traffic con	TINUL	SIGNO	
CENTERLINE STA.	OFFSET	POSTED SIGN	SIGN CODE
0+50	15'L	5TOP	R1-1
0+50	15'L	STOP	R1-1
······································	<del></del>	<u> </u>	<del></del>
	CENTERLINE STA. 0+50	CENTERLINE STA. OFFSET	CENTERLINE STA. OFFSET POSTED SIGN 0+50 15'L STOP

ROADWAY INFORMATION CHART						
ROAD NAME	CLASSIFICATION	DESIGN SPEED	R/W WIDTH			
HAYLAND FARM WAY	PUBLIC ACCESS STREET	30 M.P.H.	50'			
WILD OLIVE COURT	PUBLIC ACCESS PLACE	25 M,P,H,	50'			
CATALPA COURT	PUBLIC ACCESS PLACE	25 M.P.H.	50'			

PROPOSED DRIVEWAY CULVERT

FISHER, COLLINS & CARTER, INC.

(410) 461 - 2055

3). THIS PLAT IS BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT AUGUST, 2004, BY FISHER, COLLINS & CARTER, INC. 32. THIS PROJECT IS SUBJECT TO WASTEWATER DISCHARGE PERMIT NUMBER 11-DP-3530 AND IS EFFECTIVE FROM MAY 1, 2012 UNTIL APRIL 30,

33. THIS PROPERTY WILL BE SERVED BY PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS. THE PUBLIC SHARED SEWERAGE SYSTEMS IS LOCATED ON NON-BUILDABLE PRESERVATION PARCEL'B', WALNUT CREEK, PHASE ONE - PLAT NOS. 20631 THRU 20647 WILL BE MAINTAINED BY HOWARD COUNTY, MARYLAND, LOTS 69 - 81, 87 - 89 AND 96 - 114 WILL USE THE PUBLIC SHARED SEWERAGE SYSTEMS ON NON-BUILDABLE

34. THE SHARED SEPTIC SYSTEM DEVELOPER'S AGREEMENT NO. 50-4441-D WAS EXECUTED ON APRIL Ø, 2009. PRIVATE DRAINAGE EASEMENTS AND PRIVATE SURFACE DRAINAGE EASEMENT ARE THE RESPONSIBILITY OF THE WALNUT CREEK HOMEOWNER'S ASSOCIATION. 35. THE NON-CRITICAL FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED JULY, 2005 AND SUPPLEMENTED WITH INFORMATION OBTAINED FROM HOWARD COUNTY CAPITAL PROJECT D-1020A.

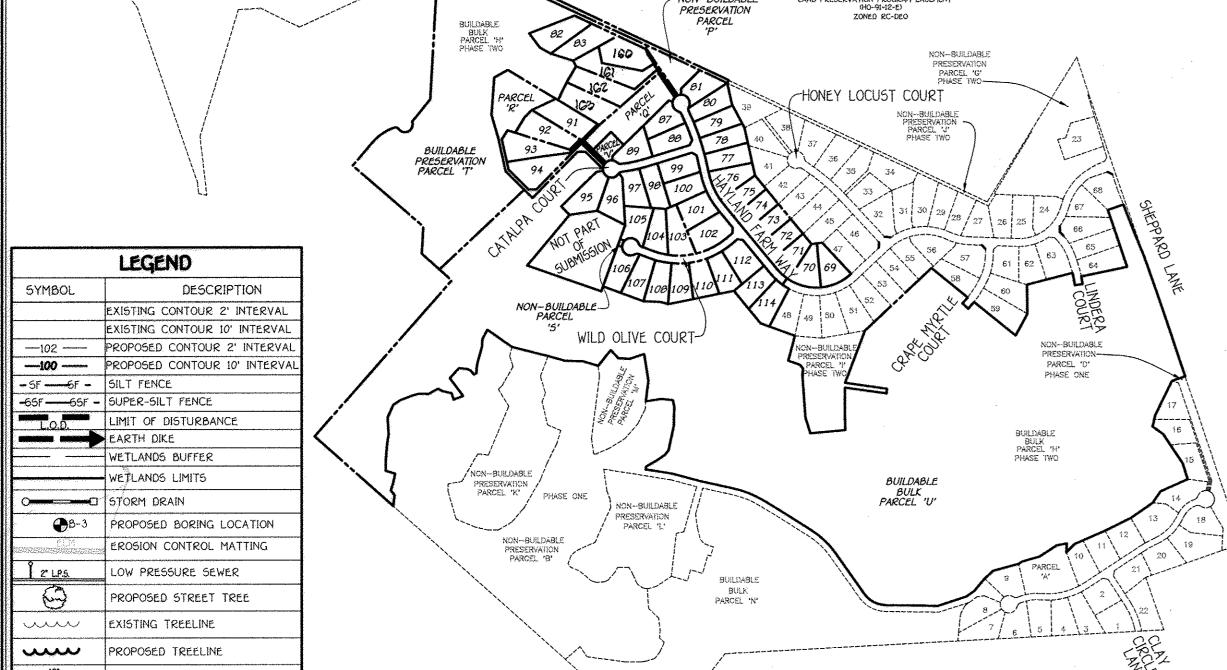
ACCESSORY STRUCTURES SHALL BE PERMITTED, AND WITHIN THE EASEMENT AREA THE EXISTING HEDGEROW VEGETATION SHALL BE PRESERVED AND SUPPLEMENTED ENHANCED LANDSCAPING WHERE INSUFFICIENT VEGETATION EXISTS. 37. NON-BUILDABLE PRESERVATION PRESERVATION PARCEL 'O' TO BE CONVEYED TO TAX MAP 20 PARCEL 92 SIMULTANEOUSLY WITH THE

38, A PUBLIC TREE MAINTENANCE EASEMENT RUNNING ALONG THE EDGE OF THE PUBLIC ROAD RIGHT OF WAY AS SHOWN ON THIS PLAT OF SUBDIVISION IS RESPRIED FROM ALL LOTS FRONTING ON THE SAID PUBLIC ROAD RIGHT OF WAY. THIS EASEMENT ALLOWS HOWARD COUNTY THE RIGHT TO ACCESS THE PROPERTY, WHEN NECESSARY, FOR THE SPECIFIC PURPOSE OF THE INSTALLATION, REPAIR AND MAINTENANCE OF COUNTY OWNED TREES LOCATED WITHIN THE BOUNDARIES OF THE PRIVATE LOTS. NO BUILDING OR STRUCTURE OF ANY KIND SHALL BE LOCATED ON OR OVER THE SAID EASEMENT AREA.

39. ARTICLES OF INCORPORATION FOR THE WALNUT CREEK HOMEOWNER'S ASSOCIATION WAS FILED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENT AND TAXATION ON 1/3/2008, RECEIPT \*DI2309795. 40. EXISTING DWELLING/STRUCTURE(6) LOCATED ON LOTS 105 AND 106 TO REMAIN. NO NEW BUILDINGS. EXTENSIONS OR ADDITIONS TO TH EXISTING DWELLING/STRUCTURE(S) ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRED. ALL OTHER

41. NON-BUILDABLE PRESERVATION PARCELS 'O', 'P', 'Q', 'T' ARE ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY, MARYLAND AND HOMEOWNERS ASSOCIATION. ALL THESE AGREEMENTS PROHIBIT FURTHER SUBDIVISION OF THE PARCEL, OUTLINES THE

12. THE GROUND WATER APPROPRIATIONS PERMIT NO. HOZOOGGOZO(01) RECEIVED MDE APPROVAL ON JUNE 1, 2008. 43. THIS PLAN IS SUBJECT TO WAMPR PETITION WP-13-147, ON APRIL & 2013 THE PLANNING DIRECTOR APPROVED A WALVER PROM SECTION IG. 144 (p) - REQUIRING PRIMABLY OF THES AND POSTING OF PRIMACIAL OBLIGATIONS; AND SECTION IG. 144 (a) - REQUIRING SUBMISSION OF THE FINAL SUBMISSION PLAT FOR RECORDATION.



NON-BUILDABLE

# FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLAN WALNUT CREK

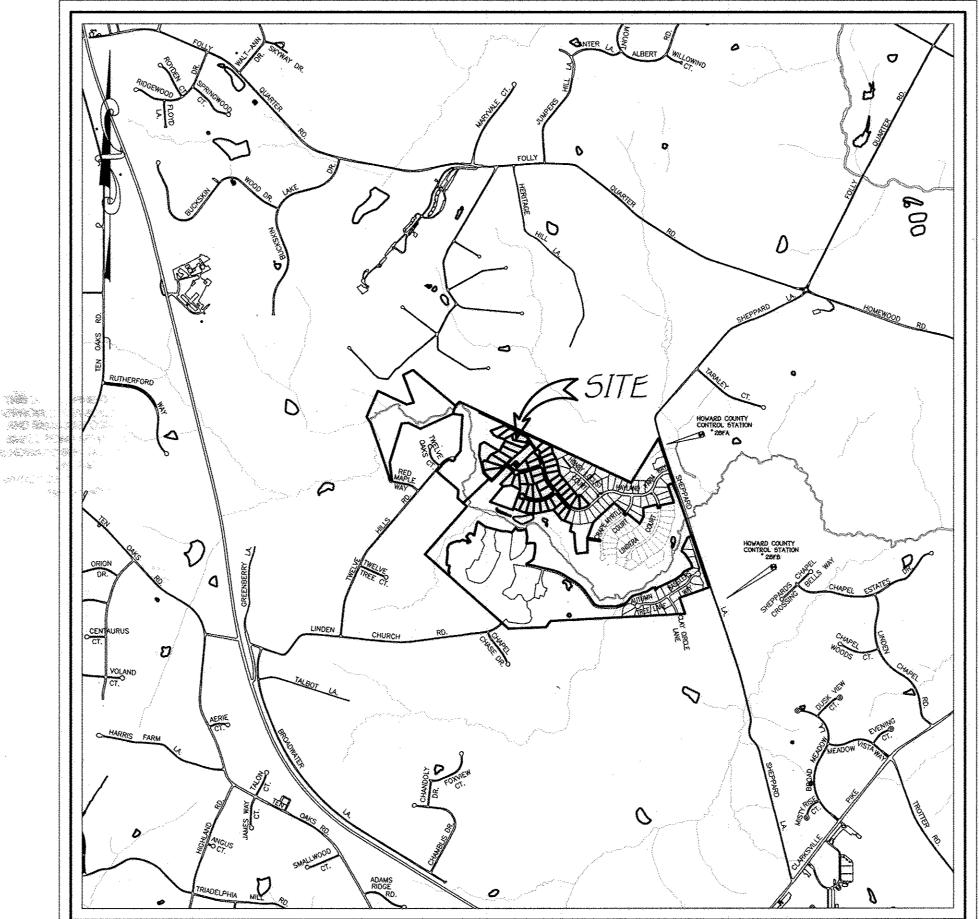
# PHASE THREE

Lots 69-83, 87-89, 91-114 & 160-163, Non-Buildable Preservation Parcels 'O' Thru 'R' & 'V' Non-Buildable Parcel 'S', Buildable Preservation Parcel 'T' And Buildable Bulk Parcel 'U'

(A Resubdivision of Buildable Bulk Parcel 'H' - Walnut Creek, Phase Two)

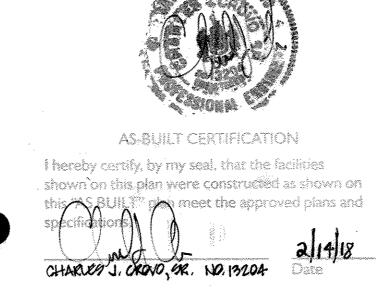
(A Revision to Non-Buildable Preservation Parcels'K',L' and 'M' Walnut Creek, Phase Two, Plat Nos, 22227 Thru 22243

ZONING: RC-DEO & RR-DEO TAX MAP NO. 28 GRID Nos. 4, 5, 10-12, 17 AND 18 PARCEL No. 49



VICINITY MAP ~ SCALE: 1" = 2000'

# FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



APPROVED: DEPARTMENT OF PUBLIC WORKS 4/4/13 CHIEF, BUREAU OF HIGHWAYS APPROVED: DEPARTMENT OF PLANNING AND ZONIN Kent Shelwohn CHIEF, DIVISION OF LAND DEVELOPMENT

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE. 2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION

DIVISION AT (410) 313-1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.

b. THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES. c. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE

"MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MIMUTCD).

d. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG, THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL, A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST." 5. COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 28 FA AND NO. 28 FB HOWARD COUNTY MONUMENT NO. 28FA N 572456.665 ELEV. = 348.296 V

HOWARD COUNTY MONUMENT NO. 20FB 

N 570,710.839
ELEV. ≈ 305.804

ELEV. ≈ 305.804 6. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED SEPTEMBER, 2005 AND WAS APPROVED UNDER

7. BACKGROUND INFORMATION: A. SUBDIVISION NAME: WALNUT CREEK B. TAX MAP NO.: 20 C. PARCEL No.: 49 D. ZONING: RC-DEO & RR-DEO

E. ELECTION DISTRICT: FIFTH ...222.002 AC. + (PHASE THREE) F. TOTAL TRACT AREA: G. NO. OF BUILDABLE LOTS:

I NO. OF NON-BUILDABLE PRESERVATION PARCELS: .......5 I. NO. OF BUILDABLE PRESERVATION PARCELS: J. NO. OF BUILDABLE BULK PARCELS:

K. NO. OF NON-BUILDABLE PARCELS: ... . AREA OF BUILDABLE LOTS: . M. AREA OF NON-BUILDABLE PRESERVATION PARCELS: ....7.109 AC.+

O. AREA OF BUILDABLE BULK PARCELS: P. AREA OF NON-BUILDABLE PARCELS: . ....0.025 AC.±

2. PREVIOUS FILE NOS.: 5P-06-007 APPROVAL DATE: 5/31/06, BA-85-52E, BA-90-33E, BA-93-49E & WP-08-007 (SEE NOTE 10 BELOW), F-07-076 (PHASE ONE), F-08-081 (PHASE TWO)

8. ONE CEMETERY EXISTS WITHIN THIS SUBDIVISION (PROPOSED NON-BUILDABLE PRESERVATION PARCEL 'V'). CLARK FAMILY CEMETERY" - HO, CO. ID \*20-2. THE PLANNING BOARD APPROVED THE CEMETERY ACCOMMODATION AND BOUNDARY DOCUMENTATION PLAN ON MARCH 30, 2006 (SP-06-007) SUBJECT TO THE FOLLOWING CONDITIONS.

1. THE DEVELOPER AND/OR THE WALNUT CREEK H.O.A. SHALL UPGRADE THE EXISTING SPLIT RAIL FENCE TO FURTHER PROTECT . THE DEVELOPER AND/OR THE WALNUT CREEK H.O.A, SHALL REGULARLY MAINTAIN THE CEMETERY AREA 3. THE DEVELOPER AND/OR THE WALNUT CREEK H.O.A. MUST PLACE A CEMETERY MARKER AT THE ENTRANCE OF THE

9. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF

10. 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 59.57 ACRES OF ON-SITE FOREST RETENTION AND 31.66 ACRES OF ON-SITE FOREST AFFORESTATION FOR A TOTAL OF 91.23 ACRES. THERE IS NO SURETY REQUIRED FOR ONSITE FOREST RETENTION. SURETY FOR ON-SITE AFFORESTATION . \$0.50/SF FOR 1,379,110 SF. = \$689,555.00 IS REQUIRED. THE FOREST CONSERVATION PROVIDED WITH PHASE THREE ARE AS FOLLOWS:

28.54 AC. OF FOREST CONSERVATION EASEMENT (retention) (CREDITED AND NON-CREDITED). CREDITED ONSITE RETENTION OF 17.50 ACRES OF FOREST AND 9.30 ACRES OF ONSITE REFORESTATION.

59.57 TOTAL RETENTION ACRES/160 TOTAL UNITS = 0.3723 (47 UNITS X 0.3723 = 17.50 AC.\*) 31.66 TOTAL PLANTING ACRES/160 TOTAL UNITS = 0.1979 (47 UNITS X 0.1979 = 9.30 AC.\*) A SURETY FOR ON-SITE AFFORESTATION . \$0.50/SF FOR 405,108 SF. = \$202,554.00 IS REQUIRED. THE FOREST CONSERVATION SURETY IN THE AMOUNT OF \$202,554.00 IS BE PAID AS PART OF THE DPW

DEVELOPER'S AGREEMENT. THIS FOREST CONSERVATION PROPOSAL IS SUBJECT TO WP-00-007, APPROVED ON AUGUST 21, 2007 TO THE FOLLOWING 1 THE WAIVER PETITION APPROVAL APPLIES ONLY TO THE TEMPORARY DEFERRAL FOR ESTABLISHING THE FOREST CONSERVATION

EASEMENTS FOR THIS SUBDIVISION BASED ON THE APFO 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 PLANTING 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. 2. THE APPLICANT/DEVELOPER MUST CONTINUE PROCESSING THE SUBDIVISION PLANS FOR WALNUT CREEK AND MEET ALL

APPLICABLE PROCESSING DEADLINE DATES IN ACCORDANCE WITH THE APPROVED APFO PHASING SCHEDUL 11. STORMWATER MANAGEMENT FACILITIES: B.M.P. NO. 5 (LOCATED ON NON-BUILDABLE PRESERVATION PARCEL 'R') PRIVATELY OWNED BY THE HOMEOWNER'S ASSOCIATION AND JOINTLY MAINTAINED BY THE HOMEOWNER'S ASSOCIATION AND HOWARD COUNTY, MARYLAND

WET EXTENDED DETENTION FACILITIES (P-3) FOR WQV & CPV STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 378 SPECIFICATIONS. RECHARGE 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-POOL (EXTENDED DETENTION) POND, ONE BIO-RETENTION FACILITY AND LEVEL SPREADERS, OVERBANK FLOOD PROTECTION VOLUME AND EXTREME FLOOD VOLUME ARE NOT REQUIRED FOR THIS SITE.

