

SHEET INDEX	
NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS
3	SITE DEVELOPMENT PLAN & POND GRADING
4	SPILLWAY PLAN
5	SPILLWAY DETAILS
6	SEDIMENT CONTROL PLAN
7	SEDIMENT CONTROL DETAILS
8	FISHING PIER PLAN AND DETAILS
9	SOILS MAP

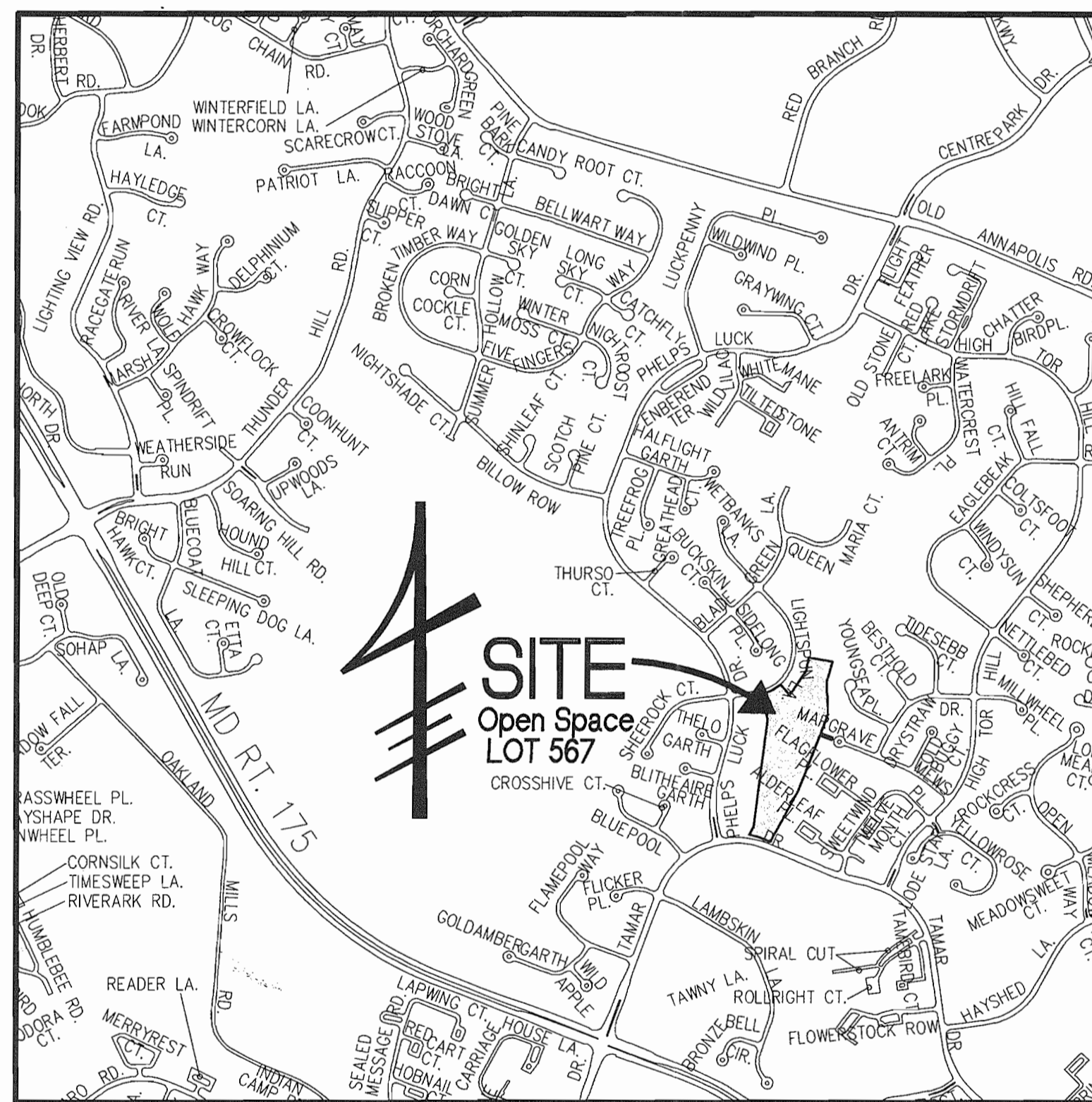
A LETTER OF EXEMPTION HAS BEEN SUBMITTED TO MARYLAND DEPARTMENT OF THE ENVIRONMENT. (SEE MDE TRACKING NO. 200660797.)

GENERAL NOTES

- THE PURPOSE OF THE SITE DEVELOPMENT PLAN IS TO REMOVE THE ACCUMULATED SEDIMENTS IN JACKSON POND TO RESTORE THE POND TO ITS ORIGINAL DEPTH, CONSTRUCT INFLOW FORBAY TO CONTROL FUTURE SEDIMENTS, CONSTRUCT NEW RISER AND DRAWDOWN STRUCTURE, SLOPINE THE CMP PIPE SPILLWAY, AND TO CONSTRUCT A FISHING PIER. THE REMOVED SEDIMENT WILL BE DEPOSITED AT VMC 3/2 O.S. LOT 152. A WAIVER FOR THE SUBMISSION OF A SITE DEVELOPMENT PLAN FOR THE DEPOSITION OF SEDIMENT, WP 06-81, WAS APPROVED ON MARCH 24, 2006.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV IE; STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- THE POND SHALL BE DRAINED PRIOR TO THE REMOVAL OF ANY SEDIMENTS. THE POND SHALL BE DRAINED AT A RATE THAT WILL LOWER THE WATER LEVEL A MAXIMUM OF SIX (6) INCHES PER DAY. SEE SPECIAL PROVISIONS FOR THE REQUIREMENTS RELATED TO DRAINING THE POND AND THE REMOVAL OF MARINE LIFE.
- THE PLANS CONTAIN A SUGGESTED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR MAY CHOOSE AN ALTERNATE SEQUENCE SUBJECT TO APPROVAL BY THE ENGINEER AND HOWARD SOIL CONSERVATION DISTRICT.
- THE LOCATIONS OF THE UTILITIES SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION AND DEPTH OF ANY UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEERING OFFICE, PHOENIX ENGINEERS, INC. AT (410) 247-8833 IN THE EVENT OF ANY DISCREPANCIES IN THE PLANS OR IN THE RELATIONSHIP OF FINISHED GRADES TO EXISTING GRADES, PRIOR TO BEGINNING ANY WORK.
- THE CONTRACTOR SHALL NOTE THAT IN THE CASE OF DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 "MISS UTILITY".....(800) 257-7777
 BALTIMORE GAS & ELECTRIC COMPANY.....(410) 685-0123
 VERIZON TELEPHONE.....(800) 978-7532
 AT&T CABLE LOCATION DIVISION.....(410) 539-9900
 HOWARD COUNTY BUREAU OF UTILITIES.....(410) 393-4974
 HOWARD COUNTY CONSTRUCTION/ INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK).....(410) 393-3648
- ALSO SEE PREVIOUS FILE NUMBERS: PLAT #4208, PB 18, FOLIO 41-63, F 70-68, FDP 77-A-2, WP 06-081 (APPROVED ON MARCH 24, 2006).
- THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FOR CONSTRUCTION.
- TOPO TAKEN FROM FIELD RUN SURVEY PERFORMED BY C.B. MILLER DATED MAY 2005 & AUGUST 2005.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE GRID COORDINATES, AS PER PB 18, FOLIO 41-63.
- ANY DAMAGE CAUSED BY THE CONTRACTOR TO THE COUNTY RIGHT-OF-WAY, EXISTING PAVEMENT, CURBS AND GUTTERS AND UTILITIES AND TO THE PATHWAYS AT THE SITE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- THIS PROPERTY IS ZONED N.T.-O.S. AS PER THE FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, PER COUNCIL BILL 45-2003, AND THE ZONING REGULATIONS AMENDED BY COUNCIL BILL 75-2003.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING OR NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAMS OR 100 YEAR FLOODPLAIN.
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE THIS PROPERTY WAS CREATED BEFORE THE DECEMBER 31, 1992 DEADLINE, IN ACCORDANCE WITH SECTION 16.1202(b)(1)(iii) OF THE FOREST CONSERVATION MANUAL.
- THIS PLAN IS EXEMPT FROM PERIMETER LANDSCAPING BECAUSE IT IS ONLY TO REMOVE SEDIMENT FROM AN EXISTING POND. THE POND WILL NOT BE ENLARGED NOR WILL ANY NEW BUILDINGS BE CONSTRUCTED.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNALINGS 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.
- EXISTING ONSITE WATER AND SEWER ARE PUBLIC IN THE PATAPSCO DRAINAGE AREA AND WERE BUILT UNDER CONTRACT 358 W&S.
- EXISTING UTILITIES ARE BASED ON FIELD RUN TOPO SUPPLEMENTED BY AS-BUILT CONSTRUCTION PLANS.
- THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY WHITMAN REQUARDT & ASSOCIATES, DATED 1969, AND WAS APPROVED ON MAY 1970.
- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
- MDE TRACKING #200660797, DAM SAFETY #05-MR-0100

JACKSON POND

6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



LOCATION MAP
SCALE: 1" = 1000'

LEGEND

- 188--- EX. CONTOUR
- 188— PROP. CONTOUR
- 52 X 61 SPOT ELEVATION
- PROPERTY LINE

ADDRESS CHART

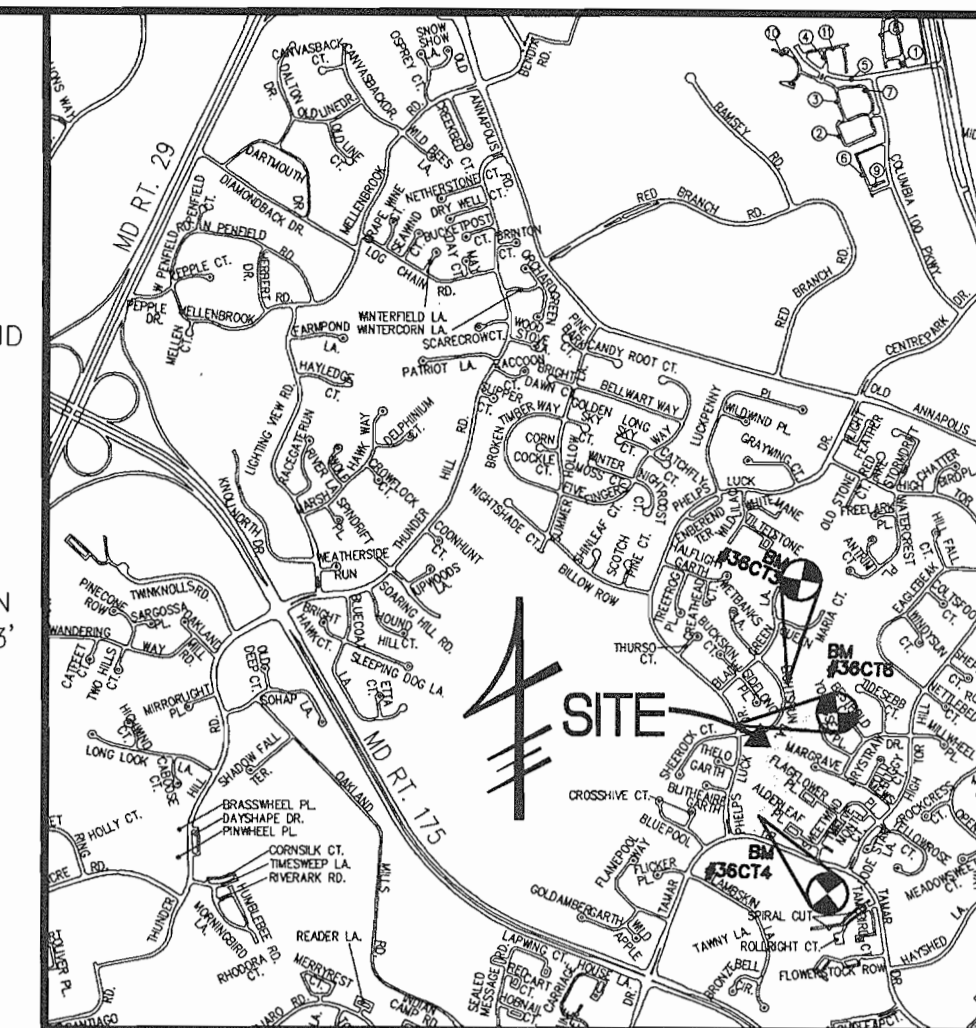
LOT No.	STREET ADDRESS
Open Space Lot 567	5653 Lightspun Lane

PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECT/AREA	PARCEL			
Village Of Long Reach	1/1	289			
DEEDS	BLOCK	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
Liber: 463	6	N.T.-O.S.	MAP 36	6th	6066.02
Folio: 196	PLAT		WATER CODE	SEWER CODE	
Book: 18	Folio: 41-63		N/A	N/A	

BM #36CT3 ELEV. 397.397
BRASS DISC SET 1.2' EAST OF A MACADAM PATH LOCATED BETWEEN LIGHTSPUN COURT AND JACKSON POND, AND 84.9' EAST OF AN 8" MAPLE TREE.
NORTHING 564399.232
EASTING 1363422.11

BM #36CT4 ELEV. 402.135
BRASS DISC LOCATED NORTH OF TAMAR DRIVE ON POND BERM, 102.4' WEST OF C&P BOX, 91.9' NORTHWEST OF AN 8" MAPLE TREE.
NORTHING 563687.911
EASTING 1363324.07

BM #36CT6 ELEV. 426.187
1/4" REBAR ON NORTHWEST SIDE OF THE INTERSECTION BETWEEN PHELPS LUCK DRIVE & SHEEROCK COURT, 7.3' BEHIND CURB AND 28' SOUTH OF A 24" MAPLE TREE.
NORTHING 564164.653
EASTING 1362912.67



VICINITY MAP
SCALE: 1"=2000'

SITE ANALYSIS

TOTAL AREA OF LOT 567 = 9.477 AC. OR 412,827 SQ. FT.
TOTAL AREA OF THIS SUBMISSION = 9.477 AC. OR 412,827 SQ. FT.
ZONING: N.T.-O.S.
PROPOSED USE = OPEN SPACE-RECREATIONAL (UNCHANGED)
THE SOILS TYPES SHOWN ON THESE PLANS ARE AS SHOWN IN THE "HOWARD COUNTY SOILS SURVEY."
THERE ARE WETLANDS AND FLOODPLAINS AS SHOWN ON THIS SITE.
ALL EXISTING VEGETATION ON SITE IS IN THE FORM OF LAWN WITH SPARSE TREE STANDS.
OPEN SPACE (GREEN AREA) TO REMAIN ON SITE = 412,827 SQ. FT. OR 100% OF GROSS AREA.
TOTAL AREA TO BE DISTURBED = 213,459 S.F. OR 4.9 ACRES
TOTAL IMPERVIOUS AREA = 16,320 S.F. OR 0.37 ACRES

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Chris Hamilton</i>	10/19/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Chris Hamilton</i>	10/19/06
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>Mark Reagle</i>	10/20/06
DIRECTOR	DATE

