

FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLAN

WALNUT CREEK

PHASE TWO

Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
(Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And a Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No's. 20631 Thru 20647

ZONING: RC-DEO & RR-DEO

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

APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Anthony, Acting 11/29/12
 CHIEF, BUREAU OF HIGHWAYS DATE

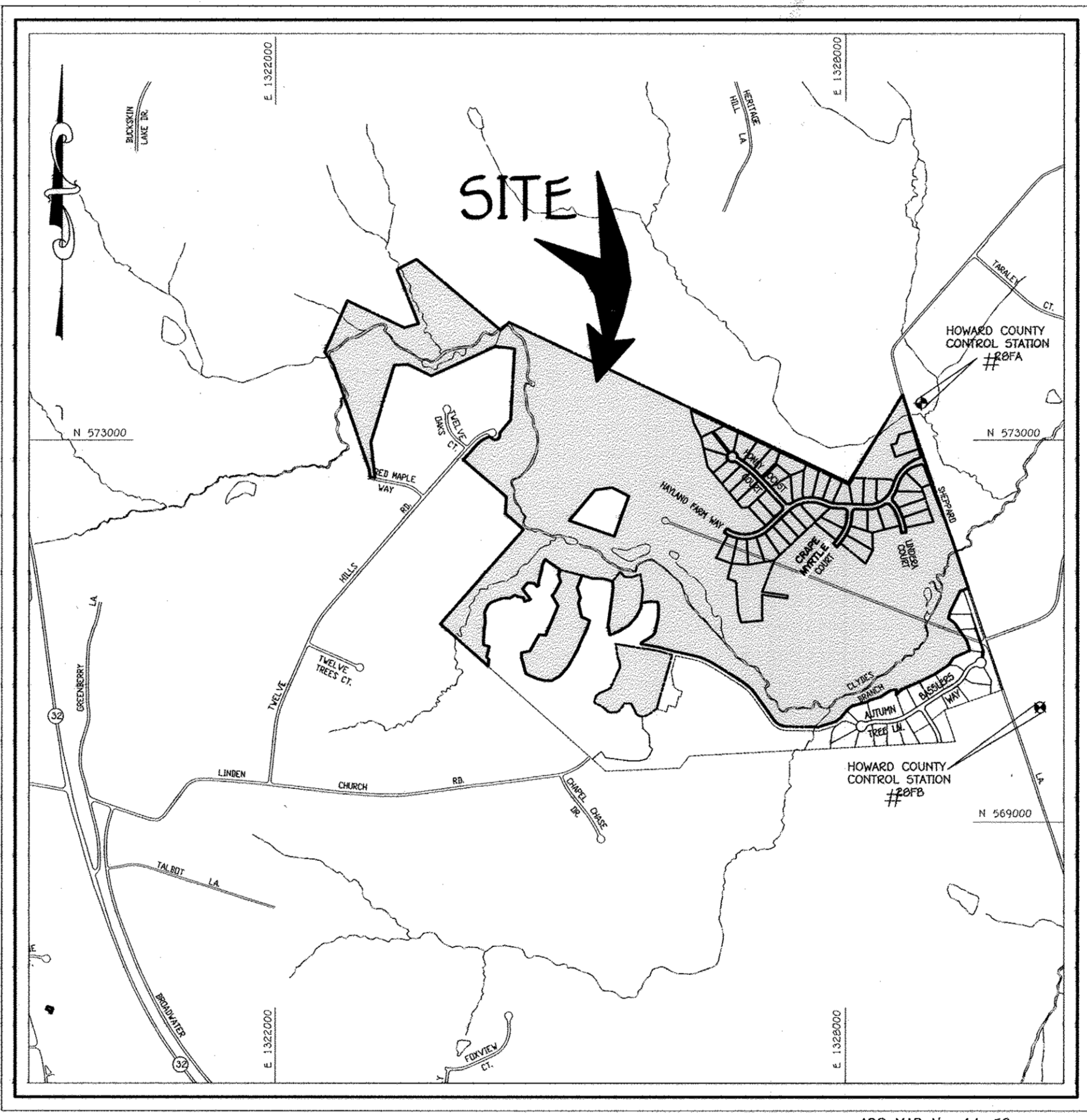
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Vest Slade 12/05/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: DEPARTMENT OF ENGINEERING
William 12/31/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SHEET No.	SHEET
1	TITLE SHEET
2	SHEPPARD LANE WIDENING PLAN AND PROFILE
3	SHEPPARD LANE CROSS-SECTIONS
4	HAYLAND FARM WAY PLAN AND PROFILE
5	HAYLAND FARM WAY PLAN AND PROFILE
6	HONEY LOCUST COURT PLAN AND PROFILE
7	LINDERA COURT & CRAPE MYRTLE COURT PLAN AND PROFILE
8-11	STREET TREE, GRADING, AND SEDIMENT CONTROL PLAN
12	LANDSCAPE PLAN
13-15	STORM DRAIN PROFILES
16	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
17	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
18-22	FOREST CONSERVATION PLANS
23-26	STORMWATER MANAGEMENT NOTES AND DETAILS
27-28	STORM DRAIN DRAINAGE AREA MAP
29	SOIL BORINGS & FILLET PROFILES
30	TRAFFIC CONTROL PLAN & STRIPING PLAN
31	EXISTING STRUCTURE LOCATION PLAN
32	STREET TREE, GRADING, AND SEDIMENT CONTROL PLAN

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410) 313-1000 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-297-7777 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). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- COORDINATES BASED ON HANCOCK HIGHLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL, STATIONS NO. 28 FA AND NO. 28 FB
 HOWARD COUNTY MONUMENT NO. 28FA ✓ N 572,456.660 E 1,328,957.656
 HOWARD COUNTY MONUMENT NO. 28FB ✓ N 570,710.839 E 1,329,524.63
- 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:
 A. SUBDIVISION NAME: WALNUT CREEK
 B. TAX MAP NO. 28
 C. PARCEL NO. 49
 D. ZONING: RC-DEO & RR-DEO
 E. ELECTION DISTRICT: FIFTH
 F. TOTAL TRACT AREA: 361,259 AC.
 G. NO. OF BUILDABLE LOTS: 46 (PHASE TWO)
 H. NO. OF OPEN SPACE LOTS: 0
 I. NO. OF NON-BUILDABLE PRESERVATION PARCELS: 7
 J. NO. OF BUILDABLE BULK PARCELS: 2
 K. AREA OF BUILDABLE LOTS: 38,982 AC.
 L. AREA OF OPEN SPACE LOTS: 0.00 AC.
 M. AREA OF NON-BUILDABLE PRESERVATION PARCELS: 67,179 AC.
 N. AREA OF BUILDABLE BULK PARCELS: 249,394 AC.
 O. TOTAL AREA OF ROADWAY TO BE DEDICATED: 3,254 AC.
 P. PREVIOUS FILE NOS.: SP-06-007 APPROVAL DATE: 5/31/06, BA-05-52E, BA-90-32E, BA-93-49E & WP-08-007 (SEE NOTE 10 BELOW).
- ONE CEMETERY EXISTS WITHIN THIS SUBDIVISION.
 "CLARK FAMILY CEMETERY" NO. CO. ID #28-2. THE PLANNING BOARD APPROVED THE CEMETERY ACCOMMODATION AND BOUNDARY DOCUMENTATION PLAN ON PARCEL 30, 3000 SQUARE FEET, SUBJECT TO THE FOLLOWING CONDITIONS:
 1. THE DEVELOPER AND/OR THE WALNUT CREEK H.O.A. SHALL UPGRADE THE EXISTING SPLIT RAIL FENCE.
 2. 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 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 59.57 ACRES OF ON-SITE FOREST RETENTION AND 31.66 ACRES OF ON-SITE FOREST AFFORESTATION FOR A TOTAL OF 91.23 ACRES.
 A SURETY FOR ON-SITE FOREST RETENTION @ \$0.20/SF FOR 2,594,869 SF = \$519,974.00 AND ON-SITE AFFORESTATION @ \$0.50/SF FOR 1,579,110 SF = \$789,555.00 IS REQUIRED. TOTAL SURETY AMOUNT FOR THE FOREST CONSERVATION IS \$1,309,529.00.
 THE FOREST CONSERVATION PROVIDED WITH PHASE TWO ARE AS FOLLOWS:
 18.00 AC. OF FOREST CONSERVATION EASEMENT (CREATED AND NON-CREATED)
 CREDITED ON-SITE RETENTION OF 17.13 ACRES OF FOREST AND 9.10 ACRES OF ON-SITE AFFORESTATION. CALCULATION USED FOR PHASE TWO FOREST REQUIREMENT:
 59.57 TOTAL FORESTATION ACRES / TOTAL UNITS = 0.3233 (146 UNITS X 0.3233 = 47.13 AC.)
 31.66 TOTAL PLANTING ACRES / 160 TOTAL UNITS = 0.1979 (146 UNITS X 0.1979 = 28.88 AC.)
 59.57 TOTAL FORESTATION ACRES / TOTAL UNITS @ \$0.20/SF FOR 2,594,869 SF = \$519,974.00
 ON-SITE AFFORESTATION @ \$0.50/SF FOR 1,579,110 SF = \$789,555.00. TOTAL SURETY AMOUNT FOR THIS SUBMISSION = \$347,439.00.
 THE FOREST CONSERVATION SURETY IN THE AMOUNT OF \$347,439.00 IS TO BE PAID AS PART OF THE DEVELOPER'S AGREEMENT.
- THIS FOREST CONSERVATION PROPOSAL IS SUBJECT TO WP-08-007, APPROVED ON AUGUST 21, 2007 TO THE FOLLOWING CONDITIONS:
 1. THE MAJOR PERMIT APPROVAL APPLIES ONLY TO THE TEMPORARY DEFERRAL FOR ESTABLISHING THE FOREST CONSERVATION EASEMENTS FOR THIS SUBDIVISION BASED ON THE APPRO PHASING SCHEDULE FOR THIS PROJECT. EACH SUBSEQUENT PHASE OF DEVELOPMENT MUST ESTABLISH A FOREST CONSERVATION EASEMENT 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 APPRO PHASING SCHEDULE.
- STORMWATER MANAGEMENT FACILITIES: B.M.P. NO. 3 & B.M.P. NO. 4
 PRIVATELY OWNED BY THE HOMEOWNER'S ASSOCIATION AND HOWARD COUNTY, MARYLAND
 WET EXTENDED DETENTION FACILITIES (P-3) FOR MOW & CPV
 STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 37B SPECIFICATIONS. RECORD 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, ONE BOX RETENTION FACILITY AND LEAK SPRAYING FACILITY AND EXTREME FLOOD VOLUME ARE NOT REQUIRED FOR THIS SITE.
- THE PROPOSED WATER AND SEWER SYSTEMS SHALL BE PRIVATE. SEE CONTRACT NO. 50-4440-D FOR LOW PRESSURE SYSTEM.
- THE SUBJECT PROPERTY IS LOCATED OUTSIDE OF THE METROPOLITAN DISTRICT.
- TOPOGRAPHIC CONTOURS BASED ON HANFORD AERIAL SURVEYS, INC.
- 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.
- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HERBERT BENSON & ASSOCIATES, INC., DATED SEPTEMBER, 2009 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 NO. CO. CARTER, PROJECT D-10298. 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 16.1000(10)55 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. TOTAL AREA OF 25% OR GREATER SLOPES = 8.9 AC."
- AS PER SECTION 104.7.4.3 OF THE ZONING REGULATIONS, ONLY ONE EASEMENT HOLDER IS REQUIRED FOR PRESERVATION PARCELS DESIGNATED SOLELY FOR 5-MY FISHING OR COMPLEY SEWAGE/SEPTIC SYSTEMS.
 A. NON-BUILDABLE PRESERVATION PARCEL 'G': OWNED PRIVATELY
 EASEMENT HOLDER: HOWARD COUNTY, MARYLAND & HOA EASEMENT HOLDERS: HOWARD COUNTY, MARYLAND USE: 5-M.F.
 B. NON-BUILDABLE PRESERVATION PARCEL 'I': OWNED: HOMEOWNER'S ASSOCIATION
 EASEMENT HOLDERS: HOWARD COUNTY, MARYLAND USE: 5-M.F.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAM OR THEIR REQUIRED BUFFERS.
- THE LANDSCAPE SURETY FOR THE 88 SHADE AND 109 EVERGREEN TREES IN THE AMOUNT OF \$42,600.00 FOR PERISTEM LANDSCAPE REQUIREMENTS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$60,000.00. FINANCIAL SURETY FOR THE REQUIRED 230 STREET TREES WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$60,000.00.
- BUILDABLE BULK PARCEL 'H' RETAINS THE RIGHT TO BE FURTHER SUBDIVIDED IN ACCORDANCE WITH THE DEO CLUSTER REGULATIONS IN SECTION 106 OF THE HOWARD COUNTY ZONING REGULATIONS. THE SUBDIVISION OF THIS BULK PARCEL INTO RESIDENTIAL LOTS WILL REQUIRE DENSITY FROM AN OFF-SITE LOCATION WITHIN THE RC-DEO DISTRICT.
- THIS SUBDIVISION PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 2004 ZONING REGULATIONS FOR CONDOMINIUMS, BILL NO. 46-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL NO. 75-2003 AND THE COMP LANE ZONING REGULATIONS AMENDMENTS EFFECTIVE 7/26/06. DEVELOPMENT ON THESE LOTS OR PARCELS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF A BUILDING OR GRADING PERMIT APPLICATION.
- WELLS SHALL BE DOBBLED ON LOTS PRIOR TO RECORDATION OF THE FINAL RECORD PLAN.
- LOTS 23 THRU 68 ARE TO BE SERVED BY A PUBLIC SHARED SEPTIC FACILITY LOCATED ON NON-BUILDABLE PRESERVATION PARCEL 'G' (P-07-070), WALNUT CREEK, PHASE ONE.
- SEPTIC POSTS: ALL SEPTIC POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON 4" GALVANIZED STEEL POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 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 06-0F-3530 AND IS EFFECTIVE FROM AUGUST 1, 2006 UNTIL AUGUST 1, 2011 WHEN IT EXPIRES. THE SHARED SEPTIC SYSTEM CONTRACT NO. IS 50-4440-D AND THE COLLECTION SYSTEM CONTRACT NO. IS 50-4440-D.
- NON-BUILDABLE PRESERVATION PARCEL 'J' TO BE CONVEYED TO TAX MAP NO. 28, PARCEL NO. 92 SIMULTANEOUSLY WITH THE RECORDATION OF THIS PLAN.
- A DESIGN MANUAL WADSWORTH FROM SECTION 5.2.7.4.4, WHICH REQUIRES THAT A WET POND SHALL HAVE A POND DEAN CAPABLE OF DETAHERING THE FOREWATER POOL, AREA WAS SUBMITTED WITH THIS PROJECT. THIS WADSWORTH HAS BEEN OBTAINED AND A POND DEAN HAS BEEN ADDED TO B.M.P. NO. 3.



VICINITY MAP
 SCALE: 1" = 1200'

FIFTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLAN UNDER THE APPROVED PLANS AND SPECIFICATIONS.
 CHARLES J. CRAND, PE No. 19204 AS-BUILT 9/15/12

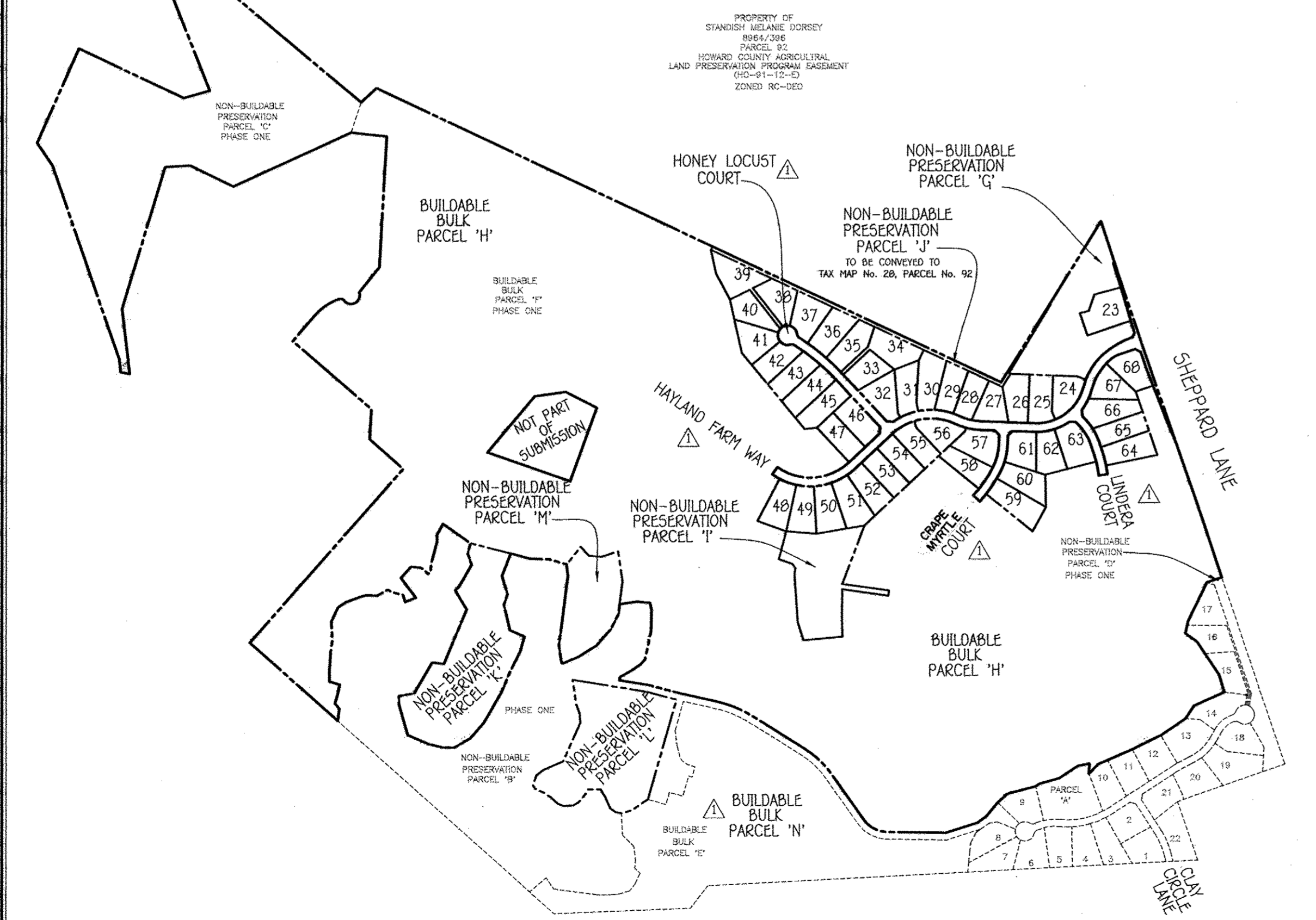
STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 19204
 10/31/12

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 19204
 10/31/12

TRAFFIC CONTROL SIGNS				
ROAD NAME	CENTERLINE STA.	OFFSET	POSTED SIGN	SIGN CODE
HAYLAND FARM WAY	0+50	14'L	STOP	R2-1
HAYLAND FARM WAY	2+50	18'R	SPEED LIMIT 25	R2-1
HAYLAND FARM WAY	0+48	--	KEEP RIGHT	R4-7
HAYLAND FARM WAY	1+18	--	KEEP RIGHT	R4-7
HAYLAND FARM WAY	3+00	14'L	STOP AHEAD	W3-1
HAYLAND FARM WAY	20+20	14'R	ROAD ENDS 200 FT	
HAYLAND FARM WAY	tee TURNAROUND SEE SHEET 5	--	NO PARKING IN TEE TURNAROUND	
LINDERA COURT	1+00	14'R	STOP	R1-1
LINDERA COURT	0+25	18'L	STOP	R1-1
LINDERA COURT	1+00	14'R	SPEED LIMIT 25	R2-1
CRAPE MYRTLE CT.	tee TURNAROUND SEE SHEET 7	--	NO PARKING IN TEE TURNAROUND	
CRAPE MYRTLE CT.	0+25	18'L	STOP	R1-1
CRAPE MYRTLE CT.	1+00	14'R	SPEED LIMIT 25	R2-1
HONEY LOCUST COURT	0+25	18'L	STOP	R1-1
HONEY LOCUST COURT	1+00	11'L	SPEED LIMIT 25	R2-1

ROADWAY INFORMATION CHART				
ROAD NAME	CLASSIFICATION	DESIGN SPEED	R/W WIDTH	
HAYLAND FARM WAY	PUBLIC ACCESS STREET	30 M.P.H.	50'	
LINDERA COURT	PUBLIC ACCESS STREET	30 M.P.H.	50'	
CRAPE MYRTLE COURT	PUBLIC ACCESS STREET	30 M.P.H.	50'	
HONEY LOCUST COURT	PUBLIC ACCESS PLACE	25 M.P.H.	50'	

STREET LIGHT CHART				
STREET NAME	C.L. STATION	OFFSET	FIXTURE/POLE TYPE	
SHEPPARD LANE	5+40	50' L	150-WATT H.P.S. "PREMIER" PENDANT POST-TOP MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE	



PLAN VIEW
 NO SCALE

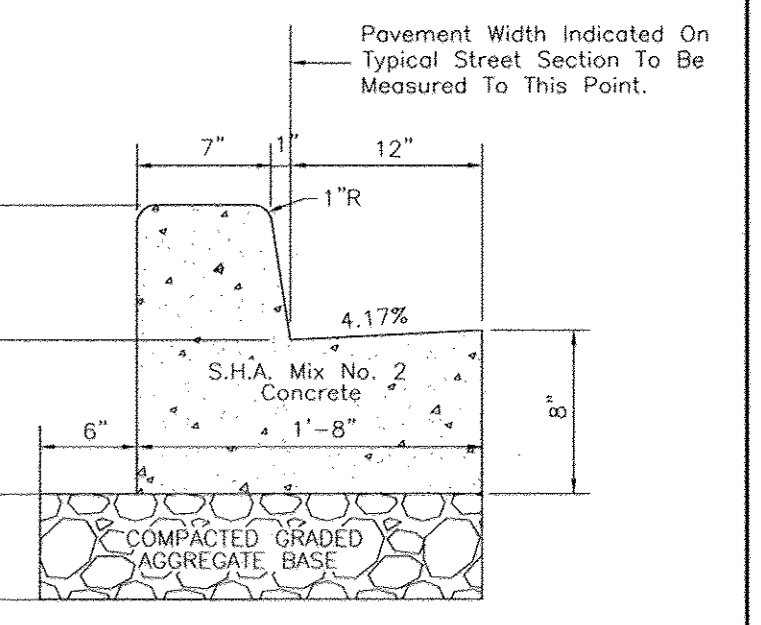
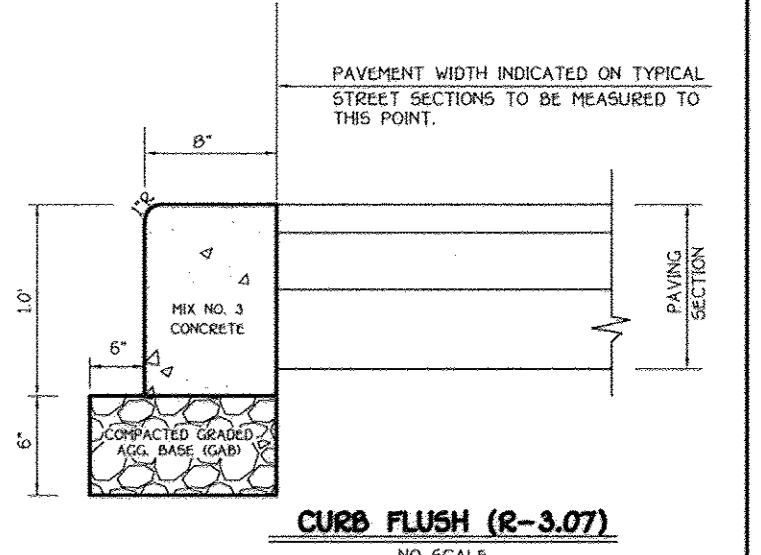
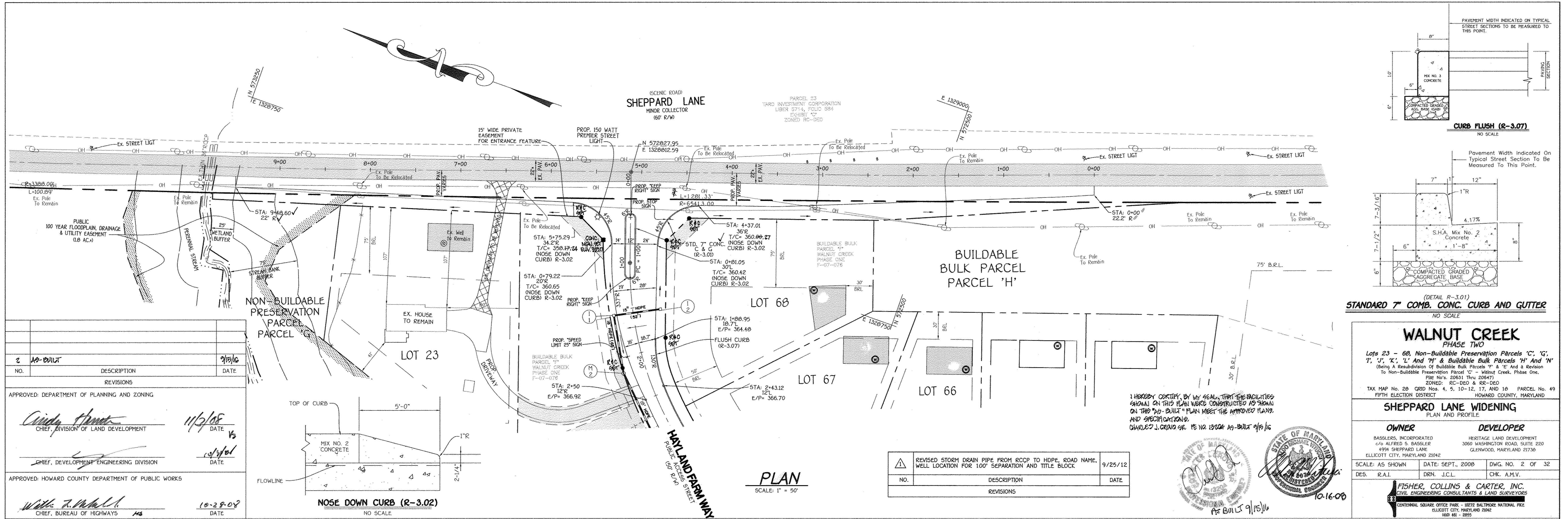
NO.	DESCRIPTION	DATE
1	AS-BUILT	9/15/12
2	REVISED PARCELS 'E', 'J', 'H' & 'G', ROAD NAMES AND TITLE BLOCK	9/25/12

OWNER
 BASSLERS, INCORPORATED
 c/o ALFRED S. BASSLER
 4994 SHEPPARD LANE
 ELICOTT CITY, MARYLAND 21042
 (410) 531-2195

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 15950 NORTH AVE.
 LUSKOPF, MARYLAND 21765
 (410) 469-7900

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2000

REVISED WALNUT CREEK
PHASE TWO
Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And a Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No's. 20631 Thru 20647)
 ZONING: 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: SEPTEMBER, 2008
 SHEET 1 OF 32



NO.	DESCRIPTION	DATE
2	AS-BUILT	9/15/16

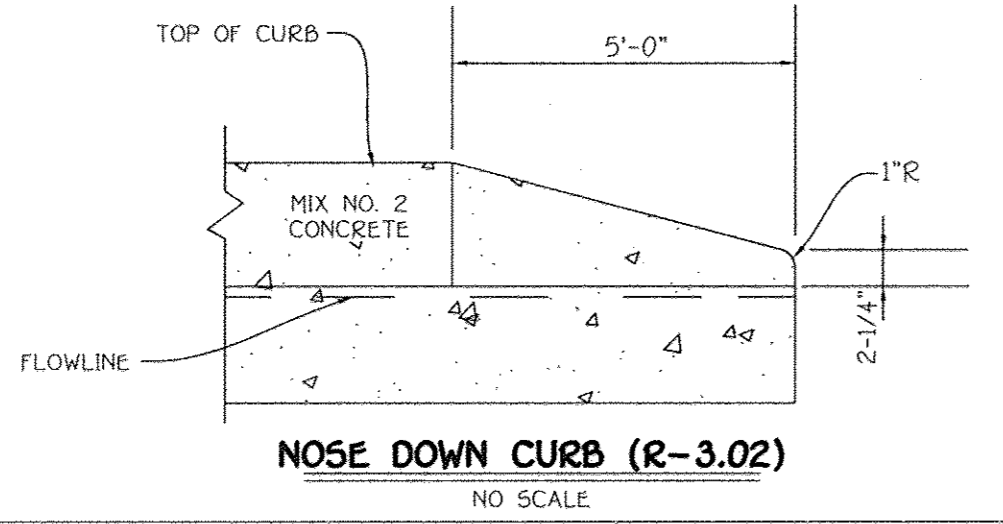
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cindy Hunter 11/2/08
 CHIEF, DIVISION OF LAND DEVELOPMENT

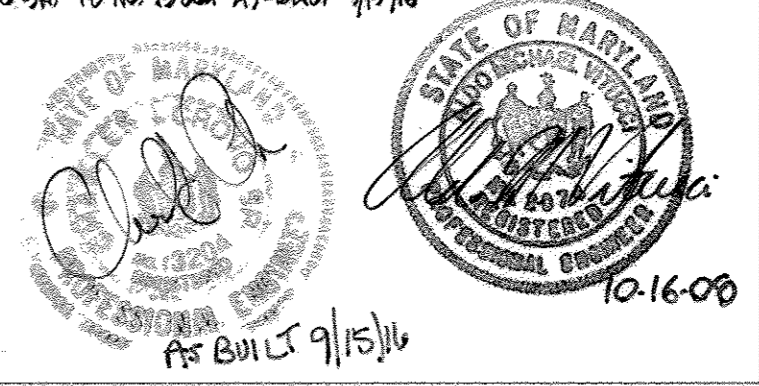
[Signature] 10/2/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

W.H. Z. MALLI 10-28-08
 CHIEF, BUREAU OF HIGHWAYS



NO.	DESCRIPTION	DATE
1	REVISED STORM DRAIN PIPE FROM RCP TO HDPE, ROAD NAME, WELL LOCATION FOR 100' SEPARATION AND TITLE BLOCK.	9/25/12



WALNUT CREEK PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' and 'M' & Buildable Bulk Parcels 'H' and 'N' (Being A Resubdivision of Buildable Bulk Parcels 'M' & 'E' and a Revision to Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, PBD No. 20631 Thru 20647)
 ZONED: RC-050 & RS-050
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, and 18 PARCEL No. 49 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

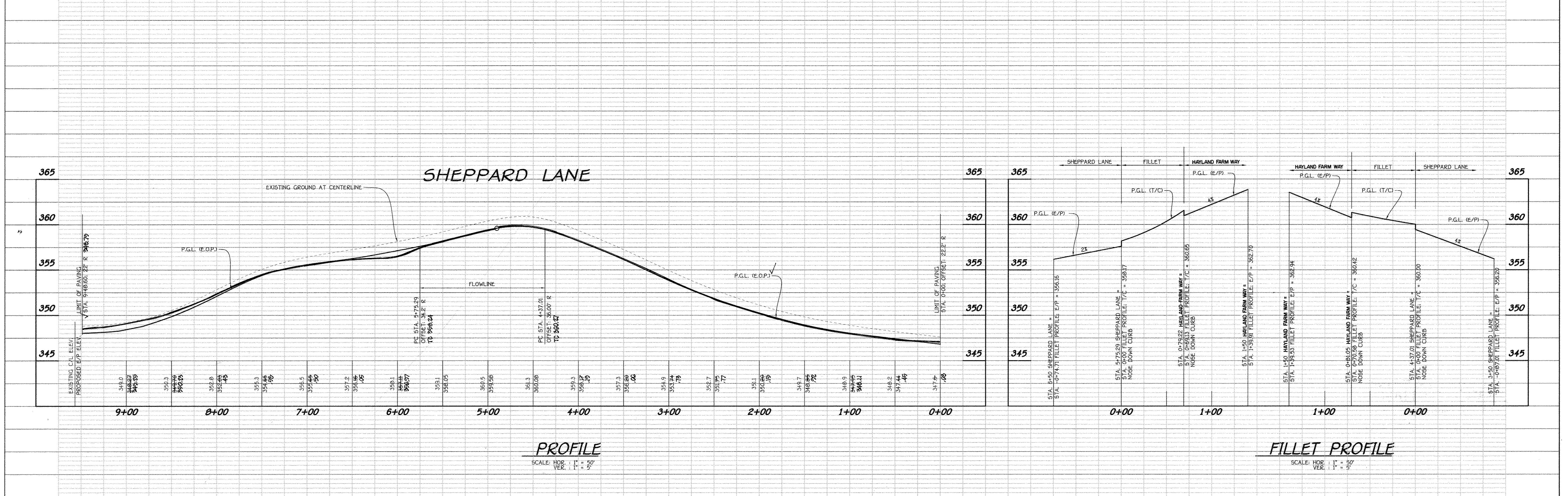
SHEPPARD LANE WIDENING
 PLAN AND PROFILE

OWNER BASGLERS, INCORPORATED
 470 ALFRED S. BASGLER
 4904 SHEPPARD LANE
 ELLICOTT CITY, MARYLAND 21042

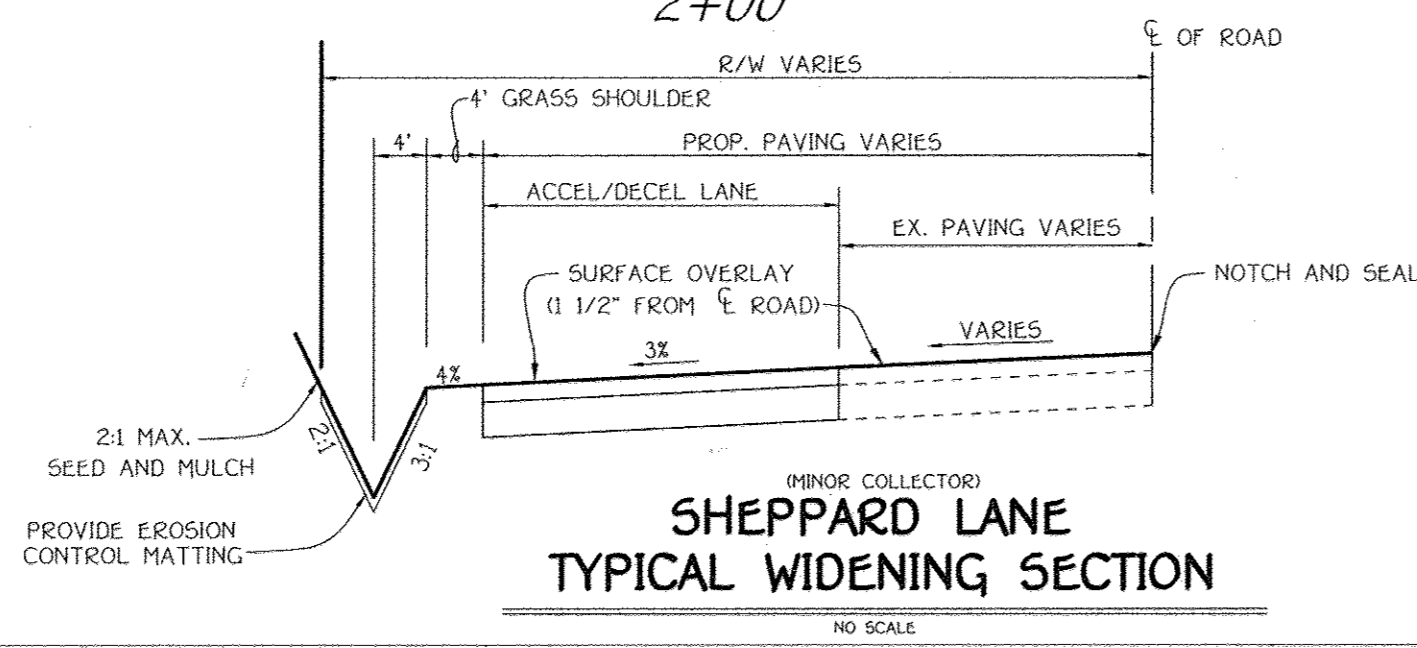
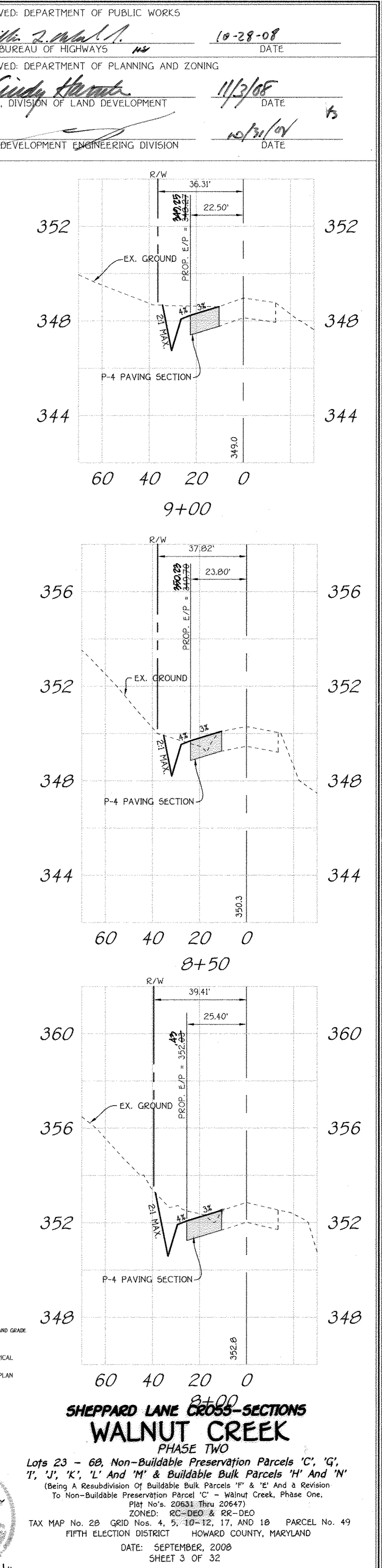
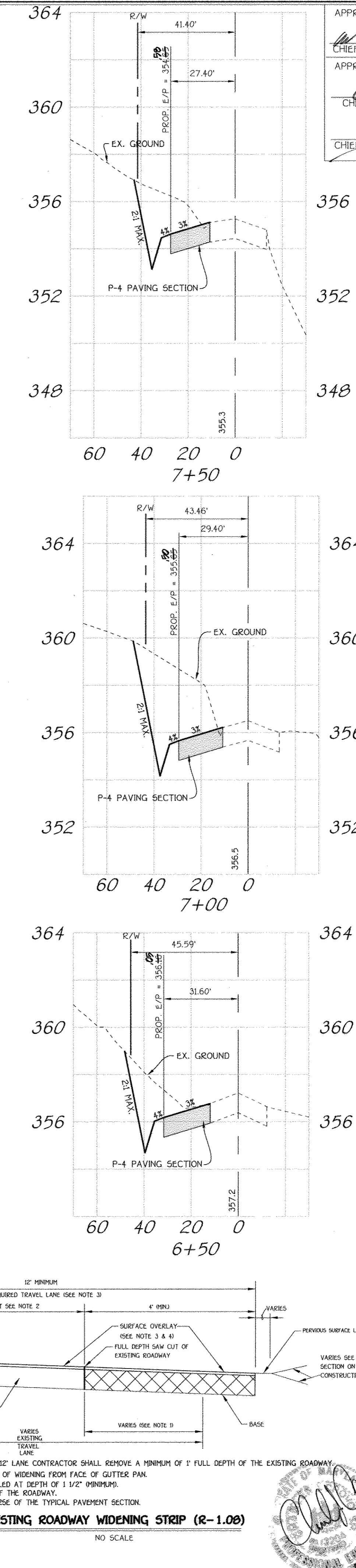
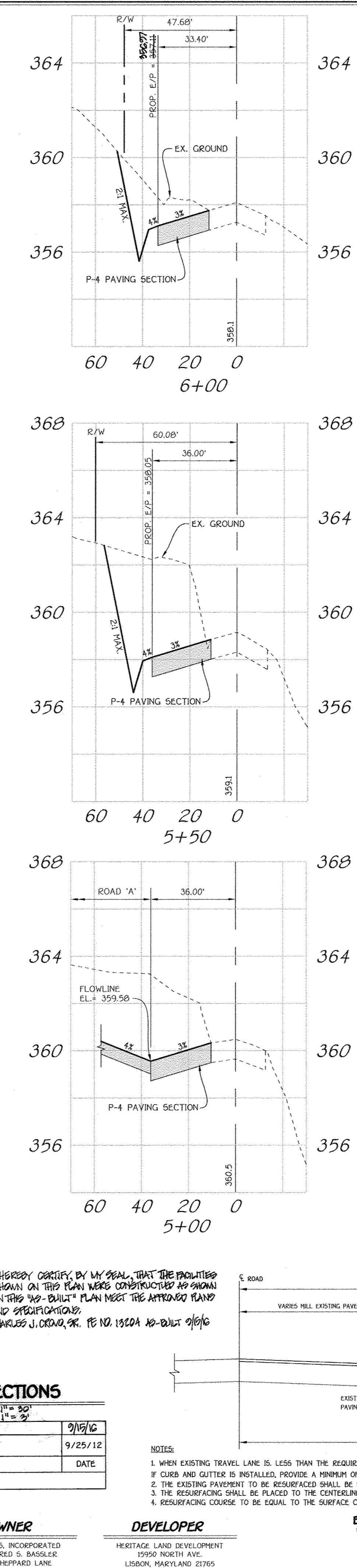
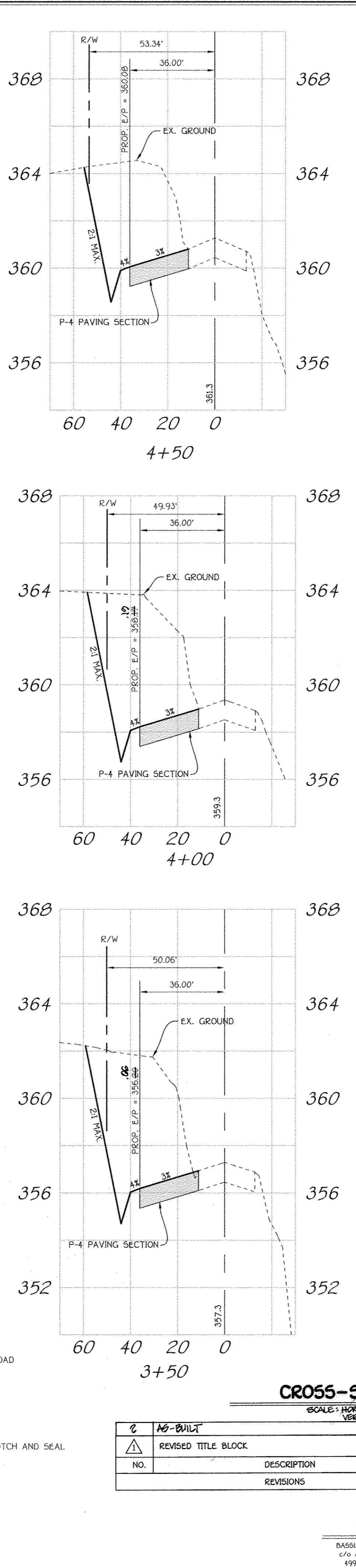
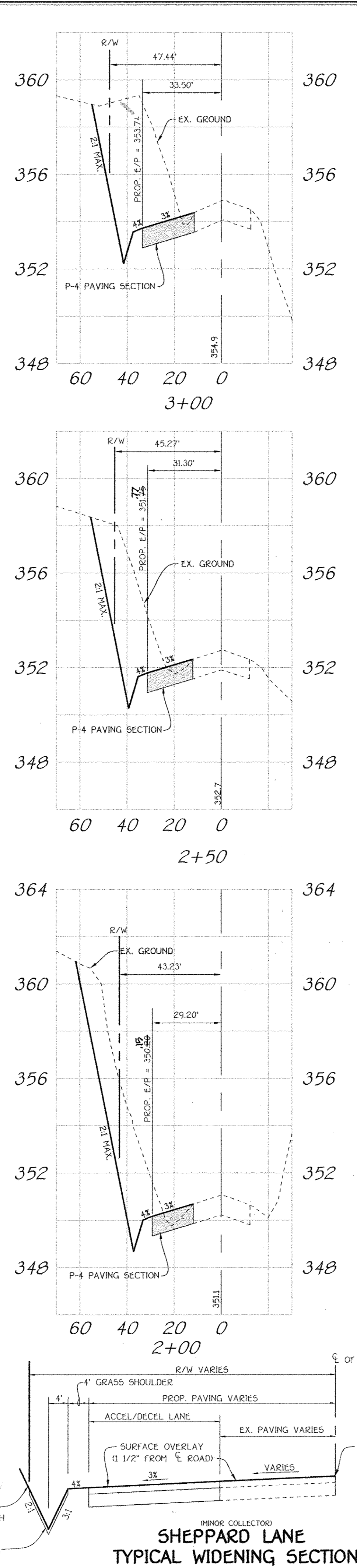
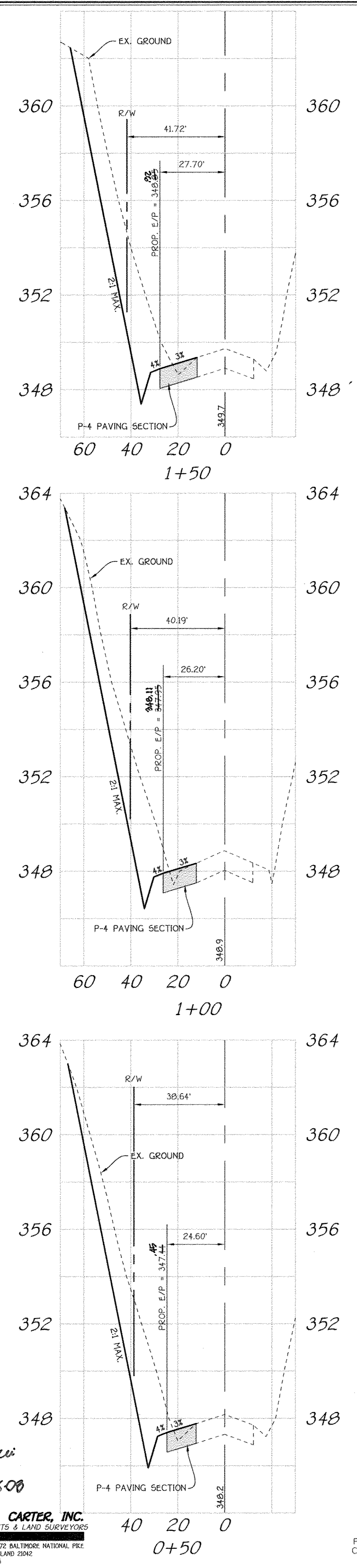
DEVELOPER HERITAGE LAND DEVELOPMENT
 3060 WASHINGTON ROAD, SUITE 220
 GLENWOOD, MARYLAND 21738

SCALE: AS SHOWN DATE: SEPT., 2008 DWG. NO. 2 OF 32
 DES. R.A.I. DEN. J.C.L. CHK. A.M.V.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10278 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2005

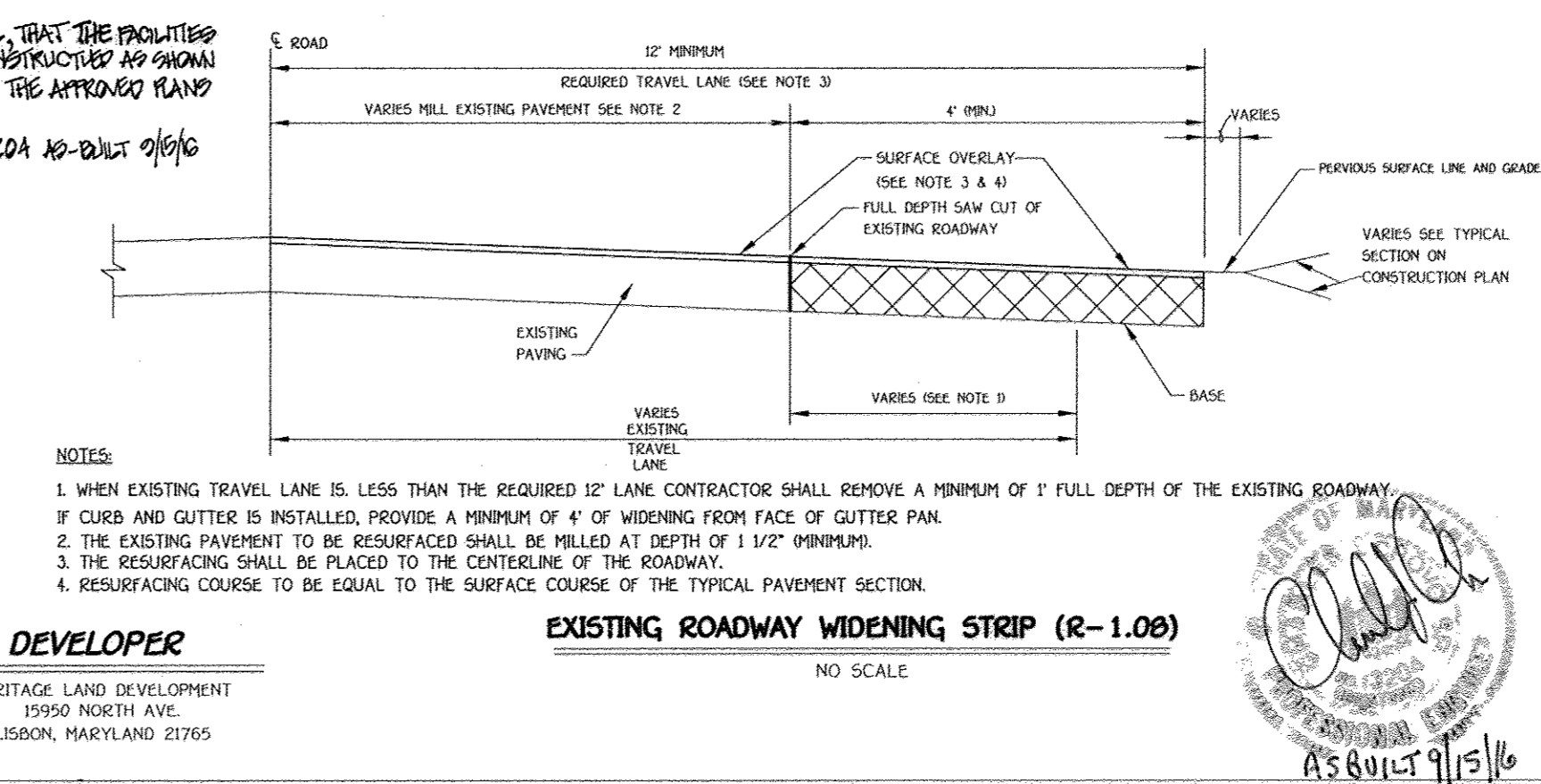


APPROVED: DEPARTMENT OF PUBLIC WORKS
 W. W. 2. [Signature] 10-28-08
 CHIEF, BUREAU OF HIGHWAYS DATE
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Cindy [Signature] 11/3/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 10/24/09



CROSS-SECTIONS
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 2'

NO.	DESCRIPTION	DATE
1	AS-BUILT	9/15/10
2	REVISED TITLE BLOCK	9/25/12
	REVISIONS	

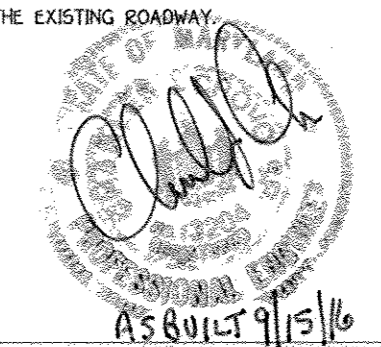


SHEPPARD LANE CROSS-SECTIONS
WALNUT CREEK
 PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'T', 'U', 'V', 'W' and 'X' & Buildable Bulk Parcels 'H' and 'N' (Being A Resubdivision of Buildable Bulk Parcels 'I' and 'L' And a Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One. Plat No. 20631 Thru 20647)
 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: SEPTEMBER, 2008
 SHEET 3 OF 32

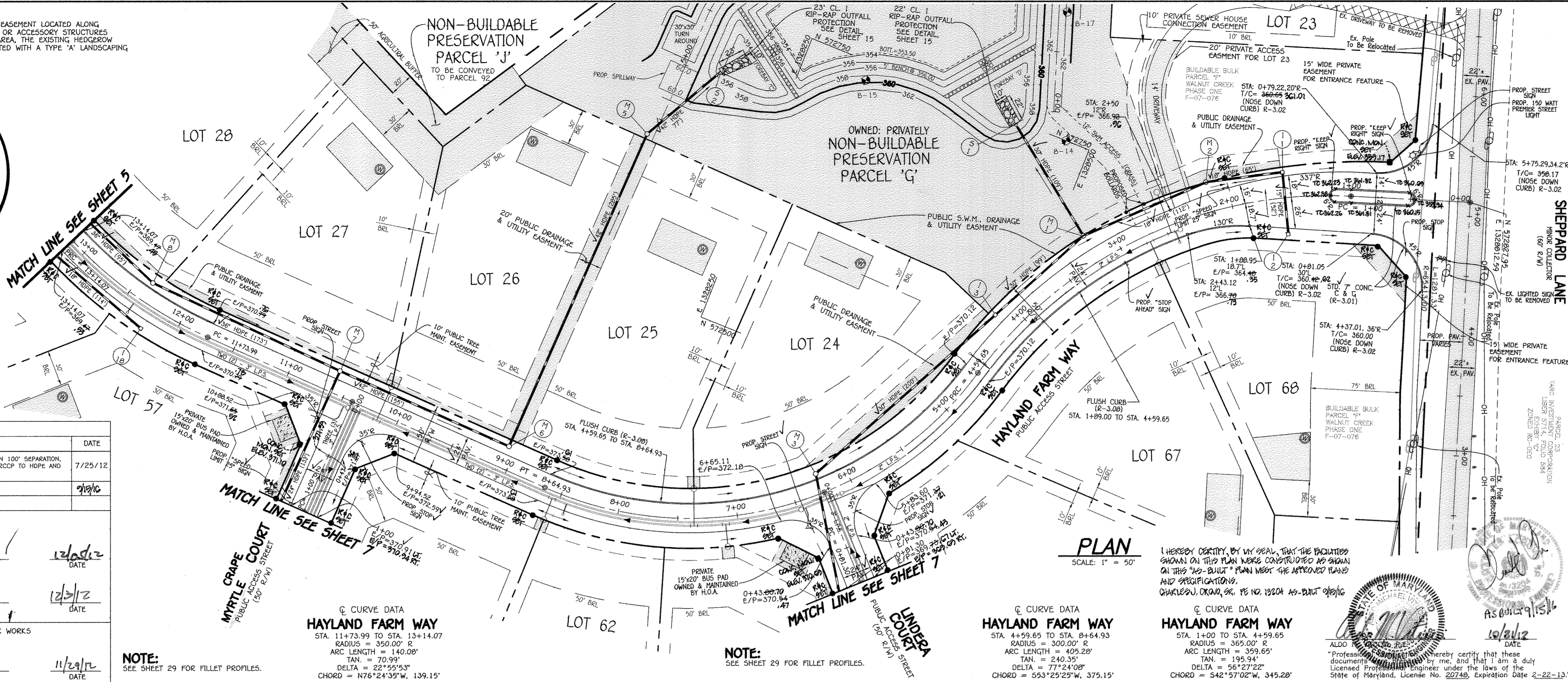
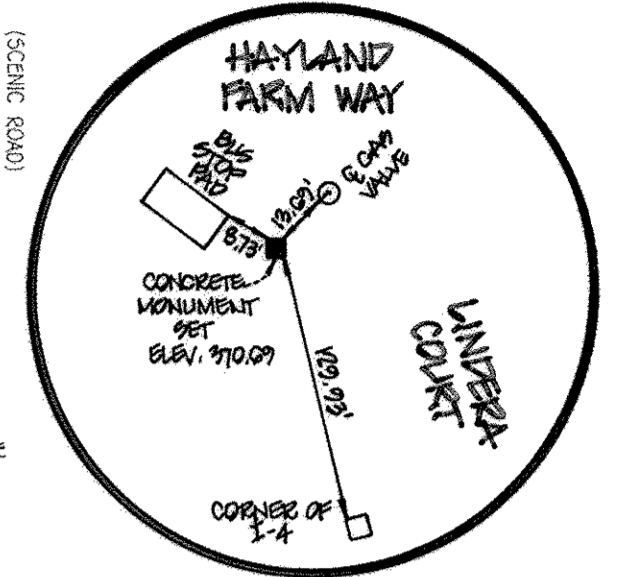
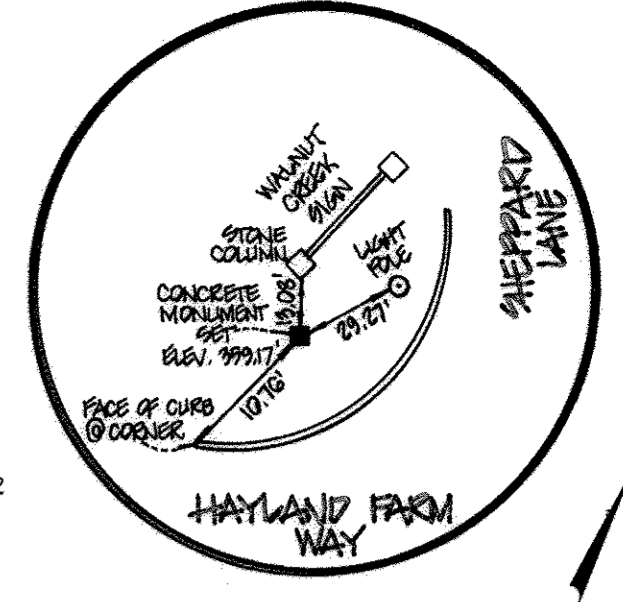
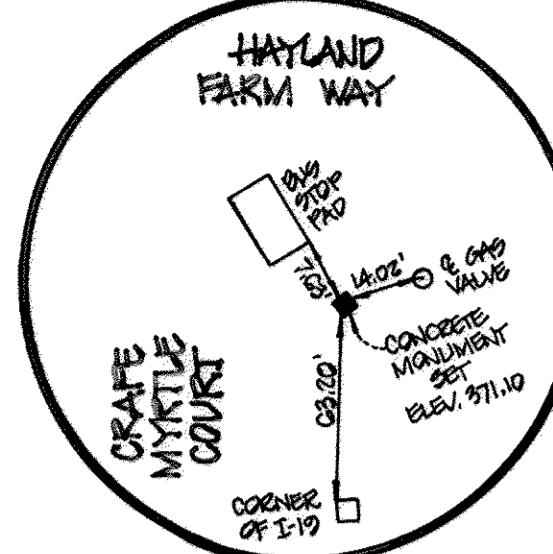
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-3900

OWNER
 BASSLERS, INCORPORATED
 c/o ALFRED S. BASSLER
 4994 SHEPPARD LANE
 ELLICOTT CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 LISBON, MARYLAND 21765



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' LANDSCAPING BUFFER WHERE INSUFFICIENT VEGETATION EXISTS.