12. THE PROPOSED WATER AND SEWER SYSTEMS SHALL BE PRIVATE. SEE CONTRACT No. 50-4765-D FOR LOW PRESSURE SYSTEM. 13. THE SUBJECT PROPERTY IS LOCATED OUTSIDE OF THE METROPOLITAN DISTRICT.

14. TOPOGRAPHIC CONTOURS BASED ON HARFORD AERIAL SURVEYS, INC. DATED FEBRUARY, 2004.

15. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE IS TO BE PROVIDED AT THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM DRIVEWAY. 16. THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HERBST BENSON & ASSOCIATES, INC., DATED SEPTEMBER,

2005 AND APPROVED ON MAY 31, 2006. 7. 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. 18. 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

19. SOILS INFORMATION TAKEN FROM SOIL MAP NO. 18, SOIL SURVEY, HOWARD COUNTY, MARYLAND, JULY 1968 ISSUE. 20. 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)(55) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. TOTAL AREA OF 25% OR GREATER SLOPES = 8.9 AC.+

21. 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.

A. NON-BUILDABLE PRESERVATION PARCEL 'R' OWNED: HOMEOWNER'S ASSOCIATION EASEMENT HOLDERS: HOWARD COUNTY, MARYLAND

C. NON-BUILDABLE PRESERVATION PARCEL 'V' OWNED: PRIVATE EASEMENT HOLDERS: HOMEOWNER'S ASSOCIATION & HOWARD COUNTY, MARYLAND

USE: CEMETERY D. NON-BUILDABLE PRESERVATION PARCEL 'P' B. NON-BUILDABLE PRESERVATION PARCEL 'Q' OWNED: PRIVATE OWNED: PRIVATE EASEMENT HOLDERS: HOMEOWNER'S ASSOCIATION & HOWARD EASEMENT HOLDERS: HOMEOWNER'S ASSOCIATION & HOWARD

22. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAM OR THEIR REQUIRED BUFFERS 23. THE LANDSCAPE SURETY FOR THE 112 SHADE AND 14 EVERGREEN TREES IN THE AMOUNT OF \$35,700.00 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. IN ADDITION, FINANCIAL SURETY FOR THE REQUIRED 150 STREET TREES WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$45,000.00.

24. BUILDABLE BULK PARCEL 'U' RETAINS THE RIGHT TO BE FURTHER SUBDIVIDED IN ACCORDANCE WITH THE DEO CLUSTER REGULATIONS IN SECTION 106 OF THE HOWARD COUNTY ZONING REGULATIONS. THE RESUBDIVISION OF THIS BULK PARCEL INTO RESIDENTIAL LOTS WILL REQUIRE DENSITY FROM AN OFF-SITE LOCATION WITHIN THE RC-DEO DISTRICT. 25. 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 REGULATIONS AS AMENDED BY COUNCIL BILL NO. 75-2003 NAD THE COMP LITE ZONING REGULATION AMENDMENTS EFFECTIVE 7728/06. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS OR PARCELS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF A BUILDING OR

26. WELLS SHALL BE DRILLED ON LOTS PRIOR TO RECORDATION OF THE FINAL RECORD PLAT.

27. LOTS 69 THRU 81, 87 THRU 89 & 96 THRU 114 ARE TO BE SERVED BY A PUBLIC SHARED SEPTIC FACILITY LOCATED ON

20. THIS PROJECT IS SUBJECT TO WASTEWATER DISCHARGE PERMIT NUMBER 06-DP-3530 AND IS EFFECTIVE FROM AUGUST 1, 2006 UNTIL AUGUST 1, 2011 WHEN IT EXPIRES. THE SHARED SEPTIC SYSTEM CONTRACT No. 15 50-4441-D AND THE COLLECTION SYSTEM

29. PRIVATE RANGE OF ADDRESS SIGN ASSEMBLIES SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE FOR LOTS 22, 25, 160-162 FOR LOTS 31-24; 162 CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.

Buildable Preservation Parcels "O' Thru "R' & "V", Non-Buildable Parcel 'S', Buildable Preservation Parcel 'T' And Buildable Bulk Parcel "U"

(A Revision to Non-Buildable Preservation Parcels K. V. M. Walnut Creek, Phase Two, Plat Nos. 22227 From 22243) 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: FEBRUARY 26, 2013

PLAN VIEW

Owner 3V Business Trust 15950 North Avenue P.O. Box 482 Lisbon, MD 21765 410-489-7900

Developer

15950 North Avenue

P.O. Box 482

Lisbon, MD 21765

410-489-7900

eage loo to match home elilloped of Pland, Kevige lot lines for logg 4-66 \$ 90 (New Lot No. 9 160-163, Rek Record Rats) [REVISED LOTS 84-86 & 90 AND ADDED STORM DRAIN ISENDED LOTS 100 \$101] 3/14/16

"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. 20748, Expiration Date: February 22, 2015."



CONTROL MATTING LINED SPILLWAY - SEE PLAN AND DETAIL ABOVE. 3. REMOVE THE REMAINDER OF THE EMBANKMENT FOR LIMITS SHOWN AND GRADE BOTTOM AREA FOR POSITIVE DRAINAGE AT 3%. 4. ONCE THE POND IS DRY, PLANT BOTTOM AND REMAINDER OF POND DISTURBANCE WITH PERMANENT SEEDING MIX.

POND BREACHING SEQUENCE OF CONSTRUCTION

VALVE DRAIN, OPEN TO A SLOW DRAIN AS TO NOT CREATE ANY EROSION DOWNSTREAM.

1. DRAIN THE POND BY AN ACCEPTABLE MEANS. IF UTILIZING A

2. REMOVE THE CONTROL STRUCTURE (RISER) AND OUTFALL PIPE. OPEN CUT THE EXISTING DAM TO PROVIDE A TEMPORARY EROSION

APPROVED: DEPARTMENT OF PUBLIC WORKS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

**REVISIONS** 

revised 1019 84-86 \$ 90 and added 9toral drain between 1015 100\$ 101 3/14/16

2 REVISE LOT TO MATCH HOME BUILDERS OF PLANS REVISE LOT LINES FOR LOTS 84-86 3/27/17

TO BE DETERMINED

TYP. PROFILE ALONG EX. PRINCIPLE SPILLWAY

TO BE REMOVED

BOTTOM ELEV.

CLASS 'C' GEO-TEXTILE FABRIC OR BETTER

DESCRIPTION

EX. GROUND

CHIEF, DIVISION OF LAND DEVELOPMENT IN

4/4/13

5. TOPSOIL AND MATERIAL UNSUITABLE FOR USE AS STRUCTURAL FILL MAY BE PLACED IN THIS FACILITY.

## **GUIDELINES**

### SEDIMENT BASIN/TRAP REMOVAL & STABILIZATION

1. BEFORE ATTEMPTING TO REMOVE ANY POND, ALL WATER IN THE POND SHALL BE DRAINED BY PHYSICALLY ALTERING THE RISER INVERT ELEVATION TO GRADUALLY LOWER THE WATER LEVEL. THIS MAY BE ACCOMPLISHED BY PUNCHING HOLES IN THE RISER BELOW THE WATER LINE. IN CASES WHERE PHYSICAL DAMAGE TO THE RISER IS UNDESIRABLE OR WHERE PHYSICAL ALTERATION OF THE RISER IS NOT FEASIBLE THE POND SHALL BE PUMPED THRU A FILTER BAG. 2. PRIOR TO COMMENCING WORK ON DAM REMOVAL, A METHOD OF MINIMIZING DOWN STREAM SEDIMENTATION SHALL BE APPROVED ON SITE BY THE HOWARD SOIL CONSERVATION DISTRICT. 3. REMOVE DAM AND SPREAD TO CONFORM WITH SURROUNDING CONTOURS. 4. AS A FINAL MEASURE, ACCUMULATED SEDIMENT SHALL

BE REMOVED FROM DOWN STREAM SEDIMENT CONTROL STRUCTURES REQUIRED BY ITEM \*2 AND SAID STRUCTURES REMOVED AND AREA SEEDED.

AS-BUILT CERTIFICATION FOR PSVM

Note: There is no "AS BUILT" information

DEMOLITION AND SEDIMENT CONTROL PLAN

PHASE THREE
Lote 60-83, 87-89, 91-114 & 160-163,
Non-Buildable Preservation Parcels 'O' Thru 'R' & 'V',
Non-Buildable Parcel '5', Buildable Preservation Parcel 'T'
And Buildable Bulk Parcel 'U'
(A Resubdivision of Buildable Bulk Parcel 'B' - Walcut Creek Phase Two)

(A Revision to Non-Buildable Preservation Parcels K. Walnut Creek, Phase Two, Plat Nos. 2277 Thru 2238)

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: FEBRUARY 26, 2013

SHEET 2 OF 25

EXISTING FARM POND EMBANKMENT TO BE REMOVED ENTIRELY DOWN TO ELEV. 381.0 WITH NO FILL MATERIAL TO ENTER POND AREA.

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

Developer 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."



FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

EXISTING FARM POND-

NON-EROSIVE VELOCITES.

