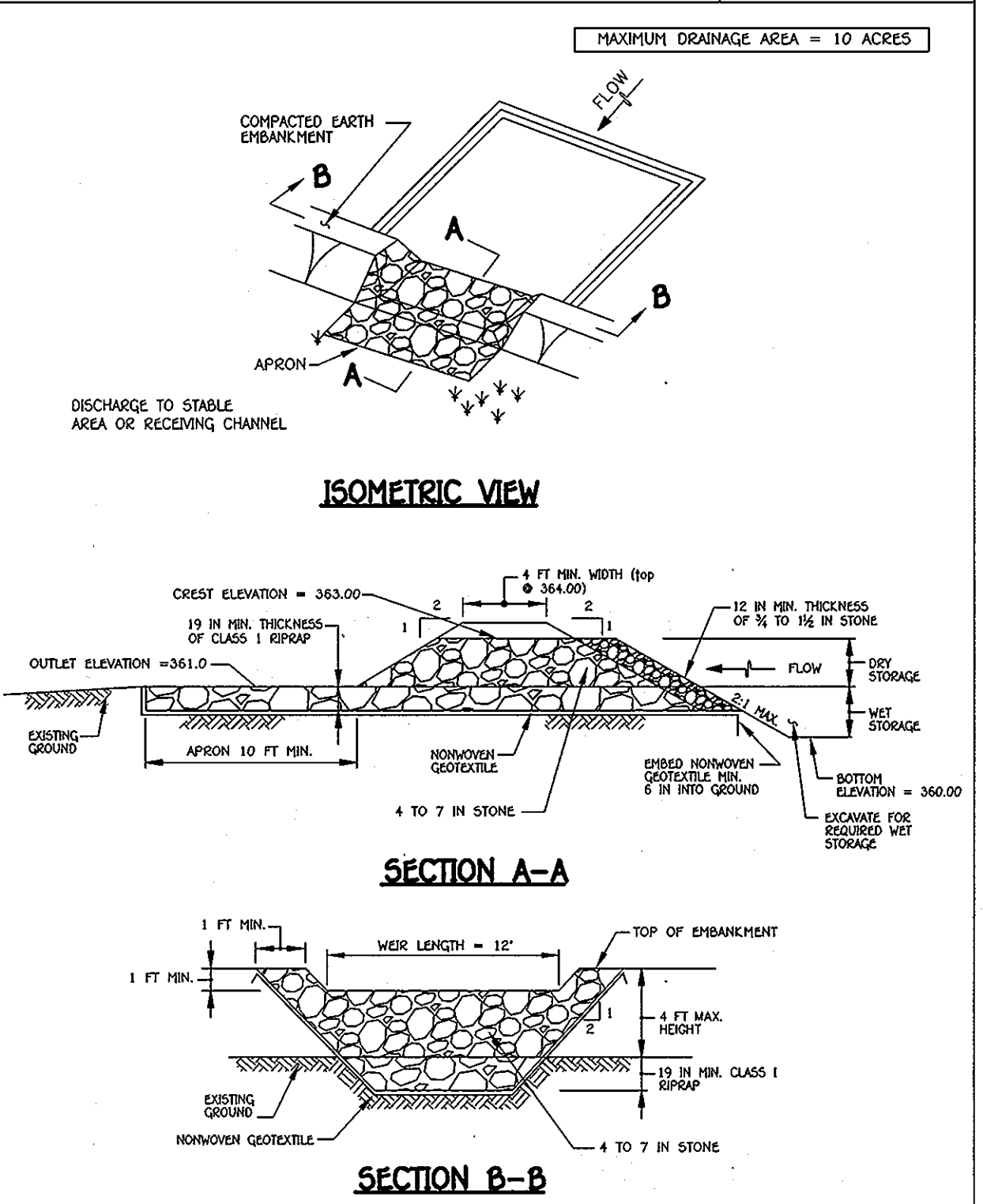
**FISHER, COLLINS & CARTER, INC.**  
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 CENTRAL SQUARE OFFICE PARK - 10272 BALTHORE NATIONAL PIKE  
 ELIZABETH CITY, MARYLAND 21042  
 (410) 461-2265

**STREET TREE, GRADING & SEDIMENT CONTROL PLAN**  
**WALNUT CREEK**  
**PHASE FOUR**  
**Lots 116 - 160 And Non-Buildable Preservation Parcel 'V' & 'W'**  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & R2-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2012  
 SHEET 7 OF 23



**NOTE:**  
THE CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH, DEBRIS AND OTHER UNNATURAL ITEMS FROM THE FORESTS, FLOODPLAINS, STREAMS, WETLANDS AND BUFFER AREAS.

**DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II**



- CONSTRUCTION SPECIFICATIONS**
- CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
  - CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
  - USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
  - CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE WEIR CREST. COMPACT THE EMBANKMENT BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
  - MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
  - PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF OUTLET AND APRON PRIOR TO PLACEMENT OF RIPRAP. OVERLAP SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH THE SECTION NEARER TO THE TRAP PLACED ON TOP. EMBED GEOTEXTILE AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
  - USE CLEAN 4 TO 7 INCH RIPRAP TO CONSTRUCT THE WEIR. USE CLASS I RIPRAP FOR THE APRON. USE OF RECYCLED CONCRETE EQUIPMENT IS ACCEPTABLE.
  - PLACE 1 FOOT OF CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
  - CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
  - STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
  - REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (50% OF NET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION.
  - WHEN DOWATERING TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
  - UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

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

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 1		
DRAINAGE AREA - INITIAL	2.9	ACRES
DRAINAGE AREA - INTERIM	--	ACRES
DRAINAGE AREA - FINAL	2.0	ACRES
TOTAL STORAGE REQUIRED	10,440	CF
TOTAL STORAGE PROVIDED	12,020	CF
WET STORAGE REQUIRED	5,220	CF
WET STORAGE PROVIDED	5,738	CF
DRY STORAGE REQUIRED	5,220	CF
DRY STORAGE PROVIDED	6,800	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	361.00	FT
TRAP BOTTOM ELEVATION	360.00	FT
TRAP BOTTOM DIMENSIONS	120' x 45'	FT x FT
WEIR LENGTH	12'	FT
WEIR CREST (DRY STORAGE) ELEVATION	363.00	FT
CLEANOUT ELEVATION	360.5	FT
TOP OF EMBANKMENT ELEVATION	364.00	FT
SIDE SLOPE	2:1	HV RATIO
EMBANKMENT TOP WIDTH	6'	FT
OUTLET PROTECTION - LENGTH	10'	FT
OUTLET PROTECTION - DEPTH	16"	IN

By The Developer:  
Signature of Developer: *[Signature]* Date: 3/20/13

By The Engineer:  
Signature of Engineer: *[Signature]* Date: 3/20/13

Approved: Department of Public Works  
Signature: *[Signature]* Date: 4/3/13  
Chief, Bureau of Highways

Approved: Department of Planning and Zoning  
Signature: *[Signature]* Date: 4/15/13  
Chief, Division of Land Development

Signature: *[Signature]* Date: 4/2/13  
Chief, Development Engineering Division

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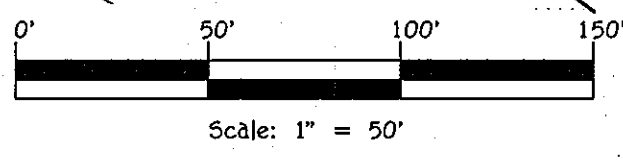
REVISIONS

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Signature: *[Signature]* Date: 3/20/13

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**WALNUT CREEK**  
PHASE FOUR  
Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'  
(A Resubdivision of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
ZONED: RC-OEO & RR-OEO  
TAX MAP NO. 28 C6D NOS. 4, 5, 10-12, 17, AND 18 PARCEL NO. 49  
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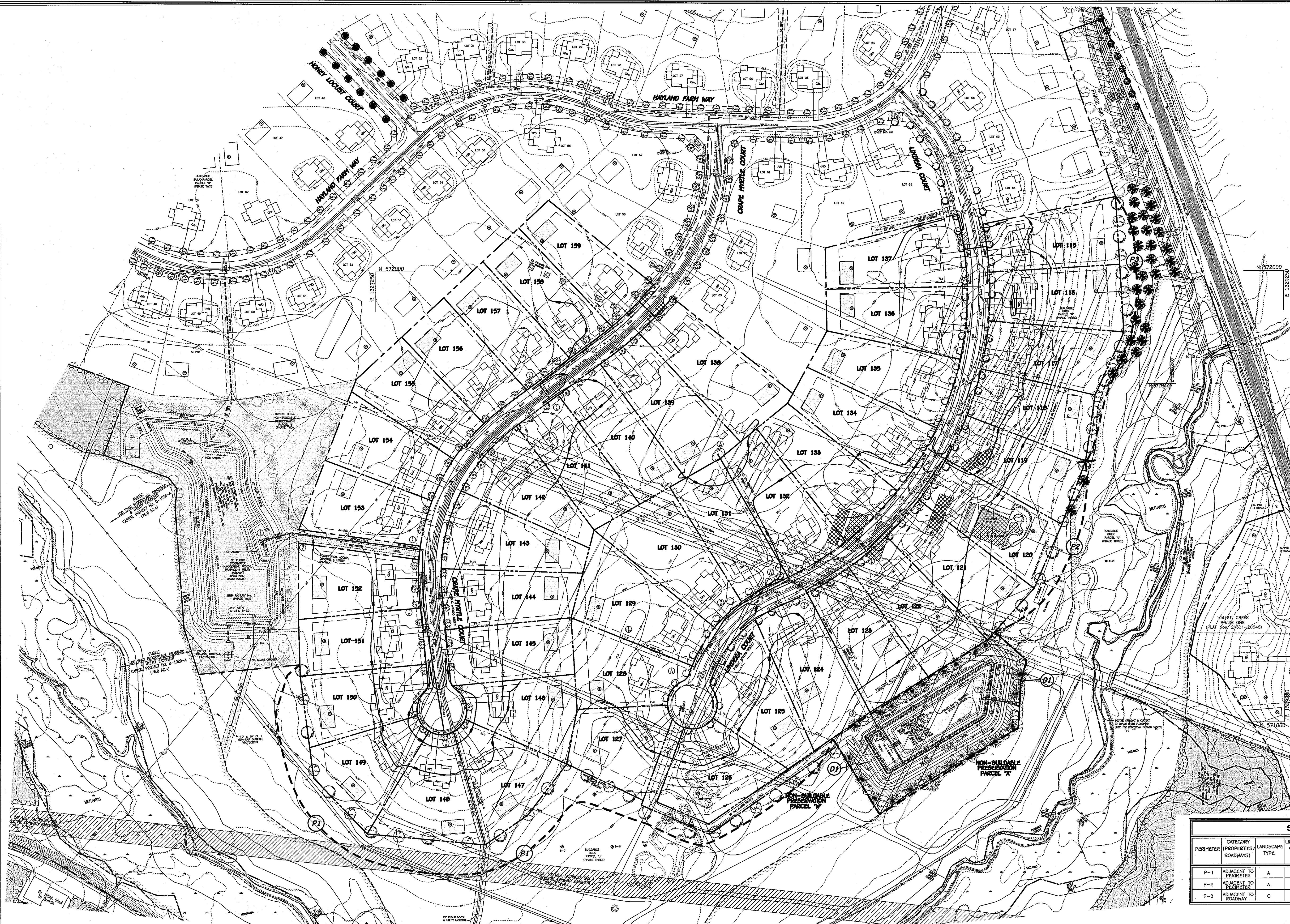


Approved: Department Of Public Works  
 Chief, Bureau Of Highways *[Signature]* 4/3/13  
 Date

Approved: Department Of Planning And Zoning  
 Chief, Division Of Land Development *[Signature]* 4/15/13  
 Date

Chief, Development Engineering Division *[Signature]* 4/2/13  
 Date

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING	
LINEAR FEET OF PERIMETER	D-1 : 1233'
NUMBERS OF TREES REQUIRED:	
SHADE TREES	25
EVERGREEN TREES	31
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	YES (39%)
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO
NUMBERS OF TREES PROVIDED:	
SHADE TREES	1233' - 39% = 838' / 50 = 17 TREES
EVERGREEN TREES	1233' - 39% = 838' / 40 = 21 TREES



SCHEDULE A PERIMETER LANDSCAPE EDGE								
PERIMETER	CATEGORY (PROPERTIES, ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NUMBER OF PLANTS REQUIRED & PROVIDED		
						SHADE TREES	EVERGREEN TREES	SHRUBS
P-1	ADJACENT TO PERIMETER	A	1646'	NO	NO	27	0	-
P-2	ADJACENT TO PERIMETER	A	433'	NO	NO	7	0	-
P-3	ADJACENT TO ROADWAY	C	602'	NO	NO	15	30	-

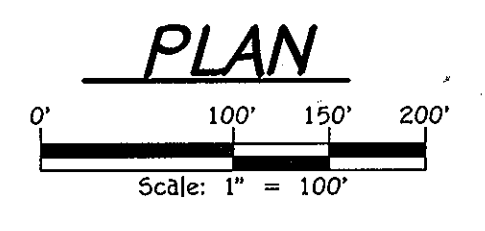
**LANDSCAPE DEVELOPER'S CERTIFICATE**  
 I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 10272 BALTIMORE NATIONAL PLACE  
 ELLETTT CITY, MARYLAND 21042  
 (410) 461-2995

*[Signature]* 3/20/13  
 Name Date

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Basistar Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20749, Expiration Date: February 22, 2015.



3/20/13  
 DATE

**Landscape Plan**  
**WALNUT CREEK**  
**PHASE FOUR**  
**Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'**  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-020 & RC-050  
 TAX MAP No. 2B GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 9 OF 23

NOTE: CONTRACTOR TO REGRADE, SOD OR HYDROSEED AND STRAW MULCH ALL AREAS DISTURBED AS A RESULT OF THEIR WORK.

SPRAY WITH WILT-PROOF ACCORDING TO MANUFACTURER'S STANDARDS

PRUNE 1/3 LEAF AREA BUT RETAIN NATURAL FORM OF TREE

2 PIECES OF REINFORCED RUBBER HOSE  
DOUBLE #12 GALVANIZED WIRE GUYS TWISTED

3-2" X 2" OAK STAKES, NOTCH STAKES TO HOLD WIRE

WRAP TRUNK TO SECOND TIER OF BRANCHES WITH WATERPROOF TREE WRAP, TIE AT 2' INTERVALS (EXCEPT EVERGREENS)

REMOVE ANY COVERING FROM TOP OF ROOT CROWN

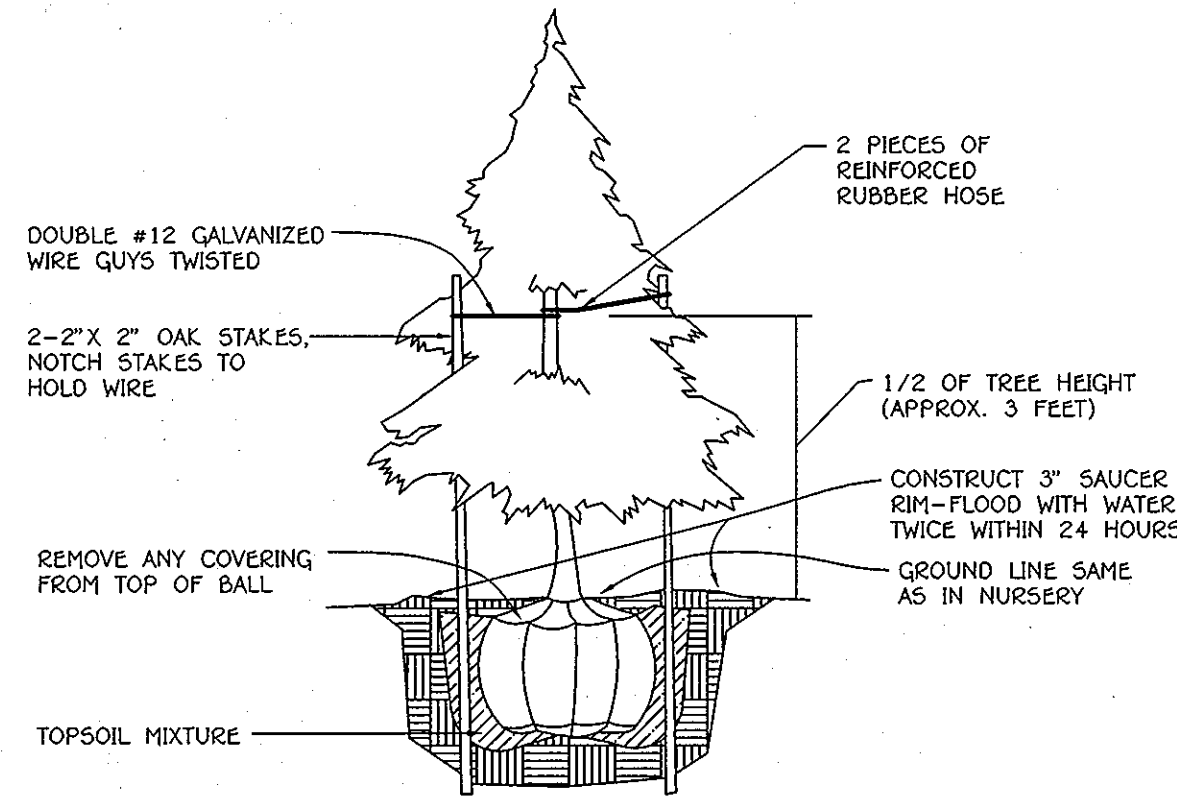
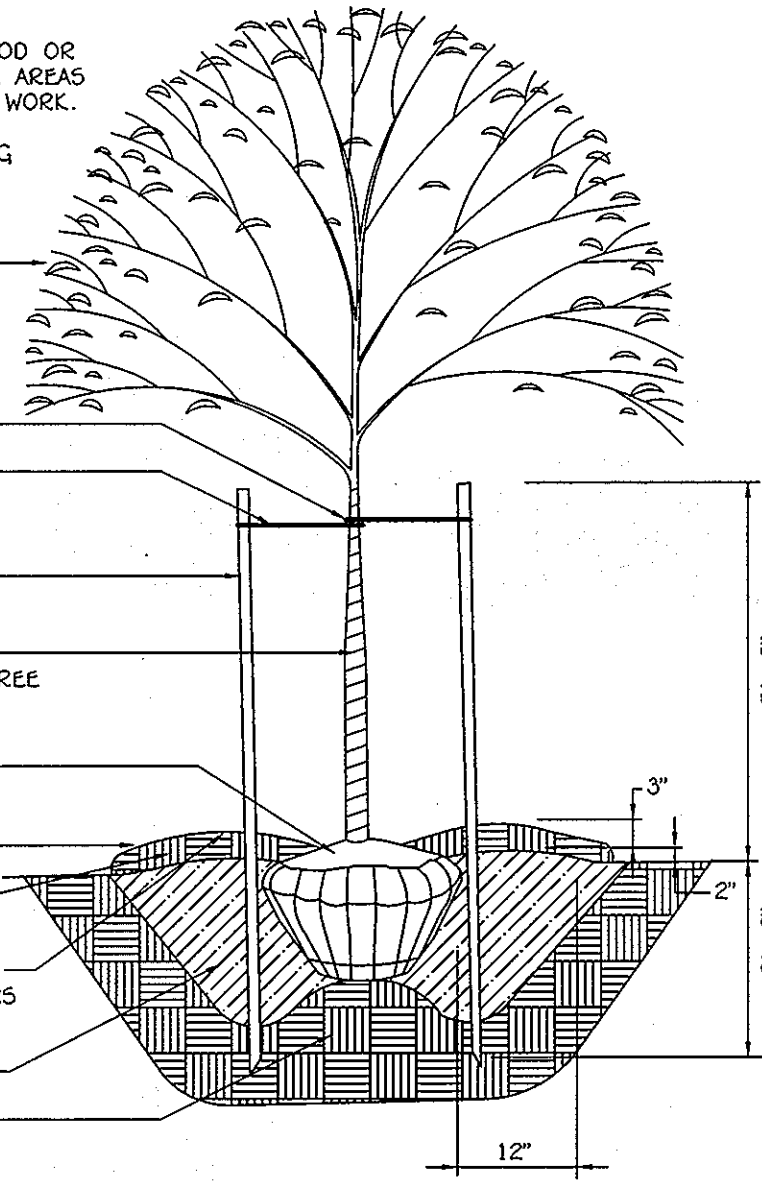
3" MULCH

MAINTAIN GROUND LINE WITH TOP OF ROOT CROWN

CONSTRUCT 3" SAUCER RIM-FLOOD WITH WATER TWICE WITHIN 24 HOURS

TOP SOIL MIXTURE

CONVEX BOTTOM 6" MIN. HT.



**EVERGREEN PLANTING DETAIL**

**NOTES:**

"At the time of plant installation, all trees listed and approved on the landscape plan, shall comply with the proper height requirement in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocations of the required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviations from the approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to the road drawing plans."

"The Owner, tenants and/or their agents shall be responsible for maintenance of the required perimeter landscaping. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All the other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced."

Approved: Department Of Public Works  
*[Signature]* 4/3/13  
 Chief, Bureau Of Highways Date

Approved: Department Of Planning And Zoning  
*[Signature]* 4/15/13  
 Chief, Division Of Land Development Date

*[Signature]* 4/12/13  
 Chief, Development Engineering Division Date

PLANT LIST			
SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE
	41	ACER RUBRUM "Armstrong" / ARMSTRONG COLUMNAR RED MAPLE	2 1/2-3" CAL.
	25	QUERCUS COCCINEA / SCARLET OAK	2 1/2-3" CAL.
	21	PINUS STROBUS / EASTERN WHITE PINE	6' - 8' HT.
	30	CHINESE JUNIPER ROBUSTA	5' - 6' HT.

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED 66 SHADE & 51 EVERGREEN TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$27,450.00."

**TREE PLANTING DETAIL**

**PLANTING SPECIFICATIONS**

Plants, related material, and operations shall meet the detailed description as given on the plans and as described herein.

All plant material, unless otherwise specified, shall be nursery grown, uniformly branched, have a vigorous root system, and shall conform to the species, size, root and shape shown on the plant list and the American Association of Nurserymen (AAN) Standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, sun scald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will not be accepted. All plants shall be freshly dug; no healed-in plants from cold storage will be accepted.

Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "Landscape Specification Guidelines for Baltimore-Vashington Metropolitan Areas", hereinafter "Landscape Guidelines" approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architect, latest edition, including all agenda.

Contractor shall be required to guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section of the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.

Contractor shall be responsible for notifying utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.

Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line.

Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within the growing season of completion of site construction.

Bid shall be base on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications.

Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence.

All shrubs shall be planted in continuous trenches or prepared planting beds and mulched with composted hardwood mulch as details and specified except where noted on plans.