REVISIONS		
NO.	DESCRIPTION	DATE
1	REVISED LOW PRESSURE SEWER, WELLS TO MAINTAIN 100' SEPARATION, PARCELS 'G', 'H' & 'J', STORM DRAIN PIPE FROM RCDP TO HOPE AND ROAD NAMES	7/25/12
2	AS-BUILT	9/16/12

APPROVED: DEPARTMENT OF PLANNING AND ZONING

V. J. Landwehr
 CHIEF, DIVISION OF LAND DEVELOPMENT
 12/21/12 DATE

Mike O'Connell
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 12/31/12 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Diane Schwary
 CHIEF, BUREAU OF HIGHWAYS
 11/29/12 DATE

Q CURVE DATA
HAYLAND FARM WAY
 STA. 11+73.99 TO STA. 13+14.07
 RADIUS = 350.00'
 ARC LENGTH = 140.00'
 TAN. = 70.99
 DELTA = 22°55'53"
 CHORD = N76°24'35"W, 139.15'

Q CURVE DATA
HAYLAND FARM WAY
 STA. 4+59.65 TO STA. 8+64.93
 RADIUS = 300.00'
 ARC LENGTH = 405.20'
 TAN. = 240.35
 DELTA = 77°24'08"
 CHORD = S53°25'25"W, 375.15'

Q CURVE DATA
HAYLAND FARM WAY
 STA. 1+00 TO STA. 4+59.65
 RADIUS = 365.00'
 ARC LENGTH = 359.65'
 TAN. = 195.94
 DELTA = 56°27'22"
 CHORD = S42°57'02"W, 345.28'

NOTE:
 SEE SHEET 29 FOR FILLET PROFILES.

I HEREBY 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 SPECIFICATIONS.
 CHARLES J. COLLINS, SR., P.E. NO. 18204 AS-BUILT 09/16/12

ALSO REGISTERED AS:
 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE 2-22-13.

As Built 9/16/12

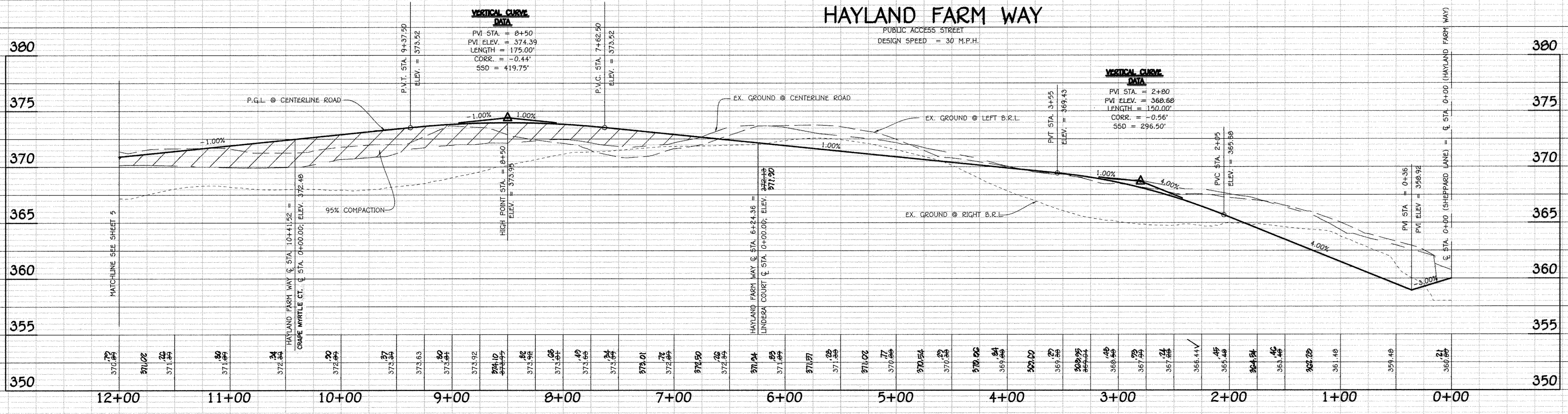
REVISED
WALNUT CREEK
PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'T', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N' (Being A Re-division Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647 ZONED: RC-D60 & RC-D60 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, And 18 PARCEL No. 49 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

HAYLAND FARM WAY
 PLAN AND PROFILE

OWNER	DEVELOPER
BASSLESS, INCORPORATED c/o ALFRED S. BASSLER 4994 SHEPPARD LANE ELLICOTT CITY, MARYLAND 21042 (410) 531-2193	HERITAGE LAND DEVELOPMENT 19950 NORTH AVE. LISBON, MARYLAND 21765 (410) 489-7900

SCALE: AS SHOWN DATE: SEPT., 2008 DWG. NO. 4 OF 32
 DES. R.A.I. DRN. J.C.L. CHK. A.M.V.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 NATIONAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL FILE
 ELLICOTT CITY, MARYLAND 21042
 (410) 463 - 2899



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

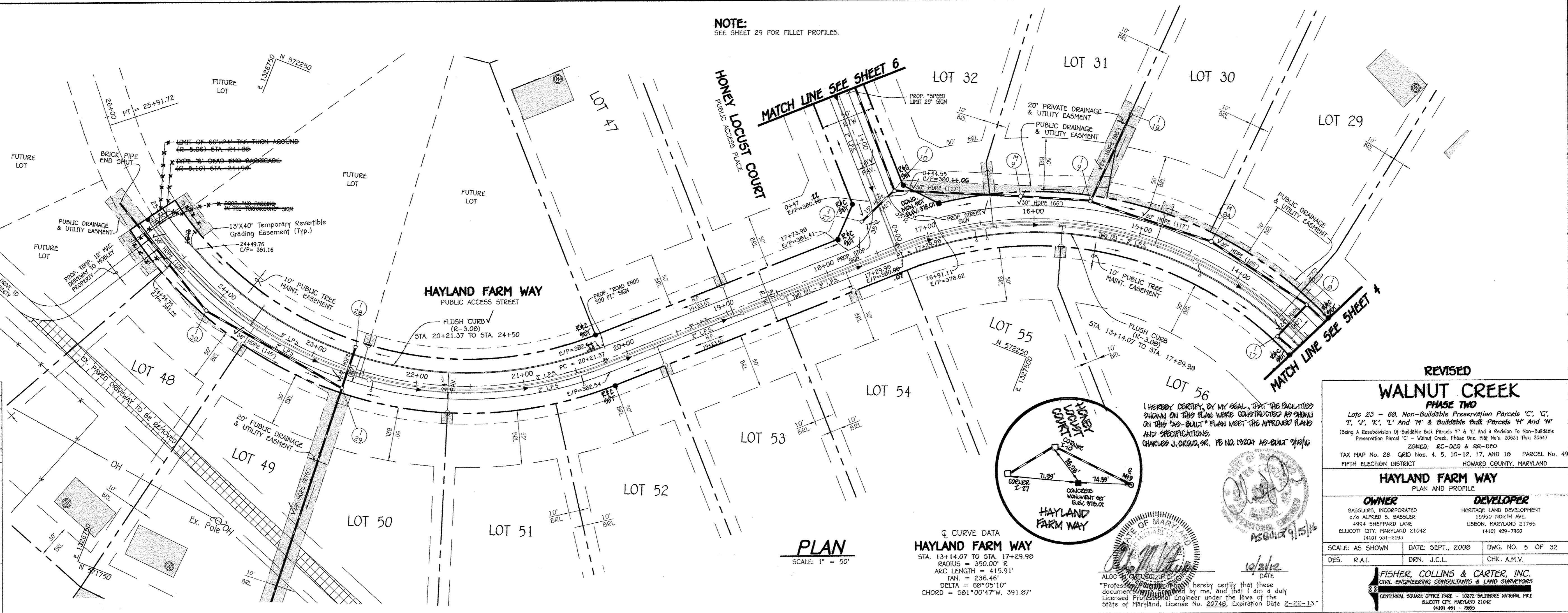
Q CURVE DATA
HAYLAND FARM WAY
 STA. 20+21.37 TO STA. 25+91.72
 RADIUS = 350.00' R
 ARC LENGTH = 570.35'
 TAN. = 371.20'
 DELTA = 93°22'05"
 CHORD = N86°20'45"W, 509.31'

NOTE:
 SEE SHEET 29 FOR FILLET PROFILES.

NOTE:
 THE CONTRACTOR SHALL PROVIDE UNINTERRUPTED ACCESS TO MOBLEY PROPERTY, PARCEL No. 50 DURING CONSTRUCTION.

REVISIONS		
NO.	DESCRIPTION	DATE
1	REVISED LOW PRESSURE SEWER, WELLS TO MAINTAIN 100' SEPARATION, PARCELS 'G', 'H' & 'J', STORM DRAIN PIPE FROM KIDOP TO HOPE AND ROAD NAMES	7/25/12
2	AS-BUILT	9/15/16

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kurt Schuler 12/2/12 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
Michael Dammann 12/2/12 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Diane Schwan, Acting 11/2/12 DATE
 CHIEF, BUREAU OF HIGHWAYS



REVISED
WALNUT CREEK
PHASE TWO
 Lots 23 - 68 Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N' (Being A Reconsolidation of Buildable Bulk Parcels 1' & 'C' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, File No. 20631 Thru 20647)
 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

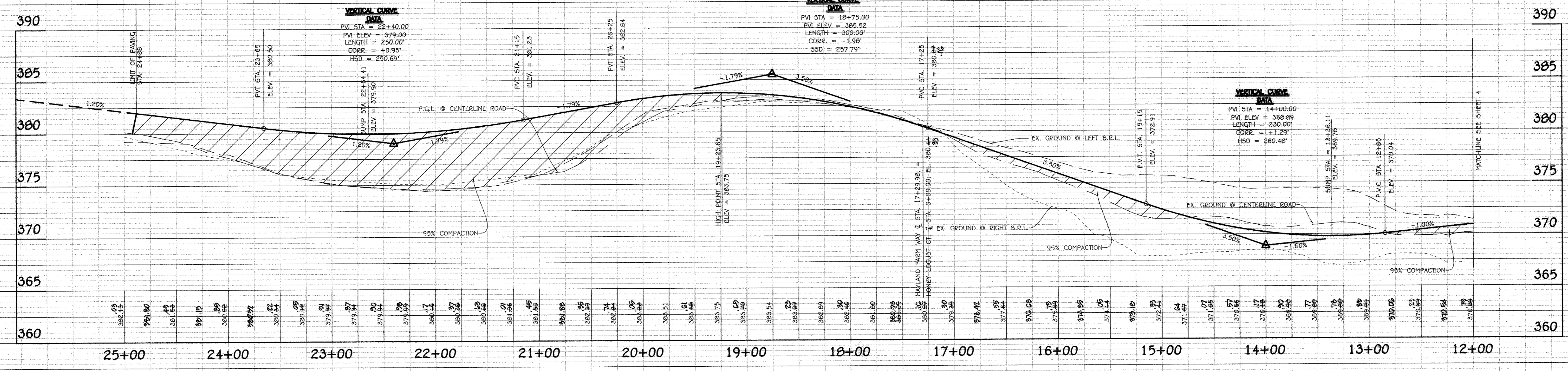
HAYLAND FARM WAY
 PLAN AND PROFILE

OWNER BASSLERS, INCORPORATED c/o ALFRED S. BASSLER 4994 SHEPHERD LANE ELIJACOTT CITY, MARYLAND 21042 (410) 531-2193	DEVELOPER HERITAGE LAND DEVELOPMENT 19950 NORTH AVE. LISBON, MARYLAND 21765 (410) 489-7900
---	---

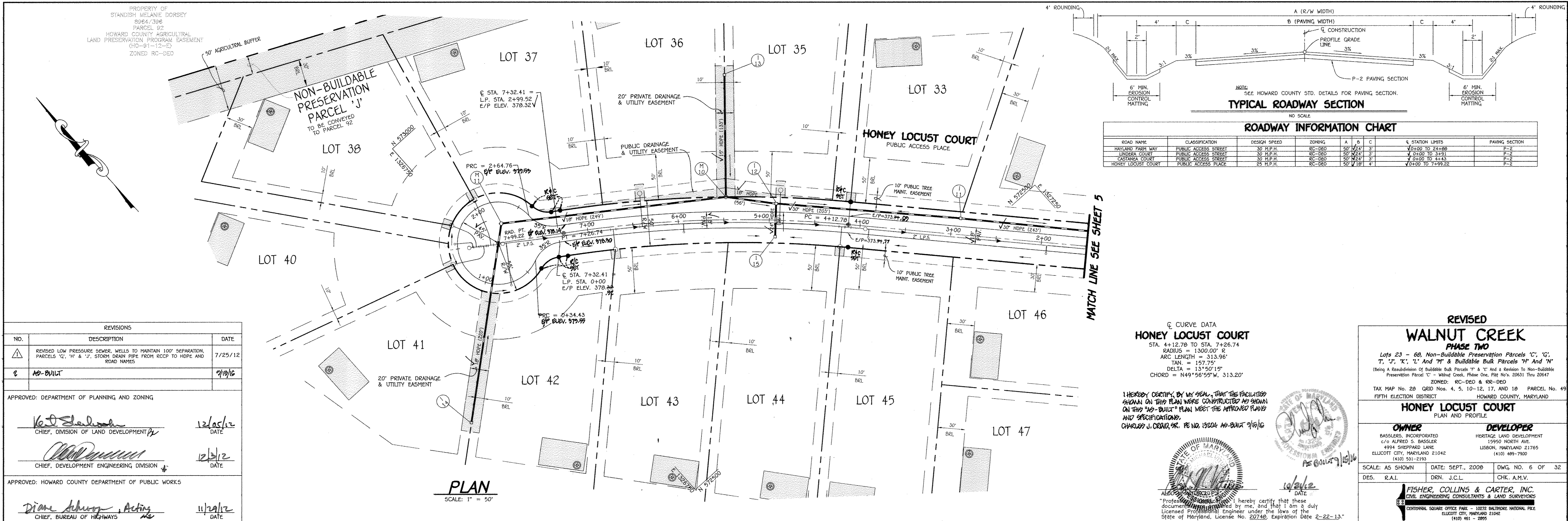
SCALE: AS SHOWN DATE: SEPT., 2008 DWG. NO. 5 OF 32
 DES. R.A.I. DRN. J.C.L. CHK. A.M.V.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 NATIONAL SQUARE OFFICE PARK - 10775 BALTIMORE NATIONAL FREE
 ELIJACOTT CITY, MARYLAND 21042
 (410) 461-2895

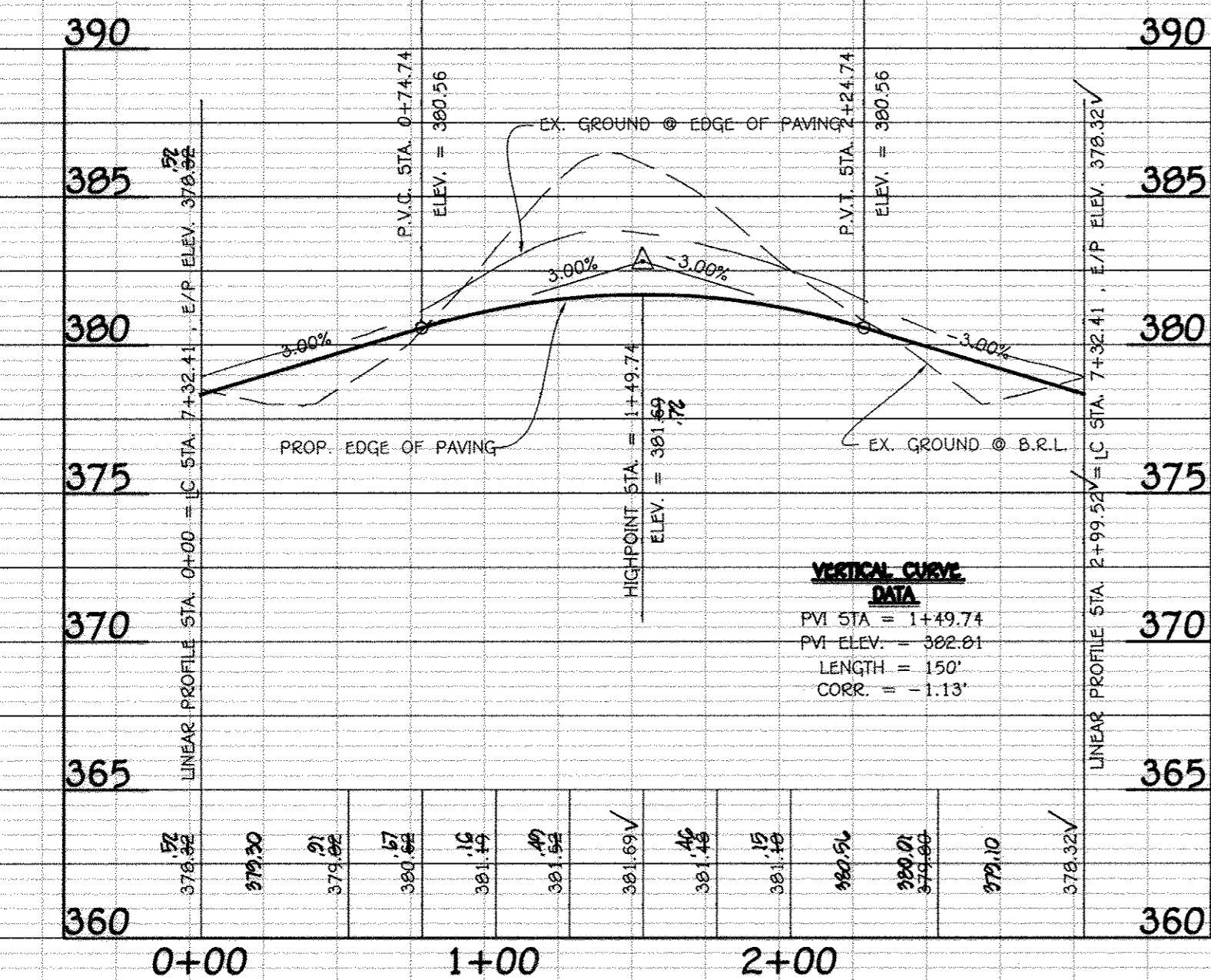
HAYLAND FARM WAY
 PUBLIC ACCESS STREET
 DESIGN SPEED = 30 M.P.H.



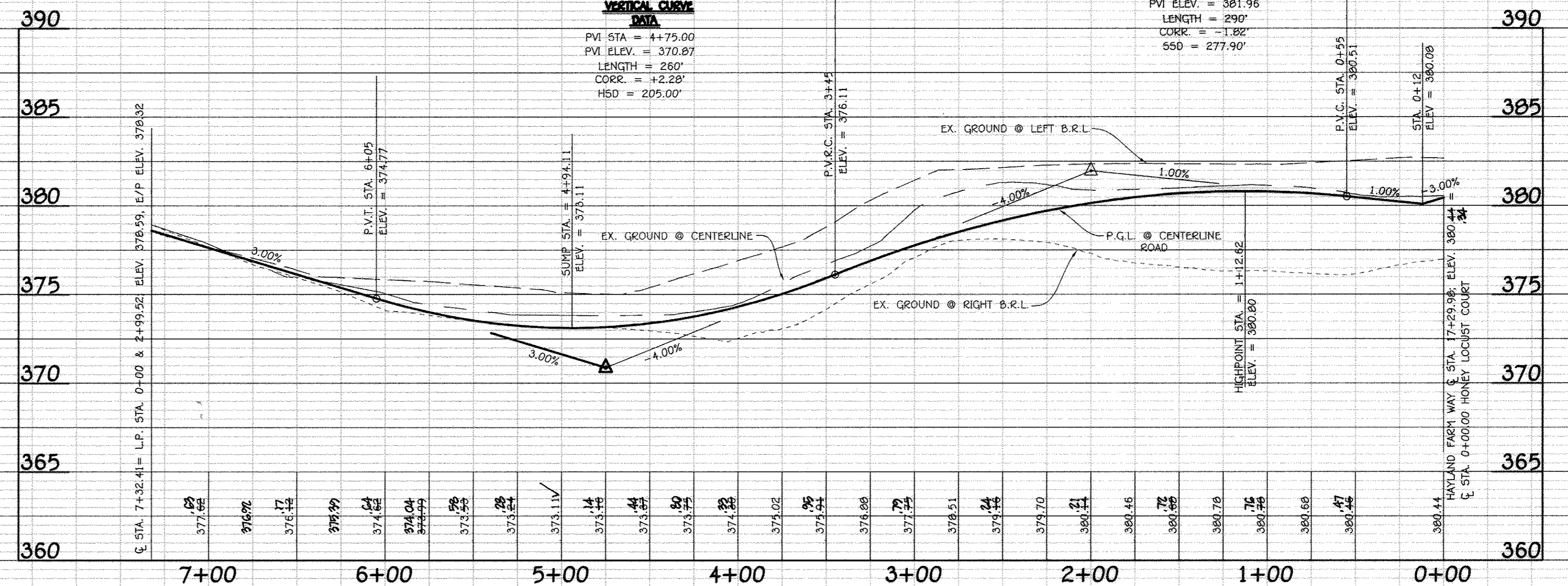
PROFILE
 SCALE: HOR. 1" = 50'
 VER. 1" = 5'



HONEY LOCUST COURT
PUBLIC ACCESS PLACE



HONEY LOCUST COURT
PUBLIC ACCESS PLACE
DESIGN SPEED = 25 M.P.H.



⊙ CURVE DATA
CRAPE MYRTLE COURT
 STA. 1+00 TO STA. 2+50.12
 RADIUS = 350.00' R
 ARC LENGTH = 150.12'
 TAN. = 76.23°
 DELTA = 24°34'32"
 CHORD = 514'24.44" W, 148.97'

⊙ CURVE DATA
CRAPE MYRTLE COURT
 STA. 2+50.12 TO STA. 5+77.71
 RADIUS = 700.00' R
 ARC LENGTH = 327.59'
 TAN. = 166.95°
 DELTA = 26°48'49"
 CHORD = 540'06.25" W, 324.61'

⊙ CURVE DATA
LINDERA COURT
 STA. 0+81.30 TO STA. 2+12.20
 RADIUS = 300.00' R
 ARC LENGTH = 130.90'
 TAN. = 66.51°
 DELTA = 25°00'01"
 CHORD = 531'19.17" E, 129.86'

⊙ CURVE DATA
LINDERA COURT
 STA. 2+62.20 TO STA. 13+53.38
 RADIUS = 725.00' R
 ARC LENGTH = 1091.18'
 TAN. = 678.86°
 DELTA = 86°14'05"
 CHORD = 524'17.46" W, 991.07'

NO.	DESCRIPTION	DATE
1	REVISED LOW PRESSURE SEWER, WELLS TO MAINTAIN 100' SEPARATION, PARCELS 'C', 'M' & 'J'. STORM DRAIN PIPE FROM ACCESS TO HOPE AND ROAD NAMES	7/25/12
2	AS-BUILT	9/19/12

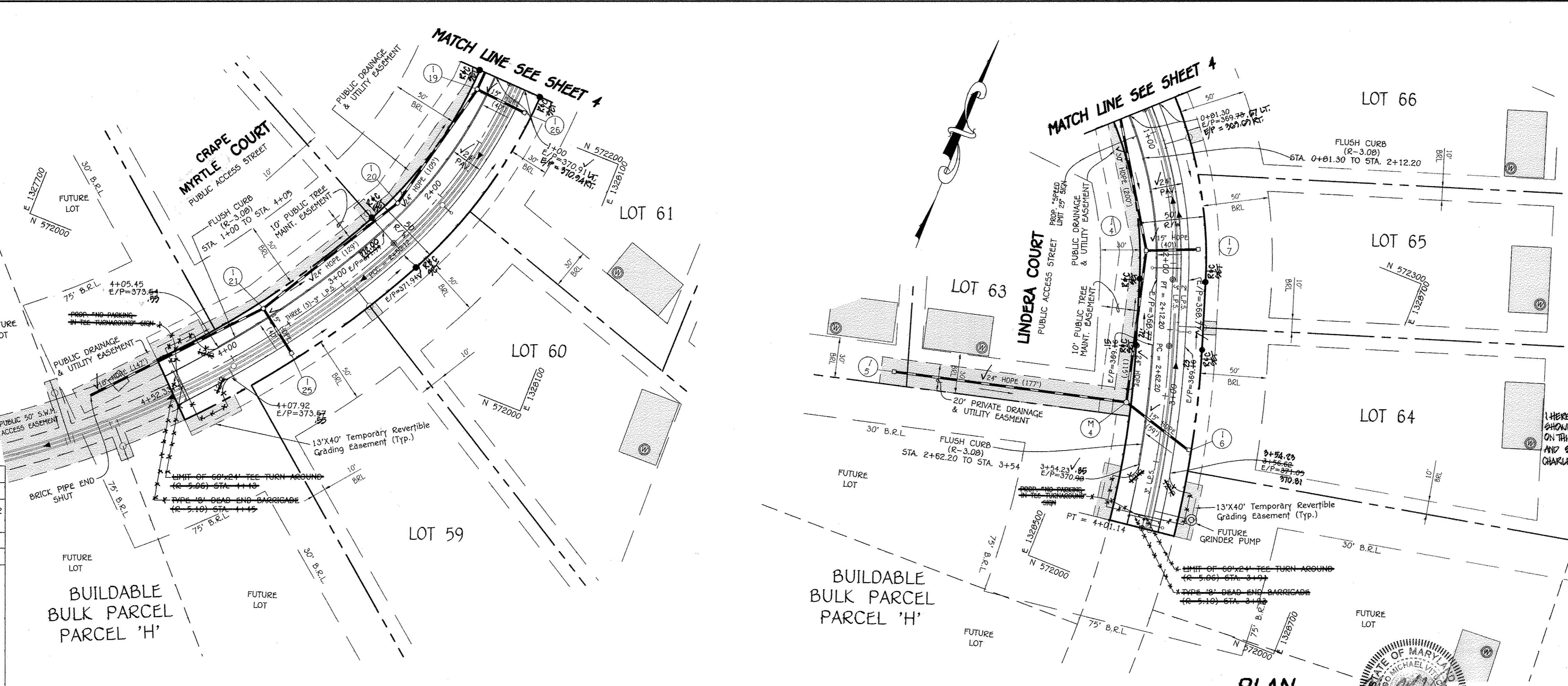
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Ket... [Signature] 12/25/12 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

Mr. [Signature] 12/2/12 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Diane [Signature] 11/29/12 DATE
 CHIEF, BUREAU OF HIGHWAYS



BUILDABLE BULK PARCEL PARCEL 'H'

BUILDABLE BULK PARCEL PARCEL 'H'

PLAN
 SCALE: 1" = 50'

PLAN
 SCALE: 1" = 50'

I HEREBY CERTIFY, BY MY OATH, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN UNDER THE APPROVED PLANS AND SPECIFICATIONS.
 CHARLES J. DODD, P.E. NO. 19204 AS-BUILT 01/19/12

WALNUT CREEK
 PHASE TWO

Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'T', 'J', 'K', 'L' and 'M' and Buildable Bulk Parcels 'H' and 'N' (Being a Re-division of Buildable Bulk Parcels 'I' & 'O' and a Revision to Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647)

TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, and 18 PARCEL No. 49
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LINDERA COURT CRAPE MYRTLE COURT
 PLAN AND PROFILE

OWNER
 BASSESS, INCORPORATED
 c/o ALFRED S. BASSLER
 4934 SHEPPARD LANE
 ELLICOTT CITY, MARYLAND 21042
 (410) 531-2185

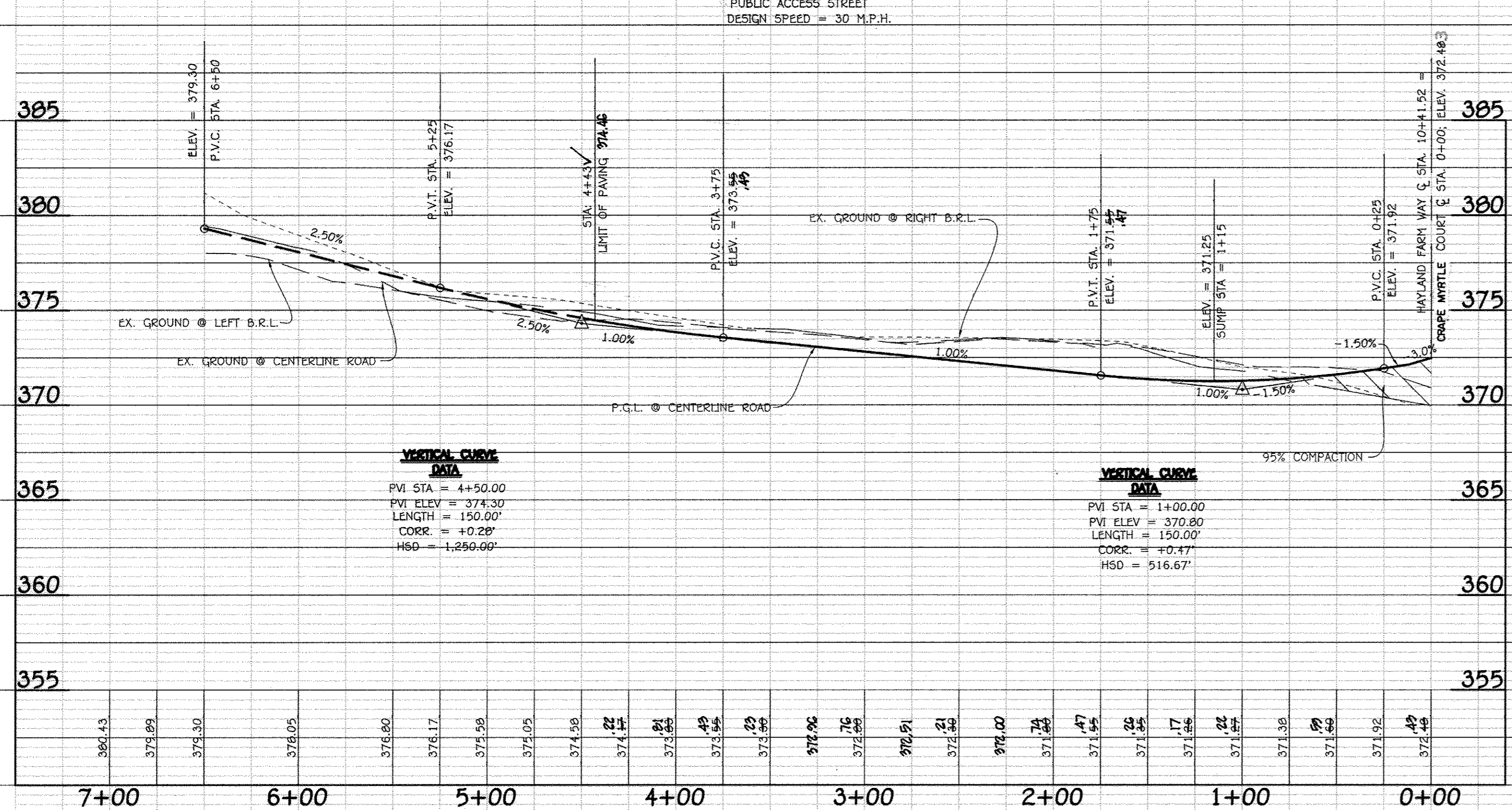
DEVELOPER
 HERITAGE LAND DEVELOPMENT
 1950 NORTH AVE.
 LISBON, MARYLAND 21765
 (410) 489-7900

SCALE: AS SHOWN DATE: SEPT., 2008 DWG. NO. 7 OF 32
 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 - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 401-2292

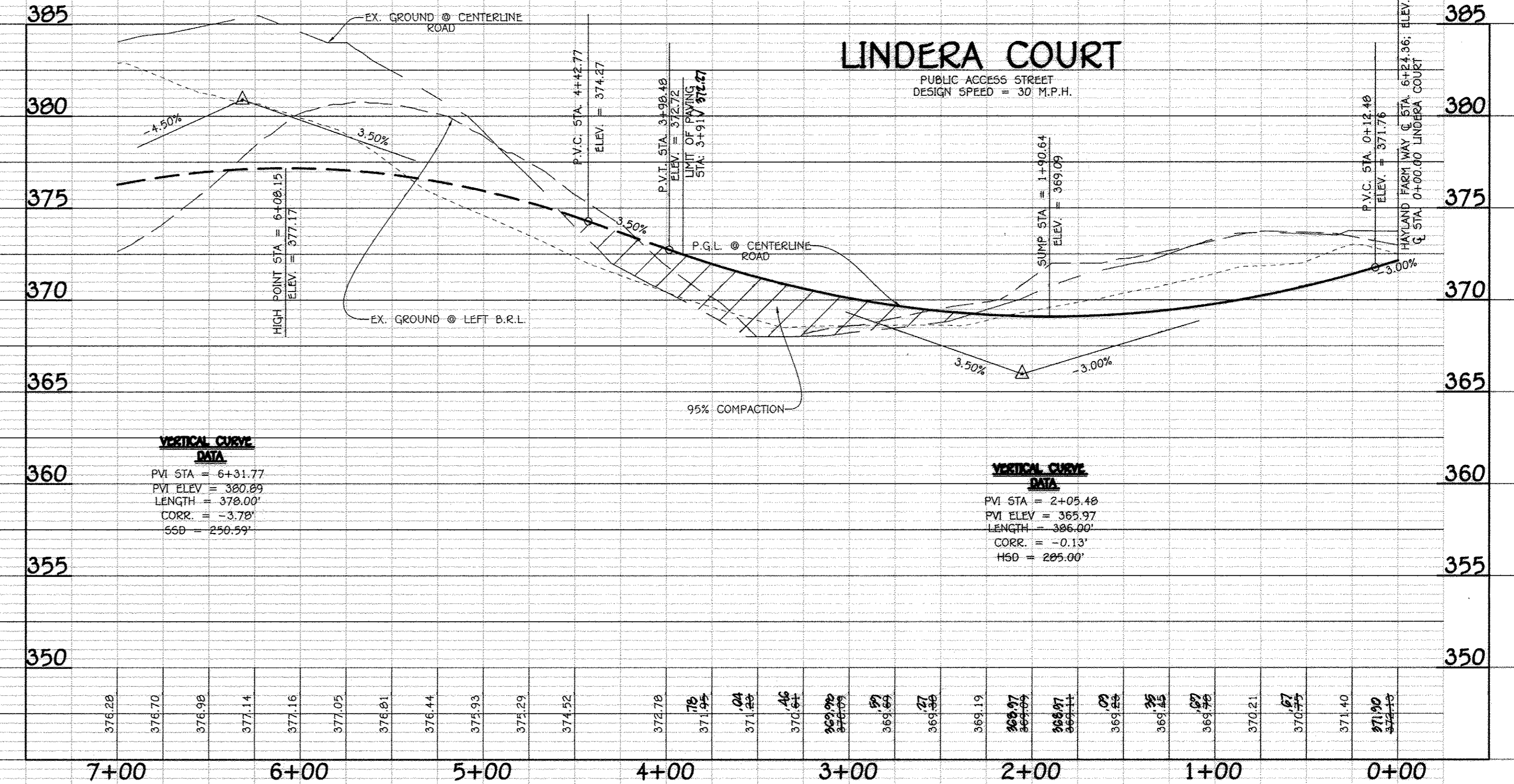
CRAPE MYRTLE COURT

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

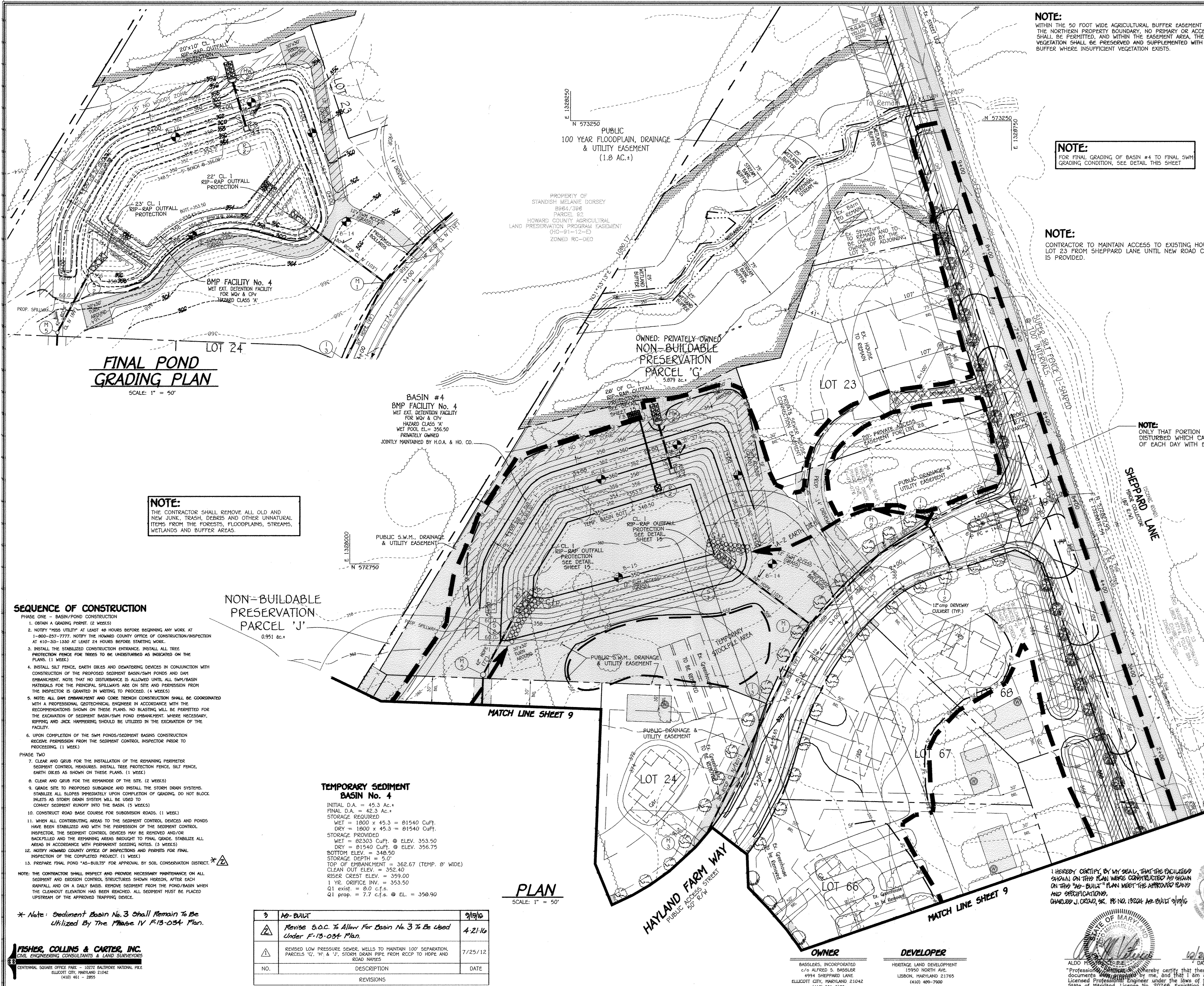


LINDERA COURT

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



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



FINAL POND GRADING PLAN
SCALE: 1" = 50'

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.

SEQUENCE OF CONSTRUCTION

- PHASE ONE - BASIN/POND CONSTRUCTION**
- OBTAIN A GRADING PERMIT. (2 WEEKS)
 - NOTIFY "HIS" UTILITY AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777, NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-303-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.
 - INSTALL THE STABILIZED CONSTRUCTION ENTRANCE. INSTALL ALL TREE PROTECTION FENCE FOR TREES TO BE UNDISTURBED AS INDICATED ON THE PLANS. (1 WEEK)
 - INSTALL SILT FENCE, EARTH DIKES AND DEMATERING DEVICES IN CONJUNCTION WITH CONSTRUCTION OF THE PROPOSED SEDIMENT BASIN/SWM POND 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)
 - 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 FACILITY.
 - UPON COMPLETION OF THE SWM POND/SEDIMENT BASIN CONSTRUCTION RECEIVE PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR PRIOR TO PROCEEDING. (1 WEEK)
- PHASE TWO**
- 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)
 - CLEAR AND GRUB FOR THE REMAINDER OF THE SITE. (2 WEEKS)
 - 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 BASIN. (3 WEEKS)
 - CONSTRUCT ROAD BASE COURSE FOR SUBSIDION ROADS. (1 WEEK)
 - 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. (2 WEEKS)
 - NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT. (1 WEEK)
 - PREPARE FINAL POND "AS-BUILT" FOR APPROVAL BY SOIL CONSERVATION DISTRICT. *
- NOTE:** THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT 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.

TEMPORARY SEDIMENT BASIN No. 4
INITIAL D.A. = 45.3 AC.4
FINAL D.A. = 42.3 AC.4
STORAGE REQUIRED
WET = 1800 x 45.3 = 81540 CUFT.
DRY = 1800 x 45.3 = 81540 CUFT.
STORAGE PROVIDED
WET = 82303 CUFT. @ ELEV. 353.50
DRY = 81540 CUFT. @ ELEV. 356.75
BOTTOM ELEV. = 349.50
STORAGE DEPTH = 5.0'
TOP OF EMBANKMENT = 362.67 (TEMP. 8' WIDE)
CLEAN OUT ELEV. = 352.40
RISER CREST ELEV. = 359.00
1 YR. ORIFICE INV. = 353.50
Q1 EXIST. = 8.0 c.f.s. @ EL. = 358.90
Q1 PROP. = 7.7 c.f.s. @ EL. = 358.90

PLAN
SCALE: 1" = 50'

NO.	DESCRIPTION	DATE
1	AS-BUILT	9/9/16
2	REVISE S.O.C. TO Allow For Basin No. 3 To Be Used Under F-13-034 Plan.	4-21-16
3	REVISED LOW PRESSURE SEWER, WELLS TO MAINTAIN 100' SEPARATION, PARCELS 'G', 'H', & 'J'. STORM DRAIN PIPE FROM RCP2 TO HOPE AND ROAD NAMES.	7/25/12
NO.	DESCRIPTION	DATE
	REVISIONS	

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21142
4101 461 - 2959

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.

NOTE:
FOR FINAL GRADING OF BASIN #4 TO FINAL SWM GRADING CONDITION, SEE DETAIL THIS SHEET

NOTE:
CONTRACTOR TO MAINTAIN ACCESS TO EXISTING HOUSE ON LOT 23 FROM SHEPPARD LANE UNTIL NEW ROAD CONNECTION IS PROVIDED.

NOTE:
ONLY THAT PORTION OF SHEPPARD LANE WILL BE DISTURBED WHICH CAN AND SHALL BE STABILIZED BY THE END OF EACH DAY WITH E.C.M.

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. Feag* Date: 10/2/16
Printed Name of Developer: **Timothy W. Feag**

By The Engineer:
I/We Certify That The Construction, Erosion And Sediment Control Represents A Practical Application Of My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Also Described The Requirements Of The Howard Soil Conservation District To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Within 30 Days Of Completion.

Signature: *John K. Blanton* Date: 10/2/16
Printed Name of Engineer: **John K. Blanton**

These Plans For Construction, Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.
Approved Department Of Public Works
Signature: *Diane Schuyler* Acting Date: 11/24/16
Chief, Bureau Of Highways

Approved: Department Of Planning And Zoning
Signature: *K. S. Johnson* Date: 12/05/16
Chief, Division Of Land Development

Signature: *Michael J. ...* Date: 12/3/16
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: *...* Date: 12/30/16
P.E. No. 91516

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.

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. LIMITS OF DISTURBANCE
- R.P.S. REMOVABLE PUMPING STATION
- F.B. FILTER BAG
- E.C.M. DENOTES EROSION CONTROL MATTING
- DENOTES 25% OR GREATER SLOPES
- DENOTES 15% - 24.99% SLOPES
- LOW PRESSURE SEWER BY OTHERS W/ GRINDER PUMPS
- G.I.P. GABION INFLOW PROTECTION
- OH OVERHEAD ELECTRIC
- UG UNDERGROUND ELECTRIC

CONTRACTOR NOTE:
NO WORK MAY BEGIN UNTIL ALL BASIN STRUCTURES, PIPES, ETC. ARE ON-SITE AND PERMISSION IS GRANTED BY CID INSPECTOR TO PROCEED.

I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.
CHARLES J. CROW, SR., PE NO. 13204 AS-BUILT 9/15/16

OWNER
BASSELLS, INCORPORATED
c/o ALFRED S. BASSELL
4934 SHEPPARD LANE
ELLCOTT CITY, MARYLAND 21142
(410) 531-2193

DEVELOPER
HERITAGE LAND DEVELOPMENT
15900 NORTH AVE
LISBON, MARYLAND 21765
(410) 409-7100

AS-BUILT
DATE: 10/2/16
ALDO H. ...
I/We Certify That The Construction, Erosion And Sediment Control Represents A Practical Application Of My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Also Described The Requirements Of The Howard Soil Conservation District To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Within 30 Days Of Completion.

REVISED
STREET TREE, GRADING & SEDIMENT CONTROL PLAN
WALNUT CREEK
PHASE TWO
Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N' (Being A Re subdivision Of Buildable Bulk Parcels 'I' & 'L' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, P181 No. 2063) Thru 20647
TAX MAP No. 28 CRD Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
ZONED: RC-BED & RR-DEO
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: SEPTEMBER, 2008
SHEET 8 OF 32

E:\2016\10\01\PHASE TWO FINALS\PHASE TWO HEADLINE 20161001-3001_SHEET 8-1 GRADING PLANS.dwg, SHEET 8, 10/30/2016 1:38:39 PM, 11

STREET TREE SCHEDULE				
SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
	2480' x 2 = 4976' 4976' / 40 = 124.4 124 TREES	ACER RUBRUM 'OCTOBER GLORY' RED MAPLE	2 1/2" - 3" CAL.	40' APART ON PUBLIC R/W (HAYLAND FARM WAY)
	391' x 2 = 782' 782' / 40 = 19.5 20 TREES	PLATANUS OCCIDENTALIS 'BLOODGOOD' LONDON PLANETREE	2 1/2" - 3" CAL.	40' APART ON PUBLIC R/W (LINDERA COURT)
	443' x 2 = 886' 886' / 40 = 22.2 22 TREES	PRUNUS SARGENTII SARGENT CHERRY	2 1/2" - 3" CAL.	40' APART ON PUBLIC R/W (ORAPE MYRTLE COURT)
	799' x 2 = 1598' 1598' / 40 = 39.9 40 TREES	CLADRASTIS LUTEA YELLOWWOOD	2 1/2" - 3" CAL.	40' APART ON PUBLIC R/W (HONEY LOCUST COURT)
	948' / 40 = 23.7 24 TREES	ACER GRiseum PAPERBARK MAPLE	2 1/2" - 3" CAL.	40' APART ON PUBLIC R/W (SHEPPARDS LANE)

NOTE: FINANCIAL SURETY FOR THE 230 REQUIRED STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$69,000.00.

- LEGEND**
- SSF—SSF—SSF— SUPER-SILT FENCE
 - SF—SF—SF— SILT FENCE
 - TF—TF—TF— TREE PROTECTION FENCE
 - S.C.E. STABILIZED CONSTRUCTION ENTRANCE
 - EARTH DIKE
 - 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
 - G.I.P. GABION INFLOW PROTECTION

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 Final 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. Feag* 10/24/12
Date

By The Engineer:
I Certify That Construction, Erosion And Sediment Control Represents A Practical And Feasible Method For The Control Of Sediment And Erosion. This Plan Was Prepared In Accordance With My Personal Knowledge Of The Site Conditions. This Plan Has Been Approved By The Howard Soil Conservation District. I Have Supervised The Construction Of The Project And Must Engage A Registered Professional Engineer To Supervise Final Construction. The Howard Soil Conservation District with an "As-Built" Plan Of The Pond Within 30 Days Of Completion.