THE BARREL/RISER ASSEMBLY FOR

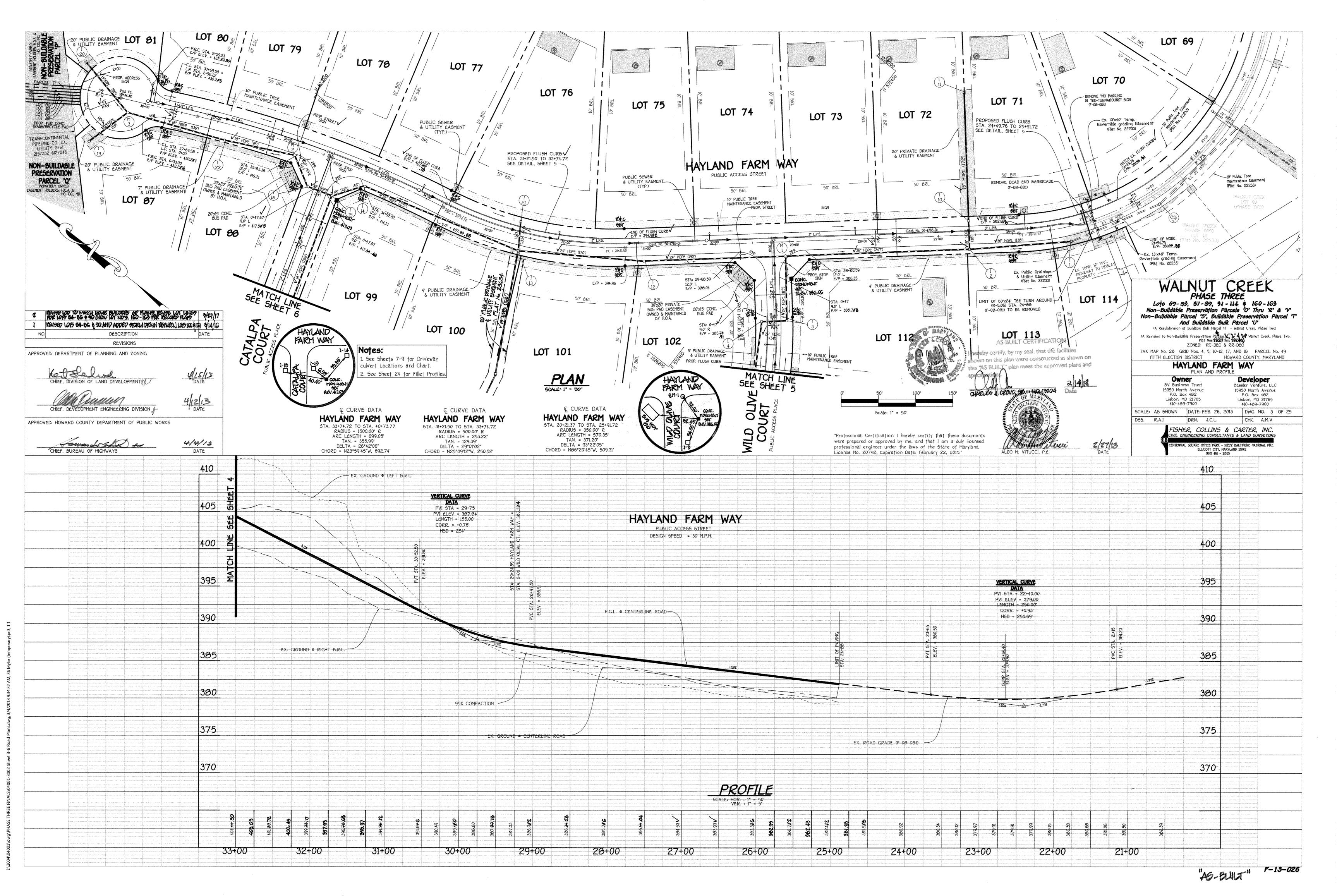
STANDING WATER WILL BE PUMPED

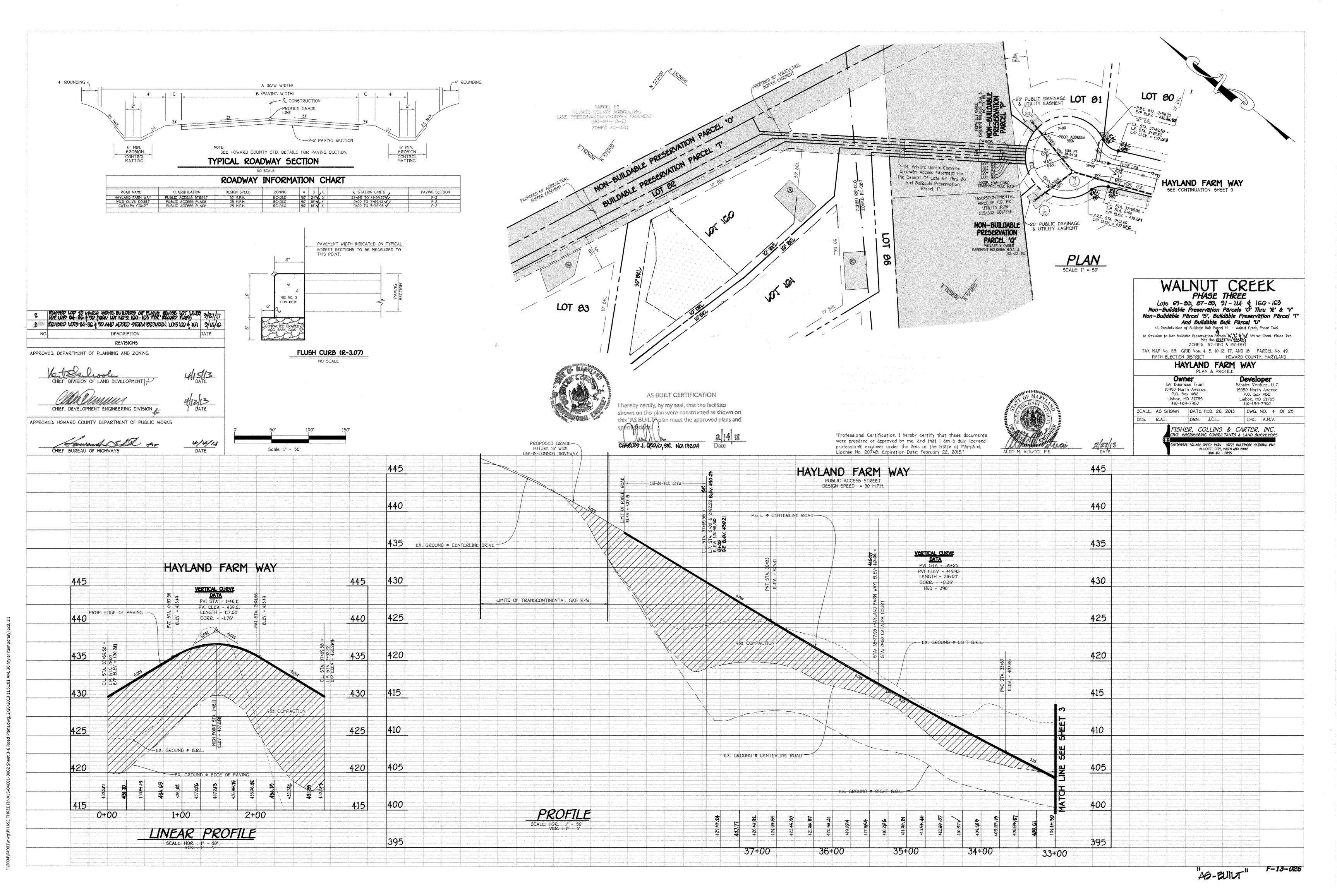
THROUGH A SEDIMENT FILTER BAG

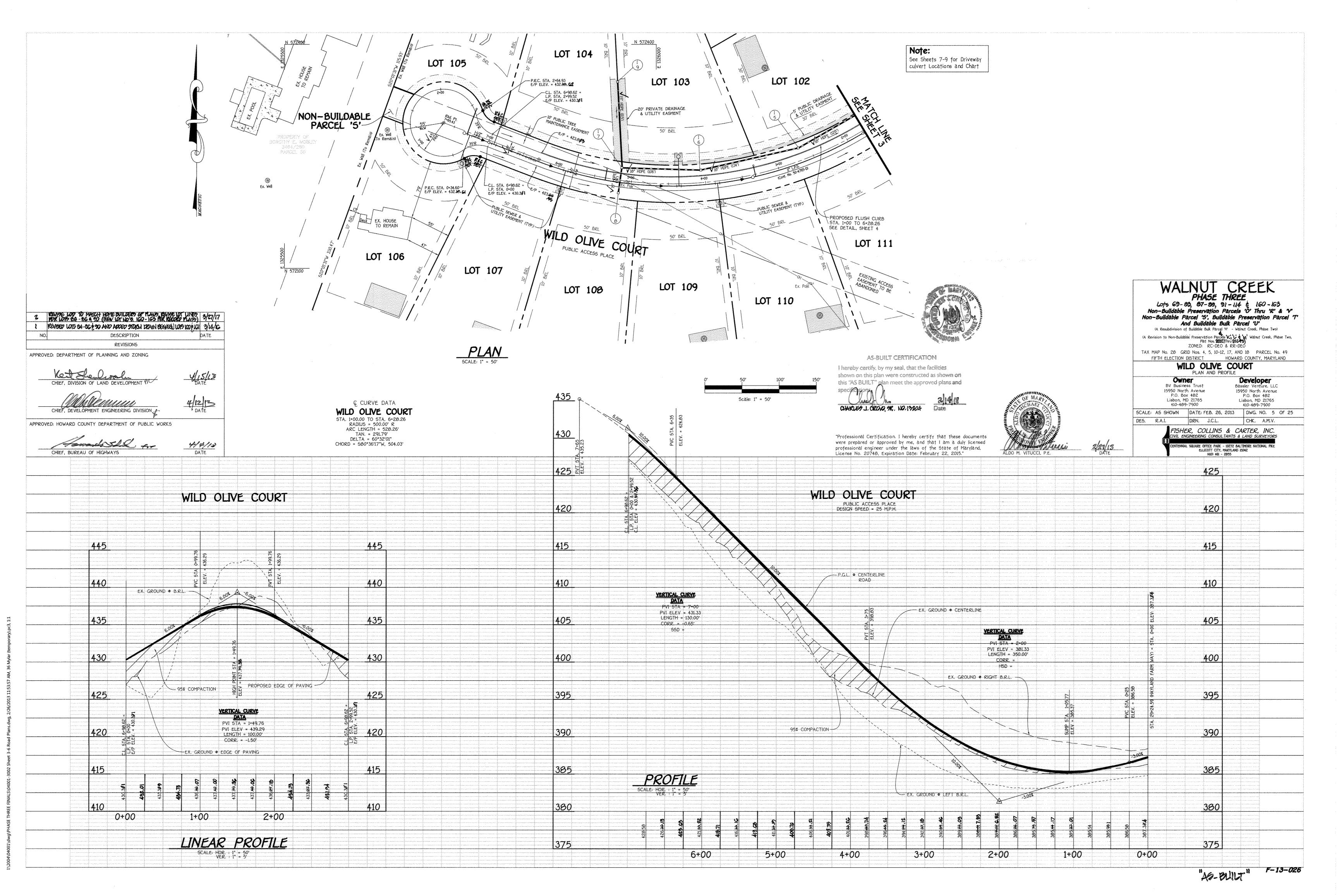
THE DAM EMBANKMENT REMOVED ALONG THE LIMITS SHOWN. ANY

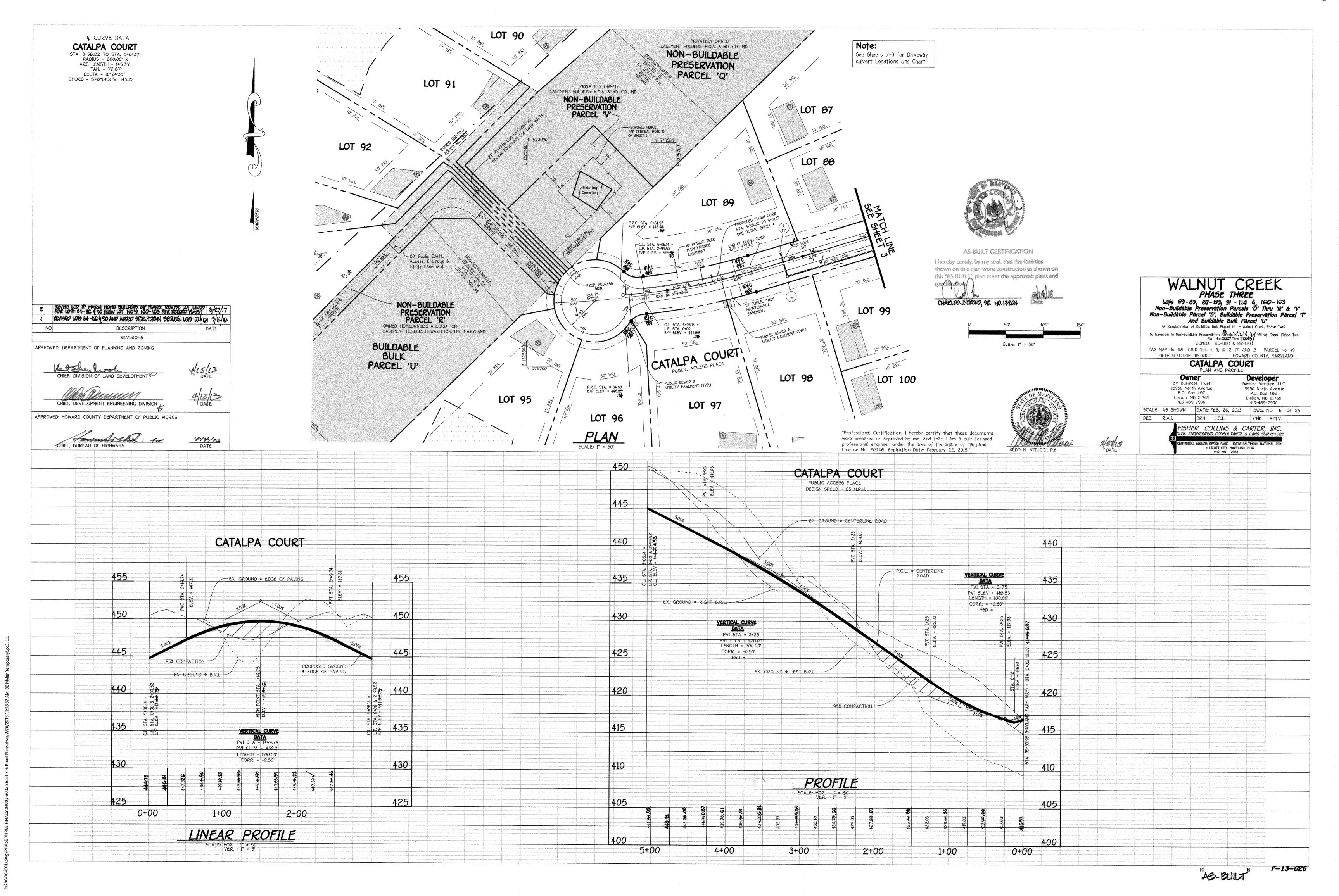
THIS FACILITY IS TO BE REMOVED AND

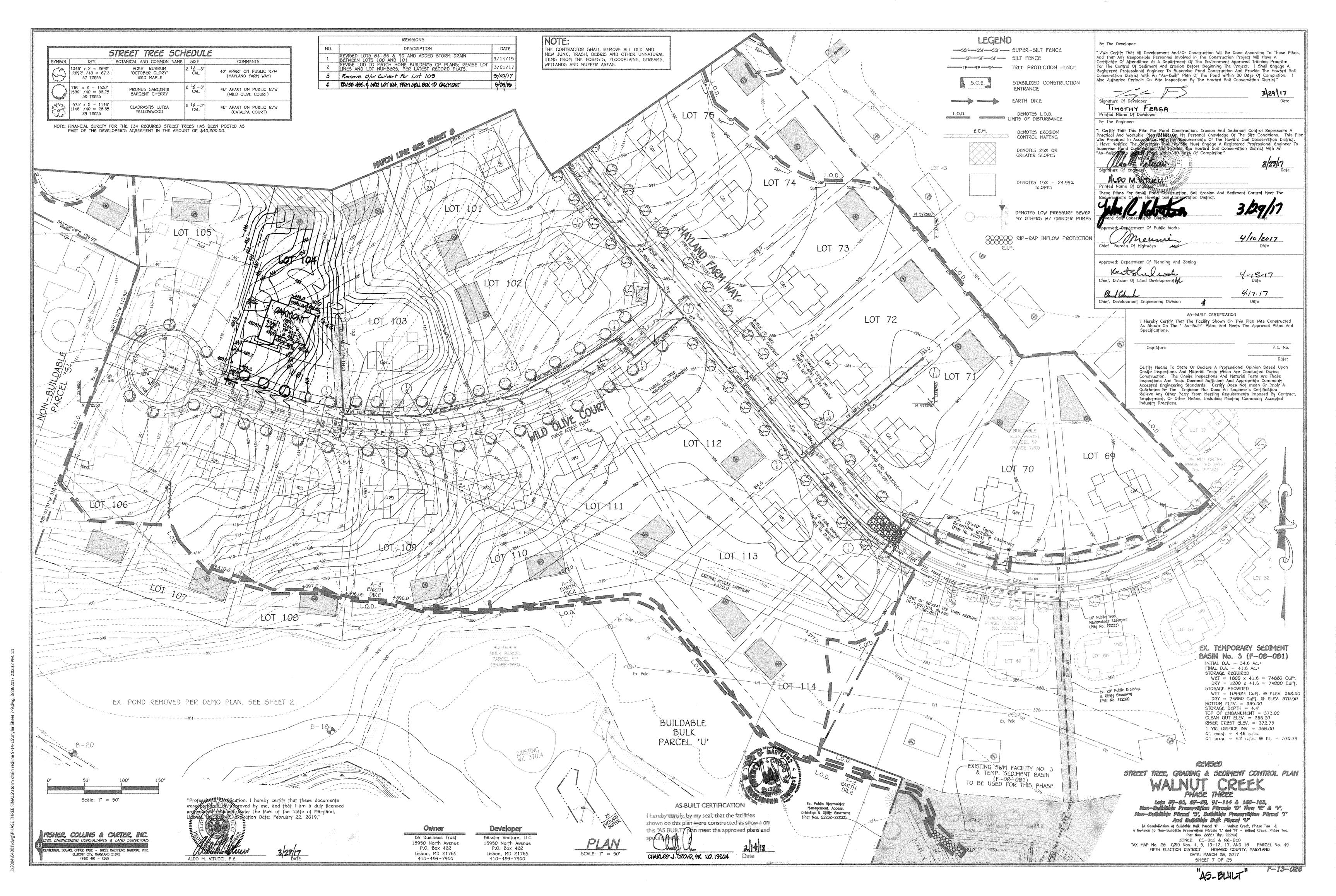
AND RELEASE ON EXISTING GRADE AT







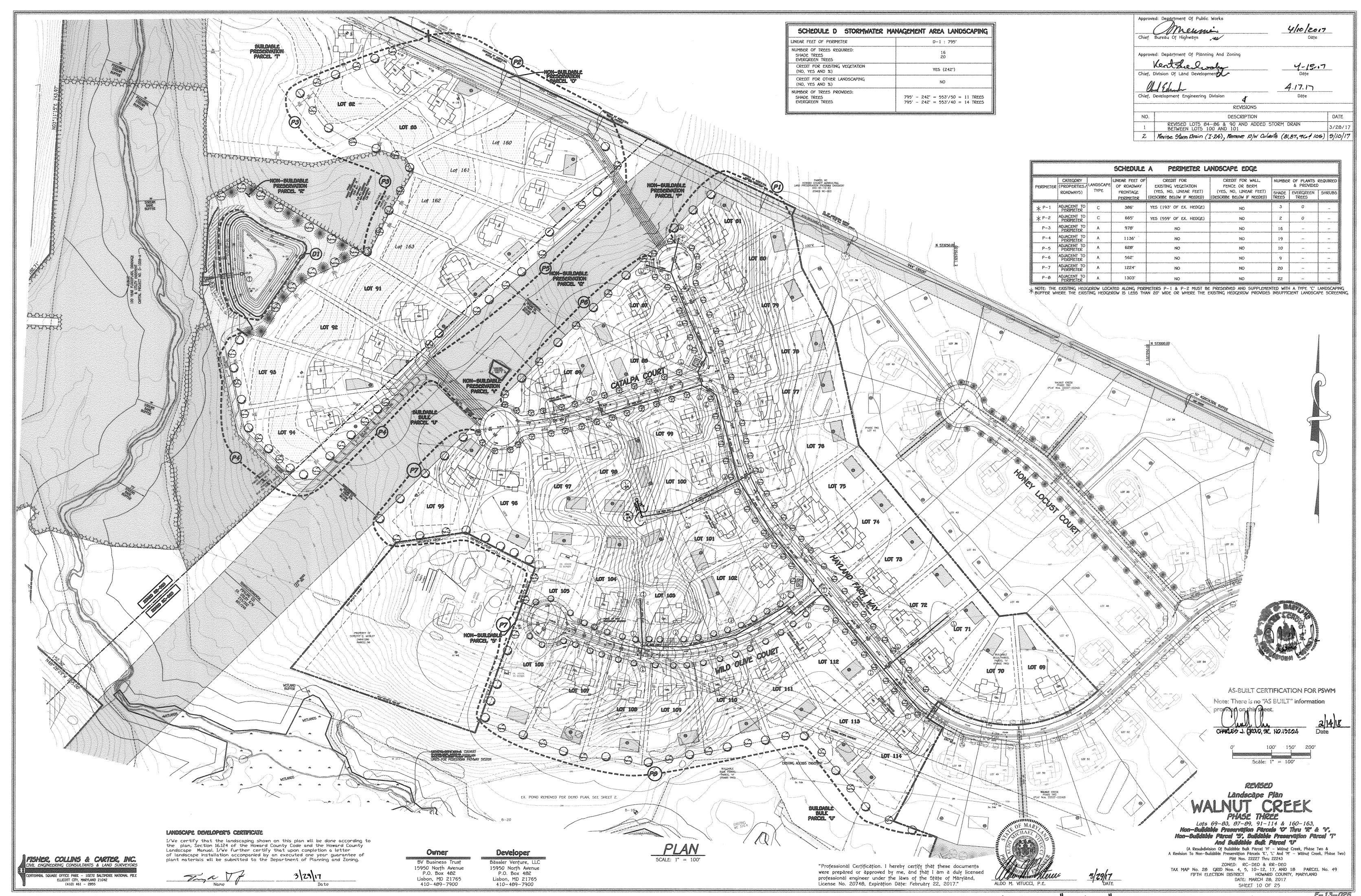






"AS-BUILT" F-13-026





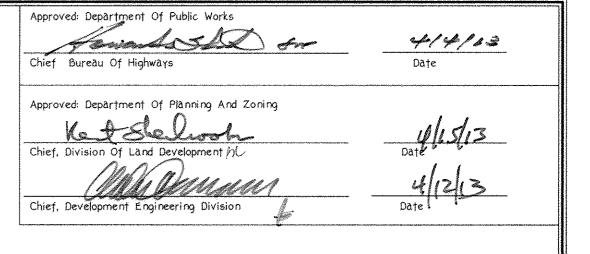
THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET

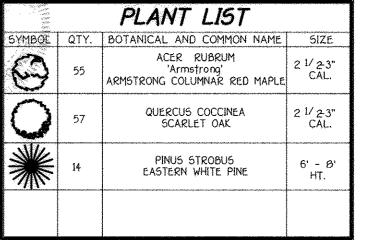
2 PIECES OF REINFORCED RUBBER HOSE DOUBLE #12 GALVANIZED WIRE GUYS TWISTED 2-2"X 2" DAK STAKES,-NOTCH STAKES TO ~1/2 OF TREE HEIGHT HOLD WIRE (APPROX. 3 FEET) CONSTRUCT 3" SAUCER RIM-FLOOD WITH WATER TWICE WITHIN 24 HOURS REMOVE ANY COVERING -GROUND LINE SAME FROM TOP OF BALL AS IN NURSERY TOPSOIL MIXTURE-

## EVERGREEN PLANTING DETAIL

"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 subtitutions 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 maintenace 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.





"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 112 SHADE & 14 EVERGREEN TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$35,700.00.

## TREE PLANTING DETAIL

### SHRUB PLANTING DETAIL

RIM-FLOOD WITH WATER

TWICE WITHIN 24 HOURS

GROUND LINE SAME AS IN NURSERY

### 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-Washington 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

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

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).

season of completion of site construction.

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.

SCALE: 1" = 30"

INTERNAL POND PLANTING DETAIL

### INTERNAL POND PLANT LIST

FLOODPLAIN TERRACE

1' - 4' ELEVATION ABOVE NORMAL POOL ELEVATION -PLANT AREA W/ SWITCH GRASS QUANTITY - N/A SPACING - N/A

ZONE 3

+ + + -

SHORELINE FRINGE

0" - 12" ELEVATION ABOVE NORMAL POOL ELEVATION -PLANT BENCH AREA W/ THE FOLLWING: INKBERRY, WITCHHAZEL & WINTERBERRY QUANTITY - 16 EACH SPACING - 12' MAX.