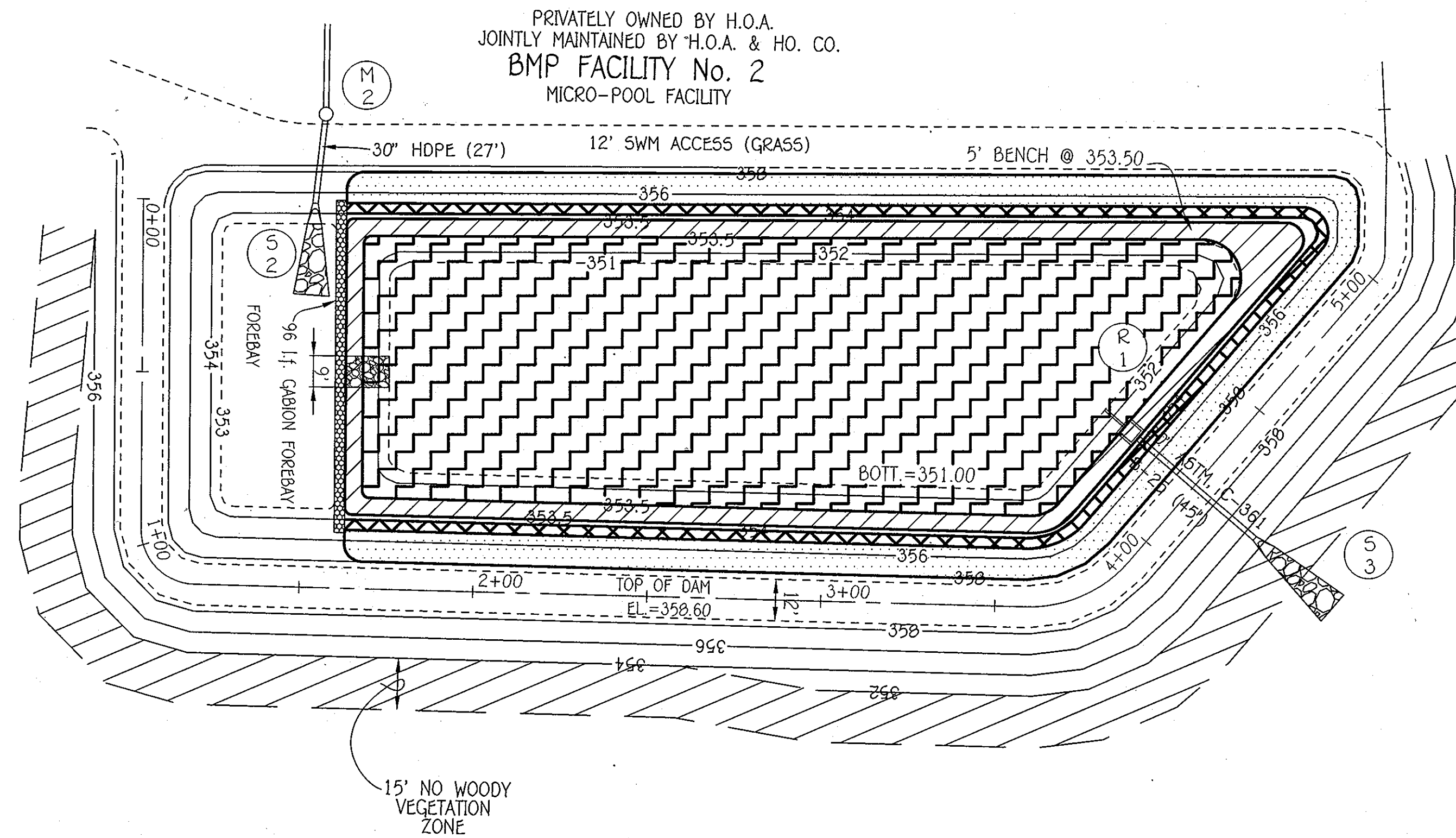
Positive drainage shall be maintained in planting beds 2 percent slope).

Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure. Add 3 lbs. of standard fertilizer per cubic yard of planting mix. Evergreen Plants - two parts topsoil, one part humus or other approved organic material. Add 3 lbs. of evergreen (acidic) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines.

Weed Control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. Caution: Be sure to carefully check the chemical used to assure its adaptability to the specific ground cover to be treated.

All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded and seeded.

This plan is intended for landscape use only. see other plan sheets for more information on grading, sediment control, layout, etc.



**INTERNAL POND PLANT LIST**

ZONE	DESCRIPTION	ELEVATION ABOVE NORMAL POOL ELEVATION	PLANT AREA w/ SWITCH GRASS QUANTITY - N/A	PLANT AREA w/ BULrush, SWEET WITCHHazel & WATERBERRY QUANTITY - 16 EACH	SPACING - 12' MAX.
ZONE 5	FLOODPLAIN TERRACE	1' - 4'	N/A	N/A	N/A
ZONE 3	SHORELINE FRINGE	0' - 12'	N/A	16 EACH	12' MAX.
ZONE 2	SHALLOW WATER BENCH	0' - 12'	N/A	N/A	N/A
ZONE 1	DEEPER WATER POOL	1' - 3'	N/A	N/A	N/A

**POND NO. 2 INTERNAL PLANTING DETAIL**

**LANDSCAPE DEVELOPER'S CERTIFICATE**

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

Owner: *[Signature]* 3/20/13  
 Developer: *[Signature]* 3/20/13

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Basler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748. Expiration Date: February 22, 2015."



3/20/13 DATE

**Landscape Plan Notes**  
**WALNUT CREEK**  
**PHASE FOUR**  
**Lots 115 - 159 And Non-Buildable**  
**Preservation Parcel 'W' & 'X'**

(A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & R2-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 10 OF 23

**STRUCTURE SCHEDULE**

STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	LOCATION	ROAD STA./COORDINATE	OFFSET	TYPE AND WIDTH	REMARKS
I-1	* 382.53	370.98 (24")	370.80 (24")	CRAPE MYRTLE COURT	11+91	19' RT	'D' INLET - 3.0'	D - 4.10
I-2	* 381.32	372.12 (18")	371.62 (24")	CRAPE MYRTLE COURT	13+16	19' RT	'D' INLET - 3.0'	D - 4.10
I-3	* 377.27	-----	373.97 (18")	CRAPE MYRTLE COURT	L.P. 1+46.11	5' BEHIND	'D' INLET - 2.5'	D - 4.10
I-4	* 374.43	369.60 (18")	369.35 (18")	CRAPE MYRTLE COURT	5+13	19' RT	'D' INLET - 2.5'	D - 4.10
I-5	* 379.74	376.12 (15")	375.87 (18")	CRAPE MYRTLE COURT	7+43	19' RT	'D' INLET - 2.5'	D - 4.10
I-6	* 379.74	-----	376.50 (15")	CRAPE MYRTLE COURT	7+43	19' LT	'D' INLET - 2.5'	D - 4.10
I-7	* 364.61	357.30 (24"), 357.30 (24")	356.80 (30")	LINDERA COURT	12+91	19' LT	'D' INLET - 3.5'	D - 4.10
I-8	* 362.38	359.00 (18"), 359.00 (18")	358.50 (24")	LINDERA COURT	11+35	19' LT	'D' INLET - 3.0'	D - 4.10
I-9	* 364.43	361.15 (18")	360.90 (18")	LINDERA COURT	9+83	19' LT	'D' INLET - 2.5'	D - 4.10
I-10	* 368.54	364.87 (15")	364.62 (18")	LINDERA COURT	8+74	19' LT	'D' INLET - 2.5'	D - 4.10
I-11	* 368.54	-----	365.25 (15")	LINDERA COURT	8+74	19' RT	'D' INLET - 2.5'	D - 4.10
I-12	* 362.38	-----	359.38 (18")	LINDERA COURT	11+35	19' LT	'D' INLET - 2.5'	D - 4.10
I-13	* 365.27	360.22 (24"), 358.55 (18")	358.05 (24")	LINDERA COURT	13+12	19' RT	'D' INLET - 3.0'	D - 4.10
I-14	* 371.87	365.25 (15")	365.00 (18")	LINDERA COURT	16+17	36' RT	'D' INLET - 2.5'	D - 4.10
(PRIVATE) I-14a	* 371.00	-----	367.75 (15")				'D' INLET - 2.5'	D - 4.10
(PRIVATE) I-15	* 367.00	-----	363.40 (24")	LINDERA COURT	N 571933.86 E 1328004.5		'D' INLET - 3.0'	D - 4.10
M-1	378.00	369.42 (24")	369.32 (24")	CRAPE MYRTLE COURT	N 571422.32 E 1327055.38		4' DIA. MANHOLE	G - 5.12
M-2	359.00	353.92 (30")	353.67 (30")		N 571055.76 E 1328345.64		5' DIA. MANHOLE	G - 5.13
M-3	373.30	362.27 (15")	362.02 (18")	LINDERA COURT	14+49	27.2' R	4' DIA. MANHOLE	G - 5.12
S-1	371.05	369.05 (24")	-	EX. BMP FACILITY NO. 3	N 571409.56 E 1327016.16		24" FLARED END SECTION	**
S-2	355.52	353.02 (30")	-	FACILITY NO. 2	N 571055.76 E 1328345.64		30" FLARED END SECTION	**
S-3	352.90	350.40 (30")	-	FACILITY NO. 2	N 571044.78 E 13282837.09		30" CONC. END SECT.	D - 5.51
R-1	357.50	351.00 (6")	350.90 (30")	FACILITY NO. 2	N 571052.59 E 1328295.97		CONC. RISER	

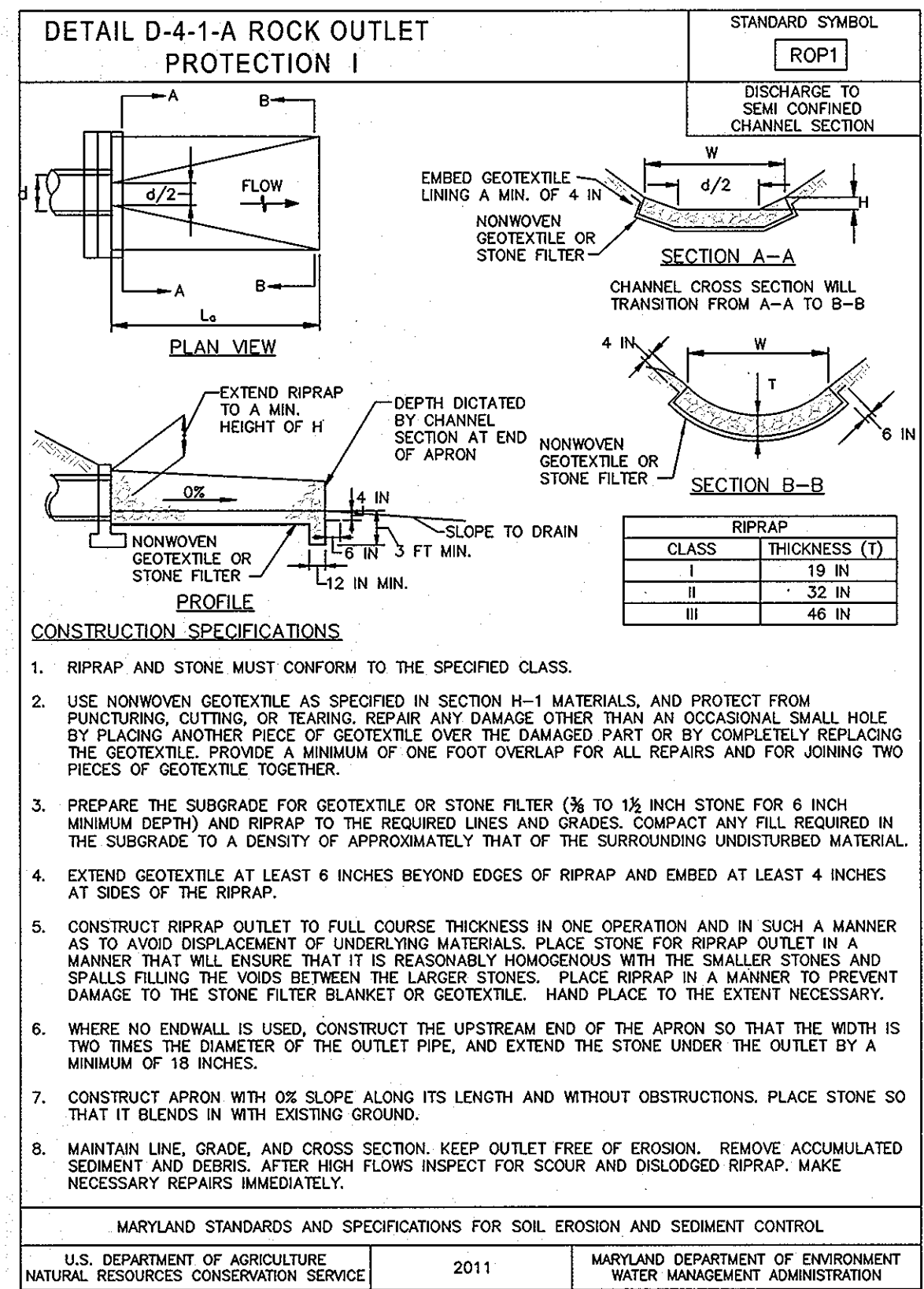
\* - DENOTES THROAT ELEVATION  
 (PRIVATE) - DENOTES OWNED AND MAINTAINED BY H.O.A.  
 \*\* - ADVANCED DRAINAGE SYSTEMS, INC. (ADS) FLARED END SECTION OR EQUAL

SIZE	CLASS	LENGTH
15"	HOPE	76 L.F.
18"	HOPE	1,109 L.F.
24"	HOPE	669 L.F.
30"	HOPE	347 L.F.
30"	ASTM, C-361, B-25	45 L.F.

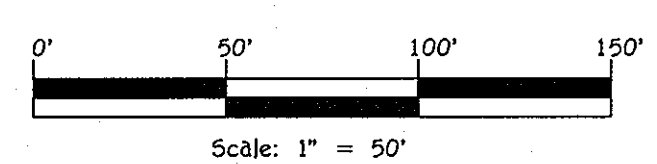
NOTE: HOPE MAY BE SUBSTITUTED WITH RCCP, CL. IV PIPE MATERIAL.

SIZE	CLASS	LENGTH
15"	HOPE	485 L.F.

NOTE: HOPE MAY BE SUBSTITUTED WITH RCCP, CL. IV PIPE MATERIAL.

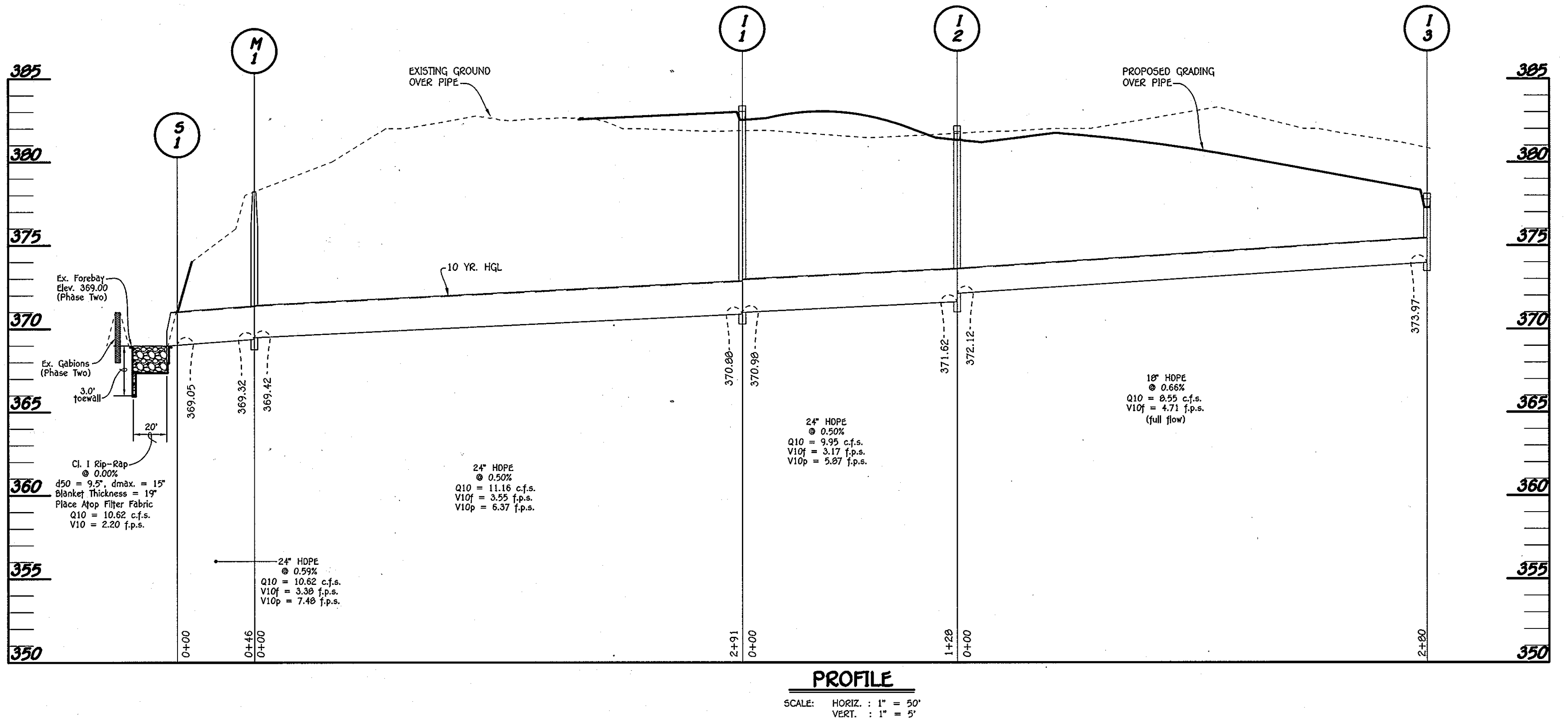
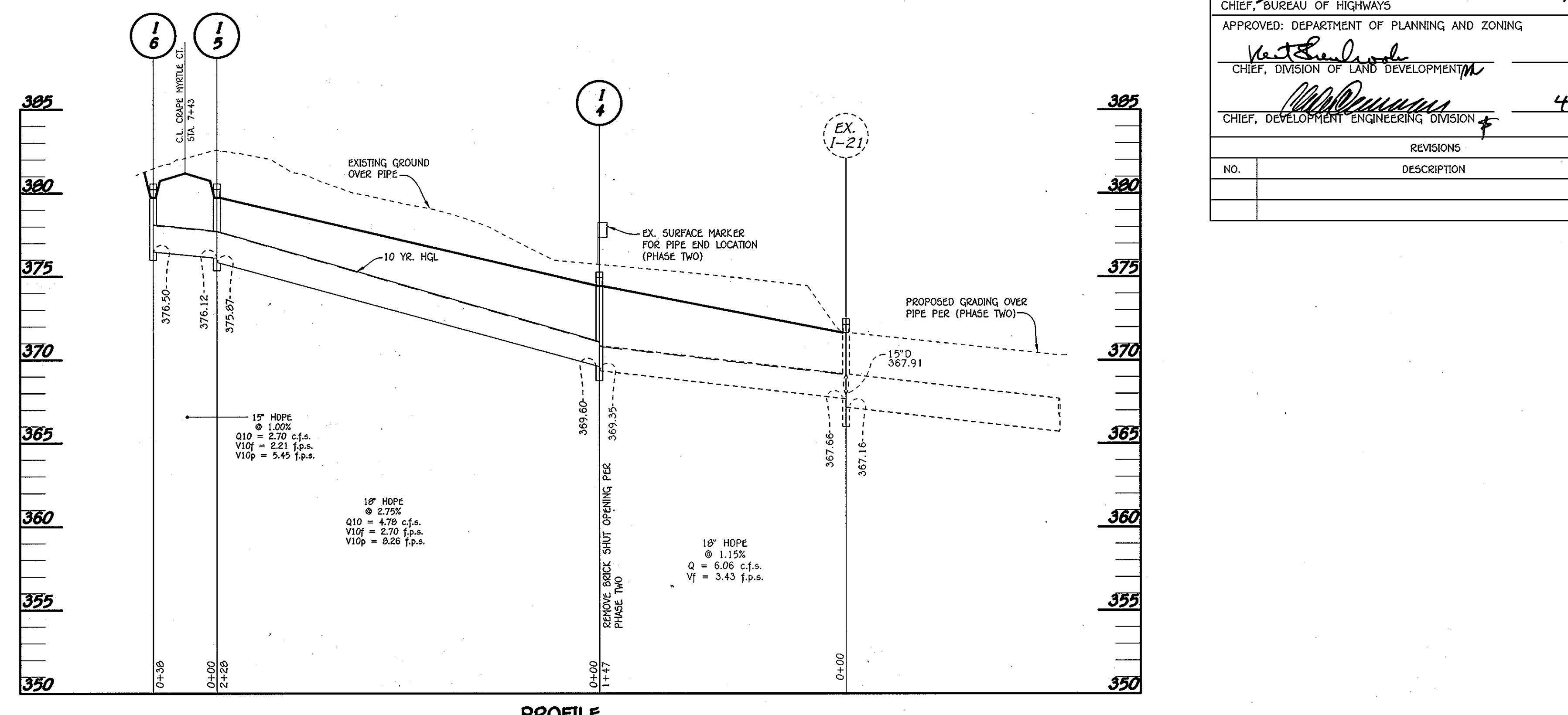


STRUCTURE	AREA (S.F.)	WETTED PERIMETER	R	R <sup>2/3</sup>	S	S <sup>1/2</sup>	W	d	n	V	Q10 (c.f.s.)	D <sub>max</sub> (in.)	BLANKET THICKNESS	PIPE SIZE	LA
S-1	4.092	5.744	0.712	0.796	0.005	0.0707	8.0	2.27	0.04	2.09	10.62	9.5"	15"	19"	20"
S-2	11.37	9.798	1.161	1.105	0.005	0.0707	10.0	4.01	0.04	2.90	37.10	9.5"	15"	19"	20"



**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Bassler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900



APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 4/2/13  
 DATE: 4/15/13  
 DATE: 4/12/13

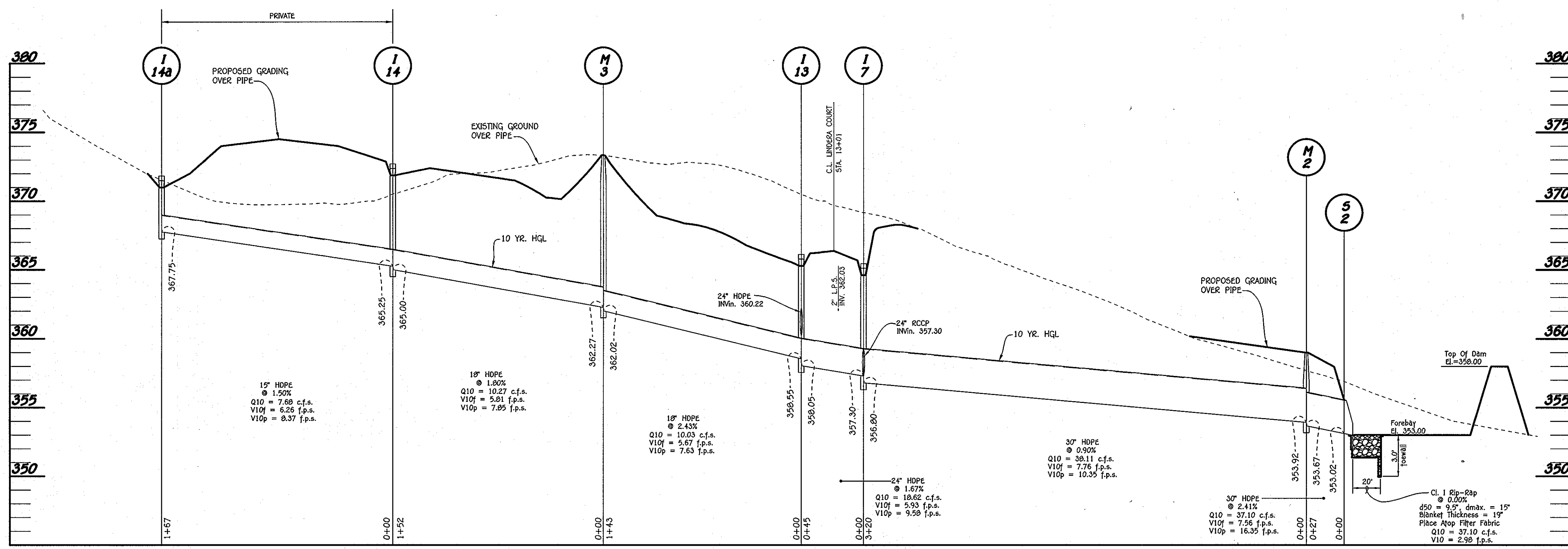
NO.	DESCRIPTION	DATE

**STORM DRAIN PROFILES**  
**WALNUT CREEK**  
**PHASE FOUR**  
 Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & RR-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 11 OF 23

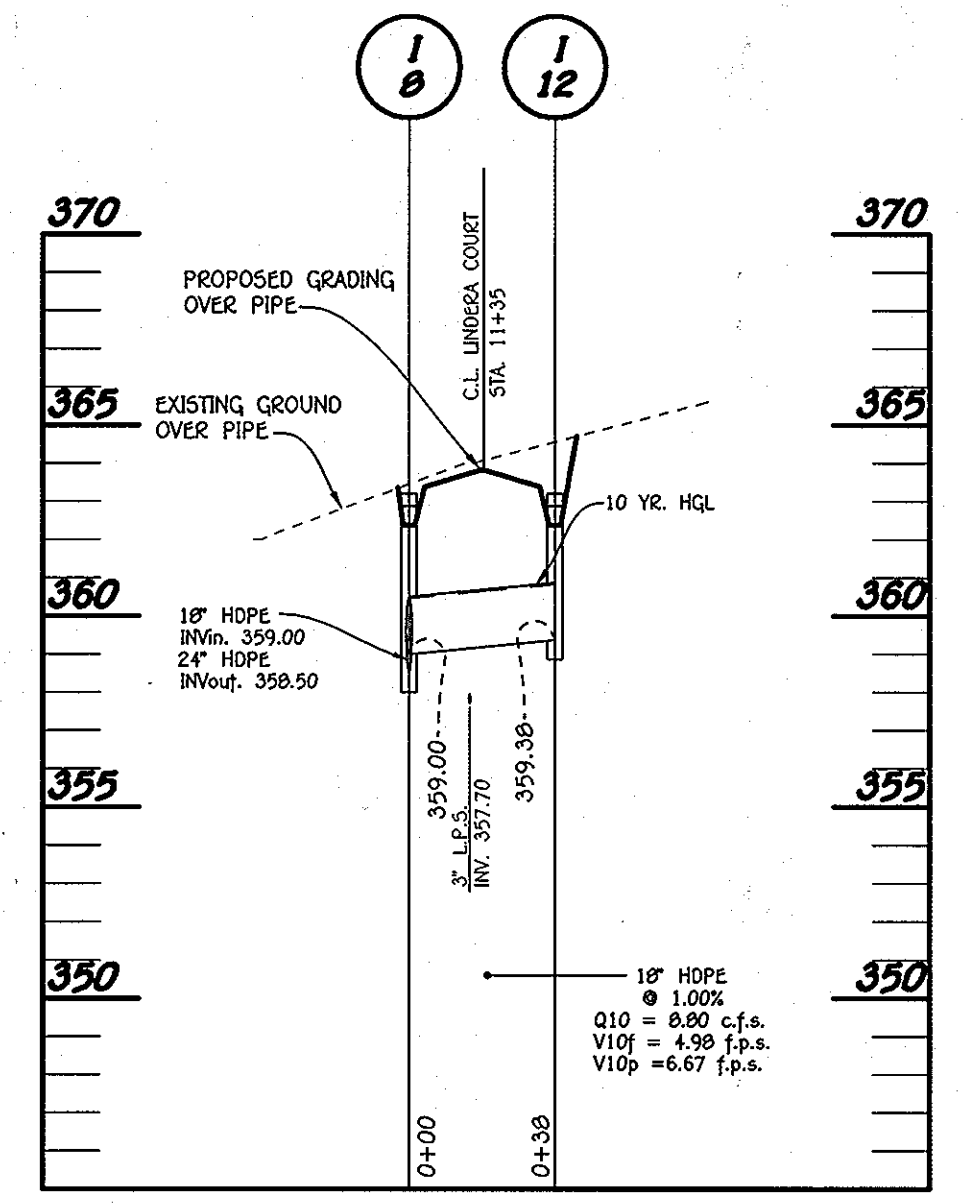


"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."