Signature of Engineer: *[Signature]* 10/24/12
Date

Approved: Department of Public Works
Signature: *[Signature]* 11/20/12
Date

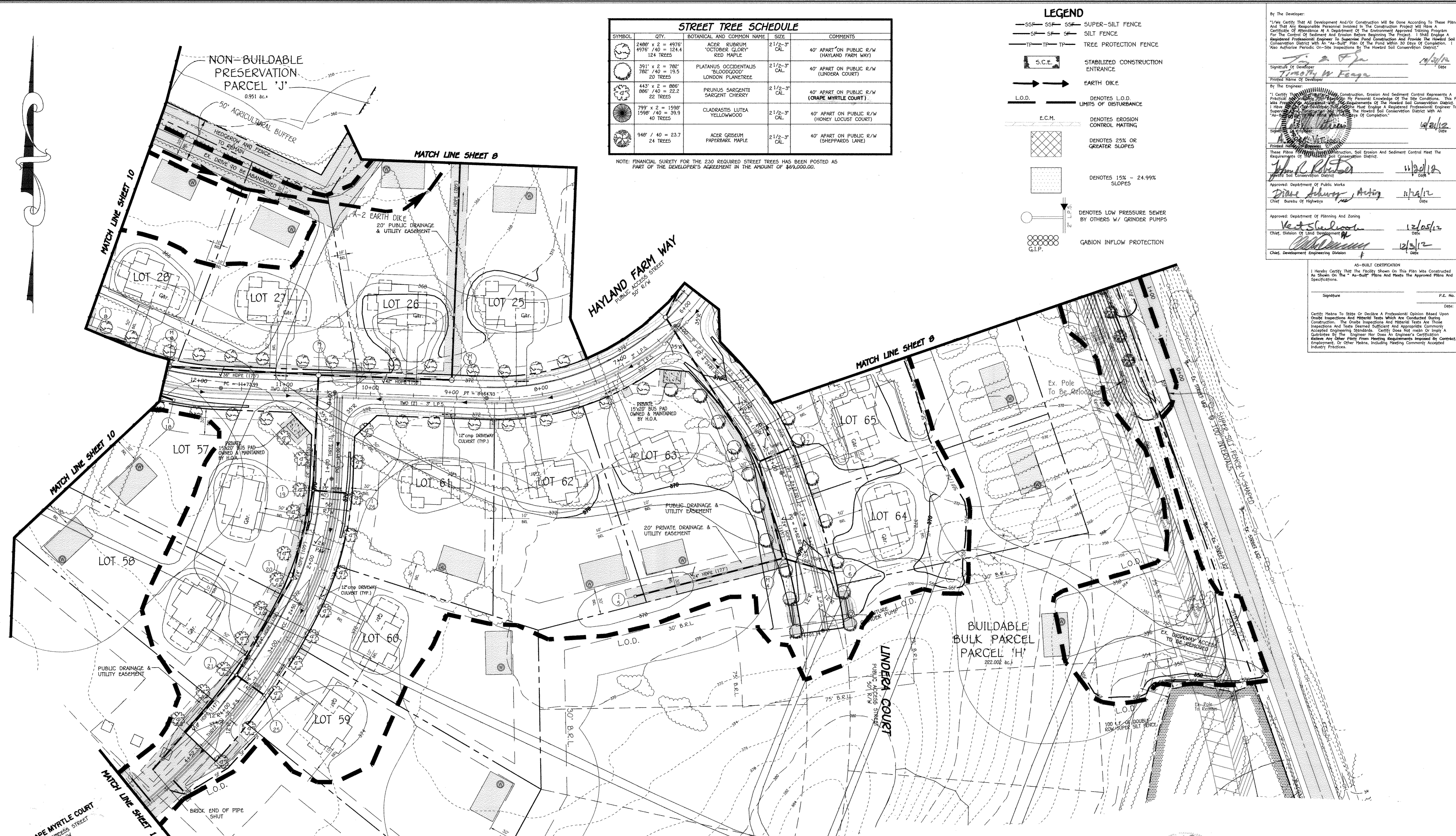
Approved: Department of Planning and Zoning
Signature: *[Signature]* 11/21/12
Date

Approved: Department of Engineering Division
Signature: *[Signature]* 12/31/12
Date

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.

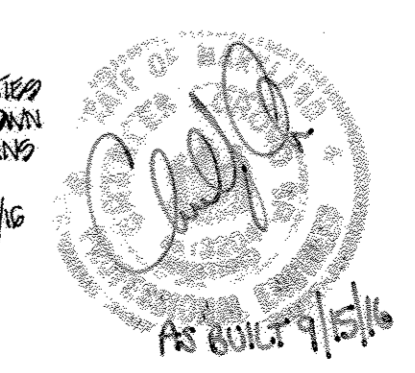
Signature: _____ P.E. No. _____
Date: _____

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 Release Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.



PLAN
SCALE: 1" = 50'

I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN UNDER THE APPROVED PLANS AND SPECIFICATIONS.
CHARLES J. ORLOFF, P.E. NO. 19204 AS-BUILT 09/16



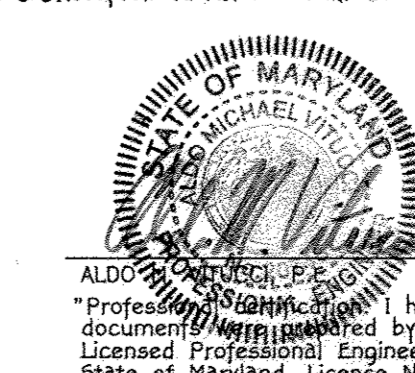
REVISED
STREET TREE, GRADING & SEDIMENT CONTROL PLAN
WALNUT CREEK
PHASE TWO
Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
(Being A Re-subdivision Of Buildable Bulk Parcels 'F' & 'E' And A Devision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647)
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: SEPTEMBER, 2008
SHEET 9 OF 32

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2999

NO.	DESCRIPTION	DATE
2	AS-BUILT	09/16
	REVISED LOW PRESSURE SEWER, WELLS TO MAINTAIN 100' SEPARATION, PARCELS 'G', 'H' & 'J', STORM DRAIN PIPE FROM RCCP TO HDPE AND ROAD NAMES.	7/25/12
	REVISIONS	

OWNER
BASILEERS, INCORPORATED
c/o ALFRED S. BASILEERS
4994 SHEPPARD LANE
ELLCOTT CITY, MARYLAND 21042
(410) 531-2193

DEVELOPER
HERITAGE LAND DEVELOPMENT
19950 NORTH AVE.
LUSKON, MARYLAND 21765
(410) 489-7900



ALSO PROFESSIONAL ENGINEER
I, Alfred S. Basileers, P.E., do hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 22748, Expiration Date 2-22-13.

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.

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 Final 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: *Charles J. O'Connell* Date: 11/29/12
 Printed Name of Developer: Charles J. O'Connell

By The Engineer:
 I Certify That The Construction, Erosion And Sediment Control Represents A Practical And Feasible Plan On My Personal Knowledge Of The Site Conditions. This Plan Meets The Requirements Of The Howard Soil Conservation District. I Have Reviewed The Plans And I Have Verified That The Plans Must Engage A Registered Professional Engineer To Supervise Final Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Within 30 Days Of Completion.

Signature of Engineer: *John P. White* Date: 11/29/12
 Printed Name of Engineer: John P. White
 Howard Soil Conservation District

Approved: Department of Public Works
 Chief Bureau of Highways
 Signature: *Gene Schuyler* Acting Date: 11/29/12

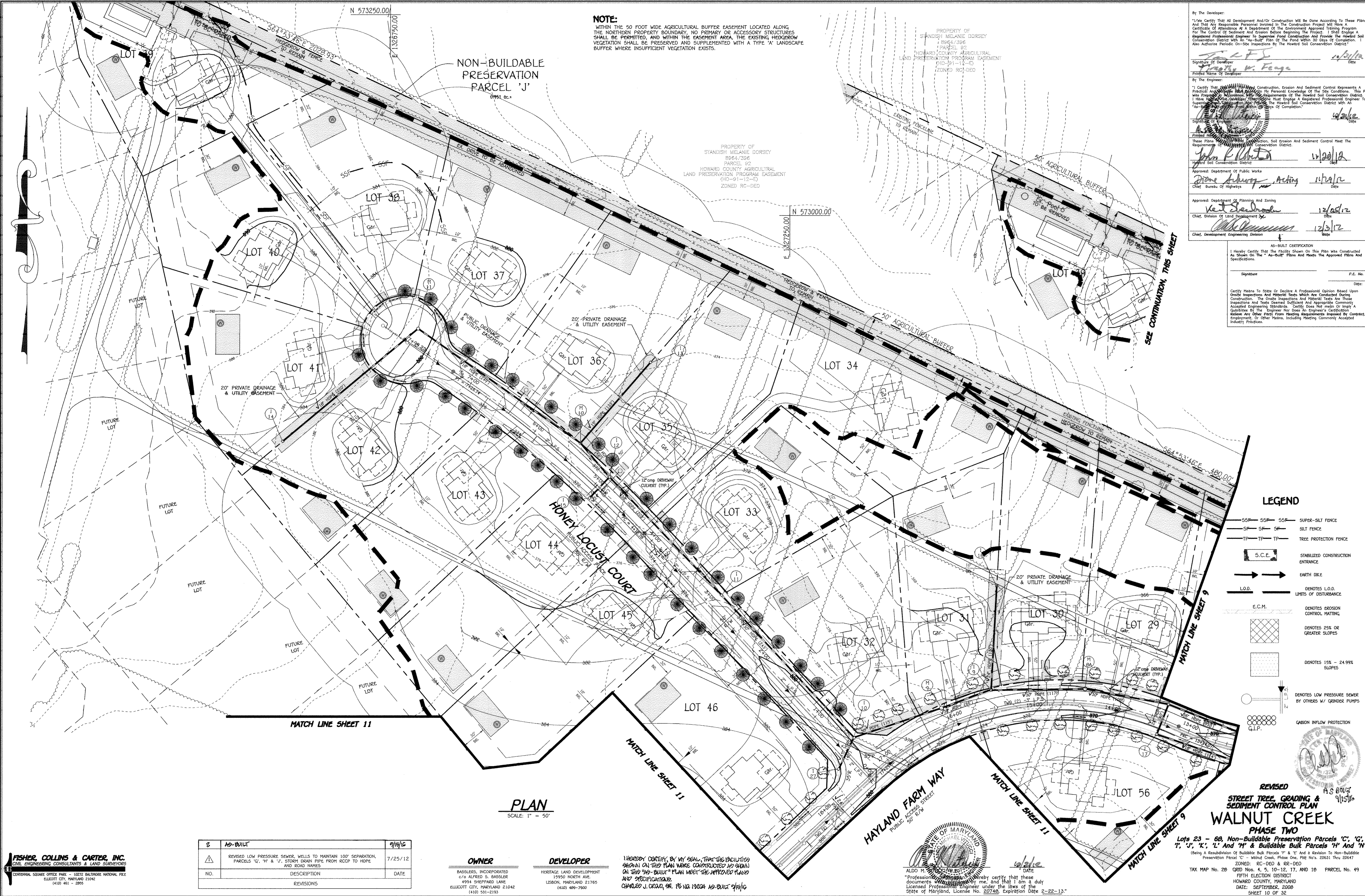
Approved: Department of Planning and Zoning
 Chief, Division of Land Development
 Signature: *Robert Steinhilber* Date: 12/05/12

Chief, Development Engineering Division
 Signature: *Mike O'Connell* Date: 12/05/12

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: _____

NOTE: 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 Not Done An Engineer's Certification. Knows Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

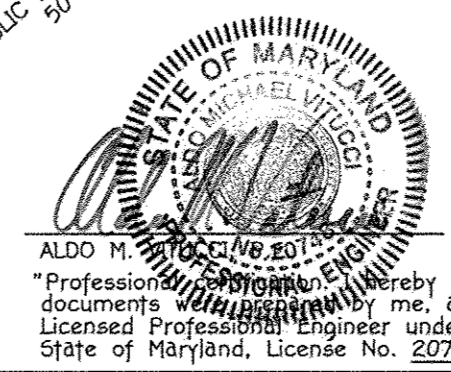


NO.	DESCRIPTION	DATE
1	AS-BUILT	07/15/10
2	REVISED LOW PRESSURE SEWER, WELLS TO MAINTAIN 100' SEPARATION, PARCELS 'C', 'H' & 'J', STORM DRAIN PIPE FROM RECEP TO HEPH, AND ROAD NAMES	7/25/12
REVISIONS		

OWNER
 BASGLERS, INCORPORATED
 c/o ALFRED S. BASGLERS
 4994 SHEPPARD LANE
 ELIJACOTT CITY, MARYLAND 21042
 (410) 531-2193

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 USLSON, MARYLAND 21765
 (410) 489-7900

I HEREBY 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 SPECIFICATIONS.
 CHARLES J. O'CONNOR, SR. PE NO 19204 AS-BUILT 07/15/10



REVISED
STREET TREE, GRADING & SEDIMENT CONTROL PLAN
WALNUT CREEK
PHASE TWO
 Lots 23 - 60, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Resubdivision Of Buildable Bulk Parcels 'H' & 'I' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20031 Thru 20047)
 ZONED: RC-DEO & RR-DEO
 QUID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
 TAX MAP No. 2B
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 10 OF 32

13:20:00\04001\PHASE TWO FINALLY PHASE TWO REVISION 2012\04001-8001 SHEET 8-11 GRADING PLANS.dwg SHEET 10, 10/30/2012 1:41:57 PM, 11

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2995

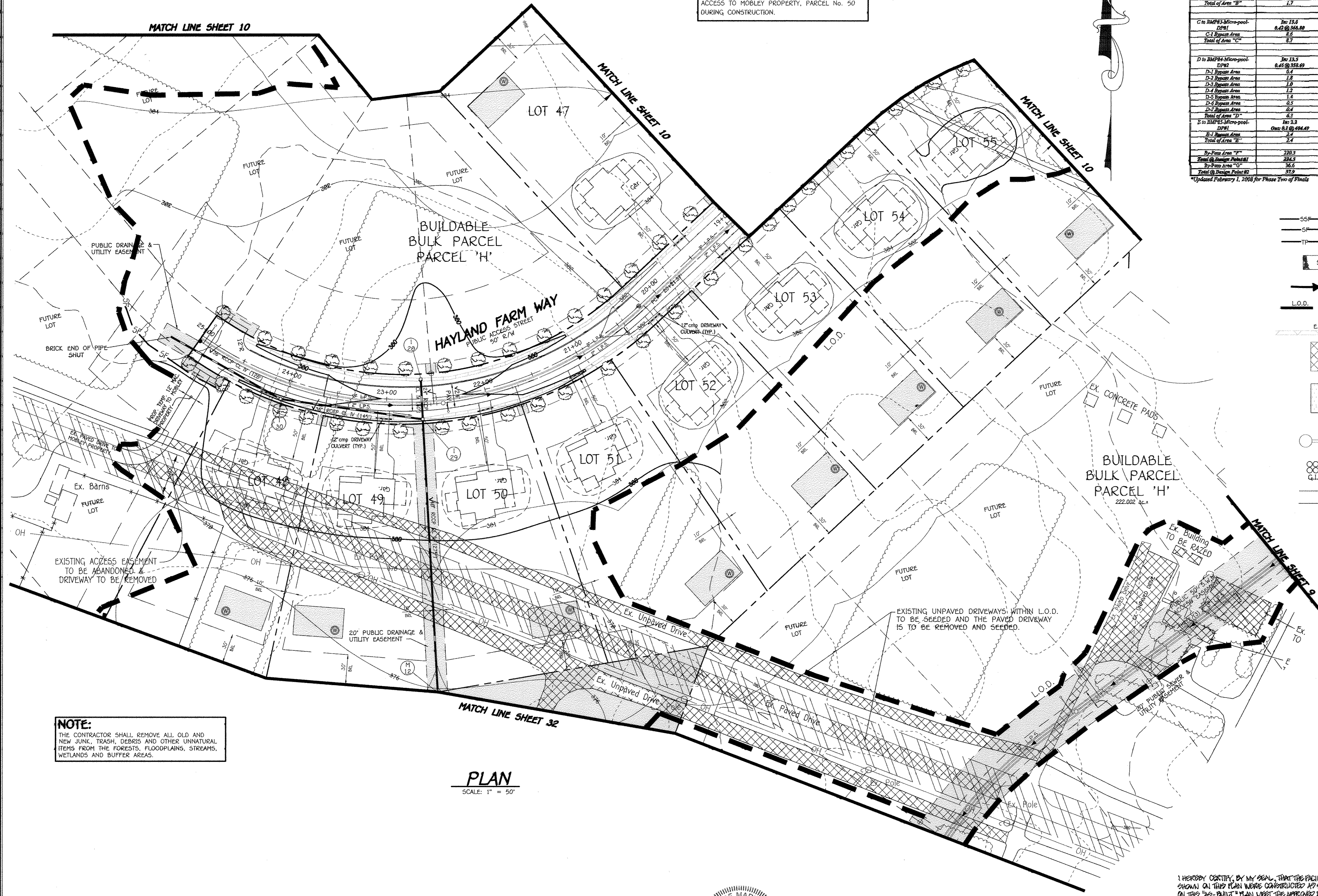
AS-BUILT F-08-081

MATCH LINE SHEET 10

MATCH LINE SHEET 10

MATCH LINE SHEET 10

NOTE: THE CONTRACTOR SHALL PROVIDE UNINTERRUPTED ACCESS TO MOBLEY PROPERTY, PARCEL No. 50 DURING CONSTRUCTION.



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

PLAN SCALE: 1" = 50'

SUMMARY TABLE #1 (Phase One and Two Only to Date)

Table with columns for Drainage Area, One-Year Storm (cfs), and Two-Year Storm (cfs). Includes sub-tables for BMP A, B, C, D, E and various bypass areas.

By the Developer: Timothy V. Feaga, 12/21/12. By the Engineer: [Signature], 12/21/12. Approved: Department of Public Works, 11/21/12. Approved: Department of Planning and Zoning, 12/05/12.

- LEGEND: -SSF- SUPER-SILT FENCE, -SF- SILT FENCE, -TP- TREE PROTECTION FENCE, S.C.E. STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKE, DENOTES L.O.D. LIMITS OF DISTURBANCE, DENOTES EROSION CONTROL MATTING, DENOTES 25% OR GREATER SLOPES, DENOTES 15% - 24.99% SLOPES, DENOTES LOW PRESSURE SEWER BY OTHERS W/ GRINDER PUMPS, GABION INFLOW PROTECTION, DENOTES OVERHEAD ELECTRIC, DENOTES UNDERGROUND ELECTRIC.

SUMMARY TABLE #2 (Phase One and Two)

Table with columns for Recharge Vol. for 1.0M acres or 1.11 acre-feet and 12.5% area w/ % Area Method. Lists various BMP areas and their respective recharge volumes.

Note: Both Q1 (Overbank Flood Protection or 10-year storm) and Q2 (Extreme Flood Volume or 100-year storm) are not required for this site since this watershed area is not classified as one of the sensitive watershed areas for Howard County.

REVISED STREET TREE, GRADING & SEDIMENT CONTROL PLAN WALNUT CREEK PHASE TWO. Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' and 'M' & Buildable Bulk Parcels 'H' and 'N'.

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS. CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE, ELICOTT CITY, MARYLAND 21042.

Table with columns for NO., DESCRIPTION, and DATE. Lists revisions to the plan.

Professional Engineer seal for ALDO V. BASSLER, License No. 22748, Expiration Date 2-22-13.

OWNER: BASSLER, INCORPORATED, 4914 SHEPARD LANE, ELICOTT CITY, MARYLAND 21042. DEVELOPER: HERITAGE LAND DEVELOPMENT, 19950 NORTH AVE., LEBANON, MARYLAND 21765.

Professional Engineer seal for AS-BUILT.

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	FRONT TO ROADWAY	H/A	177'	NO	NO	0 0 -
P-2	ADJACENT TO PERIMETER	A	291'	YES (35')	NO	4 - -
P-3	ADJACENT TO ROADWAY	B	262'	YES (180')	NO	1 2 -
*P-4	ADJACENT TO PERIMETER	A	1895'	YES (1347')	NO	9 - -
P-5	ADJACENT TO ROADWAY	C	690'	NO	NO	17 35 -
TOTAL						31 37 -

NOTE: THE EXISTING HEDGEROW LOCATED ALONG PERIMETER P-4 MUST BE PRESERVED AND SUPPLEMENTED WITH A TYPE 'A' LANDSCAPING BUFFER WHERE THE EXISTING HEDGEROW IS LESS THAN 20' WIDE OR WHERE THE EXISTING HEDGEROW PROVIDES INSUFFICIENT LANDSCAPE SCREENING.

APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Schweg, Acting Chief, BUREAU OF HIGHWAYS, 11/29/12 DATE
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
Neil Slesinski, Chief, DIVISION OF LAND DEVELOPMENT, 12/05/12 DATE
William, Chief, DEVELOPMENT ENGINEERING DIVISION, 12/3/12 DATE

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING			
LINEAR FEET OF TYPE 'B' PERIMETER	D-1 : 125DD-2 : 1507		
NUMBER OF TREES REQUIRED & PROVIDED:	25	32	
SHADE TREES	31	40	
EVERGREEN TREES			
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	NO	NO	
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	NO	

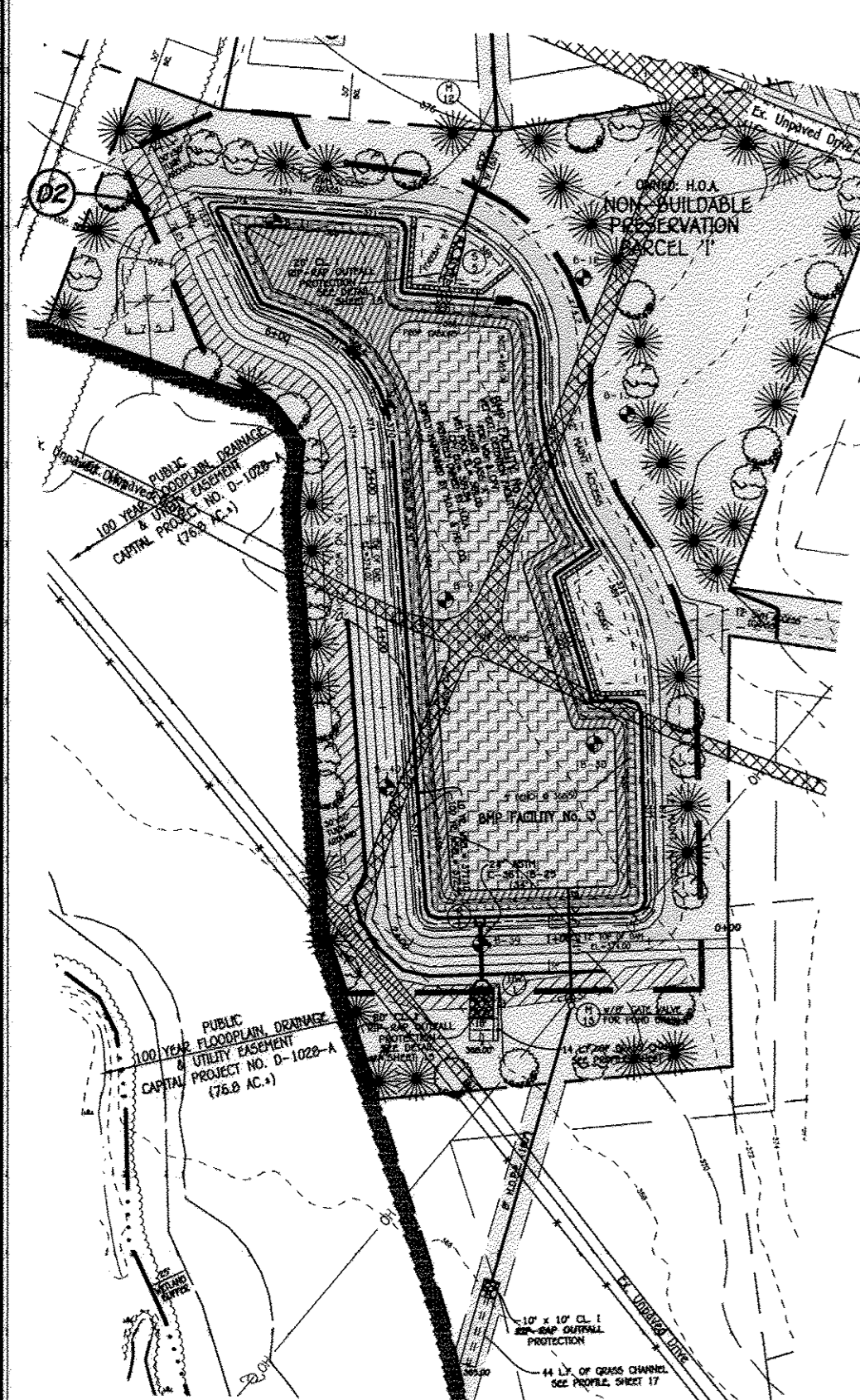
PLANT LIST			
SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE
	49	ACER RUBRUM "COTONWOOD GLORY" RED MAPLE	2 1/2" - 3" CAL.
	39	QUERCUS ACUTISSIMA SAWTOOTH OAK	2 1/2" - 3" CAL.
	73	PINUS STROBUS EASTERN WHITE PINE	6" - 8" HT.
	35	CHINESE JUNIPER ROBUSTA	5" - 6" HT.

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL." FINANCIAL SURETY FOR THE REQUIRED 80% SHADE & 100% EVERGREEN TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$42,600.00

INTERNAL POND PLANT LIST

ZONE	PLANT AREA	PLANT SPECIES	QUANTITY	SPACING
ZONE 5 FLOODPLAIN TERRACE	1' - 4' ELEVATION ABOVE NORMAL POOL ELEVATION	PLANT AREA w/ SWITCH GRASS	-	N/A
ZONE 3 SHORELINE FRINGE	0' - 12' ELEVATION ABOVE NORMAL POOL ELEVATION	PLANT BENCH AREA w/ FOLLING INKBERG, WITCHHAZEL & WINTERBERRY	-	12' MAX.
ZONE 2 SHALLOW WATER BENCH	0' - 12' ELEVATION BELOW NORMAL POOL ELEVATION	PLANT AREA w/ BULRUSH, RIVER GRASS	-	N/A
ZONE 1 DEEPWATER POOL	1' - 3' ELEVATION BELOW NORMAL POOL ELEVATION	PLANT AREA w/ MORGAN-GARNS	-	N/A

LANDSCAPE DEVELOPER'S CERTIFICATE
 I/We certify that the landscaping shown on this plan will be done according to the plan, Section 18.124 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.
 Name: *[Signature]* Date: 12/6/12



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 additions or reductions 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 placed and/or revisions are made to the road drawing plan.
- 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 other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.

NO.	DESCRIPTION	DATE
1	REVISED LOW PRESSURE SEWER, WELLS TO MAINTAIN 100' SEPARATION PARCELS 'G', 'H' & 'J' AND STORM DRAIN PIPE FROM KCO2 TO H09E	9/25/12
	REVISIONS	

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 831-2292

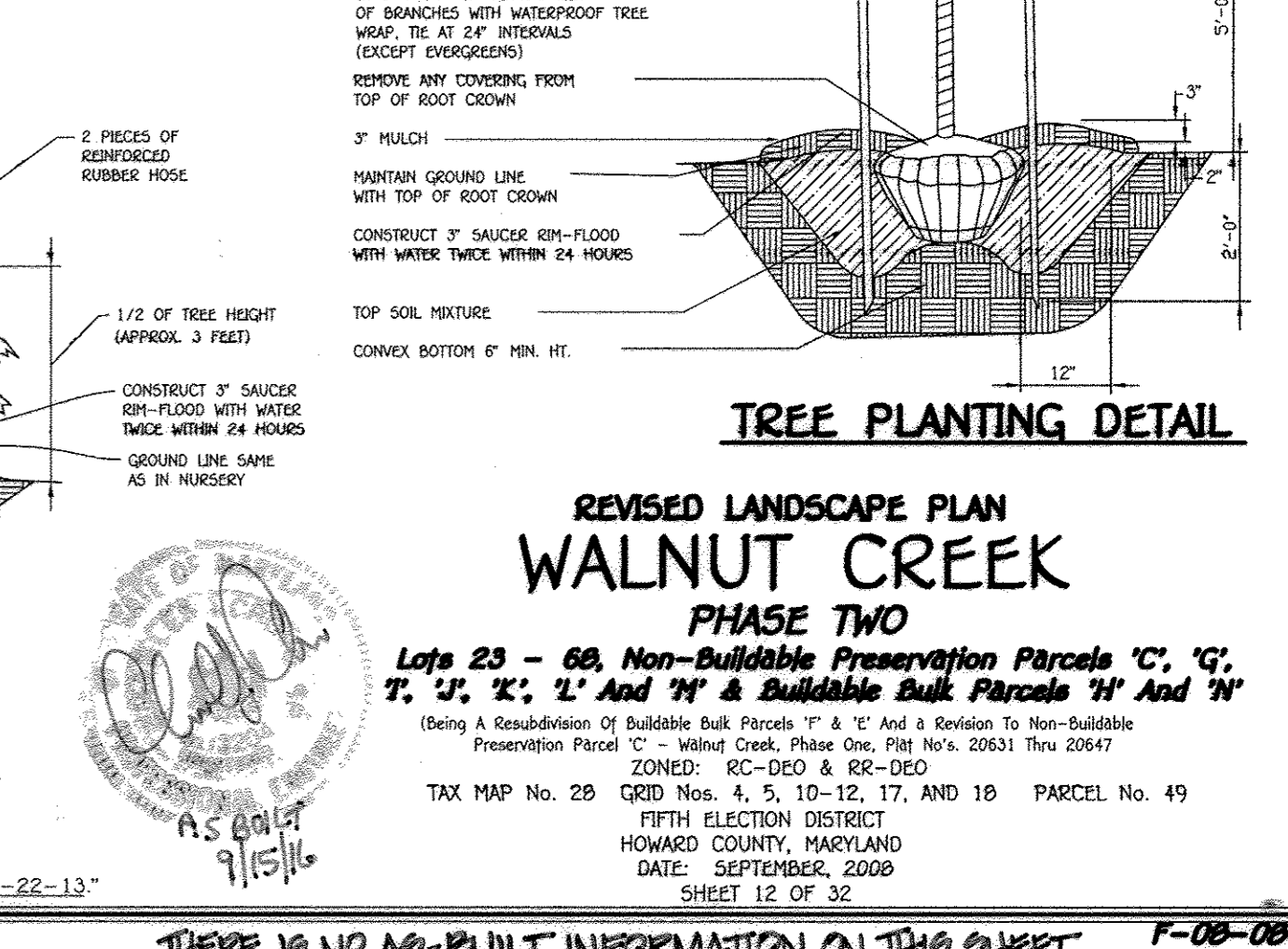
PLANTING SPECIFICATIONS

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 infestations. 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 heeled-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 addenda.
 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 "Hot Spots" 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 based 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 plant list 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 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.

OWNER: BASSELLS, INCORPORATED, 670 ALFRED S. BASSLER, 4994 SHEPPARD LANE, ELICOTT CITY, MARYLAND 21042, (410) 531-2193
 DEVELOPER: HERITAGE LAND DEVELOPMENT, 15950 NORTH AVE., USRBON, MARYLAND 21785, (410) 489-7900

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET. THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

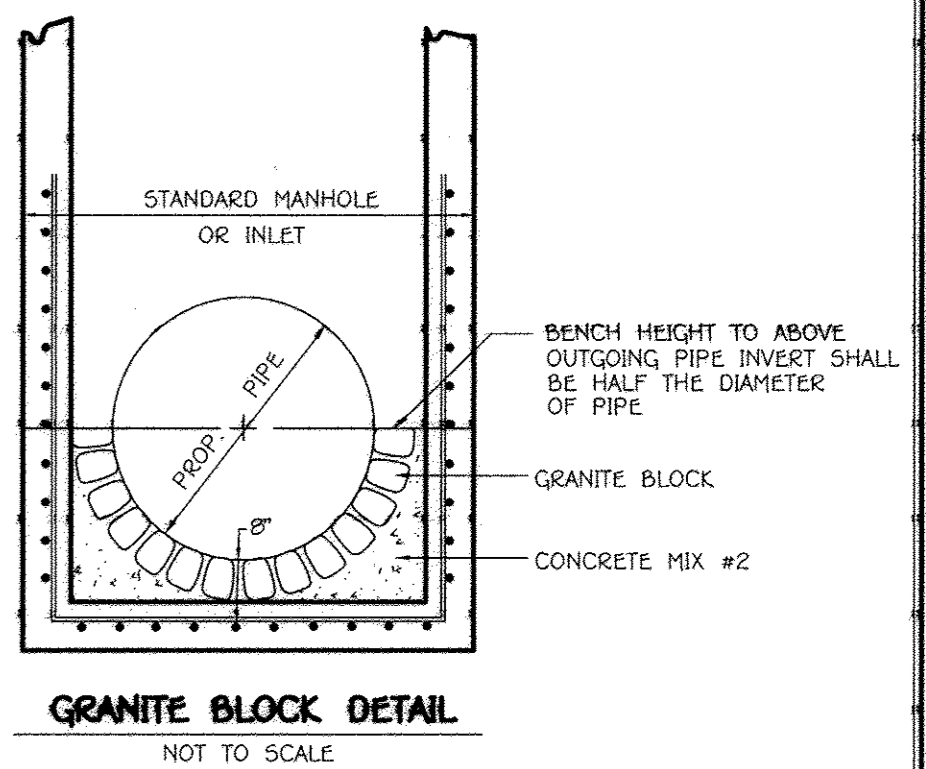
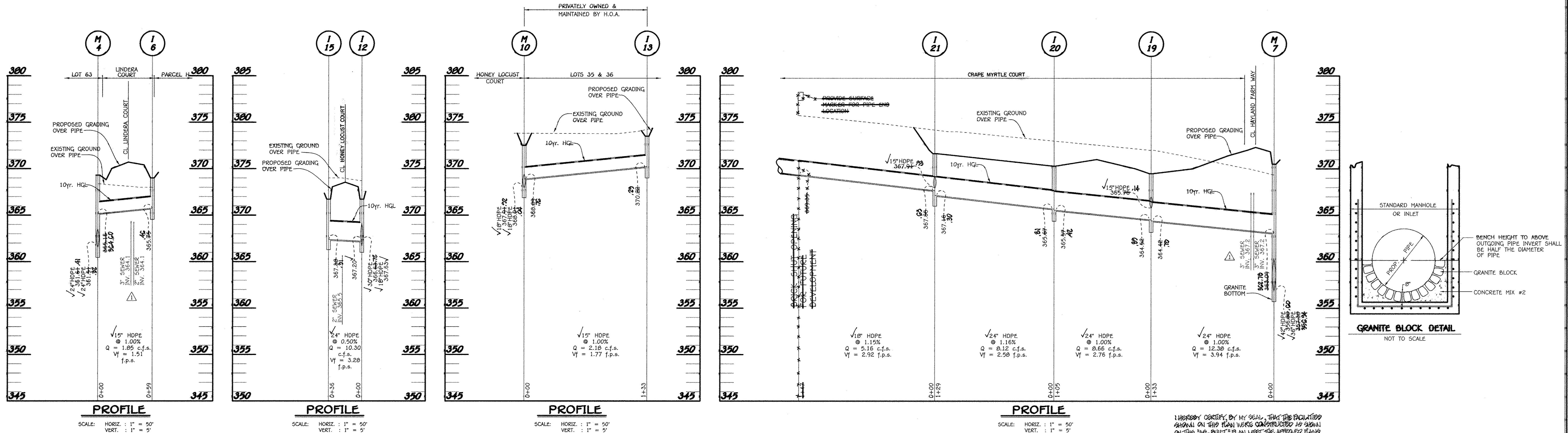
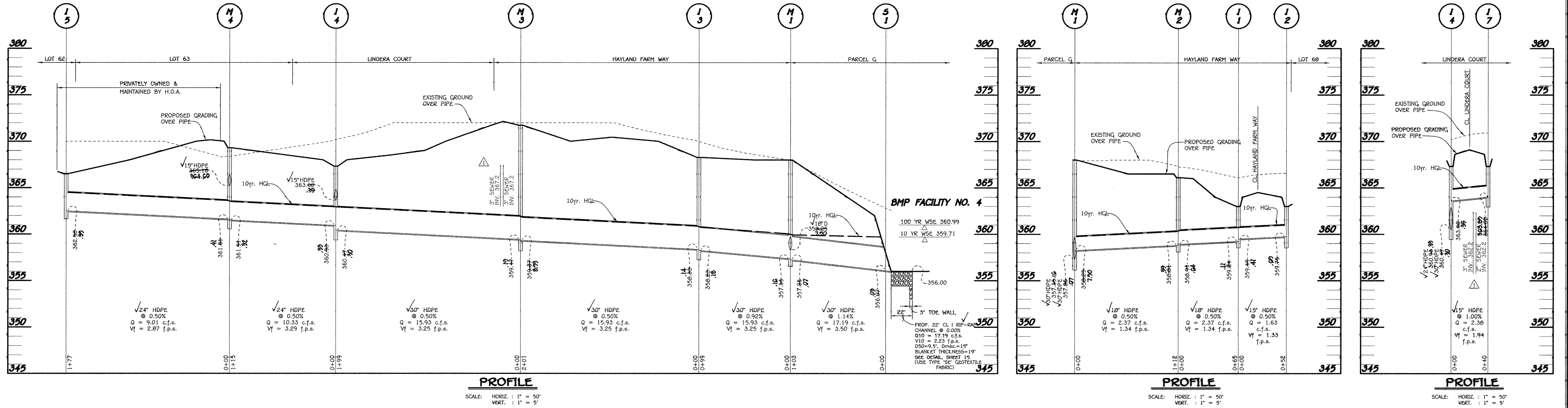
PLAN SCALE 1" = 100'



TREE PLANTING DETAIL

REVISED LANDSCAPE PLAN
 WALNUT CREEK
 PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' and 'M' & Buildable Bulk Parcels 'H' and 'N'
 (Being A Consolidation of Buildable Bulk Parcels 'I' & 'L' And A Division to Non-Buildable Preservation Parcels 'C' - 'M' and 'N', File No. 2003) Thu 20047
 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: SEPTEMBER, 2008
 SHEET 12 OF 32

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET F-08-081



I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN MEET THE APPROVED STANDARDS AND SPECIFICATIONS.
CHARLES J. ORLANDO, PE NO. 19304 AS-BUILT 9/16/16

APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Schurz Acting 11/29/12
CHIEF, BUREAU OF HIGHWAYS DATE

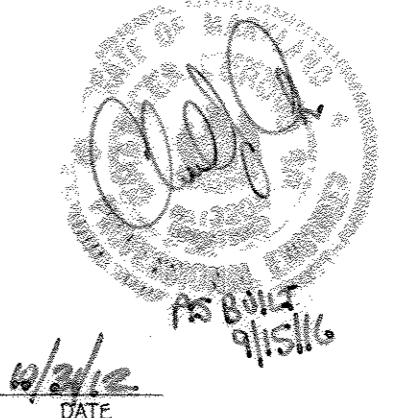
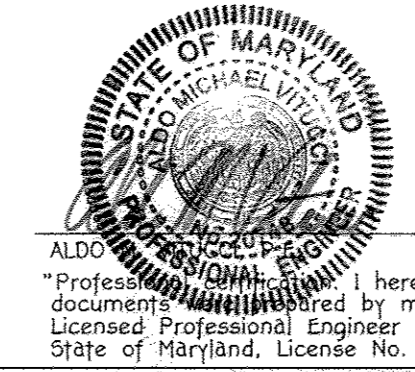
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kurt St. Louis 12/05/12
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

William D. ... 12/2/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DESCRIPTION	DATE
2	AS-BUILT	9/16/16
1	REVISE LOW PRESSURE SEWER CROSSINGS & PIPE TYPE	9-25-12

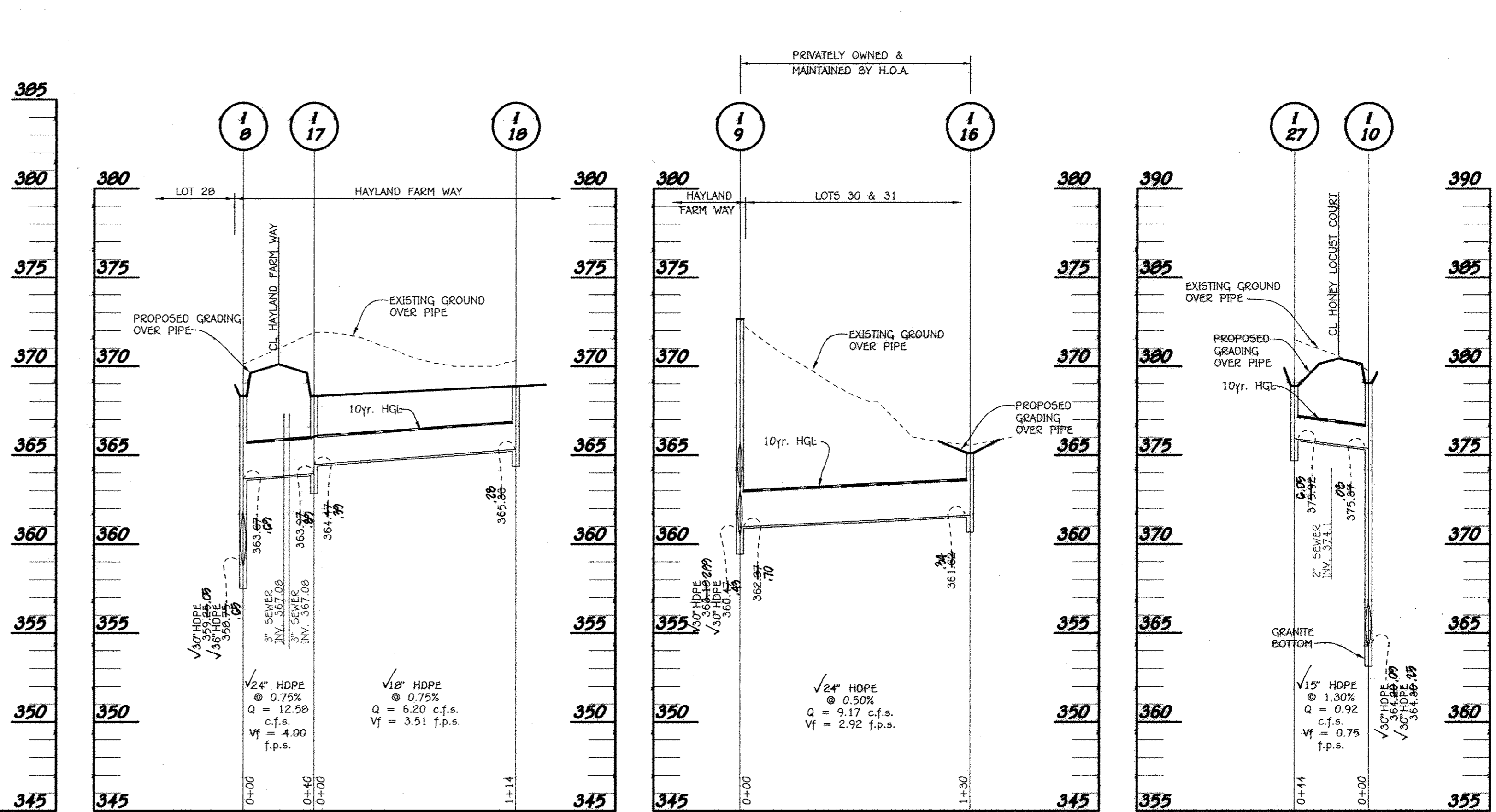
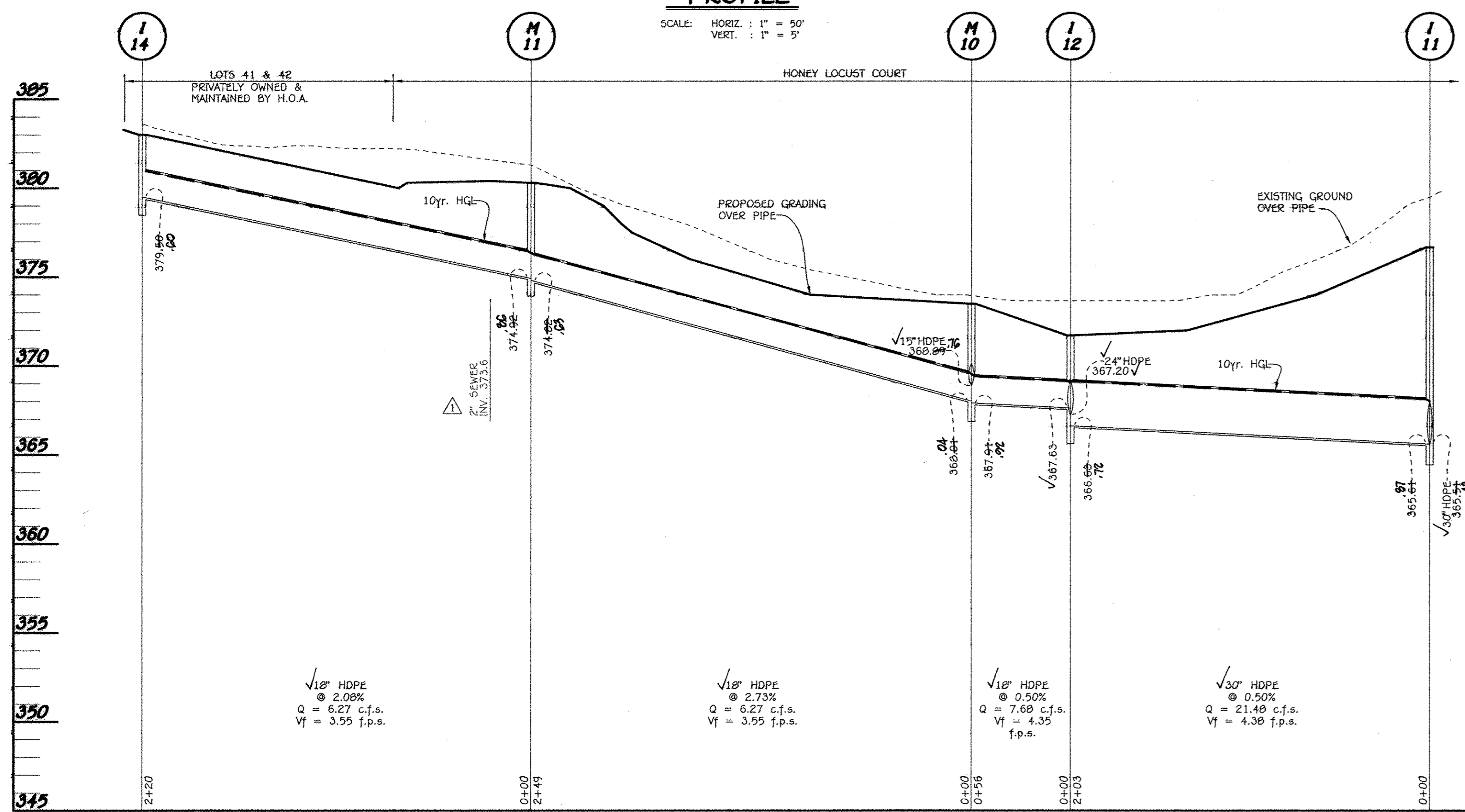
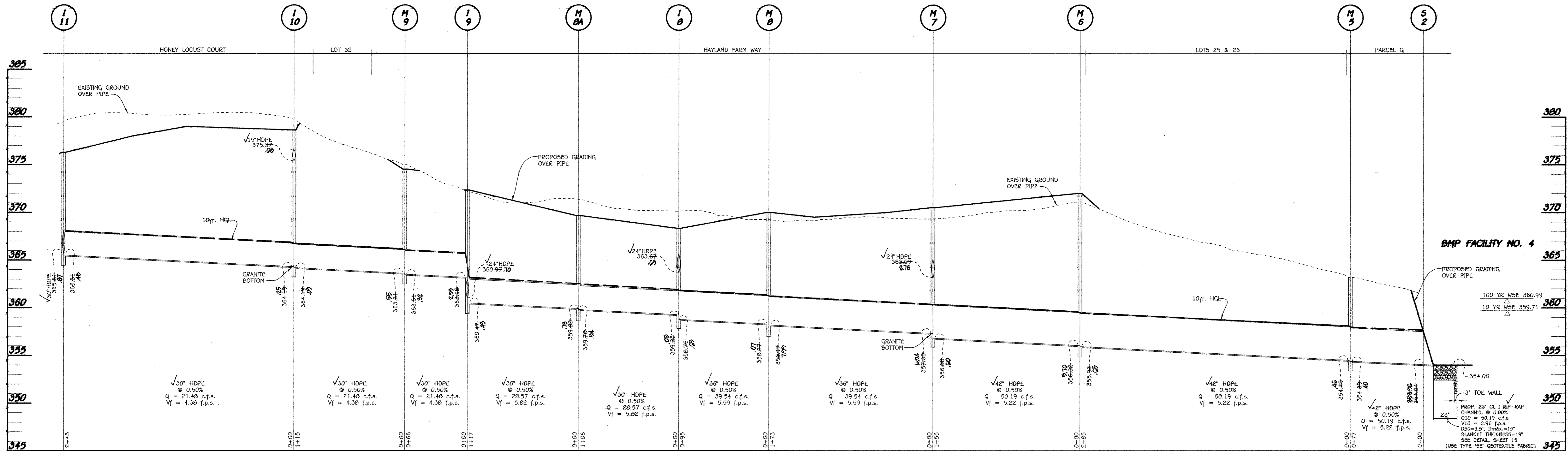
OWNER
BASSLERS, INCORPORATED
19450 NORTH AVE.
LUSKON, MARYLAND 21765

DEVELOPER
HERITAGE LAND DEVELOPMENT
19450 NORTH AVE.
LUSKON, MARYLAND 21765



REVISED
STORM DRAIN PROFILES
WALNUT CREEK
PHASE TWO

Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' and 'M' & Buildable Bulk Parcels 'H' and 'N'
(Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'I' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No's 20647 Thru 20649)
ZONED: RC-DEO & RR-DEO
TAX MAP No. 28 QRD Nos. 4, 5, 10-12, 17, and 18 PARCEL No. 49
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: SEPTEMBER, 2008
SHEET 13 OF 32



APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Ashby, Acting 11/29/12
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Keith Sheehan 12/05/12
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/10/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DESCRIPTION	DATE
1	AS-BUILT	9/19/12
2	REVISE LOW PRESSURE SEWER CROSSINGS & PIPE TYPE	9-25-12

OWNER
BASSLER, INCORPORATED
c/o ALFRED S. BASSLER
4994 SHEPPARD LANE
ELLCOTT CITY, MARYLAND 21042

DEVELOPER
HERITAGE LAND DEVELOPMENT
19950 NORTH AVE.
LUSKON, MARYLAND 21765

I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN NEXT THE APPROVED PLANS AND SPECIFICATIONS.
CHARLES J. ORLAND, PE, NO. 13204 AS-BUILT 9/19/12

ALFRED S. BASSLER, PE, NO. 20748, EXPIRES 2-22-13

REVISED
STORM DRAIN PROFILES
WALNUT CREEK
PHASE TWO

Lots 23 - 60, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'

(Being A Re-division Of Buildable Bulk Parcels 'I', 'J', 'K' And 'L' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, PIP No. 2063, Tru 2047)

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: SEPTEMBER, 2008
SHEET 14 OF 32

STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	LOCATION	ROAD STA./COORDINATE	OFFSET	TYPE AND WIDTH	REMARKS
I-1	* 362.09 17	359.44 (15")	359.44 (18")	HAYLAND FARM WAY	1+55.00 42	2.14± RT	√'0' INLET - 2.5'	D - 4.10
I-2	* 361.90 2.09	359.44 (15")	359.44 (18")	HAYLAND FARM WAY	1+56.00 4.14	2.09± LT	√'0' INLET - 2.5'	D - 4.10
I-3	* 366.00 0.10	358.50 (30")	358.50 (30")	HAYLAND FARM WAY	4+14.00 9.30	19.2± RT	√'0' INLET - 3.5'	D - 4.10
I-4	* 367.00 0.71	363.00 (15")	360.00 (24")	LINDERA COURT	1+90.00 1.01	2.09± RT	√'0' INLET - 3.5'	D - 4.10
I-5	* 366.00 0.00	-	362.00 (24")	LOT 62	N 572.00 40.00 E 1.308.30 48.00	-	√'0' INLET (PRIVATE)-2.5'	D - 4.10
I-6	* 369.00 1.00	-	365.00 (15")	LINDERA COURT	3+30.00 6.00	2.17± LT	√'0' INLET - 2.5'	D - 4.10
I-7	* 367.00 0.44	-	363.00 (15")	LINDERA COURT	1+90.00 1.01	19.06± LT	√'0' INLET - 2.5'	D - 4.10
I-8	* 368.00 0.71	363.00 (24")	359.44 (30")	HAYLAND FARM WAY	13+36.00 17.01	18.1± RT	√'0' INLET - 4.0'	D - 4.10
I-9	* 372.00 0.71	360.00 (24")	360.00 (30")	HAYLAND FARM WAY	15+49.00 9.41	18.3± RT	√'0' INLET - 3.5'	D - 4.10
I-10	* 379.00 0.62	375.00 (15")	364.00 (30")	HONEY LOCUST COURT	0+47.00 12	16.09± RT	√'0' INLET - 3.5'	D - 4.10
I-11	* 374.00 1.95	365.00 (30")	365.00 (30")	HONEY LOCUST COURT	2+90.00 7.00	17.06± RT	√'0' INLET - 3.5'	D - 4.10
I-12	* 374.00 2.91	367.00 (24")	367.00 (18")	HONEY LOCUST COURT	4+94.00 9.30	17.06± RT	√'0' INLET - 3.5'	D - 4.10
I-13	* 378.00 4.36	-	370.00 (15")	LOTS 35 & 36	N 572.817 0.00 E 1.302.075 44.01	-	√'0' INLET (PRIVATE)-2.5'	D - 4.10
I-14	* 383.00 0.31	-	379.00 (18")	LOTS 41 & 42	N 572.718 0.00 E 1.308.515 48.01	-	√'0' INLET (PRIVATE)-2.5'	D - 4.10
I-15	* 374.00 2.42	-	367.00 (24")	HONEY LOCUST COURT	4+94.00 9.30	17.1± LT	√'0' INLET - 2.5'	D - 4.10
I-16	* 365.00 0.71	361.00 (24")	361.00 (24")	LOTS 30 & 31	N 572.400 0.00 E 1.307.809 48.01	-	√'0' INLET (PRIVATE)-2.5'	D - 4.10
I-17	* 368.00 0.71	364.00 (18")	363.00 (24")	HAYLAND FARM WAY	13+36.11	18.0± LT	√'0' INLET - 2.5'	D - 4.10
I-18	* 366.00 0.71	364.00 (24")	364.00 (18")	HAYLAND FARM WAY	12+25.00 4.00	18.0± LT	√'0' INLET - 2.5'	D - 4.10
I-19	* 369.00 0.71	364.00 (24")	364.00 (15")	GRAPE MYRTLE COURT	1+15.00 0.30	18.0± RT	√'0' INLET - 2.5'	D - 4.10
I-20	* 370.00 0.71	365.00 (24")	365.00 (24")	GRAPE MYRTLE COURT	2+26.00 0.30	18.0± RT	√'0' INLET - 2.5'	D - 4.10
I-21	* 374.00 2.07	367.00 (15")	367.00 (18")	GRAPE MYRTLE COURT	3+60.00 0.70	18.0± RT	√'0' INLET - 2.5'	D - 4.10
I-25	* 371.00 0.30	368.00 (15")	368.00 (15")	GRAPE MYRTLE COURT	3+60.00 1.00	18.0± LT	√'0' INLET - 2.5'	D - 4.10
I-26	* 369.00 0.71	-	366.00 (15")	GRAPE MYRTLE COURT	1+15.00 0.30	18.0± LT	√'0' INLET - 2.5'	D - 4.10
I-27	* 374.00 0.65	-	370.00 (15")	HONEY LOCUST COURT	0+32.00 0.20	18.0± LT	√'0' INLET - 2.5'	D - 4.10
I-28	* 378.00 0.87	-	374.00 (24")	HAYLAND FARM WAY	22+64.00 4.40	19.0± RT	√'0' INLET - 2.5'	D - 4.10
I-29	* 378.00 0.99	374.00 (36")	374.00 (48")	HAYLAND FARM WAY	22+64.00 4.40	19.0± LT	√'0' INLET - 5.0'	D - 4.10
I-30	* 379.00 0.94	372.00 (36")	372.00 (36")	HAYLAND FARM WAY	24+02.00 2.00	18.0± LT	√'0' INLET - 3.5'	D - 4.10
M-1	368.00 0.30	357.00 (30")	357.00 (18")	HAYLAND FARM WAY	3+21.00 4.40	2.00 RT	√'5' DIA. MANHOLE	G - 5.13
M-2	368.00 0.30	358.00 (18")	358.00 (18")	HAYLAND FARM WAY	2+16.00 3.40	2.00 RT	√'4' DIA. MANHOLE	G - 5.12
M-3	371.00 0.90	359.00 (30")	359.00 (30")	HAYLAND FARM WAY	6+25.00 7.07	1.50 RT	√'5' DIA. MANHOLE	G - 5.13
M-4	369.00 0.70	365.00 (15")	361.00 (24")	LINDERA COURT	3+08.00 1.00	20.0± RT	√'4' DIA. MANHOLE	G - 5.12
M-5	368.00 0.70	354.00 (42")	354.00 (42")	FACILITY NO. 4	N 572.604 0.00 E 1.308.154 0.00	-	√'6' DIA. MANHOLE	G - 5.13
M-6	372.00 0.30	358.00 (42")	358.00 (42")	HAYLAND FARM WAY	9+06.00 0.00	18.0± RT	√'6' DIA. MANHOLE	G - 5.13
M-7	370.00 0.60	368.00 (24")	368.00 (36")	HAYLAND FARM WAY	10+61.00 0.00	18.0± RT	√'6' DIA. MANHOLE	G - 5.13
M-8	370.00 0.60	368.00 (36")	368.00 (36")	HAYLAND FARM WAY	12+37.00 0.00	18.0± RT	√'5' DIA. MANHOLE	G - 5.13
M-8A	370.00 0.60	368.00 (30")	368.00 (30")	HAYLAND FARM WAY	14+37.00 0.00	18.0± RT	√'5' DIA. MANHOLE	G - 5.13
M-9	374.00 0.60	363.00 (30")	363.00 (30")	HAYLAND FARM WAY	16+11.00 4.14	20.0± RT	√'5' DIA. MANHOLE	G - 5.13
M-10	373.00 0.60	360.00 (18")	360.00 (15")	HONEY LOCUST COURT	5+47.00 0.00	1.25 RT	√'4' DIA. MANHOLE	G - 5.12
M-11	380.00 0.45	374.00 (18")	374.00 (18")	HONEY LOCUST COURT	7+92.00 0.00	17.0± RT	√'4' DIA. MANHOLE	G - 5.12
M-12	376.00 0.30	369.00 (48")	369.00 (48")	FACILITY NO. 3	N 571.718 0.00 E 1.306.511 0.00	-	√'6' DIA. MANHOLE	G - 5.13
M-13	369.00 0.24	365.00 (8")	365.00 (8")	FACILITY NO. 3	N 571.718 0.00 E 1.306.511 0.00	-	√SHALLOW MANHOLE	G - 5.12
S-1	-	-	356.00 (30")	FACILITY NO. 4	**	**	30° FLARED END SECTION	***
S-2	-	-	356.00 (42")	FACILITY NO. 4	**	**	42° FLARED END SECTION	***
S-5	-	-	369.00 (48")	FACILITY NO. 3	**	**	48° FLARED END SECTION	***
HW-1	370.00 0.40	-	368.00 (24")	FACILITY NO. 3	N 571.800 0.00 E 1.328.25 0.00	-	24" TYPE 'A' HEADWALL	D - 5.11
HW-2	367.00 0.70	-	353.00 (30")	FACILITY NO. 4	N 572.000 0.00 E 1.328.000 0.00	-	30" TYPE 'A' HEADWALL	D - 5.11
R-1	373.00 0.55	369.00 (3.5" ORFICE)	368.00 (24")	FACILITY NO. 3	N 572.223 0.00 E 1.328.224 0.00	-	√ CONC. RISER	SEE SHEET 23
R-2	361.00 0.80	353.00 (12")	353.00 (30")	FACILITY NO. 4	N 572.000 0.00 E 1.328.000 0.00	-	√ CONC. RISER	SEE SHEET 25

* - DENOTES THROAT ELEVATION AS BUILT FOR BUILDING FOUNDATION FOR THE "D" INDICATES TOP OF FLAG (PRIVATE) - DENOTES OWNED AND MAINTAINED BY H.O.A.
** - DENOTES LOCATION OF END OF PIPE/BEGINNING OF END SECTION
*** - ADS FLARED END SECTION OR EQUAL

PIPE SCHEDULE (PUBLIC)

SIZE	CLASS	LENGTH
15"	HOPE	275'
18"	HOPE	821'
24"	HOPE	598'
30"	HOPE	1453'
36"	HOPE	541'
42"	HOPE	517'
48"	HOPE	337'
8"	D.P. POND DRAIN	71'
8"	H.O.P.E. POND DRAIN	180'
12"	D.P. POND DRAIN	3'

NOTE: HOPE MAY BE SUBSTITUTED WITH RCCP PIPE MATERIAL.