Date	No	Revision Description

OWNER/DEVELOPER:
THE COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA, MD 21046
410-381-0083
ATTN: DENIS ELLIS

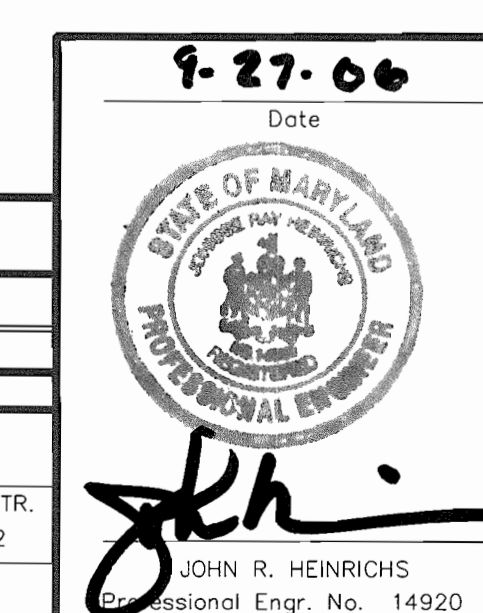
PROJECT:
JACKSON POND RESTORATION
VILLAGE OF LONG REACH
SECTION 1, AREA 1, O.S. LOT 567
5653 LIGHTSPUN LANE
COLUMBIA, MD 21046
HOWARD COUNTY, MARYLAND

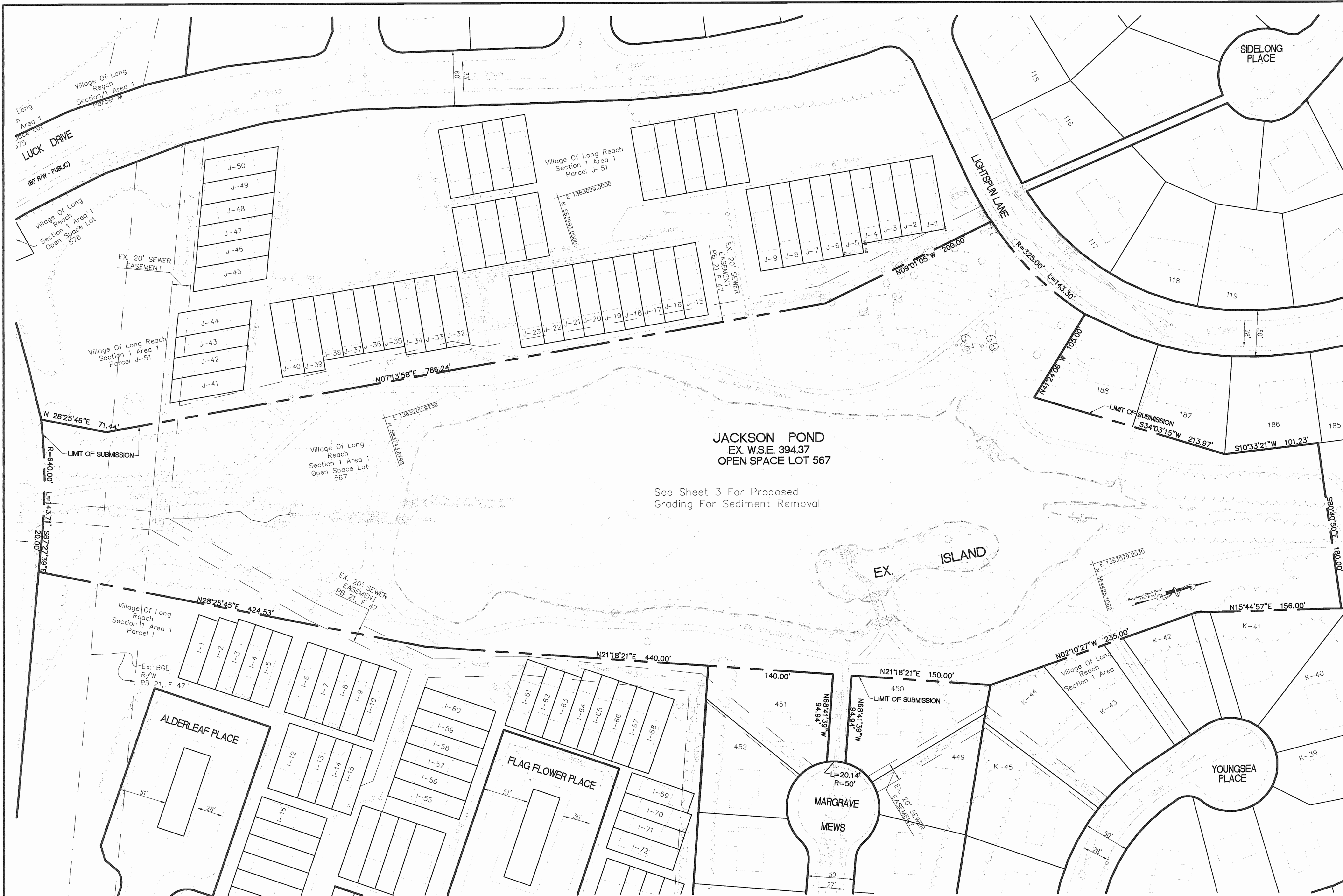
PREPARED BY:
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
1420 JOH AVENUE, SUITE A
BALTIMORE, MARYLAND 21227
(410) 247-8833 FAX 247-9397

AREA:
VILLAGE OF LONG REACH
SECTION 1, AREA 1, GRID 6
OPEN SPACE LOT 567 PARCEL: 289
CENSUS TRACT 6066.02 TAX MAP: 36
6 TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE:
COVER SHEET

Des By: R.J.W.	Scale: AS SHOWN	Proj No: 05-028
Drn By: S.E.W.	Date: September, 2006	Drawing: 101.dwg
Chk By: H.R.P.	SDP: 06-73	1 OF 9





JACKSON POND
EX. W.S.E. 394.37
OPEN SPACE LOT 567

See Sheet 3 For Proposed
Grading For Sediment Removal

PLAN
SCALE: 1"=50'

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i>	10/19/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	10/19/06
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>[Signature]</i>	10/20/06
DIRECTOR	DATE

Date	No.	Revision Description

OWNER/DEVELOPER:
THE COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA, MD 21046
410-381-0383
ATTN: DENIS ELLIS

PROJECT:
JACKSON POND RESTORATION
VILLAGE OF LONG REACH
SECTION 1, AREA 1, O.S. LOT 567
5653 LIGHTSPUN LANE
COLUMBIA, MD 21046
HOWARD COUNTY, MARYLAND

PREPARED BY:
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
1420 JOH AVENUE, SUITE A
BALTIMORE, MARYLAND 21227
(410) 247-8833 FAX 247-9397

AREA:
VILLAGE OF LONG REACH
SECTION 1, AREA 1, GRID 6
OPEN SPACE LOT 567, PARCEL: 289
CENSUS TRACT 6066.02, TAX MAP: 36
6 TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

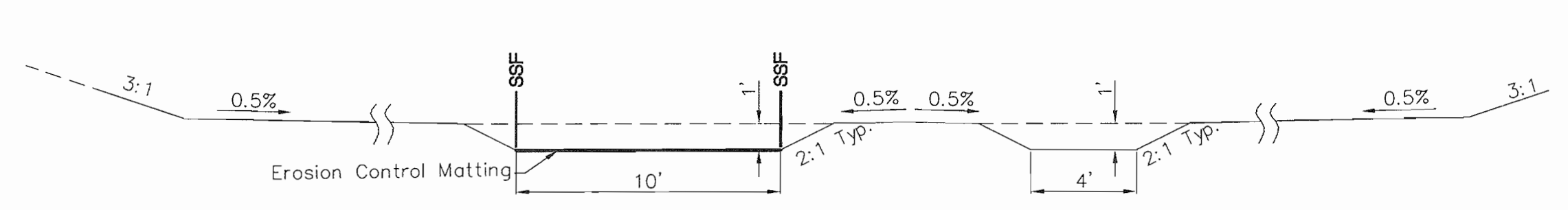
TITLE:
EXISTING CONDITIONS

10-5-06
Date

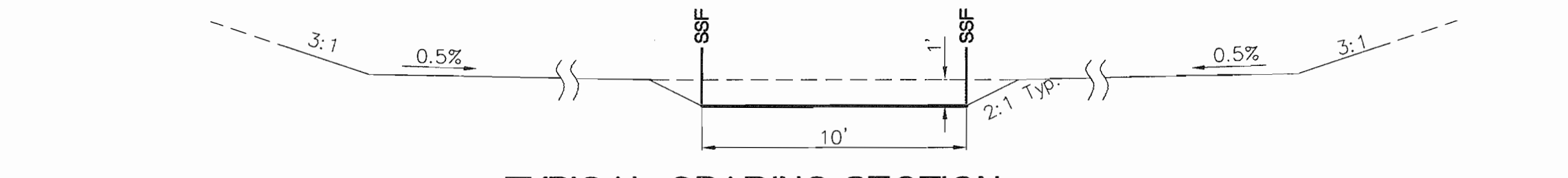
[Signature]
JOHN R. HEINRICHS
Professional Engr. No. 14920

R.J.W.	Scale: 1"=50'	Proj No: 05-028
Drn By: S.E.W.	Date: September, 2006	Drawing: ex01.dwg
Chk By: H.R.P.	SDP 06-73	2 OF 9

SDP 06-73

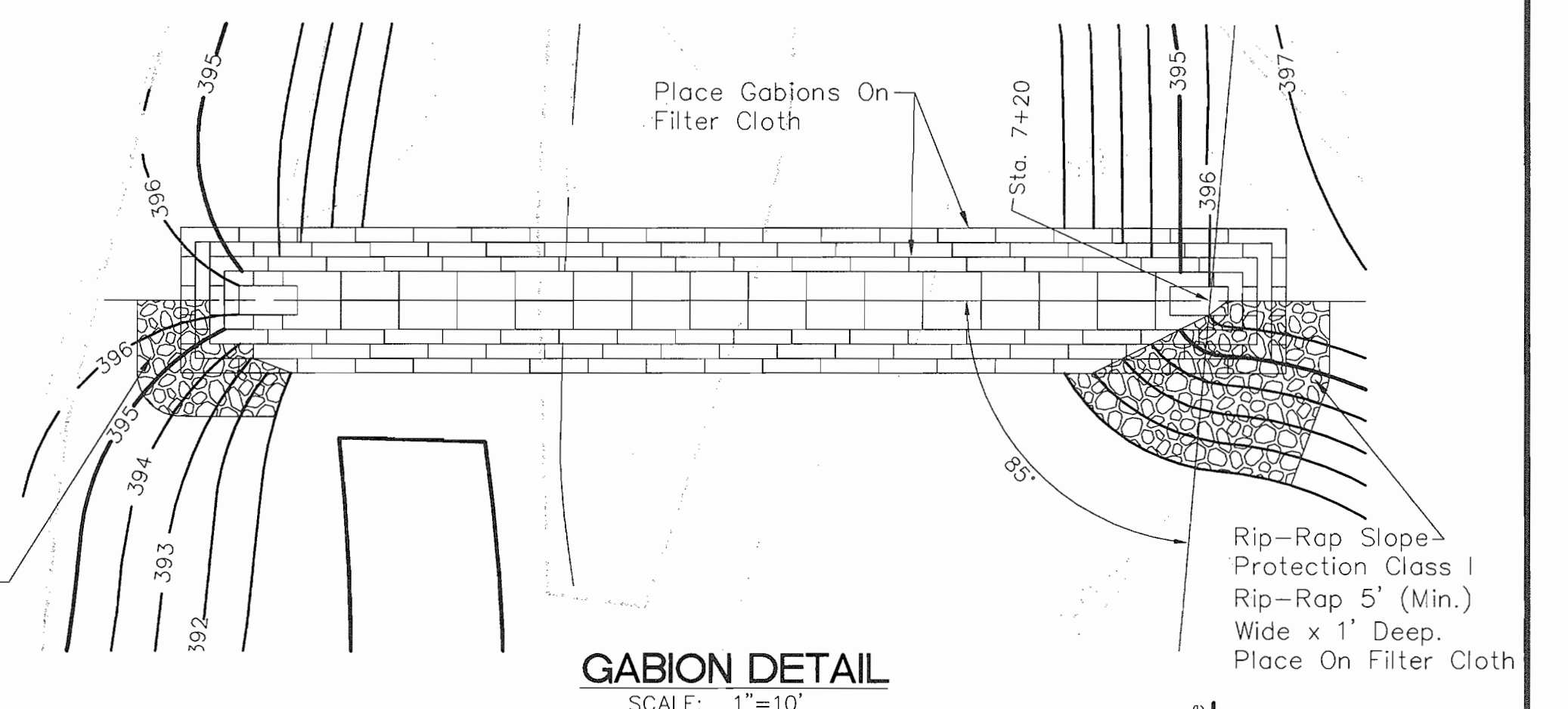
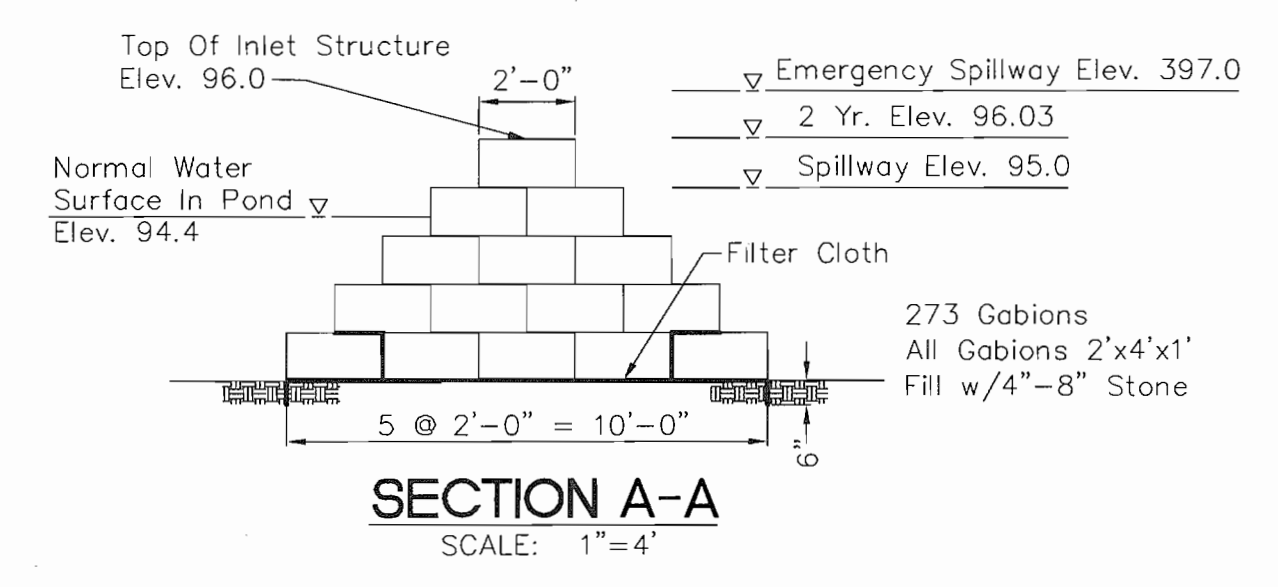