SHALLOW WATER BENCH

0" - 12" ELEVATION BELOW NORMAL POOL ELEVATION -PLANT AREA w/ BULRUSH, RIVER

ZONE 1 DEEPWATER POOL

1' - 3' ELEVATION BELOW NORMAL POOL ELEVATION -PLANT AREA W/ WIDGEON-GRASS

QUANTITY - N/A SPACING - N/A

QUANTITY - N/A SPACING - N/A

AS-BUILT CERTIFICATION FOR PSWM

Note: There is no "AS BUILT" information



Landscape Plan Notes

PHASE THREE
Lots 69-80, 87-89, 91-114 \$ 160-163
Non-Buildable Preservation Parcels 'O' Thru 'R' & 'V',
Non-Buildable Parcel 'S', Buildable Preservation Parcel T'
And Buildable Builk Parcel 'U'
(A Sauddivision of Buildable Builk Parcel 'U')

(A Revision to Non-Buildable Preservation Parcels K, L & M Walnut Creek, Phase Two, Plat Nos. 1177 Thru 17743 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: FEBRUARY 26, 2013

### 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. ELLICOTT CITY, MARYLAND 21042

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

2 KEVISE LOD TO MATCH HOME BUILDERS OF HAND REVISE LOT LINES FOR 3/27/17 1 KENSED LOIS 84-8C \$ 90 AND ADDED STORM DRAIN BETWEEN LOIS 100 \$ 101 3/4/10 NO. revision 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."

### Site Preparation

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

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

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

### EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the \*200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a aeotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within +2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

### Structure Backfill

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

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to the specified for the core of the embankment or other embankment materials.

### Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Stel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling banks or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections- All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24-inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, prepunched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2-inch greater than the corrugation depth. Pipes 24-inches in diameter and larger shall be connected by a 24-inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12-inches on the end of each pipe. Flanged joints with 3/8-inch closed cell gaskets the full width of the

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide

5. Backfilling shall conform to "Structure Backfill". 6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings. Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Stucture Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first loint must be located within 4 feet from the riser.

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

### Plastic Pipe

The following criteria shall apply for plastic pipe: 1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirement of AASHTO M252 Type S, and 12" through 24" inch shall meet the

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide

4. Backfilling shall conform to "Structure Backfill".

requirement of AASHTO M294 Type S.

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

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

Concrete shall meet the requirements of Maryland Department of Transportation. State Highway Administration Standard Specifications for Construction and

### Rock Riprap

Materials, Section 414, Mix No. 3.

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet the requirements of Specifications for Construction and Materials, Section 921.09, Class C.

### Care of Water during Construction

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

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

### Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

### OPERATION AND MAINTENANCE

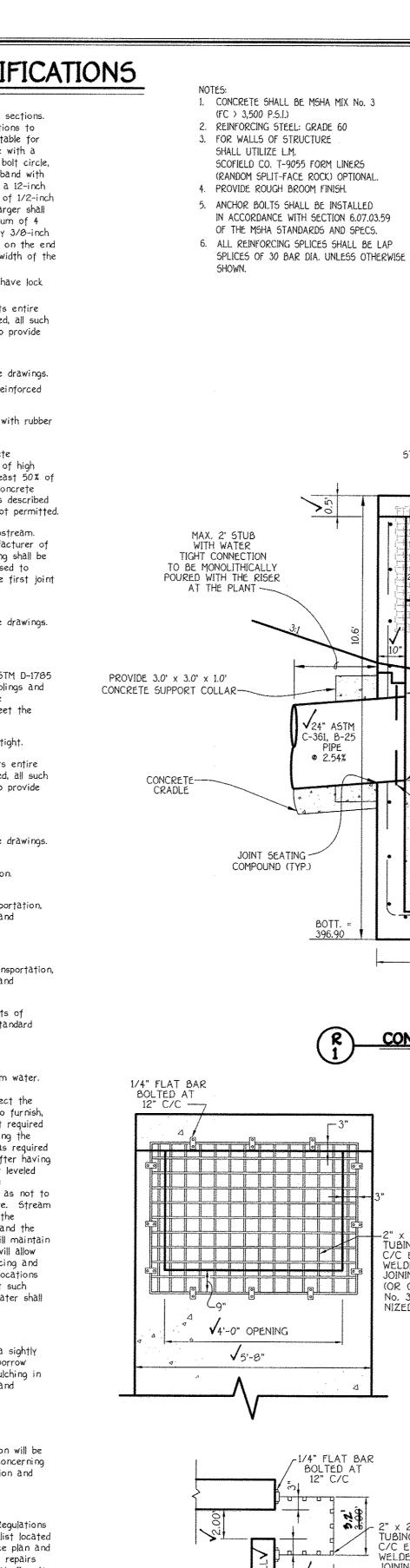
Scale: 1" = 20'

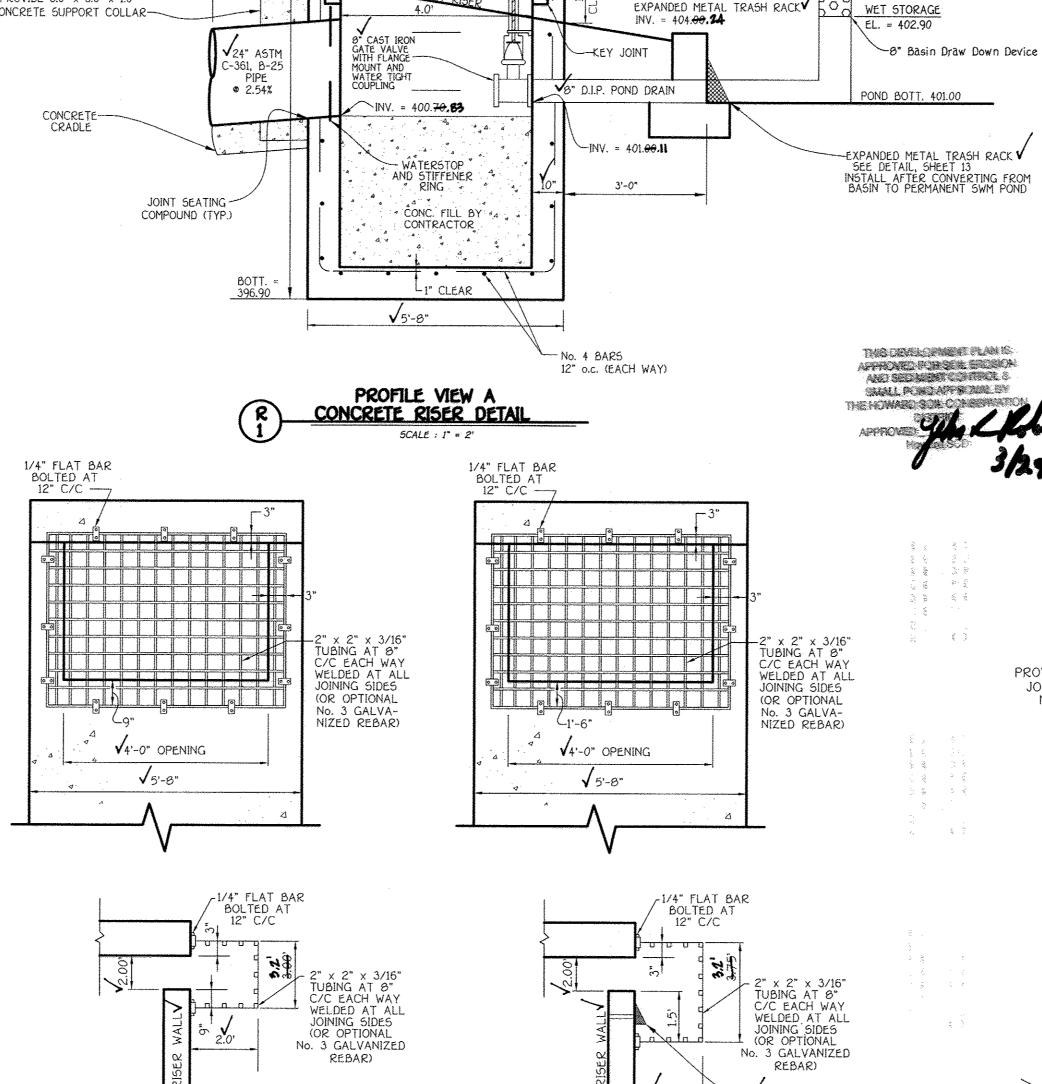
An operation and maintenance plan in accordance with Local or State Regulations will be prepared for all ponds. As a minimum, the dam inspection checklist located in Appendix A shall be included as part of the operation and maintenance plan and performed at least annually. Written records of maintenance and major repairs needs to be retained in a file. The issuance of a Maintenance and Repair Permit for any repairs or maintenance that involves the modification of the dam or spillway from its original design and specifications is required. A permit is also required for any repairs or reconstruction that involve a substantial portion of the structure. All indicated repairs are to be made as soon as practical.

2 REMARK LOO TO MATCH HOME BUILDERS OF MANS, REMARK LOT LINES FOR LOGS BAY BECORD RATE)

revision

REVISED LOTS 84-8CE 90 AND ADDED STORM DRAIN CETNEEN LOTS 100 \$ 101 3/14/16





7°5 6° 0/c

TOP SLAB DETAIL

NO SCALE

5TD. HOWARD COUNTY

(G-5.51)

FRAME AND COVER -

2.00' x 4.00' 2nd STAGE WEIR -(NORTH & SOUTH SIDE) - 1 ELEV. = 405.00

VALVE STEM-

VALVE BOX

GUIDE

). HOWARD COUNTY

BOX COVER TO BE USED

AS GATE VALVE ACCESS

TOP ELEV. = 407.50.00

Ind STAGE WEIR

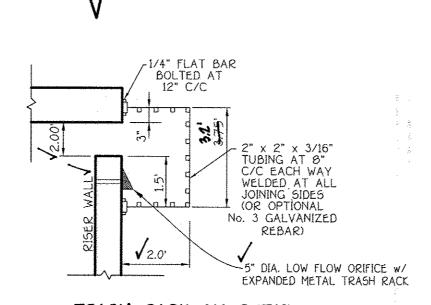
5" DIA. LOW FLOW ORIFICE W/

(EAST SIDE) ELEV. = 405.00.19

STD. HOWARD COUNTY V

SIDEWALK FRAME AND

COVER (5.D. - 3.91)



2. GALVANIZE ENTIRE TRASH RACK

AFTER FABRICATION.

3. PAINT BATTLESHIP GRAY.

### TRASH RACK 'A' DETAIL (NO SCALE)

NOTES: 1. FIELD MEASURE THE STRUCTURE 1. FIELD MEASURE THE STRUCTURE DIMENSIONS TO INSURE EXACT FIT DIMENSIONS TO INSURE EXACT FIT OF TRASH RACK. OF TRASH RACK.

2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION. 3. PAINT BATTLESHIP GRAY.

### Developer Bassler Venture, LLC 15950 North Avenue

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

TRASH RACK 'B' DETAIL

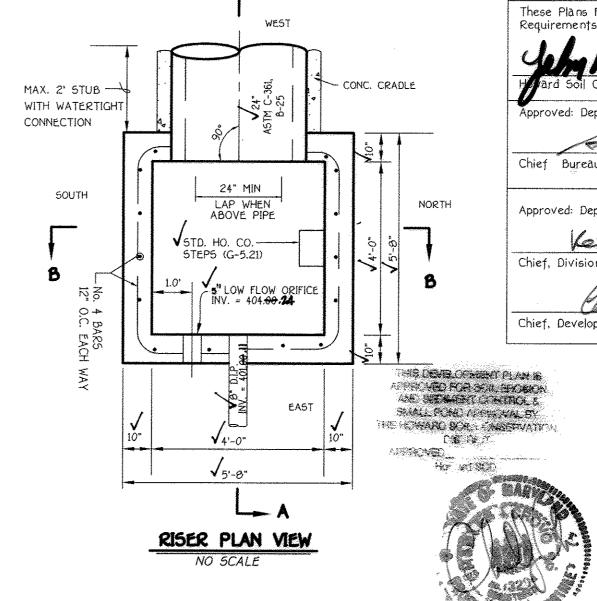
(NO SCALE)

NOTES:

LONGITUDINAL REINFORCEMENT CAGE REINFORCEMENT Ø *f* ØØ SPIGOT RING -L MASTIC JOINT SEALER RUBBER GASKET-

NOTE: PROVIDE MASTIC JOINT SEALER FROM OUTSIDE OF PIPE JOINTS PRIOR TO INSTALLING BARREL UNDERGROUND ASTM DESIGNATION C361 DIAMETERS 12 THRU 168 INCH

> PRESSURES TO 125 FEET OF HEAD CONCRETE PIPE JOINT DETAIL



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."

By The Engineer:

"I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A ble Plan Based On My Personal Knowledge Of The Site Conditions. This Plan ed in Accordance With The Requirements Of The Howard Soil Conservation District. av No ffied The Developer That He/She Must Engage A Registered Professional Engineer To be see Bond Construction and Provide The Howard Soil Conservation District With An Lan Of the Pond Ethin 30 Days Of Completion."

e/en/43 These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The

4/4/12 Chief Bureau Of Highways Date

Approved: Department Of Planning And Zoning Chief, Division Of Land Development 17 Chief, Development Engineering Division

> 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. 13204 Signature Certify Means To State Or Declare A Professional Opinion Based Upon

A5-BUILT CERTIFICATION

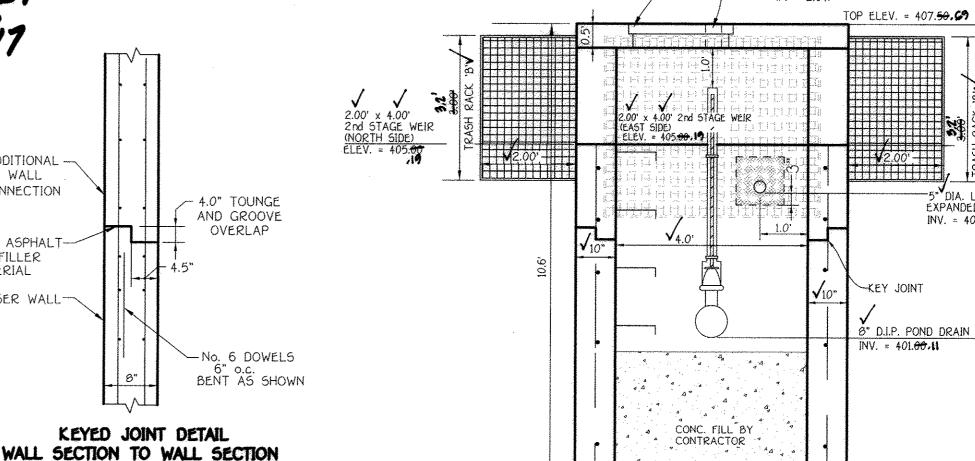
Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those nspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's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

2nd STAGE WEIR

DIA. LOW FLOW ORIFICE W/

EXPANDED METAL TRASH RACK INV. = 404.00.14

-STD. HOWARD COUNTY V RECLAIMED WATER VALVE STD. HOWARD COUNTY V BOX COVER TO BE USEI AS GATE VALVE ACCESS FRAME AND COVER (G-5.51) (P. - 2.04)



46.0"

(NO SCALE)

5C5 TR-46 A2 CONCRETE CRADLE

"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.

ADDITIONAL -

WALL

CONNECTION

RISER WALL-

PROVIDE ASPHALT-

JOINT FILLER

MATERIAL

CONC. CRADLE TO BE POURED DIRECTLY AGAINST EARTH BANKS. IF BOTTOM OF TRENCH IS WIDER THAN THE CRADLE, SLOPING SIDES (FRAMED) SHALL BE USED.

AS-BUILT CERTIFICATION lineraby certify, by my seal, that the facilities shown on this plan were constructed as shown on

this "AS BUILT" plan meet the approved plans and apediations.