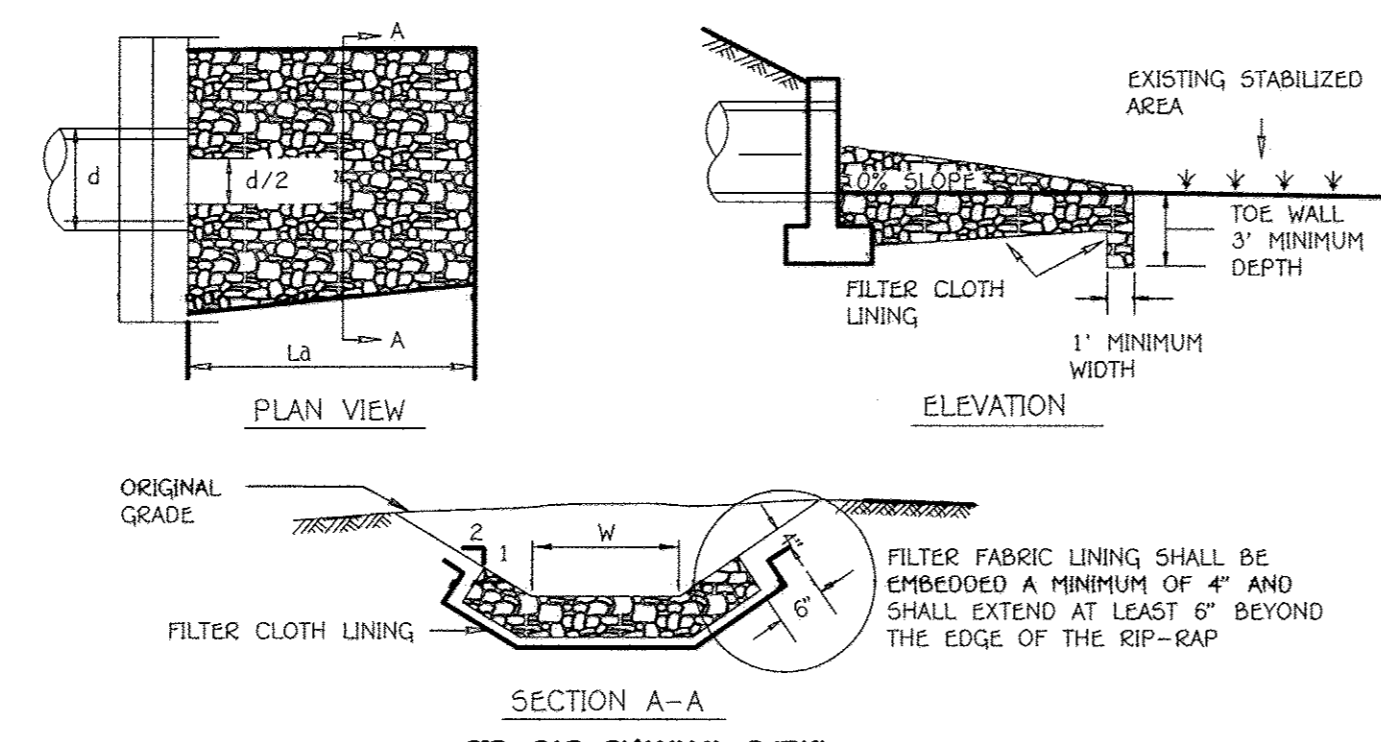
PIPE SCHEDULE (PRIVATE)

SIZE	CLASS	LENGTH
15"	HOPE	133'
18"	HOPE	142'
24"	HOPE	307'

NOTE: HOPE MAY BE SUBSTITUTED WITH RCCP PIPE MATERIAL.

CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

- The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
- Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
- Stone for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogeneous with the smaller stones and spoils filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.



RIP-RAP CHANNEL DESIGN DATA

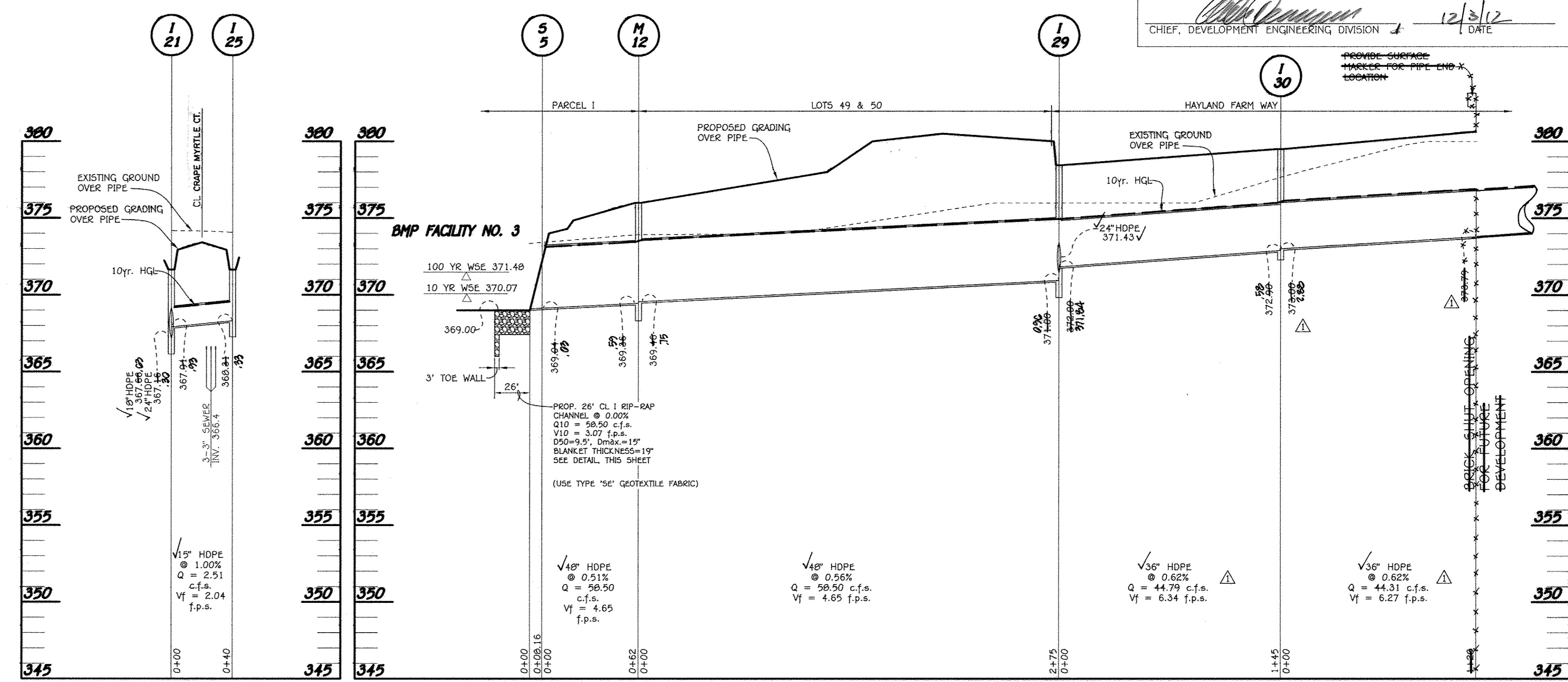
STRUCTURE	AREA (S.F.)	WETTED PERIMETER	R	S	S 1/2	S	W	d	n	V (f.p.s.)	Q 100 (c.f.s.)	Q 50 (c.f.s.)	BLANKET THICKNESS	PIPE SIZE	L _a
S-1	7.69	9.81	0.7839	0.8502	0.005	0.0707	5.0'	1.08	0.04	2.23	17.19	9.57	19"	30"	22'
S-2	16.94	14.14	1.1980	1.1280	0.005	0.0707	6.5'	1.71	0.04	2.96	50.19	9.57	19"	42"	23'
S-5	19.03	15.03	1.2611	1.1704	0.005	0.0707	7.0'	1.80	0.04	3.07	58.50	9.57	19"	48"	26'
HW-1	11.98	13.19	0.9083	0.9378	0.005	0.0707	8.0'	1.16	0.04	2.46	29.50	9.57	19"	24" @ POND #3	20'
HW-2	21.73	16.54	1.3138	1.1996	0.005	0.0707	8.5'	1.80	0.04	3.15	68.50	9.57	19"	30" @ POND #4	28'

* DENOTES 100 YEAR Q USED FOR DESIGN

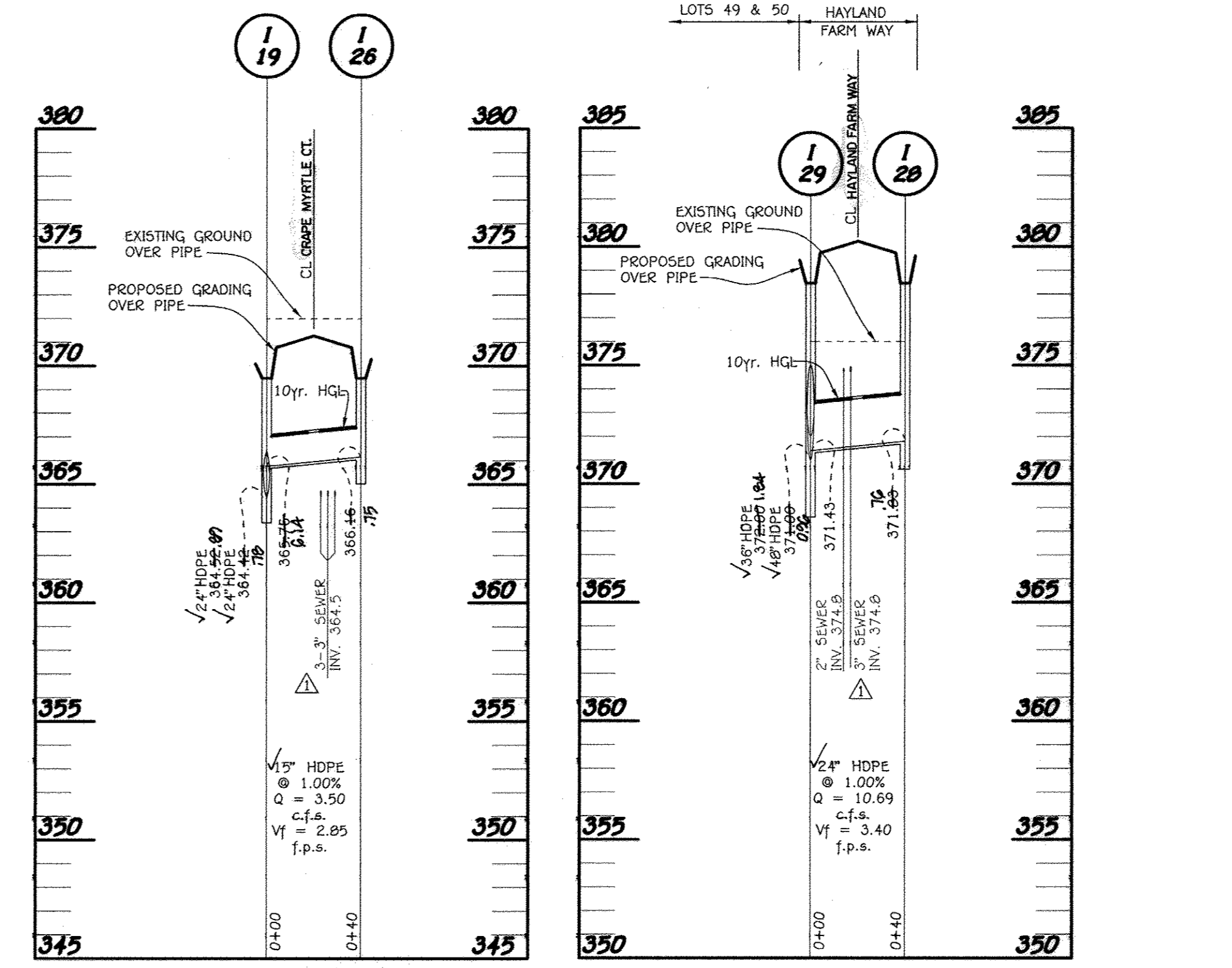
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL FRIE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2000

NO.	DESCRIPTION	DATE
1	AS-BUILT	01/15/16
2	Changed pipe slope from I-29 to stub, low pressure sewer crossings and pipe material & Road Names	9-25-12

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: 11/23/12
 DATE: 12/05/12
 DATE: 12/31/12



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



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

I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSIDERED AS SHOWN ON THE "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.
 GABRIEL J. DEAN, P.E., REG. NO. 18204 AS-BUILT 9/15/16

AS-BUILT
 9/15/16

REVISED STORM DRAIN PROFILES WALNUT CREEK PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Subdivision of Buildable Bulk Parcels 'T' & 'U' And A Section To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647)
 ZONED: RC-DEO & RR-DEO
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 15 OF 32



OWNER
 BASSLER, INCORPORATED
 c/o ALFRED S. BASSLER
 4994 SHEPARD LANE
 ELLICOTT CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 URBAN, MARYLAND 21785

"Professional Engineer" I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-13.

ENGINEER'S CERTIFICATE
 I hereby certify that this Plan for Erosion and Sediment Control Represents a Professional and Workable Plan Based on My Personal Knowledge and Experience and That It Was Prepared in Accordance With the Standards of Practice of the Professional Engineers of the State of Maryland.

Signature: *[Signature]* Date: **10/16/09**

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.

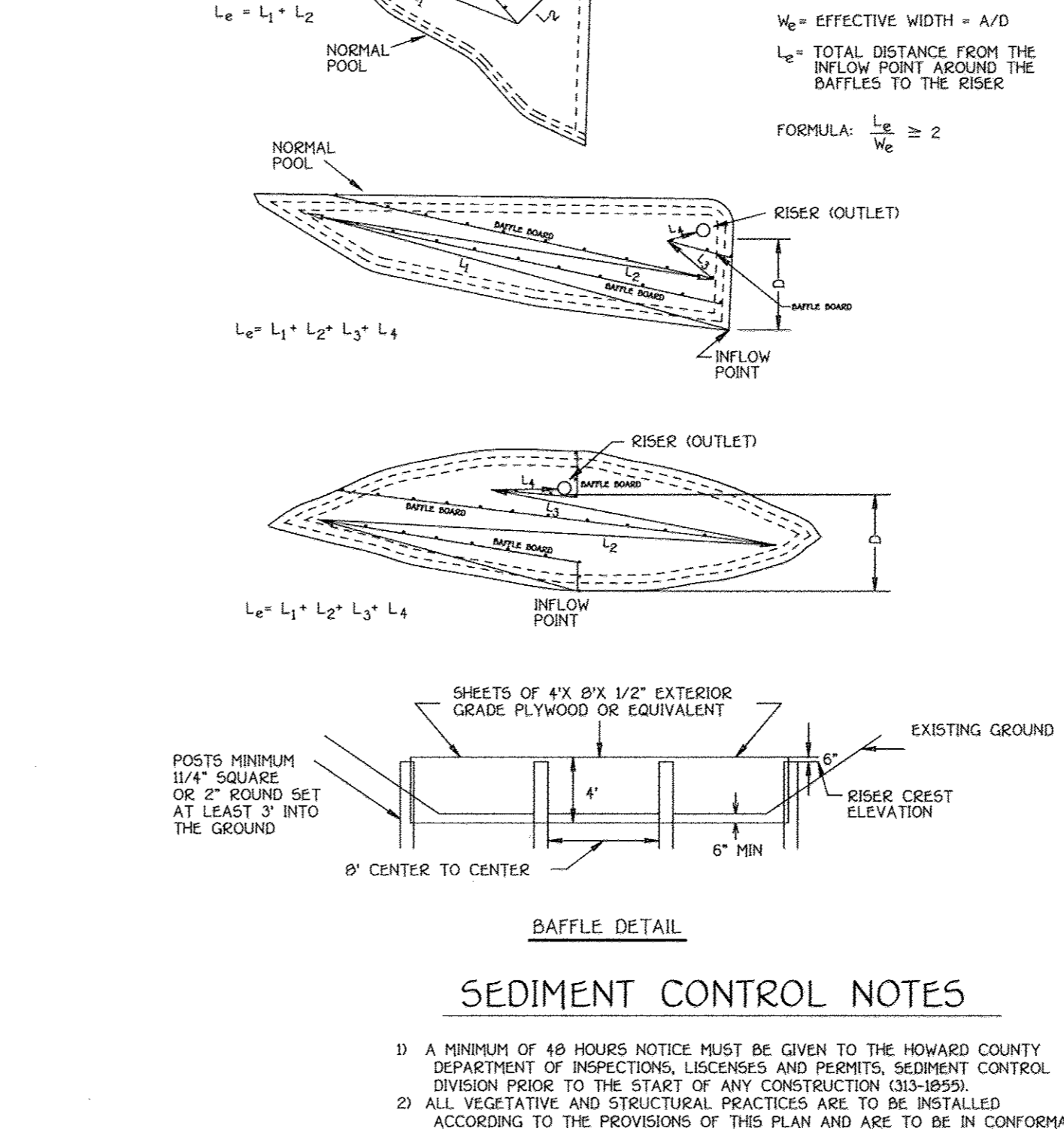
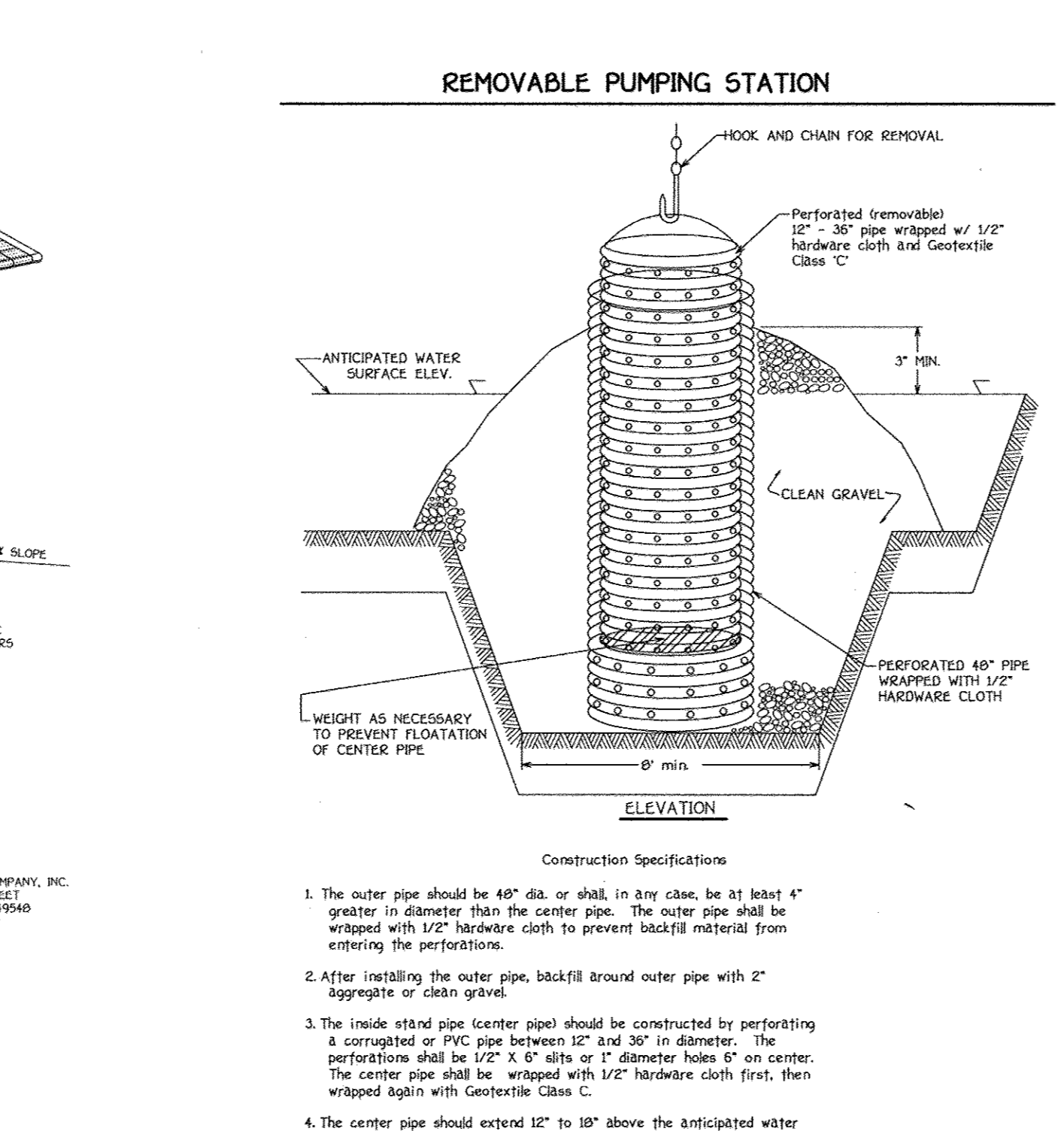
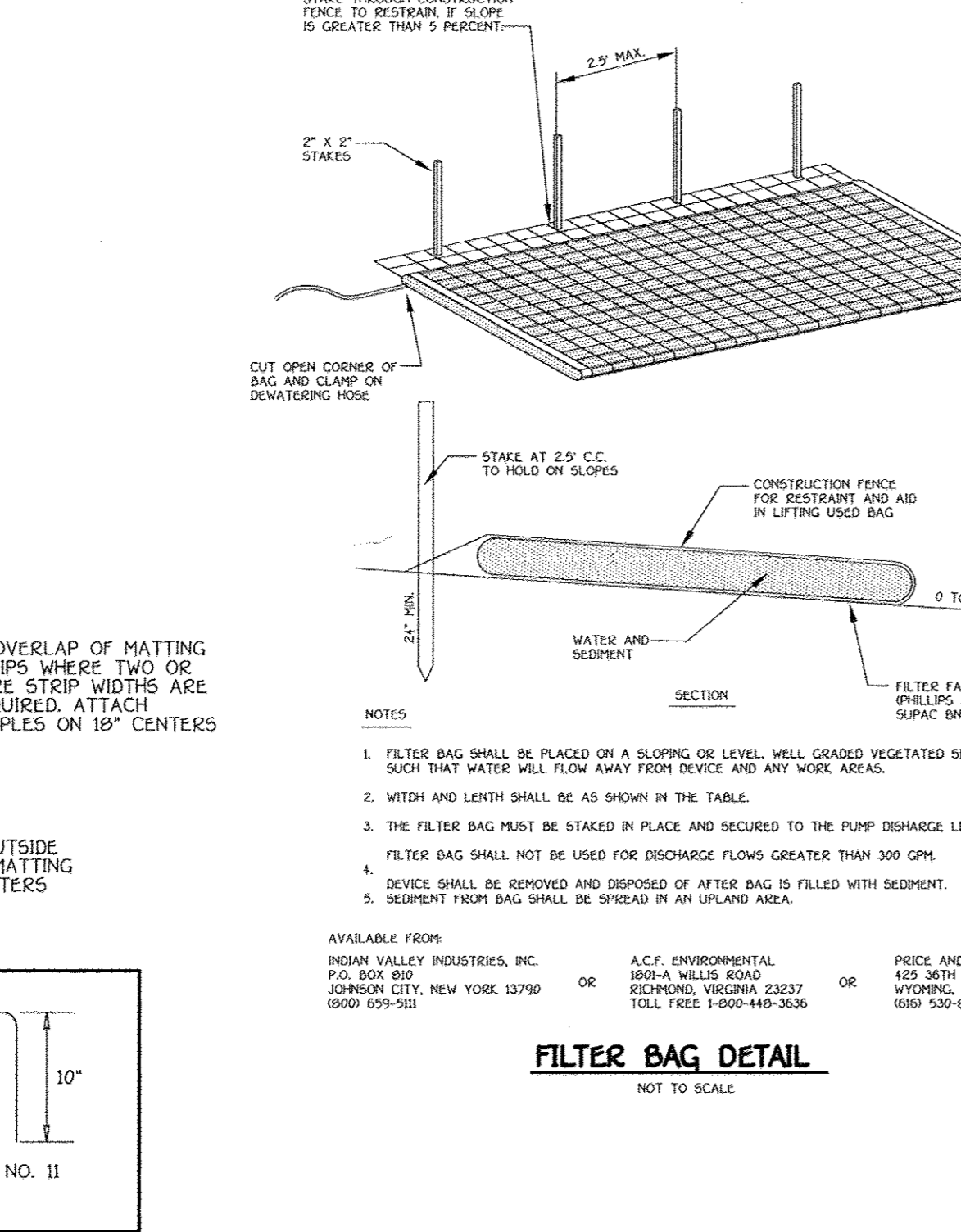
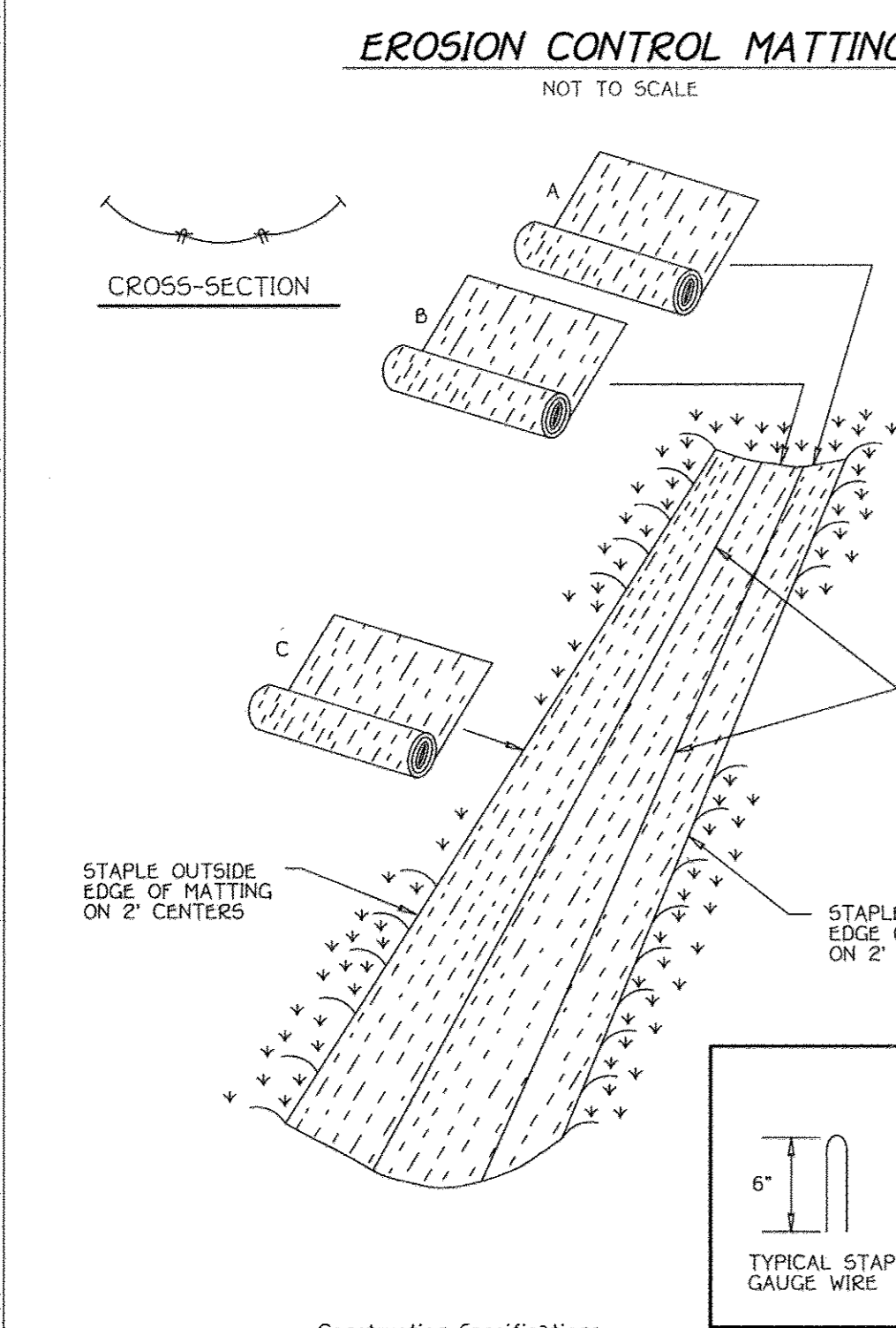
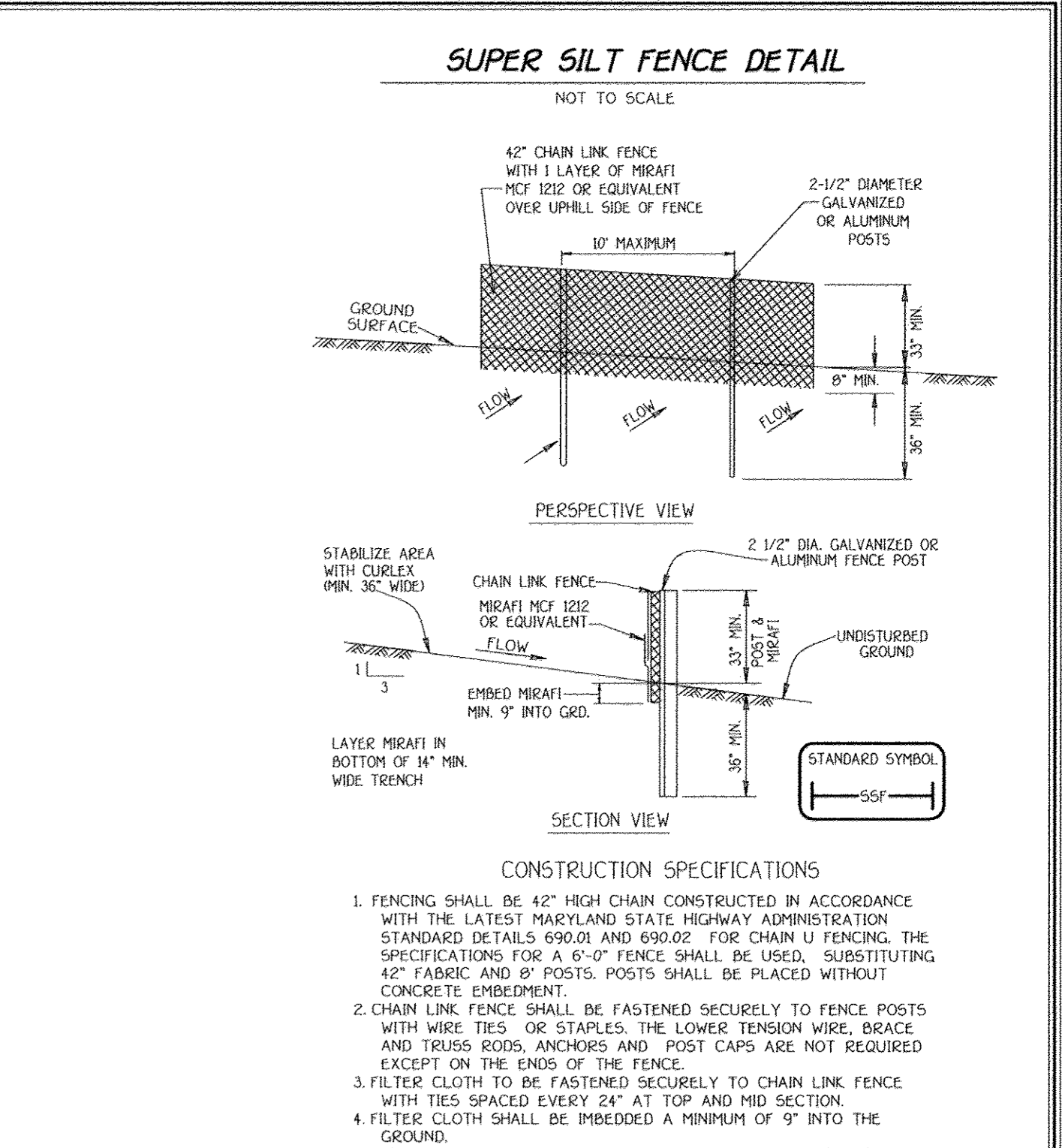
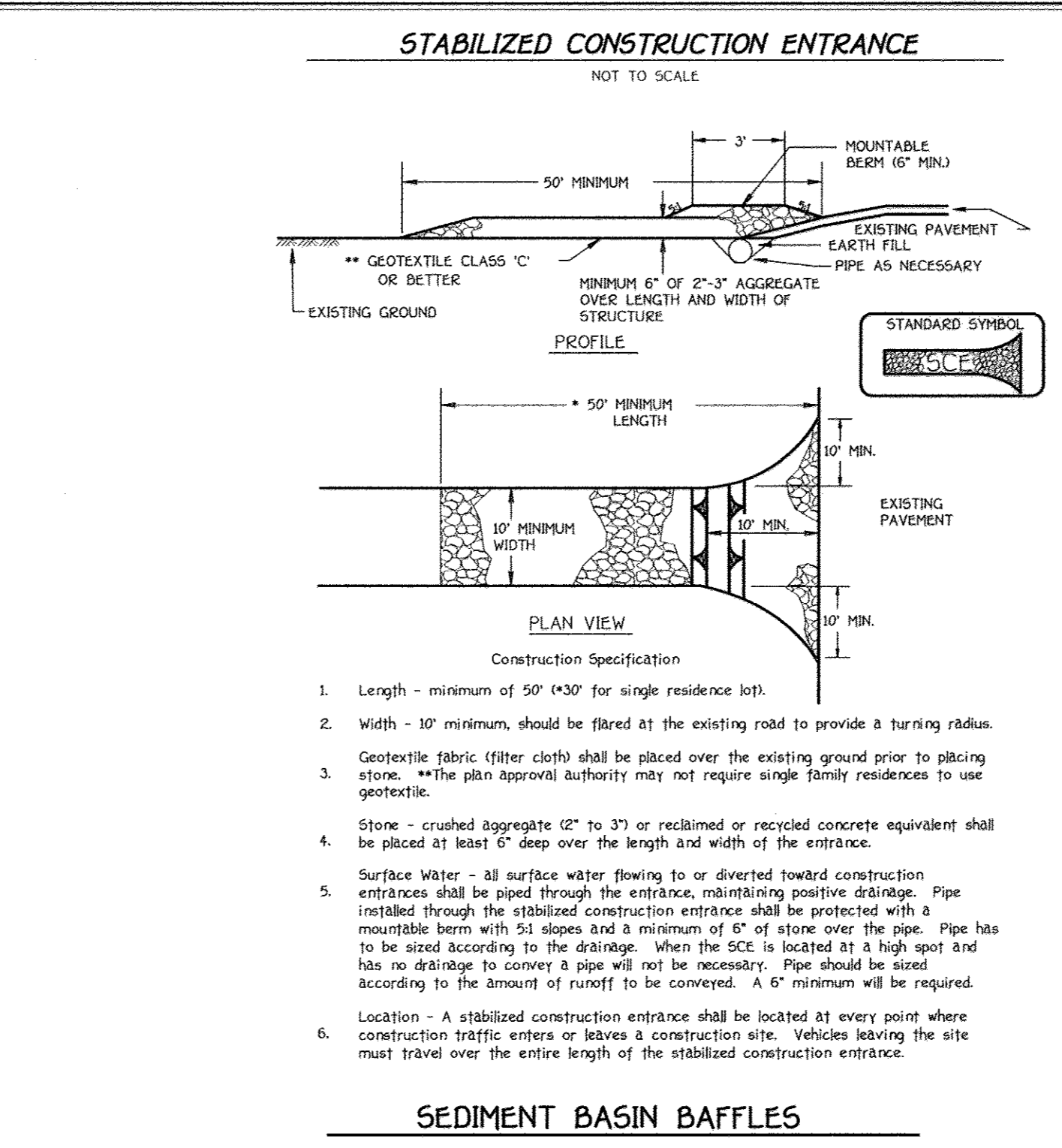
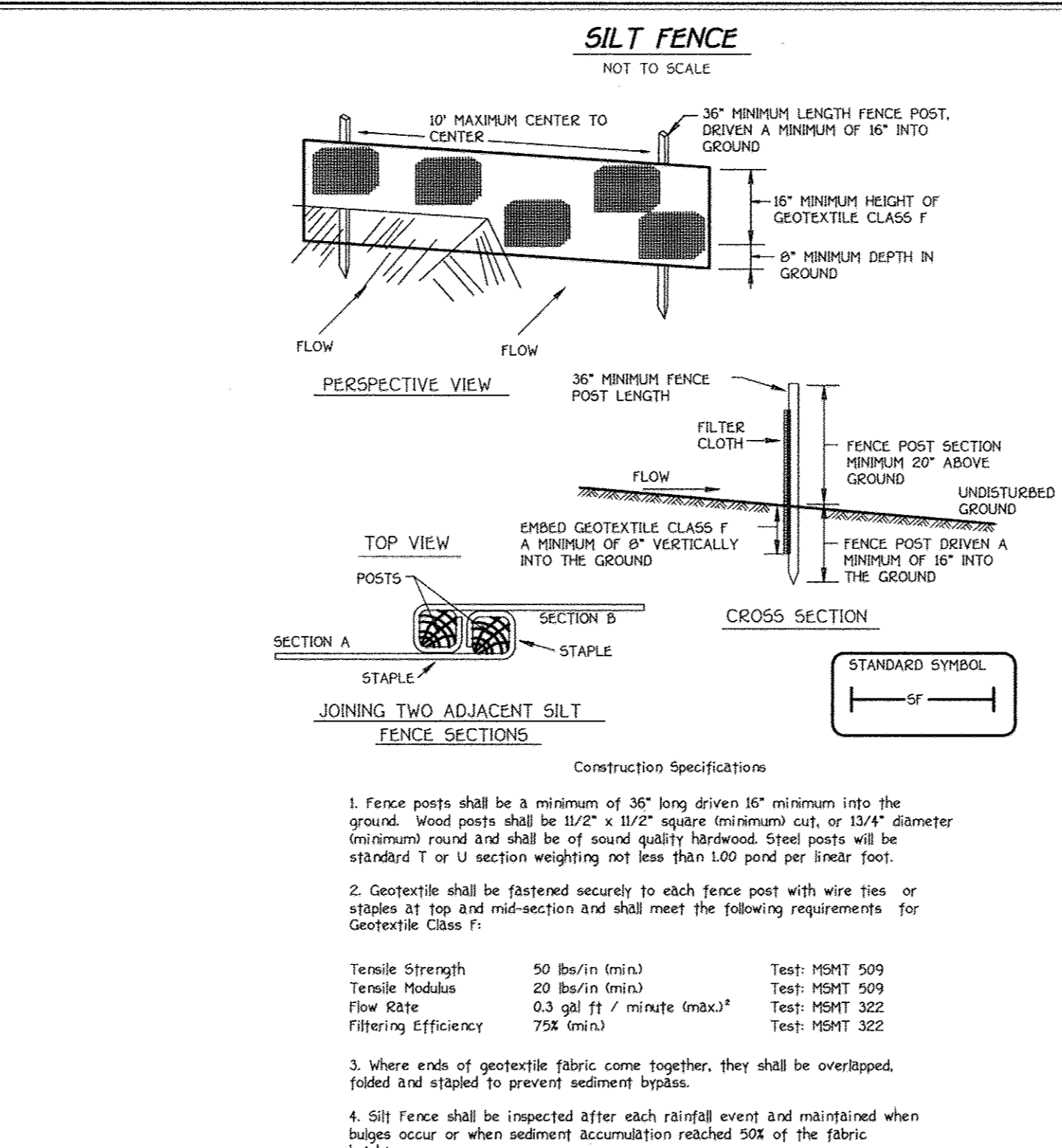
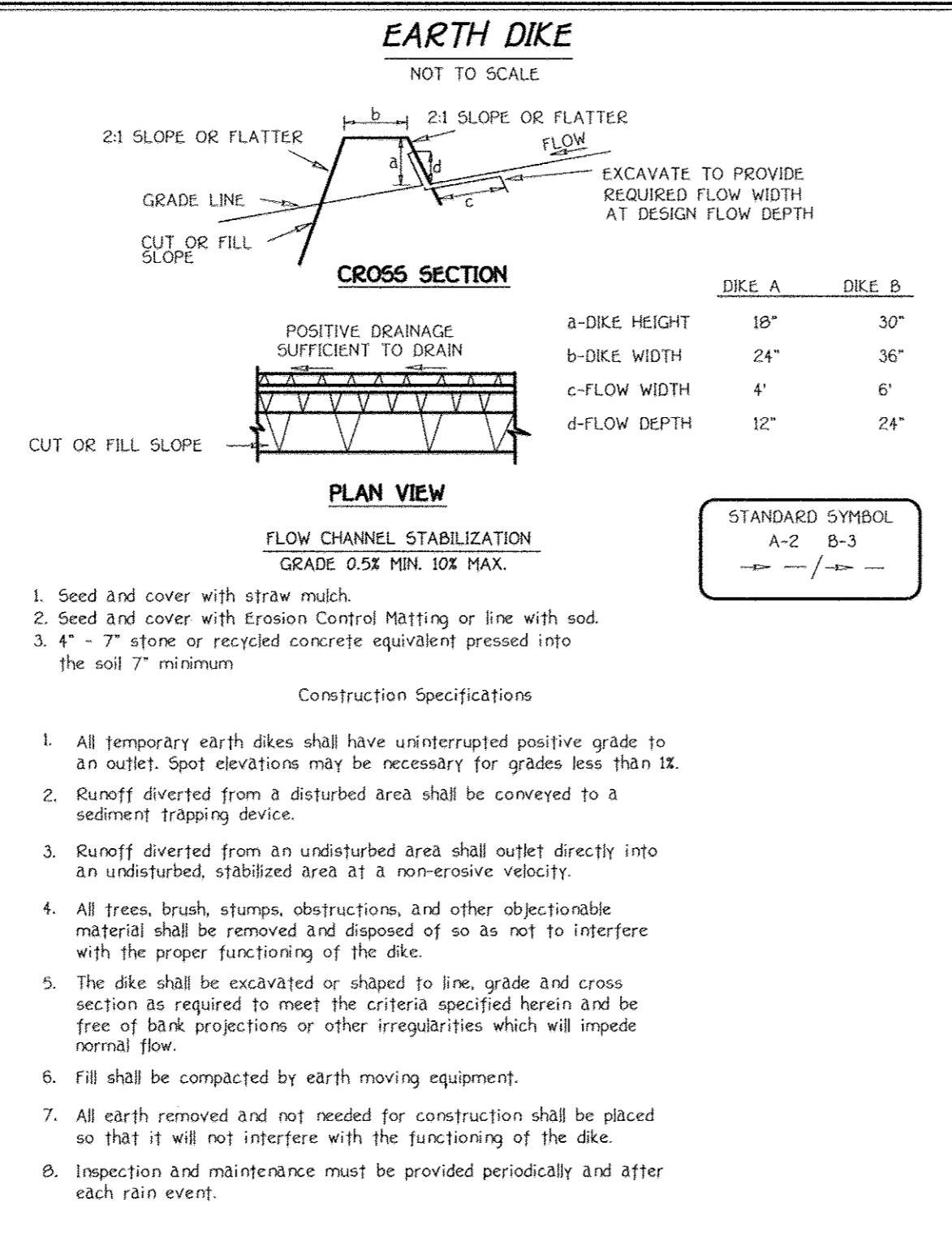
Signature of Developer: *[Signature]* Date: **10/16/09**

Approved: This Development Is Approved For Erosion And Sediment Control By The Howard Soil Conservation District.
 District Howard Soil Conservation District Date: **10/23/09**

Approved: Department Of Planning And Zoning
 Chief, Division Of Land Development Date: **11/3/08**

Chief, Department Engineering Division Date: **10/31/09**

Approved: Howard County Department Of Public Works
 Chief, Bureau Of Highways Date: **10-28-08**



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK • 10272 BALTIMORE NATIONAL FREE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-3900

OWNER
 BASSLESS, INCORPORATED
 c/o ALFRED S. BASSLER
 4094 SHEPARD LANE
 ELLICOTT CITY, MARYLAND 21042
 (410) 583-9951

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19905 NORTH AVE.
 LEBANON, MD 21530
 (410) 483-4000

REVISIONS

NO.	DESCRIPTION	DATE
1	REVISED TITLE BLOCK	9-25-12
	REVISIONS	

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1859).
- 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.
- 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.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOO (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.
- 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.
- SITE ANALYSIS:
 TOTAL AREA OF SITE: 361.26 ACRES
 AREA DISTURBED: 44.27 ACRES
 AREA TO BE ROOFED OR PAVED: 5.16 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 391.11 ACRES
 TOTAL CUT: 33,500 CU.YDS.
 TOTAL FILL: 33,500 CU.YDS.
 OFFSITE WASTE/BOROW AREA LOCATION: N/A CU.YDS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITH ONE WORKING DAY, WHOEVER IS SHORTER.