TYPICAL GRADING SECTION
STA. 2+40 AHEAD
NOTE: ISLAND NOT SHOWN



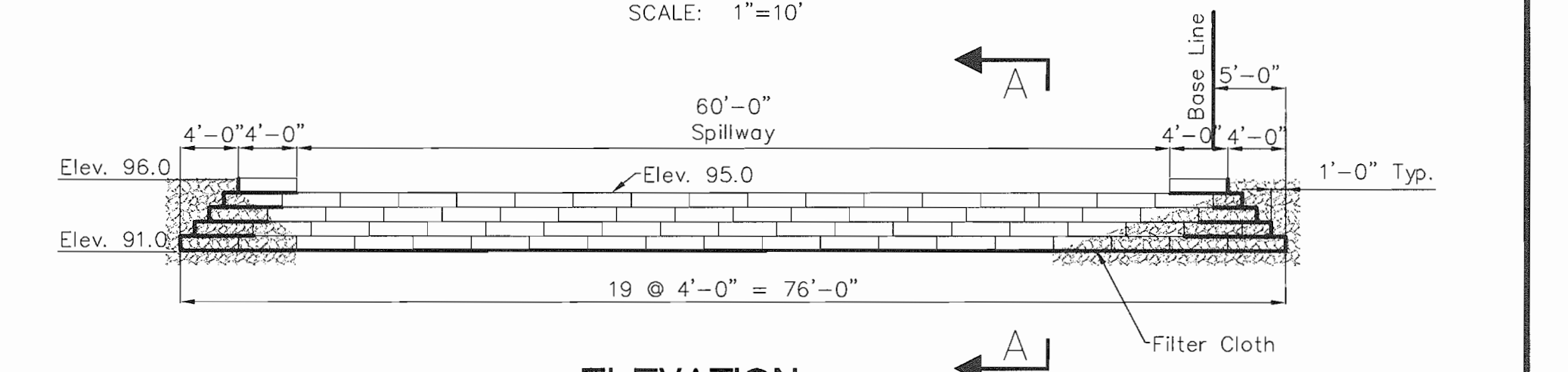
TYPICAL GRADING SECTION
STA. 0+40 TO 2+40

- UTILITY NOTES:**
- Contractor shall open only that section of trench that can be backfilled and stabilized each day. If the trench must remain open longer than one day, silt fence shall be placed below (down slope of) the trench.
 - Place all excavated material on the upside of the trench.
 - Any sediment controls disturbed by utility construction are to be repaired immediately.

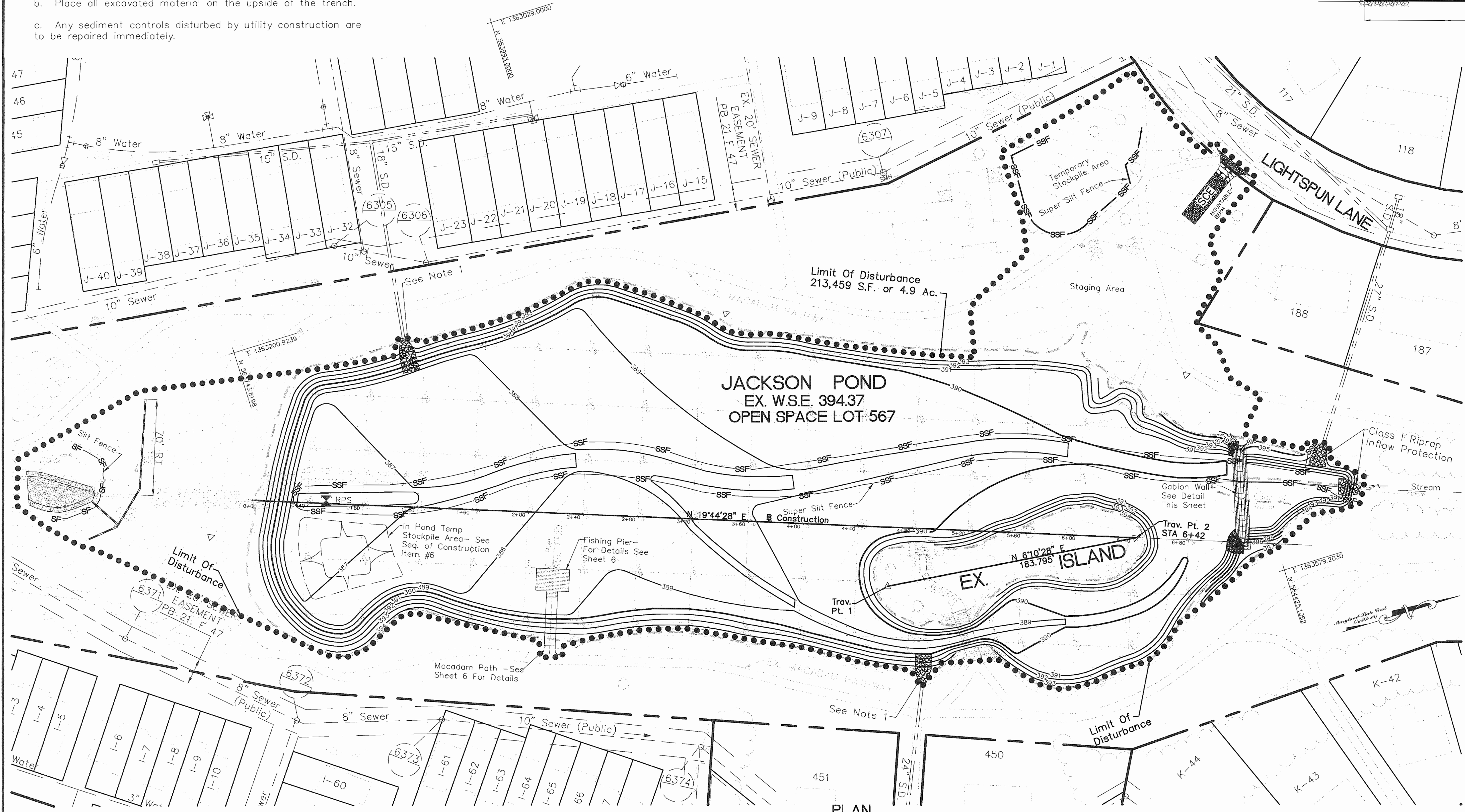


Rip-Rap Slope Protection Class I
Rip-Rap 5' (Min.) Wide x 1' Deep. Place On Filter Cloth

Rip-Rap Slope Protection Class I
Rip-Rap 5' (Min.) Wide x 1' Deep. Place On Filter Cloth



ELEVATION
SCALE: 1"=10"



PLAN
SCALE: 1"=40"

- NOTES:**
- Existing rip-rap at storm drain outfall point is not to be disturbed. Any rip-rap inadvertently removed from storm drain outfalls shall be replaced with existing rip-rap or with new rip-rap. Furnish and place rip-rap protection at any storm drain outfalls found without existing rip-rap.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

<i>[Signature]</i>	<i>[Signature]</i>
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	<i>[Signature]</i>
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>[Signature]</i>	<i>[Signature]</i>
DIRECTOR	DATE

Date	No.	Revision Description

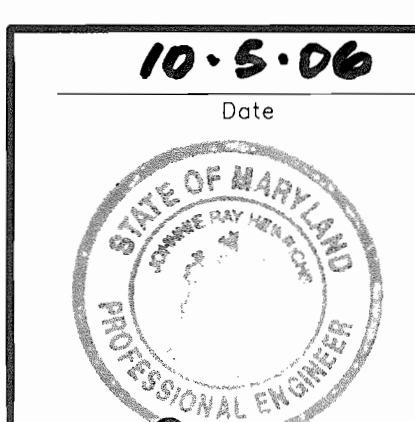
OWNER/DEVELOPER:
THE COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA, MD 21046
410-381-0383
ATTN: DENIS ELLIS

PROJECT:
JACKSON POND RESTORATION
VILLAGE OF LONG REACH
SECTION 1, AREA 1, O.S. LOT 567
5653 LIGHTSPUN LANE
COLUMBIA, MD 21046
HOWARD COUNTY, MARYLAND

PREPARED BY:
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
1420 301 AVENUE, SUITE A
BALTIMORE, MARYLAND 21227
(410) 247-8833 FAX 247-9397

TRAVERSE POINT 1
Elev. 397.57
N 564146.238
E 1363505.049

TRAVERSE POINT 2
Elev. 397.25
N 564328.966
E 1363524.822

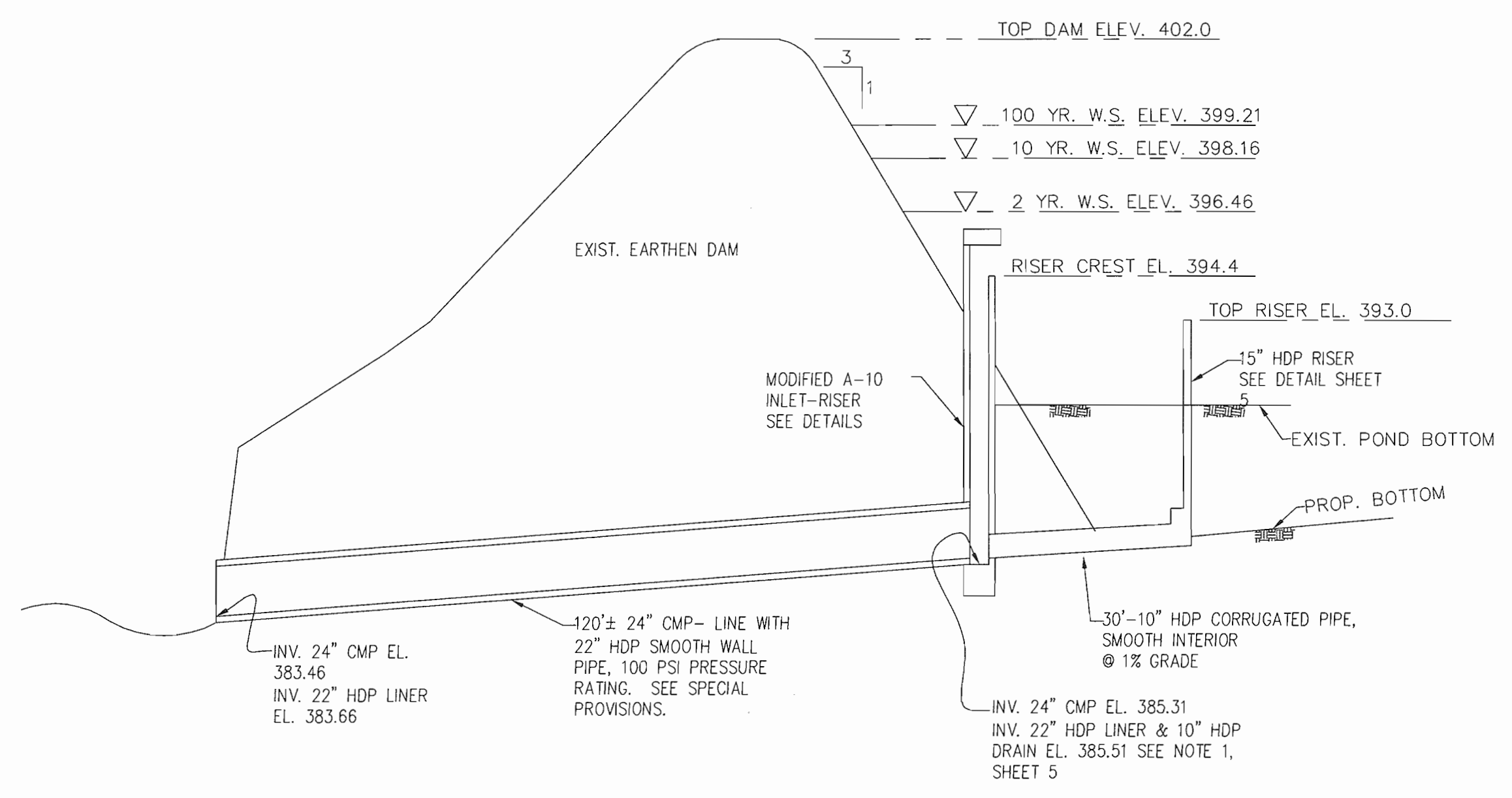


AREA:
SECTION 1, AREA 1, O.S. LOT 567
PARCEL: 289
CENSUS TRACT 6066.02 TAX MAP: 36
6 TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

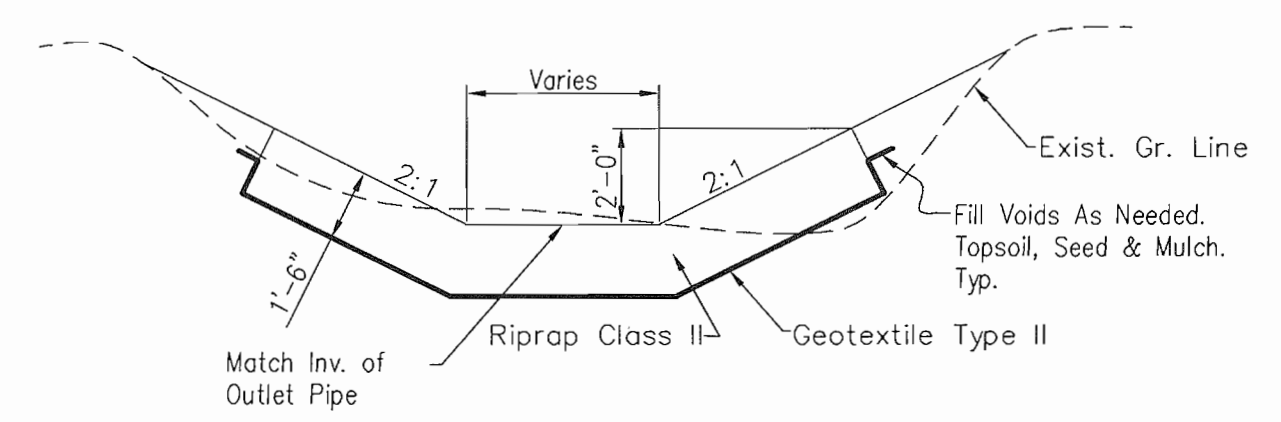
TITLE: SITE DEVELOPMENT PLAN AND POND GRADING

By: R.J.W.	Scale: As Shown	Proj No: 05-028
Drn By: S.E.W.	Date: September, 2006	Drawing: ps02.dwg
Chk By: H.R.P.	SDP 06-73	3 OF 9