396.90

CHARLEG J. CROUD, 9R. NO. 13/204

Stormwater Management Notes And Details

No. 4 BARS

12" o.c. (EACH WAY)

 $^{ extsf{L}}$ 1" CLEAR  $^{ extsf{`}}$ 

PROFILE VIEW B

CONCRETE RISER DETAIL

-83, 87-89, 91-114 & 160-163, le Preservation Parcels 'O' Thru 'R' & V. Non-Buildable Parcel '5'. Buildable Preservation Parcel 'T' And Buildable Bulk Parcel "U"

(A Revision to Non-Buildable Preservation Parcels K. L. & M. Walnut Creek, Phase Two. Plat Nos. 22227 Thru 22243 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: FEBRUARY 26, 2013

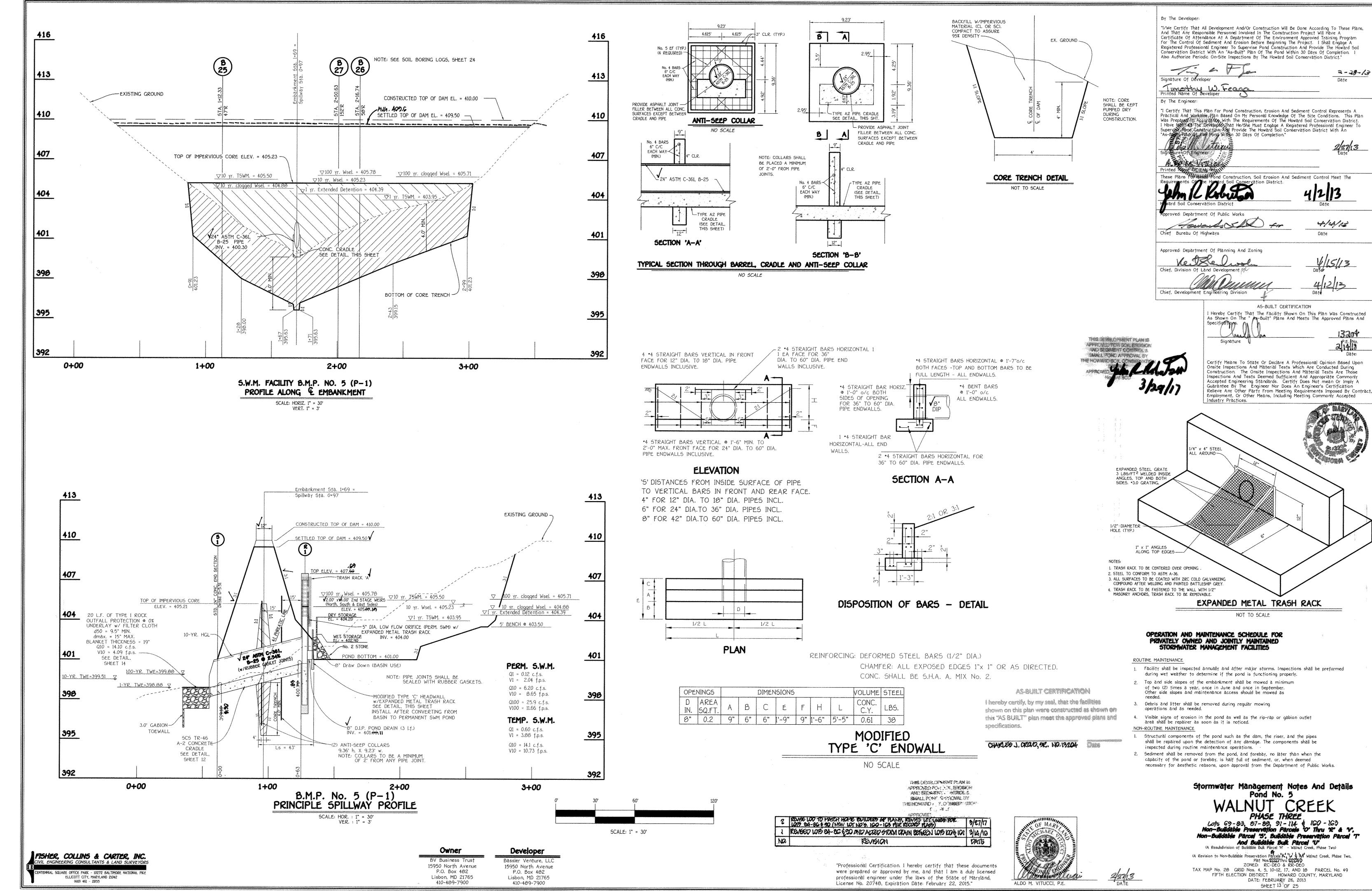
SHEET 12 OF 25

AG-BUILT

(410) 461 - 2855

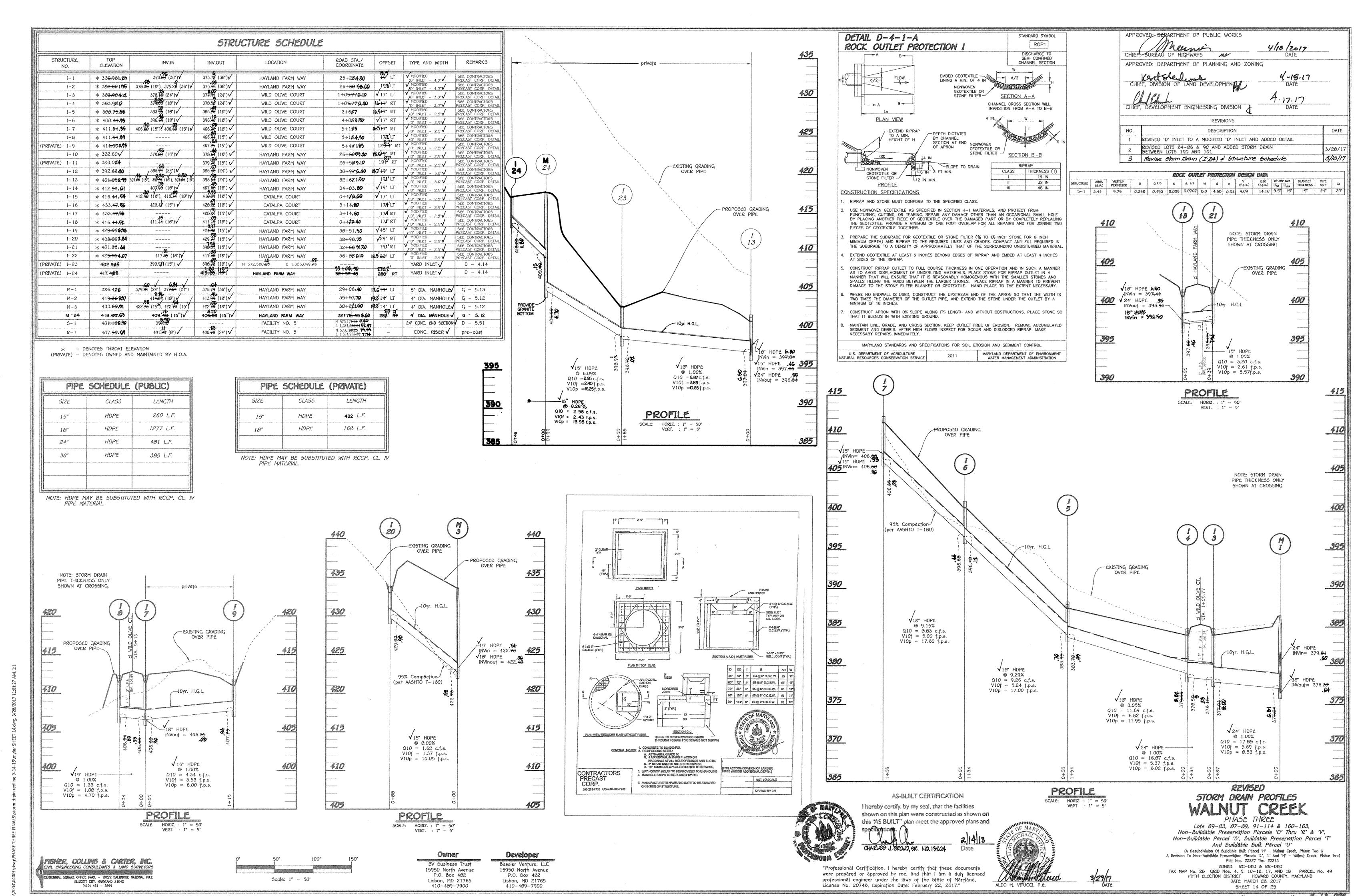
FISHER, COLLINS & CARTER, INC. SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIK

# Owner

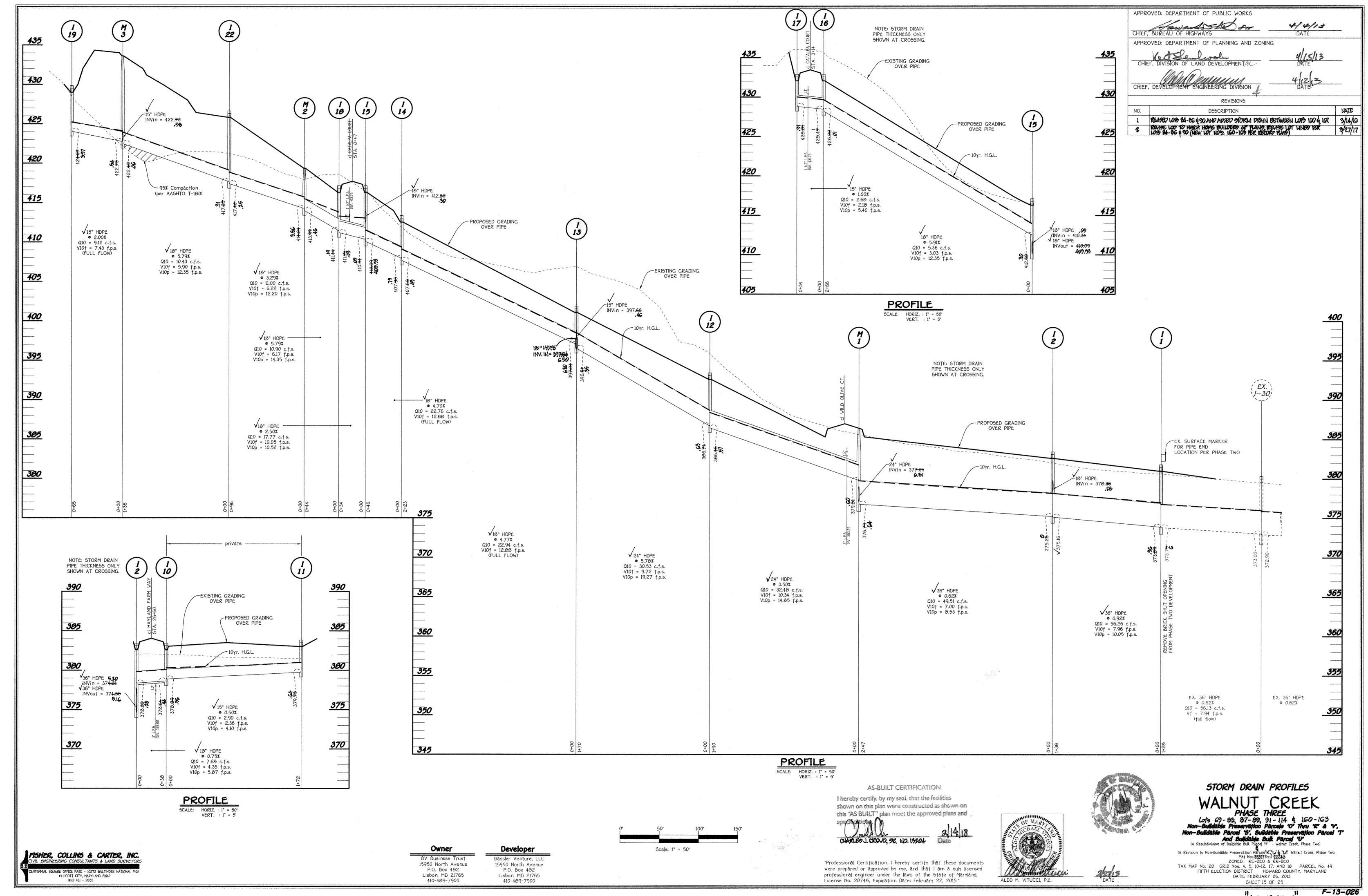


AD-BUILD

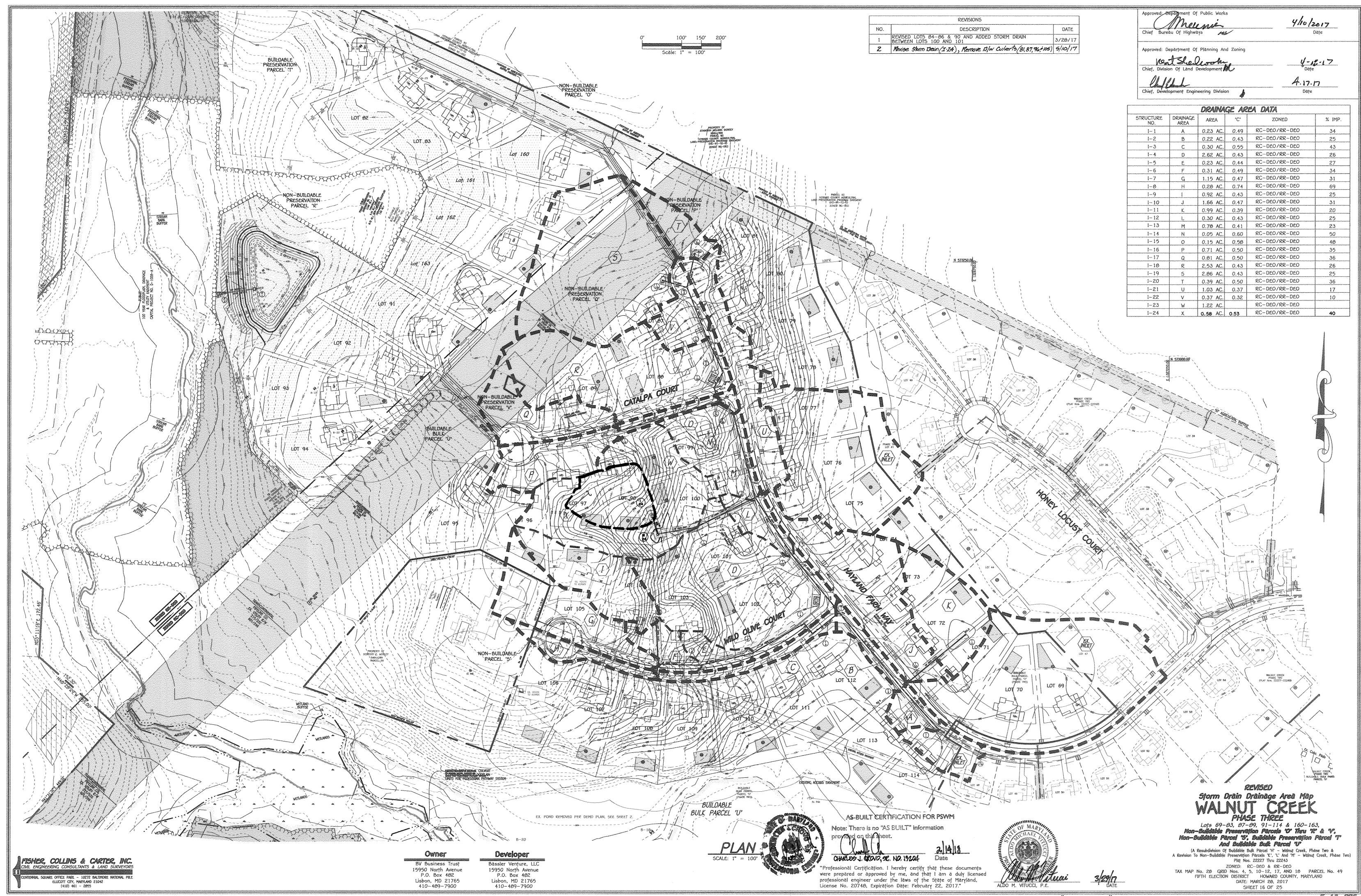
F-13-026



AG-BUILT



"AS-BUILT"



### 1. Temporary Stabilization

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the

b. Apply fertilizer and lime as prescribed on the plans.

c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable meansermanent Stabilization

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

. Soil pH between 6.0 and 7.0.

ii. Soluble salts less than 500 parts per million (ppm). iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be

planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable. iv. Soil contains 1.5 percent minimum organic matter by weight. v. Soil contains sufficient pore space to permit adequate root penetration.

b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

scarified or otherwise loosened to a depth of 3 to 5 inches.

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

### C. Torsellin

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.

3. Topsoiling is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

4. Areas having slopes steeper than 2:1 require special consideration and design.

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1

1/2 inches in diameter. b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

### 6. Topsoil Application

a. Erosion and sediment control practices must be maintained when applying topsoil.

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets

c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

### C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical

2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.

3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 90 to 100 percent will pass through a #20 mesh sieve.

4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.

5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

### TEMPORARY SEEDING NOTES (B-4-4)

To stabilize disturbed soils with vegetation for up to 6 months.

To use fast growing vegetation that provides cover on disturbed soils.

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure 8.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

2. For sites having soil tests performed, use and show the recommended rates by the

testing agency. Soil tests are not required for Temporary Seeding.

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section 8-4-3.A.1.b and maintain until the next seeding

### Temporary Seeding Summary

lardiness Zone (from Figure 8.3): <u>6b</u> leed Mixture (from Table B.1):			Fertilizer Rate (10-20-20)	Lime Rate	
Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	принародинальный	
BARLEY	96	3/1 - 5/15. 8/15 - 10/15	1"	436 lb/ac (10 lb/ 1000 sf)	2 tons/ac (90 lb/ 1000 sf)
OATS	72		1"		
RYE	112		1"	- salvanores established	

### PERMANENT SEEDING NOTES (8-4-5)

A. Seed Mixtures General Use

a. Select one or more of the species or mixtures listed in Table 8.3 for the appropriate Plant Hardiness Zone (from Figure 8.3) and based on the site condition or purpose found on Table 8.2. Enter selected mixture(s). application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be

b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or desthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary

### 2. Turforass Mixtures

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management, Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryeorass Cultivars/Certified Kentucky Blueorass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 saudre feet.