SEDIMENT CONTROL NOTES AND DETAILS
WALNUT CREEK
PHASE TWO
 Lots 23 - 6B, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Reevaluation Of Buildable Bulk Parcels 'C', 'E' And 'G' Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek Phase One, Plot No. 20031 Rev. 20047)

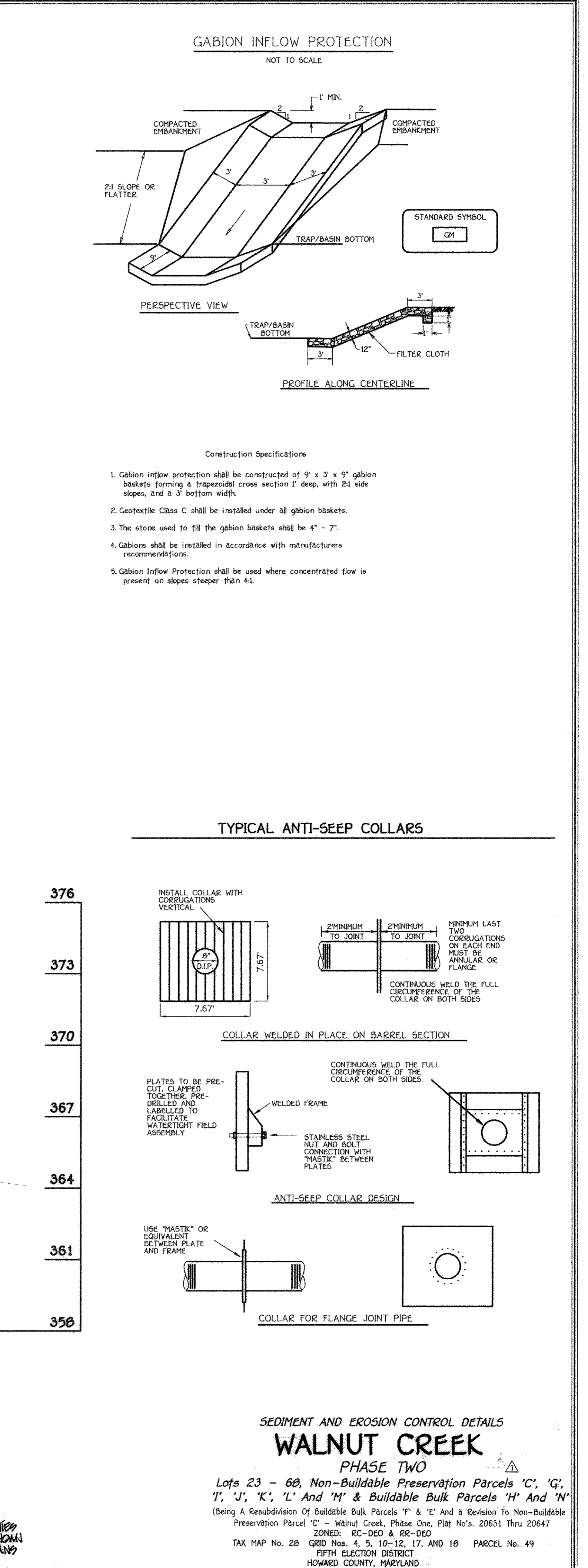
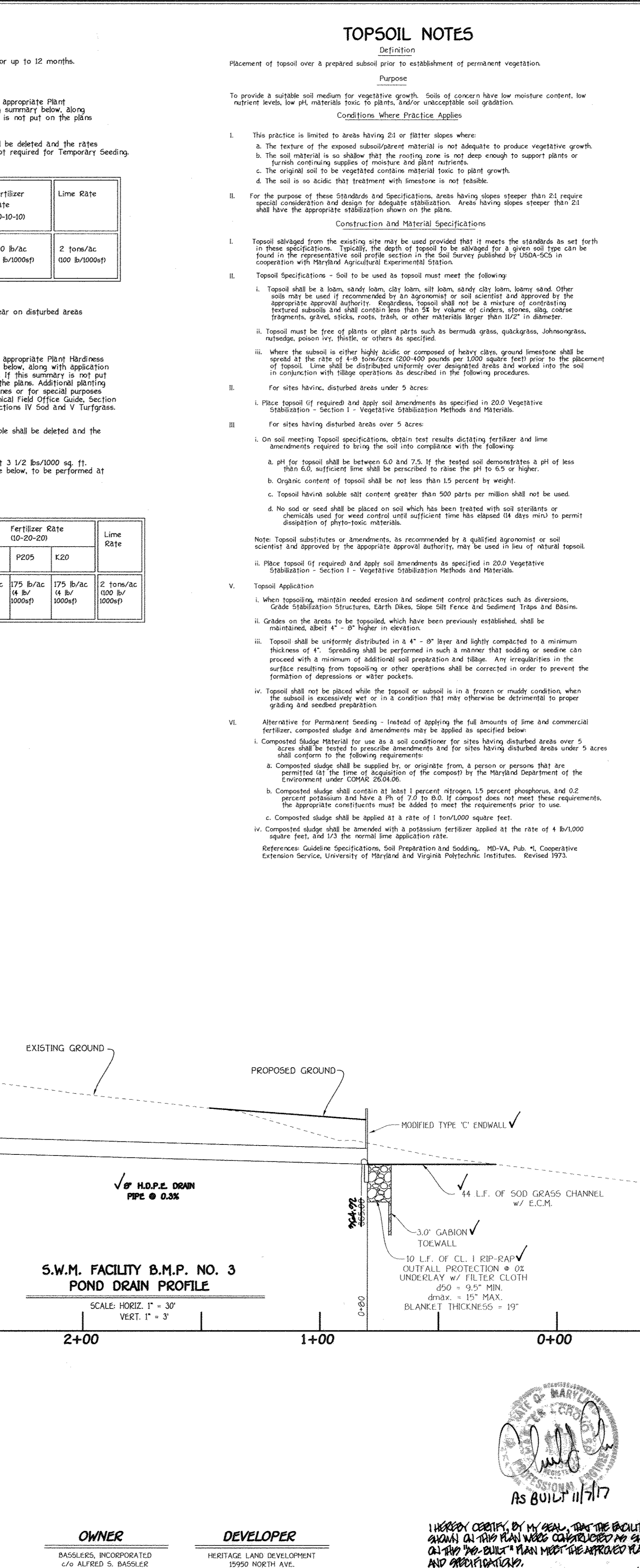
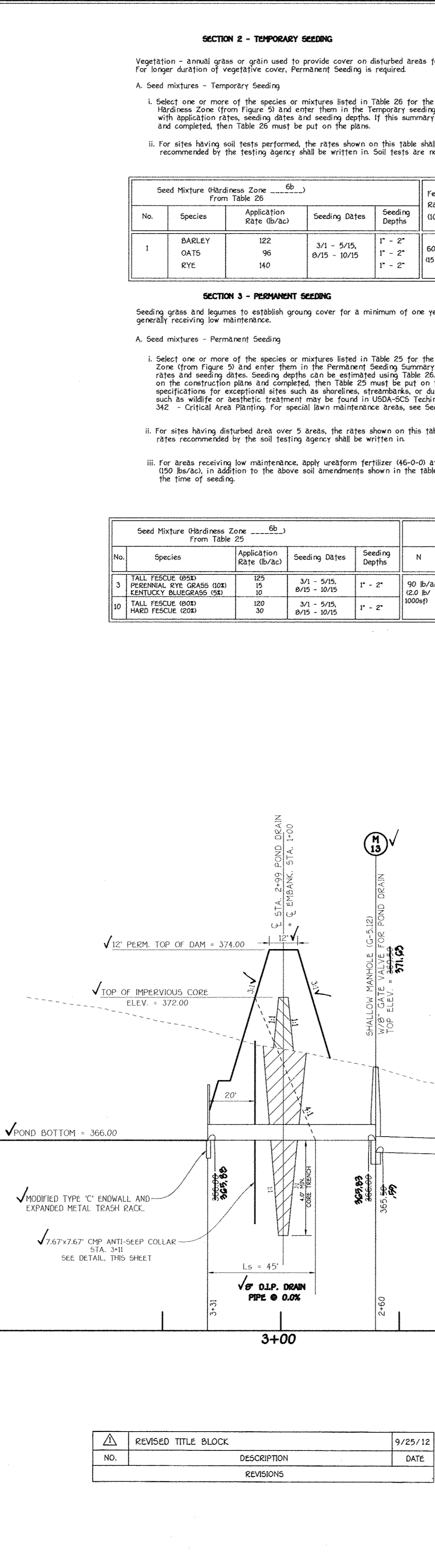
ASBULL
 9/15/16

TAX MAP No. 29 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
 WITH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 16 OF 32

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET

By the Developer: I/We Certify That All Development And/Or Construction Will Be Done According To These Plans...
10/16/09
10/23/09
10/28/09
11/2/09
11/17/09
AS-BUILT CERTIFICATION
I/We Certify That The Facility Shown On This Plan Was Constructed As Shown On The Plans And Meets The Approved Plans And Specifications...
11/30/09
11/17/09
Certify Means To State or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction...
11/30/09
11/17/09
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
232 CENTRAL SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL FIVE
ELLICOTT CITY, MARYLAND 21042
410-409-2929

200 STANDARDS AND SPECIFICATIONS
VEGETATIVE STABILIZATION
DEFINITION
Using vegetation as cover for barren soil to protect it from erosion and to stabilize soil.
PURPOSE
Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil...
CONDITIONS WHERE PRACTICE APPLIES
This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas...
EFFECTS ON WATER QUALITY AND QUANTITY
Planting vegetation in disturbed areas will have an effect on the water budget...
SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS
A. Site Preparation
1. Install erosion and sediment control structures...
2. Perform all grading operations at right angles to the slope...
3. Schedule required soil tests to determine soil amendment composition...
4. Soil Amendments (Fertilizer and Lime Specifications)
5. Soil Tests
6. Line materials shall be ground limestone hydrated or burnt lime...
7. Apply fertilizer and lime to the top 3-5" of soil...
8. Seeded Preparation
9. Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment...
10. Seed Specifications
11. Methods of Seeding
12. Mulch Specifications
13. Incremental Stabilization - Cut Slopes
14. Incremental Stabilization of Embankments - Fill Slopes
15. Final Phase Excavation, Dress and Stabilize



F-08-081

APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Adams, Acting *12/12/12*
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
W. J. Adams *12/05/12*
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

W. J. Adams *12/11/12*
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

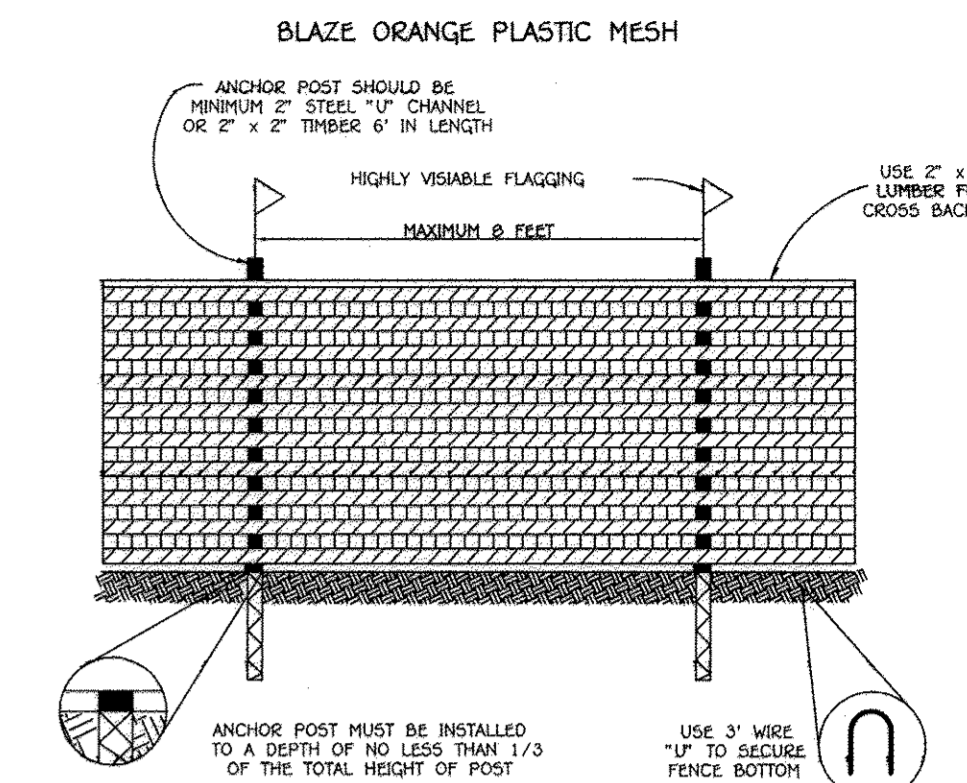
Note: THE FOREST CONSERVATION EASEMENT(S) WILL BE ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING.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

MATCHLINE SEE SHEET 19

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, 48 inch dbh	good condition
D	Tulip poplar, 74 inch dbh	poor condition, substantial dieback and poor canopy spread

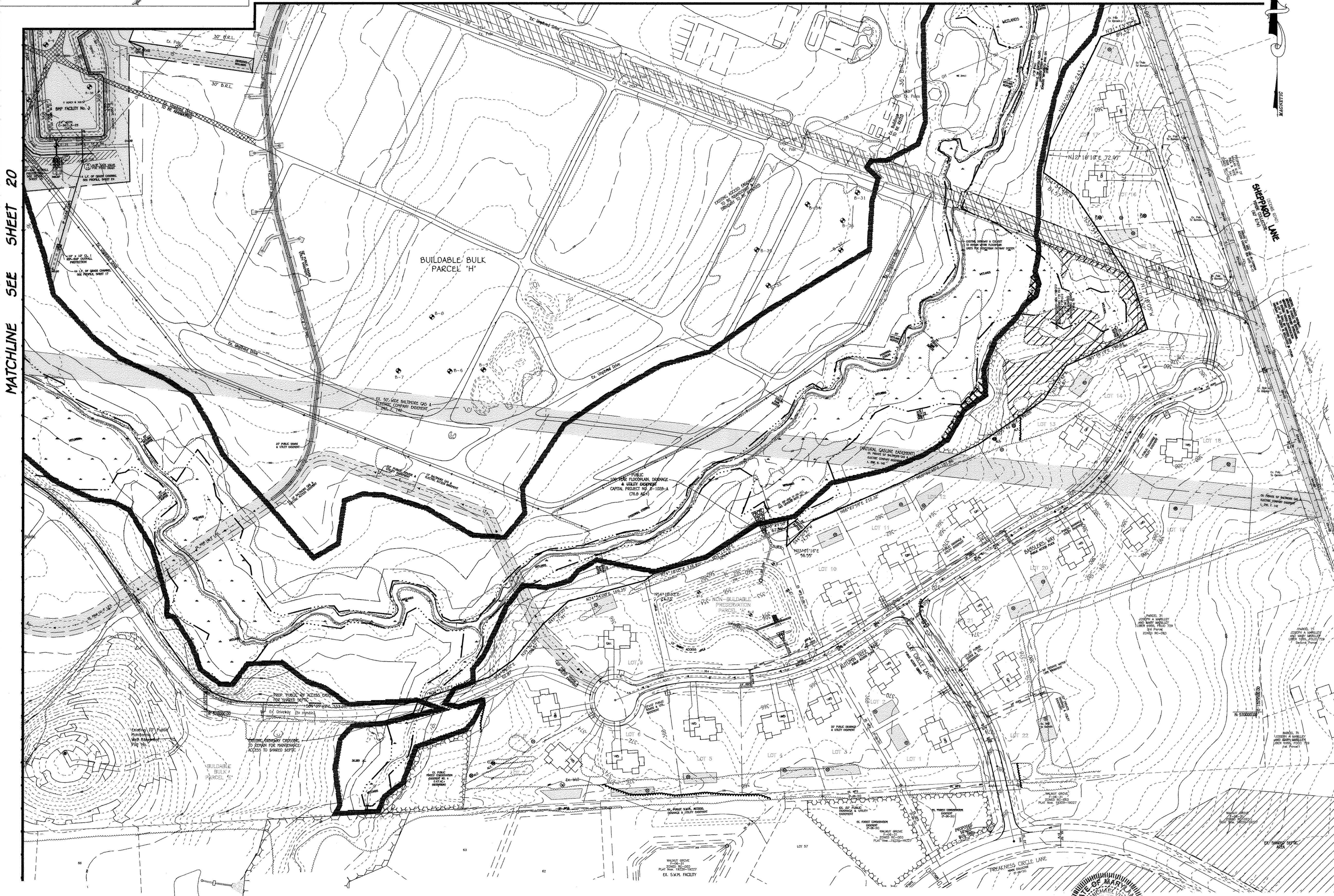
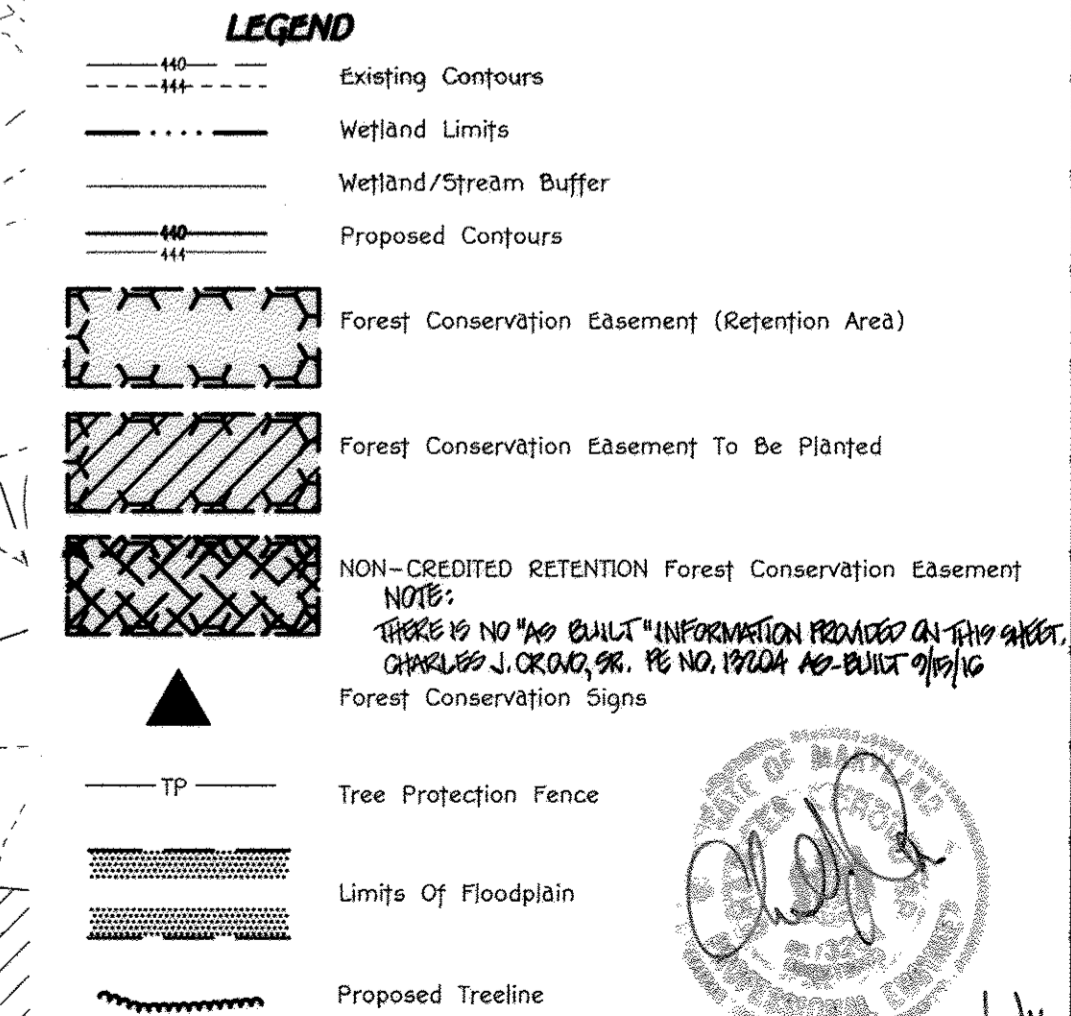


TREE PROTECTION DETAIL
 NOT TO SCALE

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 cleaning 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 99.97 acres of forest and 31.66 acres of onsite reforestation. Total Forest Conservation Obligation = 91.23 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 99.97 acres of on-site forest retention and 31.66 acres of on-site forest afforestation for a total of 131.63 acres.
- A surety for onsite forest retention @ \$0.20/sf for 2,594,869 sf. = \$518,974.00 and On-site afforestation @ \$0.50/sf for 1,379,110 sf. = \$689,555.00 is required. Total surety amount for the entire subdivision = \$1,208,529.00
- The Forest Conservation provided with Phase Two are as follows:
 35.67 AC. OF FOREST CONSERVATION EASEMENT (CREDITED AND NON-CREDITED).
 Credited onsite retention of 17.13 acres of forest and 9.10 acres of onsite reforestation.
 CALCULATION USED FOR PHASE TWO FOREST REQUIREMENTS:
 99.97 TOTAL RETENTION ACRES/160 TOTAL UNITS = 0.3723 (46 UNITS x 0.3723 = 17.13 AC.)
 31.66 TOTAL PLANTING ACRES/160 TOTAL UNITS = 0.1979 (146 UNITS x 0.1979 = 9.10 AC.)
 A SURETY FOR ONSITE FOREST RETENTION @ \$0.20/SF FOR 746183 SF. = \$149,237.00 AND ON-SITE AFFORESTATION @ \$0.50/SF FOR 396396 SF. = \$198,198.00 IS REQUIRED. TOTAL SURETY AMOUNT FOR THE PHASE TWO SUBDIVISION = \$347,435.00
- The forest conservation surety in the amount of \$347,435.00 is to be paid as part of the dpw developer's agreement.



MATCHLINE SEE SHEET 20

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK SUITE 200 BALTIMORE NATIONAL PLE
 ELIZABETH CITY, MARYLAND 21042
 (410) 461-3995

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS

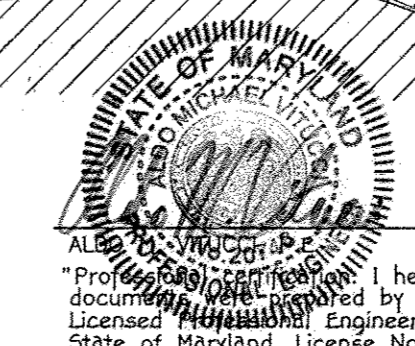
MD DNR Qualified Professional
 USACOE Wetland Delineator
 Certification # WD0033MD06100448
John P. Canoles 11/5/12
 JOHN P. CANOLES

NO.	DESCRIPTION	REVISIONS	DATE
1	REVISED PARCELS 'E', 'J', 'H' & 'G', ROAD NAMES, WELLS, PROPOSED FORCEMAIN AND TITLE BLOCK.		9/25/12

PLAN
 SCALE: 1" = 100'

OWNER
 BASSLERS, INCORPORATED
 c/o ALFRED S. BASSLER
 4994 SHEPHERD LANE
 ELIZABETH CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 LISBON, MARYLAND 21765



W. J. Adams
 DATE

REVISED FOREST CONSERVATION PLAN WALNUT CREEK PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'T', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No.'s. 20631 Thru 20647)

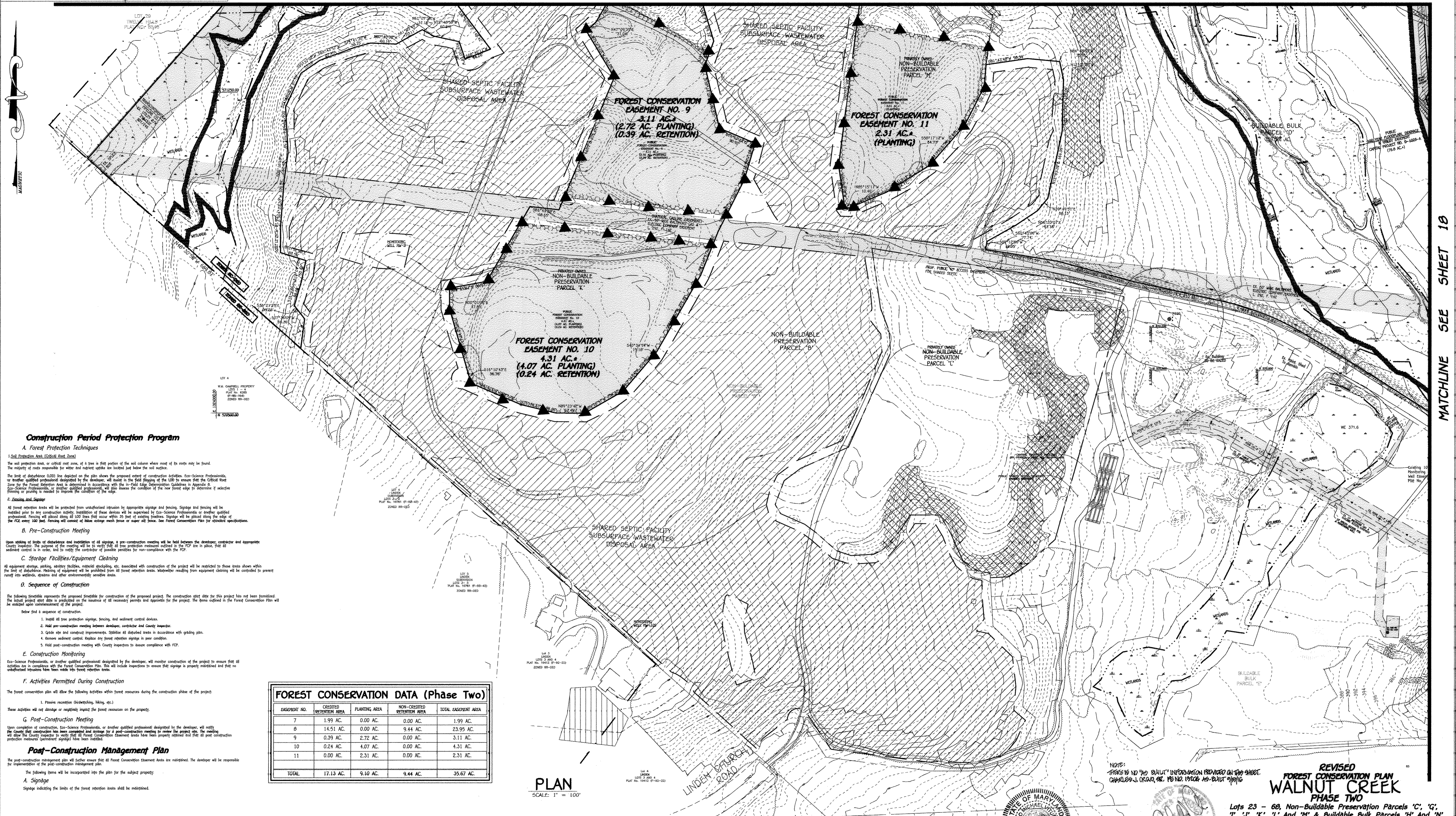
TAX MAP No. 28 ZONING: RC-DD & RC-DEO
 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2009
 SHEET 19 OF 32

APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Schuyler, Acting 11/29/12
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Vet. Schellinger 12/05/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/31/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MATCHLINE SEE SHEET 21



Construction Period Protection Program

A. Forest Protection Techniques

1. Soil Protection Area (Critical Root Zone)
 The soil protection area, or critical root zone, of a tree is that portion of the soil column where most of its roots may be found. The majority of roots responsible for water and nutrient uptake are located just below the soil surface.

The limit of disturbance (LOD) line depicted on the plan shows the proposed extent of construction activities. Eco-Science Professionals, or another qualified professional designated by the developer, will assist in the field flagging of the LOD to ensure that the Critical Root Zone for the Forest Conservation Area is determined in accordance with the In-field Edge Determination Guidelines in Appendix A, Eco-Science Professionals, or another qualified professional, will also assess the condition of the new forest edge to determine if selective thinning or pruning is needed to improve the condition of the edge.

2. Erosion and Signage
 All forest retention areas will be protected from unauthorized intrusion by appropriate signage and fencing. Signage and fencing will be installed prior to any construction activity. Installation of these devices will be supervised by Eco-Science Professionals or another qualified professional. Fencing will be placed along all LOD lines that occur within 20 feet of existing tree lines. Signage will be placed along the edge of the FCZ every 100 feet. Fencing will consist of 42 inch orange mesh fence or superior all fence. See Forest Conservation Plan for standard specifications.

B. Pre-Construction Meeting
 Upon signing of limits of 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 protection measures outlined in the PCP are in place, that all sediment control is in order, and to notify the contractor of possible penalties for non-compliance with the PCP.

C. Storage Facilities/Equipment Cleaning
 All equipment storage, parking, assembly facilities, 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. Wastewater resulting from equipment cleaning will be controlled to prevent runoff into wetlands, streams and other environmentally sensitive areas.

D. Sequence of Construction
 The following timetable represents the proposed timetable for construction of the proposed project. The construction start date for this project has not been formalized. The actual project start date is predicated on the issuance of all necessary permits and approvals for the project. The items outlined in the Forest Conservation Plan will be installed upon commencement of the project.

Below find a sequence of construction.

1. Install all tree protection signage, fencing, and sediment control devices.
2. Hold pre-construction meeting between developer, contractor and County inspector.
3. Grade site and construct improvements. Stabilize all disturbed areas in accordance with grading plan.
4. Remove sediment control. Restore any forest retention signage to poor condition.
5. Hold post-construction meeting with County inspectors to discuss compliance with PCP.

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 intrusions have been made into 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:

These activities will not damage or negatively impact the forest resources on the property.

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 arrange for a post-construction meeting to review the project site. The meeting will allow the County inspector to verify that all Forest Conservation Element areas have been properly restored and that all post construction protection measures (perennial signage) have been installed.

Post-Construction Management Plan
 The post-construction management plan will further ensure that all Forest Conservation Element areas are maintained. The developer will be responsible for implementation of the post-construction management plan.

The following items will be incorporated into the plan for the subject property:

A. Signage
 Signage indicating the limits of the forest retention areas shall be maintained.

EASEMENT NO.	CREATED RETENTION AREA	PLANTING AREA	NON-CREATED RETENTION AREA	TOTAL EASEMENT AREA
7	1.99 AC.	0.00 AC.	0.00 AC.	1.99 AC.
8	14.51 AC.	0.00 AC.	9.44 AC.	23.95 AC.
9	0.39 AC.	2.72 AC.	0.00 AC.	3.11 AC.
10	0.24 AC.	4.07 AC.	0.00 AC.	4.31 AC.
11	0.00 AC.	2.31 AC.	0.00 AC.	2.31 AC.
TOTAL	17.13 AC.	9.10 AC.	9.44 AC.	35.67 AC.

PLAN
 SCALE: 1" = 100'

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10725 BALTIMORE NATIONAL PIKE
 ALLEGANY CITY, MARYLAND 21542
 (410) 461-2895

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS

MD DNR Qualified Professional
 USACOE Wetland Delineator
 Certification # WDCP93MD06100448
John P. Canoles 11/5/12
 JOHN P. CANOLES

NO.	DESCRIPTION	DATE
	REVISED PARCELS 'E', 'J', 'H' & 'G', ROAD NAMES, WELLS, PROPOSED FORCEMAIN AND TITLE BLOCK. <td>9/25/12</td>	9/25/12
	REVISIONS	

OWNER
 BASGLERS, INCORPORATED
 c/o ALFRED S. BASGLER
 4994 SHEPPARD LANE
 ELIJAH CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 LESBON, MARYLAND 21765



NOTE: THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
 CHARLES J. ORAND, P.E. NO. 20748 - AS-BUILT 9/15/12

DATE: 11/12/12

ALSO SEE SHEET 20 OF 32

REVISED FOREST CONSERVATION PLAN WALNUT CREEK PHASE TWO

Lots 23 - 60, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' and 'M' & Buildable Bulk Parcels 'H' and 'N' (Being a Resubdivision of Buildable Bulk Parcels 'F' & 'E' and a Revision to Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647)

ZONED: RC-DEO & RR-DEO
 GRID Nos. 4, 5, 10-12, 17, AND 18
 PARCEL No. 49
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 20 OF 32

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET

MATCHLINE SEE SHEET 10

F-08-081

MATCHLINE SEE SHEET 22

APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Johnson, Acting 11/23/12
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Neil Steinhilber 12/05/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John P. Canoles 12/3/12
 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.

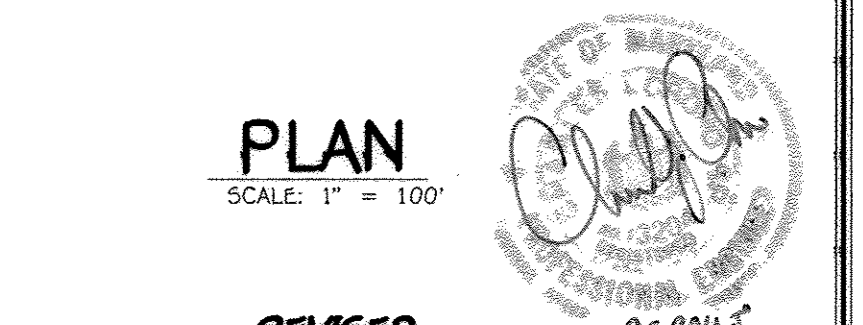


MATCHLINE SEE SHEET 19

NOTE:
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
 CARROLL J. CRANE, SR., PE NO. 19224, NO. DATE 9/15/16



ALDORE BARTLETT, P.E., hereby certifies that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-13.



PLAN
 SCALE: 1" = 100'

**REVISED
 FOREST CONSERVATION PLAN
 WALNUT CREEK
 PHASE TWO**
 Lots 23 - 60, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No's 20631 Thru 20647)
 ZONE: RC-OEO & RC-OEO
 TAX MAP NO. 20 GRID NOS. 4, 5, 10-12, 17, AND 18 PARCEL NO. 49
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 21 OF 32

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CONTINENTAL SQUARE OFFICE PARK - 10272 WALTHAM NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2999

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS

MD DNR Qualified Professional
 USACOE Wetland Delineator
 Certification # WDCP93MD0610044B
John P. Canoles
 JOHN P. CANOLES

MATCHLINE SEE SHEET 20

OWNER
 BASSLES, INCORPORATED
 c/o ALFRED S. BASSLER
 4994 SHEPPARD LANE
 ELLICOTT CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 15950 NORTH AVE.
 LISBON, MARYLAND 21765

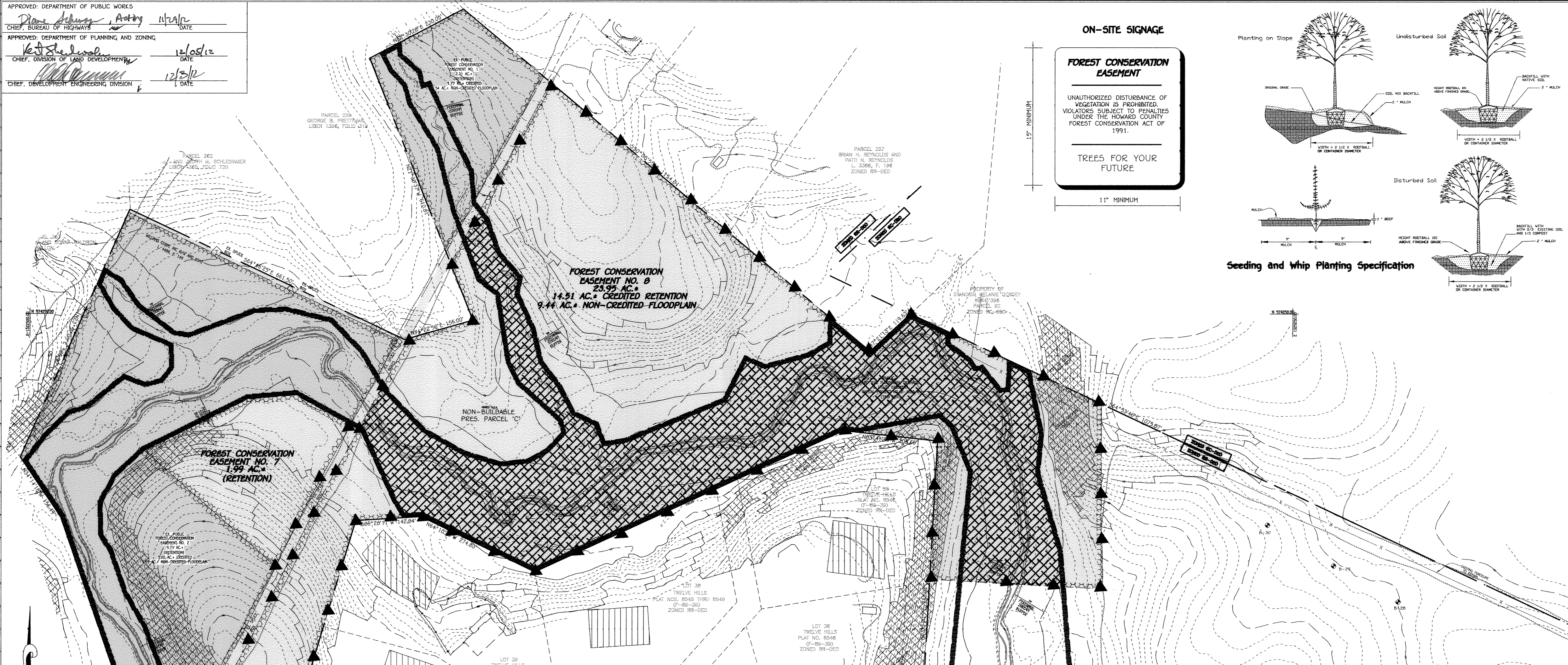
NO.	DESCRIPTION	DATE
1	REVISED PARCELS 'E', 'J', 'H' & 'G', ROAD NAMES, WELLS, PROPOSED FORCEMAIN AND TITLE BLOCK	9/25/12
REVISIONS		

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET F-08-081

APPROVED: DEPARTMENT OF PUBLIC WORKS
Diane Schwab, Acting 11/29/12
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Keith Schell 12/05/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John F. Canoles 12/5/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



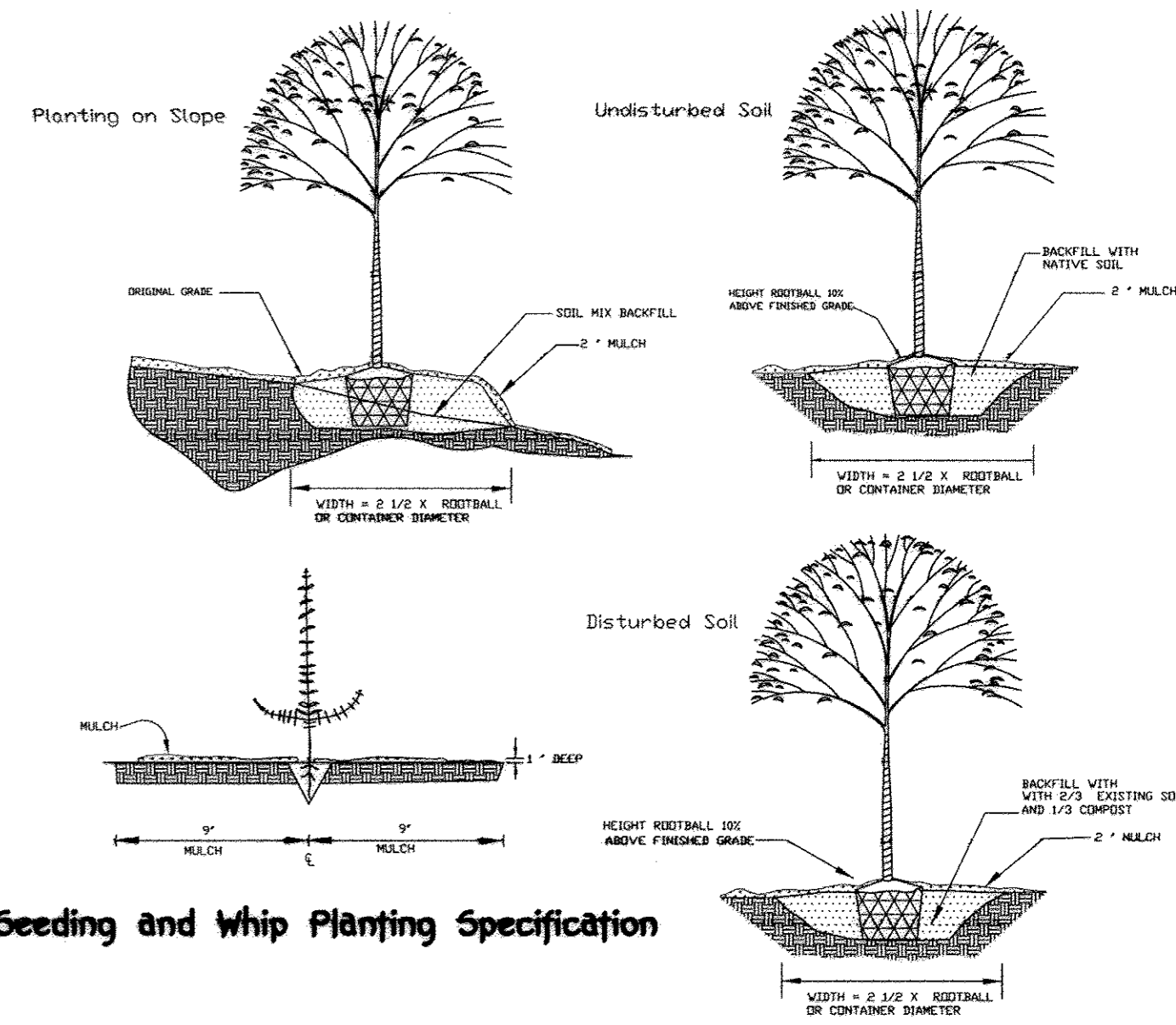
ON-SITE SIGNAGE

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 21

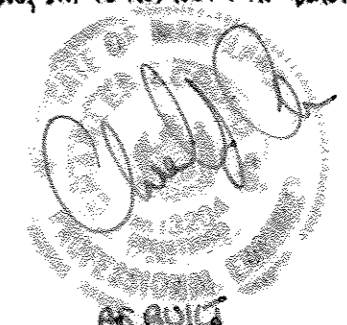
PLAN
 SCALE: 1" = 100'

- LEGEND**
- - - Existing Contours
 - - - Wetland Limits
 - - - Wetland/Stream Buffer
 - - - Proposed Contours
 - [Hatched Box] Forest Conservation Easement (Retention Area)
 - [Cross-hatched Box] Forest Conservation Easement To Be Planted
 - [Dotted Box] NON-CREDITED RETENTION Forest Conservation Easement
 - ▲ Forest Conservation Signs
 - TP — Tree Protection Fence
 - [Dashed Box] Limits of Floodplain

FOREST CONSERVATION DATA (Phase Two)

EASEMENT NO.	CREDITED RETENTION AREA	PLANTING AREA	NON-CREDITED RETENTION AREA	TOTAL EASEMENT AREA
7	1.99 AC.	0.00 AC.	0.00 AC.	1.99 AC.
8	14.51 AC.	0.00 AC.	9.44 AC.	23.95 AC.
9	0.39 AC.	2.72 AC.	0.00 AC.	3.11 AC.
10	0.24 AC.	4.07 AC.	0.00 AC.	4.31 AC.
11	0.00 AC.	2.31 AC.	0.00 AC.	2.31 AC.
TOTAL	17.13 AC.	9.10 AC.	9.44 AC.	35.67 AC.

NOTES:
 THESE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
 CHARLES J. CRAND, SR., P.E. NO. 15204 AS-BUILT 09/16



REVISED FOREST CONSERVATION PLAN WALNUT CREEK PHASE TWO

Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'T', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No's. 20631 Thru 20647
 ZONED: RC-DEO & RC-DEO
 TAX MAP No. 28 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 22 OF 32

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

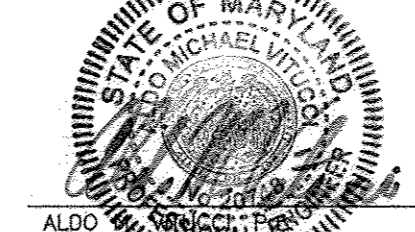
Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS

MD DNR Qualified Professional
 USACE Wetland Delineator
 Certification # WD093MD05100448
John F. Canoles
 JOHN F. CANOLES

NO.	DESCRIPTION	DATE
1	REVISED PARCELS 'E', 'J', 'H' & 'G', ROAD NAMES, WELLS, PROPOSED FORCEMAIN AND TITLE BLOCK.	9/25/12

OWNER
 BAGSLERS, INCORPORATED
 670 ALFRED S. BAGSLER
 4994 SHEPPARD LANE
 ELICOTT CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 URBON, MARYLAND 21785



"Professional Engineer, I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-13."

STORM WATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the standard for practice MD-378.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and striped of topsoil.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material.

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.

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.

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.

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.

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.

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.

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.

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.

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 (0.01 mil) on both sides of the pipe.

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.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges.

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.

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.

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.

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.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be recast to an adequate number of corrugations to accommodate the bandwidth.

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/grade for their entire length. This bedding/grade 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.

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.

4. Backfilling shall conform to "Structure Backfill".

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.

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 adequate support.

5. Backfilling shall conform to "Structure Backfill".

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

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Rev. 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 Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921B, Class C.

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 removal of water from the excavated areas 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.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

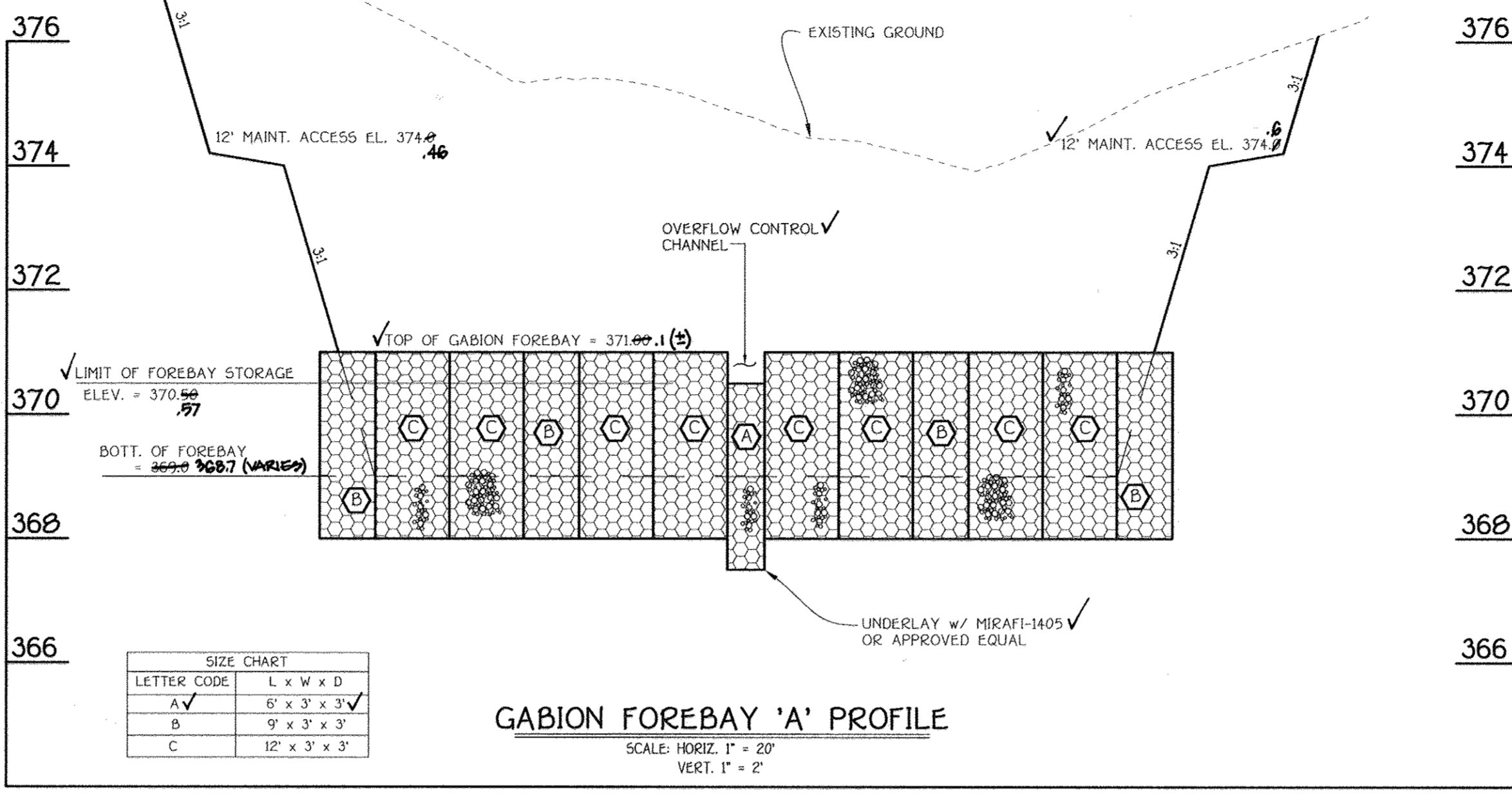
When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

When converting sediment basin to perm. pond, cut 10" PVC pipe off at riser and install a 3.5" orifice plate at inv. 369.00.

Table with 3 columns: NO., REVISIONS, DATE. Row 1: 9/25/12.



SWM Pond Construction Recommendations

A. General Design Recommendations It is recommended that the geotechnical aspects of the SWM pond design and construction be in accordance with MD 378/2000 specifications.