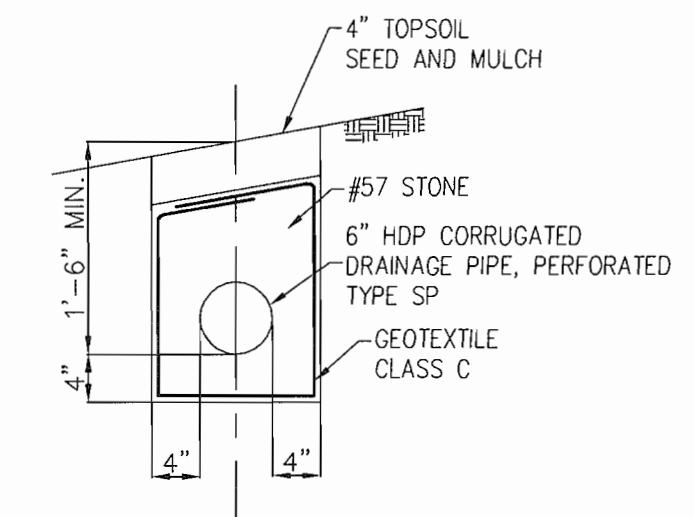
SDP 06-73



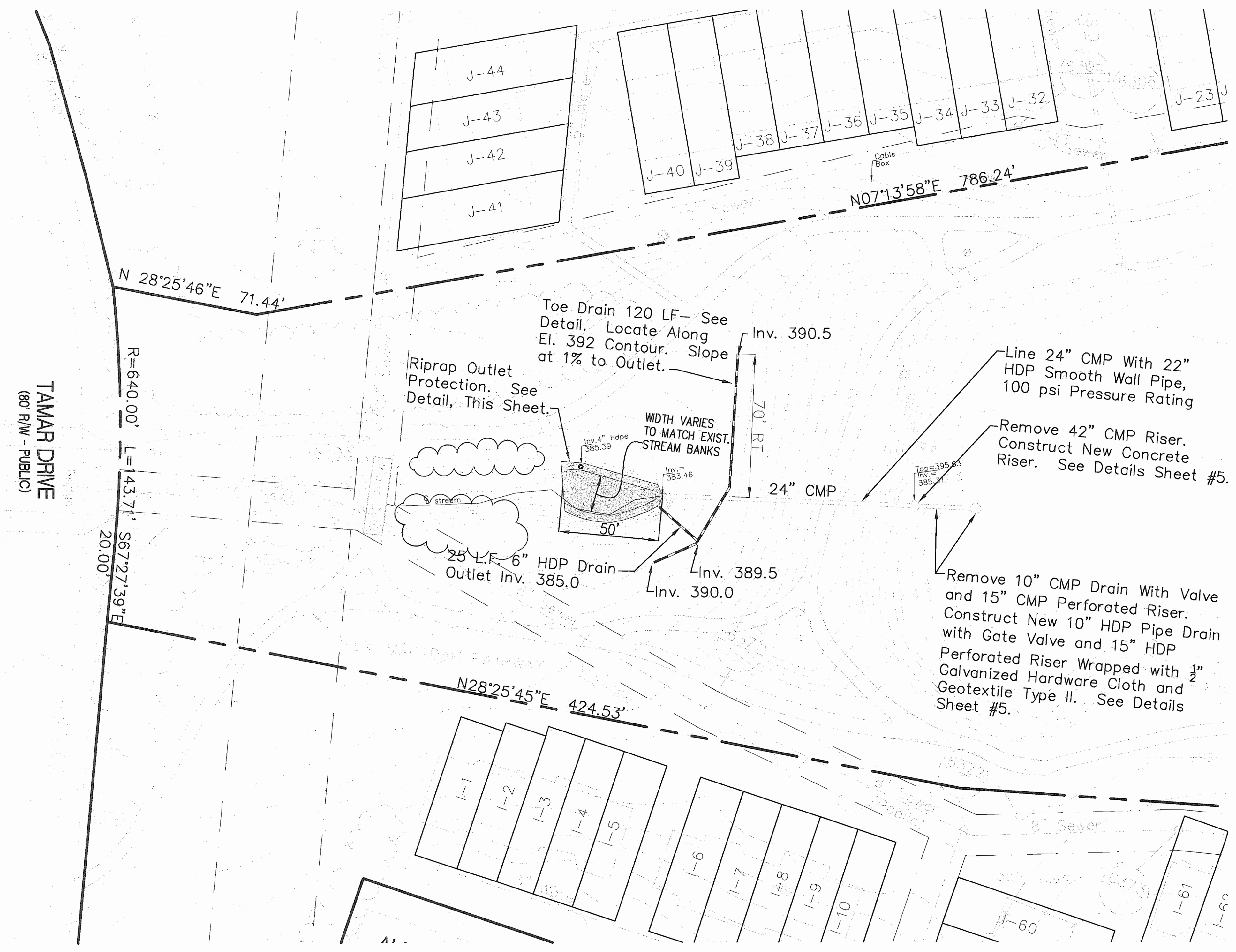
PIPE SPILLWAY
SCALE: HORIZ. 1"=20'
VERT. 1"=4'



PIPE SPILLWAY OUTLET PROTECTION
Scale: 1"=4'



TOE DRAIN
SCALE: 3/4" = 1'-0"



PLAN
SCALE: 1"=30'

APPROVED: DEPARTMENT OF PLANNING AND ZONING	10/2/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DIRECTOR	DATE

Date	No	Revision Description

OWNER/DEVELOPER:
THE COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA, MD 21046
410-381-0383
ATTN: DENIS ELLIS

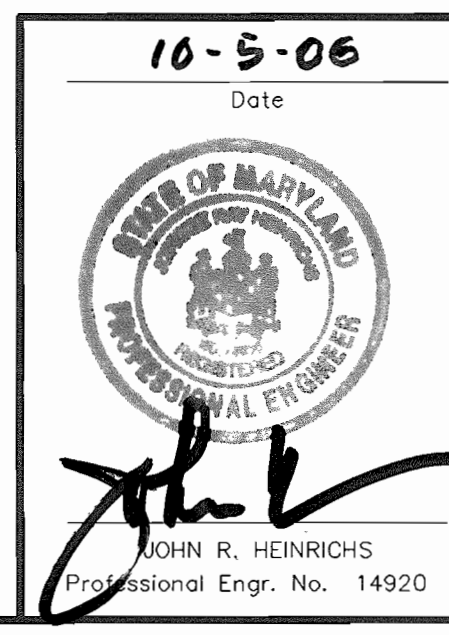
PROJECT:
JACKSON POND RESTORATION
VILLAGE OF LONG REACH
SECTION 1, AREA 1, O.S. LOT 567
5653 LIGHTSPUN LANE
COLUMBIA, MD 21046
HOWARD COUNTY, MARYLAND

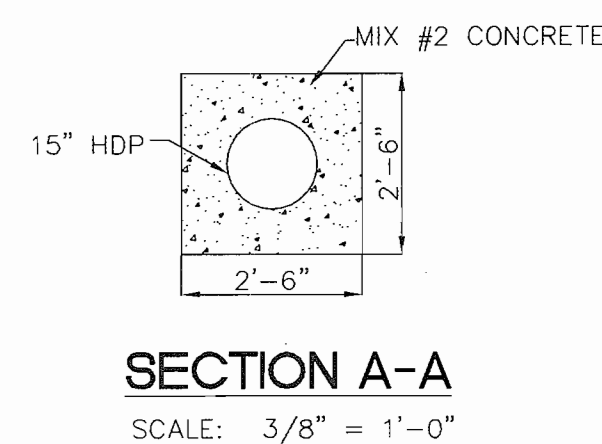
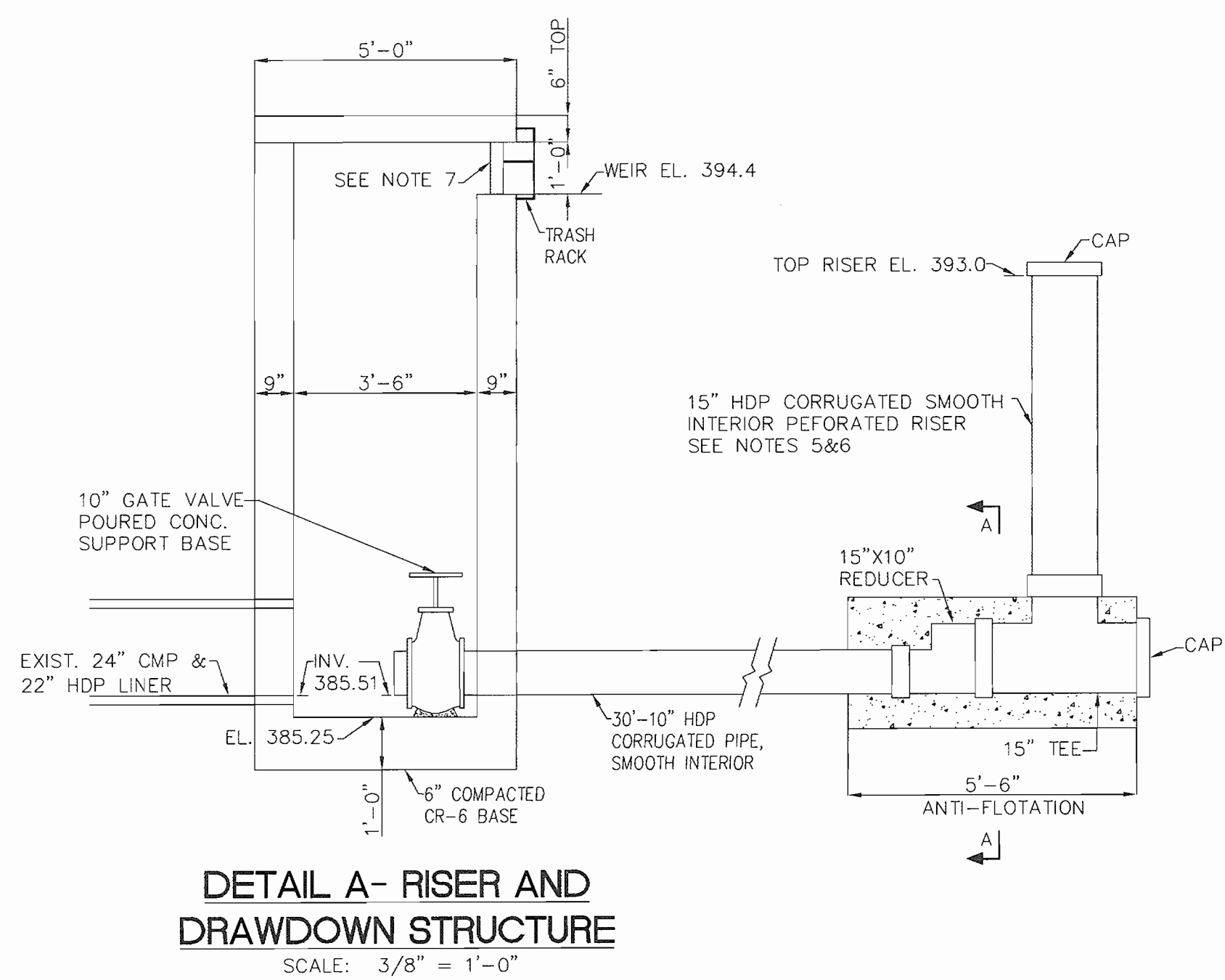
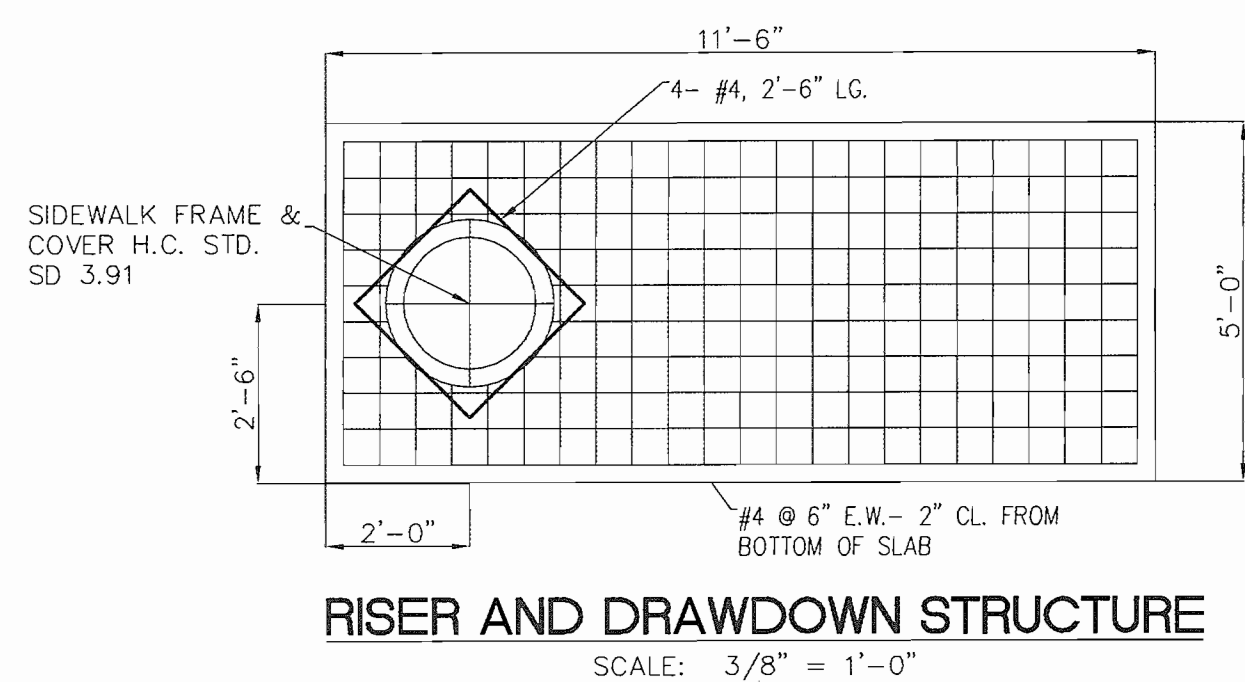
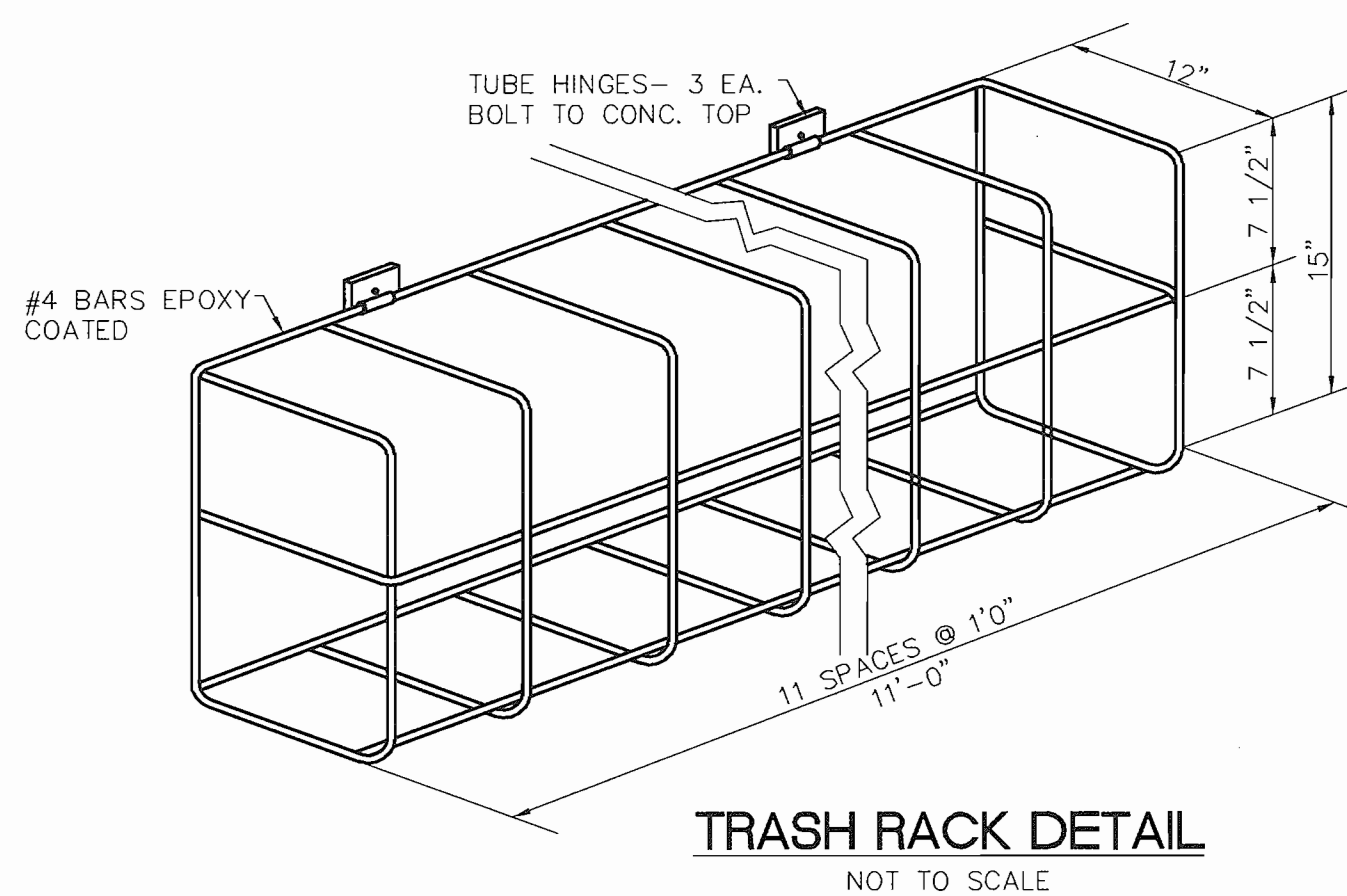
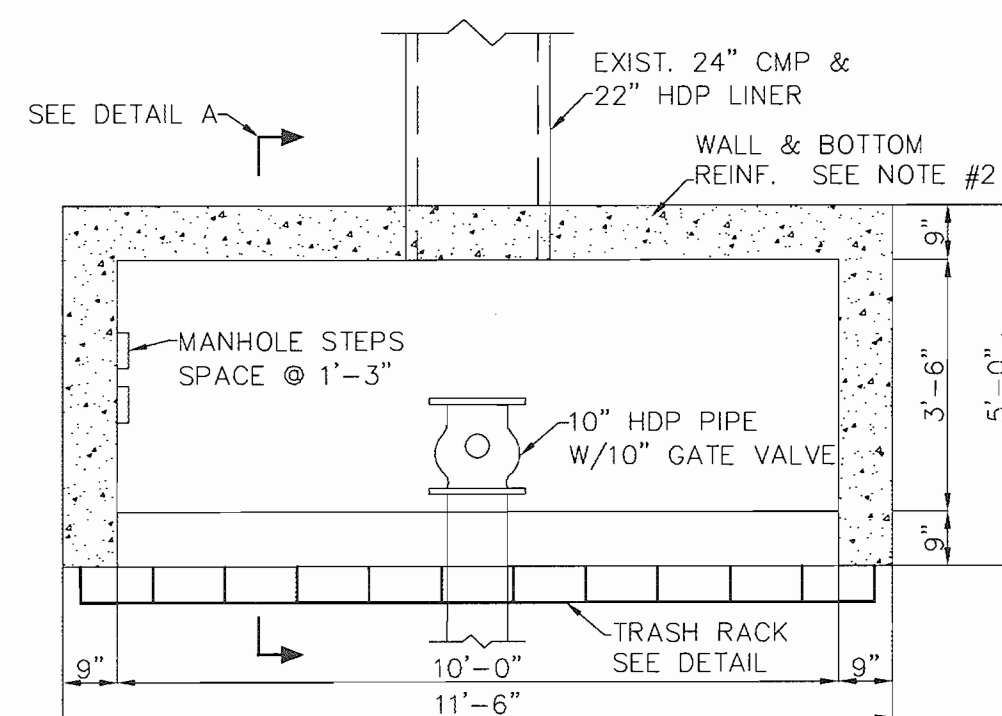
PREPARED BY:
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
1420 JOH AVENUE, SUITE A
BALTIMORE, MARYLAND 21227
(410) 247-8833 FAX 247-9397