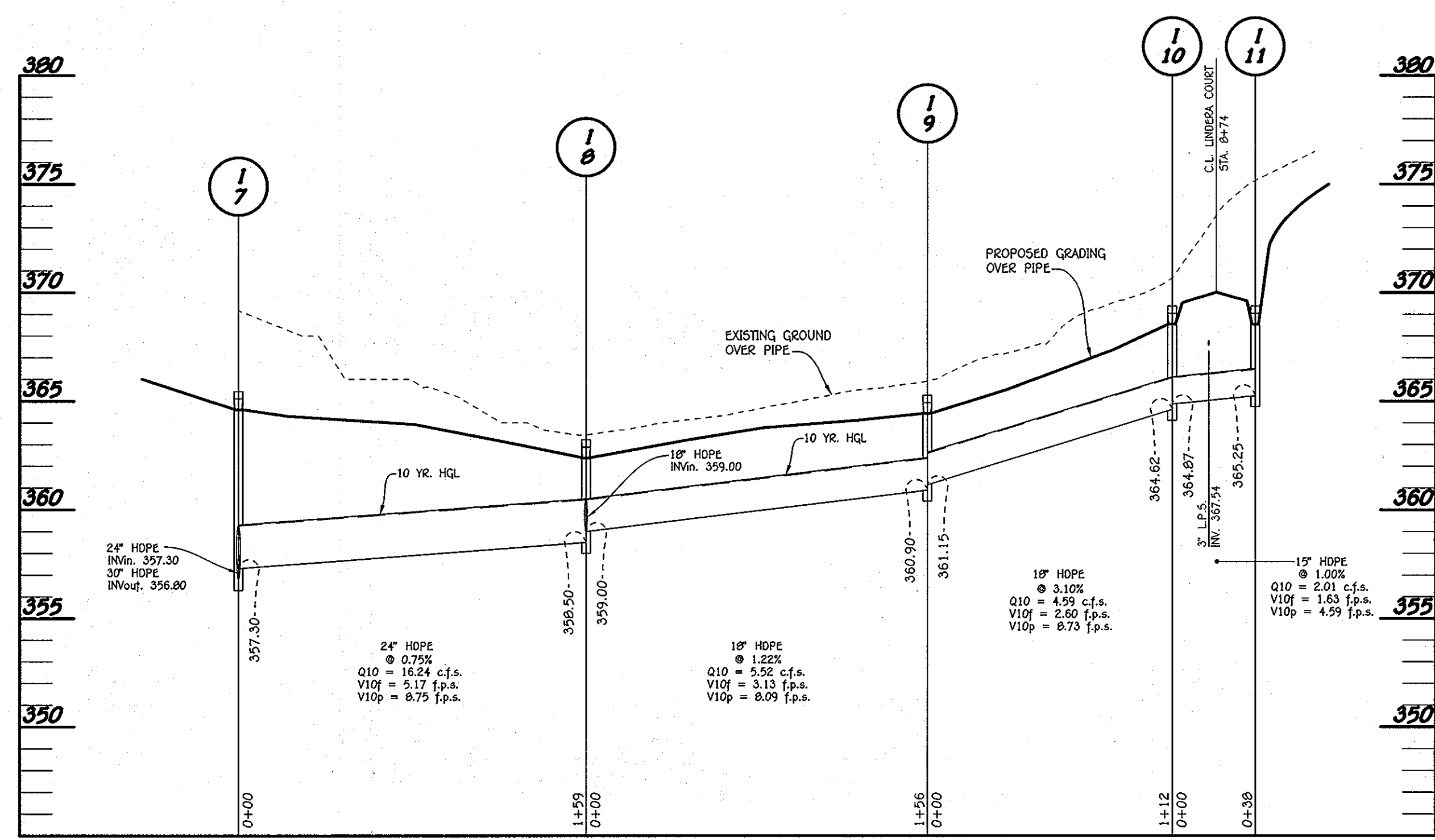
APPROVED: DEPARTMENT OF PUBLIC WORKS		
<i>Andrews</i>	4/3/13	DATE
CHIEF, BUREAU OF HIGHWAYS		
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
<i>Neil Shulman</i>	4/15/13	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		
<i>Mike Dunham</i>	4/12/13	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
REVISIONS		
NO.	DESCRIPTION	DATE



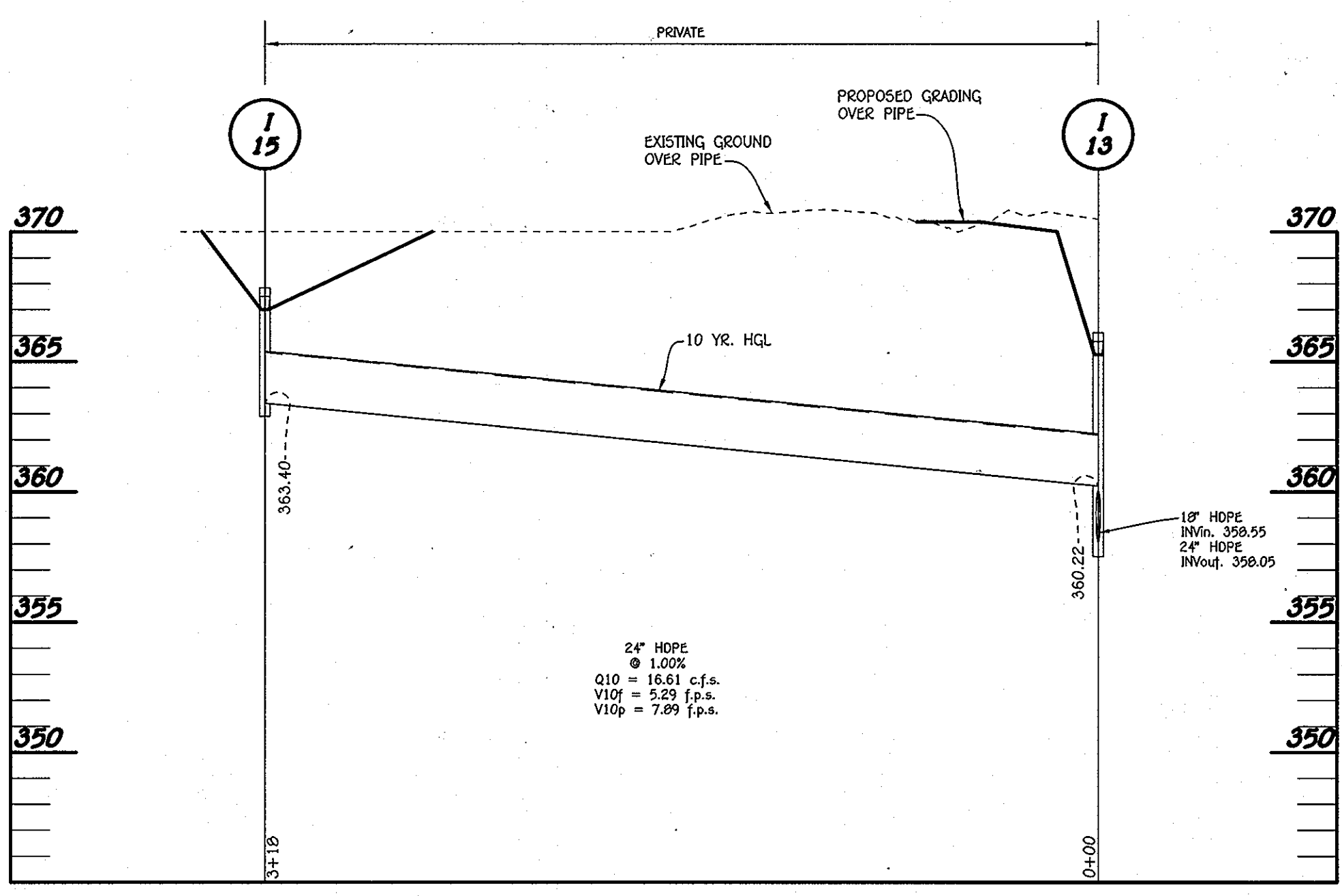
**PROFILE**  
SCALE: HORIZ. : 1" = 50'  
VERT. : 1" = 5'



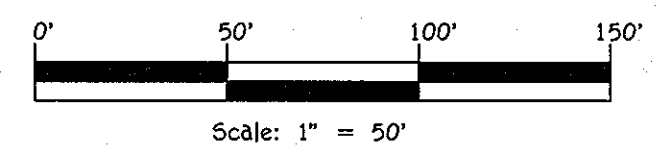
**PROFILE**  
SCALE: HORIZ. : 1" = 50'  
VERT. : 1" = 5'



**PROFILE**  
SCALE: HORIZ. : 1" = 50'  
VERT. : 1" = 5'



**PROFILE**  
SCALE: HORIZ. : 1" = 50'  
VERT. : 1" = 5'



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2899

**Owner**  
BV Business Trust  
15950 North Avenue  
P.O. Box 482  
Liesbon, MD 21765  
410-489-7900

**Developer**  
Bassler Venture, LLC  
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Liesbon, MD 21765  
410-489-7900

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20746, Expiration Date: February 22, 2015."



3/29/13  
DATE

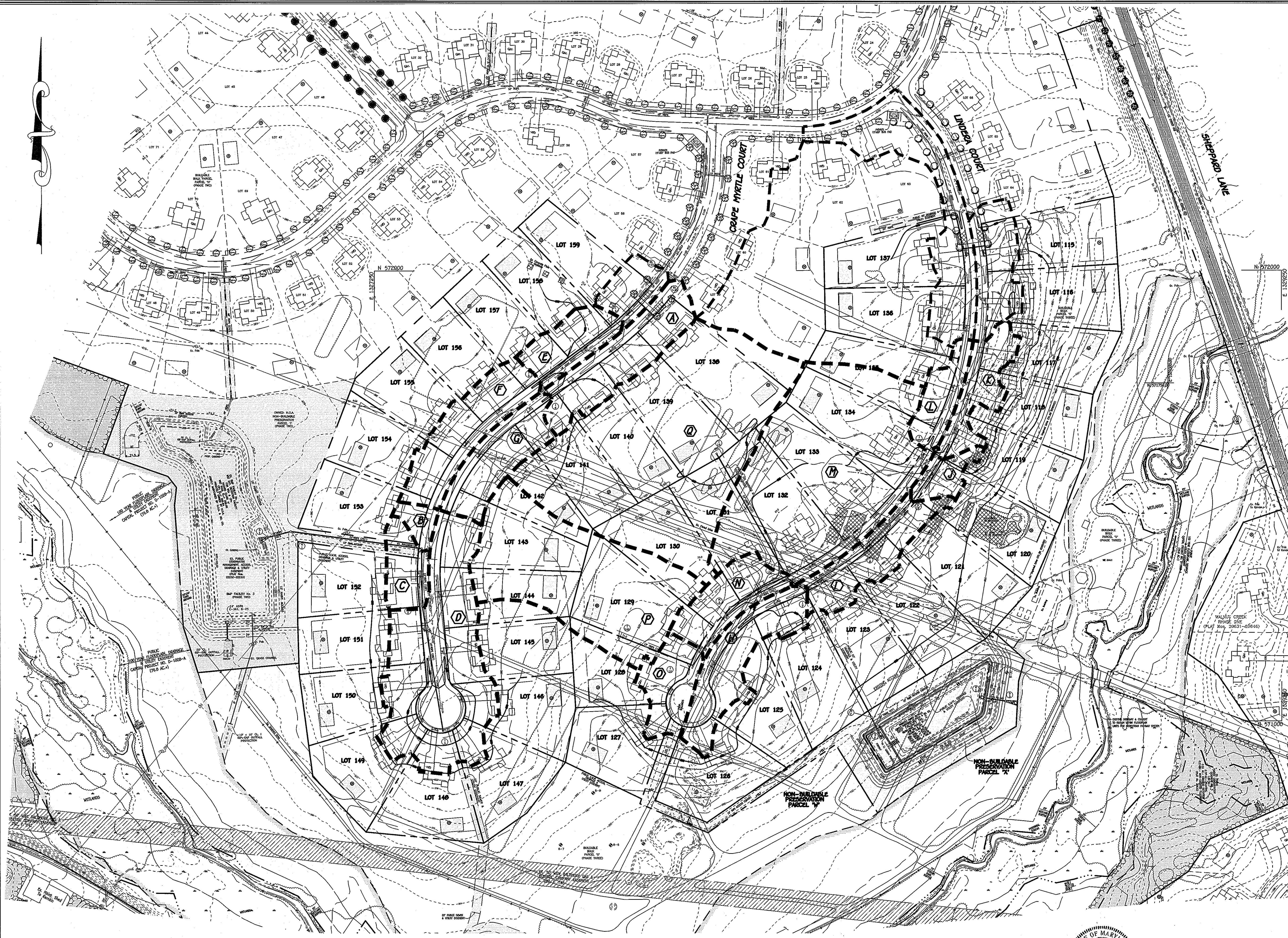
**STORM DRAIN PROFILES**  
**WALNUT CREEK**  
PHASE FOUR  
Lots 115 - 159 And Non-Buildable  
Preservation Parcel 'W' & 'X'  
(A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
ZONED: RC-DEO & RR-DEO  
TAX MAP NO. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL NO. 49  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: MARCH 20, 2013  
SHEET 12 OF 23

Approved: Department of Public Works  
 Chief Bureau of Highways *Samuel S. Ford* for *4/3/13*  
 Date

Approved: Department of Planning And Zoning  
 Chief, Division of Land Development *Walter S. ...* for *4/6/13*  
 Date

*W. ...* for *4/12/13*  
 Chief, Development Engineering Division Date

DRAINAGE AREA DATA					
STRUCTURE NO.	DRAINAGE AREA	AREA (ACRES)	'C'	ZONED	% IMP.
EX. I-25	A	0.89	0.48	RC-DEO	33
I-1	B	0.51	0.49	RC-DEO	34
I-2	C	0.51	0.46	RC-DEO	30
I-3	D	2.21	0.52	RC-DEO	38
I-4	E	0.49	0.52	RC-DEO	38
I-5	F	0.87	0.47	RC-DEO	31
I-6	G	0.88	0.47	RC-DEO	31
I-7	H	0.85	0.67	RC-DEO	60
I-8	I	0.69	0.55	RC-DEO	43
I-9	J	0.24	0.60	RC-DEO	50
I-10	K	0.50	0.62	RC-DEO	53
I-11	L	0.38	0.47	RC-DEO	32
I-12	M	3.44	0.34	RC-DEO	13
I-13	N	0.60	0.51	RC-DEO	37
I-14	O	0.50	0.53	RC-DEO	40
I-14a	P	2.46	0.32	RC-DEO	10
I-15	Q	4.35	0.26	RC-DEO	2



PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE & UTILITY DISTRICT CAPING PROJECT NO. G-1009-A (76.8 AC.)

Storm Drain Drainage Area Map  
**WALNUT CREEK**  
 PHASE FOUR  
 Lots 115 - 159 And Non-Buildable  
 Preservation Parcel 'W' & 'X'  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & R2-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 13 OF 23

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 10212 BALTIMORE NATIONAL PARK  
 ELKOTT CITY, MARYLAND 21042  
 (410) 461-2895

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 Lisbon, MD 21765  
 410-489-7900

**Developer**  
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 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**PLAN**  
 0' 100' 150' 200'  
 Scale: 1" = 100'

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."

ALDO H. VIUCCI, P.E.  
 3/20/13  
 DATE

I:\2009\0401\W\PHASE FOUR FINALS\C-13\_F-13-034\_scom.dwg, sheet: 13, 3/20/2013 7:45:22 AM, 1:1

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 4/9/13

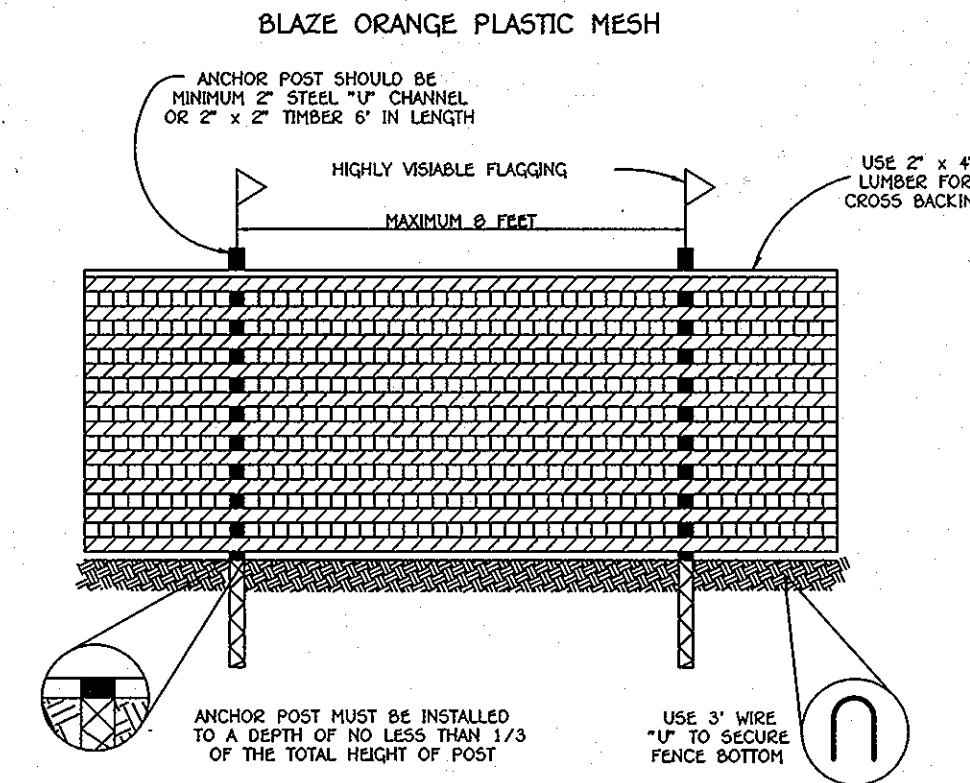
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 4/15/13

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 4/12/13

Note: THE FOREST CONSERVATION EASEMENT(S) WILL BE ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

**Reforestation Note:**  
 The reforestation obligation will be met within priority planting areas on the site. This includes floodplain, wetland and buffers.