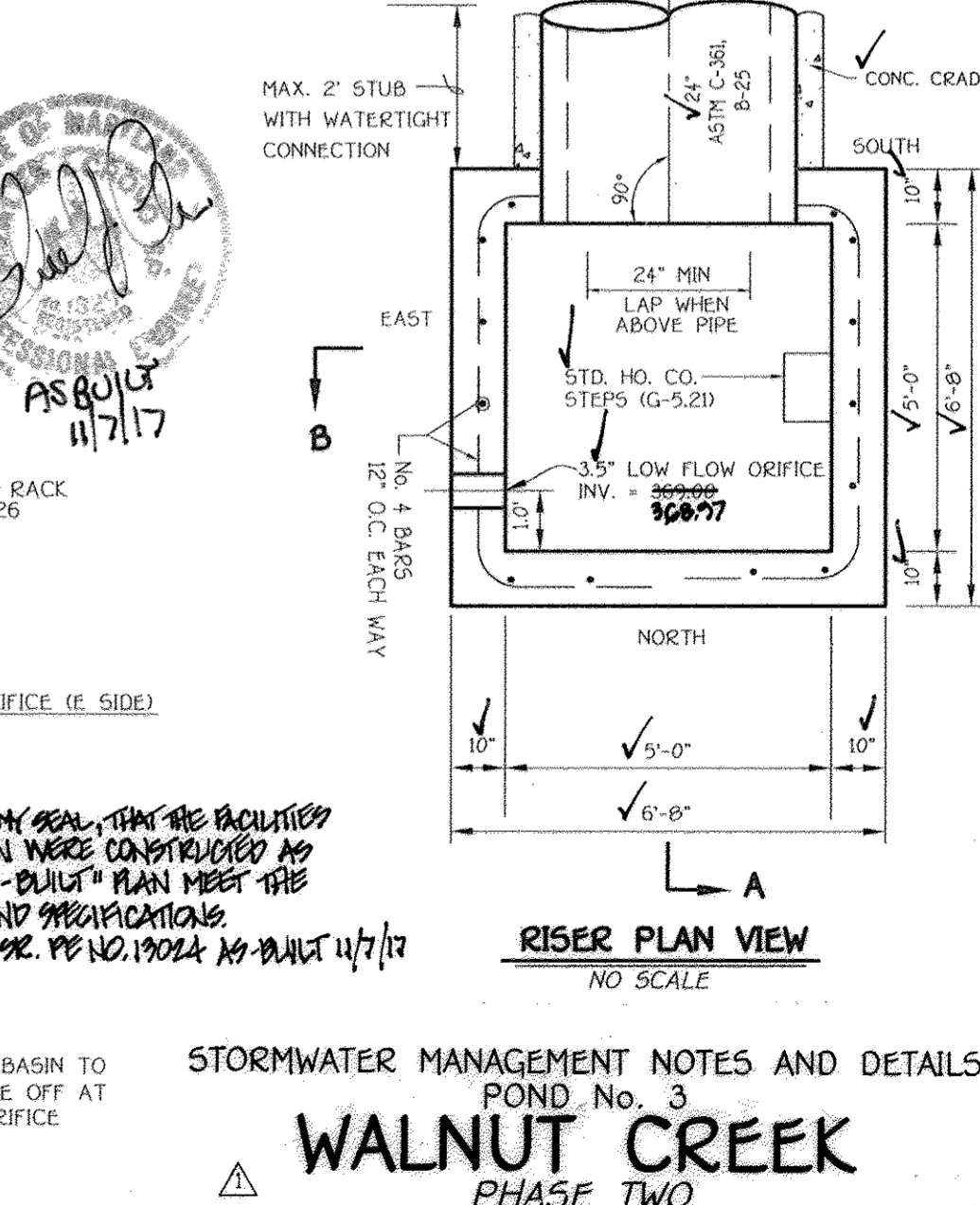
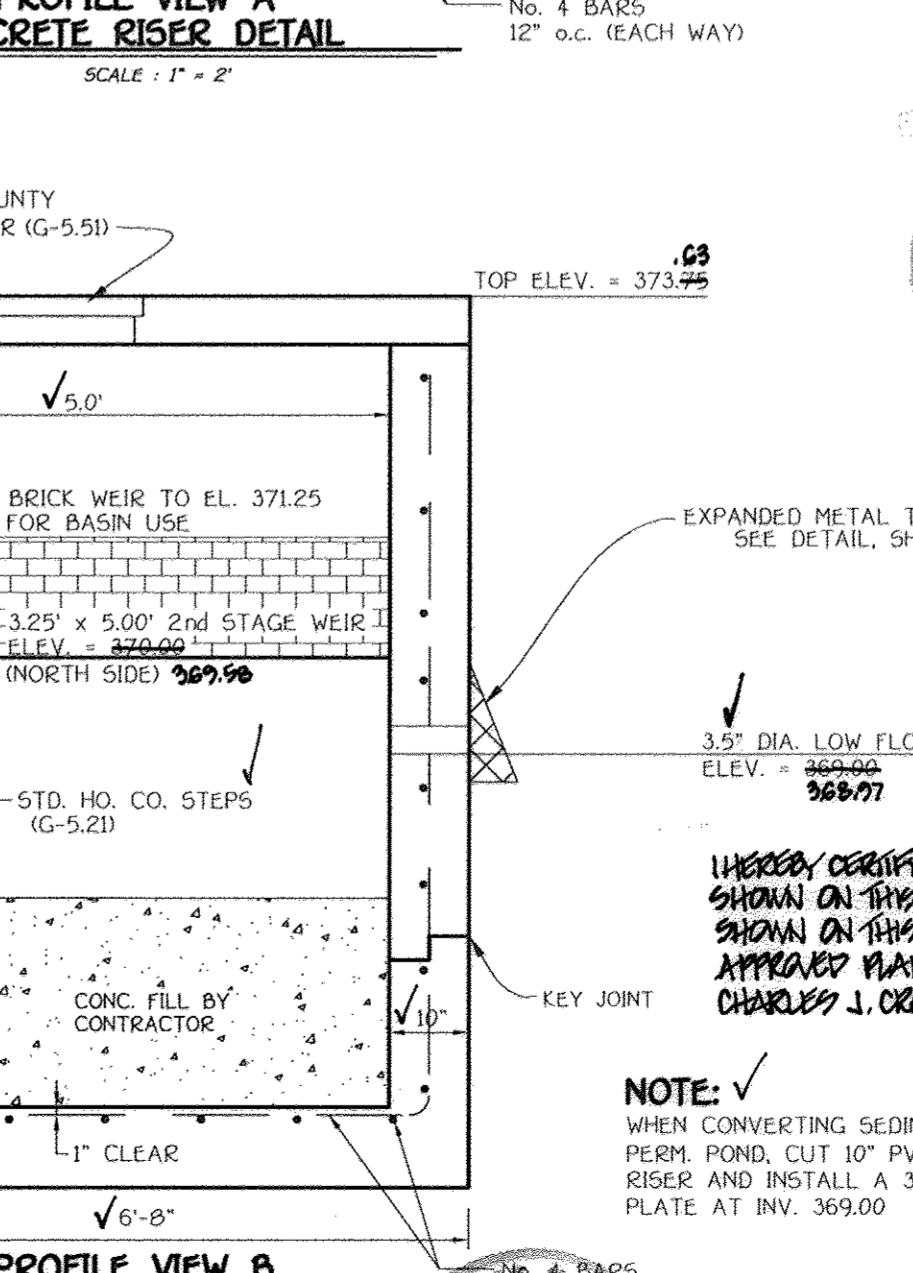
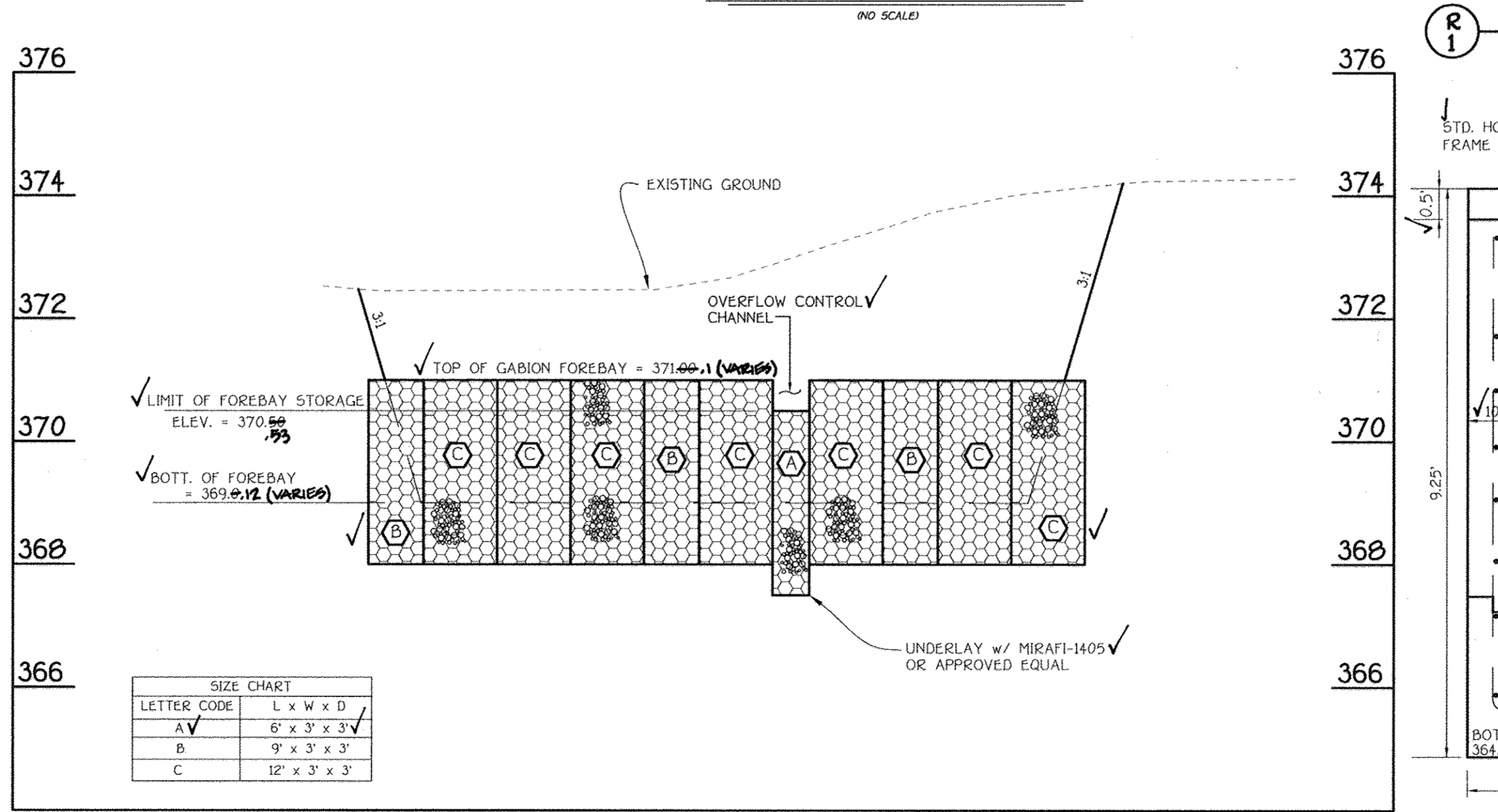
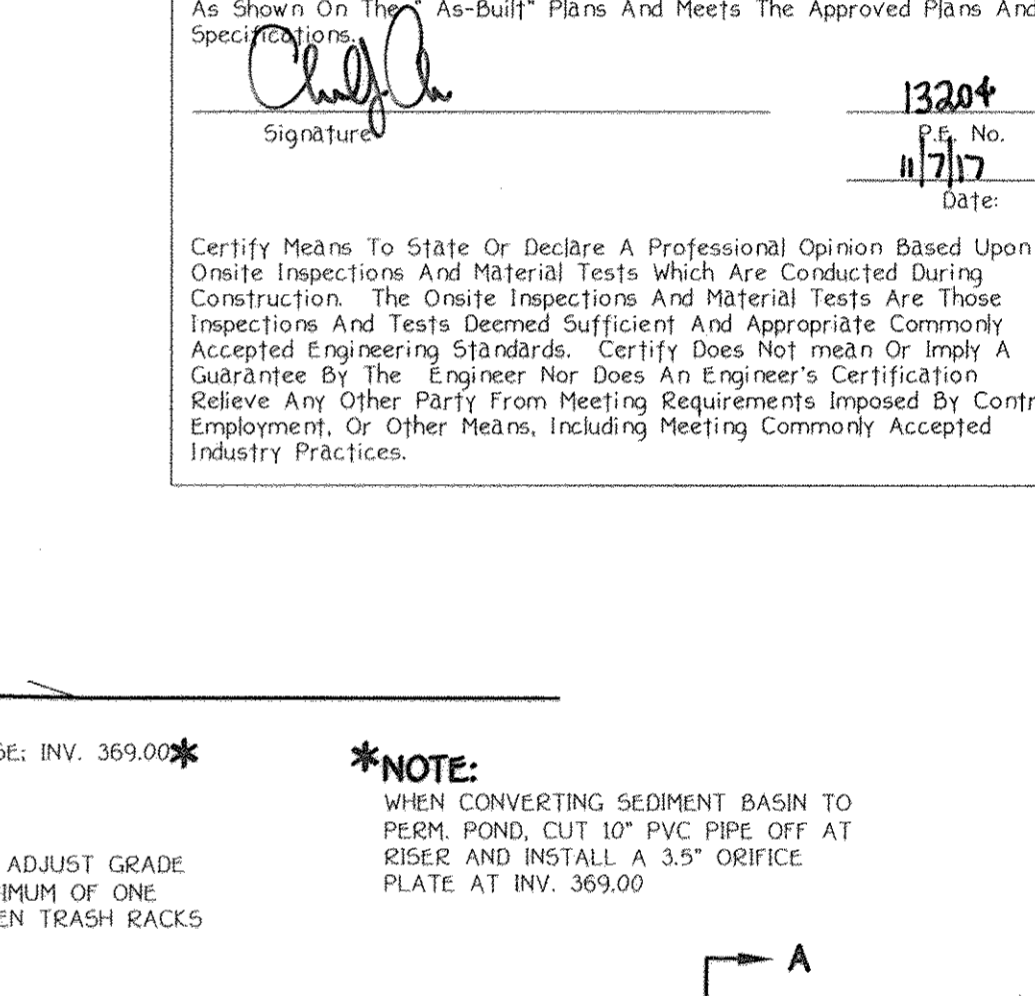
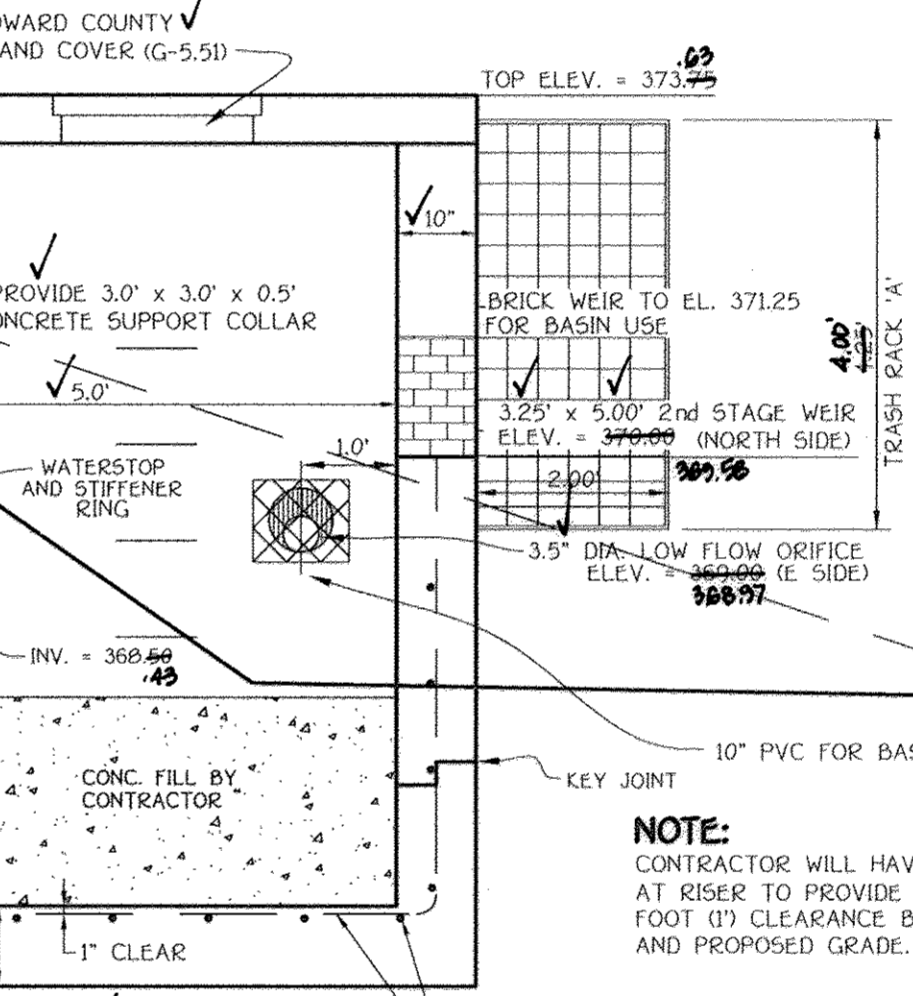
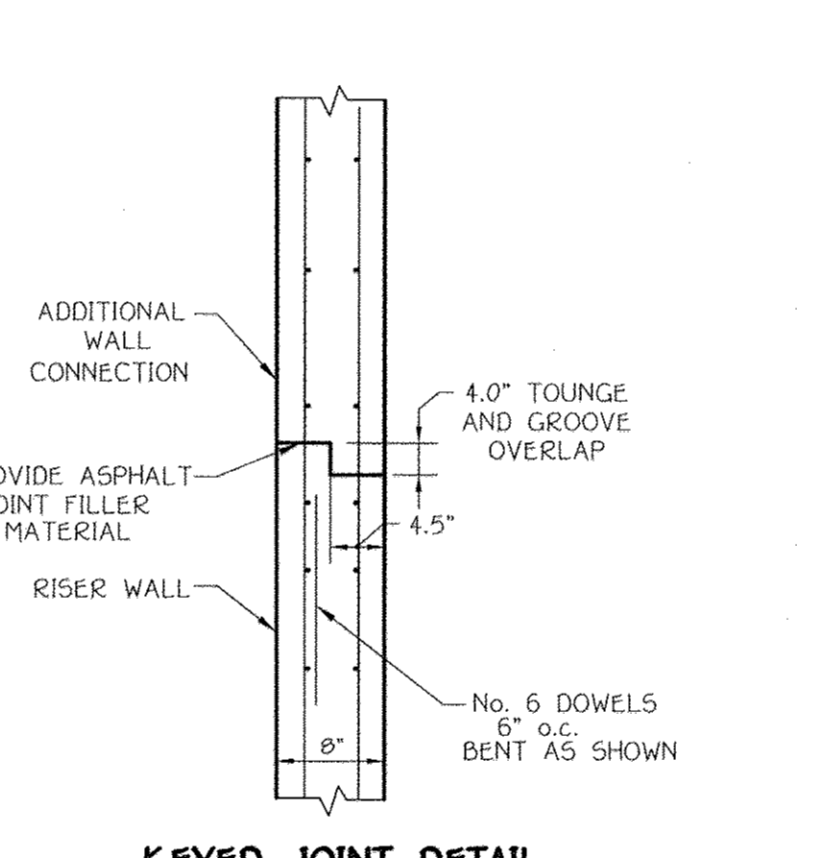
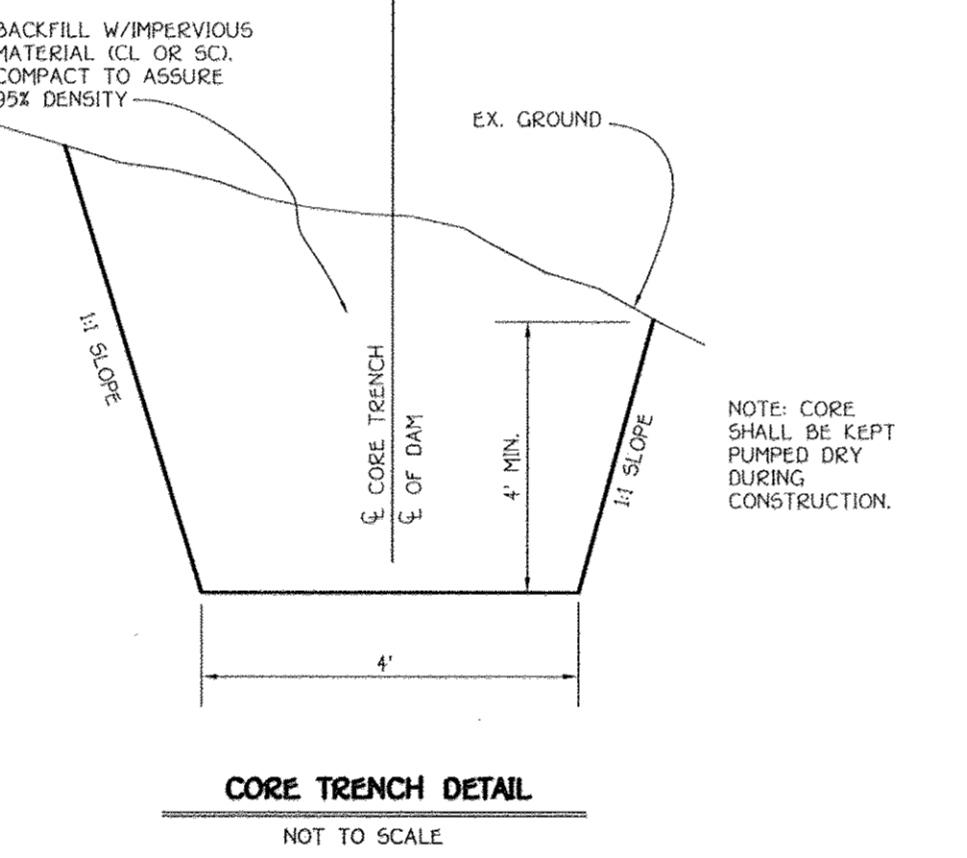
B. Principal Soilway Variable soil conditions are present and, consequently, the bearing conditions at various elevations vary widely. It appears that the majority of the underlying native soils will be acceptable to support design bearing pressures of 2 KSF.

C. Earth Slope Stability Cut slopes located beyond the dam embankment zones shall be evaluated in the field at time of construction for conditions which may cause slope instability, including high plasticity clay soils with the same composition or greater exposure above the toe of slope.

D. Core Trench Core trenches shall be constructed to the typical MD 378/2000 specified dimensions below stripped existing grade or at least 2 feet into original soil below any undercut bench, whichever depth is greater.

E. Permanent Ground Water Control Ground water should be anticipated in excavations carried below the water levels indicated by the borings.

Typical Section Thru Emergency Spillway NOT TO SCALE. Shows dam structure with spillway, concrete support collar, and weir.



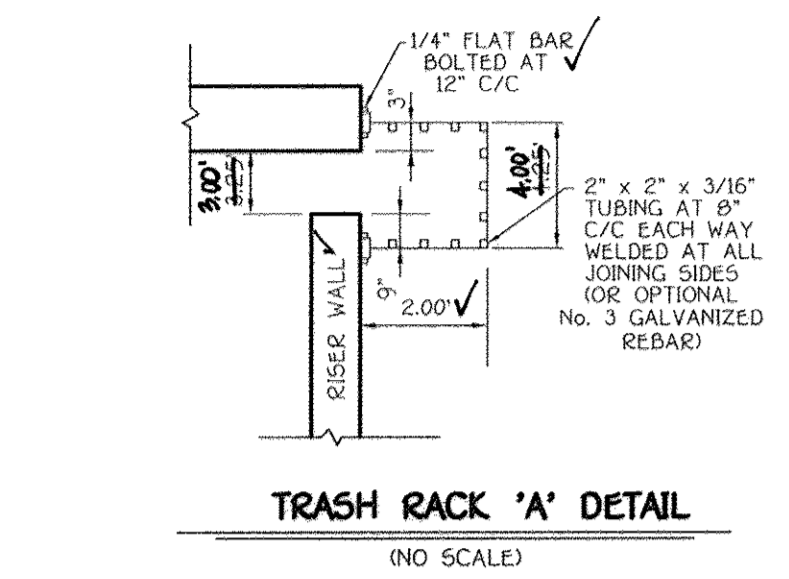
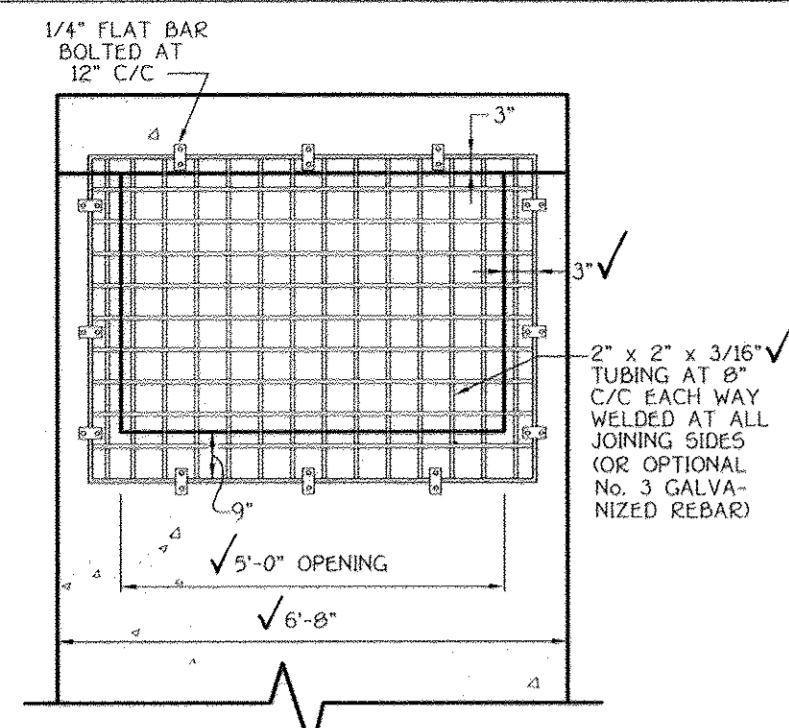
FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS 10772 BURTWOOD NATIONAL PIKE ELLETTT CITY, MARYLAND 21042

CONCRETE PIPE JOINT DETAIL. PROVIDE MASTIC JOINT SEALER FROM OUTSIDE OF PIPE JOINTS PRIOR TO INSTALLING BARREL UNDERGROUND.

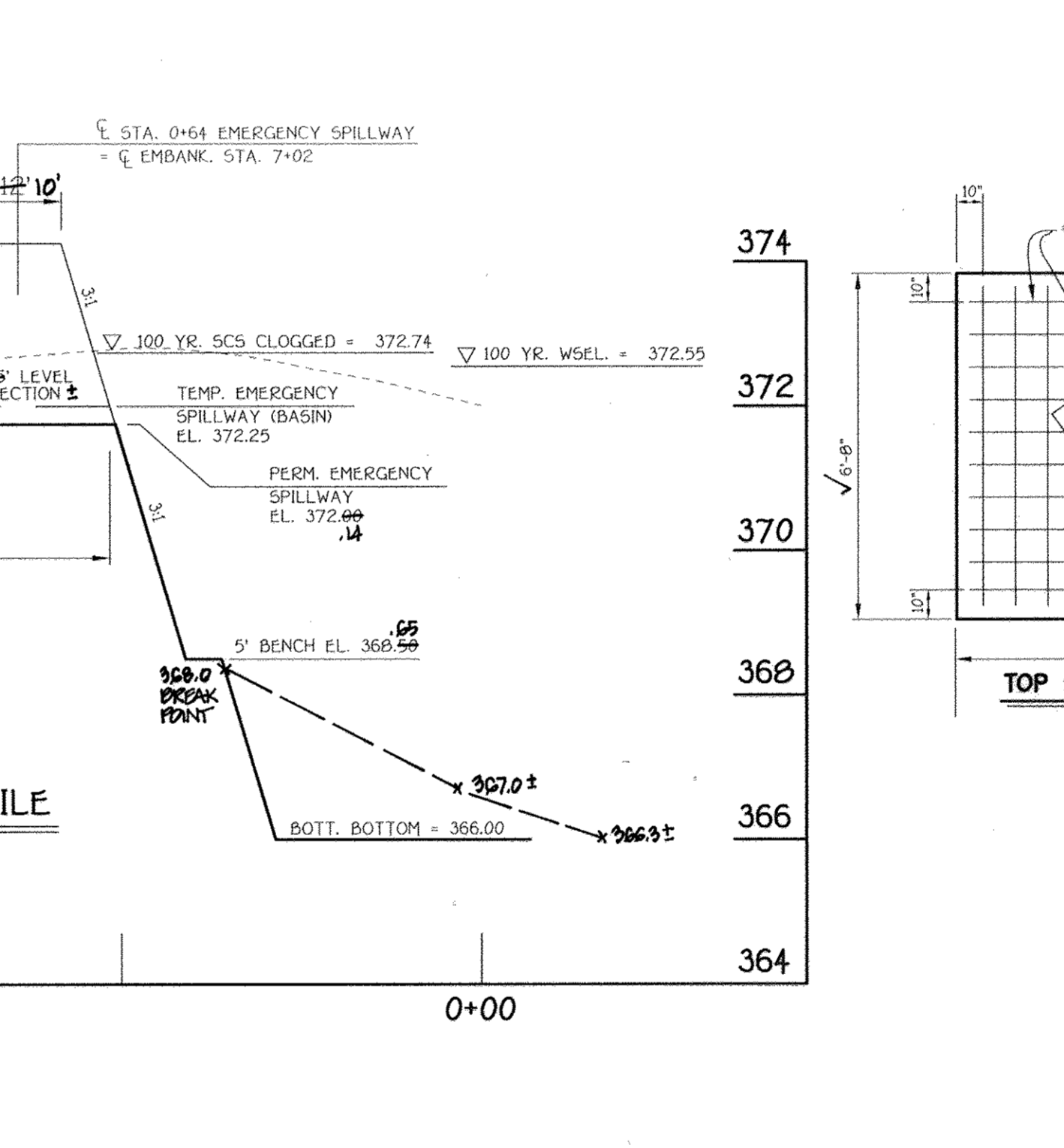
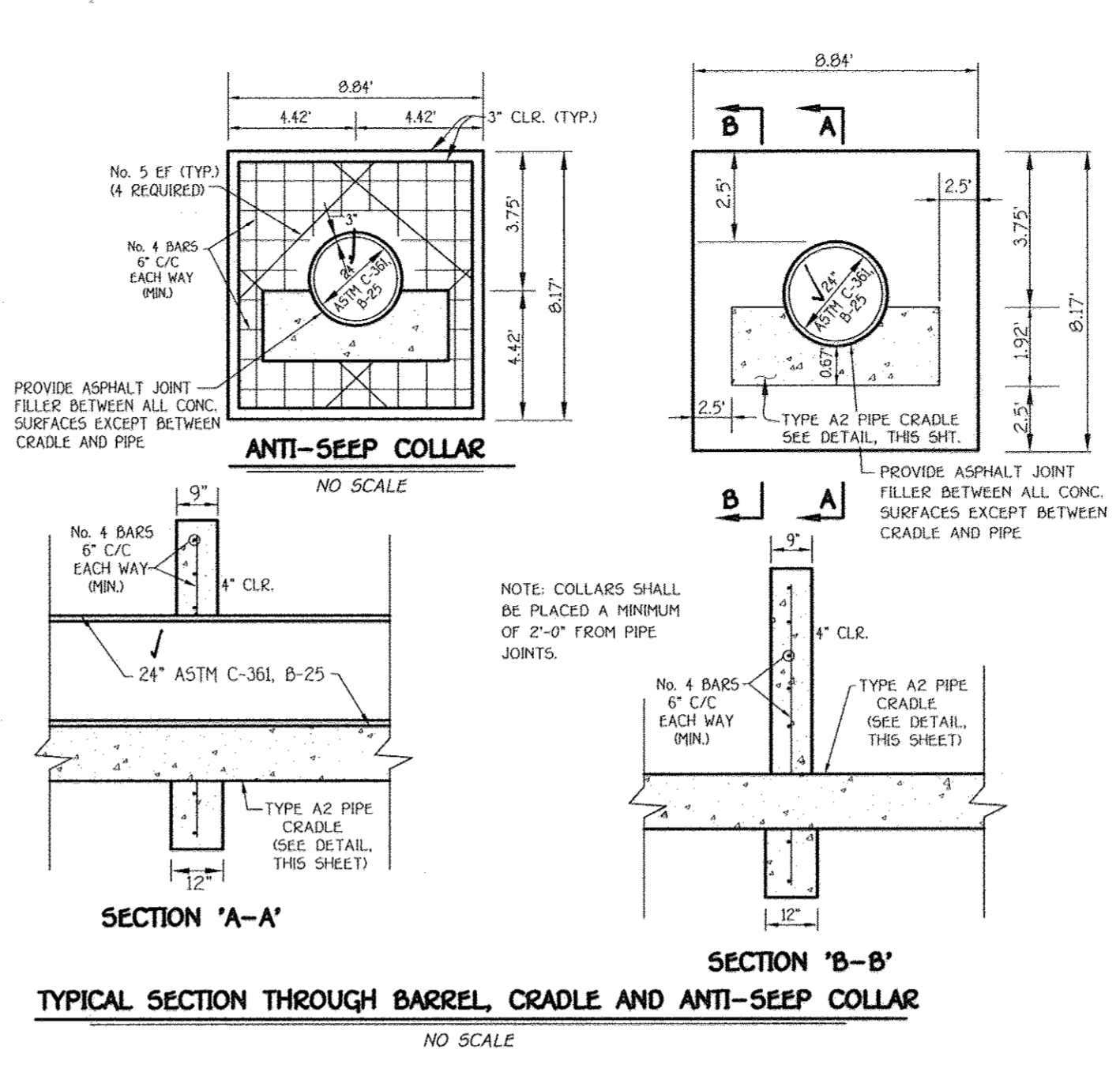
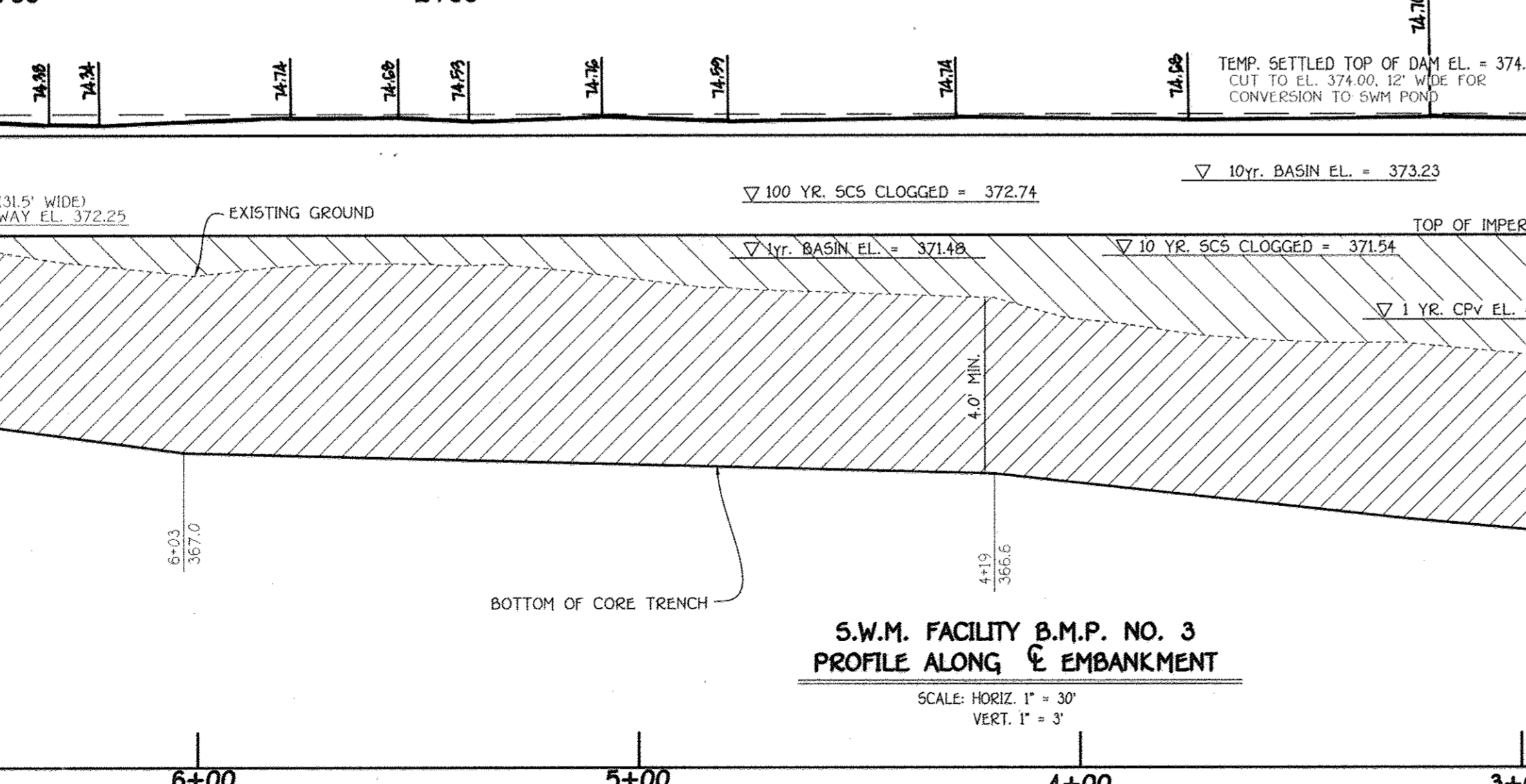
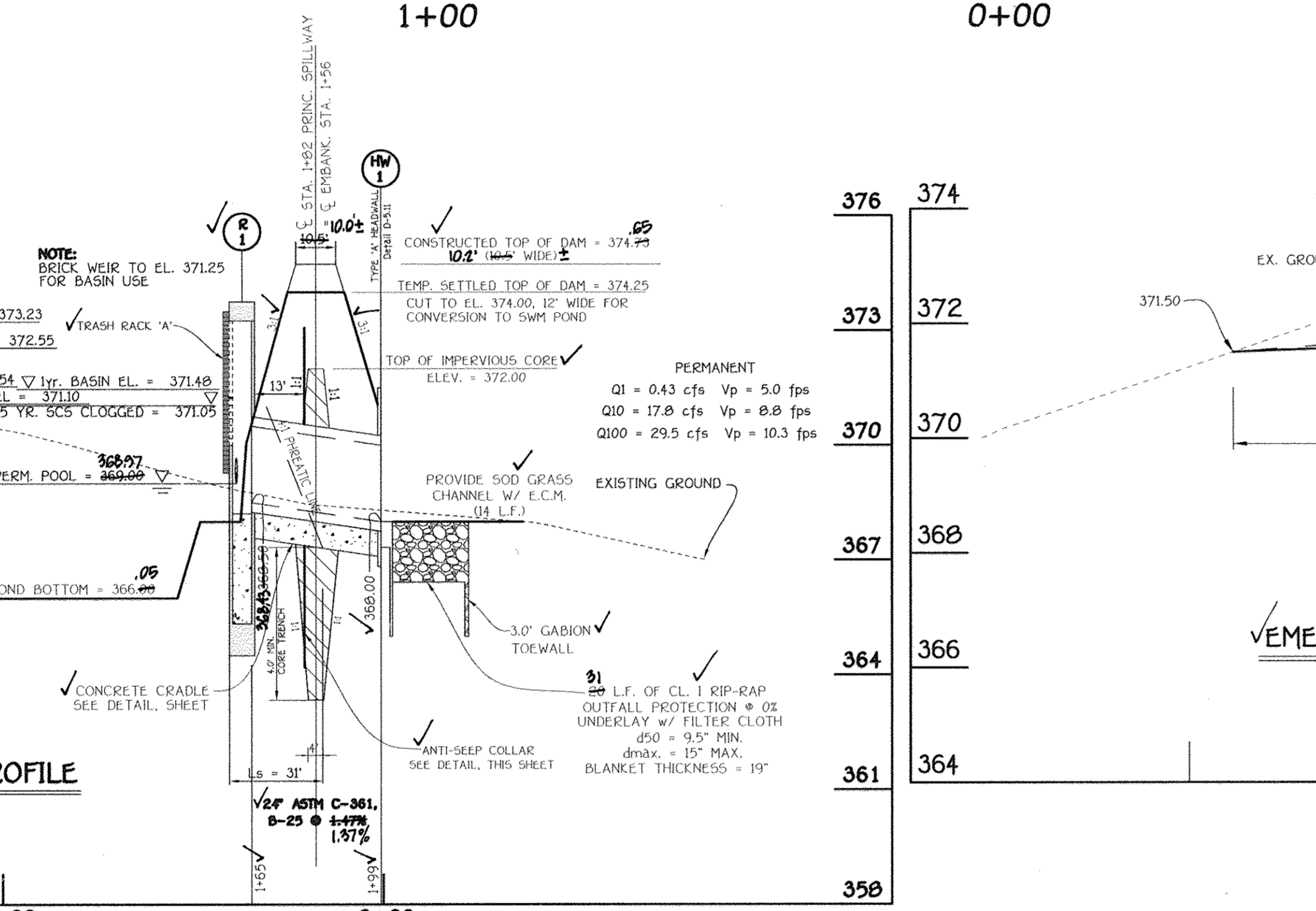
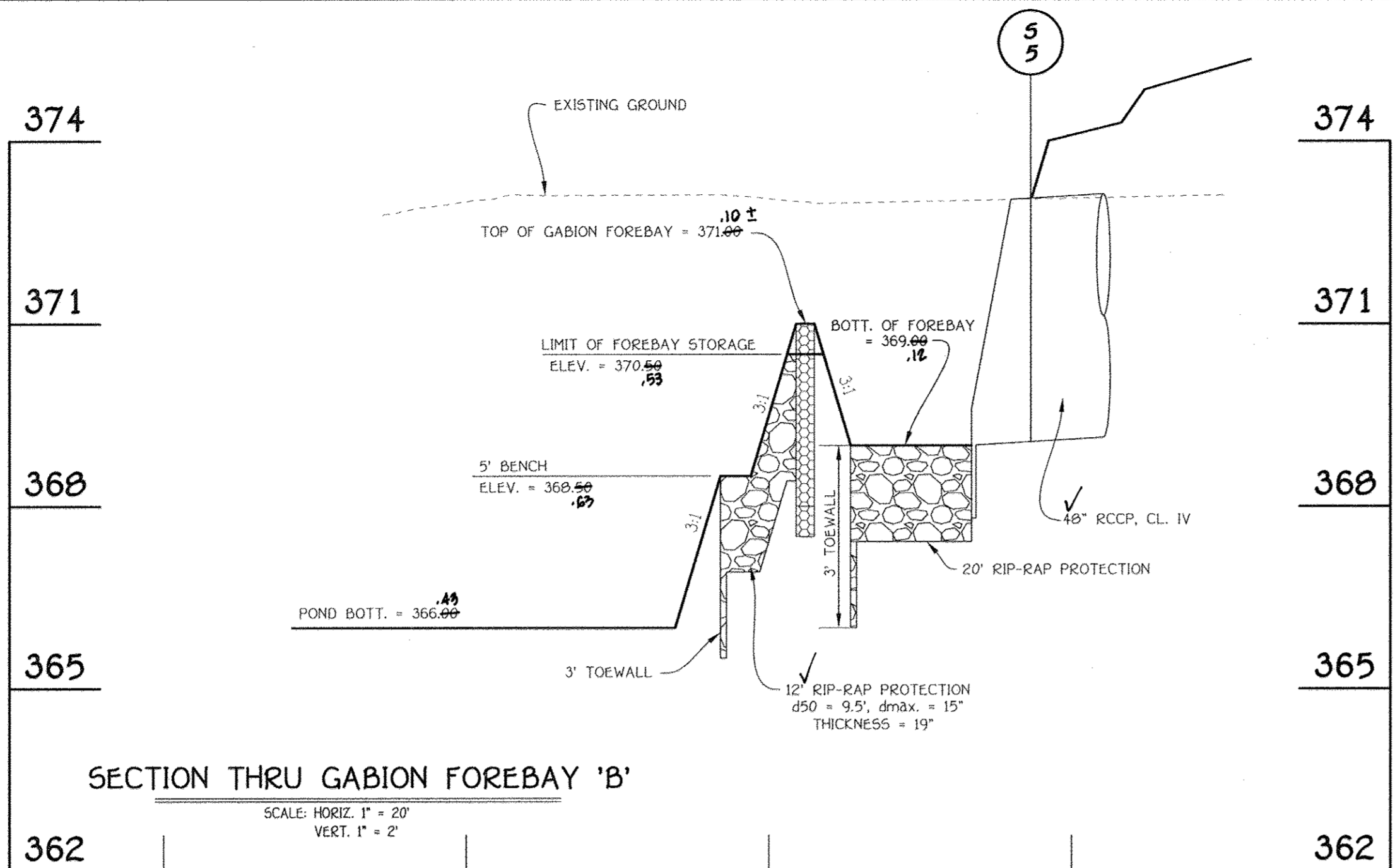
GABION FOREBAY 'B' PROFILE. SCALE: HORIZ. 1" = 20' VERT. 1" = 2'.

OWNER: BASSLEERS, INCORPORATED. DEVELOPER: HERITAGE LAND DEVELOPMENT.

Professional certification and signature block for the engineer.



NOTES:
 1. FIELD MEASURE THE STRUCTURE DIMENSIONS TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT BATTLESHIP GRAY.



By The Developer:
 Signature of Developer: *Timothy W. Feaga* Date: 10/16/08
 Printed Name of Developer: Timothy W. Feaga
 By The Engineer:
 Signature of Engineer: *Alfred S. Bassler* Date: 10/16/08
 Printed Name of Engineer: Alfred S. Bassler
 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: *William Z. M...* Date: 10-28-08
 Chief Bureau Of Highways
 Approved Department of Planning And Zoning: *Cindy Hamer* Date: 11/3/08
 Chief, Division Of Land Development
 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: *Charles J. Creager, Jr.* P.E. No. 13204 Date: 11/7/17
 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.
 NOTES:
 1. CONCRETE SHALL BE MSHA MIX NO. 3 (FC > 3500 P.S.I.)
 2. REINFORCING STEEL: GRADE 60
 3. FOR WALLS OF STRUCTURE SHALL UTILIZE L.M. SCHEDULED CO. T-809S FROM LINERS RANDOM SURFACE. COCCO OPTIONAL.
 4. PROVIDE ROUGH BOTTOM FINISH.
 5. ANCHOR BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 6.07.02.09 OF THE MSHA STANDARDS AND SPECS.
 6. ALL REINFORCING SPACES SHALL BE LAP SPICES OF 30 BAR DIA. UNLESS OTHERWISE SHOWN.
 NOTE:
 CONC. CRADLE TO BE POURED DIRECTLY AGAINST EARTH BANKS. IF BOTTOM OF TRENCH IS WIDER THAN THE CRADLE, SLOPING SIDES (FRAMED) SHALL BE USED.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND JOINTLY MAINTAINED STORMWATER MANAGEMENT FACILITIES
 ROUTINE MAINTENANCE
 1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
 2. 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 shall be mowed as needed.
 3. Debris and litter shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.
 NON-ROUTINE MAINTENANCE
 1. 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.
 2. 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.
 STORMWATER MANAGEMENT NOTES AND DETAILS
 WALNUT CREEK
 PHASE TWO
 Lots 23 - 6B, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N' (Being A Re-subdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20647
 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: SEPTEMBER, 2008
 SHEET 24 OF 32

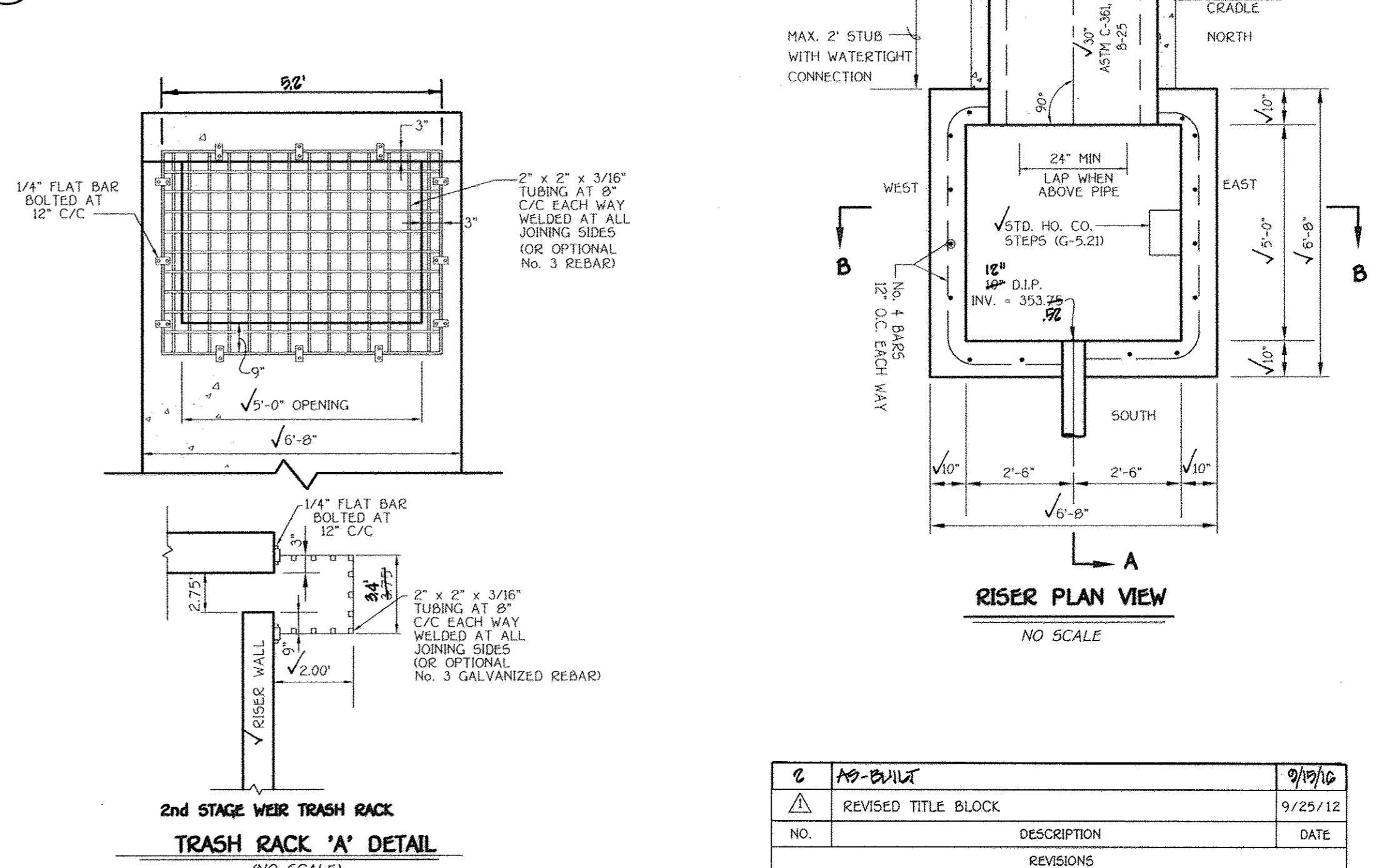
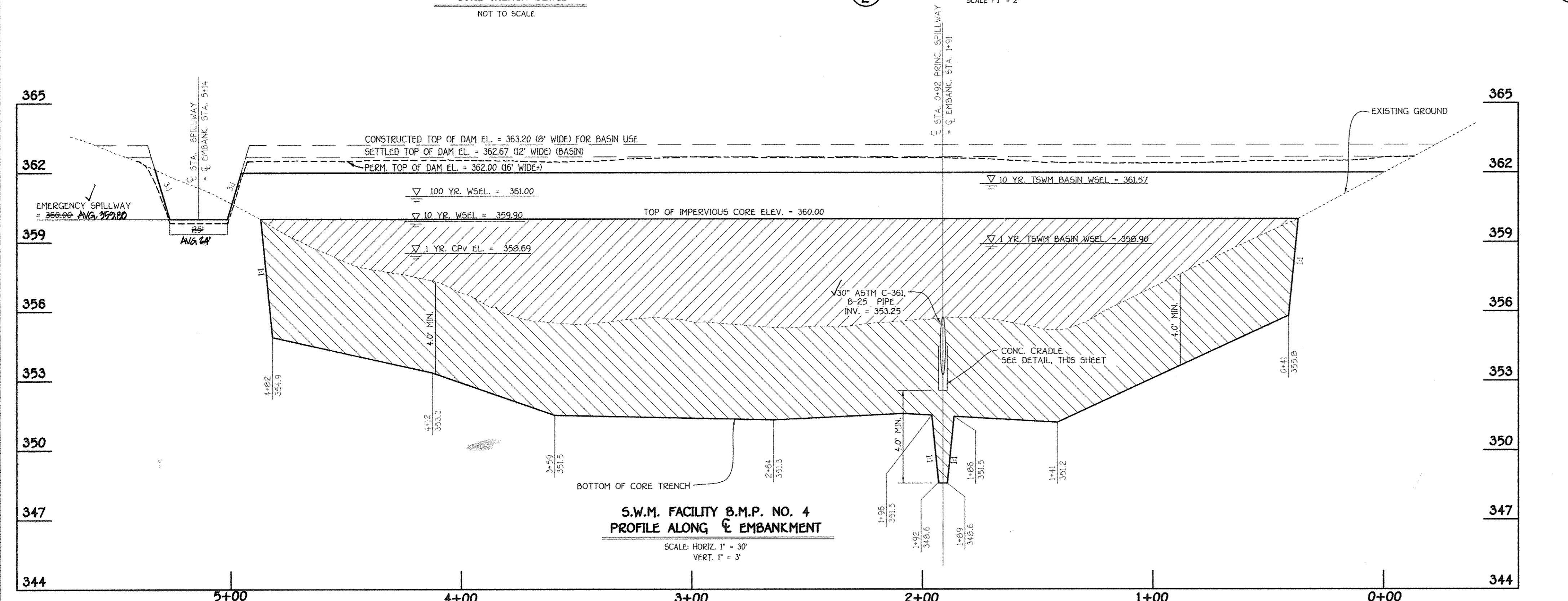
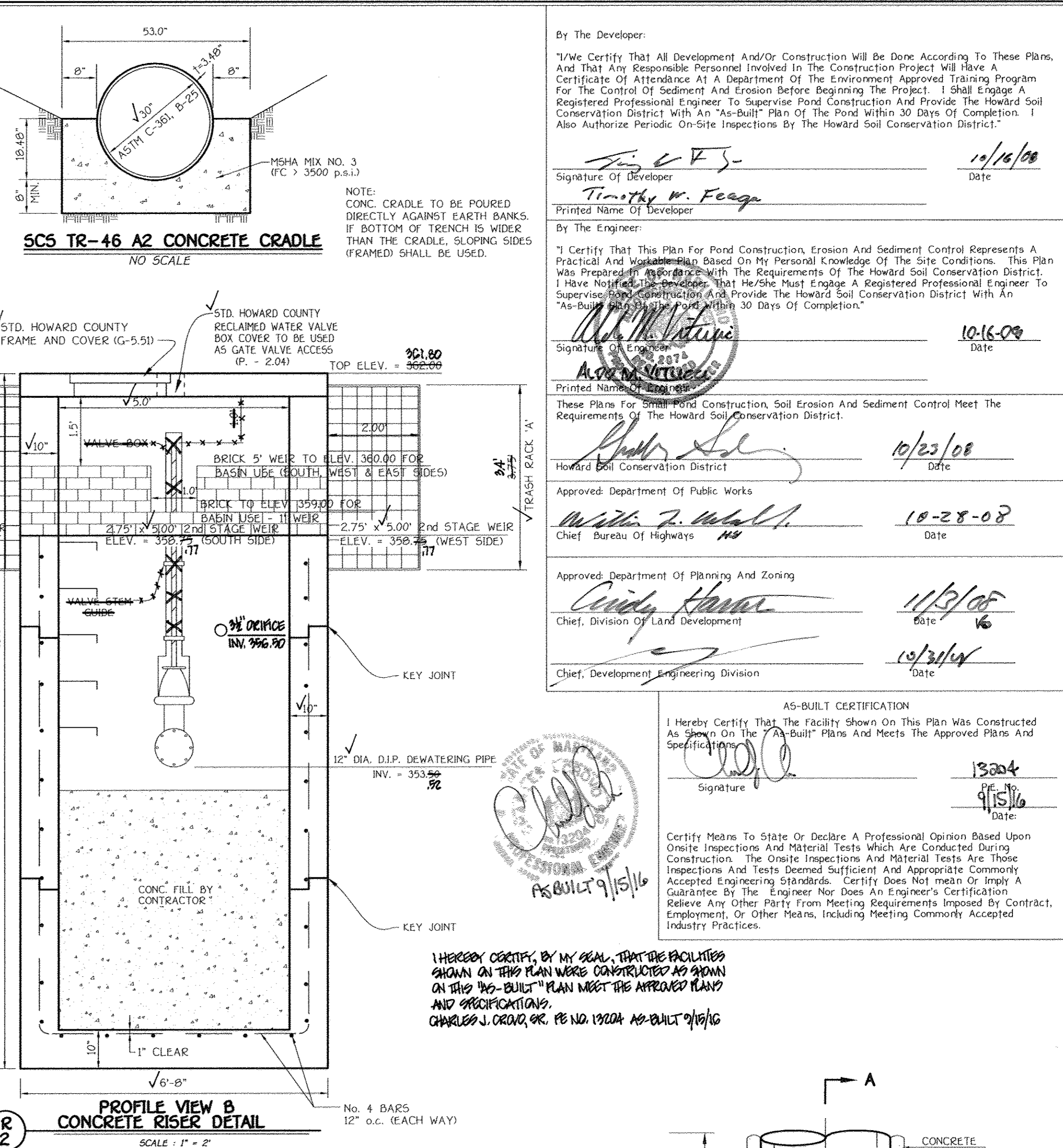
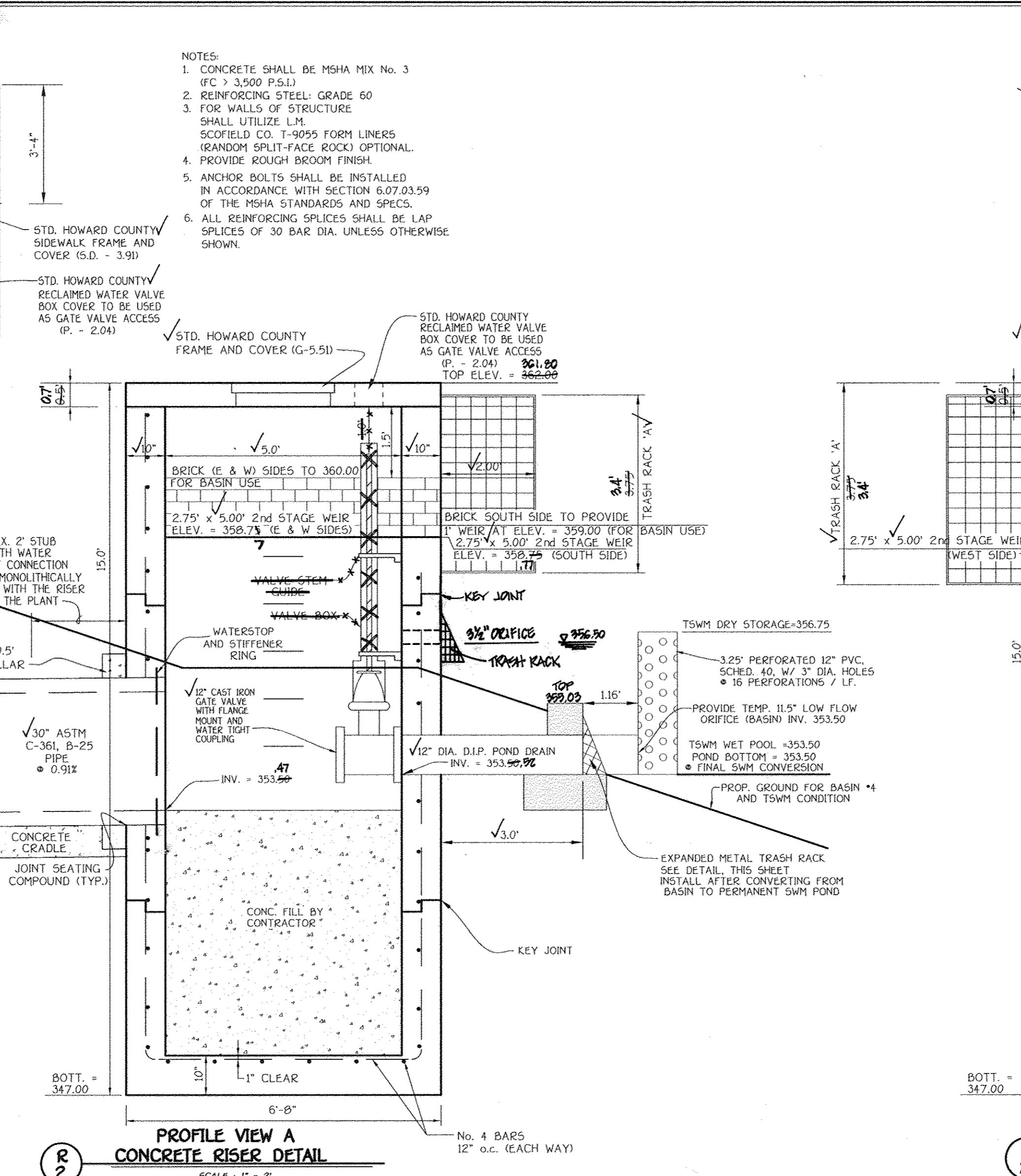
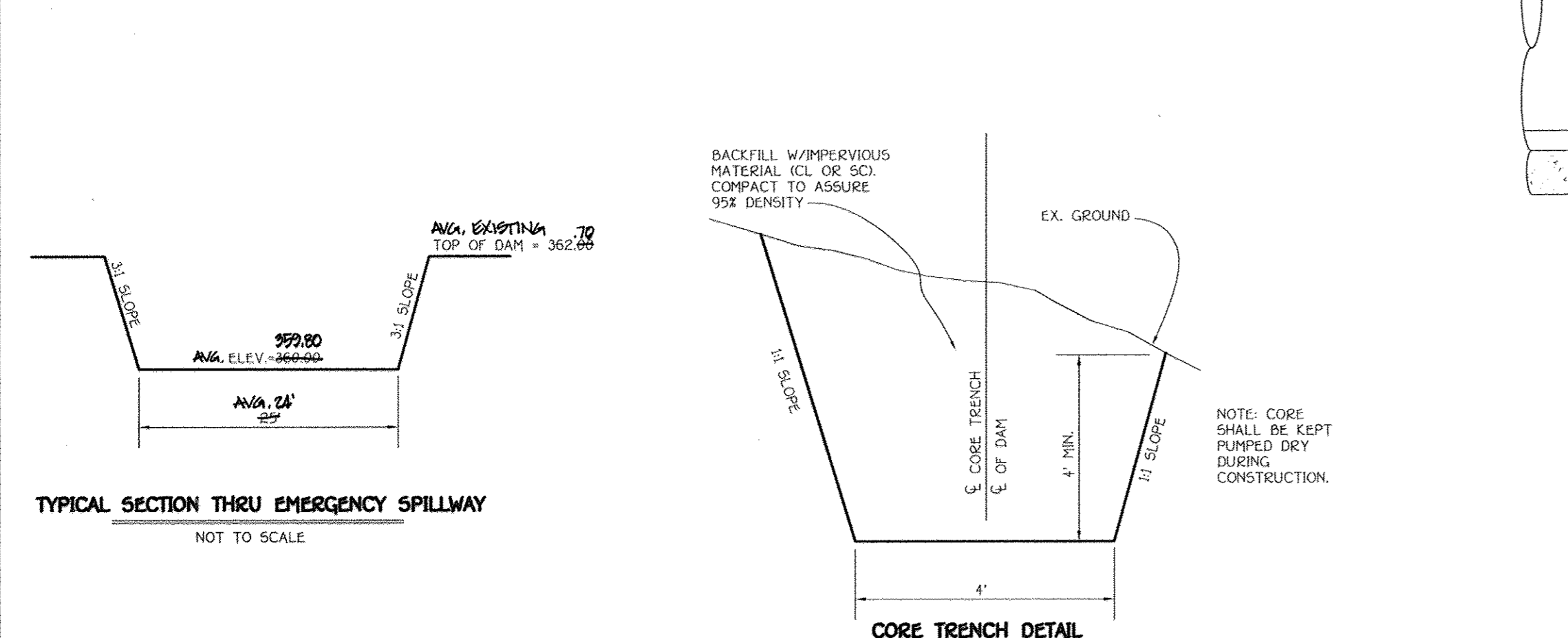
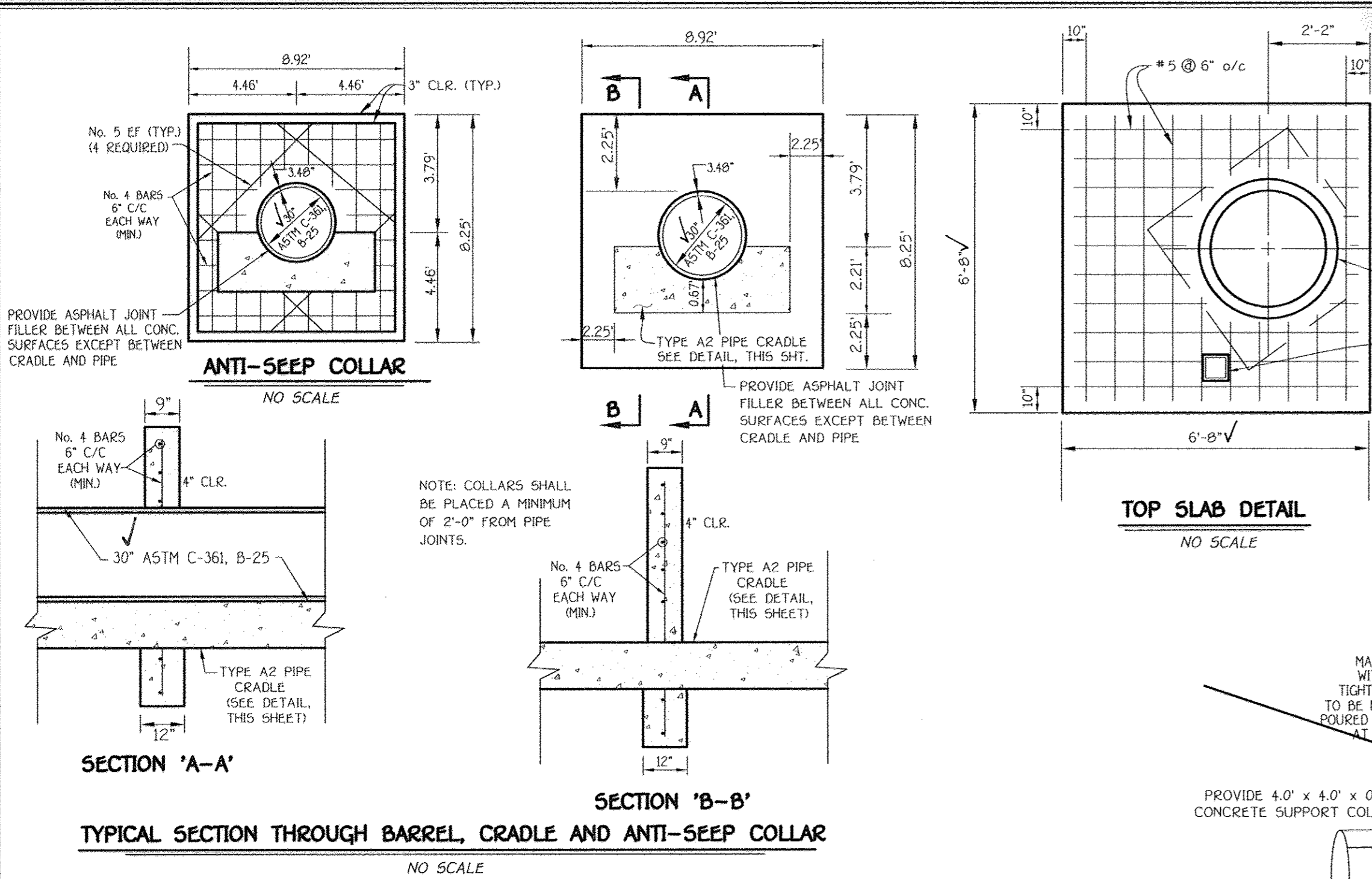
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21114
 (410) 461-2800

NO.	REVISIONS	DATE
1	REVISED TITLE BLOCK	9/25/12

OWNER: BASSLERS, INCORPORATED
 17950 NORTH AVE
 LIGON, MARYLAND 21765

DEVELOPER: HERITAGE LAND DEVELOPMENT
 19500 NORTH AVE
 LIGON, MARYLAND 21765

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 Signature: *Alfred S. Bassler* Date: 10/16/08
 I, Alfred S. Bassler, hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-09.