AREA:
VILLAGE OF LONG REACH
SECTION 1, AREA 1, GRID 6
OPEN SPACE LOT 567, PARCEL: 289
CENSUS TRACT 6066.02, TAX MAP: 36
8 TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE:
SPILLWAY PLAN

Des By: R.J.W.	Scale: 1"=30'	Proj No: 05-028
Drn By: S.E.W.	Date: September, 2006	Drawing: spillway2.dwg
Chk By: H.R.P.	SDP 06-73	4 OF 9





NOTES

1. The contractor shall verify the invert elevation of the 24" CMP at the riser prior to fabricating the riser structure. Should the elevation vary from that shown, the depth of the riser shall be adjusted to insure that the weir elevation will be at 394.40.
2. Concrete for the riser structure shall be Mix #3. Reinforcing shall conform to ASTM AG15, Grade 60 Wall and Base Reinforcing: #4 @ 10" o/c E.W. at center, continuous at corners and at base. All laps 1'-4" min.
3. The HDP pipe liner shall be CP Chem Performance Pipe smooth wall slipliner IPS sizing system, DR-17 100 psi pressure rating conforming to ASTM F-714 or approved equal.
4. The 10" HDP drain shall be Type S conforming to AASHTO Designation M-252-M-96. The 15" HDP perforated rise shall be Type SP conforming to AASHTO Designation M-294-M-98.
5. The standard perforations, rows of 6-3/8" dia. holes, shall be modified to slots 3/8" wide x 1 1/2" lg. slots shall begin directly above the tee and extend to the top of the riser.
6. The riser shall be wrapped with 3/8" galvanized hardware cloth and geotextile Type II temporarily while pond is being used for sediment control only. Remove filter cloth and hardware cloth when authorized by the sediment control inspector.
7. Provide 3" galvanized pipe support, painted grey, at the mid point of the throat. Fill with concrete.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 10/19/06 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 10/19/06 DATE

DIRECTOR *[Signature]* 10/20/06 DATE

Date	No	Revision Description

OWNER/DEVELOPER: THE COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA, MD 21046
410-381-0383
ATTN: DENIS ELLIS

PROJECT: JACKSON POND RESTORATION
VILLAGE OF LONG REACH
SECTION 1, AREA 1, O.S. LOT 567
5653 LIGHTSPUN LANE
COLUMBIA, MD 21046
HOWARD COUNTY, MARYLAND

PREPARED BY: PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
1420 JOH AVENUE, SUITE A
BALTIMORE, MARYLAND 21227
(410) 247-8833 FAX 247-9397

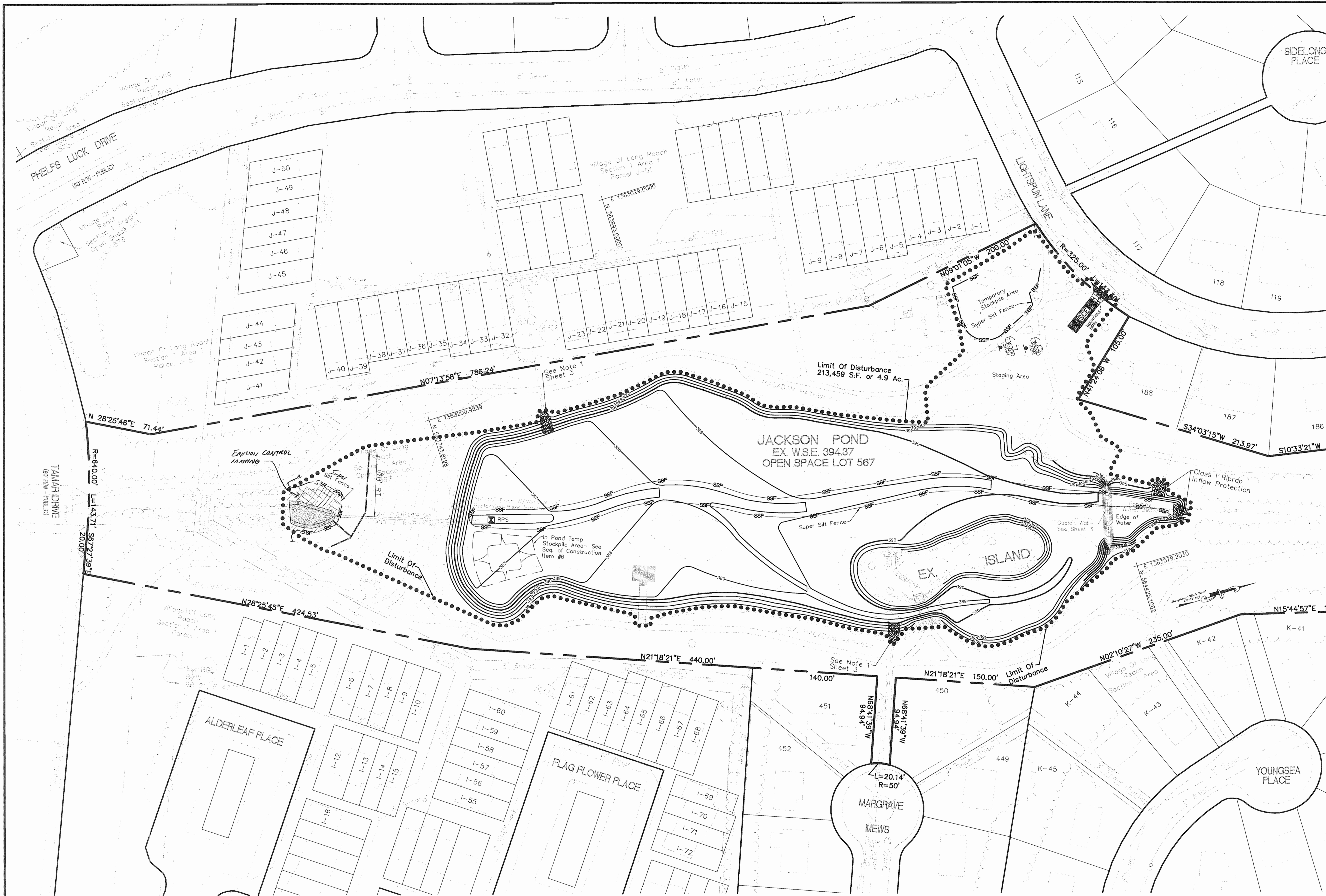
10-5-06
Date

JOHN R. HEINRICHS
Professional Engr. No. 14920

AREA: VILLAGE OF LONG REACH
SECTION 1 AREA 1 GRID 6
OPEN SPACE LOT 567 PARCEL: 289
CENSUS TRACT 6066.02 TAX MAP: 36
6 TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND


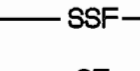



TITLE: SPILLWAY DETAILS

Des By: R.J.W.	Scale: 1"=50'	Proj No: 05-028
Drn By: S.E.W.	Date: September, 2006	Drawing: De02.dwg
Chk By: H.R.P.	SDP 06-73	5 OF 9




PLAN
SCALE: 1"=50'

LEGEND

- REMOVABLE PUMPING STATION 
- SUPER SILT FENCE 
- SILT FENCE 
- LIMIT OF DISTURBANCE 
- STABILIZED CONSTRUCTION ENTRANCE 

10-5-06
Date



JOHN R. HEINRICHS
Professional Engr. No. 14920

ENGINEER'S CERTIFICATE		
I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.		
<i>John R. Heinrichs</i>	10-5-06	DATE
ENGINEER: JOHN R. HEINRICHS, P.E. #14920 PHOENIX ENGINEERING, INC.		
DEVELOPER'S CERTIFICATE		
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT 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.		
<i>Denis Ellis</i>	10-5-06	DATE
DEVELOPER: DENIS ELLIS THE COLUMBIA ASSOCIATION, INC.		
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS		
<i>Jim Nguyen</i>	10/12/06	DATE
NATURAL RESOURCES CONSERVATION SERVICES		
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT		
<i>John R. Heinrichs</i>	10/17/06	DATE
HOWARD SOIL CONSERVATION DISTRICT		
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
<i>John R. Heinrichs</i>	10/19/06	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
<i>Cathy Starnitz</i>	10/19/06	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		
<i>Harold D. Layton</i>	11/20/06	DATE
DIRECTOR		
Date	No	Revision Description
OWNER/DEVELOPER:		
THE COLUMBIA ASSOCIATION 9450 GERWIG LANE COLUMBIA, MD 21046 410-381-0383 ATTN: DENIS ELLIS		
PROJECT:		
JACKSON POND RESTORATION VILLAGE OF LONG REACH SECTION 1, AREA 1, O.S. LOT 567 5853 LIGHTSPUN LANE COLUMBIA, MD 21046 HOWARD COUNTY, MARYLAND		
PREPARED BY:		
PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS 1420 JOH AVENUE, SUITE A BALTIMORE, MARYLAND 21227 (410) 247-8833 FAX 247-9397		
AREA:		
SECTION 1, AREA 1, O.S. LOT 567 GRID 6 PARCEL: 289 CENSUS TRACT 6066.02 TAX MAP: 36 6 TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE:		
SEDIMENT CONTROL PLAN		
Des By: R.J.W.	Scale: 1"=50'	Proj No: 05-028
Drn By: S.E.W.	Date: September, 2006	Drawing: ep01.dwg
Chk By: H.R.P.	SDP 06-73	6 OF 9

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION... 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN... 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE...

STANDARD AND SPECIFICATION FOR TOPSOILING

DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF VEGETATION. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATION GROWTH ON AREAS WITH LOW MOISTURE, LOW NUTRIENT LEVELS, LOW PH, OR THE PRESENCE OF OTHER MATERIALS TOXIC TO PLANTS.