Select turgarass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfarass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides à reliable means of consumer protection and assures à pure genetic line

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b. 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future moving of grasses will pose no

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth ( 1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse

### Permanent Seeding Summary

DEED	ruxture	(from Table 8.3):	Value status, antiaŭ rasam rinter valuet distri bilital devisi valuti.				D. C.	
No.	Species	Application Rate (lb/ac)	Seeding Dațes	Seeding Depths	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> 0	
8	TALL FESCUE	100	Mar. 1-May 15 Aug. 15-Oct. 15	1/4-1/2 in.	45 lbs. per acre	(2 lb/	(2 lb/	
		And the state of t			(1.0 lb/ 1000 sf)	1000 sf)	1000 sf)	1000 sf)

# SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT. (2 WEEKS) 2. NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777, NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK. 3. INSTALL, THE STABILIZED CONSTRUCTION ENTRANCE. INSTALL ALL TREE

PROTECTION FENCE FOR TREES TO BE UNDISTURBED AS INDICATED ON THE 4. INSTALL SILT FENCE, EARTH DIKES AND DEWATERING DEVICES IN CONJUNCTION WITH CONSTRUCTION OF THE PROPOSED SEDIMENT RASIN/SUM PONDS AND DAM

EMBANKMENT, NOTE THAT NO DISTURBANCE IS ALLOWED UNTIL ALL SWM/BASIN MATERIALS FOR THE PRINCIPAL SPILLWAYS ARE ON SITE AND PERMISSION FROM THE INSPECTOR IS GRANTED IN WRITING TO PROCEED. (4 WEEKS) 5. NOTE: ALL DAM EMBANKMENT AND CORE TRENCH CONSTRUCTION SHALL BE COORDINATED

WITH A PROFESSIONAL GEOTECHNICAL ENGINEER IN ACCORDANCE WITH THE RECOMMENDATIONS SHOWN ON THESE PLANS. NO BLASTING WILL BE PERMITTED FOR THE EXCAVATION OF SEDIMENT BASIN/SWM POND EMBANKMENT, WHERE NECESSARY, RIPPING AND JACK HAMMERING SHOULD BE UTILIZED IN THE EXCAVATION OF THE

6. UPON COMPLETION OF THE SWM PONDS/SEDIMENT BASINS CONSTRUCTION RECEIVE PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR PRIOR TO PROCEEDING. (1 WEEK)

7. CLEAR AND GRUB FOR THE INSTALLATION OF THE REMAINING PERIMETER SEDIMENT CONTROL MEASURES. INSTALL TREE PROTECTION FENCE, SILT FENCE, EARTH DIKES AS SHOWN ON THESE PLANS. (1 WEEK)

8. CLEAR AND GRUB FOR THE REMAINDER OF THE SITE. (2 WEEKS)

NOTE: THE CONTRACTOR SHALL COORDINATE WITH THE INSPECTOR IN REGARDS TO THE REQUIREMENT THAT NO MORE THAN 20-ACRES OF "OPEN" GROUND SHALL BE DISTURBED AT ANY GIVEN TIME 9. GRADE SITE TO PROPOSED SUBGRADE AND INSTALL THE STORM DRAIN SYSTEMS.

STABILIZE ALL SLOPES IMMEDIATELY UPON COMPLETION OF GRADING, DO NOT BLOCK INLETS AS STORM DRAIN SYSTEM WILL BE USED TO CONVEY SEDIMENT RUNOFF INTO THE TWO EXISTING SEDIMENT BASINS, (5 WEEKS) 10. CONSTRUCT ROAD BASE COURSE FOR SUBDIVISION ROADS. (1 WEEK)

11. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES AND PONDS HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR. THE SEDIMENT CONTROL DEVICES MAY BE REMOVED AND/OR BACKFILLED AND THE REMAINING AREAS BROUGHT TO FINAL GRADE. STABILIZE ALL AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES (3 WEEKS)

12. NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT. (1 WEEK) 13. PREPARE FINAL POND "AS-BUILTS" FOR APPROVAL BY SOIL CONSERVATION DISTRICT

NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SPRIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS. REMOVE SEDIMENT FROM THE POND/BASIN WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED. ALL SEDIMENT MUST BE PLACED UPSTREAM OF THE APPROVED TRAPPING DEVICE.

\* THE 20 AC. CONDITION CAN BE MET BY PHASE I GRADING TO CONSIST OF ALL AREAS EAST OF THE WILLIAM GAS EASEMENT. PHASE II GRADING CONSISTS OF ALL LOTS WES

### SEDIMENT CONTROL NOTES

1) A MINIMUM OF 40 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1055) 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE

WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO. 3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER

DISTURBED OR GRADED AREAS ON THE PROJECT SITE. 4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR 7) SITE ANALYSIS:

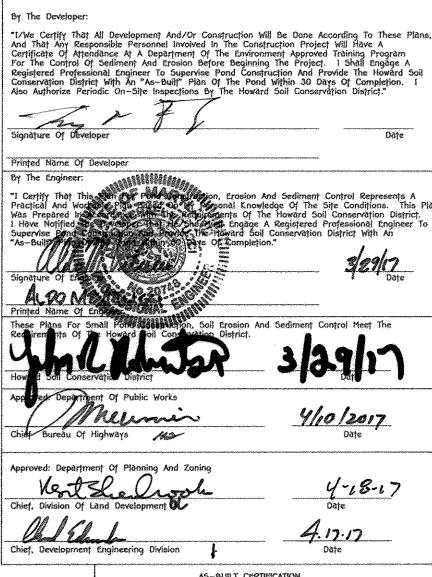
TOTAL AREA OF SITE (PHASE THREE) 222.00 ACRES AREA DISTURBED 33.67 ACRES AREA TO BE ROOFED OR PAVED 1.60 ACRES AREA TO BE VEGETATIVELY STABILIZED 31.99 ACRES TOTAL CUT 30,000 CU, YDS. TOTAL FILL 30,000 CU. YDS. OFFSITE WASTE/BORROW AREA LOCATION N/A CU. Y05.

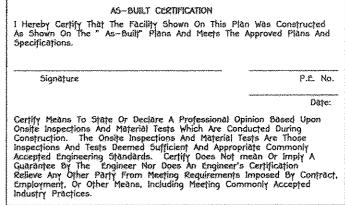
FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. 9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY

THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER

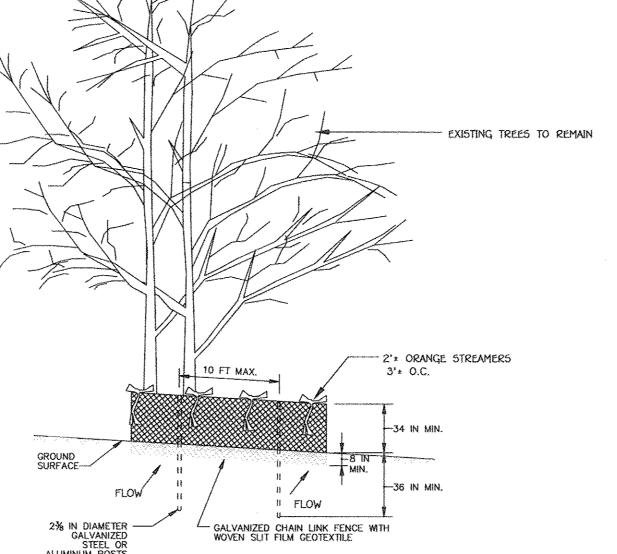




STANDARD SYMBO

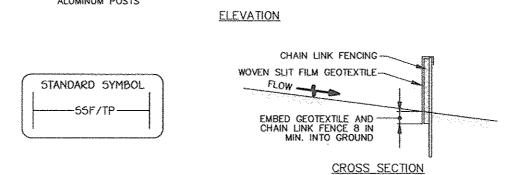
RRP

CROSS SECTION



MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION



CONSTRUCTION SPECIFICATIONS

CHAIN LINK FENCING AND GEOTEXTILE.

OUTLET PROTECTION

-EXTEND RIRRAP

6 IN

SECTION A-A

SECTION B-B

TO A MIN.

HEIGHT OF H

FLOW

EXISTING STABILIZED

12 IN MIN.

-3 FT MIN.

USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM

PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE

PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (% TO 1/2 INCH MINIMUM STONE FOR

. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES

CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER

AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A

MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND

SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT

O THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.

WHERE NO ENDWALL IS USED. CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS

TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A

CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SC

MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED

SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAK

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL

REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING

BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING

THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO

4 IN-1

PLAN VIEW

NONWOVEN-

PROFILE

THAT IT BLENDS IN WITH EXISTING GROUND

NECESSARY REPAIRS IMMEDIATELY

U.S. DEPARTMENT OF AGRICULTURE ATURAL RESOURCES CONSERVATION SERVICE

RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.

GEOTEXTILE

0% SLOPE

OR STONE FILTER

CONSTRUCTION SPECIFICATIONS

ROPIII

DISCHARGE TO AN UNCONFINE

CHANNEL OR FLAT AREA

-NONWOVEN

**GEOTEXTIL** 

OR STONE FILTER

THICKNESS (T)

. INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES

2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID

SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 5 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.

 PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL

WITH WATERTIGHT END CAP PERFORATED PORTION POOL ELEVATION -OF PIPE -GROUND STORAGE SEE STONE ANCHOR DETAIL PRINCIPAL SPILLWAY--INTERNAL ORIFICE -RISER BASE WRAP PERFORATED PIPE WITH 14 IN HARDWARE OTH AND NONWOVEN 0 0 0 0 GFOTEXTILE. WASHED IN TO 11/5 IN PERFORATION SPACING RECYCLED CONCRETE -TOE OF DAM SPILLWAY STONE ANCHOR DETAIL NOTE: THIS DETAIL MAY BE -TOP OF EMBANKMENT-USED WITH VARIOUS -TRASH RACK SPILLWAYS INCLUDING CMP RISERS, CONCRETE RISERS, AND WEIR WALLS. - VERTICAL DRAW DOWN-DEVICE CONSTRUCTION SPECIFICATIONS PLAN VIEW PERFORATE PIPE WITH 1 INCH DIAMETER PERFORATIONS SPACED 6 INCHES APART LONGITUDINALLY AND RADIALLY OR IN ACCORDANCE WITH APPROVED PLAN. DO NOT EXTEND PERFORATIONS IN THE DRAW-DOWN DEVICE INTO WET STORAGE WRAP THE PERFORATED PORTION OF THE DRAW-DOWN DEVICE FIRST WITH 1/4 INCH GALVANIZED HARDWARE CLOTH, THEN WITH NONWOVEN GEOTEXTILE. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. DO NOT WRAP WITH MORE THAN ONE LAYER OF GEOTEXTILE AS AN ALTERNATE TO STONE ANCHORING, SECURE DRAW-DOWN DEVICE WITH TWO 1 INCH STEEL ANGLES SET 3 FEET MINIMUM INTO THE GROUND ATTACHED TO DRAW-DOWN DEVICE BY A 1 INCH WIDE GALVANIZED STEEL STRAP OR 12 GAUGE OR HEAVIER WIRE REMOVE SEDIMENT WHEN IT ACCUMULATES TO CLEANOUT ELEVATION (50% OF THE WET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA IN A SUCH A MANNER THAT IT WIL NOT ERODE. MAINTAIN WATER TIGHT CONNECTIONS, REPLACE GEOTEXTILE AROUND PERFORATED RISER

DETAIL G-2-/ SEDIMENT BASIN

-TOP OF EMBANKMENT

- RISER CREST ELEVATION

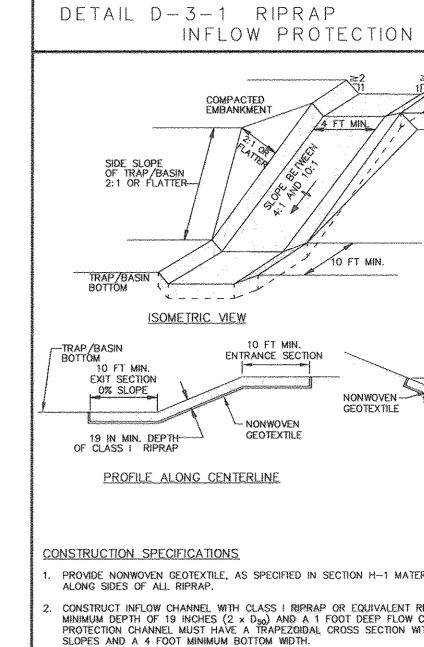
SCHEMATIC VERTICAL

DRAW-DOWN DEVICE

ANTI-VORTEX

-VERTICAL DRAW-DOWN DEVICE

IF DRY STORAGE VOLUME DOES IVOT	DRAW DOWN WITHIN TO I	nours.
MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL E	ROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION



PROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND

CONSTRUCT INFLOW CHANNEL WITH CLASS I RIPRAP OR EQUIVALENT RECYCLED CONCRETE LINING TO A MINIMUM DEPTH OF 19 INCHES (2  $\times$   $D_{50}$ ) AND A 1 FOOT DEEP FLOW CHANNEL INFLOW RIPRAP PROTECTION CHANNEL MUST HAVE A TRAPEZOIDAL CROSS SECTION WITH 2:1 OR FLATTER SIDE

. INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE. 4. BLEND RIPRAP INTO EXISTING GROUND.

MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION.

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

# SUPER SILT FENCE, TREE PROTECTION FENCE

NOT TO SCALE

Note: There is no "AS BUILT" information

CHARLES J. 080/0, 9R. NO.19204

S-BUILT CERTIFICATION FOR PSWM

"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, 2019."



ion-Buildable Preservation Parcels 'O' Thru 'R' & 'V', ion-Buildable Parcel 'S'. Buildable Preservation Parcel 'T' And Buildable Bulk Percel "U" (A Resubdivision of Buildable Bulk Parcel 'H' - Walnut Creek, Phase Two

(A Revision to Non-Buildable Preservation Parcels "L' and 'M' - Walnut Creek, Phase Two, 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: FEBRUARY 26, 2013

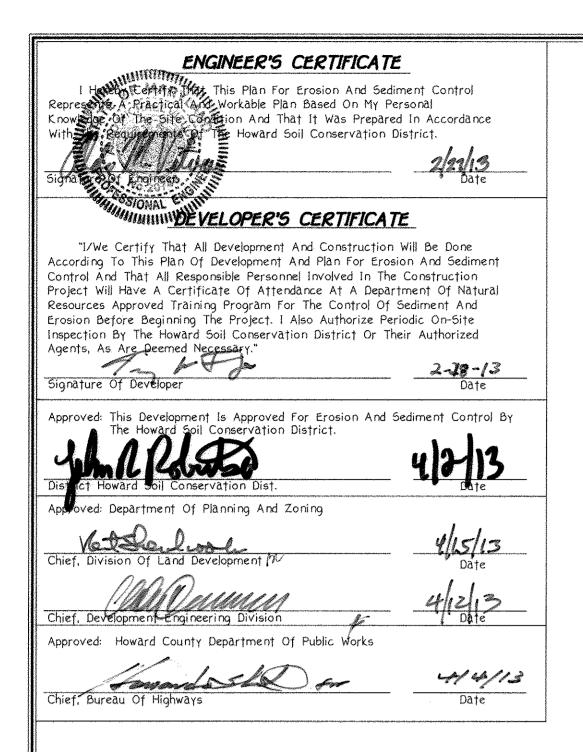
SHEET 17 OF 25

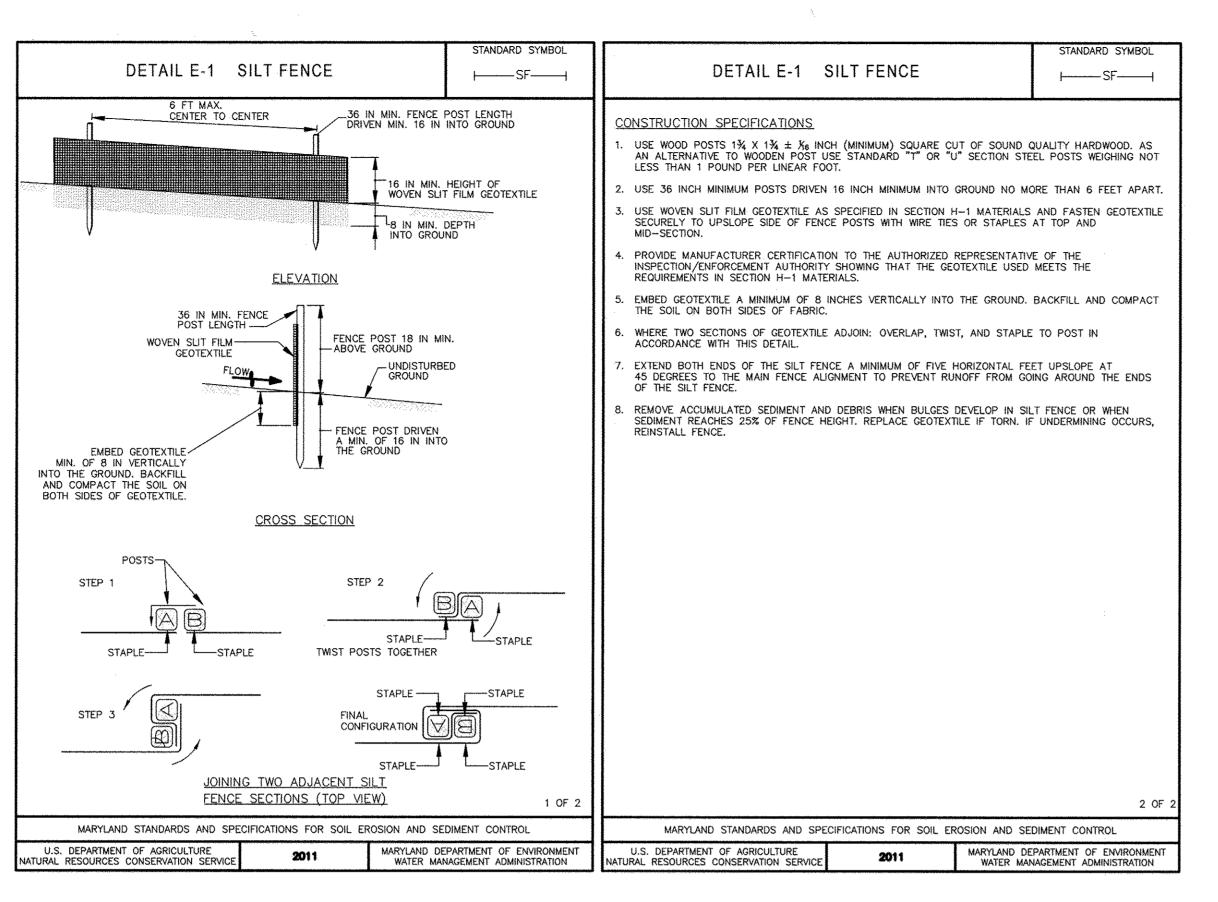
Lots 69 - 114.