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
410.481.2000

OWNER
BASSELLS, INCORPORATED
c/o ALFRED S. BASSELLER
4994 GREENPARK LANE
ELLCOTT CITY, MARYLAND 21042

DEVELOPER
HERITAGE LAND DEVELOPMENT
19950 NORTH AVE.
LISBON, MARYLAND 21765

NOTES:
1. FIELD MEASURE THE STRUCTURE DIMENSIONS TO INSURE EXACT FIT OF TRASH RACK.
2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
3. PAINT BATTLESHIP GRAY.

STORMWATER MANAGEMENT NOTES AND DETAILS
POND No. 4
WALNUT CREEK
PHASE TWO
Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
(Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thu 20647
ZONED: RC-DEO & R82-DEO
TAX MAP NO. 2B ORD Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: SEPTEMBER, 2008
SHEET 25 OF 32

AS-BUILT

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. Feag
Date: 10/16/08

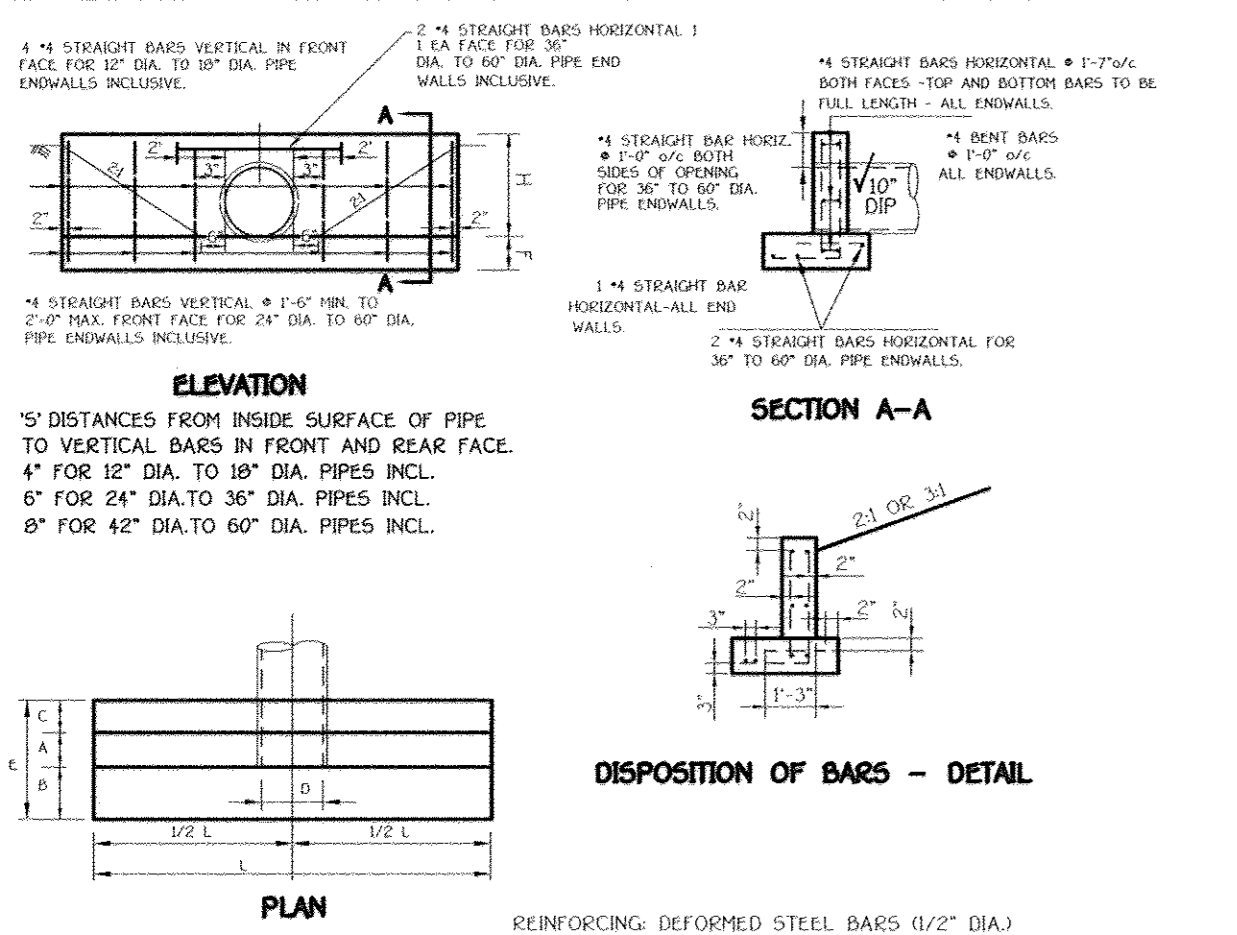
By The Engineer:
I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Reasonable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That Hereto 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: [Signature]
Date: 10-16-08

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.
Signature: [Signature]
Date: 10/23/08

Approved Department Of Public Works
Signature: [Signature]
Date: 10-28-08
Chief, Bureau Of Highways

Approved Department Of Planning And Zoning
Signature: [Signature]
Date: 11/9/08
Chief, Division Of Land Development

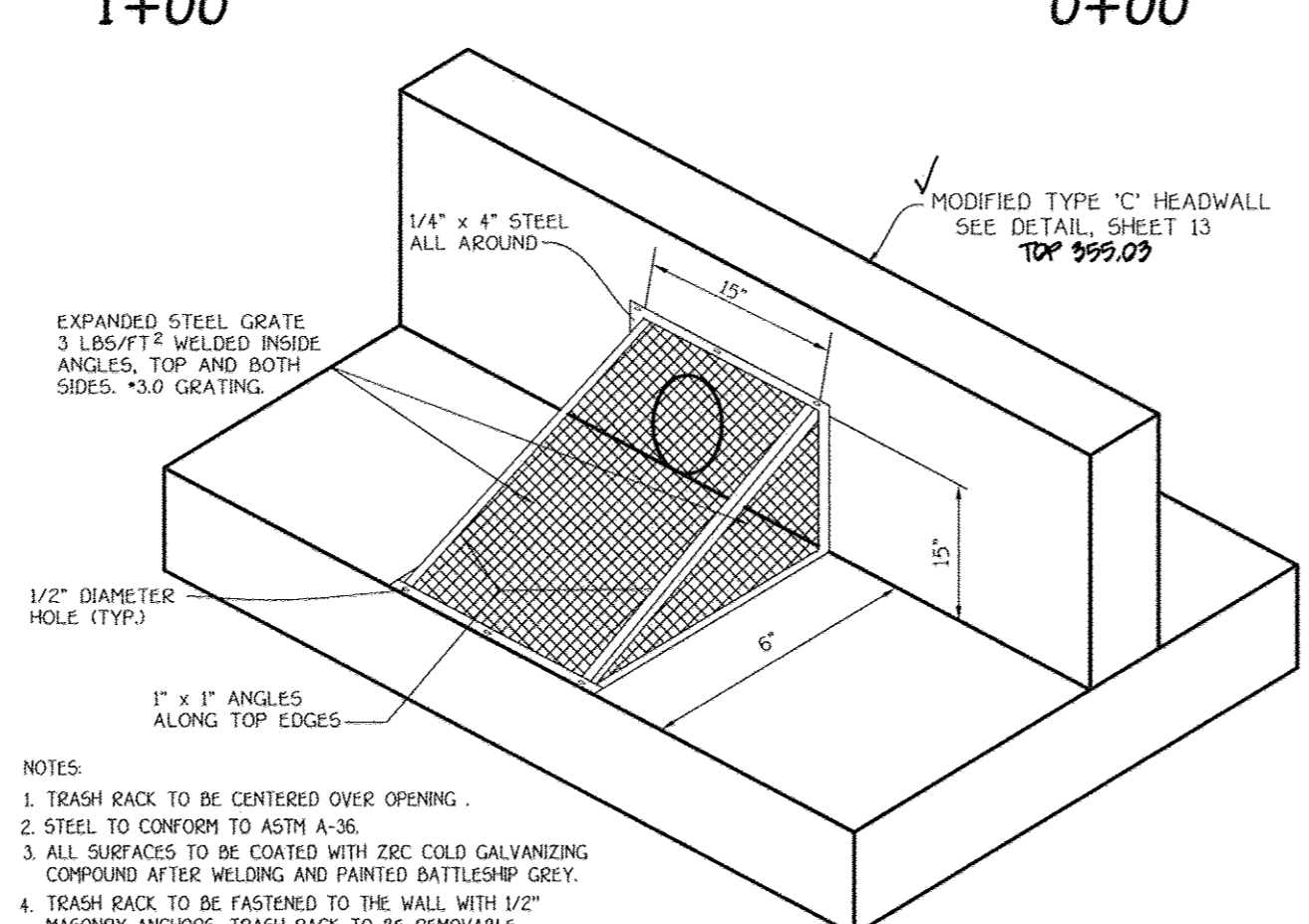
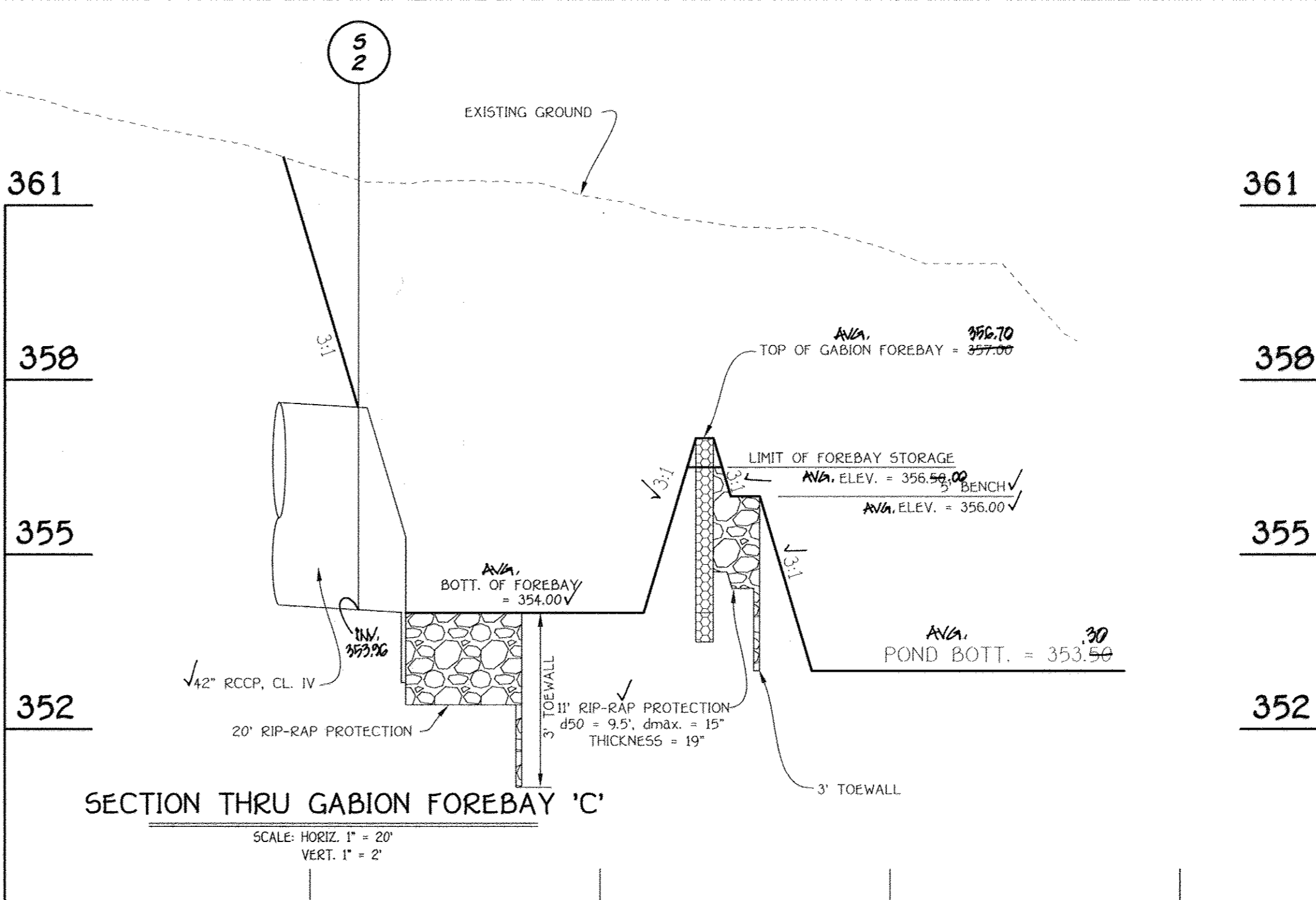
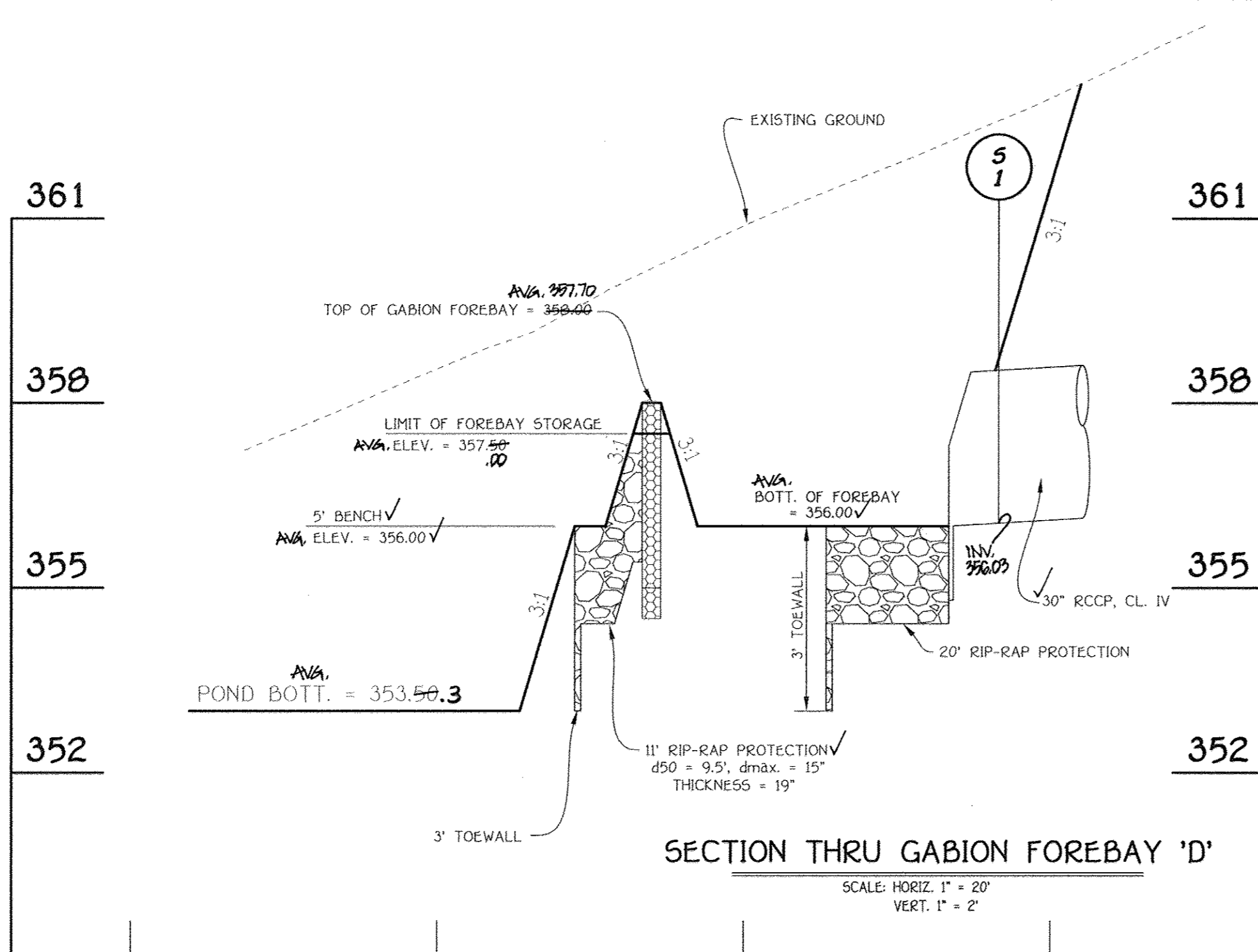
Signature: [Signature]
Date: 10/31/08
Chief, Development Engineering Division



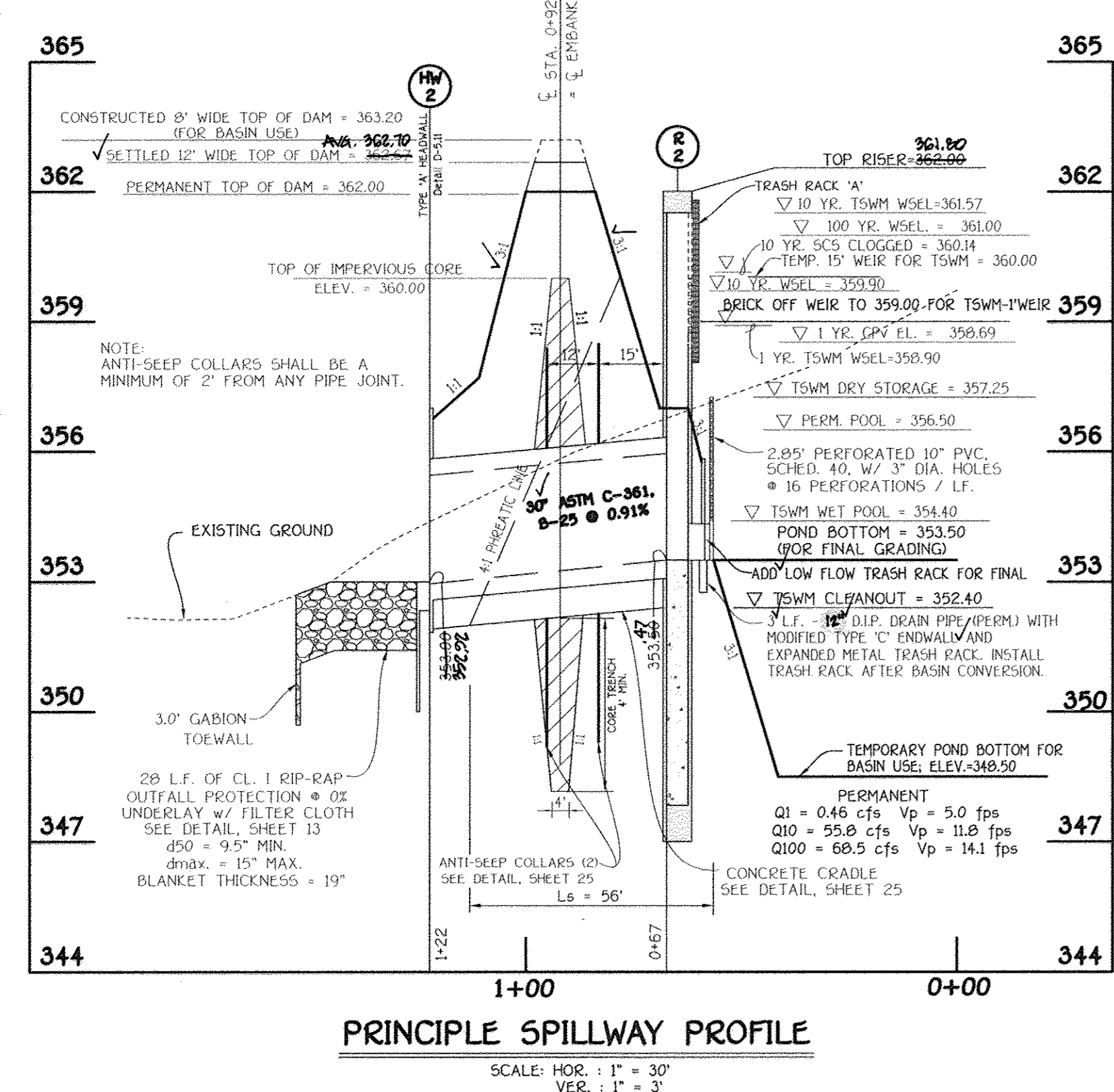
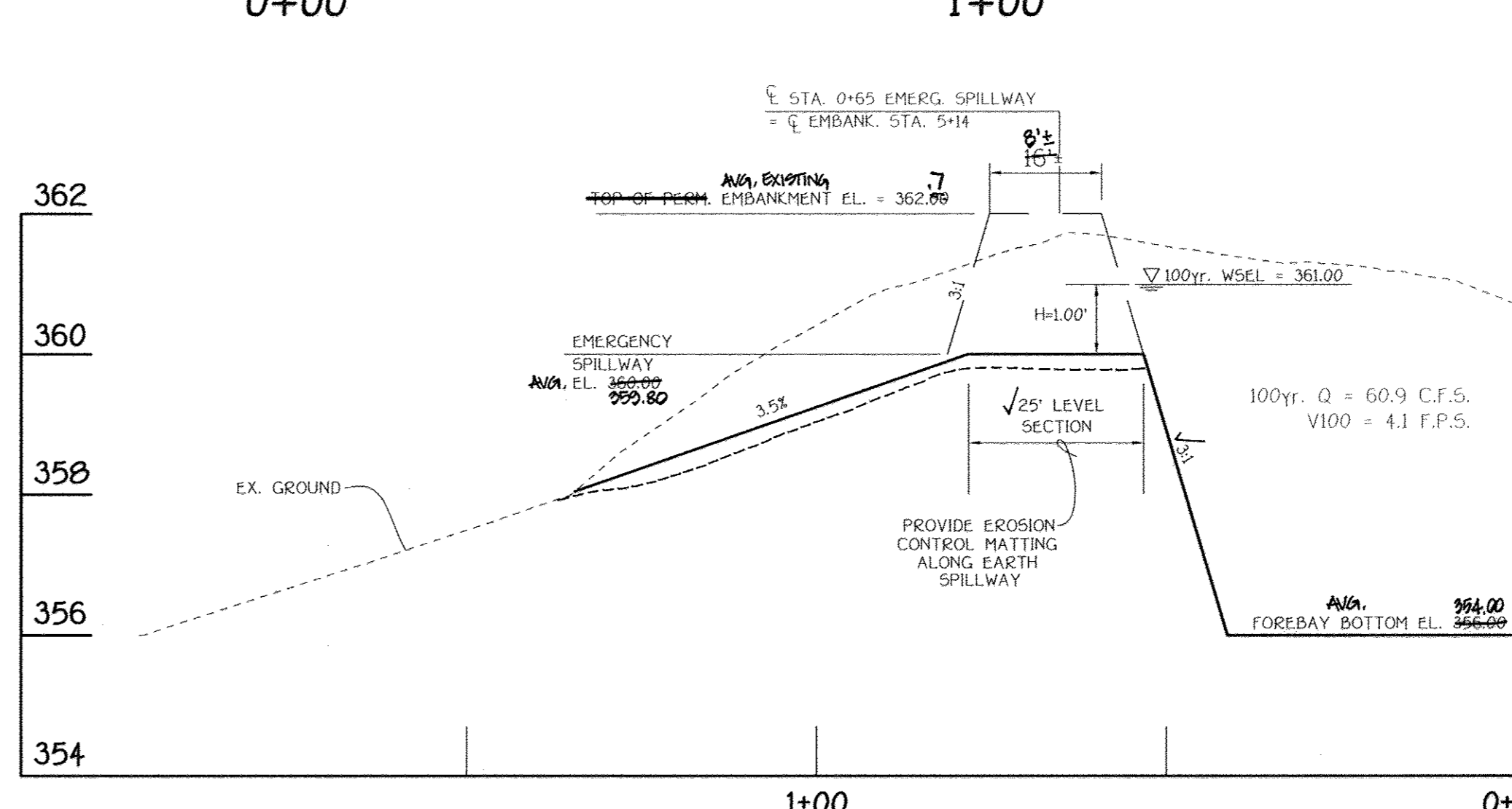
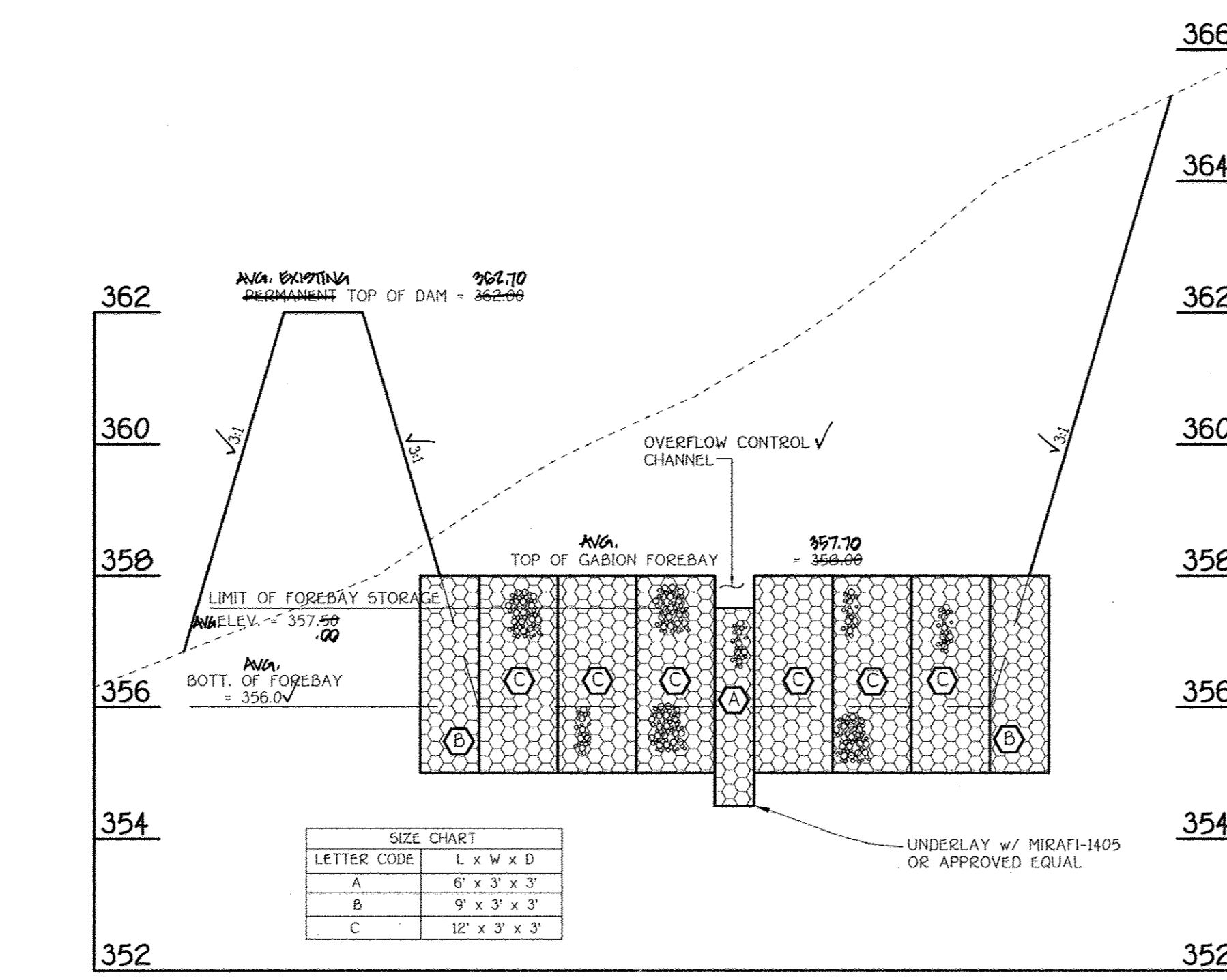
REINFORCING: DEFORMED STEEL BARS (1/2" DIA.)
CHARFER: ALL EXPOSED EDGES 1" x 1" OR AS DIRECTED.
CONC. SHALL BE 5,000 LBS. C.Y. MIX NO. 2.

OPENINGS	DIMENSIONS		VOLUME		STEEL				
D AREA IN SQUARE	A	B	C	F	H	L	CONC. C.Y.	LBS.	
1	0.79	9"	6"	6"	1'-9"	9"	1'-6"	0.61	38

MODIFIED TYPE 'C' ENDWALL
NO SCALE



LOW FLOW EXPANDED METAL TRASH RACK
NOT TO SCALE



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
410.461.2855

OWNER
BASSELLS, INCORPORATED
c/o ALFRED S. BASSELLER
4994 SHEPARD LANE
ELLCOTT CITY, MARYLAND 21042

DEVELOPER
HERITAGE LAND DEVELOPMENT
19590 NORTH AVE.
LISBON, MARYLAND 21765

By The Developer:
Signature Of Developer: *Timothy W. Feaga* 10/14/08
Printed Name Of Developer: Timothy W. Feaga
By The Engineer:
Signature: *[Signature]* 10/16/08
Printed Name: [Name]
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]* 10/23/08
Chief, Bureau Of Highways: [Name]
Approved Department Of Planning And Zoning: *[Signature]* 11/3/08
Chief, Division Of Land Development: [Name]
Chief, Development Engineering Division: *[Signature]* 10/31/08

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: *[Signature]* 10/16/08
Date: 10/16/08

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.
AS-BUILT 9/15/10

I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THE AS-BUILT PLAN MEET THE APPROVED PLAN AND SPECIFICATIONS.
CHRISTOPHER S. CHODUR, P.E. NO. 19204 AS-BUILT 9/15/10

NO.	REVISIONS	DATE
1	AS-BUILT	9/15/10
2	REVISED TITLE BLOCK	9/25/12

STATE OF MARYLAND
Professional Engineer
Signature: *[Signature]* 10/16/08
Date: 10/16/08
STORMWATER MANAGEMENT NOTES AND DETAILS
POND No. 4
WALNUT CREEK
PHASE TWO
Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N' (Being A Resubdivision Of Buildable Bulk Parcels '1' & '2' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat Nos. 20631 Thru 20647)
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: SEPTEMBER, 2008
SHEET 26 OF 32

APPROVED: DEPARTMENT OF PUBLIC WORKS
W. T. ... 10-28-08
 CHIEF, BUREAU OF HIGHWAYS DATE

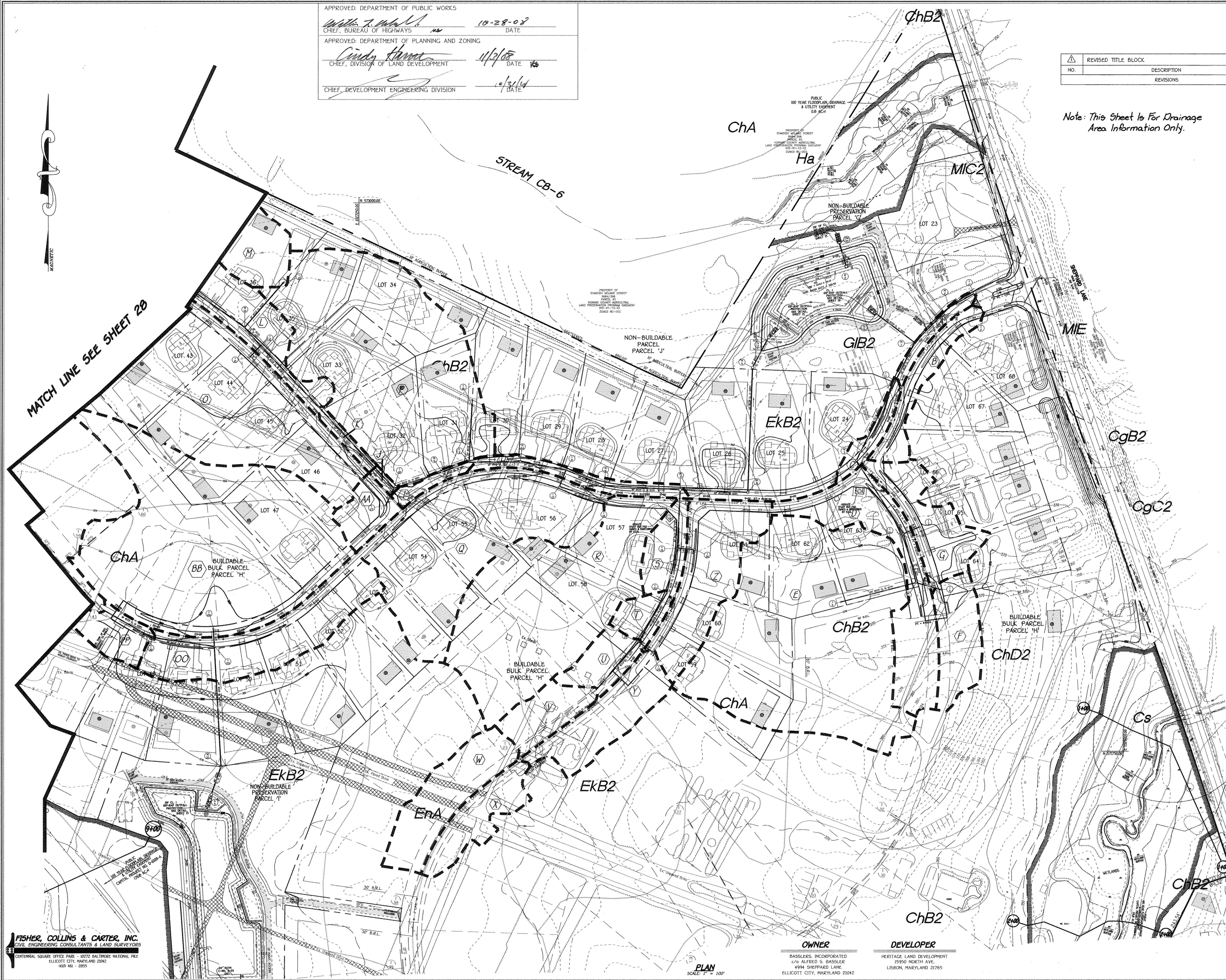
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy ... 11/2/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 10/21/08
 DATE

STORM DRAIN DRAINAGE REPORT					
STRUCTURE NO.	AREA	AREA (AC)	'C'	ZONED	± IMP.
1-1	A	0.23	0.53	RC-DEO	43
1-2	B	0.55	0.45	RC-DEO	31
1-3	C	0.21	0.52	RC-DEO	43
1-4	D	1.31	0.45	RC-DEO	31
1-5	E	4.55	0.30	RC-DEO	7
1-6	F	0.61	0.46	RC-DEO	33
1-7	G	0.74	0.48	RC-DEO	36
1-8	H	0.34	0.62	RC-DEO	60
1-9	I	0.13	0.64	RC-DEO	60
1-10	J	0.04	0.63	RC-DEO	60
1-11	K	0.11	0.48	RC-DEO	36
1-12	L	1.63	0.47	RC-DEO	34
1-13	M	1.09	0.30	RC-DEO	7
1-14	N	2.88	0.33	RC-DEO	12
1-15	O	4.47	0.35	RC-DEO	15
1-16	P	3.98	0.35	RC-DEO	15
1-17	Q	2.72	0.37	RC-DEO	18
1-18	R	3.03	0.31	RC-DEO	8
1-19	S	0.39	0.46	RC-DEO	33
1-20	T	0.25	0.48	RC-DEO	36
1-21	U	0.37	0.42	RC-DEO	27
1-22	V	0.45	0.49	RC-DEO	38
1-23	W	0.89	0.45	RC-DEO	31
1-24	X	0.54	0.45	RC-DEO	31
1-25	Y	0.80	0.47	RC-DEO	34
1-26	Z	1.20	0.44	RC-DEO	30
1-27	AA	0.34	0.48	RC-DEO	35
1-28	BB	4.62	0.35	RC-DEO	14
1-29	OO	1.34	0.47	RC-DEO	43
1-30	PP	0.38	0.48	RC-DEO	50
1-43	QQ	0.23	0.50	RC-DEO	39

NO.	REVISIONS	DATE
1	REVISED TITLE BLOCK	9/25/12

Note: This sheet is for Drainage Area Information Only.



DRIVEWAY CULVERT SIZE ANALYSIS

LOT NO.	PIPE SIZE	ROAD STA. & GRADE	ROAD NAME	REMARKS
23	12"	STA: 2+40 1.0%	ASHLEIGH DRIVE	
24	12"	STA: 5+94 1.0%	ASHLEIGH DRIVE	
25	12"	STA: 8+24 1.0%	ASHLEIGH DRIVE	
26	12"	STA: 9+54 1.0%	ASHLEIGH DRIVE	
27	12"	STA: 11+06 1.0%	ASHLEIGH DRIVE	
28	12"	STA: 12+80 1.0%	ASHLEIGH DRIVE	
29	12"	STA: 14+02 3.5%	ASHLEIGH DRIVE	
30	12"	STA: 15+00 3.5%	ASHLEIGH DRIVE	
31	12"	STA: 16+01 3.5%	ASHLEIGH DRIVE	
32	12"	STA: 1+07 1.0%	BENJAMINS COURT	
33	12"	STA: 3+29 4.0%	BENJAMINS COURT	
34	12"	STA: 4+25 4.0%	BENJAMINS COURT	
35	12"	STA: 4+73 4.0%	BENJAMINS COURT	
36	12"	STA: 6+25 3.0%	BENJAMINS COURT	
37	12"	L.P. 2+37 3.0%	BENJAMINS COURT	
38	12"	L.P. 1+84 3.0%	BENJAMINS COURT	
39	12"	L.P. 1+64 3.0%	BENJAMINS COURT	
40	NO PIPE	L.P. 1+49 HEIGHT FT.	BENJAMINS COURT	
41	12"	L.P. 1+23 3.0%	BENJAMINS COURT	
42	12"	L.P. 0+60 3.0%	BENJAMINS COURT	
43	12"	STA: 6+17 3.0%	BENJAMINS COURT	
44	12"	STA: 4+75 4.0%	BENJAMINS COURT	
45	12"	STA: 3+46 4.0%	BENJAMINS COURT	
46	12"	STA: 18+23 3.5%	ASHLEIGH DRIVE	
47	12"	STA: 19+47 2.0%	ASHLEIGH DRIVE	
48	12"	STA: 24+17 1.24%	ASHLEIGH DRIVE	
49	12"	STA: 23+03 1.24%	ASHLEIGH DRIVE	
50	12"	STA: 22+04 2.0%	ASHLEIGH DRIVE	
51	12"	STA: 21+11 2.0%	ASHLEIGH DRIVE	
52	12"	STA: 20+19 2.0%	ASHLEIGH DRIVE	
53	12"	STA: 19+22 2.0%	ASHLEIGH DRIVE	
54	12"	STA: 17+99 3.5%	ASHLEIGH DRIVE	
55	12"	STA: 16+76 3.5%	ASHLEIGH DRIVE	
56	12"	STA: 14+43 3.5%	ASHLEIGH DRIVE	
57	12"	STA: 1+62 1.0%	HAYLAND COURT	
58	12"	STA: 3+40 1.0%	HAYLAND COURT	
59	12"	STA: 3+27 1.0%	HAYLAND COURT	
60	12"	STA: 2+29 1.0%	HAYLAND COURT	
61	12"	STA: 9+08 1.0%	ASHLEIGH DRIVE	
62	12"	STA: 8+18 1.0%	ASHLEIGH DRIVE	
63	12"	STA: 7+26 1.0%	ASHLEIGH DRIVE	
64	12"	STA: 3+13 3.5%	HAYLAND FARM WAY	
65	12"	STA: 2+04 3.5%	HAYLAND FARM WAY	
66	12"	STA: 0+98 3.0%	HAYLAND FARM WAY	
67	12"	STA: 4+28 1.0%	ASHLEIGH DRIVE	
68	12"	STA: 2+24 4.0%	ASHLEIGH DRIVE	

NOTE: THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET. CHECKED BY J. DUNN, P.E. ON 10/20/08. REVISED BY J. DUNN, P.E. ON 9/15/14.

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 ALDO ... 10-16-08
 DATE
 "I, the undersigned, hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-09."
 AS BUILT 9/15/14

STORM DRAIN DRAINAGE AREA MAP
 WALNUT CREEK
 PHASE TWO

Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' and 'M' & Buildable Bulk Parcels 'H' and 'N' (Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647.
 ZONED: RC-DEO & RR-DEO
 TAX MAP No. 28 QRD Nos. 4, 5, 10-12, 17, and 18 PARCEL No. 49
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 27 OF 32

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 410-461-2000

OWNER: BASSLEKS, INCORPORATED
 c/o ALFRED S. BASSLER
 4994 SHEPHERD LANE
 ELLICOTT CITY, MARYLAND 21042

DEVELOPER: HERITAGE LAND DEVELOPMENT
 1590 NORTH AVE.
 LISBON, MARYLAND 21765

PLAN
 SCALE: 1" = 100'

SOILS LEGEND

SOIL	NAME	CLASS
CgB2	Chester gravelly silt loam, 3 to 8 percent slopes, moderately eroded	B
CgC2	Chester gravelly silt loam, 8 to 15 percent slopes, moderately eroded	B
ChA	Chester silt loam, 0 to 3 percent slopes	B
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	B
ChC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded	B
ChD2	Chester silt loam, 15 to 25 percent slopes, moderately eroded	B
Cs	Cornus silt loam	B
EKA	Elioak silt loam, 0 to 3 percent slopes	B
EKB2	Elioak silt loam, 3 to 8 percent slopes, moderately eroded	B
ELD3	Elioak silty clay loam, 15 to 25 percent slopes, severely eroded	B
GB2	Glenelg loam, 3 to 8 percent slopes, moderately eroded	B
GD3	Glenelg loam, 15 to 25 percent slopes, severely eroded	B
GnA	Glenville silt loam, 0 to 3 percent slopes	C
GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	C
Ha	Hatboro silt loam	D
MgB2	Manor gravelly loam, 3 to 8 percent slopes, moderately eroded	B
MgC2	Manor gravelly loam, 8 to 15 percent slopes, moderately eroded	B
MIB2	Manor loam, 3 to 8 percent slopes, moderately eroded	B
MID2	Manor loam, 15 to 25 percent slopes, moderately eroded	B
MIe	Manor loam, 25 to 45 percent slopes	B
MnD	Manor very stony loam, 3 to 25 percent slopes	B
MnF	Manor very stony loam, 25 to 60 percent slopes	B

NOTES:
 * Hydric soils and/or contains hydric inclusions
 ** May contain hydric inclusions

APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. ... 10-28-08
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy ... 11/2/08
 CHIEF, DIVISION OF LAND DEVELOPMENT
 APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 10/31/09



Note: This Sheet is For Drainage Area Information Only.

NOTE: SEE SHEET 27 FOR DRAINAGE AREA SUMMARY CHART.
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET. CHANNELS & DRAINS ARE TO BE RECONSTRUCTED AS SHOWN.