Specimen Tree Chart		
Key	Species/size	Comments
A	White oak, 44 inch dbh	fair condition, some dieback, poor crown spread
B	Tulip poplar, 30 inch dbh	good condition
C	Tulip poplar, 40 inch dbh	good condition
D	Tulip poplar, 74 inch dbh	poor condition, substantial dieback and poor canopy spread

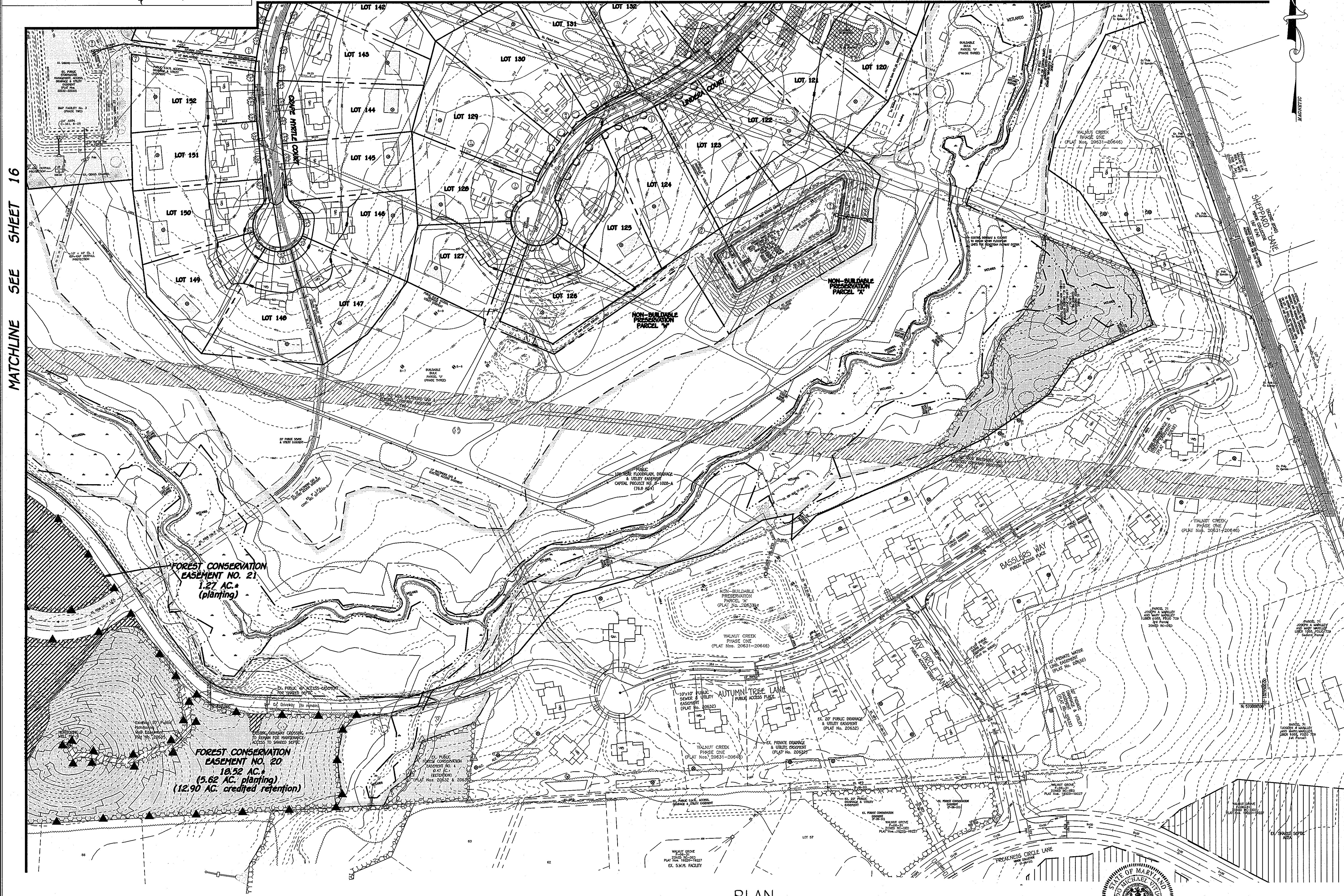
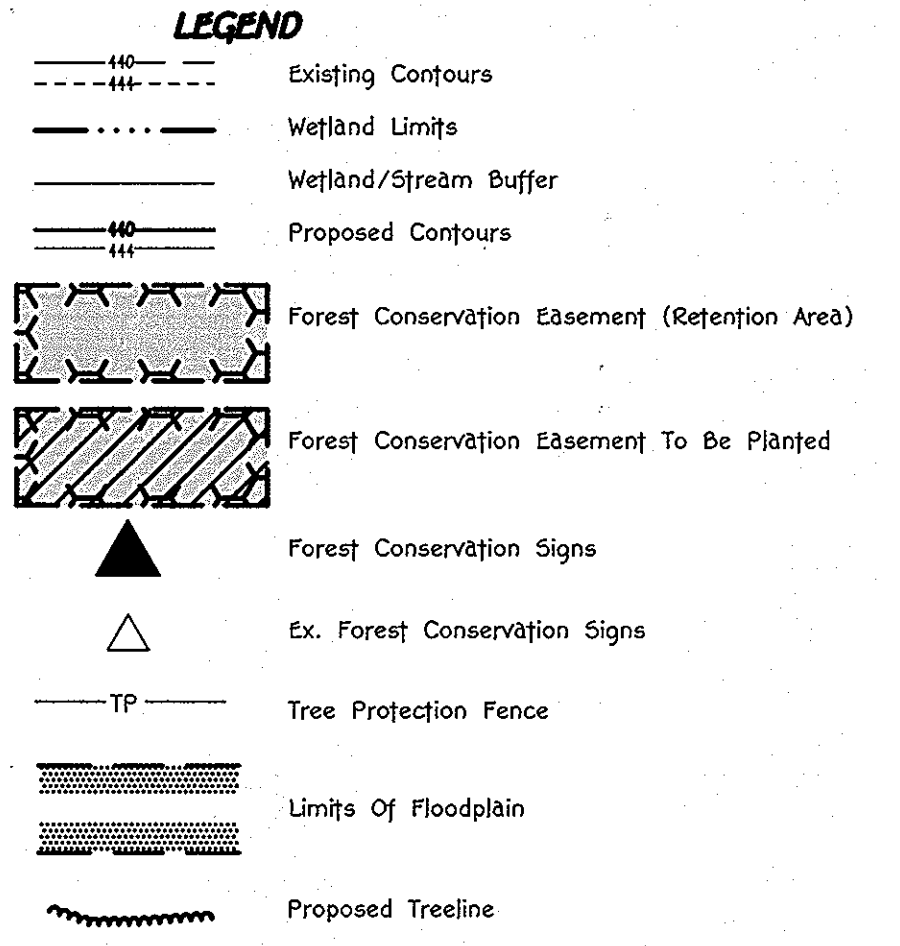


**TREE PROTECTION DETAIL**  
 NOT TO SCALE

NOTES:  
 1. FOREST PROTECTION DEVICE ONLY.  
 2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.  
 3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.  
 4. ROOT DAMAGE SHOULD BE AVOIDED.  
 5. PROTECTIVE SIGNAGE MAY ALSO BE USED.  
 6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

**FCP NOTES**

- Any Forest Conservation Easement (FCE) area shown hereon is subject to protective covenants which may be found in the Land Records of Howard County which restrict the disturbance and use of these areas.
- Forested areas occurring outside of the FCE shall not be considered part of the FCE and shall not be subject to protective land covenants.
- Limits of disturbance shall be restricted to areas outside the limit of temporary fencing or the FCE boundary, whichever is greater.
- There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ.
- No stockpiles, parking areas, equipment clearing areas, etc. shall occur within areas designated as Forest Conservation Easements.
- Temporary fencing shall be used to protect forest resources during construction. The fencing shall be placed along all FCE boundaries which occur within 15 feet of the proposed limits of disturbance.
- Permanent signage shall be placed 50-100' apart along the boundaries of all areas included in Forest Conservation Easements.
- The Forest Conservation Act requirements for the entire site will be met through the onsite retention of 57.32 acres of forest and 36.16 acres of onsite afforestation. Total Forest Conservation Obligation = 93.48 ac.
- The forest conservation requirements per section 16.1200 of the howard county code and the forest conservation manual for the entire subdivision will be fulfilled by providing 57.32 acres of on-site forest retention and 36.16 acres of on-site forest afforestation for a total of 93.48 acres.  
 A Total surty for On-site Afforestation @ \$0.50/sq.ft. for 1,579,486 sq.ft. = \$787,555.00 is required.  
 CREDITED ONSITE RETENTION OF 14.50 ACRES OF FOREST AND 13.41 ACRES OF ONSITE AFFORESTATION IS PROPOSED WITH THIS PHASE FOUR SUBMISSION.  
 A SURETY FOR ON-SITE AFFORESTATION @ \$0.50/sq.ft. FOR 984,140 sq.ft. = \$292,070.00 IS REQUIRED. THE FOREST CONSERVATION SURETY IN THE AMOUNT OF \$292,070.00 IS BE PAID AS PART OF THE DPW DEVELOPER'S AGREEMENT.



MATCHLINE SEE SHEET 16

MATCHLINE SEE SHEET 15

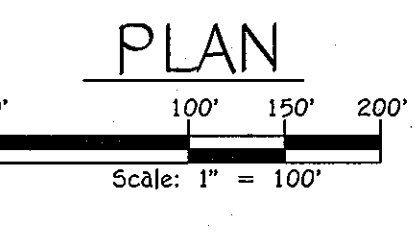
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK  
 GAITHERSBURG, MARYLAND 20878  
 (410) 461-2955

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS

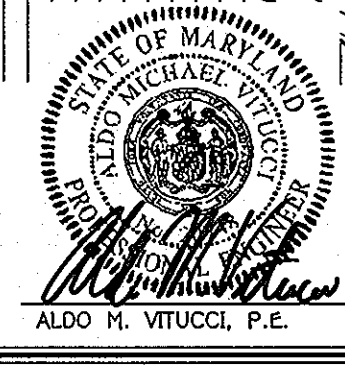
MD DNR Qualified Professional  
 USACOE Wetland Delineator  
 Certification # WDCP93MD06100448  
 JOHN P. CANOLES

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Bassler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900



"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."



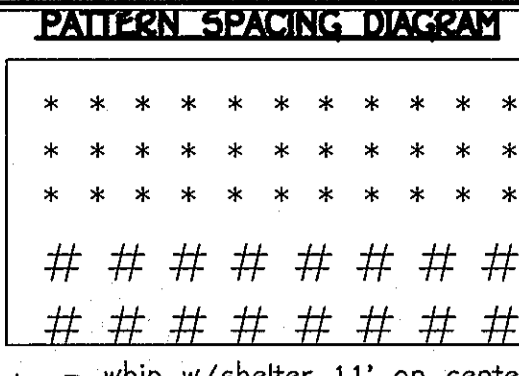
3/21/13  
 DATE

**FOREST CONSERVATION PLAN**  
**WALNUT CREEK**  
 PHASE FOUR  
 Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & RR-DEO  
 TAX MAP No. 2B QRD Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 14 OF 23

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE 4/13/13

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE 4/12/13

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE 4/12/13



**Planting/Soil Specifications**

- Installation of bareroot plant stock shall take place between March 15 - April 20; b&b/container stock March 15 - May 30 or September 15 - November 15. Fall planting of b&b stock is not recommended.
- Disturbed areas shall be seeded and established as per general construction plan for project. Planting areas not impacted by site grading shall have no additional topsoil installed.
- Bareroot plants shall be installed so that the top of root mass is level with the top of existing grade. Roots shall be dipped in an anti-desiccant gel prior to planting. Backfill in the planting pits shall consist of 3 parts existing soil to 1 part pine fines or equivalent.
- Fertilizer shall consist of Agriform 22-0-2, or equivalent, applied as per manufacturer's specifications, for woody plants. Herbaceous plants shall be fertilized with Osmocote 8-6-12.
- Plant material shall be transported to the site in a tarped or covered truck. Plants shall be kept moist prior to planting.
- All non-organic debris associated with the planting operation shall be removed from the site by the contractor.

**Sequence of Construction**

- Sediment control shall be installed in accordance with general construction plan for site.
- Plants shall be installed as per plant schedule and the Planting/Soil Specifications for the project.
- Upon completion of the planting, signage shall be installed as shown.
- Plantings shall be maintained and guaranteed in accordance with the Maintenance and Guarantee requirements for project.

**Maintenance of Plantings**

- Maintenance of plantings shall last for 3 period of 2 years.
- Plantings must receive 2 gallons of water, either through precipitation or watering, weekly during the 1st growing season, as needed. During second growing season, once a month during May-September, if needed.
- Invasive exotics and noxious weeds will be removed, as required, from planting areas mechanically and/or with limited herbicide application (see groundcover note where appropriate). Old field successional species will be retained.
- Plants will be examined a minimum two times during the growing season for serious plant pests and diseases. Serious problems will be treated with the appropriate agent.
- Dead branches will be pruned from plantings.

**Guarantee Requirements**

- A 75 percent survival rate of forestation plantings will be required at the end of 2 growing seasons. All plant material below the 75 percent threshold will be replaced at the beginning of the next growing season. Wild trees arising from natural regeneration may be counted up to 50 percent towards the total survival number if they are healthy, native species at least 12 inches tall.

**Surety for Forestation**

- The developer shall post a surety (bond, letter of credit) to ensure that forestation plantings are completed. See GENERAL NOTE 10, SHEET 1.

**Planting Notes**

When possible, plants shall be installed within 24 hours of delivery. If installation cannot be performed within this time frame, plant stock shall be watered and protected from desiccation.

Application of herbicide, Round-up or equivalent, may be used to reduce plant competition from old field successional growth at the time of installation. Mowing, re-application of herbicide, or a combination thereof, may be used to control unwanted, competing vegetation.

Planting shall be installed within one year or two growing seasons of subdivision approval. Plantings shall be installed in accordance with the time schedule included in Note 1 of the planting/Seeding Specifications.

**Construction Period Protection Program**  
**A. Forest Protection Techniques**  
 1. Soil Protection Area (SPSA) (See Note 1)

The soil protection area, or critical root zone, of a tree is that portion of the soil column whose root of its roots may be found. The majority of roots responsible for water and nutrient uptake are located just below the soil surface.

The duty of disturbance (DOD) shall be the minimum extent of construction activities. Eco-Science Professionals, or another qualified professional designated by the developer, will assist in the field mapping of the DOD to ensure that the DOD that Eco-Science Professionals or another qualified professional has identified is not disturbed. The DOD shall be clearly marked on the ground with a 2" x 4" stake driven into the ground every 100 feet. The DOD shall be clearly marked on the ground with a 2" x 4" stake driven into the ground every 100 feet. The DOD shall be clearly marked on the ground with a 2" x 4" stake driven into the ground every 100 feet.

**B. Pre-Construction Meeting**

Upon signing of the disturbance and installation of all signage, a pre-construction meeting will be held between the developer, contractor and appropriate County inspectors. The purpose of the meeting will be to verify that all pre-construction measures outlined in the PCP are in place, that all sediment control is in order, and to verify the contractor of possible penalties for non-compliance with the PCP.

**C. Storage Facilities/Equipment Cleaning**

All equipment storage, parking, staging, material stockpiles, etc. associated with construction of the project will be restricted to those areas shown within the limit of disturbance. Washing of equipment will be prohibited from all forest retention areas. Washwater resulting from equipment cleaning will be contained in prevent runoff into wetlands, streams and other environmentally sensitive areas.

**D. Sequence of Construction**

The following schedule represents the proposed sequence for construction of the proposed project. The construction start date for this project has not been finalized. The actual start date shall be provided on the issuance of all necessary permits and approvals for the project. The terms defined in the Forest Conservation Plan will be applied upon commencement of the project.

**E. Construction Monitoring**

Eco-Science Professionals, or another qualified professional designated by the developer, will monitor construction of the project to ensure that all activities are in compliance with the Forest Conservation Plan. This will include inspections to ensure that signage is properly maintained and that no unauthorized activities have been made in the forest retention areas.

**F. Activities Permitted During Construction**

The forest conservation plan will allow the following activities within forest resources during the construction phase of the project:

- Phase reversion (decommissioning, etc.)
- These activities will not damage or negatively impact the forest resources on the project.

**G. Post-Construction Meeting**

Upon completion of construction, Eco-Science Professionals, or another qualified professional designated by the developer, will notify the County that construction has been completed and request for a post-construction meeting to review the project site, the monitoring program, and the forest resources. The meeting shall be held within 30 days of the completion of construction. The meeting shall be held within 30 days of the completion of construction.

**Post-Construction Management Plan**

The post-construction management plan will define areas that all Forest Conservation Element Areas are selected. The developer will be responsible for implementation of the post-construction management plan.

FOREST CONSERVATION DATA (Phase Four)				
EASEMENT NO.	CROPPED RETENTION AREA	PLANTING AREA	NON-CROPPED RETENTION AREA	TOTAL EASEMENT AREA
18	0.75 AC.	2.68 AC.	0.00 AC.	3.43 AC.
19	0.27 AC.	1.92 AC.	0.00 AC.	2.19 AC.
20	12.90 AC.	5.62 AC.	0.00 AC.	18.52 AC.
21	0.00 AC.	1.27 AC.	0.00 AC.	1.27 AC.
22	0.52 AC.	0.00 AC.	0.00 AC.	0.52 AC.
23	0.05 AC.	1.92 AC.	0.00 AC.	1.98 AC.
TOTAL	14.50 AC.	13.41 AC.	0.00 AC.	27.91 AC.

(REVISED)  
**FOREST CONSERVATION WORKSHEET**  
 (For the entire Walnut Creek subdivision)

NET TRACT AREA	ACRES
A. TOTAL TRACT AREA	435.0
B. DEDUCTIONS (CRITICAL AREA, AREA RESTRICTED BY LOCAL OR PROGRAM) (78.6 AC. FLOODPLAIN & 15.1 AC. UTILITY TRANSMISSION LINE EASEMENTS)	93.7
C. NET TRACT AREA - NET TRACT AREA = TOTAL TRACT AREA (A) - DEDUCTIONS (B)	342.1
LAND USE CATEGORY: MEDIUM DENSITY RESIDENTIAL	
D. AFFORESTATION THRESHOLD (NET TRACT AREA (C) x 20%)	68.4
E. CONSERVATION THRESHOLD (NET TRACT AREA (C) x 25%)	85.5
EXISTING FOREST COVER	
F. EXISTING FOREST COVER WITHIN THE NET TRACT AREA	75.4
G. AREA OF FOREST ABOVE CONSERVATION THRESHOLD	0
IF THE EXISTING FOREST COVER (F) IS GREATER THAN THE CONSERVATION THRESHOLD (E), THEN $G = F - E$ ; OTHERWISE $G = 0$ .	
BREAK-EVEN POINT	
H. BREAK-EVEN POINT (AMOUNT OF FOREST THAT MUST BE RETAINED SO THAT NO MITIGATION IS REQUIRED)	n/a
(1) IF THE AREA OF FOREST ABOVE CONSERVATION THRESHOLD (G) IS GREATER THAN 0, THEN $H = (0.2 \times \text{THE AREA OF FOREST ABOVE CONSERVATION THRESHOLD (G)} + \text{THE CONSERVATION THRESHOLD (E)})$	
(2) IF THE AREA OF FOREST ABOVE CONSERVATION THRESHOLD (G) IS EQUAL TO 0, THEN $H = \text{EXISTING FOREST COVER (F)}$	
I. FOREST RETAINED WITHOUT MITIGATION	0
J. EXISTING FOREST COVER (F) - BREAK-EVEN POINT (H)	0
PROPOSED FOREST CLEARING	
J. TOTAL AREA OF FOREST TO BE CLEARED	15.03
K. TOTAL AREA OF FOREST TO BE RETAINED	57.32
L. EXISTING FOREST COVER (F) - FOREST TO BE CLEARED (J)	62.29
PLANTING REQUIREMENTS	
IF THE TOTAL AREA OF FOREST TO BE RETAINED (E) IS AT OR ABOVE THE BREAK-EVEN POINT (H), NO PLANTING IS REQUIRED, AND NO FURTHER CALCULATIONS ARE NECESSARY (L=0, M=0, N=0, P=0, Q=0, R=0).	
OTHERWISE, CALCULATE THE PLANTING REQUIREMENTS AS FOLLOWS:	
L. REFORESTATION FOR CLEARING ABOVE THE CONSERVATION THRESHOLD	0
(1) IF THE TOTAL AREA OF FOREST TO BE RETAINED (E) IS GREATER THAN THE CONSERVATION THRESHOLD (E), THEN $L = \text{THE AREA OF FOREST TO BE CLEARED (J)} \times 0.25$	
(2) IF THE FOREST TO BE RETAINED (E) IS LESS THAN OR EQUAL TO THE CONSERVATION THRESHOLD (E), THEN $L = \text{AREA OF FOREST ABOVE CONSERVATION THRESHOLD (G)} \times 0.25$	
M. REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD	38.16
(1) IF EXISTING FOREST COVER (F) IS GREATER THAN THE CONSERVATION THRESHOLD (E) AND THE FOREST TO BE RETAINED (E) IS LESS THAN OR EQUAL TO THE CONSERVATION THRESHOLD (E), THEN $M = 2.0 \times (\text{CONSERVATION THRESHOLD (E)} - \text{FOREST TO BE RETAINED (E)})$	
(2) IF EXISTING FOREST COVER (F) IS LESS THAN OR EQUAL TO THE CONSERVATION THRESHOLD (E), THEN $M = 2.0 \times \text{FOREST TO BE CLEARED (J)}$	
N. CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD	0
IF THE AREA OF FOREST TO BE RETAINED (E) IS GREATER THAN THE CONSERVATION THRESHOLD (E), THEN $N = E - \text{CONSERVATION THRESHOLD (E)}$ ; OTHERWISE $N = 0$	
P. TOTAL REFORESTATION REQUIRED $P = L + M - N$	38.16
Q. TOTAL AFFORESTATION REQUIRED	38.16
IF EXISTING FOREST COVER (F) IS LESS THAN THE AFFORESTATION THRESHOLD (D), THEN $Q = \text{AFFORESTATION THRESHOLD (D)} - \text{EXISTING FOREST COVER (F)}$	
R. TOTAL PLANTING REQUIREMENT $R = P + Q$	38.16

NOTE: THIS PROJECT IS USING "RURAL CLUSTER OPTION B" PER APPENDIX L OF THE FOREST CONSERVATION MANUAL FOR ITS FOREST REQUIREMENT CALCULATIONS WHICH INCLUDES THE AREA FOR ALL THE PRESERVATION PARCELS.

**Planting Notes:**

Planting units defined by the spacing requirements established in the FCA Manual. One plant unit is defined as 1 seedling or whip without shelter. The Manual states that 700 seedlings/whips without shelters are required per acre, or 350 whips w/shelters, or 200 1" caliper trees, or 100 2" caliper trees. By conversion it has been determined that a seedling or whip without shelter = 1 unit, whip with shelter = 2 units, 1" caliper tree = 3.5 units and 2" caliper tree = 7 units. The use of plant units simplifies the plant density calculations when mixing stock size.

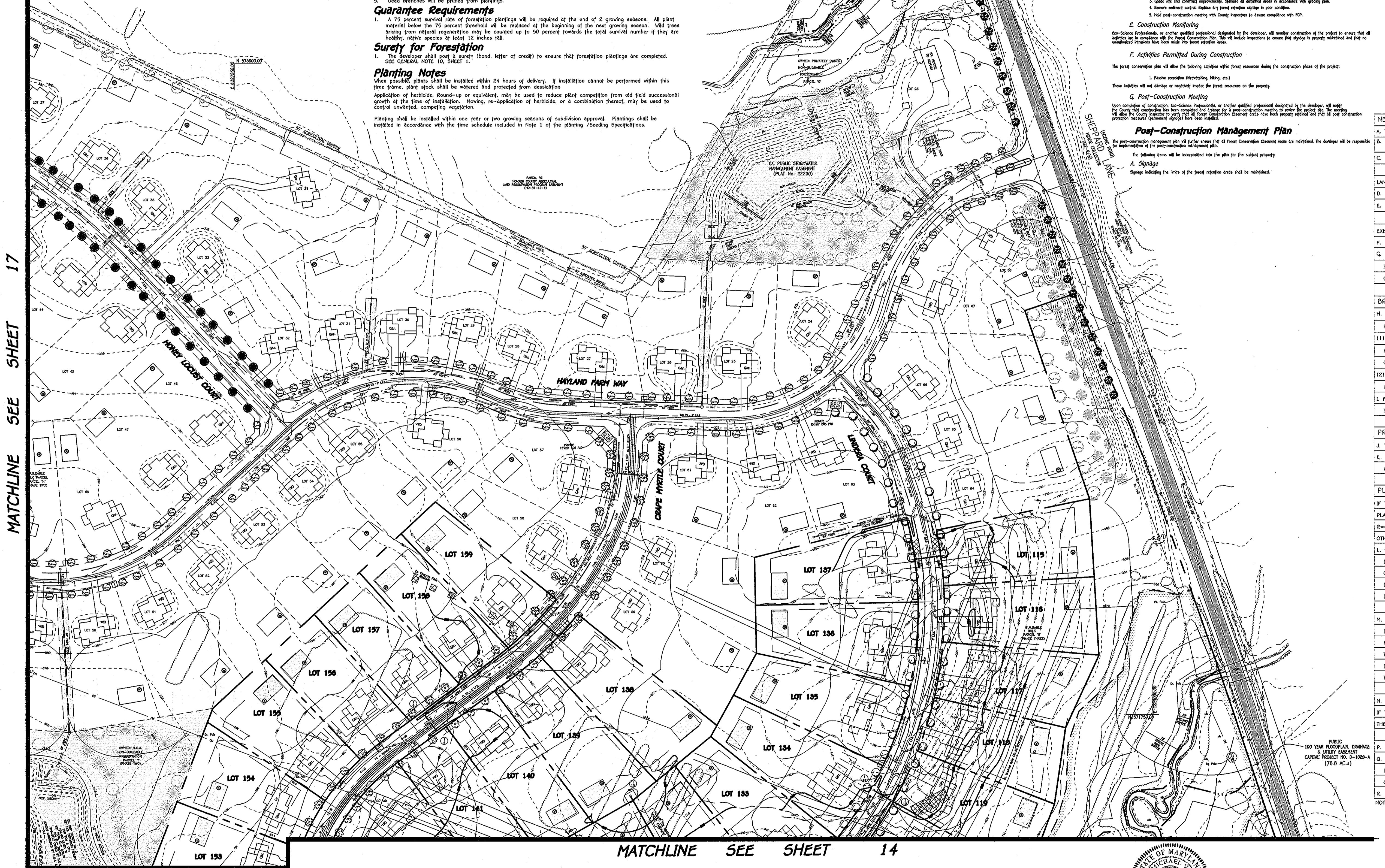
\*\* - These species should not be planted within the wetland limits.

1" caliper trees should be staggered along the outer perimeter of the planting area to serve as demarcation of the boundary. The trees should be no closer than 15 Foot Spacing. Whip spacing to be placed on 11 foot centers, shelters will be required per Howard County policy.

Planting shall be made in a curvilinear fashion along contour. The planting should avoid a grid appearance but should be spaced to facilitate maintenance.