CONDITIONS WHERE PRACTICE APPLIES

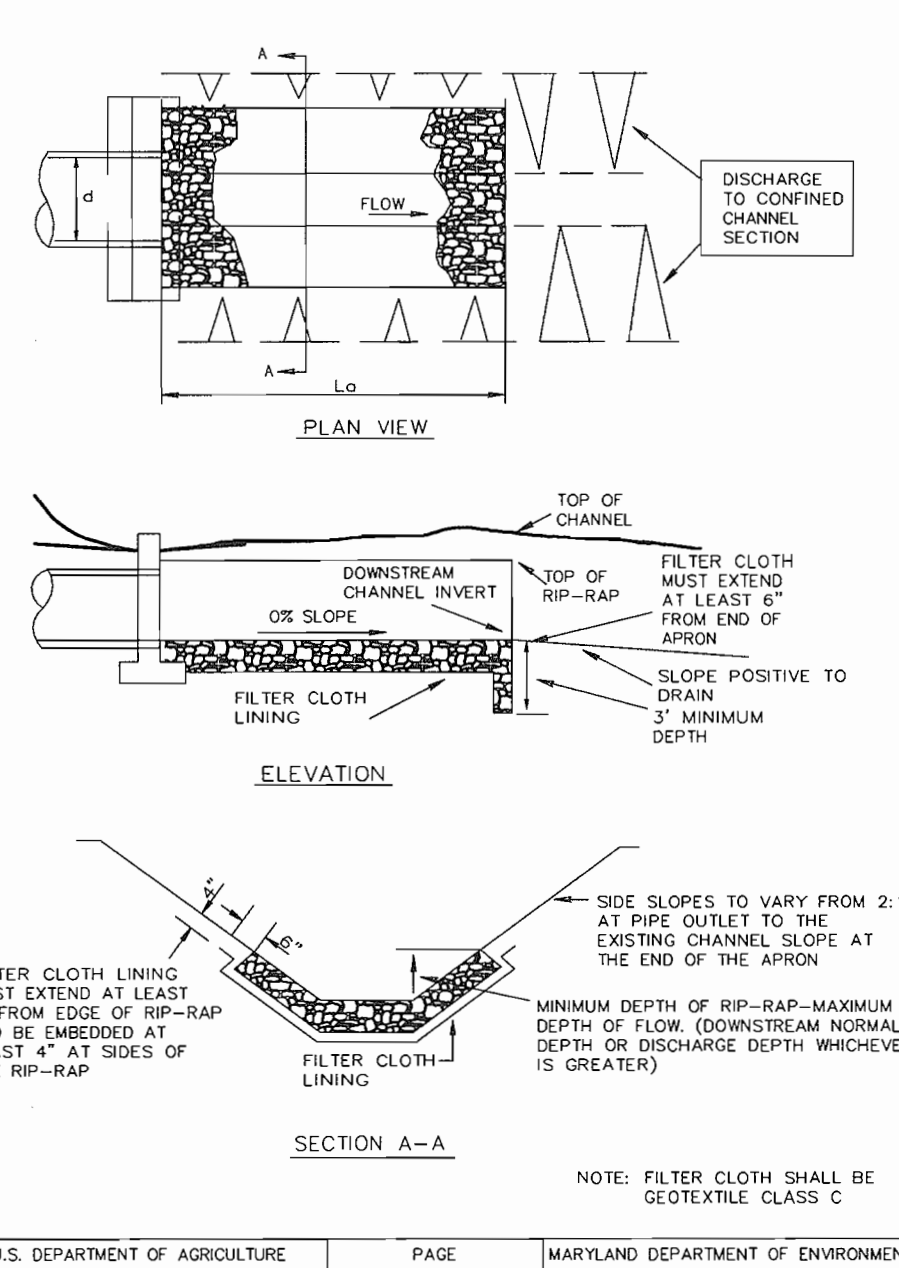
- 1. THE TEXTURE OF THE EXPOSED SUBSOIL OR PERCENT MATERIAL IS NOT SUITABLE TO PRODUCE ADEQUATE VEGETATIVE GROWTH. 2. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

SPECIFICATIONS

SECTION 1 SITE PREPARATION (WHERE TOPSOIL IS TO BE ADDED.) WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS STABILIZATION STRUCTURES, BERMS, DIKES, WATERWAYS AND SEDIMENT BASINS. GRADING: GRADINGS ON THE AREAS TO BE TOPSOILED WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED. LIMING: WHERE THE SUBSOIL IS EITHER HIGHLY ACID OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQ. FT.).

- 1. DAY 1 OBTAIN A GRADING PERMIT FROM HOWARD COUNTY AND ALL MDE PERMITS FROM THE DAM SAFETY DIVISION AND NON-TIDAL WETLANDS DIVISION. 2. DAY 2-3 NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 410-313-1855 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. 3. DAY 3-5 FIELD STAKE THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH THE APPROVED GRADING PLAN AND THE SEDIMENT CONTROL PLAN.

DETAIL 26 - ROCK OUTLET PROTECTION II

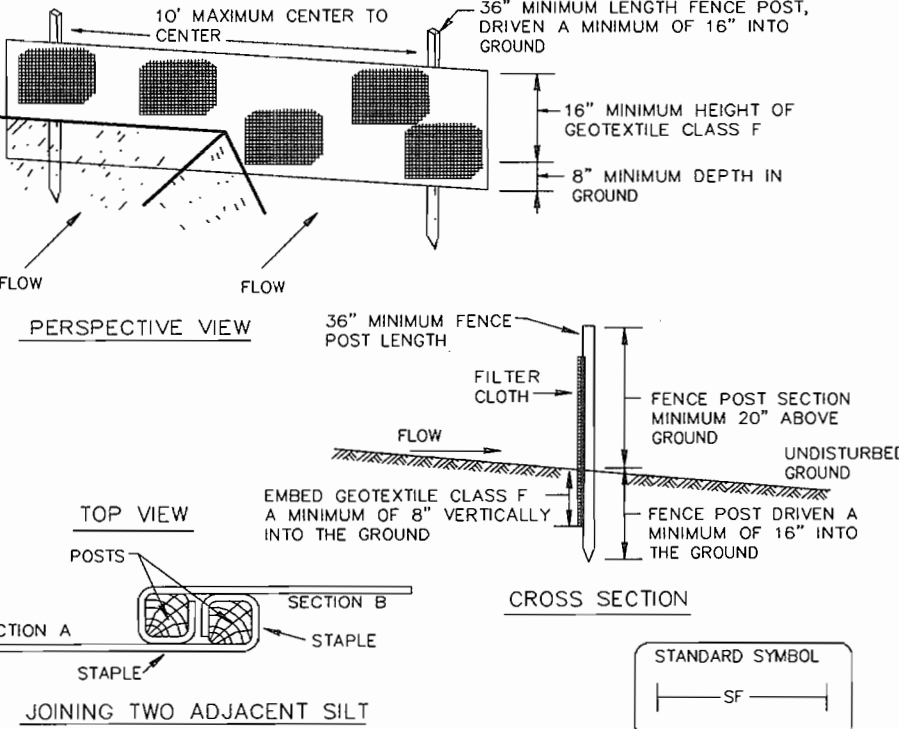


ROCK OUTLET PROTECTION II

Construction Specifications: 1. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of at least 95% of the maximum dry density of the surrounding undisturbed material. 2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter. 3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than on occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile.

Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE F-18-9A, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

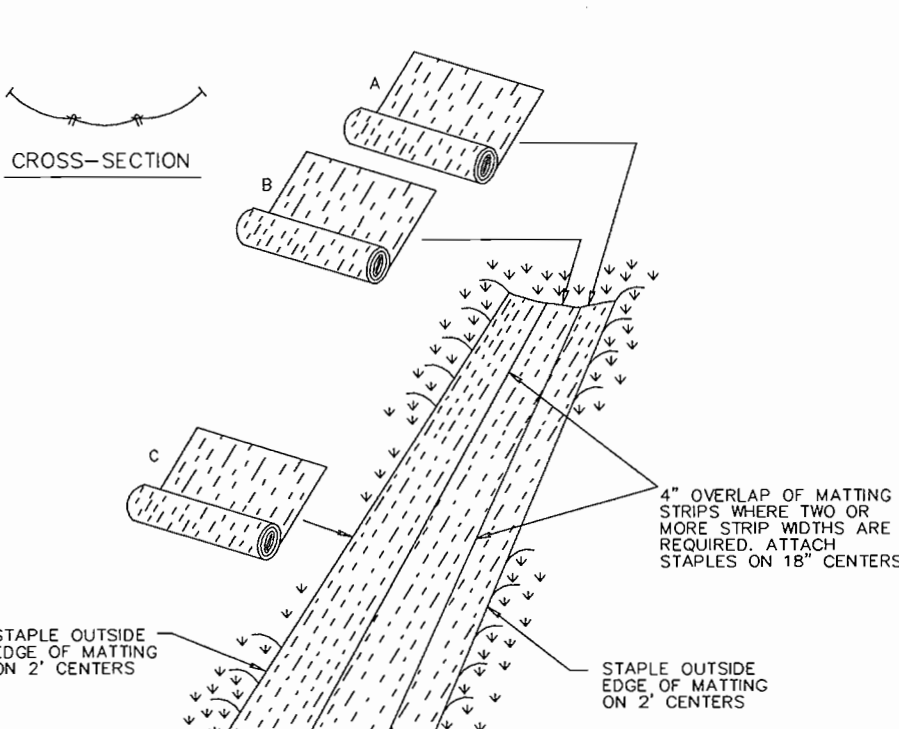
DETAIL 22 - SILT FENCE



Construction Specifications: 1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot. 2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE E-15-3, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

DETAIL 30 - EROSION CONTROL MATTING



Construction Specifications: 1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6". 2. Staple the 4" overlap in the channel center using an 18" spacing between staples. 3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil. 4. Staples shall be placed 2" apart with 4 rows for each strip. 2 outer rows, and 2 alternating rows down the center. 5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4" shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side. 6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

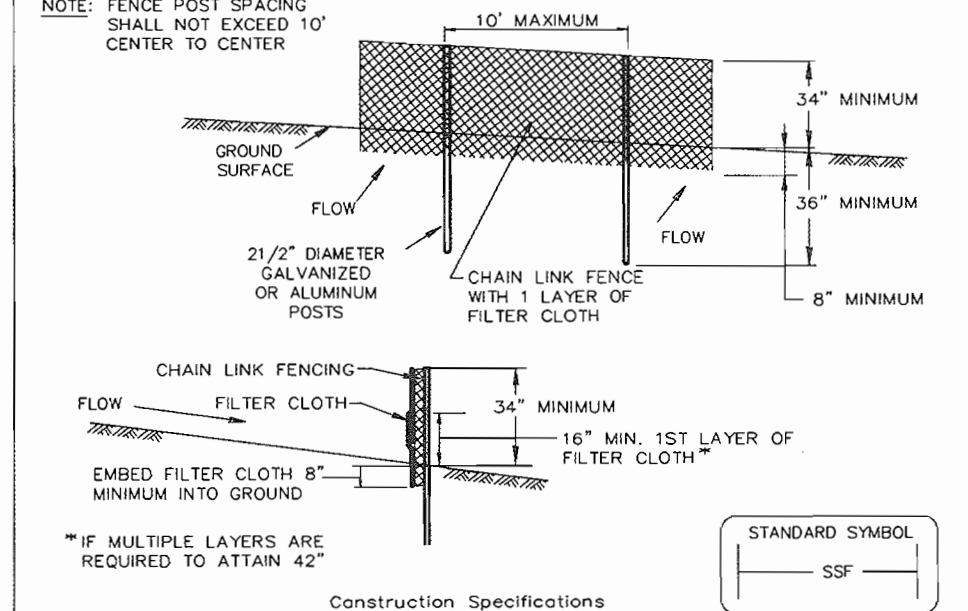
Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE F-18-9, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

EROSION CONTROL MATTING

Construction Specifications: 1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6". 2. Staple the 4" overlap in the channel center using an 18" spacing between staples. 3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil. 4. Staples shall be placed 2" apart with 4 rows for each strip. 2 outer rows, and 2 alternating rows down the center. 5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4" shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side. 6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE G-22-2, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

DETAIL 33 - SUPER SILT FENCE



Construction Specifications: 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 42" fabric and 6" length posts. 2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. 3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section. 4. Filter cloth shall be embedded a minimum of 6" into the ground. 5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded. 6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height. 7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE F-18-3A, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

SILT FENCE

Silt Fence Design Criteria: (Maximum) Slope Steepness, (Maximum) Slope Length, (Maximum) Silt Fence Length. 1. Flatter than 50:1 unlimited unlimited 1,000 feet. 2. 50:1 to 10:1 125 feet 1,000 feet. 3. 10:1 to 5:1 100 feet 750 feet. 4. 5:1 to 3:1 60 feet 500 feet. 5. 3:1 to 2:1 40 feet 250 feet. 6. 2:1 and steeper 20 feet 125 feet.

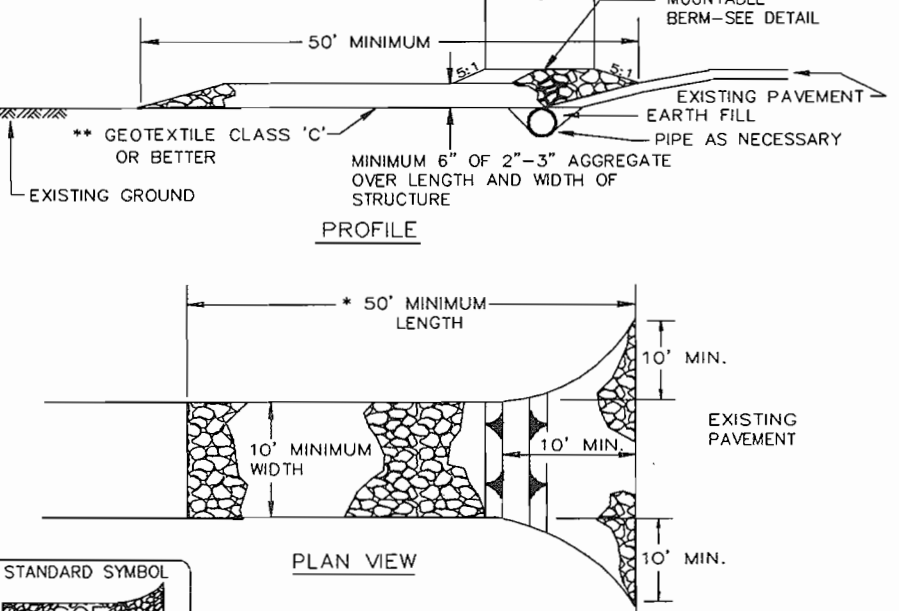
Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

SUPER SILT FENCE

Design Criteria: (Maximum) Slope Steepness, (Maximum) Slope Length, (Maximum) Silt Fence Length. 1. 0 - 10% 0 - 10:1 Unlimited Unlimited. 2. 10 - 20% 10:1 - 5:1 200 feet 1,500 feet. 3. 20 - 33% 5:1 - 3:1 100 feet 1,000 feet. 4. 33 - 50% 3:1 - 2:1 100 feet 500 feet. 5. 50% + 2:1 + 50 feet 250 feet.

Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE F-18-3A, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification: 1. Length - minimum of 50' (*30' for single residence lot). 2. Width - 10' minimum, should be flared at the existing road to provide a turning radius. 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. *The plan approval authority may not require single family residences to use geotextile. 4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance. 5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required. 6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

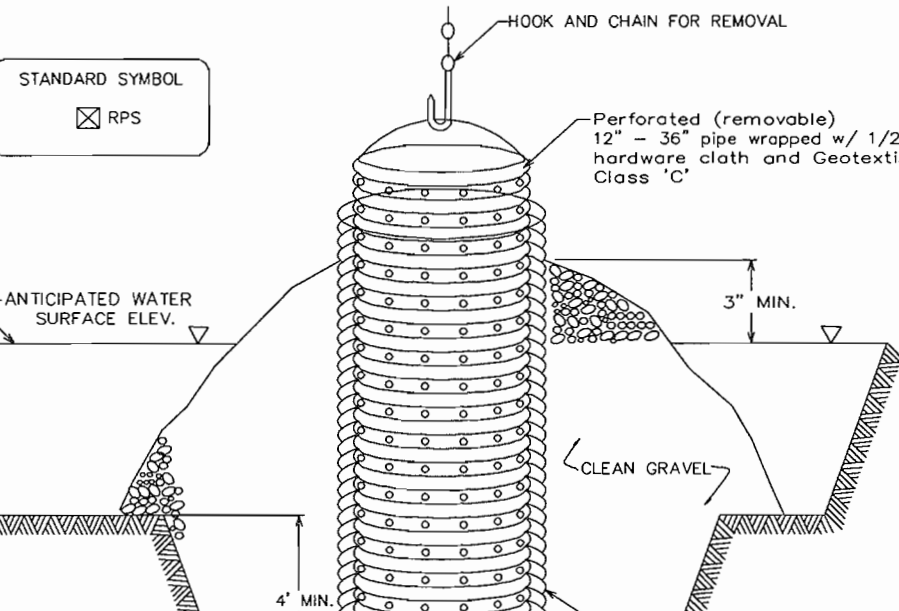
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Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE F-18-3A, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

DETAIL 20A - REMOVABLE PUMPING STATION



Construction Specifications: 1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations. 2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel. 3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated PVC pipe between 12" and 18" above the bottom. The perforations shall be 1/2" x 6" slots or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C. 4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

Table with 3 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE, PAGE G-19-5, MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION.

DATE NO REVISION DESCRIPTION

Table with 3 columns: Date, No, Revision Description. Includes entries for OWNER/DEVELOPER, PROJECT (JACKSON POND RESTORATION), PREPARED BY (PHOENIX ENGINEERING, INC.), AREA (SECTION 1, AREA 1, GRID 6, OPEN SPACE LOT 567, PARCEL: 289, CENSUS TRACT 6066.02, TAX MAP: 36, 6 TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND).

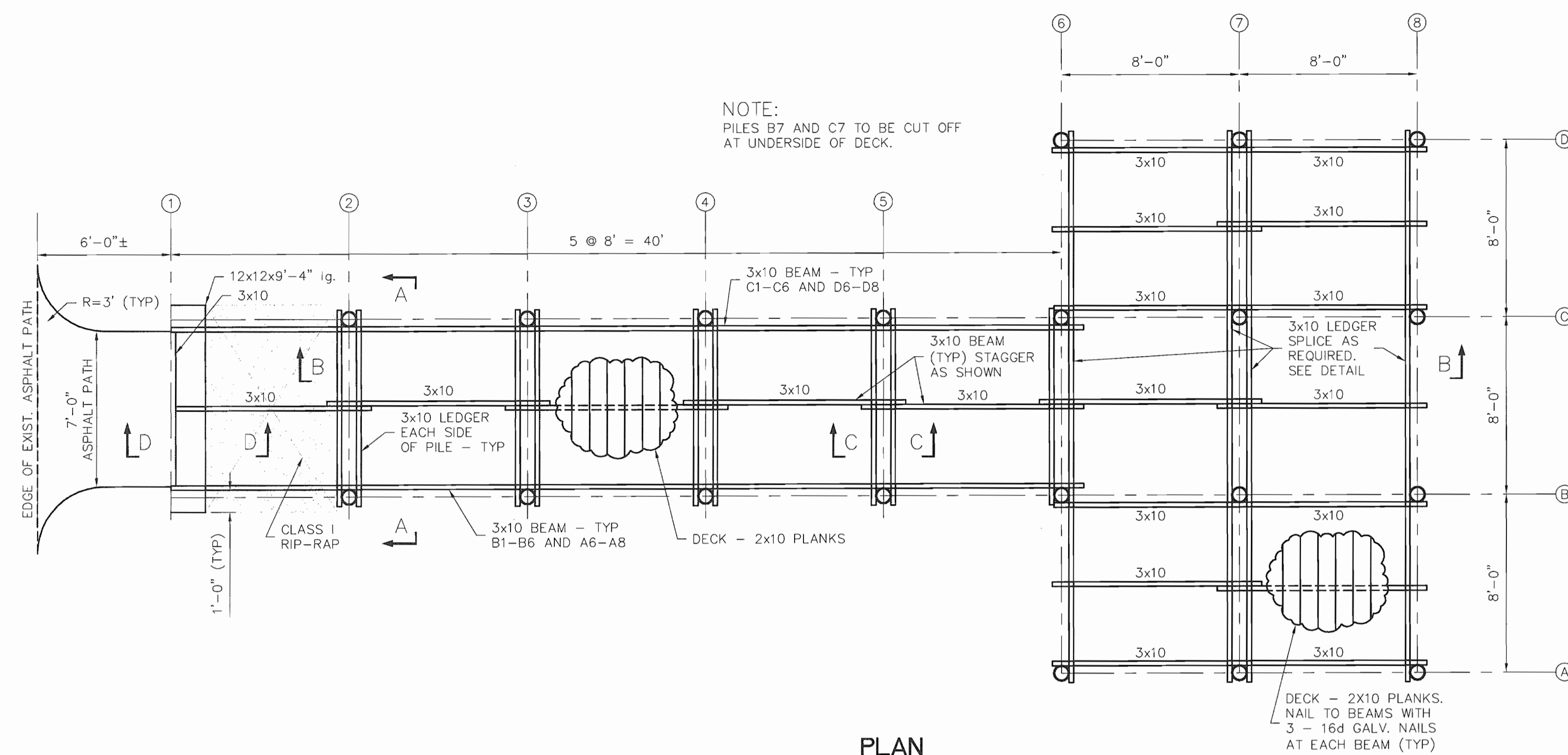
Professional Engineer stamp for John R. Heinrichs, No. 14920, dated 10-5-06. Includes title 'SEDIMENT CONTROL NOTES & DETAILS' and drawing info 'Des By: R.J.W., Scale: AS SHOWN, Date: September, 2006, Drawing: D601.dwg, Prej No: 05-028, Ok By: H.R.P., SDP 06-73'.

ENGINEER'S CERTIFICATE: I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

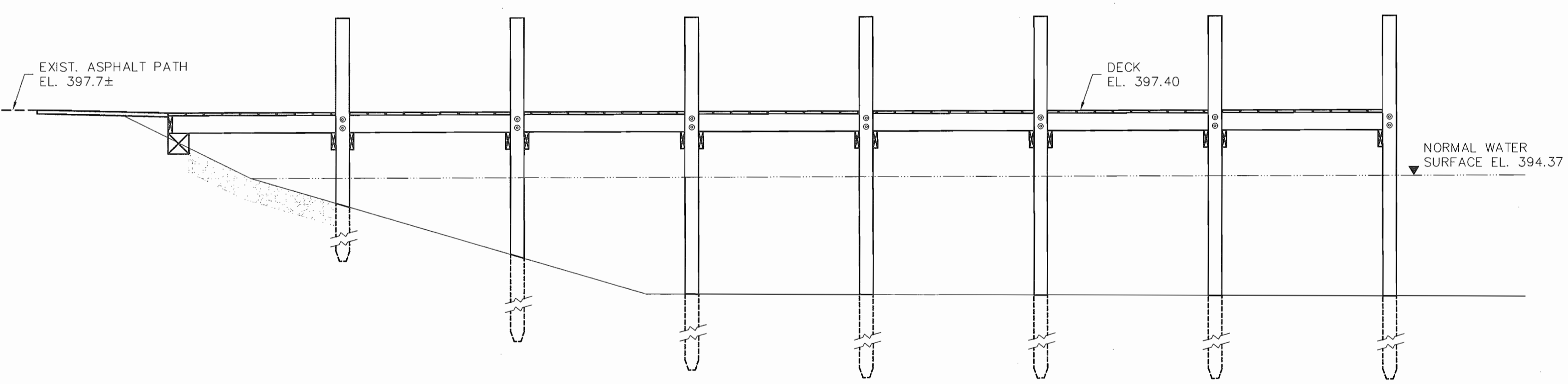
Developer's Certificate: I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

Approval signatures and dates for Chief, Development Engineering Division, Chief, Division of Land Development, and Director. Includes dates like 10/19/06, 10/19/06, 10/19/06.

Additional project details and drawing information including 'SEDIMENT CONTROL NOTES & DETAILS' and drawing number 'SDP 06-73'.

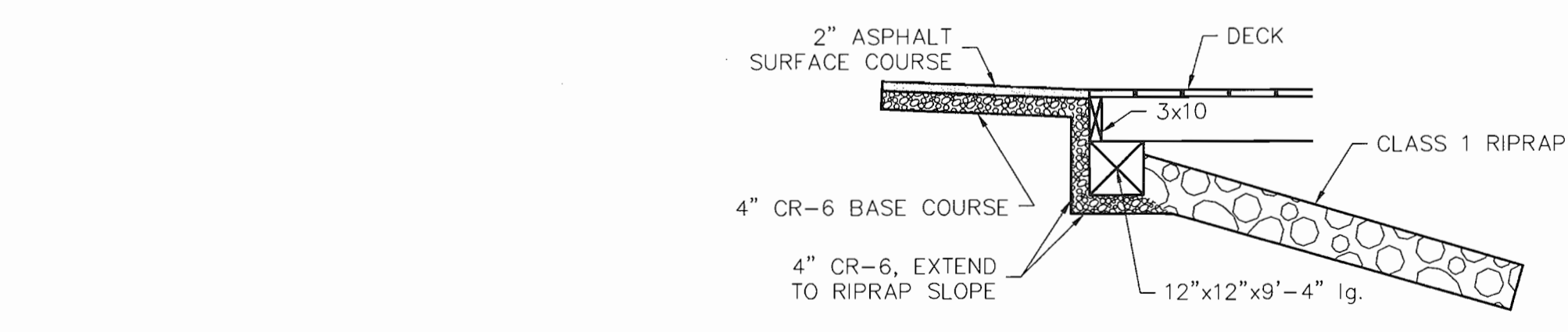


PLAN
SCALE: 1/4" = 1'-0"



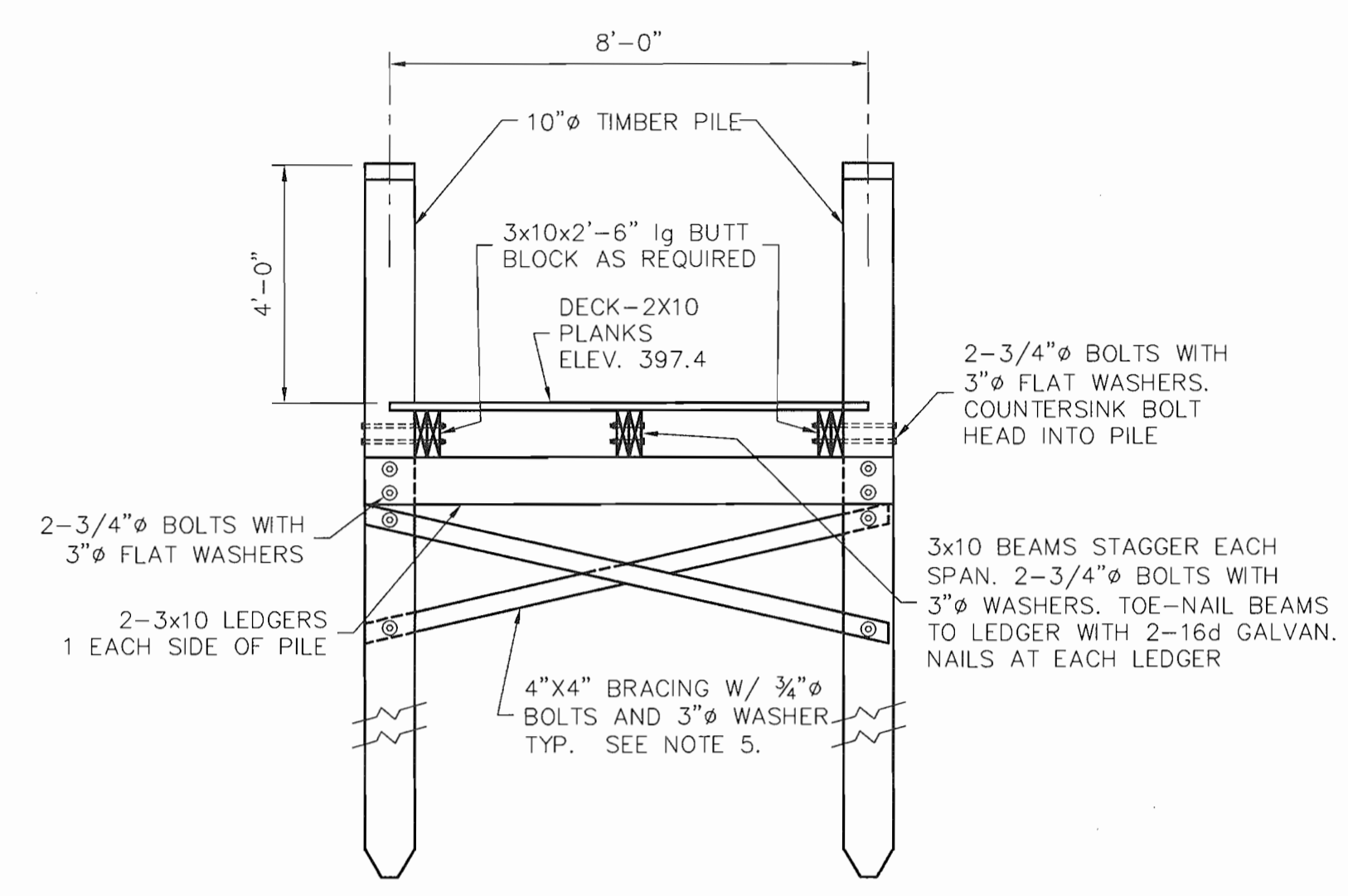
PROFILE
SCALE: 1/4" = 1'-0"

- NOTES:
- PIER DESIGN LIVE LOAD=100 PSF.
 - THE PILES SHALL NOT BE DRIVEN UNTIL THE POND HAS BEEN DEWATERED AND THE BOTTOM EXCAVATED TO THE PLANNED DEPTH. PILES TO BE DRIVEN A MINIMUM OF 10 FT. OR TO REFUSAL-SEE SPECIFICATIONS.
 - MATERIALS-SEE SPECIFICATIONS
 - ALL PILES EXCEPT B-7 AND C-7 TO BE CUT OFF 4 FT. ABOVE THE DECK LEVEL.
 - BRACING TO BE PROVIDED AT THE FOLLOWING LOCATIONS:
 - PILES 3B TO 3C
 - PILES 5B TO 5C
 - PILES 7A & 7B TO 7C TO 7D
 - PILES 5B TO 4C
 - PILES 5B TO 6B
 - PILES 6B TO 7B TO 8B
 - PILES 3C TO 4C
 - PILES 5C TO 6C
 - PILES 6C TO 7C TO 8C