NO.	REVISED TITLE BLOCK	DATE
		9/25/12

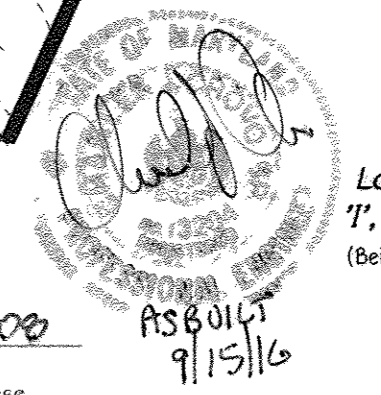
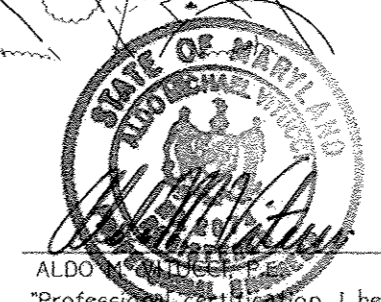
**STORM DRAIN DRAINAGE AREA MAP
 WALNUT CREEK**

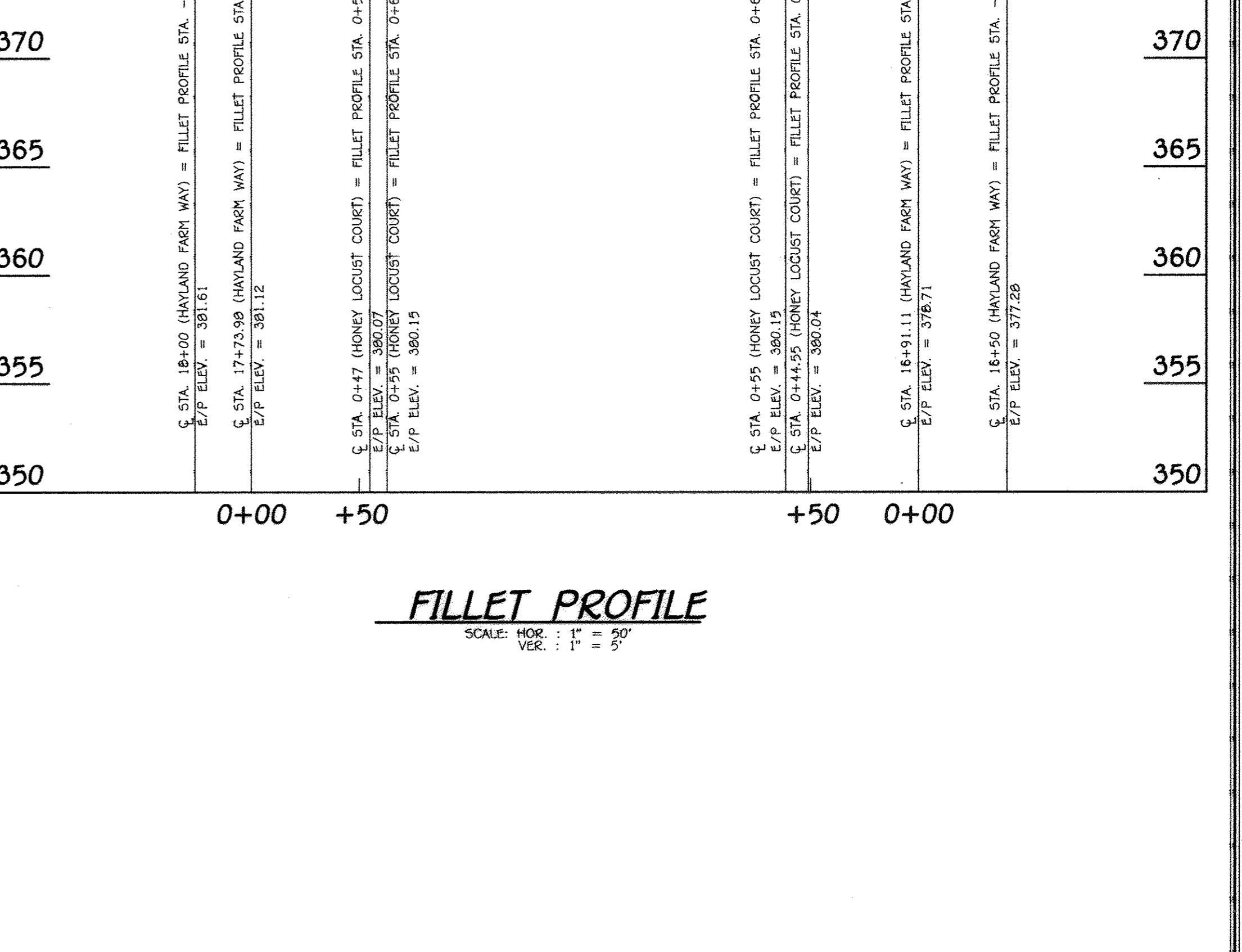
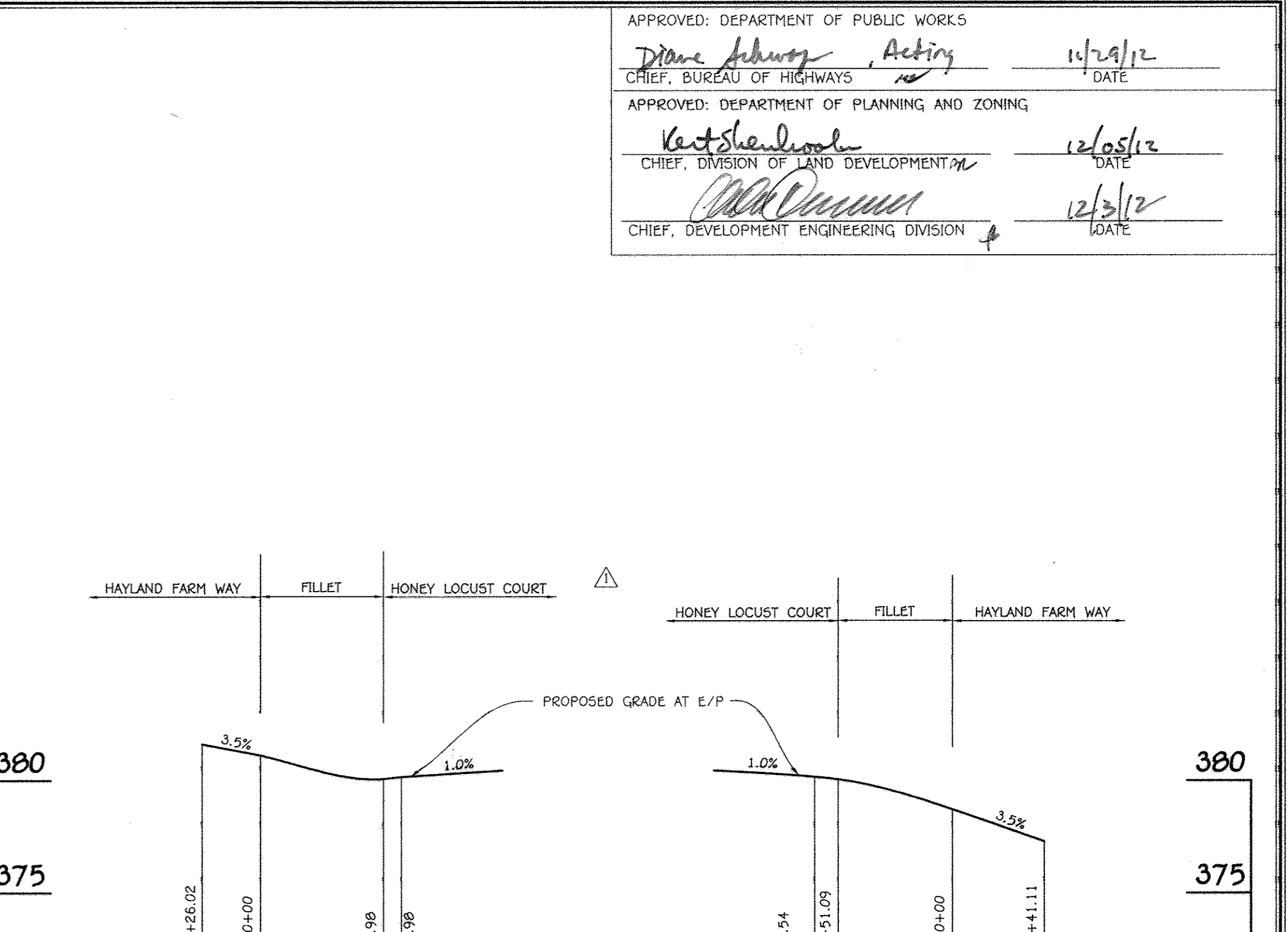
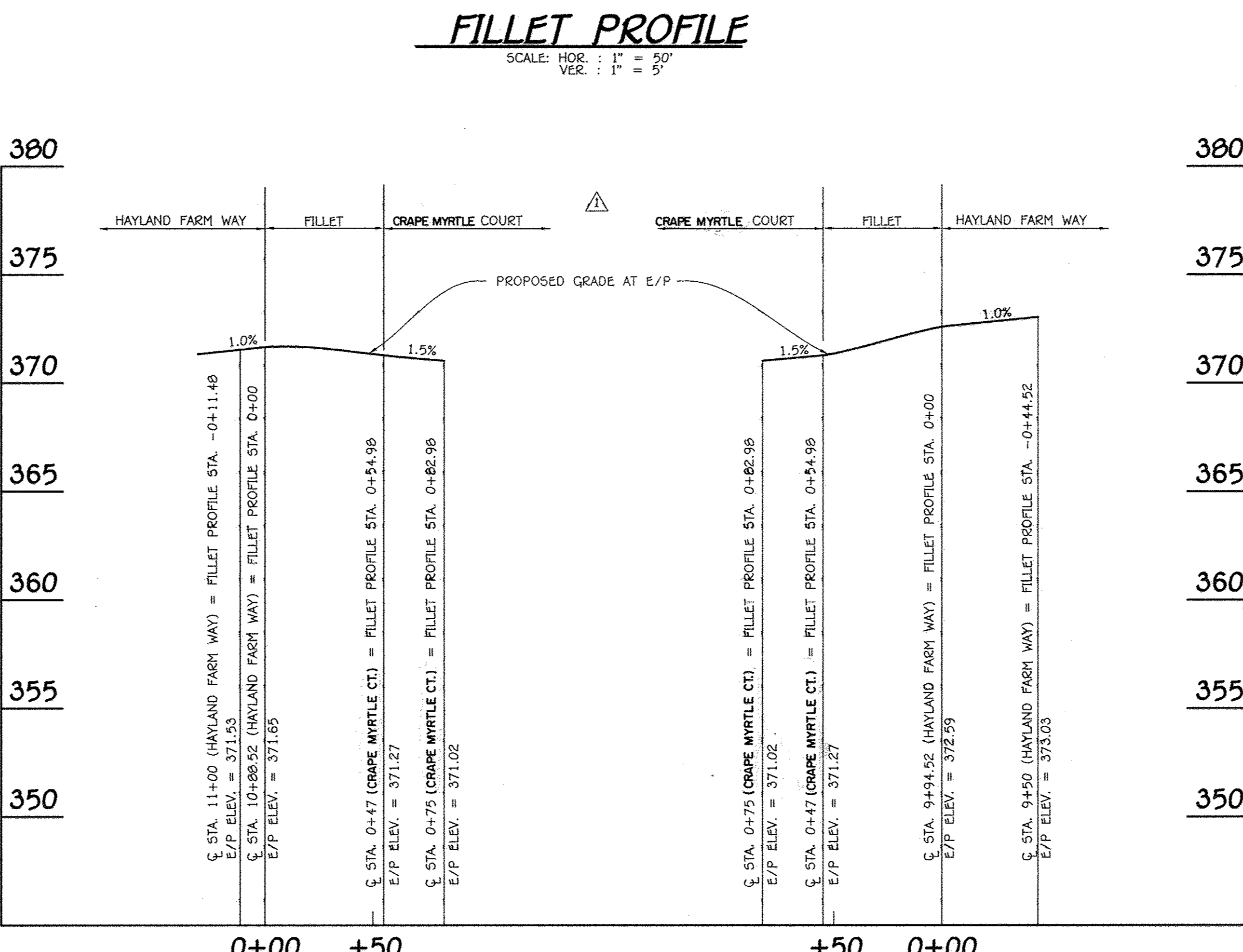
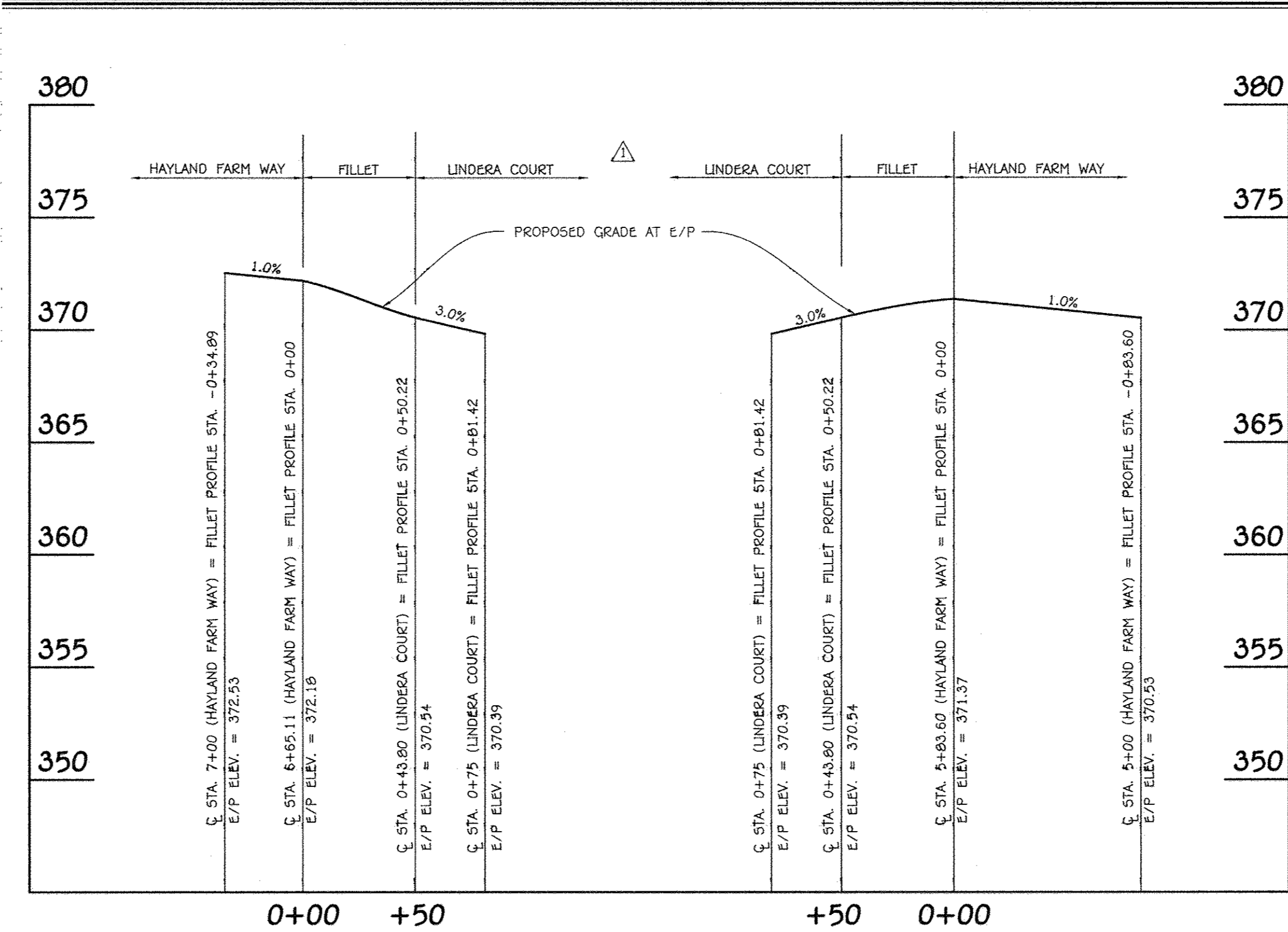
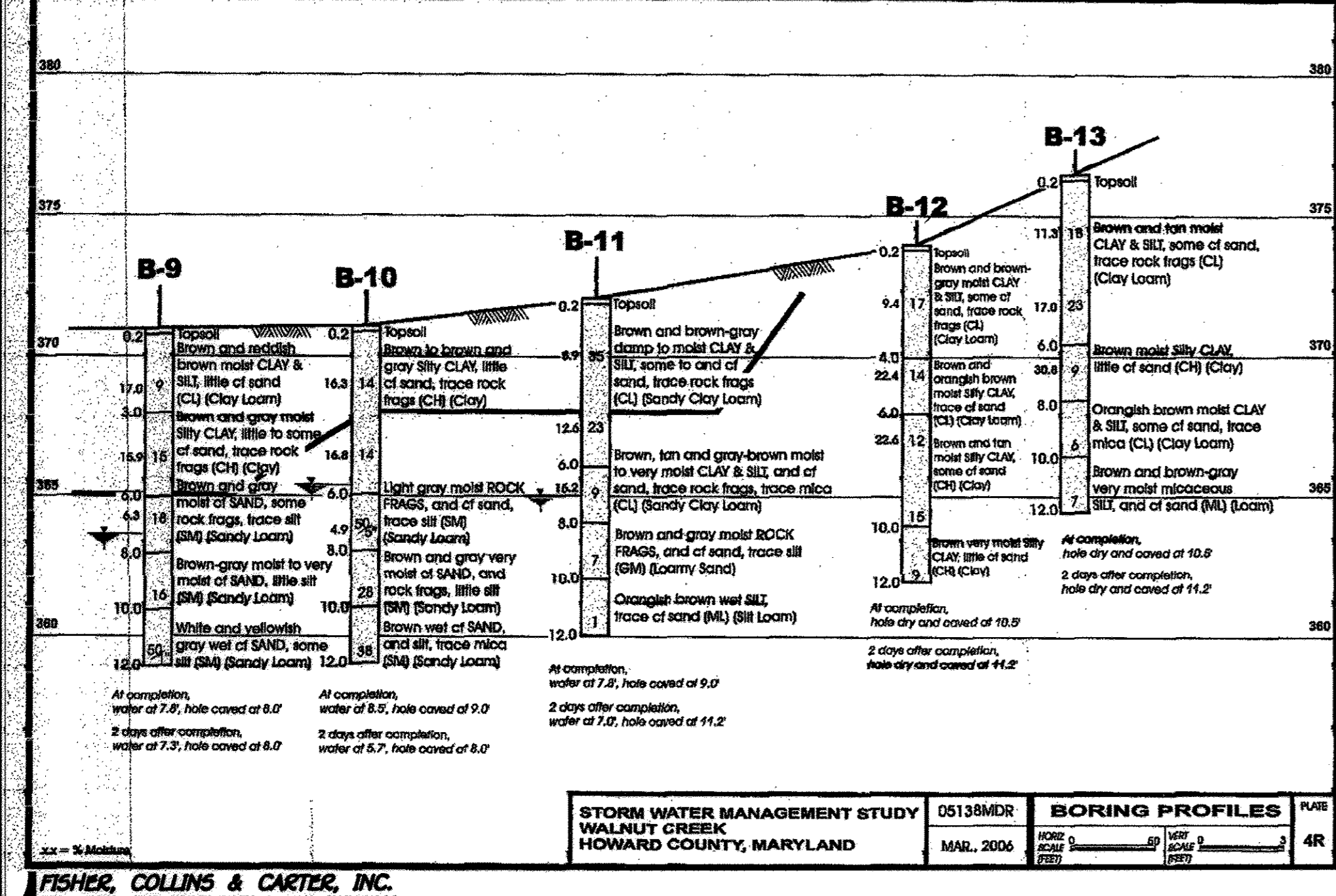
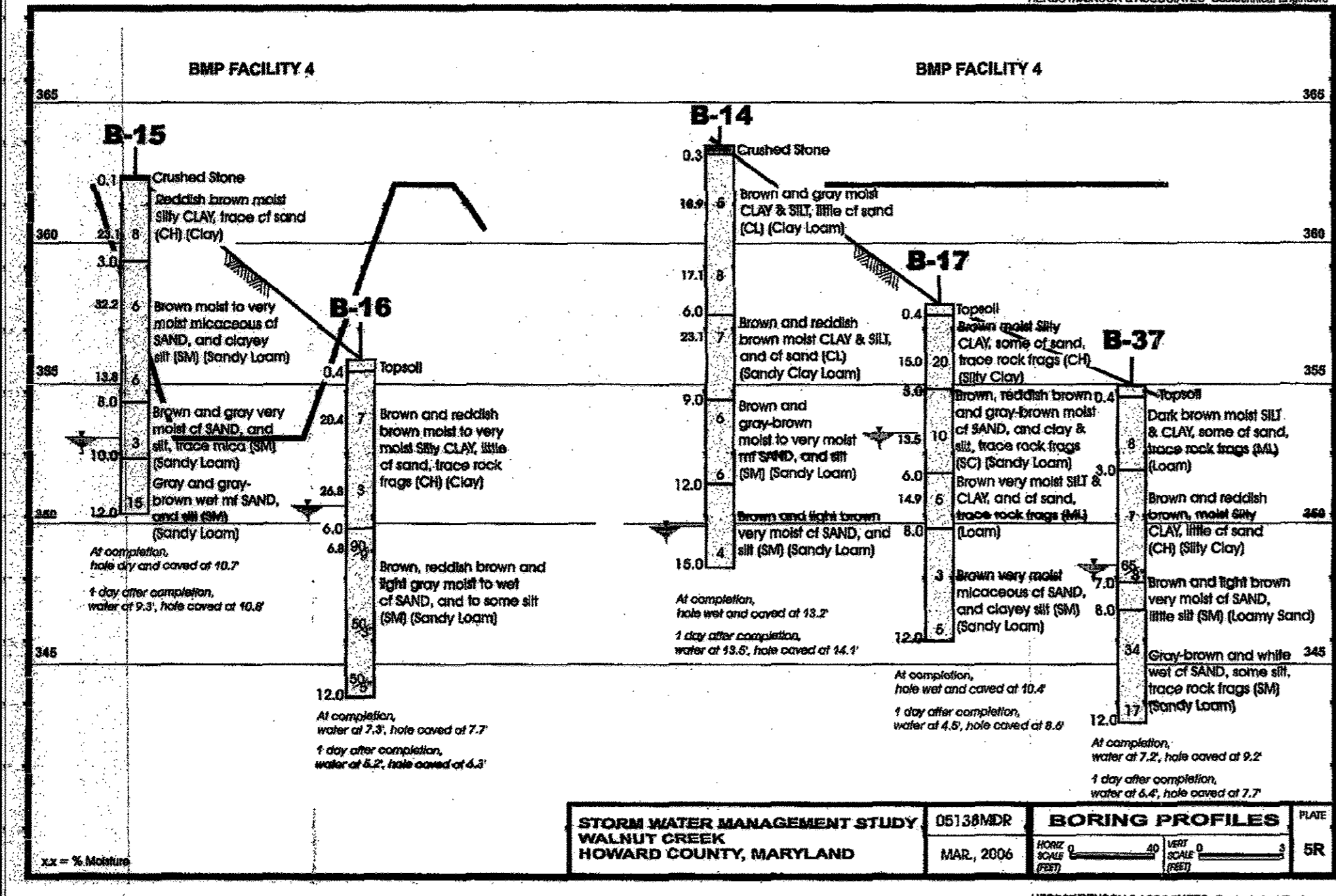
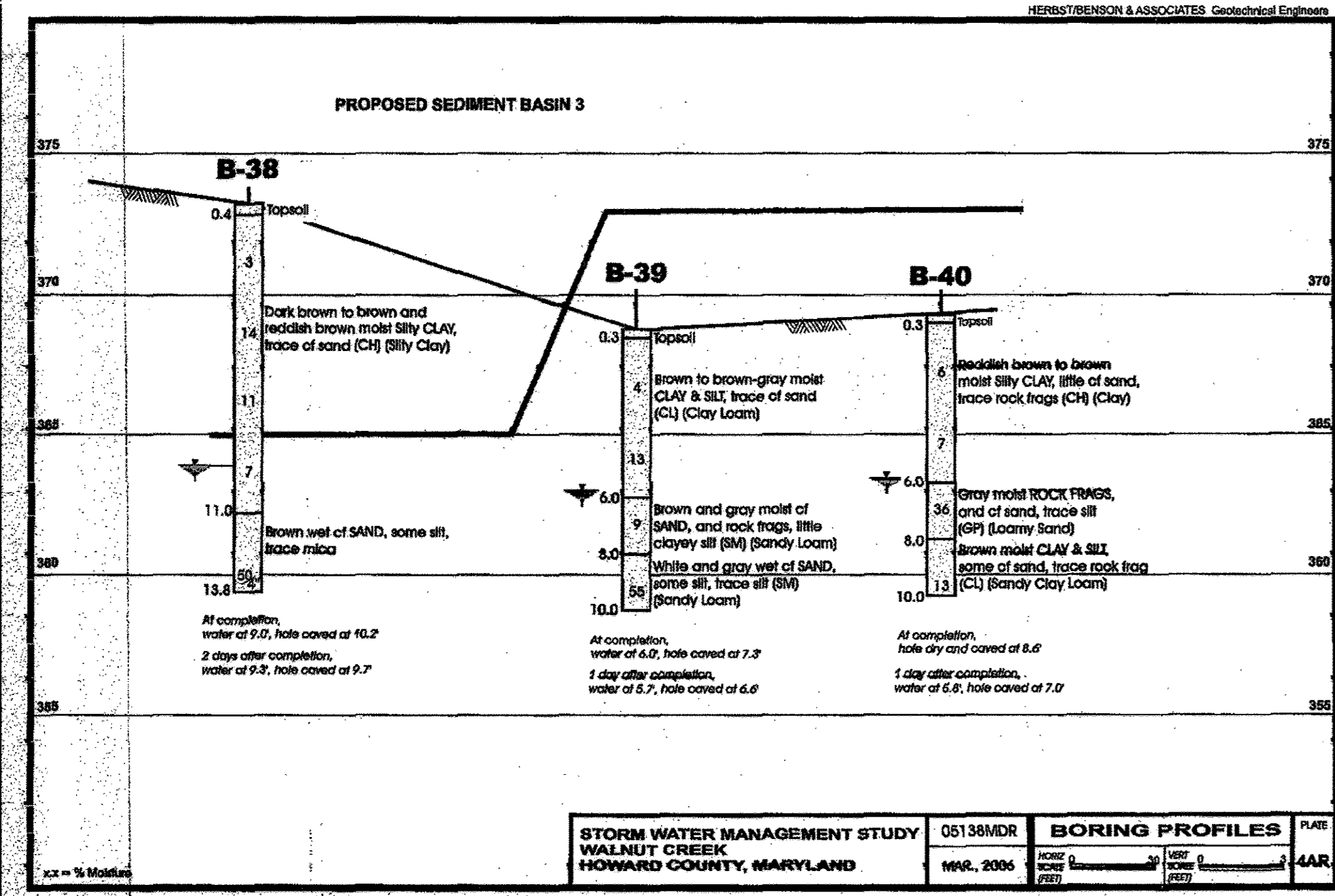
PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N' (Being A Re subdivision Of Buildable Bulk Parcels 'I' & 'J' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647)
 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: SEPTEMBER, 2008
 SHEET 28 OF 32

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK • 30722 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 4101 • 2005

OWNER
 BASSLER, INCORPORATED
 c/o ALFRED S. BASSLER
 4996 SHEPPARD LANE
 ELLICOTT CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 LISBON, MARYLAND 21765





APPROVED: DEPARTMENT OF PUBLIC WORKS
 Diane Schwab, Acting, 11/21/12
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Katschenko, 12/05/12
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

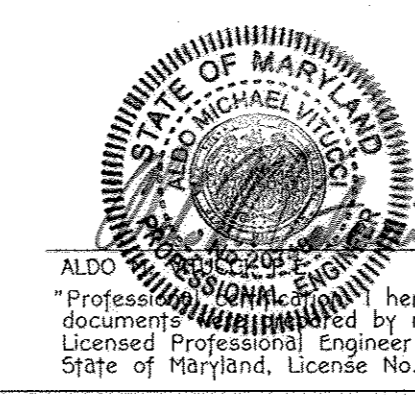
APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature], 12/3/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 10722 BALTIMORE NATIONAL PIKE
 ELLETTTOWN, MARYLAND 21424
 (410) 461-3999

NO.	DESCRIPTION	DATE
1	REVISED ROAD NAMES & TITLE BLOCK	5/25/12

OWNER
 BASSLERS, INCORPORATED
 1990 NORTH AVE.
 494 SHEPPARD LAKE
 ELLETTTOWN, MARYLAND 21424
 (410) 535-2100

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 1590 NORTH AVE.
 LUSK, WYOMING 82401
 (307) 382-7165



NOTE: THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET. CHANGES TO ORIGINAL "AS-BUILT" INFORMATION ARE SHOWN IN RED.

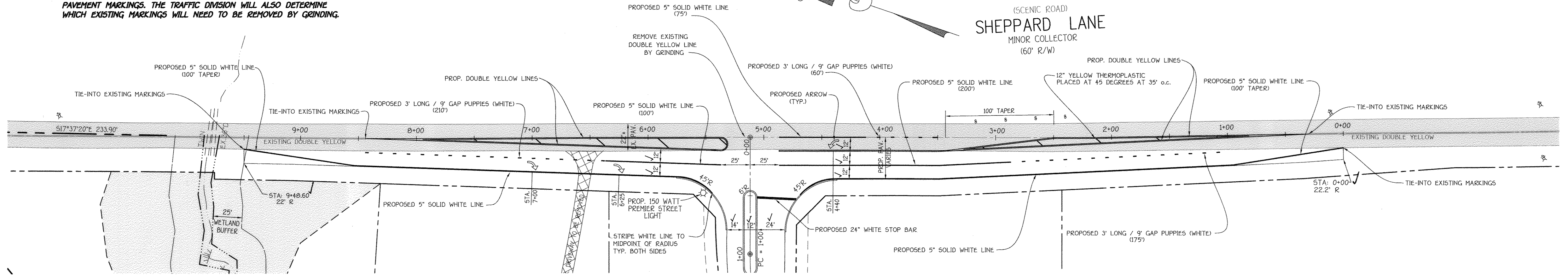
REVISED SOIL BORINGS & FILLET PROFILES WALNUT CREEK PHASE TWO

ALSO SEE: [Signature] DATE: 7/15/16

Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'C' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, P147 No. 20631 Thru 20647
 ZONING: RC-100 & 98-100
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 29 OF 32

- NOTES:**
1. ALL LANE DESIGNATION TO BE THERMOPLASTIC LINE STRIPING.
 2. EXISTING PAVEMENT MARKINGS SHALL BE REMOVED BY GRINDING.
 3. ALL PAVEMENT MARKINGS SHALL BE 5" WIDE UNLESS NOTED OTHERWISE.
 4. ALL RELOCATED SIGNS ARE TO BE INSTALLED ON NEW 2" GALVANIZED STEEL PERFORATED, SQUARE TUBE POSTS (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL PERFORATED, SQUARE TUBE SLEEVES (12 GAUGE) 3' LONG WITH A GALVANIZED STEEL CAP ON THE TOP OF POST.
 5. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT (410) 313-5752 PRIOR TO LAYING-OUT AND INSTALLING ANY SIGNS AND OR PAVEMENT MARKINGS. THE TRAFFIC DIVISION WILL ALSO DETERMINE WHICH EXISTING MARKINGS WILL NEED TO BE REMOVED BY GRINDING.

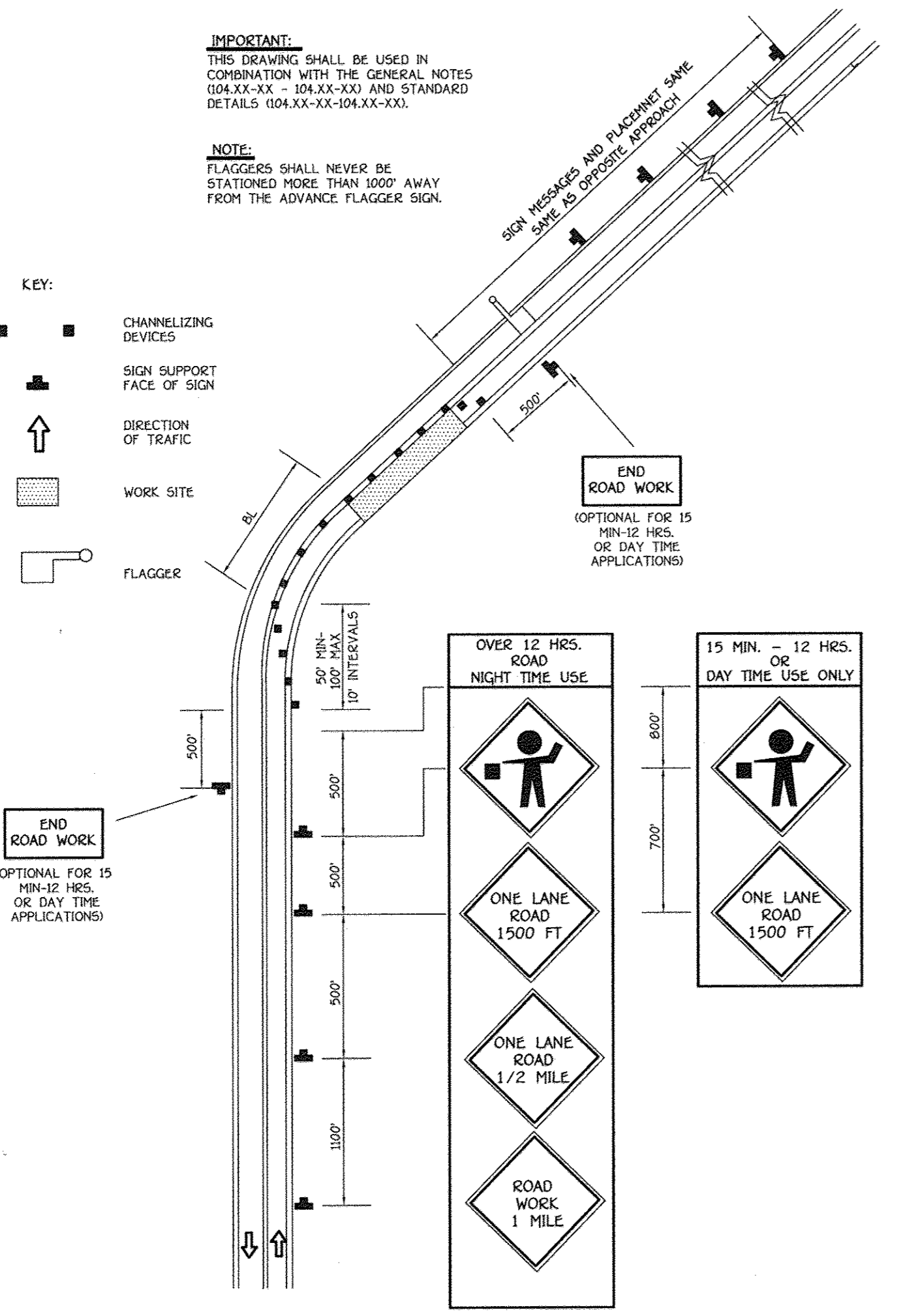
APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter P. ... 10-28-07
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
Andy ... 11/30/07
 CHIEF, DIVISION OF LAND DEVELOPMENT
 APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 10/31/07



STRIPING PLAN
 SCALE: 1" = 40'

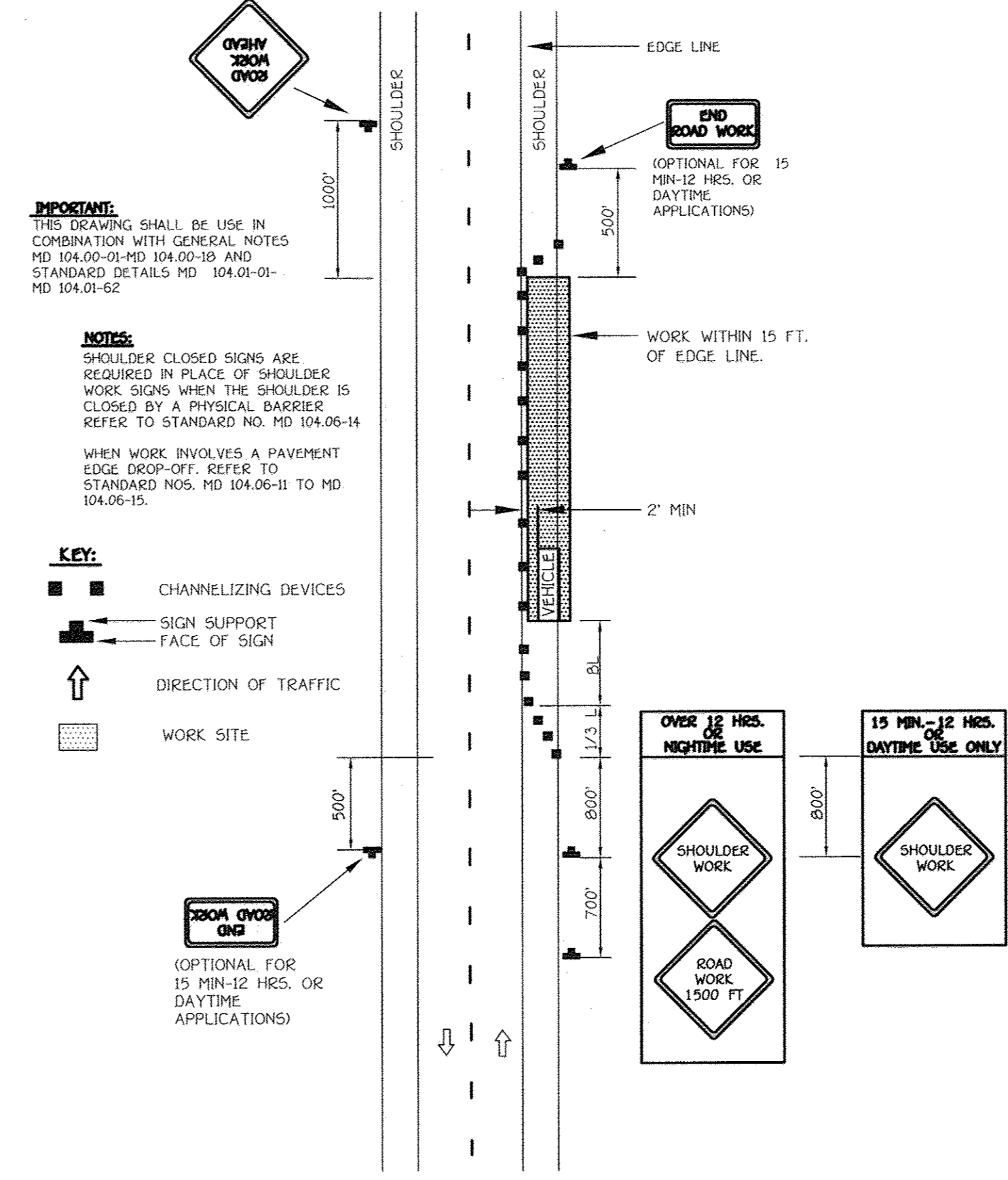
IMPORTANT:
 THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES 004.XX-XX - 104.XX-XX AND STANDARD DETAILS 104.XX-XX-104.XX-XX.

NOTE:
 FLAGGERS SHALL NEVER BE STATIONED MORE THAN 1000' AWAY FROM THE ADVANCE FLAGGER SIGN.



MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS

- GENERAL**
1. THE PURPOSE OF THIS PORTION OF THE SPECIAL PROVISION IS TO SET FOR THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE TO TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELING PUBLIC AND THE CONTRACTOR AND/OR PERMITTEE.
 2. PROPER TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY AND THAT OF HIGHWAY WORKERS HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
 3. THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.
 4. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE PROVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1980 EDITION, ESPECIALLY PART VI, AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1982), INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.
 5. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS SET FORTH IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THIRTEEN WORKING DAYS PRIOR TO THE PROPOSED SCHEDULING CHANGE. THE CONTRACTOR AND/OR PERMITTEE SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
 6. NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE TO HAVE BEEN CHECKED FOR APPROVED USAGE.
 7. GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC, AND ANY ADDITIONAL SIGNING HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER. NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.
 8. THE CONTRACTOR AND/OR PERMITTEE SHALL PROVIDE, MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
 9. ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION 814 OF THE SPECIFICATIONS. FOR REFLECTIVE DEVICES, A PARTICULAR DEVICE IS ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 50% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE VISIBLE REFLECTIVE SURFACE.
 10. ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
 11. THROUGHOUT THE PERIODS OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP. IN LIEU OF THE TCP PREPARED FOR THIS PROJECT, AND/OR INDIVIDUAL TYPICAL TRAFFIC CONTROL STANDARDS, THE CONTRACTOR AND/OR PERMITTEE HAS THE OPTION OF PREPARING AND SUBMITTING A TCP, WHOLLY OR IN PART, OF HIS OWN DESIGN, FOLLOWING GUIDELINES SET FORTH IN THE MUTCD AND PRESCRIBED BY THE ADMINISTRATION. A TCP DEVELOPED BY THE CONTRACTOR AND/OR PERMITTEE SHALL NOT BE IMPLEMENTED UNTIL ADVANCE WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. TCP'S MAY BE IMPLEMENTED WITHIN A SINGLE PROJECT OR JOINTLY IMPLEMENTED. CARE SHALL BE EXERCISED TO PRESENT CORRECT AND NON-CONFLICTING GUIDANCE TO THE TRAVELING PUBLIC.
 12. THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.
 13. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTED. NO TRAVEL LANE(S) OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR AND/OR PERMITTEE SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.



**SHOULDER WORK 1/2-LANE, 2-WAY
 EQUAL/LESS THAN 40 MPH**

I HEREBY 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 SPECIFICATIONS.
 CHARLES J. ORNDORF, SR. PE NO. 19204 AS-BUILT 9/15/10

**TRAFFIC CONTROL PLANS & STRIPING PLAN
 WALNUT CREEK
 PHASE TWO**

Lois 23 - 6B, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N' (Being A Re-subdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No. 20631 Thru 20647)
 ZONED: RC-DEO & R8-DEO
 TAX MAP NO. 2B GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2008
 SHEET 30 OF 32

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLECIET CITY, MARYLAND 21042
 (410) 481 - 3900

OWNER
 BASSLERS, INCORPORATED
 470 ALFORD S. BASSLER
 4994 SHEPPARD LANE
 ELLECIET CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 LISBON, MARYLAND 21765

ALDO ...
 DATE: 10-16-08

AS-BUILT 9/15/10

AS-BUILT

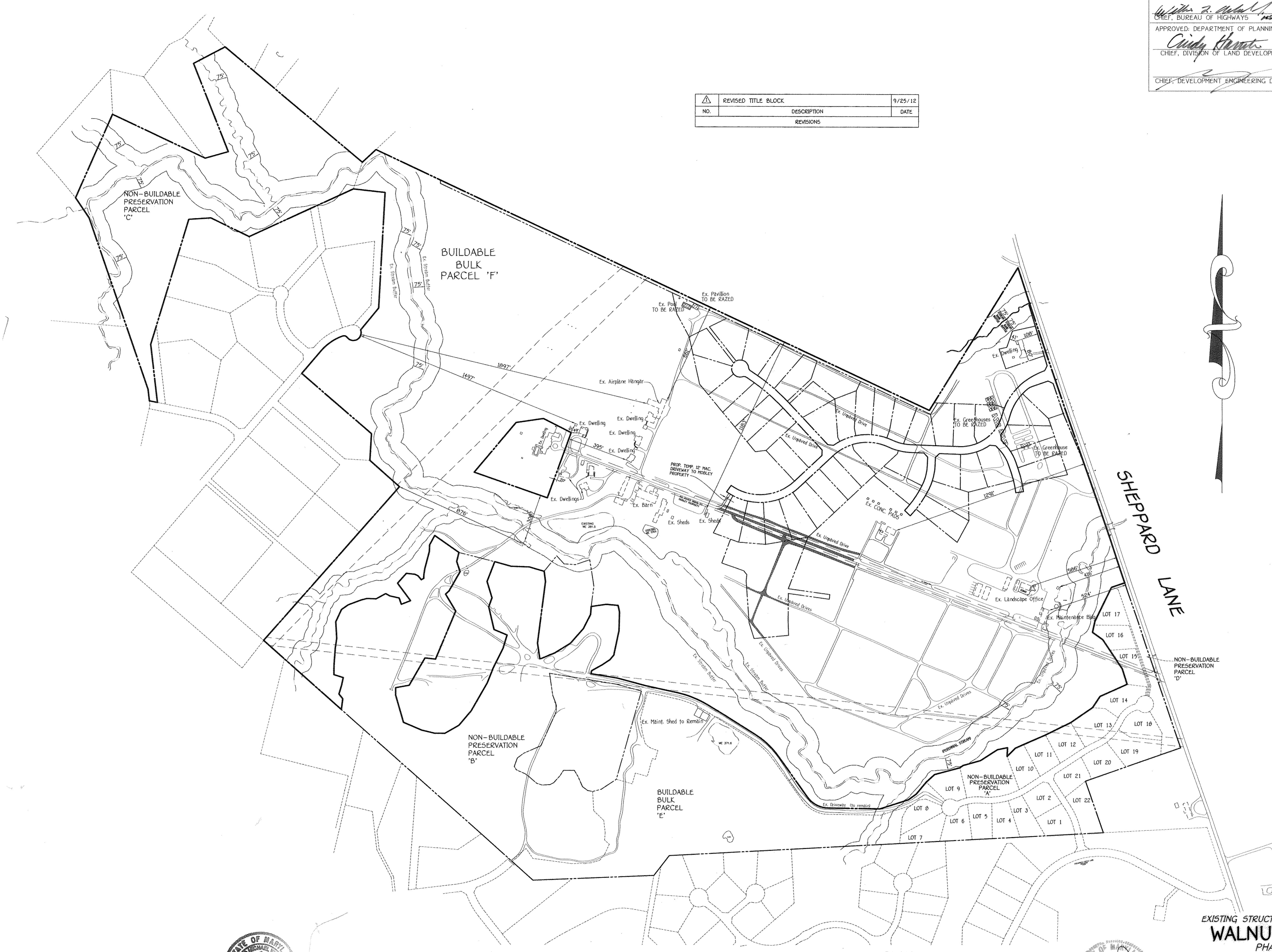
F-08-081

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 10-28-08
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/3/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 10/30/08
 DATE

NO.	REVISIONS	DATE
1	REVISED TITLE BLOCK	9/25/12



N 574500
 175107.9502
 (Meters)

N 574500
 N 175107.9502
 (Meters)

N 570500
 N 173000.7477
 (Meters)

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 4102 461 - 2000

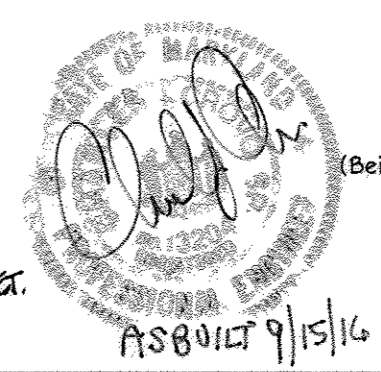


ALDO DATE 10.16.08
 "Professional Engineer. I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 207142, Expiration Date 2-22-09."

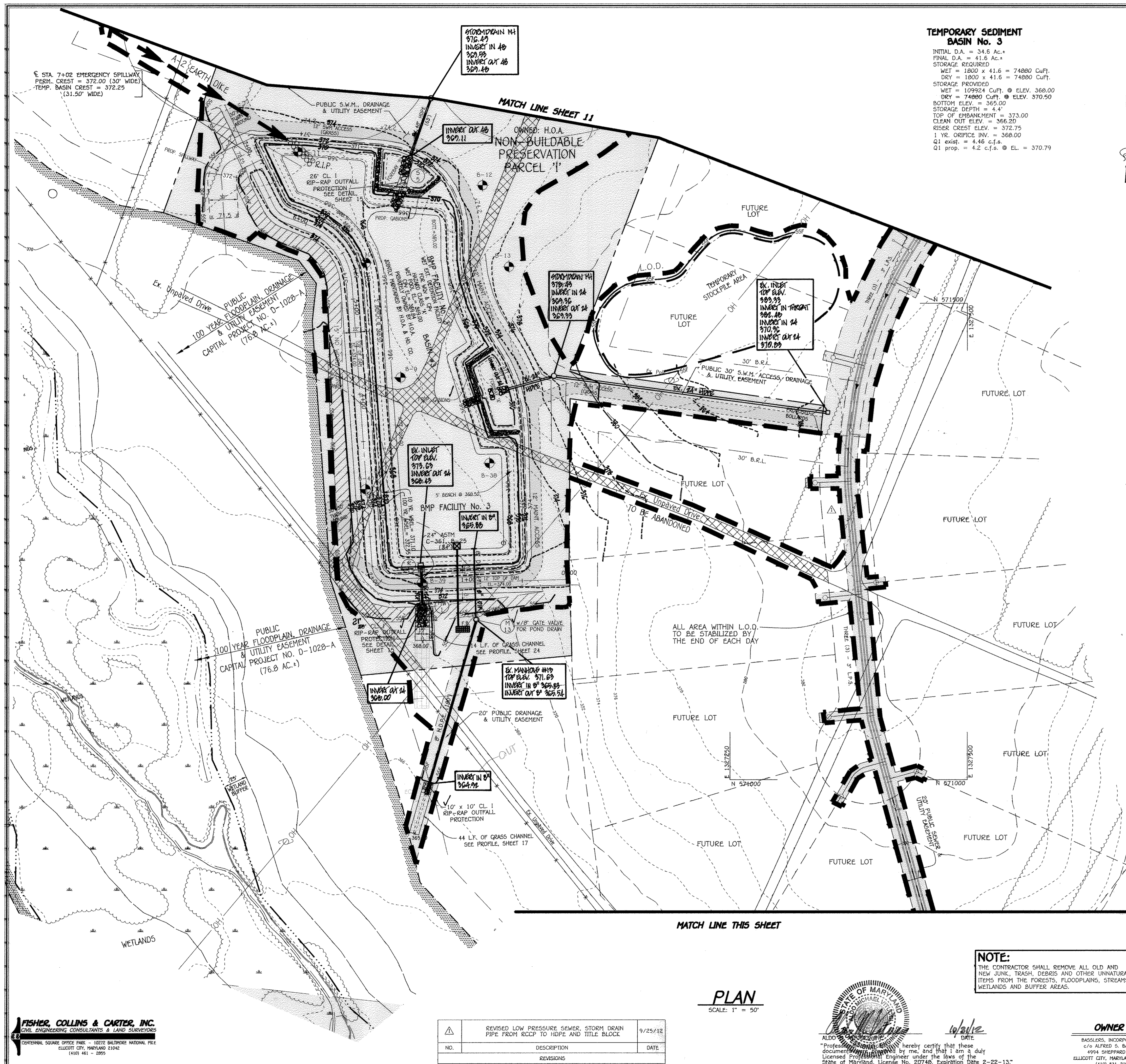
OWNER
 BASSELLS, INCORPORATED
 c/o ALFRED S. BASSELL
 4994 SHEPARD LANE
 ELICOTT CITY, MARYLAND 21042

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 NORTH AVE.
 LEBANON, MARYLAND 21765

NOTE:
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
 CHARLES J. ORNDORF, P.E. NO. 19204 AS-BUILT 9/19/10



**EXISTING STRUCTURE LOCATION PLAN
 WALNUT CREEK
 PHASE TWO**
 Lots 23 - 60, Non-Buildable Preservation Parcels 'C', 'G', 'I', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Re-subdivision Of Buildable Bulk Parcels 'F' & 'E' And a Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No's. 20631 Thru 20647
 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: SEPTEMBER, 2008
 SHEET 31 OF 32

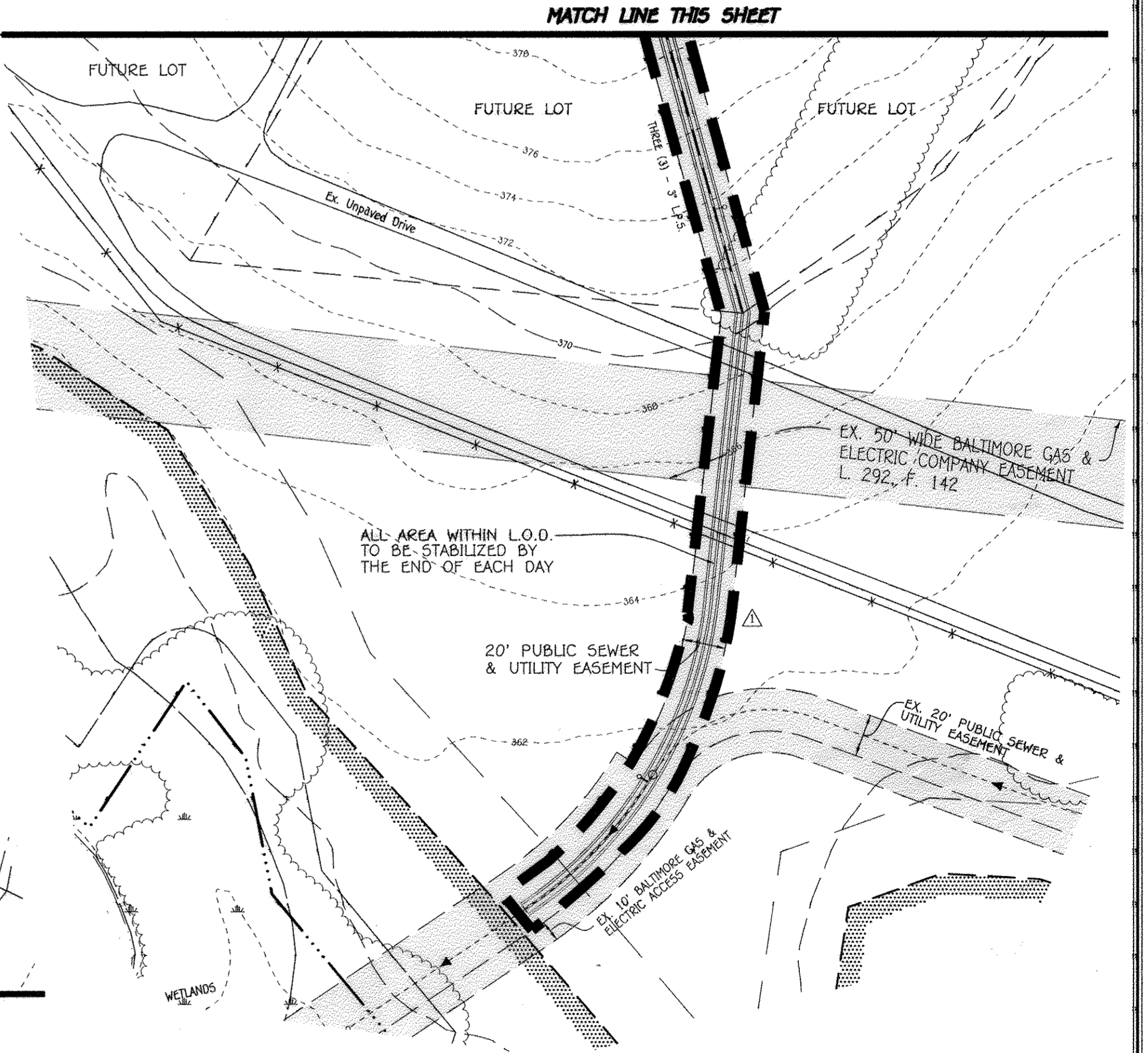


TEMPORARY SEDIMENT BASIN No. 3
 INITIAL D.A. = 34.6 AC.
 FINAL D.A. = 41.6 AC.
 STORAGE REQUIRED
 WET = 1800 x 41.6 = 74880 Cuft.
 DRY = 1800 x 41.6 = 74880 Cuft.
 STORAGE PROVIDED
 WET = 109924 Cuft. @ ELEV. 368.00
 DRY = 74880 Cuft. @ ELEV. 370.50
 BOTTOM ELEV. = 365.00
 STORAGE DEPTH = 4.4'
 TOP OF EMBANKMENT = 373.00
 CLEAN OUT ELEV. = 362.20
 1 YR. ORFICE INV. = 368.00
 Q1 exist. = 4.46 c.f.s.
 Q1 prop. = 4.2 c.f.s. @ EL. = 370.79

LEGEND

- SSF—SSF—SSF— 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
- [Cross-hatch pattern] DENOTES 25% OR GREATER SLOPES
- [Dotted pattern] DENOTES 15% - 24.99% SLOPES
- DENOTES LOW PRESSURE SEWER BY OTHERS W/ GRINDER PUMPS
- GABION INFLOW PROTECTION
- OH— DENOTES OVERHEAD ELECTRIC
- UG— DENOTES UNDERGROUND ELECTRIC

By the Developer:
 "I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That All 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 Final Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."
 Signature of Developer: *Timothy W. Feaga* 11/21/12 Date
 Printed Name: *Timothy W. Feaga*
 By the Engineer:
 "I Certify That These Plans For Street Tree, Grading And Sediment Control Represents A Practicable 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 Reviewed The Plans And I/We Must Engage A Registered Professional Engineer To Supervise Final Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Within 30 Days Of Completion."
 Signature of Engineer: *John R. Roberts* 11/21/12 Date
 Printed Name: *John R. Roberts*
 Approved: Department of Public Works
 Signature: *Diane Schwyzer, Acting* 11/21/12 Date
 Chief, Bureau of Highways
 Approved: Department of Planning and Zoning
 Signature: *Walter Shallock* 11/21/12 Date
 Chief, Division of Planning and Zoning
 AS-BUILT CERTIFICATION
 I Herewith 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: *Chris* 12/20/12 Date
 122. No. 11717
 Certified Means To State Or Declare A Professional Opinion Based Upon On-Site Inspections And Material Tests Which Are Conducted During Construction. The Checks Inspections And Material Tests For These 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 Release Any Other Party From Meeting Requirements Imposed By Contract, Employment Or Other Means, Including Meeting Commonly Accepted Industry Practices.



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.

I HEREBY CERTIFY BY MY SIGNATURE THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONTROLLED AND DRAWN ON THE "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.
 CHARLES J. DEAN, JR., PE, No. 19704, No. 11/7/17

REVISED
STREET TREE, GRADING & SEDIMENT CONTROL PLAN
WALNUT CREEK
PHASE TWO
 Lots 23 - 68, Non-Buildable Preservation Parcels 'C', 'G', 'T', 'J', 'K', 'L' And 'M' & Buildable Bulk Parcels 'H' And 'N'
 (Being A Resubdivision Of Buildable Bulk Parcels 'F' & 'E' And A Revision To Non-Buildable Preservation Parcel 'C' - Walnut Creek, Phase One, Plat No's. 20631 Thru 20647
 ZONED: RC-DEO & RR-DEO
 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49
 TAX MAP No. 2B
 DATE: SEPTEMBER, 2008
 SHEET 32 OF 32

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-1200

NO.	DESCRIPTION	DATE
1	REVISED LOW PRESSURE SEWER, STORM DRAIN PIPE FROM RCCP TO HDPE AND TITLE BLOCK	9/25/12

PLAN
 SCALE: 1" = 50'

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 CHARLES J. DEAN, JR.
 License No. 19704, Expiration Date 2-22-13

OWNER
 BASSIERS, INCORPORATED
 c/o ALFRED S. BASSLER
 4994 SHEPPARD LANE
 ELLICOTT CITY, MARYLAND 21042
 (410) 531-2193

DEVELOPER
 HERITAGE LAND DEVELOPMENT
 19950 HODEN AVE.
 LISBON, MARYLAND 21765
 (410) 489-7900

PROFESSIONAL ENGINEER
 Signature: *Chris* 11/7/17