Multiplex road/heavy brush removal/control may be required prior to installation of planting.

All whips are required to be installed with tree shelters per Howard County FCA requirements.



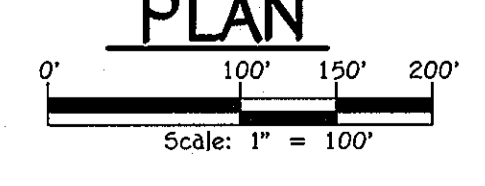
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 1072 WALTONS NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461-2899

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS

MD DNR Qualified Professional  
 USACE Wetland Delineator  
 Certification # WD0P93ND06100148  
 JOHN P. CANOLES  
 03/20/13

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 19950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
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"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20740, Expiration Date: February 22, 2015."



3/2/13  
 DATE

**FOREST CONSERVATION PLAN**  
**WALNUT CREEK**  
**PHASE FOUR**  
**Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'**  
 (A Resubdivision of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & R2-DEO  
 TAX MAP NO. 2B GRID NOS. 4, 5, 10-12, 17, AND 19 PARCEL NO. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 15 OF 23

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 4/2/13

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 4/15/13

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 4/12/13

MATCHLINE SEE SHEET 17



**FCE Planting Area # 18 - 2.68 acres**

Planting units required: 1876 (938 whips)  
 Planting units provided: 1876 (763 whips and 100 trees)

Qty	Species	Size	Spacing	Total FCA Units
50	Acer rubrum - Red maple	1" cal.	15' o.c.	
50	Quercus alba - White oak	1" cal.	15' o.c.	
100	Total 1" caliper trees (3.5 planting units per tree) =			350 Total FCA unit credit
100	Acer rubrum - Red maple	2-3' whip	11' o.c.	
100	Cercis canadensis - Red bud	2-3' whip	11' o.c.	
100	Cornus florida - Flowering dogwood	2-3' whip	11' o.c.	
100	Liriodendron tulipifera - Tulip poplar	2-3' whip	11' o.c.	
100	Prunus serotina - Black cherry	2-3' whip	11' o.c.	
100	Robinia pseudo-acacia - Black locust	2-3' whip	11' o.c.	
100	Quercus alba - White oak	2-3' whip	11' o.c.	
63	Viburnum prunifolium - Blackhaw	2-3' whip	11' o.c.	
763	Total whip plantings (2 planting units per tree) =			1526 Total FCA unit credit
	Total Unit Credit	(350 + 1526)		1876

1" CAL TREES = 200/ACRE (100 TREES/200 = 0.50 AC.)  
 WHIPS w/shelters = 350/ACRE = 350 x 2.18 AC. = 763 WHIPS  
 3.5 Planting units = 1 - 1" Cal. Tree  
 2 Planting units = 1 Whip

**FCE Planting Area # 19 - 1.92 acres**

Planting units required: 1344 (672 whips)  
 Planting units provided: 1344 (497 whips and 100 trees)

Qty	Species	Size	Spacing	Total FCA Units
50	Acer rubrum - Red maple	1" cal.	15' o.c.	
50	Quercus alba - White oak	1" cal.	15' o.c.	
100	Total 1" caliper trees (3.5 planting units per tree) =			350 Total FCA unit credit
75	Acer rubrum - Red maple	2-3' whip	11' o.c.	
72	Cercis canadensis - Red bud	2-3' whip	11' o.c.	
75	Cornus florida - Flowering dogwood	2-3' whip	11' o.c.	
75	Liriodendron tulipifera - Tulip poplar	2-3' whip	11' o.c.	
50	Prunus serotina - Black cherry	2-3' whip	11' o.c.	
50	Robinia pseudo-acacia - Black locust	2-3' whip	11' o.c.	
50	Quercus alba - White oak	2-3' whip	11' o.c.	
50	Viburnum prunifolium - Blackhaw	2-3' whip	11' o.c.	
497	Total whip plantings (2 planting units per tree) =			994 Total FCA unit credit
	Total Unit Credit	(350 + 994)		1344

1" CAL TREES = 200/ACRE (100 TREES/200 = 0.50 AC.)  
 WHIPS w/shelters = 350/ACRE = 350 x 1.42 AC. = 497 WHIPS  
 3.5 Planting units = 1 - 1" Cal. Tree  
 2 Planting units = 1 Whip

**FCE Planting Area # 20 - 5.62 acres**

Planting units required: 3934 (1967 whips)  
 Planting units provided: 3934 (1617 whips and 200 trees)

Qty	Species	Size	Spacing	Total FCA Units
100	Acer rubrum - Red maple	1" cal.	15' o.c.	
100	Quercus alba - White oak	1" cal.	15' o.c.	
200	Total 1" caliper trees (3.5 planting units per tree) =			700 Total FCA unit credit
250	Acer rubrum - Red maple	2-3' whip	11' o.c.	
250	Cercis canadensis - Red bud	2-3' whip	11' o.c.	
200	Cornus florida - Flowering dogwood	2-3' whip	11' o.c.	
200	Liriodendron tulipifera - Tulip poplar	2-3' whip	11' o.c.	
200	Prunus serotina - Black cherry	2-3' whip	11' o.c.	
200	Robinia pseudo-acacia - Black locust	2-3' whip	11' o.c.	
159	Quercus alba - White oak	2-3' whip	11' o.c.	
158	Viburnum prunifolium - Blackhaw	2-3' whip	11' o.c.	
1617	Total whip plantings (2 planting units per tree) =			3234 Total FCA unit credit
	Total Unit Credit	(700 + 3234)		3934

1" CAL TREES = 200/ACRE (200 TREES/200 = 1.00 AC.)  
 WHIPS w/shelters = 350/ACRE = 350 x 4.62 AC. = 1617 WHIPS  
 3.5 Planting units = 1 - 1" Cal. Tree  
 2 Planting units = 1 Whip

**FCE Planting Area # 21 - 1.27 acres**

Planting units required: 990 (445 whips)  
 Planting units provided: 990 (357 whips and 50 trees)

Qty	Species	Size	Spacing	Total FCA Units
25	Acer rubrum - Red maple	1" cal.	15' o.c.	
25	Quercus alba - White oak	1" cal.	15' o.c.	
50	Total 1" caliper trees (3.5 planting units per tree) =			175 Total FCA unit credit
70	Acer rubrum - Red maple	2-3' whip	11' o.c.	
70	Cercis canadensis - Red bud	2-3' whip	11' o.c.	
70	Cornus florida - Flowering dogwood	2-3' whip	11' o.c.	
70	Liriodendron tulipifera - Tulip poplar	2-3' whip	11' o.c.	
25	Prunus serotina - Black cherry	2-3' whip	11' o.c.	
20	Robinia pseudo-acacia - Black locust	2-3' whip	11' o.c.	
16	Quercus alba - White oak	2-3' whip	11' o.c.	
16	Viburnum prunifolium - Blackhaw	2-3' whip	11' o.c.	
357	Total whip plantings (2 planting units per tree) =			715 Total FCA unit credit
	Total Unit Credit	(175 + 715)		890

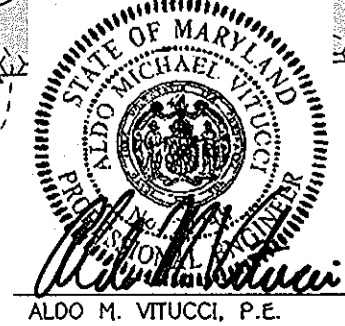
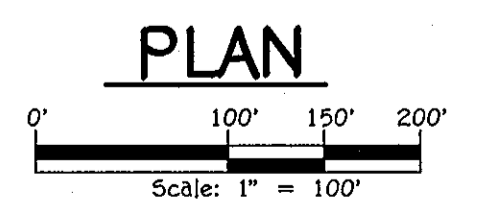
1" CAL TREES = 200/ACRE (50 TREES/200 = 0.25 AC.)  
 WHIPS w/shelters = 350/ACRE = 350 x 1.02 AC. = 357 WHIPS  
 3.5 Planting units = 1 - 1" Cal. Tree  
 2 Planting units = 1 Whip

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 33 CENTRAL SQUARE OFFICE PARK - 10732 WALNUT CREEK NATIONAL PARK  
 ELKNOTT CITY, MARYLAND 21042  
 (410) 461-2899

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS  
 20 DNR Qualified Professional  
 USACE Wetland Delineator  
 Certification # WDCP93M006100448  
 JOHN P. CANOLES 03/20/13

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Basler Ventures, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900



3/20/13  
 DATE

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."

**FOREST CONSERVATION PLAN**  
**WALNUT CREEK**  
**PHASE FOUR**  
**Lots 115 - 159 And Non-Buildable**  
**Preservation Parcel 'W' & 'X'**  
 (A Resubdivision of Zoned Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & RE-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 16 OF 23

MATCHLINE SEE SHEET 14



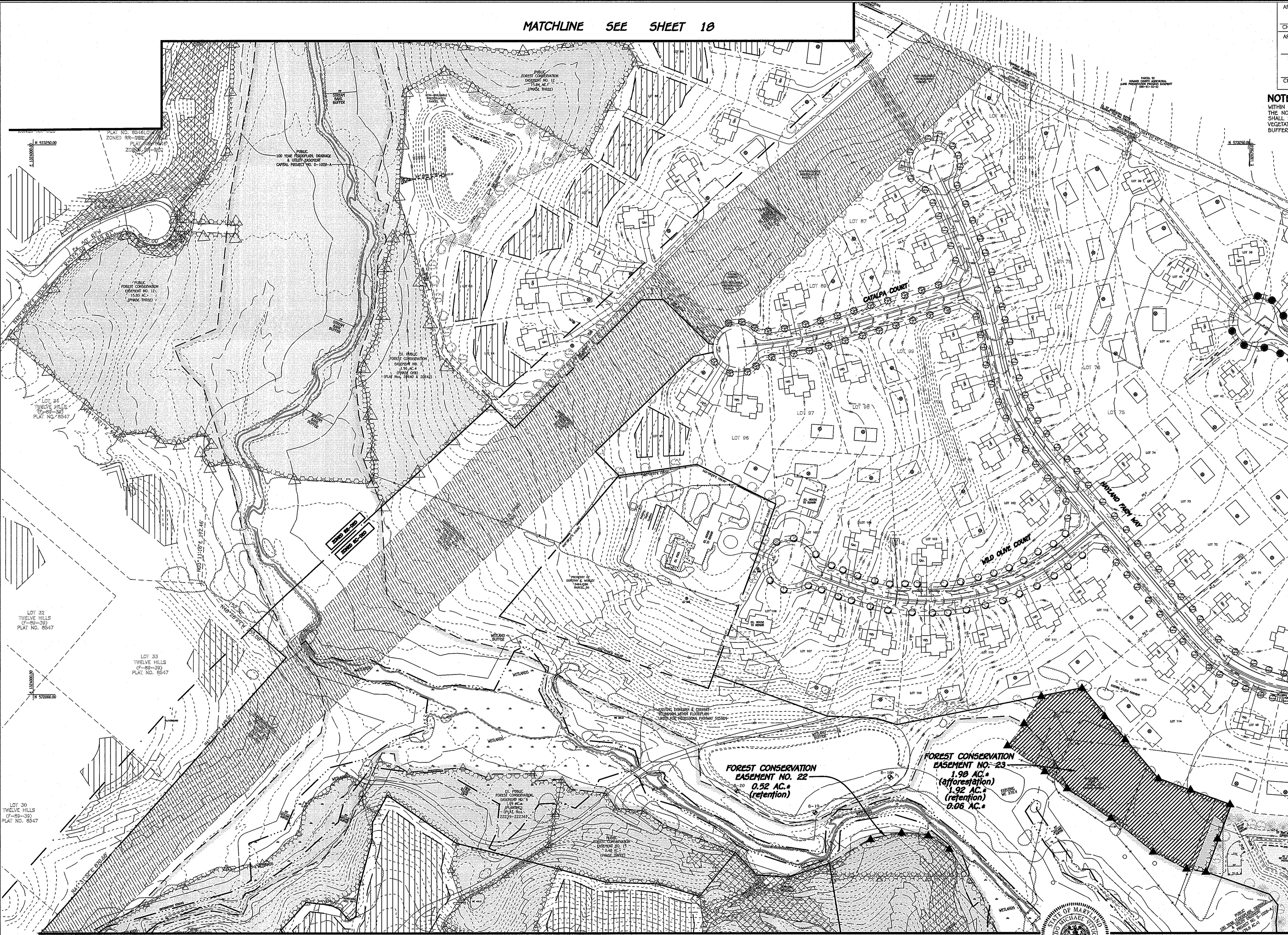
MATCHLINE SEE SHEET 10

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 [Signature] 4/13/13  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 4/15/13  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 4/12/13  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**NOTE:**  
 WITHIN THE 50 FOOT WIDE AGRICULTURAL BUFFER EASEMENT LOCATED ALONG THE NORTHERN PROPERTY BOUNDARY, NO PRIMARY OR ACCESSORY STRUCTURES SHALL BE PERMITTED, AND WITHIN THE EASEMENT AREA, THE EXISTING HEDGEROW VEGETATION SHALL BE PRESERVED AND SUPPLEMENTED WITH A TYPE 'A' LANDSCAPE BUFFER WHERE INSUFFICIENT VEGETATION EXISTS.



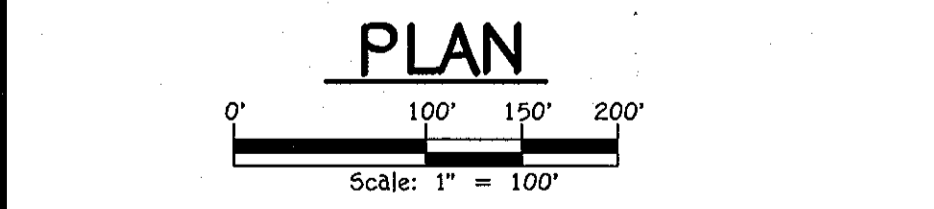
MATCHLINE SEE SHEET 19

**FCE Planting Area # 23 - 1.92 acres**

Planting units required: 1344 (672 whips)  
 Planting units provided: 1345 (565 whips and 50 trees)

Qty	Species	Size	Spacing	Total FCA Units
25	Acer rubrum - Red maple	1" cal.	15' o.c.	
25	Quercus alba - White oak	1" cal.	15' o.c.	
50 Total 1" caliper trees (50 planting units per tree) = 175 Total FCA unit credit				
100	Acer rubrum - Red maple	2-3' whip	11' o.c.	
100	Cercis canadensis - Red bud	2-3' whip	11' o.c.	
100	Cornus florida - Flowering dogwood	2-3' whip	11' o.c.	
55	Liriodendron tulipifera - Tulip poplar	2-3' whip	11' o.c.	
55	Prunus serotina - Black cherry	2-3' whip	11' o.c.	
50	Robinia pseudo-acacia - Black locust	2-3' whip	11' o.c.	
50	Quercus alba - White oak	2-3' whip	11' o.c.	
75	Viburnum prunifolium - Blackhaw	2-3' whip	11' o.c.	
565 Total whip plantings (2 planting units per tree) = 1170 Total FCA unit credit				
Total Unit Credit (175 + 1170) = 1345				

1" CAL TREES = 200/ACRE (50 TREES/200 = 0.25 AC.)  
 WHIPS w/whetters = 350/ACRE = 350 x 1.67 AC. = 585 WHIPS  
 3.9 Planting units = 1 = 1" Cal. Tree  
 2 Planting units = 1 Whip



**FOREST CONSERVATION PLAN**  
**WALNUT CREEK**  
**PHASE FOUR**  
**Lots 115 - 159 And Non-Buildable**  
**Preservation Parcel 'W' & 'X'**  
 (A Resubdivision of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & R2-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 17 OF 23

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 10212 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461-2095

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS

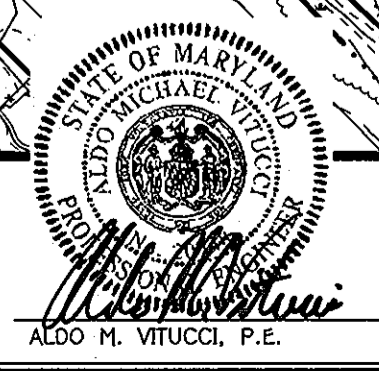
MD DNR Qualified Professional  
 USACOE Wetland Delineator  
 Certification # WDCP93MD0610044B  
 [Signature] JOHN P. CANOLES

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Bassler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

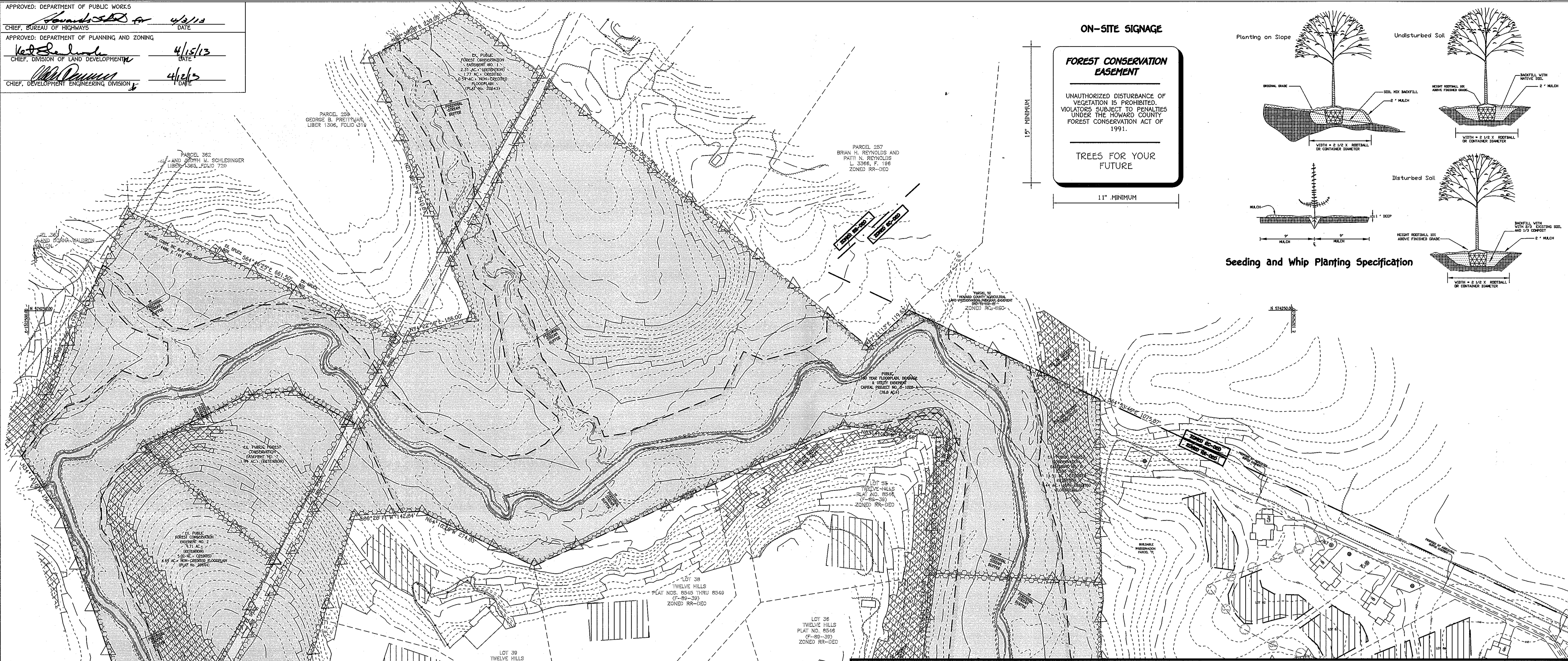
MATCHLINE SEE SHEET 16

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20746, Expiration Date: February 22, 2015."



[Signature] 3/21/13  
 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



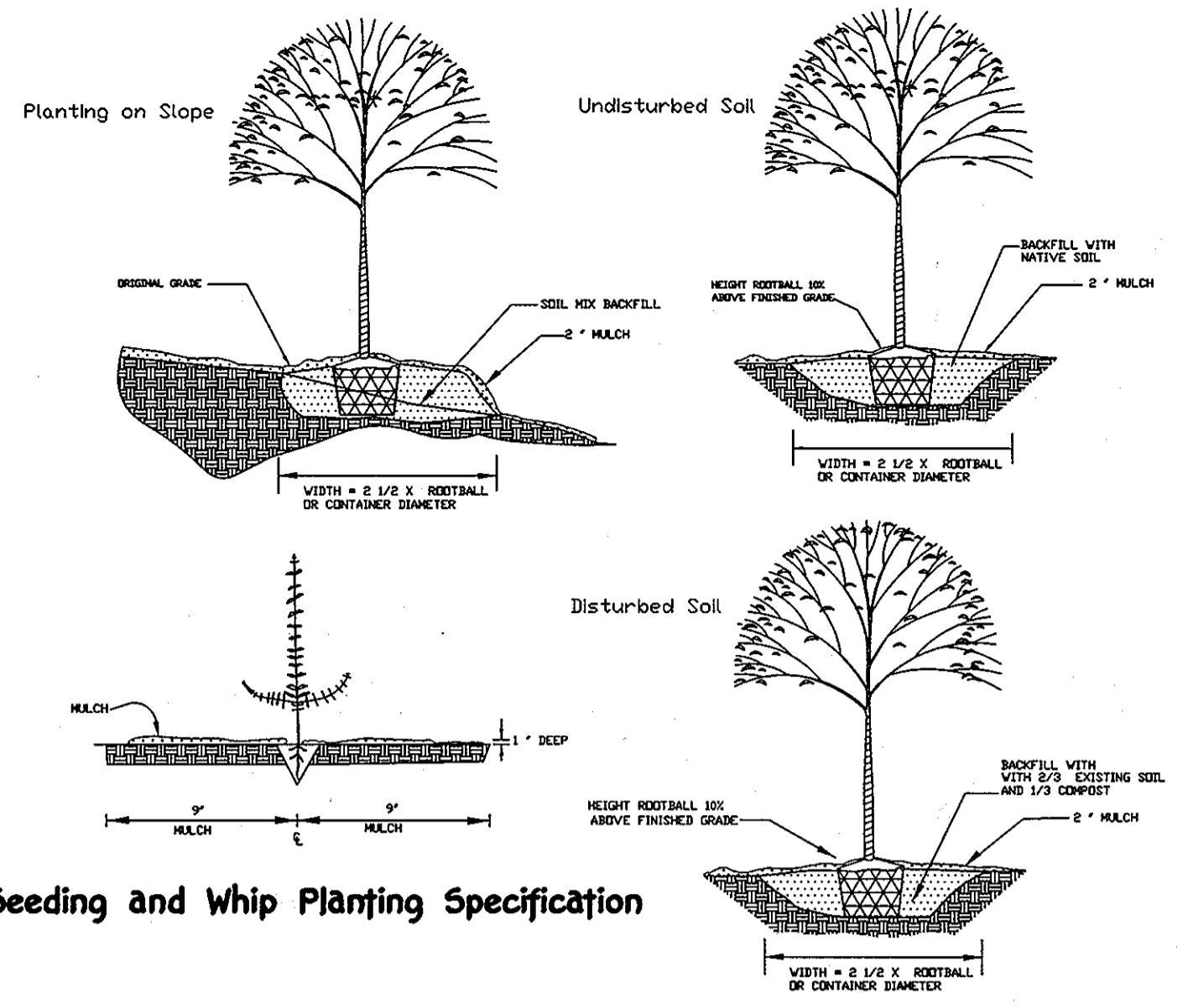
**ON-SITE SIGNAGE**

**FOREST CONSERVATION EASEMENT**

UNAUTHORIZED DISTURBANCE OF VEGETATION IS PROHIBITED. VIOLATORS SUBJECT TO PENALTIES UNDER THE HOWARD COUNTY FOREST CONSERVATION ACT OF 1991.