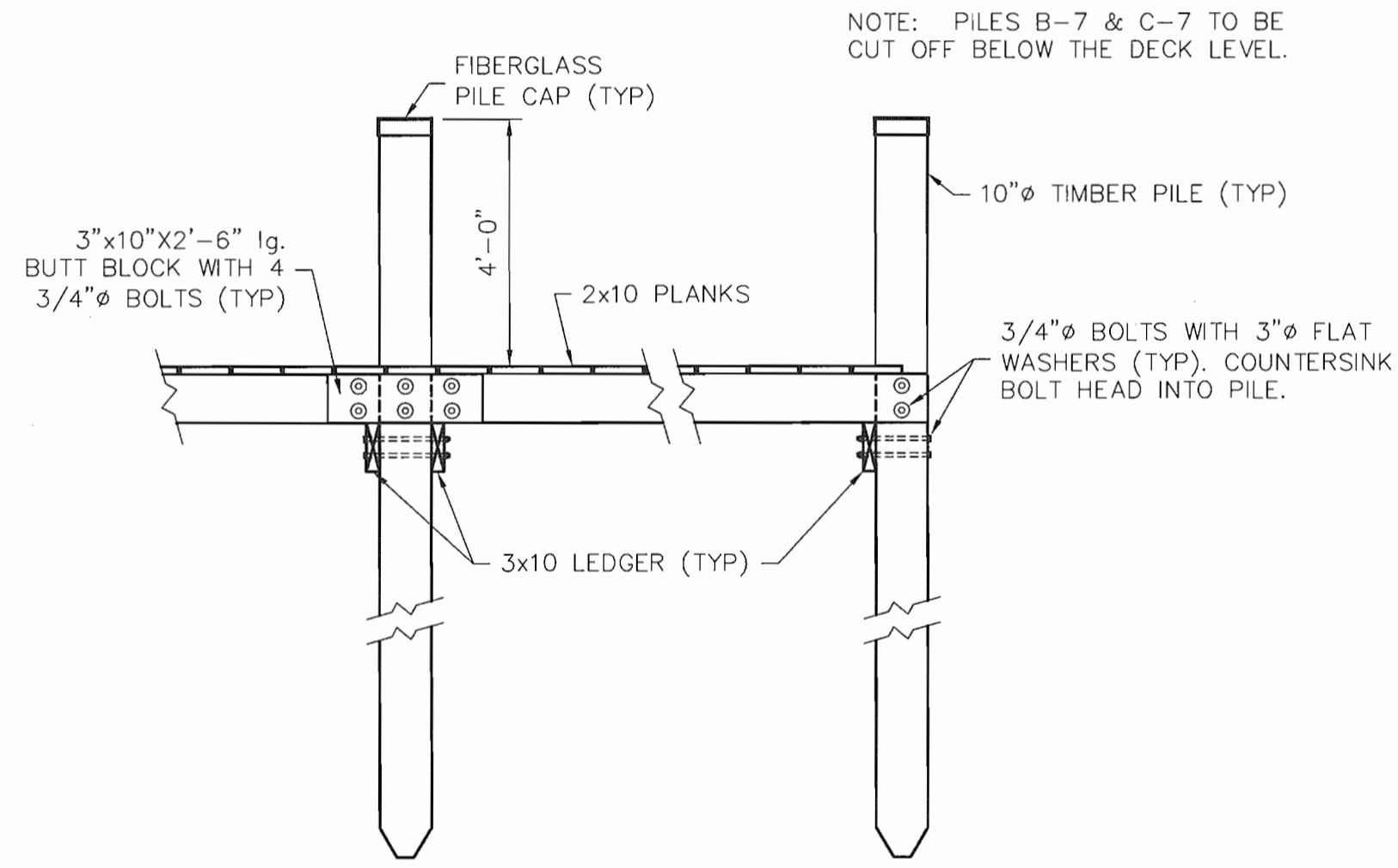


SECTION D-D
SCALE: 3/8" = 1'-0"

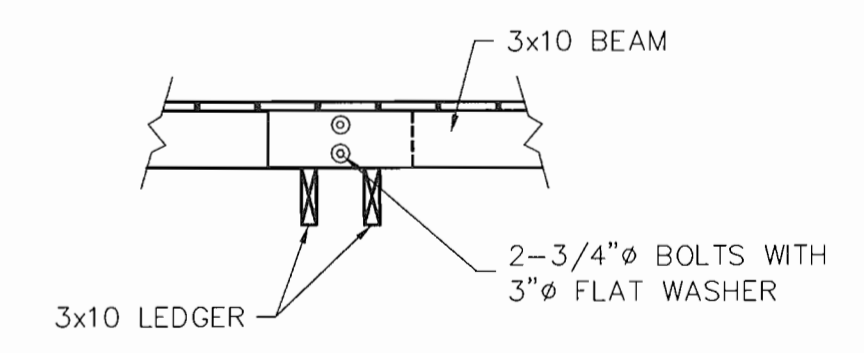
NOTE:
PILES B7 AND C7 TO BE CUT OFF AT UNDERSIDE OF DECK.



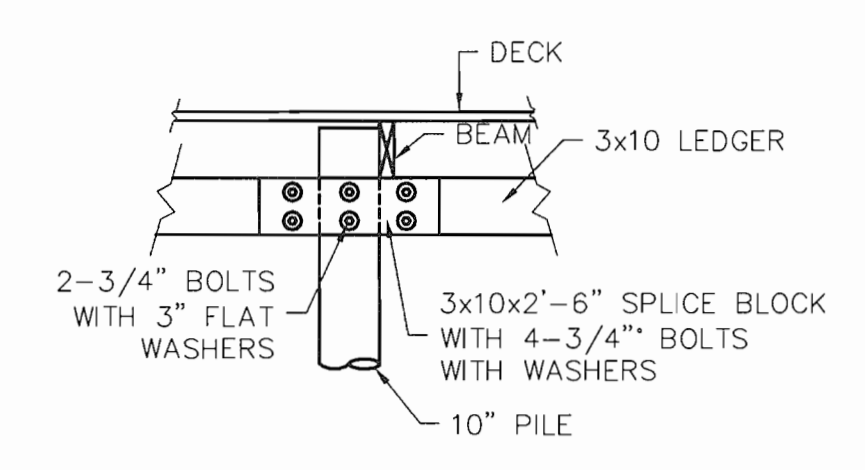
SECTION A-A
SCALE: 3/8" = 1'-0"



SECTION B-B
SCALE: 3/8" = 1'-0"



SECTION C-C (TYP)
SCALE: 3/8" = 1'-0"



NOTE: SPLICE LEDGERS AT PILES ONLY
LEDGER SPLICE DETAIL
SCALE: 3/8" = 1'-0"

NOTE: PILES B-7 & C-7 TO BE CUT OFF BELOW THE DECK LEVEL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/15/06
CHIEF, DIVISION OF LAND DEVELOPMENT	10/19/06
DIRECTOR	10/20/06

Date	No	Revision Description

OWNER/DEVELOPER:
THE COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA, MD 21046
410-381-0383
ATTN: DENIS ELLIS

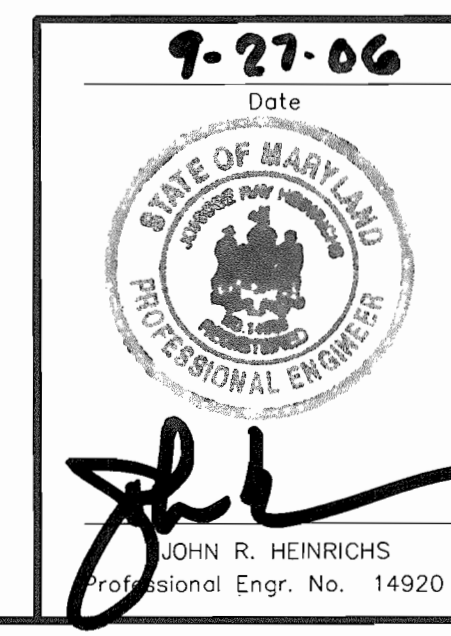
PROJECT:
JACKSON POND RESTORATION
VILLAGE OF LONG REACH
SECTION 1, AREA 1, O.S. LOT 567
5853 LIGHTSPUN LANE
COLUMBIA, MD 21046
HOWARD COUNTY, MARYLAND

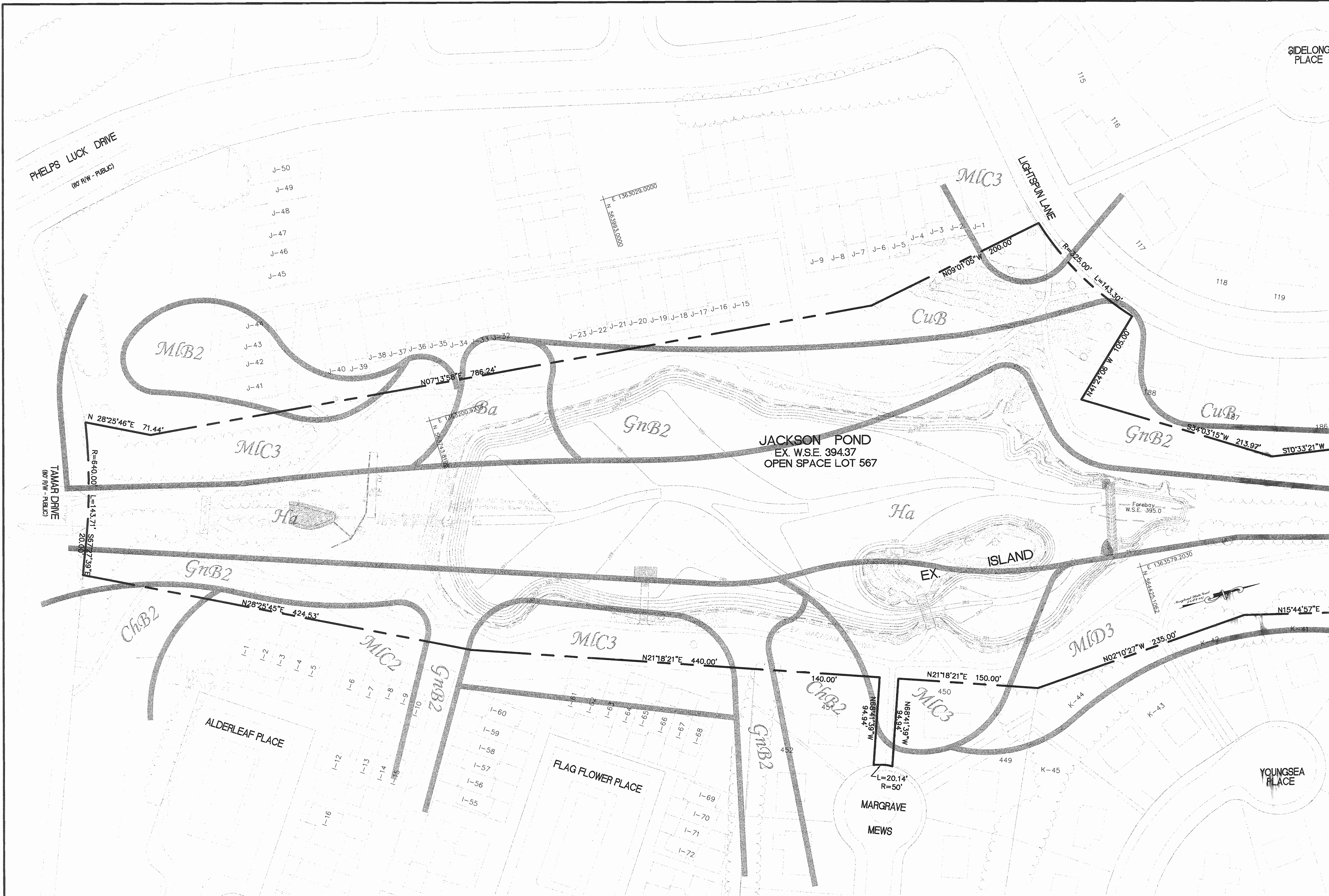
PREPARED BY:
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
1420 JOH AVENUE, SUITE A
BALTIMORE, MARYLAND 21227
(410) 247-8833 FAX 247-9397

AREA:
VILLAGE OF LONG REACH
SECTION 1 AREA 1 GRID 6
OPEN SPACE LOT 567 PARCEL: 289
CENSUS TRACT 6066.02 TAX MAP: 36
8 TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE:
FISHING PIER

Des By:	H.R.P.	Scale:	AS SHOWN	Proj No:	05-028
Drn By:	V.M.S.	Date:	September, 2006	Drawing:	fp01jackson.dwg
Chk By:	H.R.P.	SDP:	06-73	Page:	8 OF 9

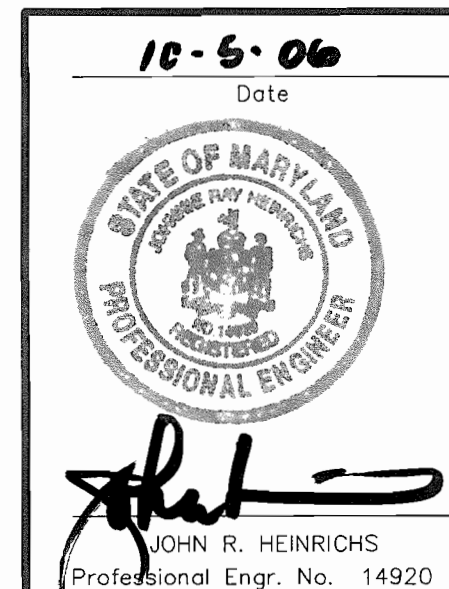




PLAN
SCALE: 1"=50'

Step Slopes
15%-24.9% Slopes
25% Slopes

SOIL CLASSIFICATION		
SYMBOL	TYPE	DESCRIPTION
Ba	D	Baile Silt Loam
ChB2	B	Chester Silt Loam, 3 to 8 percent slopes, moderately eroded
CuB	B	Comus Silt Loam, local alluvium, 3 to 8 percent slopes
GnB2	C	Glennville Silt Loam, 3 to 8 percent slopes, moderately eroded
Ha	D	Harboro Silt Loam
MIB2	B	Manor Loam, 3 to 8 percent slopes, moderately eroded
MIC3	B	Manor Loam, 8 to 15 percent slopes, severely eroded
MID3	B	Manor Loam, 15 to 25 percent slopes, severely eroded



Approved: Dept. of Planning and Zoning
 Chief Development Engineering *[Signature]* 10/19/06
 Chief, Division of Land Development *[Signature]* 10/19/06
 Director *[Signature]* 10/19/06

OWNER/DEVELOPER:
 THE COLUMBIA ASSOCIATION
 9450 GERWIG LANE
 COLUMBIA, MD 21046
 410-381-0920
 ATTN: DENIS ELLIS

PROJECT:
 JACKSON POND
 VILLAGE OF LONG REACH
 8960 TAMAR DRIVE
 COLUMBIA, MD 21046
 HOWARD COUNTY, MARYLAND

PREPARED BY:
PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 1420 JOH AVENUE, SUITE A
 BALTIMORE, MARYLAND 21227
 (410) 247-8833 FAX 247-9397

AREA:
 SECTION 1 VILLAGE OF LONG REACH
 OPEN SPACE LOT 567 AREA 1 GRID 6
 CENSUS TRACT 6066.02 PARCEL: 289
 6 TH ELECTION DISTRICT TAX MAP: 36
 HOWARD COUNTY, MARYLAND

TITLE:
 SOILS MAP

Des By: R.J.W. Scale: 1"=50' Proj No: 05-02B
 Dwn By: S.E.W. Date: September, 2006 Drawing: SO01.dwg
 Ck By: H.R.P. 9 OF 9