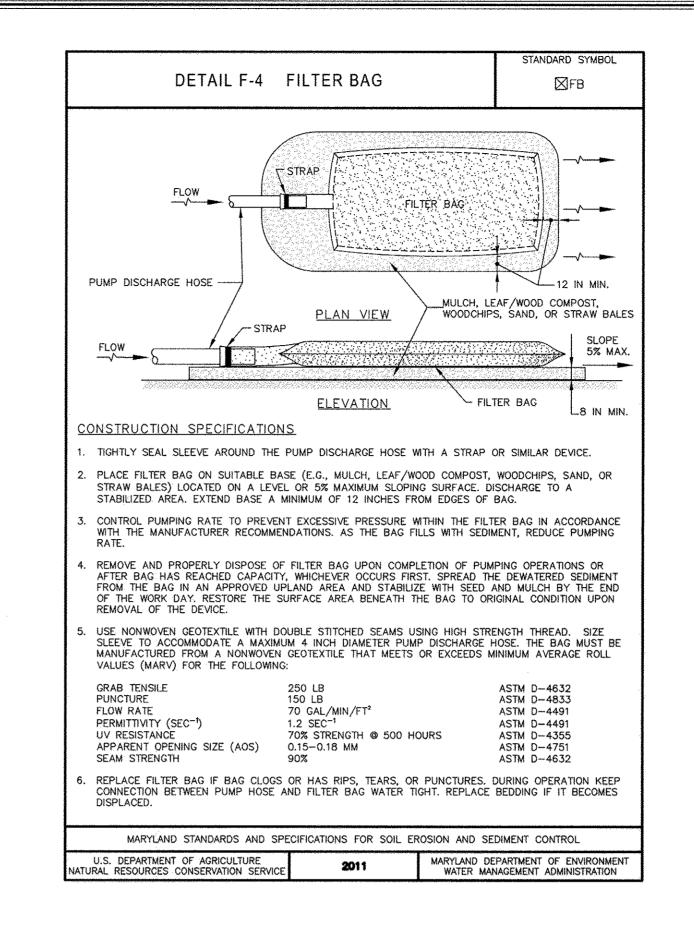
SEDIMENT AND EROSION CONTROL NOTES & DETAILS

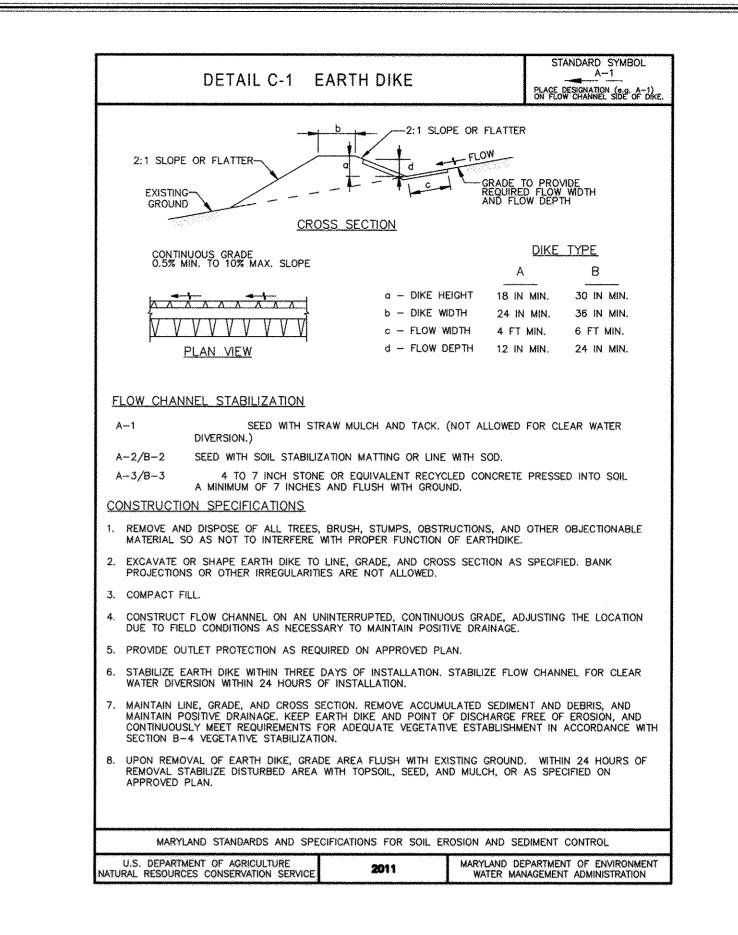
I FISHER, COLLINS & CARTER, INC. ENGINEERING CONSULTANTS & LAND SURVEYORS nnial soliase office park – 10272 baltimore national pike (410) 461 - 2855

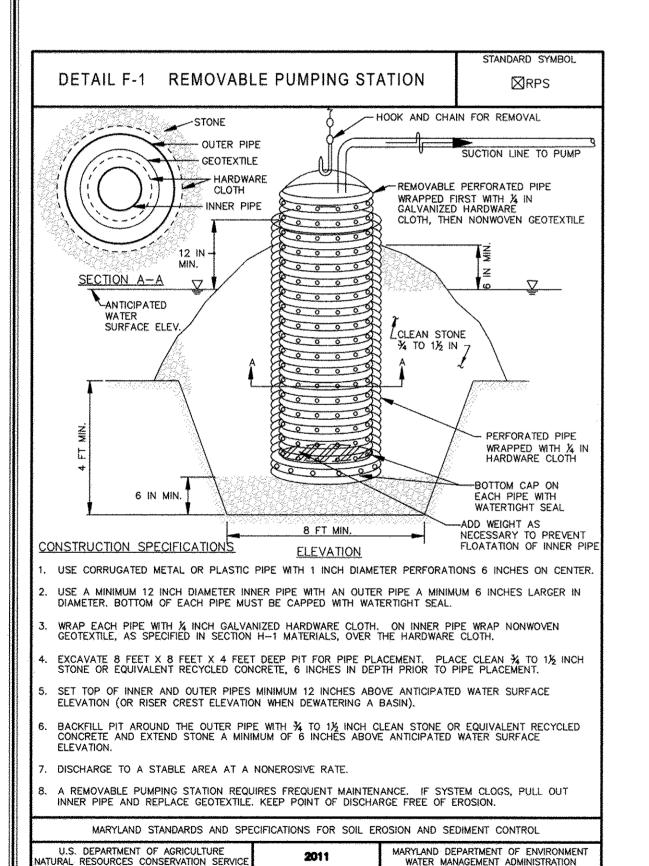
Developer Owner **BV** Business Trust Bassler Venture, LLC 15950 North Avenue 15950 North Avenue P.O. Box 482 P.O. Box 482 Lisbon, MD 21765 Lisbon, MD 21765 410-489-7900 410-489-7900









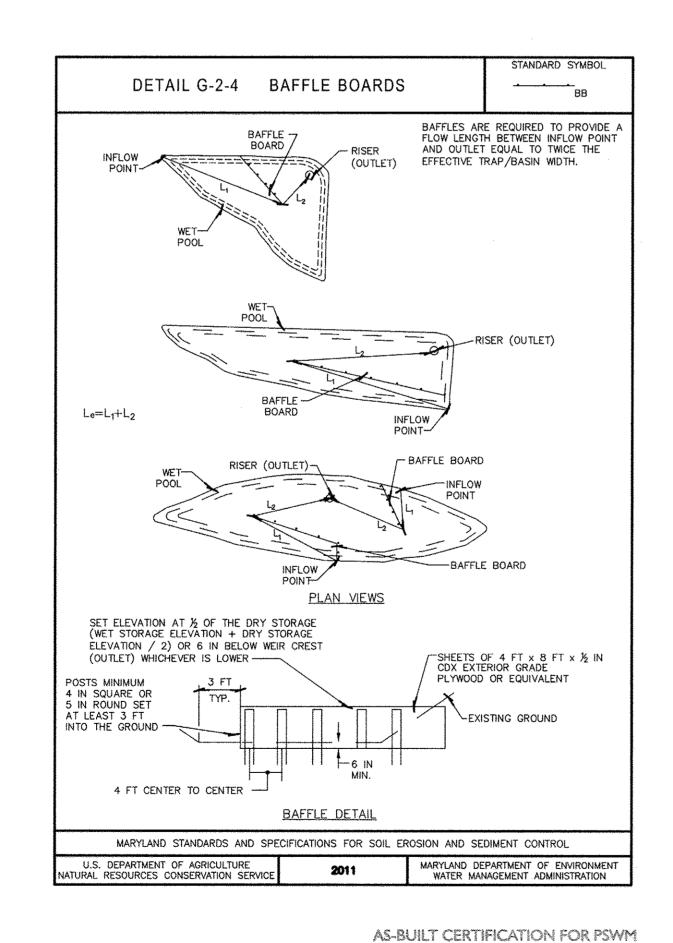


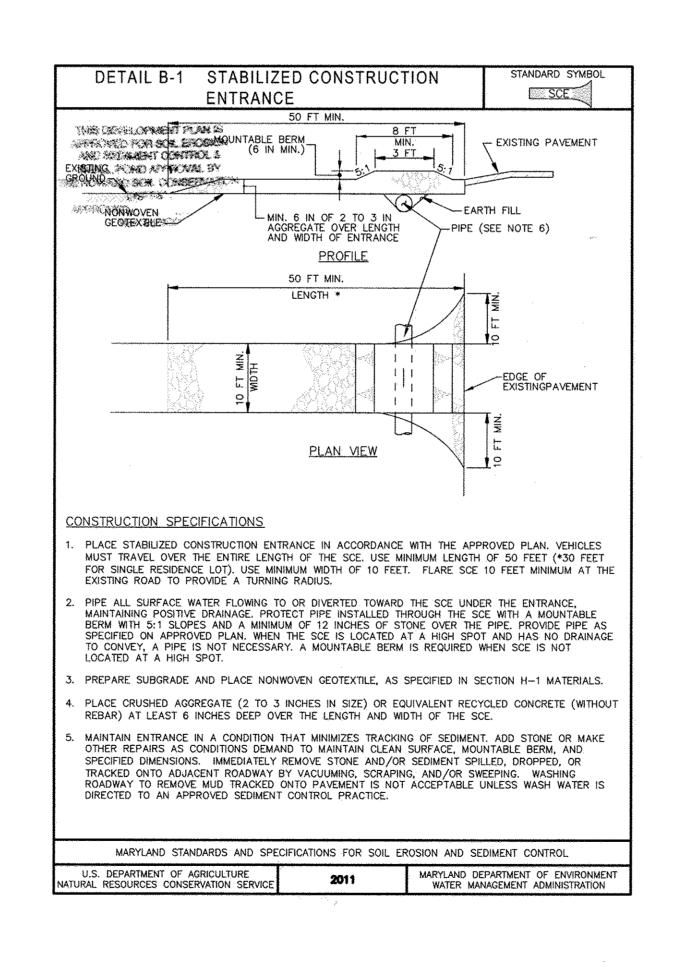
FISHER, COLLINS & CARTER, INC.

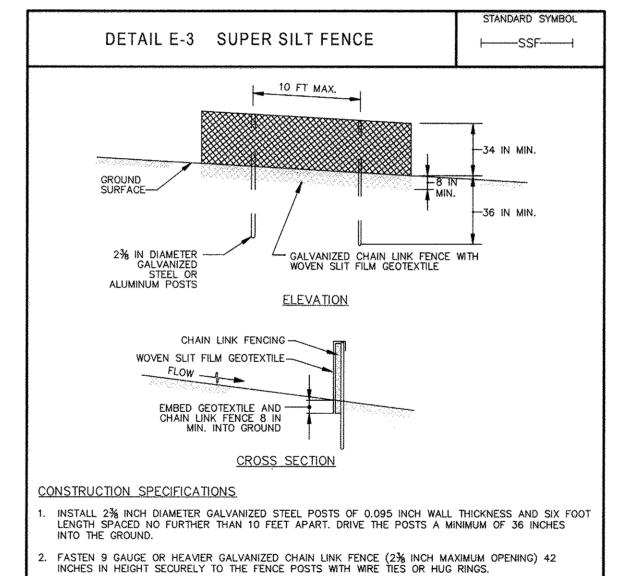
IAL SQUARE OFFICE PARK – 10272 BALTIMORE NATIONAL PIK

ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2055







FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

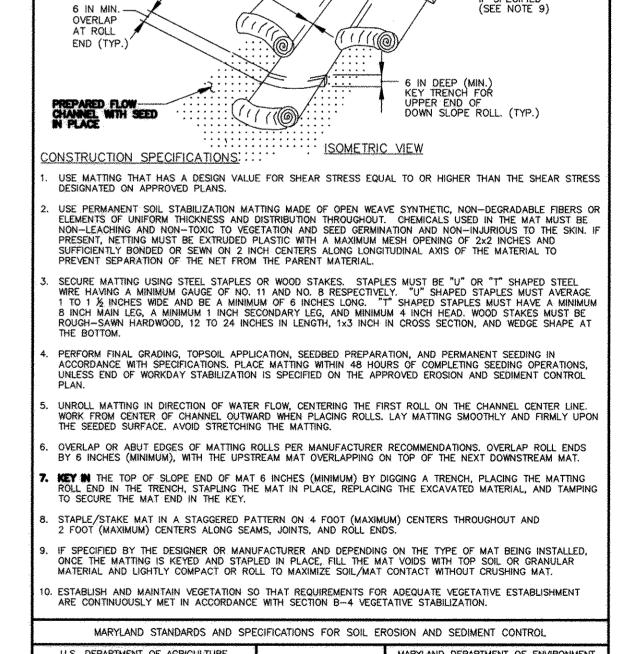
EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL

CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION IRAL RESOURCES CONSERVATION SERV

> AFFIROMED FOR SOIL ET & MON AND SECRAENT CONTINUE. SHALLPOND APPYOVAL BY



PERMANENT SOIL

STABILIZATION MATTING

CHANNEL APPLICATION ≫

PSSMC - \* lb/ft

(\* INCLUDE SHEAR STRESS)

ROLL END

DETAIL B-4-6-C

TISSUEVELOPMENT

SEDIMENT CONTROL NOTES AND DETAILS WALNUT CREEK PHASE THREE
Lots 69-83, 87-89, 91-114 & 160-163
Non-Buildable Preservation Parcels 'O' Thru 'R' & 'V',
Non-Buildable Parcel 'S', Buildable Preservation Parcel 'T'

WATER MANAGEMENT ADMINISTRATION

And Buildable Bulk Parcel "U" (A Revision to Non-Buildable Preservation Parcels K. L. 4 M. Walnut Creek, Phase Two, Plat Nos. 22227 Thru 22449