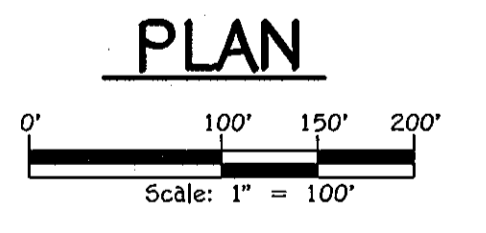
TREES FOR YOUR FUTURE

15" MINIMUM  
 11" MINIMUM



MATCHLINE SEE SHEET 17

- LEGEND**
- Existing Contours
  - Wetland Limits
  - Wetland/Stream Buffer
  - Proposed Contours
  - Forest Conservation Easement (Retention Area)
  - Forest Conservation Easement To Be Planted
  - Forest Conservation Signs
  - Ex. Forest Conservation Signs
  - Tree Protection Fence
  - Limits Of Floodplain
  - Proposed Treeline



**FOREST CONSERVATION DATA (entire project)**

PHASE	CREATED RETENTION AREA	PLANTING AREA	NON-CREATED RETENTION AREA	TOTAL EASEMENT AREA
ONE (F-07-076)	8.19 AC.	4.35 AC.	5.46 AC.	18.00 AC.
TWO (F-08-081)	17.13 AC.	9.10 AC.	9.44 AC.	35.67 AC.
THREE (F-13-026)	17.50 AC.	9.30 AC.	11.04 AC.	37.84 AC.
FOUR	14.50 AC.	13.41 AC.	0.00 AC.	27.91 AC.
<b>TOTAL</b>	<b>57.32 AC.</b>	<b>36.16 AC.</b>	<b>25.94 AC.</b>	<b>119.42 AC.</b>

MATCHLINE SEE THIS SHEET

MATCHLINE SEE THIS SHEET

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 10212 BALTIMORE NATIONAL PLACE  
 ELKORT CITY, MARYLAND 21042  
 (410) 481-2099

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS

MD DNR Qualified Professional  
 USACE Wetland Designer  
 Certification # WDCP93MD06100448  
 JOHN P. CANOLES

**Owner**  
 BV Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

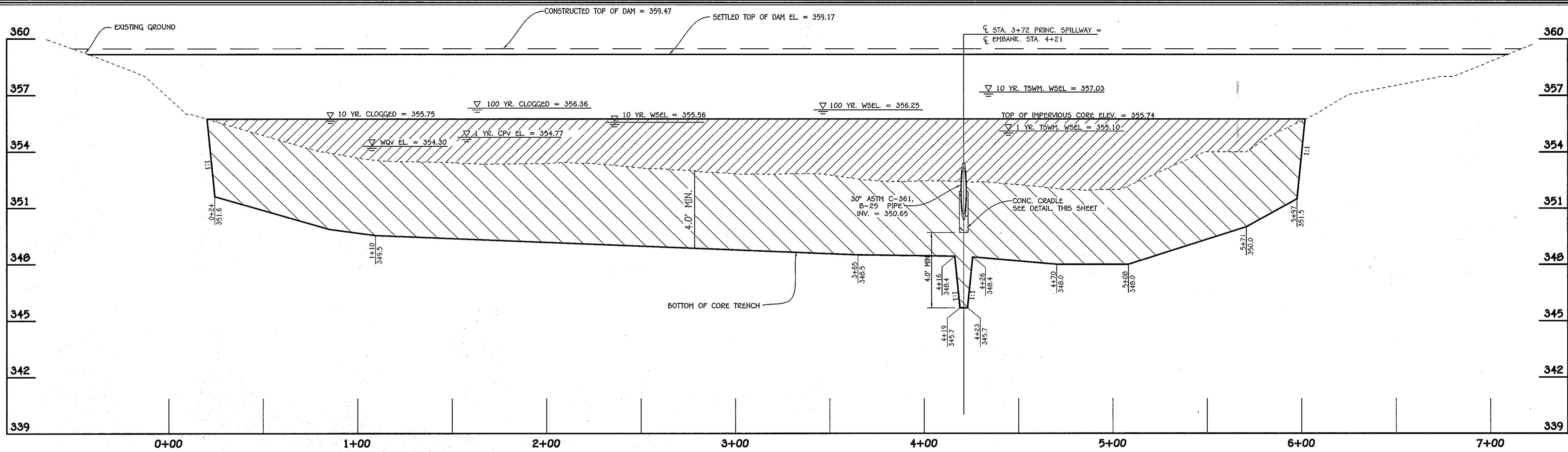
**Developer**  
 Bassler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015."



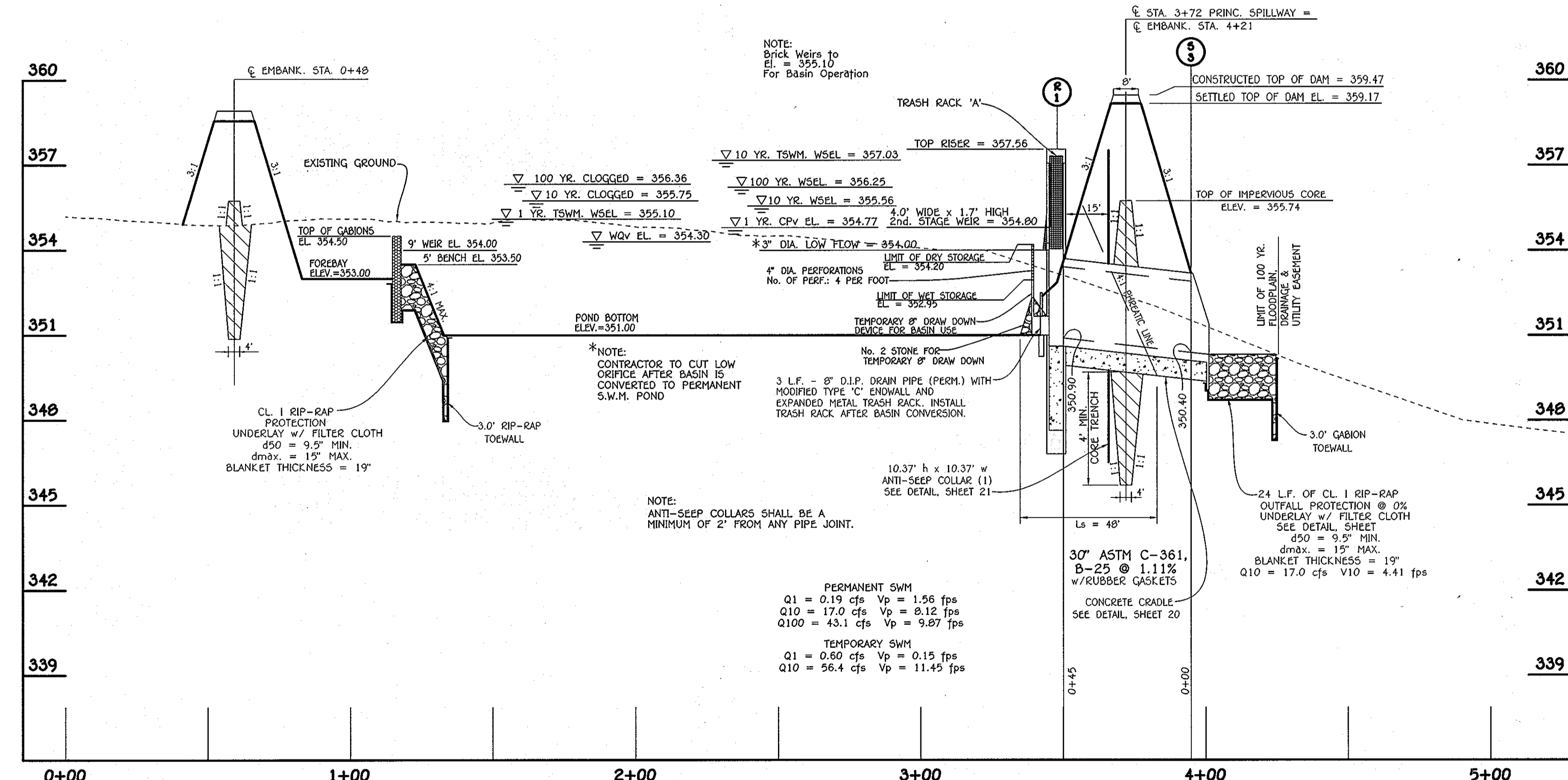
3/29/13  
 DATE

**FOREST CONSERVATION PLAN**  
**WALNUT CREEK**  
**PHASE FOUR**  
**Lots 115 - 159 And Non-Buildable**  
**Preservation Parcel 'W' & 'X'**  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & RR-DEO  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 18 OF 23



S.W.M. FACILITY B.M.P. NO. 2 (P-1)  
PROFILE ALONG EMBANKMENT

SCALE: HOR. : 1" = 30'  
VER. : 1" = 3'

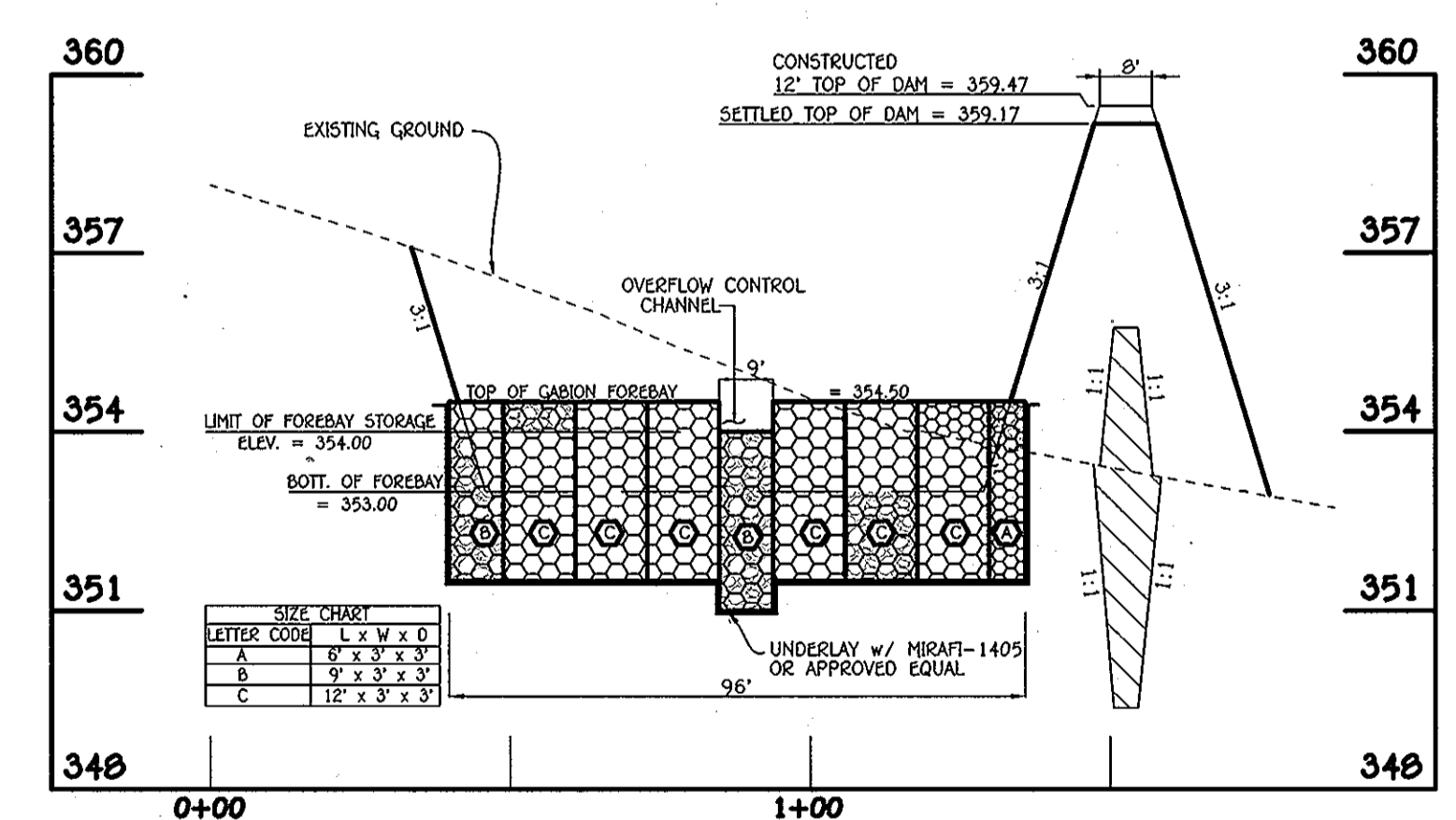


PRINCIPLE SPILLWAY PROFILE

SCALE: HOR. : 1" = 30'  
VER. : 1" = 3'

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND JOINTLY MAINTAINED STORMWATER MANAGEMENT FACILITIES (P-1)

- ROUTINE MAINTENANCE**
- Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
  - Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
  - Debris and litter shall be removed during regular mowing operations and as needed.
  - Visible signs of erosion in the pond as well as the rip-rap or gabion outfall area shall be repaired as soon as it is noticed.
- NON-ROUTINE MAINTENANCE**
- Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
  - Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond or forebay, is half full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.



GABION FOREBAY PROFILE

SCALE: HOR. : 1" = 30'  
VER. : 1" = 3'

By The Developer:  
 I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.

Signature of Developer: *Timothy W. Feaga* Date: 3/28/13  
 Printed Name of Developer: Timothy W. Feaga

By The Engineer:  
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Feasible Design Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Noticed The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion.

Signature of Engineer: *John M. Roberts* Date: 3/28/13  
 Printed Name of Engineer: John M. Roberts

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Approved: Department Of Public Works  
 Signature: *Howard S. D...* Date: 4/2/13  
 Chief, Bureau Of Highways

Approved: Department Of Planning And Zoning  
 Signature: *Victoria...* Date: 4/15/13  
 Chief, Division Of Land Development

Signature: *...* Date: 4/12/13  
 Chief, Development Engineering Division

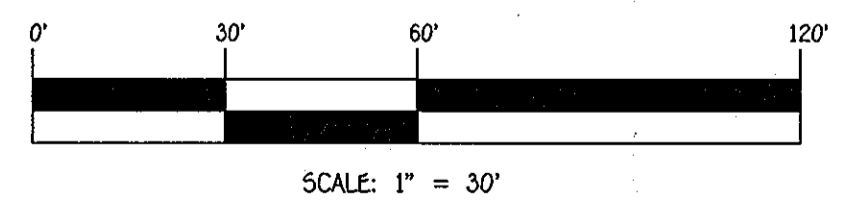
AS-BUILT CERTIFICATION

I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

Signature: \_\_\_\_\_ P.E. No. \_\_\_\_\_  
 Date: \_\_\_\_\_

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

REVISIONS		
NO.	DESCRIPTION	DATE



STORMWATER MANAGEMENT NOTES AND DETAILS  
POND No. 2

WALNUT CREEK  
PHASE FOUR

Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DEO & RR-DEO  
 TAX MAP No. 2B GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 19 OF 23

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 10272 BALDWIN NATIONAL PARK  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2299

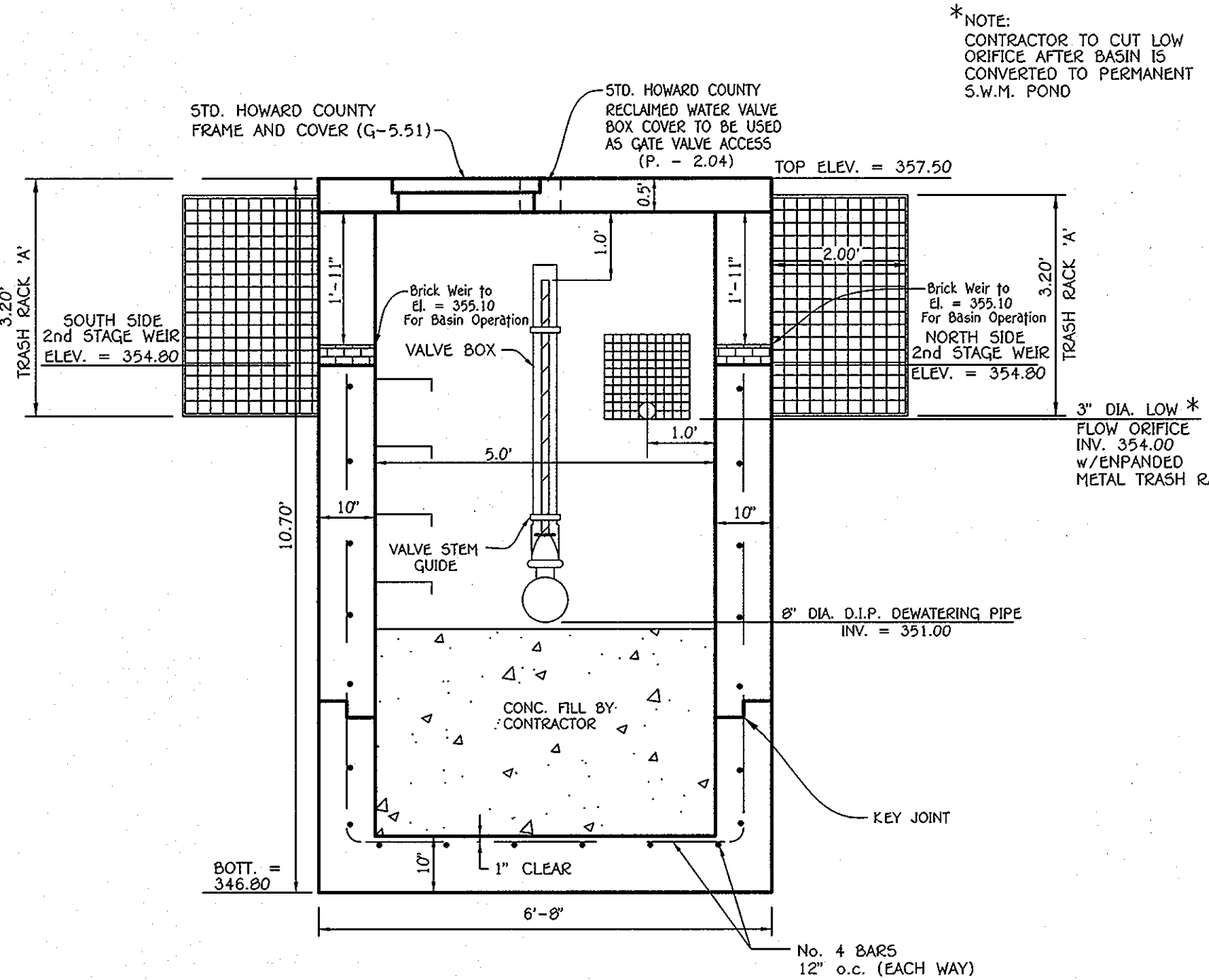
Owner: BY Business Trust, 15950 North Avenue, P.O. Box 482, Lisbon, MD 21765, 410-489-7900  
 Developer: Basler Venture, LLC, 15950 North Avenue, P.O. Box 482, Lisbon, MD 21765, 410-489-7900

"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20746, Expiration Date: February 22, 2015."

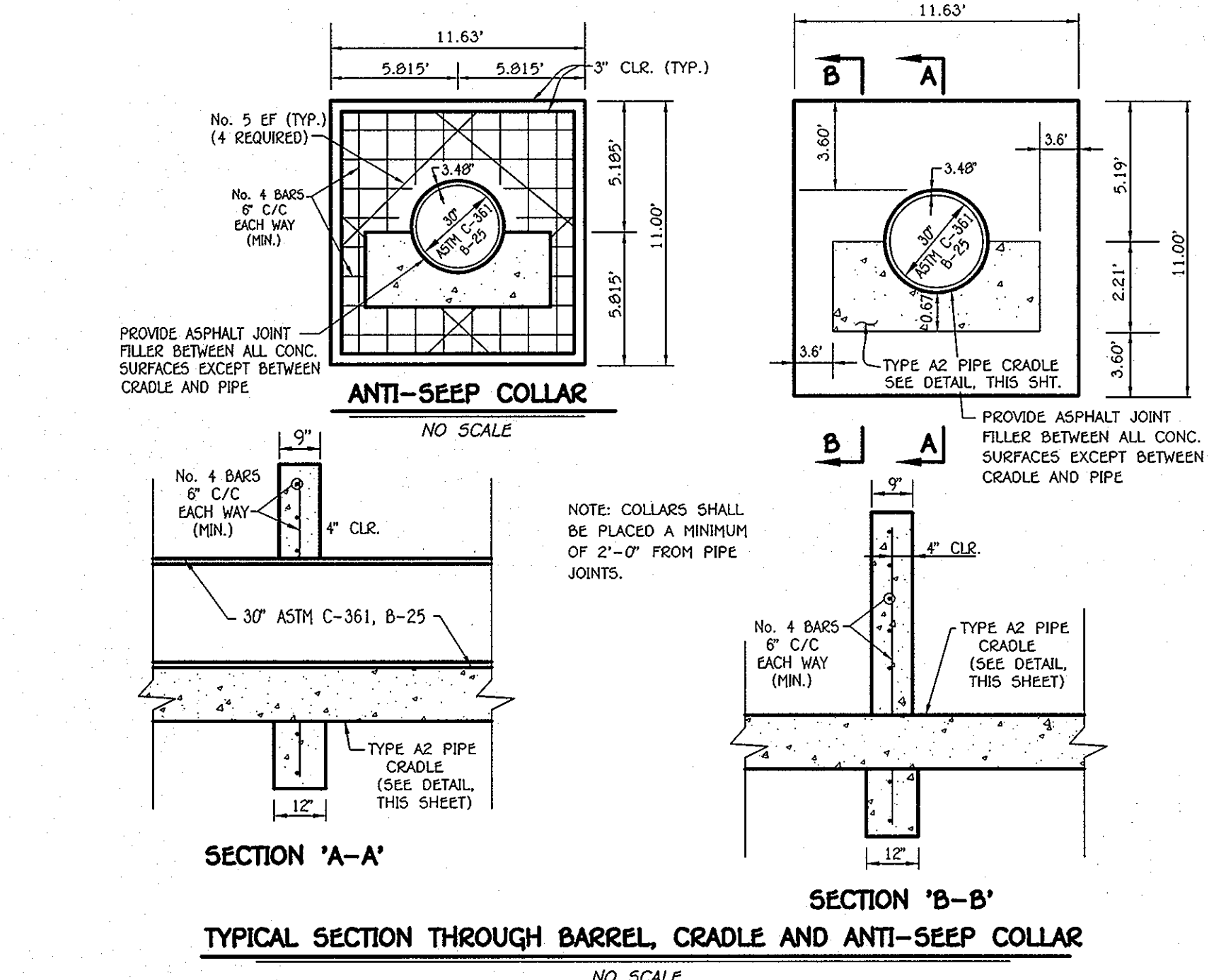
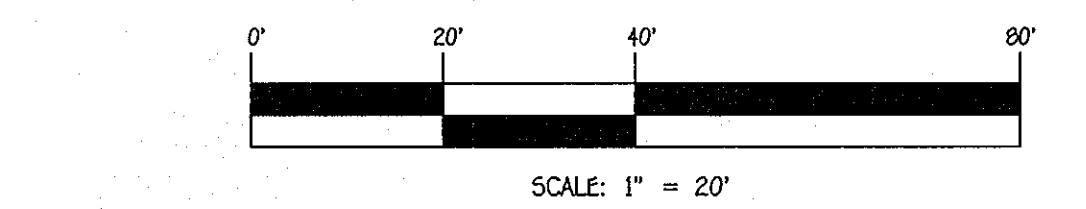