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: FEBRUARY 26, 2013

WATER MANAGEMENT ADMINISTRATION

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

Note: There is no "AS BUILT" information

Developer

Bassier Venture, LL(

15950 North Avenue

P.O. Box 482

Lisbon, MD 21765

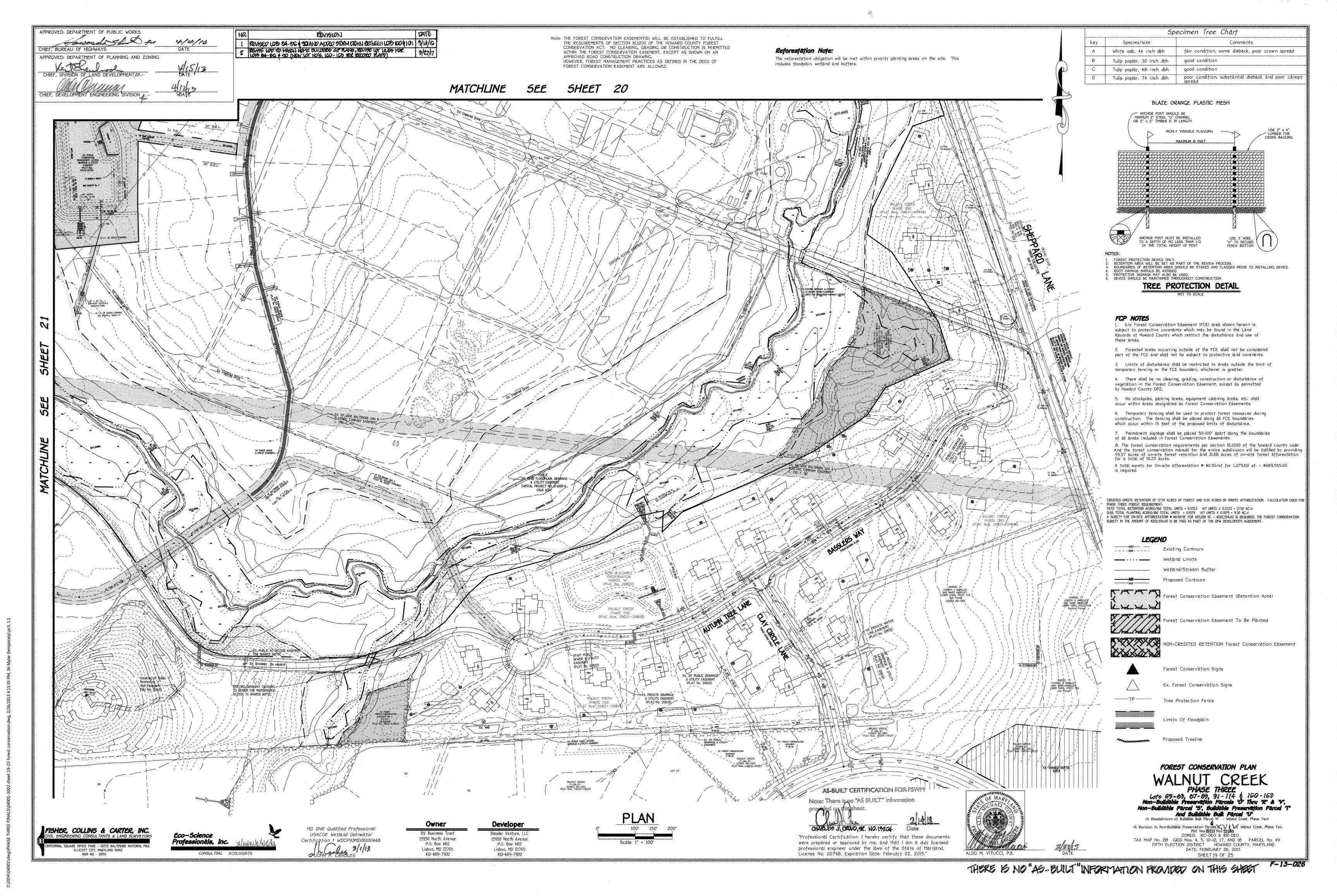
410-489-7900

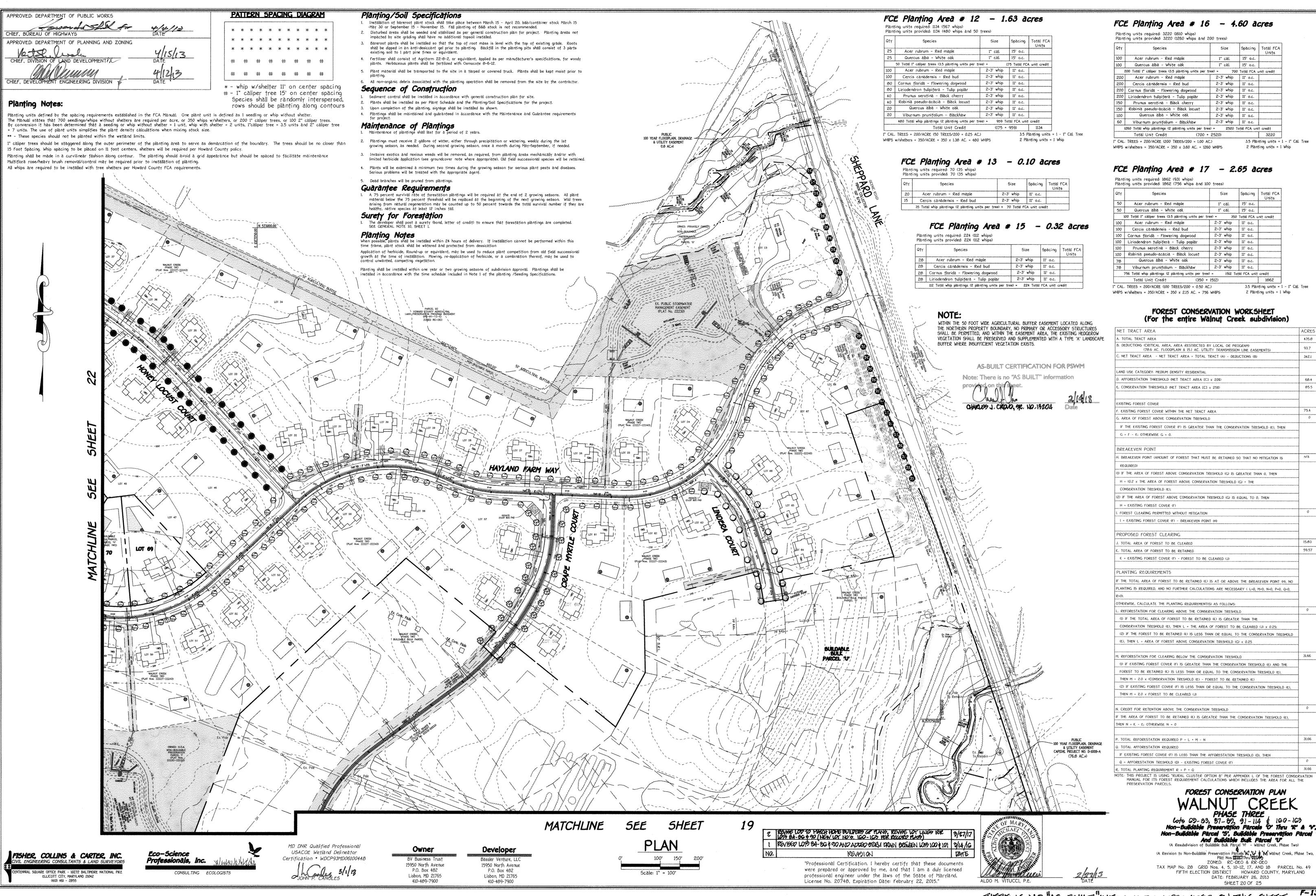
2 REVISE LOD TO MATCH HOME BUILDERS OF PLANS, BEVISE LOT LINES FOR LOTS 84-86 \$ 90 (NEW LOT NOS, 160-163 PER RECORD PLATS) 1 REVIGED LOTS 84-86 & 20 AND ADDED STORN DRAIN BEGINEEN LOTS 100 & 101 | 3/14/16 revision

DATE

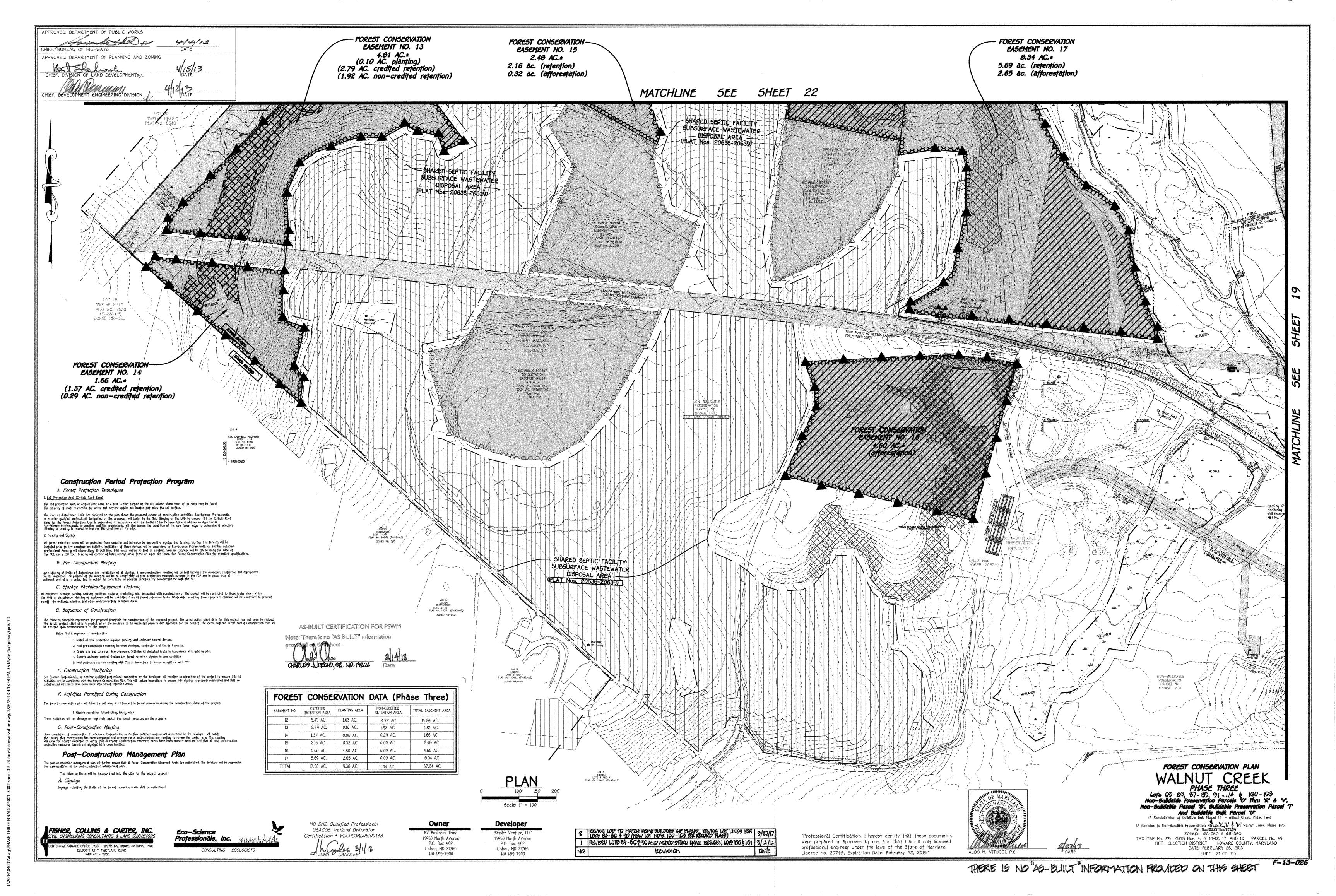
"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 20748, Expiration Date: February 22, 2015."

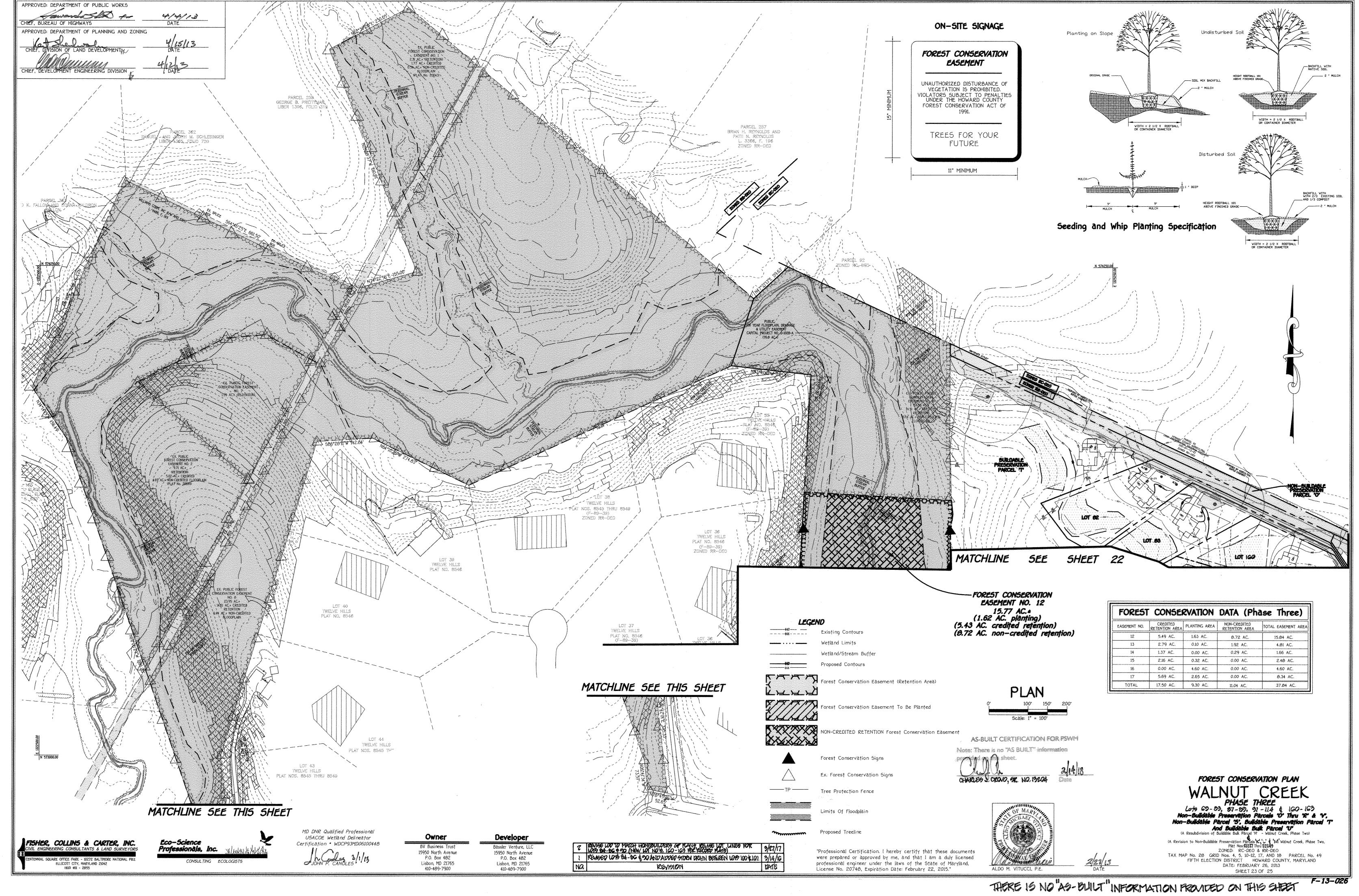
TURAL RESOURCES CONSERVATION SERV

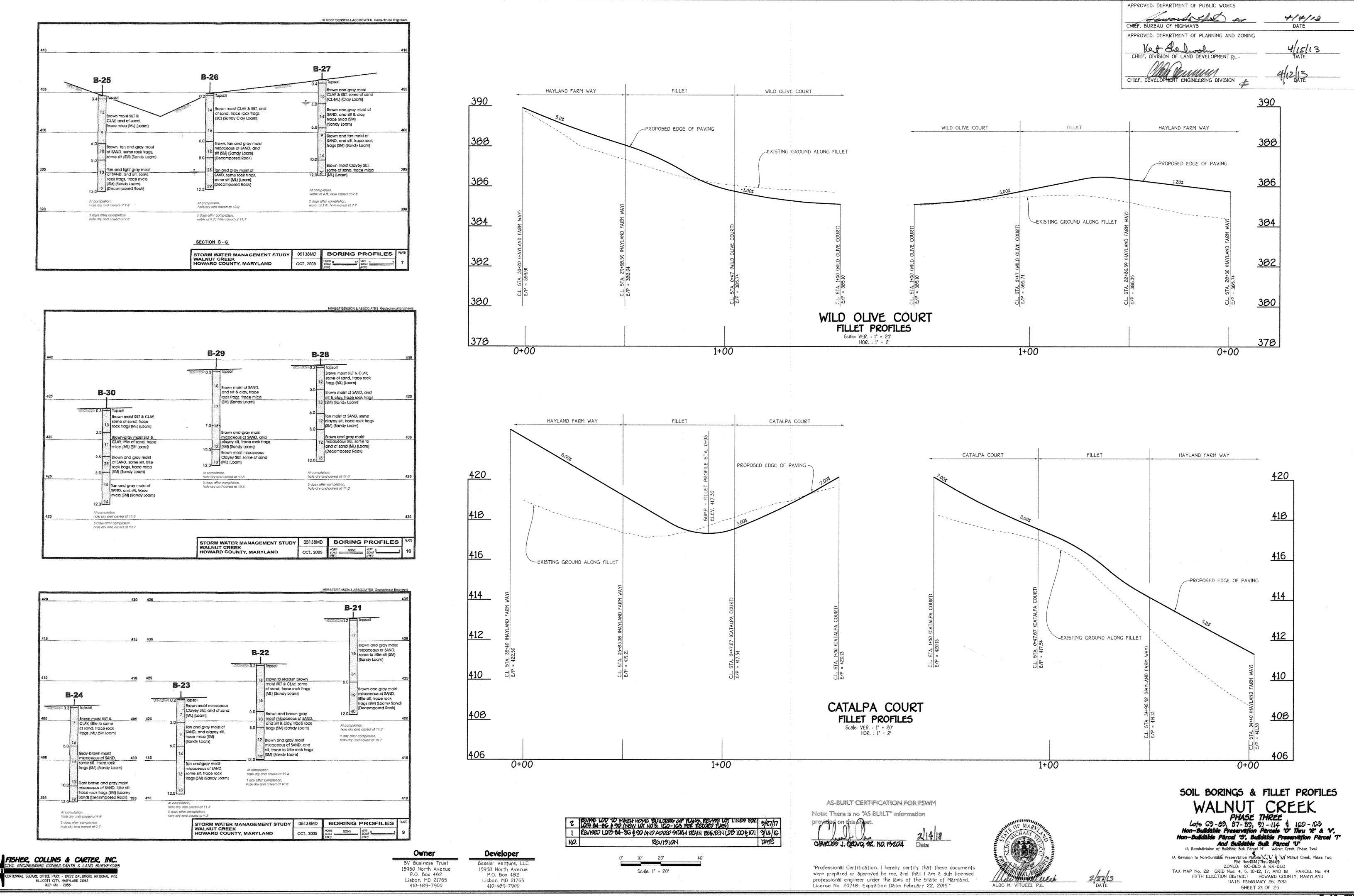




85.5







THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET

F-13-026