Signature: *...* Date: 3/28/13

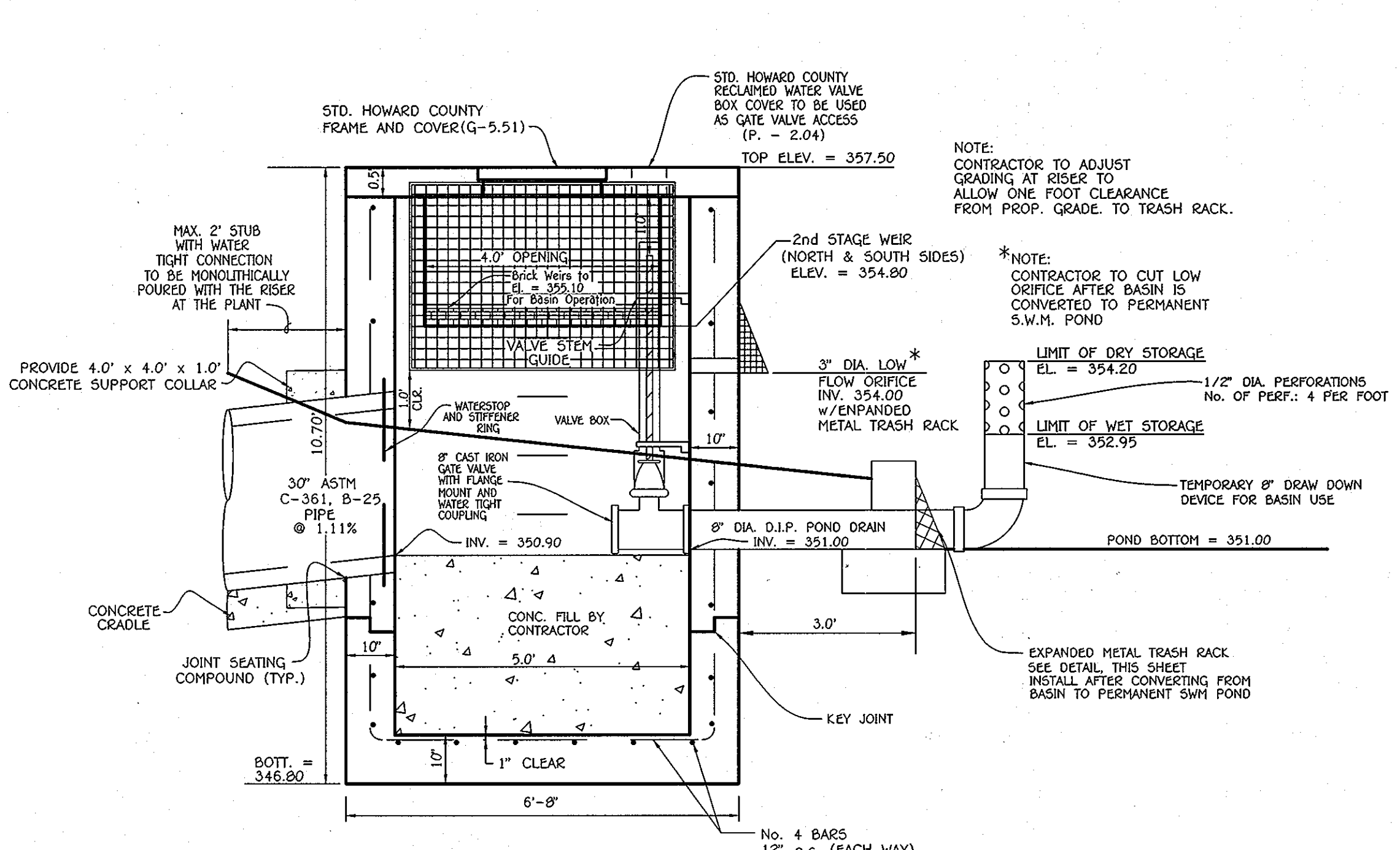




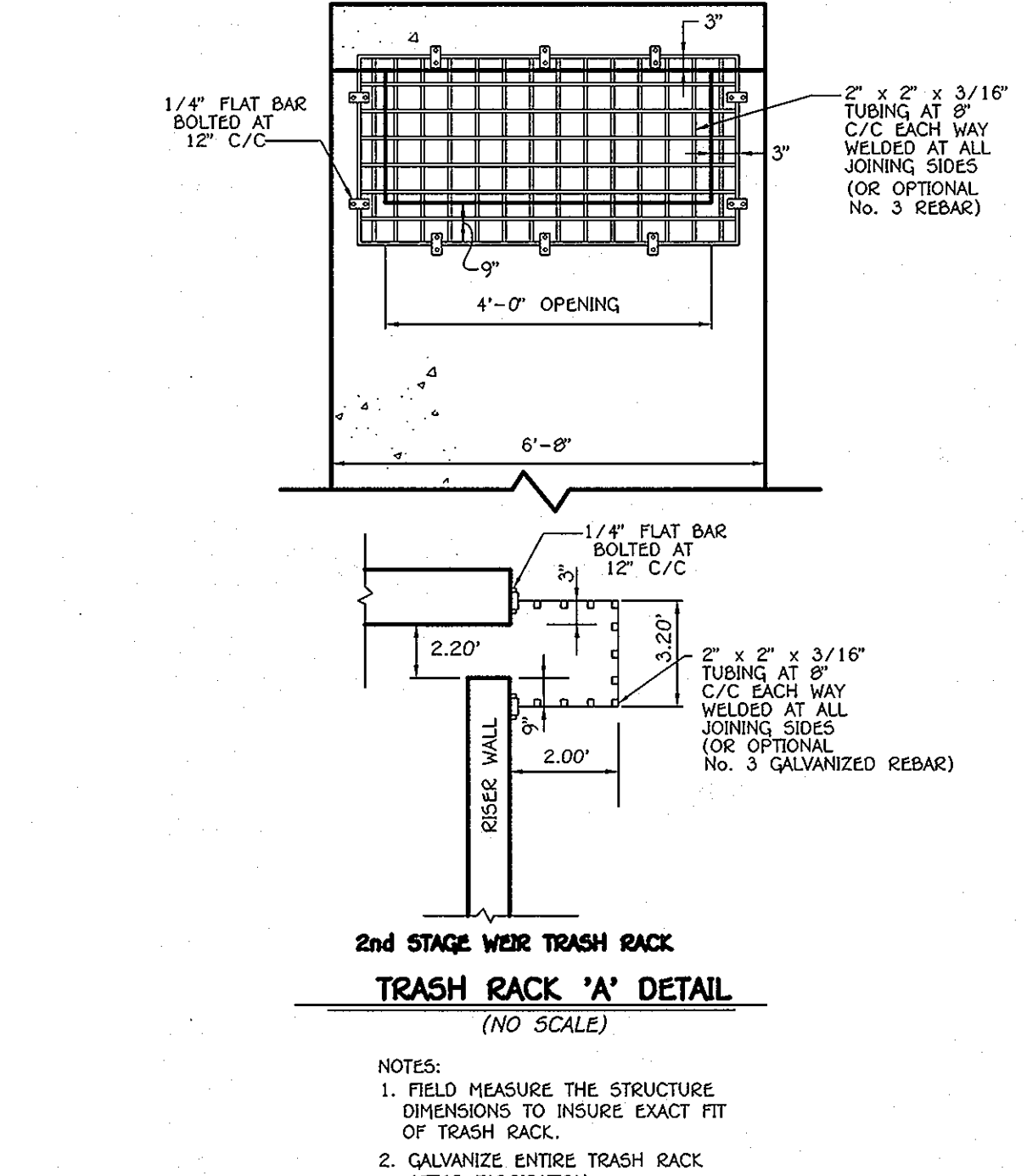
**PROFILE VIEW B CONCRETE RISER DETAIL**  
SCALE: 1" = 2"



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
3330 CORTLAND SQUARE OFFICE PHASE - 10272 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2299

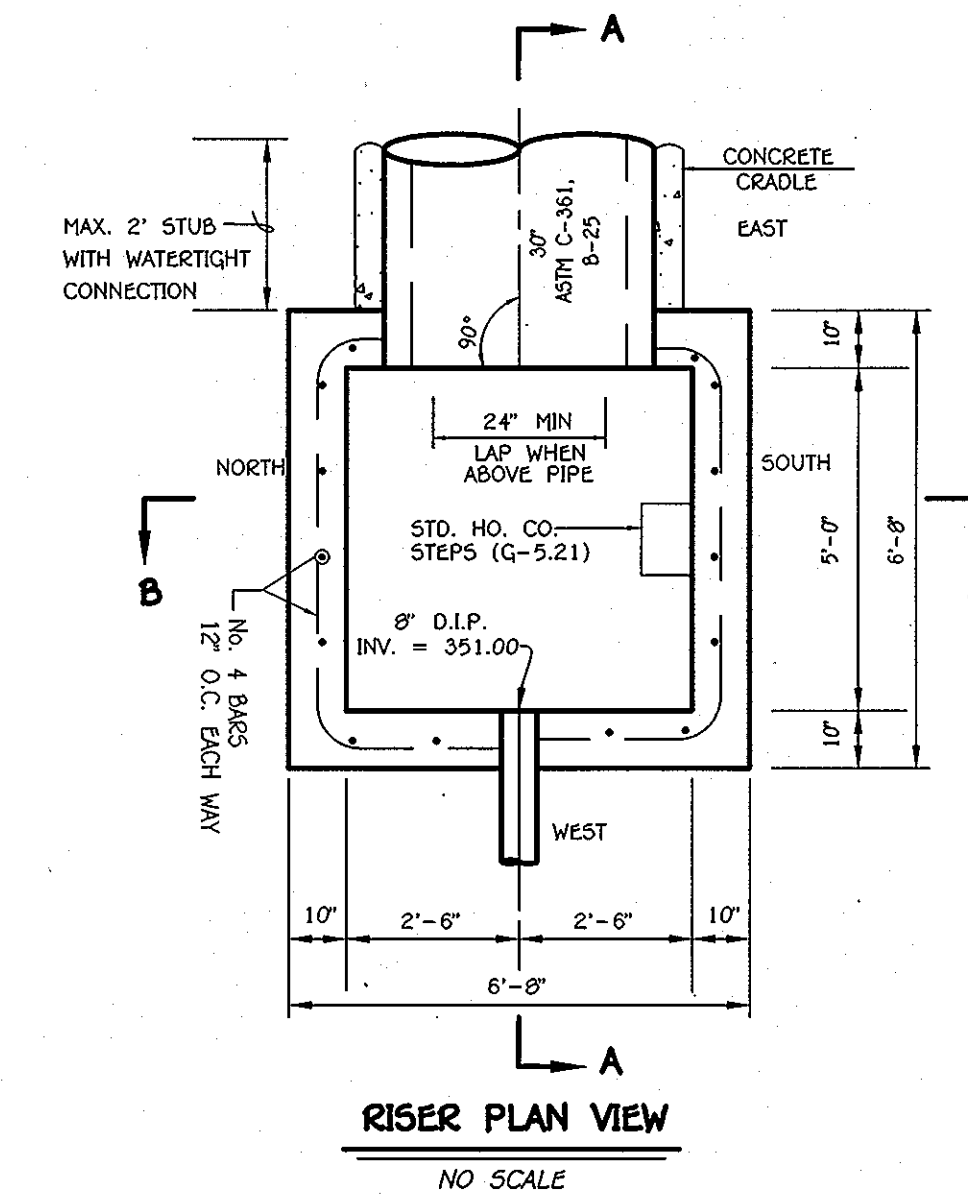


**PROFILE VIEW A CONCRETE RISER DETAIL**  
SCALE: 1" = 2"



**Owner**  
BV Business Trust  
15950 North Avenue  
P.O. Box 482  
Lisbon, MD 21765  
410-489-7900

**Developer**  
Basstar Ventures, LLC  
15950 North Avenue  
P.O. Box 482  
Lisbon, MD 21765  
410-489-7900



**RISER PLAN VIEW**  
NO SCALE



**Professional Certification.** I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20748, Expiration Date: February 22, 2015.

By The Developer:  
"I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."

Signature Of Developer: *Timothy W Feaga* 3/29/13 Date  
Printed Name Of Developer: Timothy W Feaga

By The Engineer:  
"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Feasible Solution Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Advised The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."

Signature Of Engineer: *John R. Whitson* 3/29/13 Date  
Printed Name Of Engineer: John R. Whitson

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Approved: Department Of Public Works  
Signature: *James D. ...* 4/12/13 Date  
Chief, Bureau Of Highways

Approved: Department Of Planning And Zoning  
Signature: *Val ...* 4/15/13 Date  
Chief, Division Of Land Development

Signature: *...* 4/12/13 Date  
Chief, Development Engineering Division

AS-BUILT CERTIFICATION  
I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

Signature: \_\_\_\_\_ P.E. No. \_\_\_\_\_  
Date: \_\_\_\_\_

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

REVISIONS		
NO.	DESCRIPTION	DATE

STORMWATER MANAGEMENT NOTES AND DETAILS  
POND No. 2  
**WALNUT CREEK**  
PHASE FOUR  
Lots 115 - 159 And Non-Buildable  
Preservation Parcel 'W' & 'X'  
(A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
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TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: MARCH 20, 2013  
SHEET 21 OF 23



3/29/13  
DATE



### ENGINEER'S CERTIFICATE

I hereby certify that the Plan For Erosion And Sediment Control Represents a Feasible Plan Based on My Personal Knowledge and That It Was Prepared in Accordance with the Standards of The Howard Soil Conservation District.

Signature: *[Signature]* Date: 3/20/13

### DEVELOPER'S CERTIFICATE

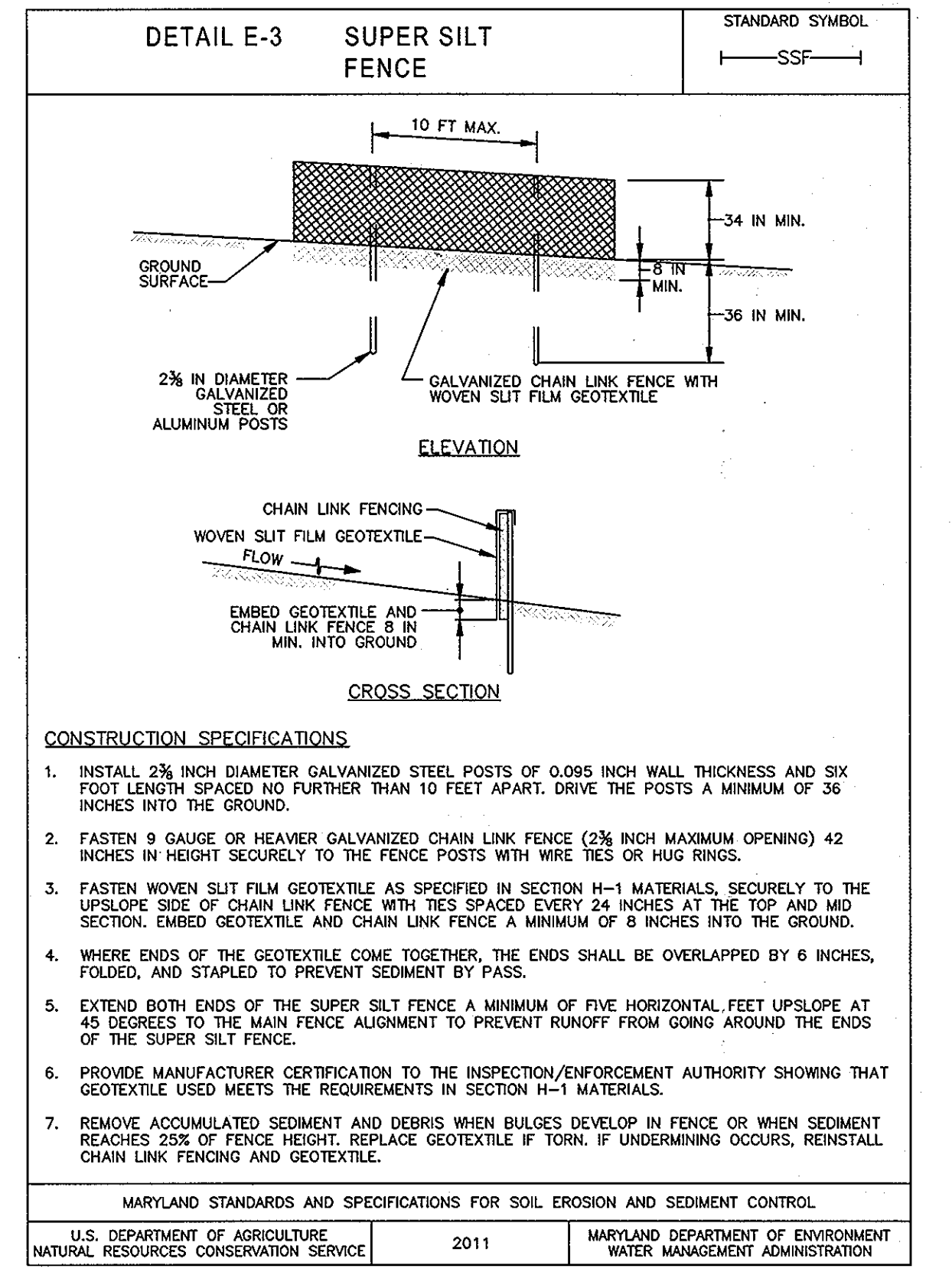
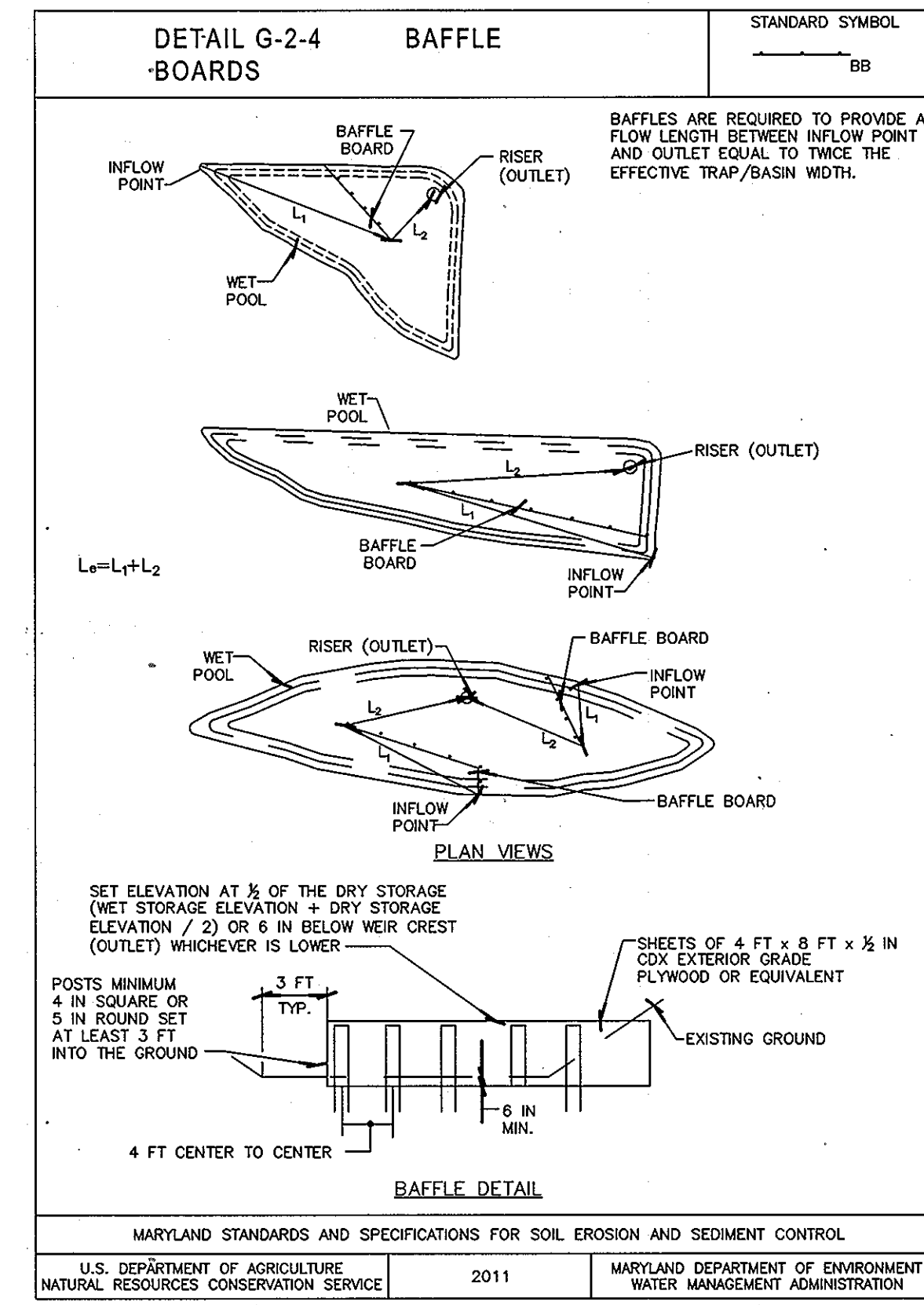
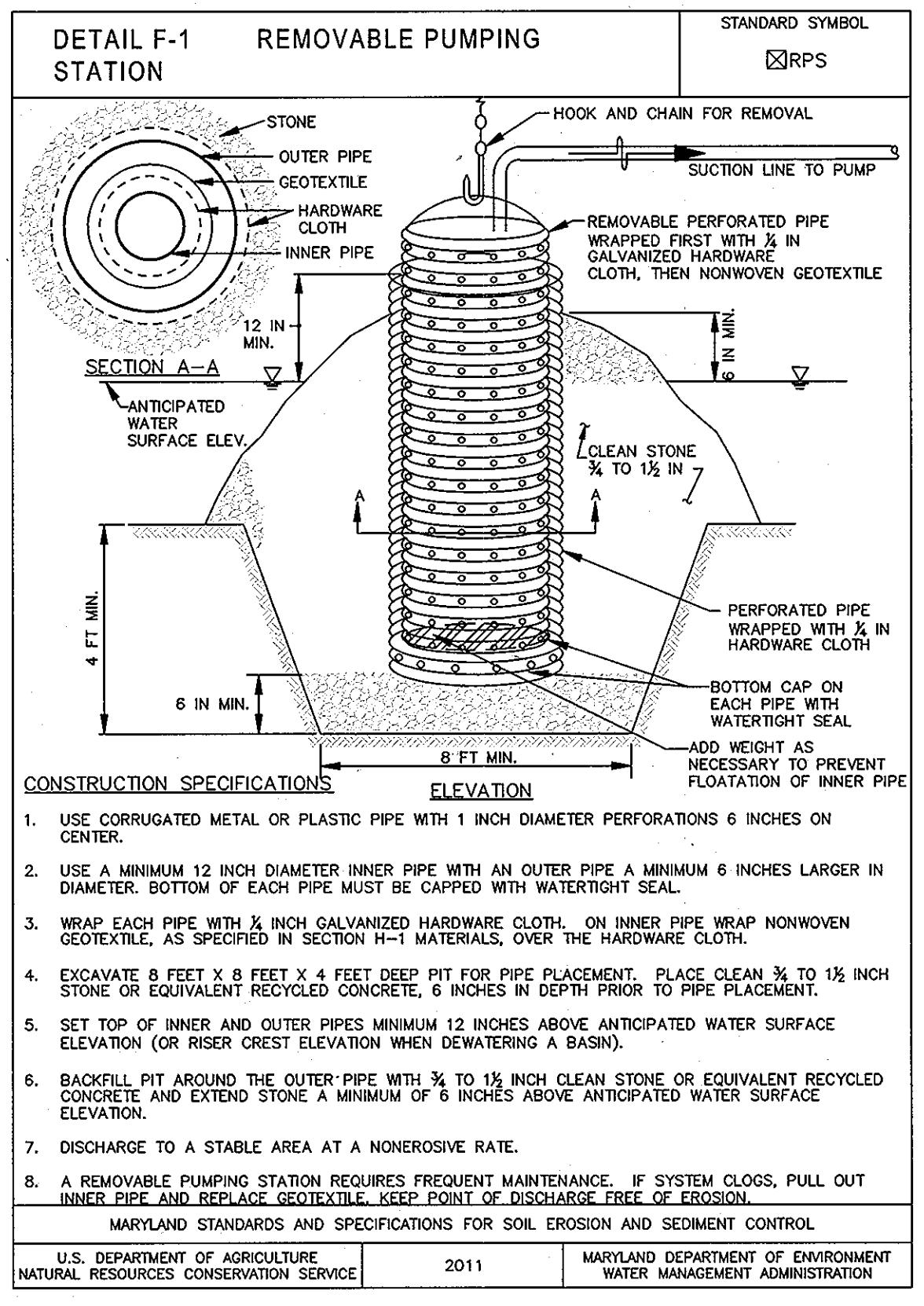
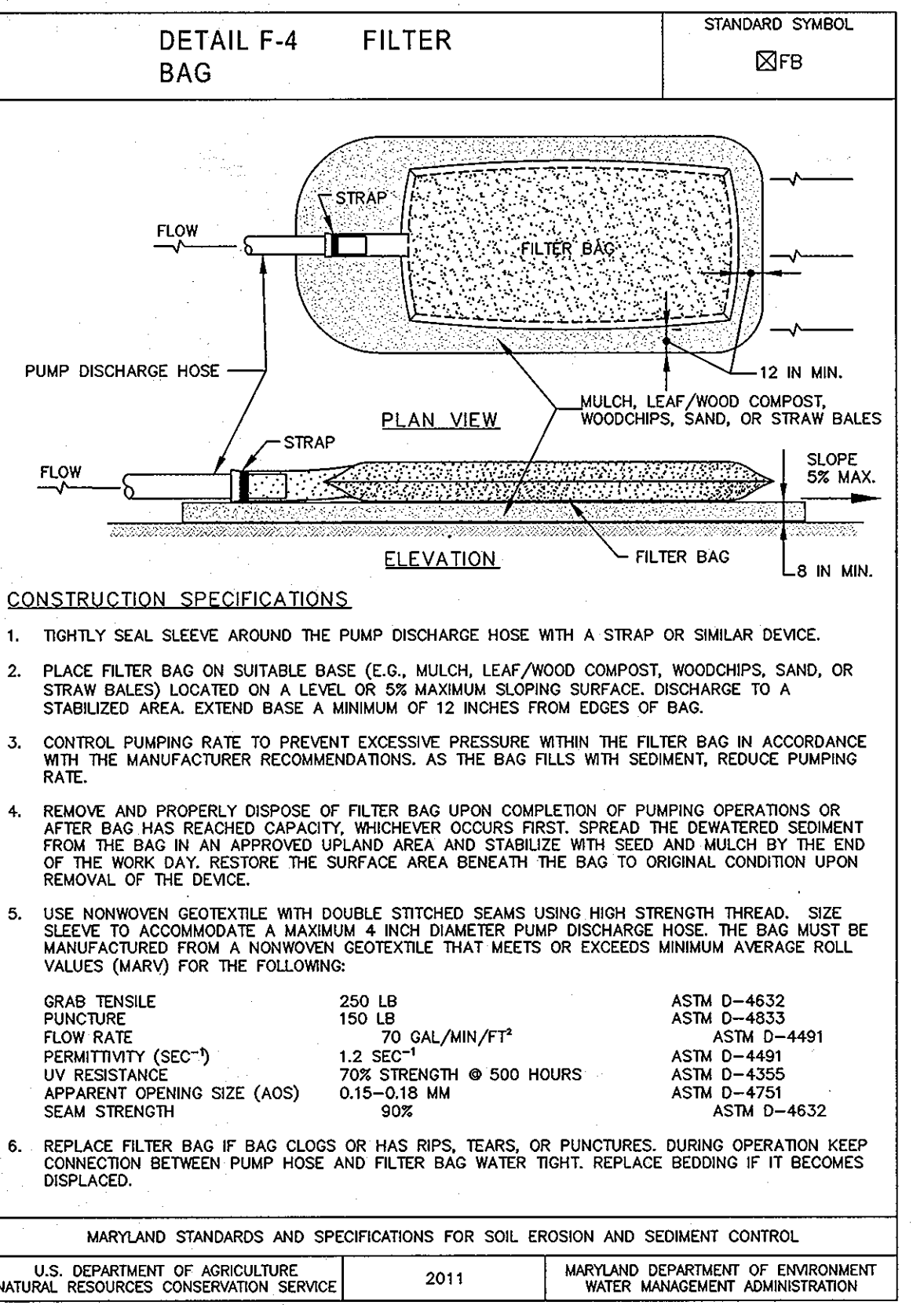
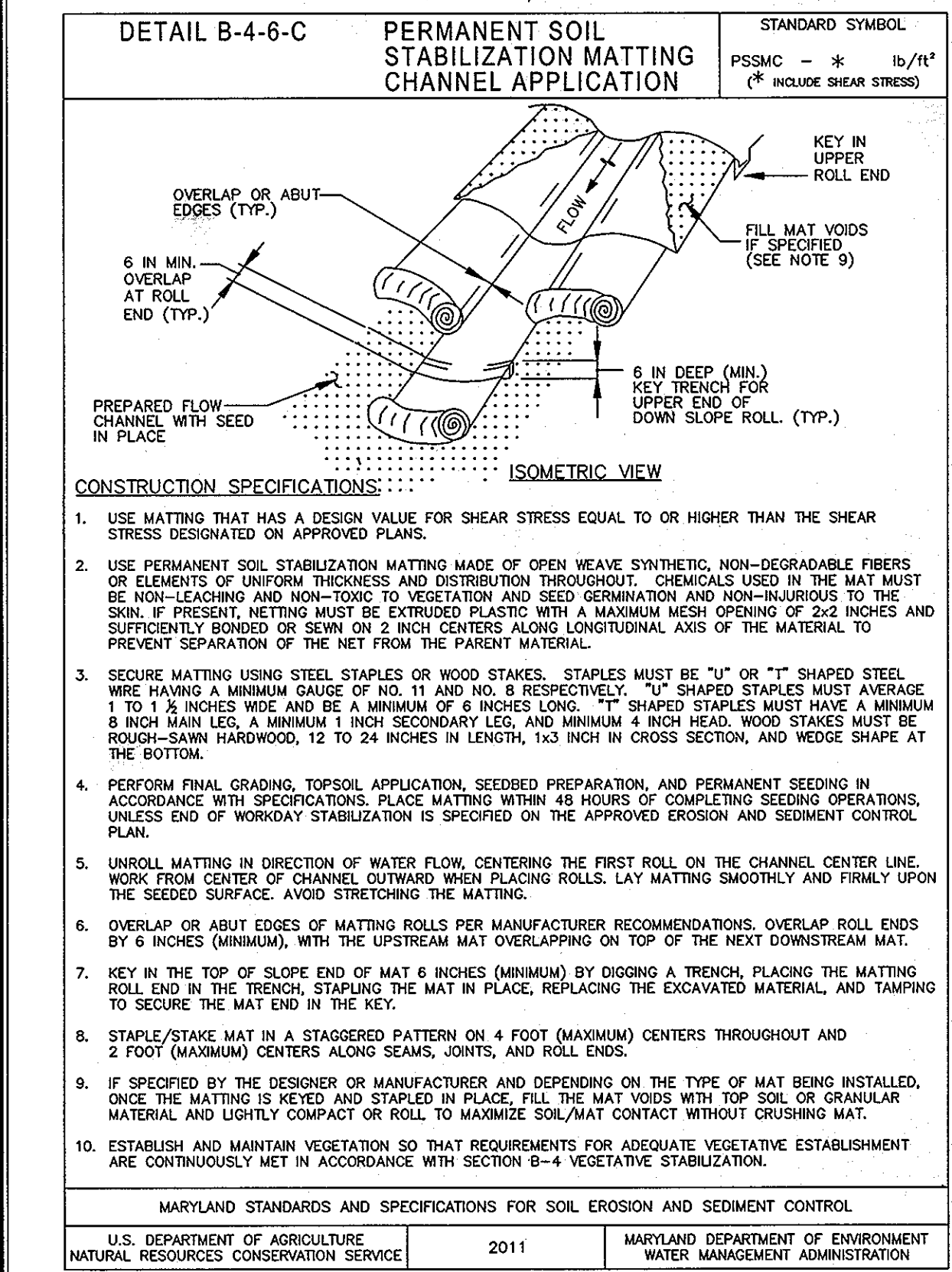
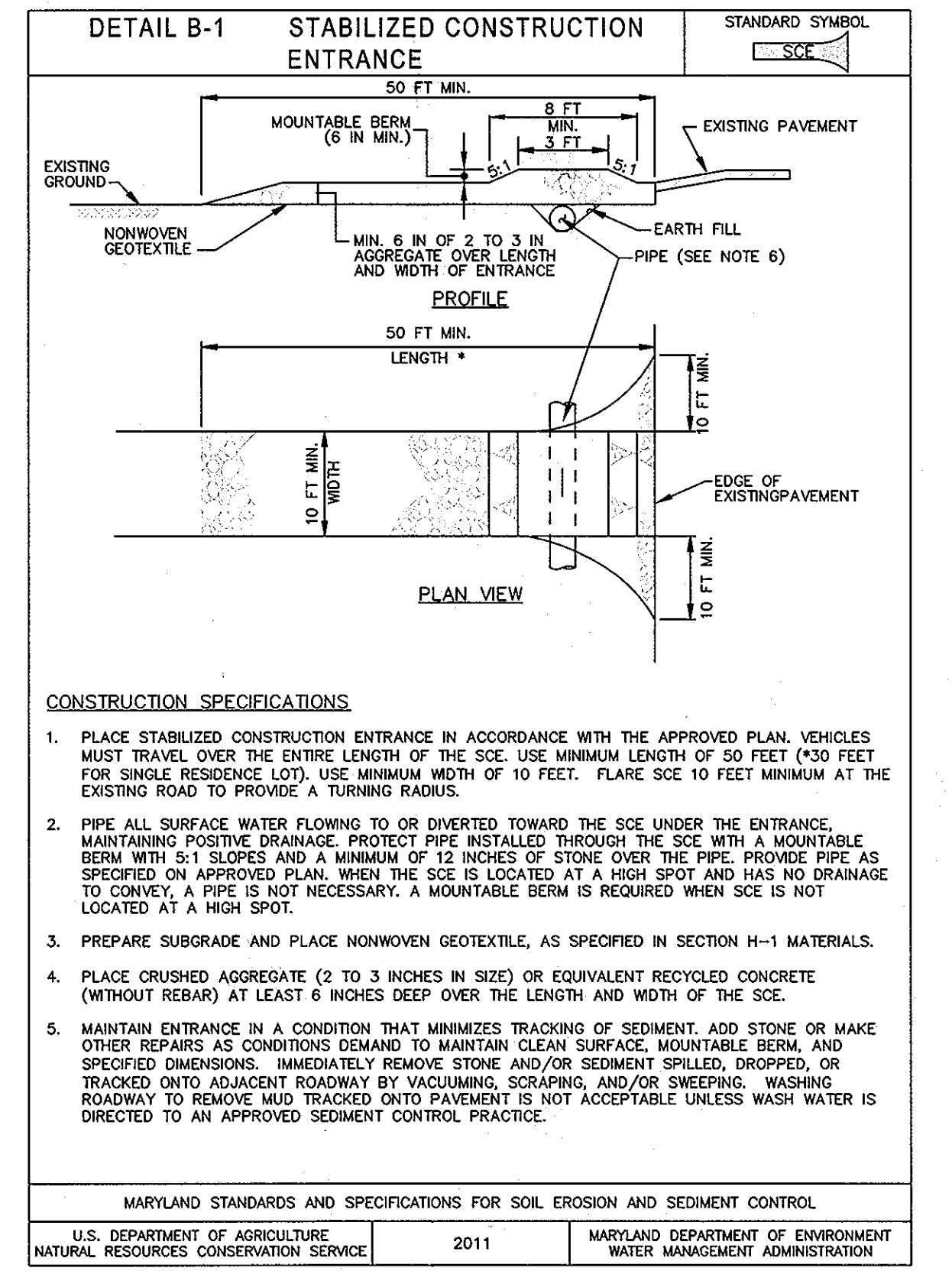
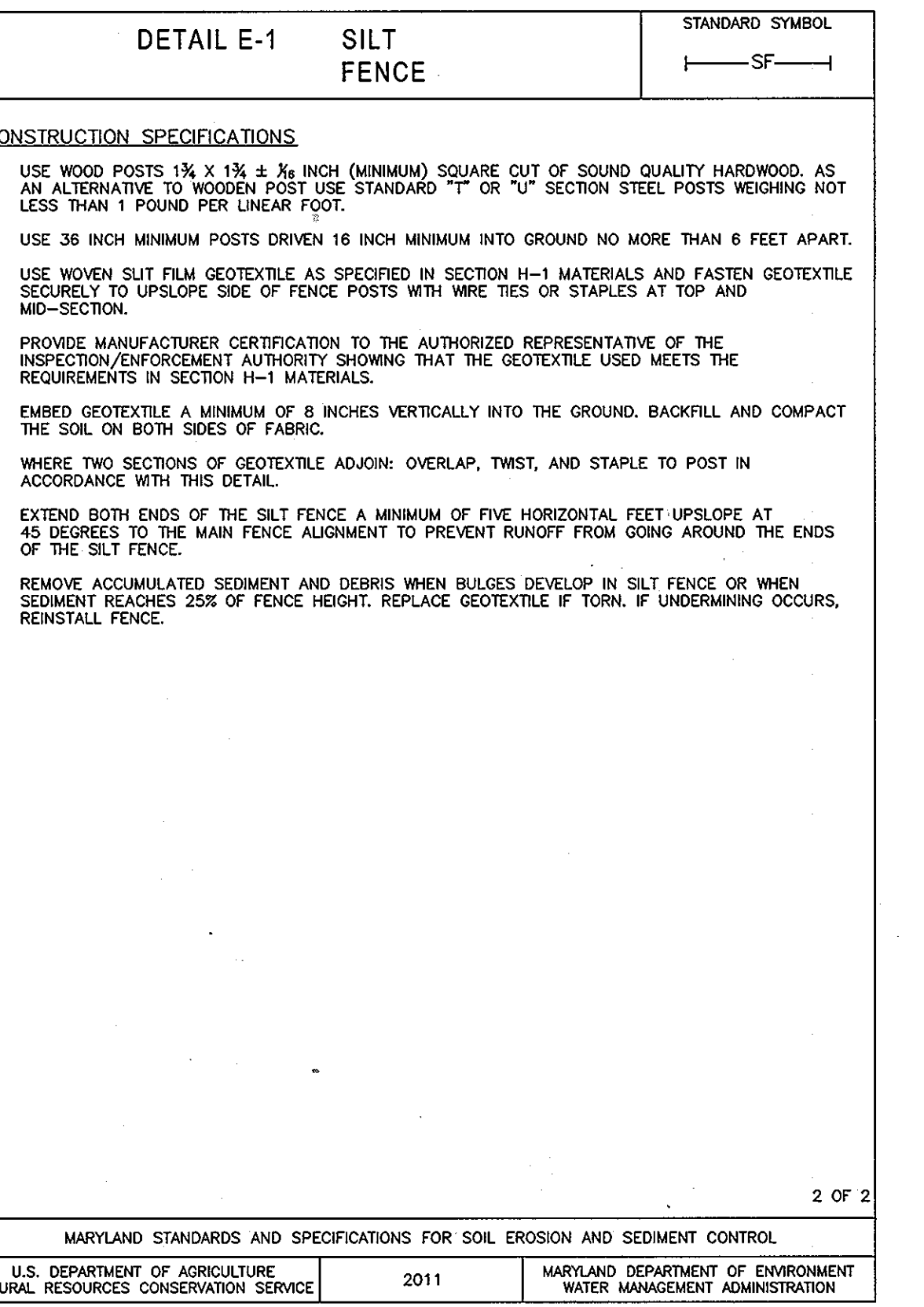
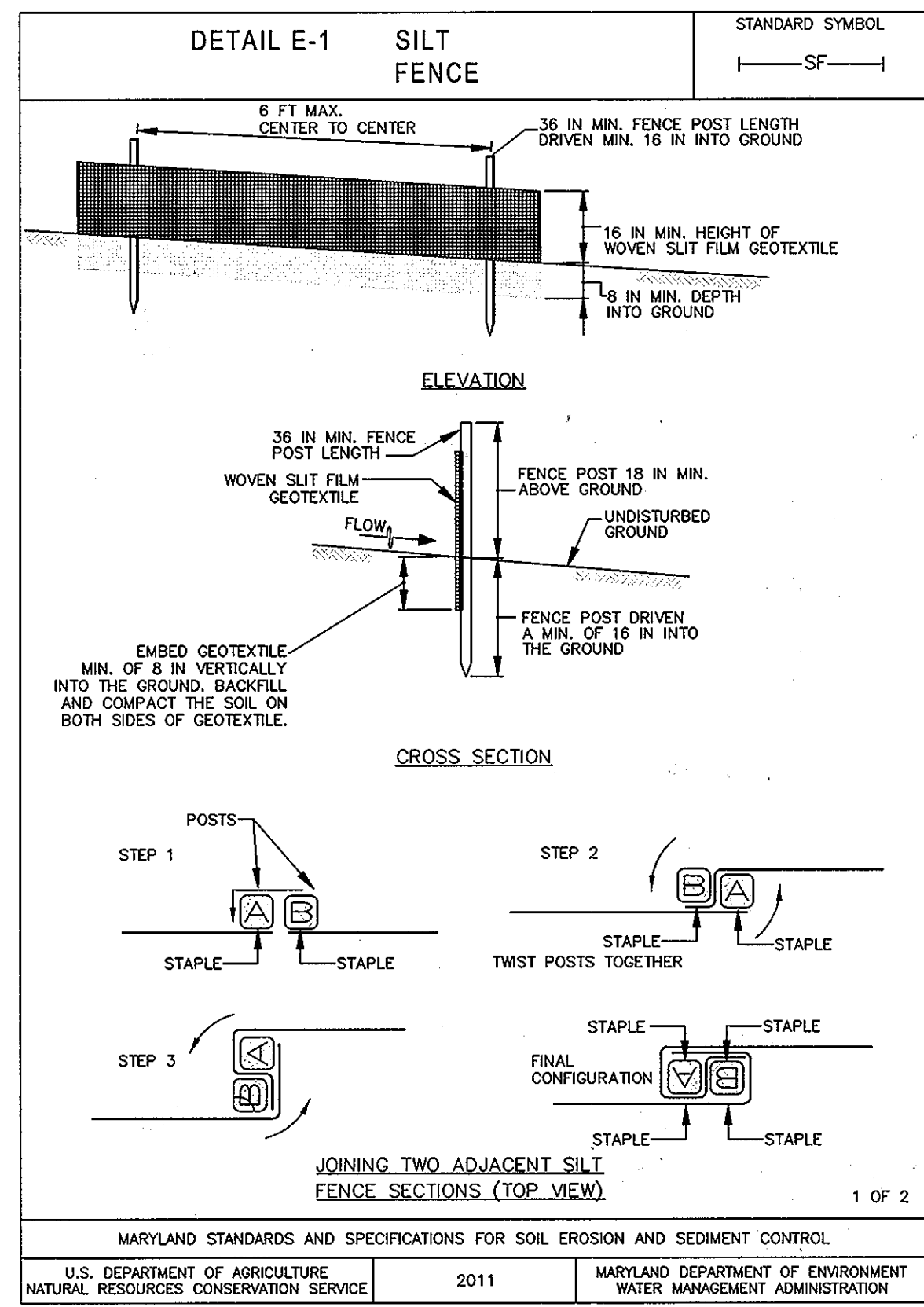
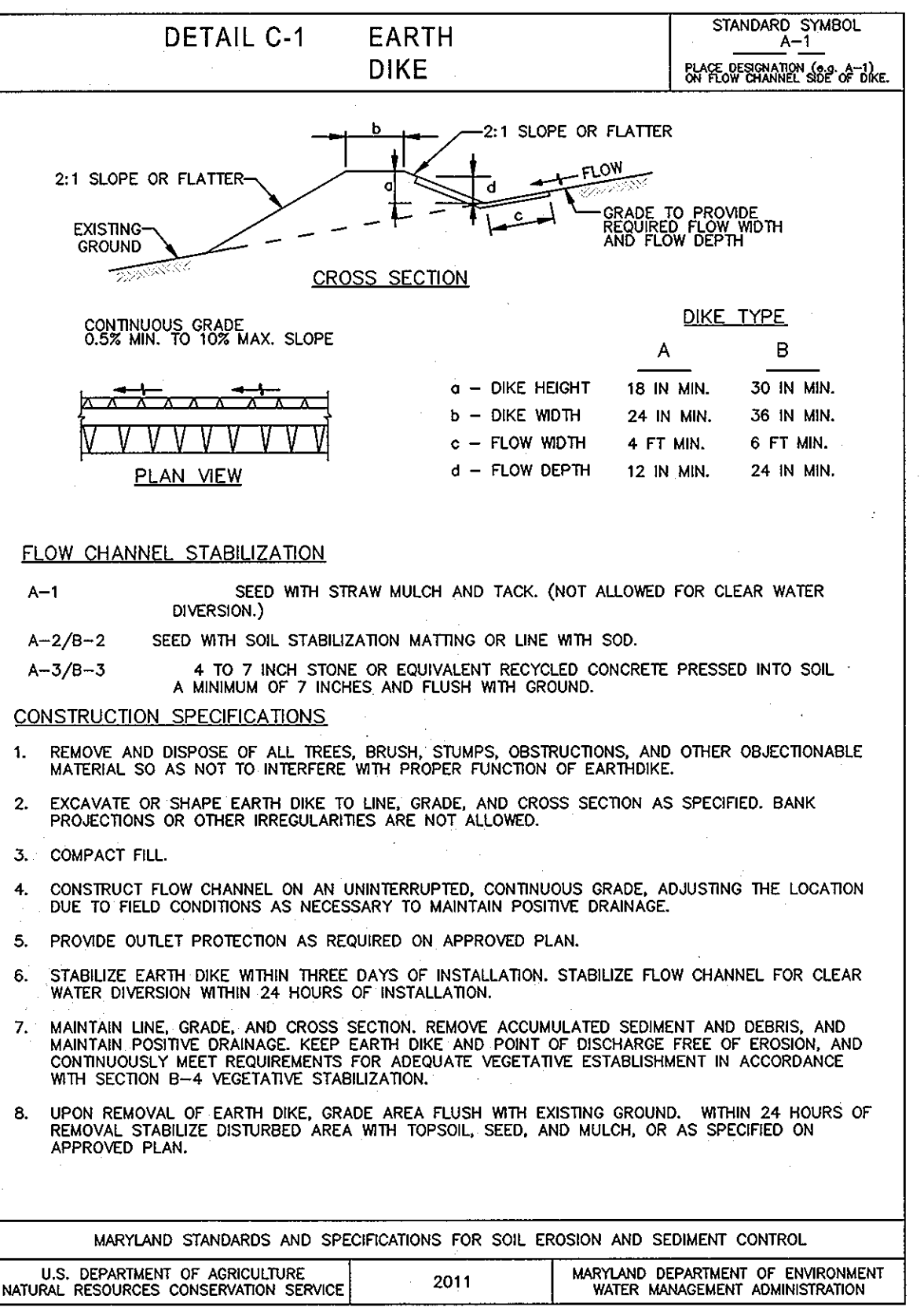
"I/We Certify That All Development And Construction Will Be Done According To This Plan Of Development And Plan For Erosion And Sediment Control And That All Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of Natural Resources Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Also Authorize Periodic On-Site Inspection By The Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed Necessary."

Signature of Developer: *[Signature]* Date: 3/28/13

Approved: This Development Is Approved For Erosion And Sediment Control By The Howard Soil Conservation District.  
 District Howard Soil Conservation Dist.  
 Signature: *[Signature]* Date: 3/28/13

Approved: Department of Planning And Zoning  
 Chief, Division of Land Development: *[Signature]* Date: 4/15/13  
 Chief, Development Engineering Division: *[Signature]* Date: 4/21/13

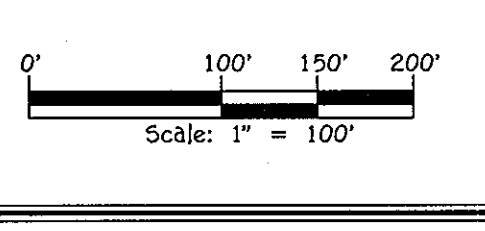
Approved: Howard County Department of Public Works  
 Chief, Bureau of Highways: *[Signature]* Date: 4/2/13



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL OFFICE: 1027 BALDWIN ROAD, ELIOTT CITY, MARYLAND 21028 (410) 461-2955

**Owner**  
 By Business Trust  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900

**Developer**  
 Bassler Venture, LLC  
 15950 North Avenue  
 P.O. Box 482  
 Lisbon, MD 21765  
 410-489-7900



"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 20748, Expiration Date: February 22, 2015."



3/20/13  
 DATE

**SEDIMENT CONTROL NOTES AND DETAILS**  
**WALNUT CREEK**  
 PHASE FOUR  
 Lots 115 - 159 And Non-Buildable Preservation Parcel 'W' & 'X'  
 (A Resubdivision Of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Three)  
 ZONED: RC-DO & RR-DO  
 TAX MAP No. 28 CGD Nos. 4, 5, 10-12, 17, AND 19 PARCEL No. 49  
 FIFTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND  
 DATE: MARCH 20, 2013  
 SHEET 23 OF 23