

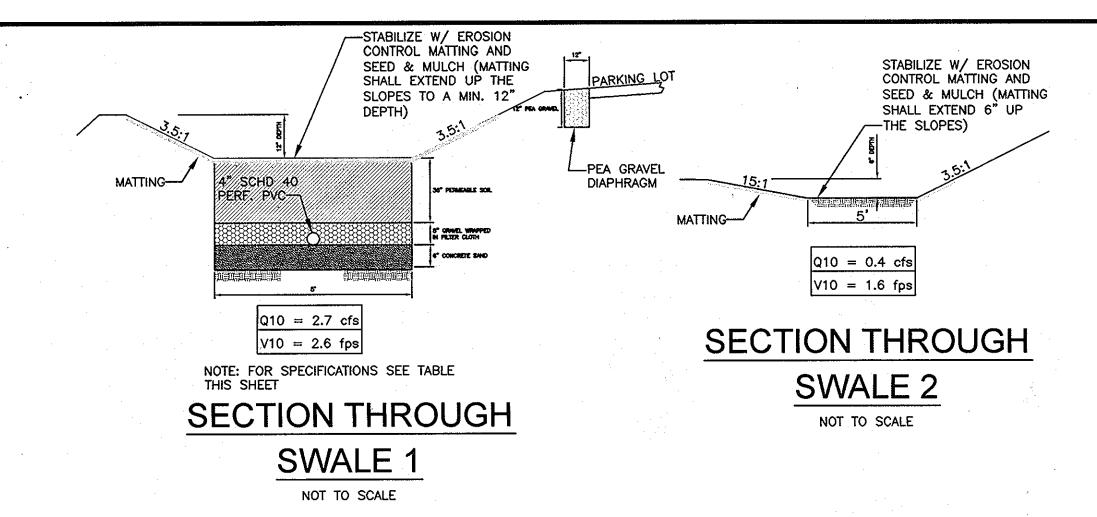
DEPARTMENT OF PLANNING AND ZONING

APPROVED:

Chief, Development Engineering Division

march to cert

Chief, Division of Land Development



MATERIAL SPECIFICATIONS

MATERIAL	SPECIFICATION/TEST METHOD	SIZE	NOTES
'CONCRETE' SAND	CLEAN AASHTO-M-6 OR ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND
GEOTEXTILE FABRIC	ASTM-D-4833 (PUNCTURE STRENGTH -125 LB.) ASTM-D-4632 (TENSILE STRENGTH - 300 LB.)	0.08" THICK EQUIVALENT OPENING SIZE OF #80 SIEVE	MUST MAINTAIN 125 GPM PER SQ. FT. FLOW RATE
UNDERDRAIN PIPING	F758, TYPE PS 28 OR AASHTO-M-278	4"-6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF. • 6" ON CENTER, 4 HOLES PER ROW, MINIMUM OF 3" O GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES
UNDERDRAIN GRAVEL	AASHTO-M-43	0.375"-0.75"	
TOP SOIL	SAND 35% TO 60% SILT 30% TO 55% CLAY 0% TO 10%	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM OR LOAM

APPROVED
PLANNING BOARD
of HOWARD COUNTY

ULTRA FLO STORM SEWER PIPE SPECIFICATIONS

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE ULTRA FLO PIPE DETAILED IN THE PROJECT PLANS.

THE PIPE MATERIAL SHALL BE ALUMINUM AND SHALL HAVE A MANNING'S OF .012.

THE ULTRA FLO SHALL BE MANUFACTURED WITH THE 3/4" x 3/4" x 7-1/2" EXTERNAL RIBS IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ASTM B 745. THE PIPE SIZES AND GAGES SHALL BE AS SHOWN ON THE PROJECT PLANS. HANDLING & ASSEMBLY

SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION.

INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM B 788 AND B 790 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS, THE CONTRACTOR MUST BRING THEM TO THE ATTENTION OF THE PROJECT ENGINEER.

CONSTRUCTION LOADS CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE GUIDELINES OF THE MANUFACTURER OR THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION.

- SWM DATA (PARKING LOT C) 1. SWALE IS PROVIDED FOR RECHARGE ONLY. 2. WATER QUALITY IS PROVIDED FOR THIS AREA IN AREA A BY TREATING AN EQUIVALENT AMOUNT OF EXISTING
- IMPERVIOUS. 3. STRUCTURE CLASSIFICATION - NA (NOT 378) 4. TYPE OF FACILITY - GRASS CHANNEL 5. MAINTENANCE RESPONSIBILITY - PRIVATE 6. WATERSHED AREA TO FACILITY - 0.10 AC.± 7. Q1 = 0.15 CFS, Q10 = 0.43 CFS 8. CPv NOT REQUIRED.
- 9. RUNOFF CURVE NUMBER 89 10. TIME OF CONCENTRATION - 0.10 HOURS 11. 10-YEAR VELOCITY - 1.62 FPS

SAND FILTER MAINTENANCE SCHEDULE

1. THE SEDIMENT CHAMBER OUTLET DEVICES SHALL BE CLEANED AND/OR REPAIRED WHEN DRAWDOWN TIMES WITHIN THE CHAMBER EXCEED 36 HOURS. 2. DEBRIS AND LITTER SHALL BE REMOVED AS NECESSARY TO INSURE PROPER OPERATION OF THE SYSTEM.

3. SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENTATION CHAMBER WHEN IT ACCUMULATES TO A DEPTH OF 6 INCHES. VEGETATION WITHIN THE CHAMBER SHALL BE LIMITED TO A HEIGHT OF 18 INCHES. 4. WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL. THE OWNER MUST FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID. 5. A LOGBOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY

DRAINS. 6. THE MAINTENACE LOGBOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA. 7. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN VERIFIED. THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

OPEN CHANNEL MAINTENANCE SCHEDULE

1. THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINEIF THE FACILITY IS FUNCTIONING PROPERLY. 2. THE OPEN CHANNEL SHALL BE MOWED A MINIMUM OF AS NEEDED DURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6". 3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND 4. VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED. 5. REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT ACCUMULATES TO A DEPTH OF THREE INCHES.

SUB-AREA	ACREAGE (ACRES)	Rev (CU FT)	WQv (CU FT)	Cpv (CU FT)	10-YR (CFS)	100-YR (CFS)
A	0.48	133	1021	NOT REQ'D	CONVEYED SAFELY	NOT REQ'D
В	0.23	103	690	NOT REQ'D	CONVEYED SAFELY	NOT REQ'D
С	0.10	GRASS CHANNEL	PROV'D FOR IN AREA A	NOT REQ'D	CONVEYED SAFELY	NOT REQ'D

Richardson Engineering, LLC

730 W. Padonia Road, Suite 101 Cockeysville, Maryland 21030 Phone: 410-560-1502 Fax: 410-560-0827



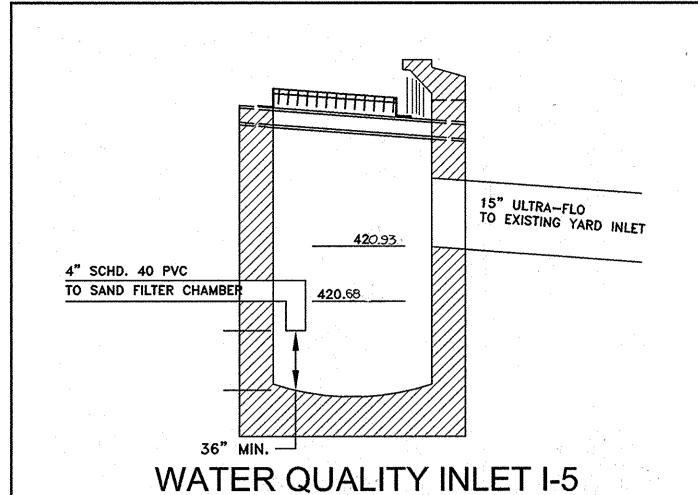
OWNER/DEVELOPER	c.
WELLS FARGO PROPERTIES, INC. 2329 CENTRAL AVENUE NE MINNEAPOLIS, MINNESOTA 55479 ATTN: CARRIE JOHNSON PHONE: 612-667-8714	
CACC, LLP 9195 RED BRANCH ROAD COLUMBIA, MARYLAND 21045 ATTN: STEPHEN SMITH	

PHONE: 410-992-9570

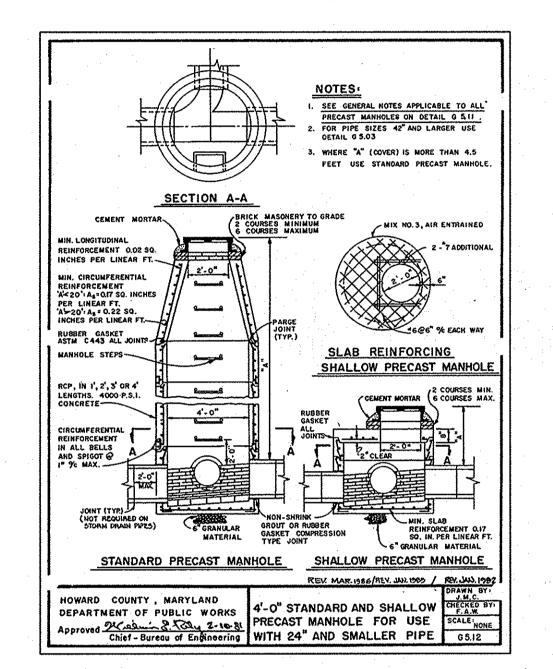
OAKLAND RIDG	E INDUSTRIA	AL PARK, SEC	. I, LOTS
1		ADDITIONS)	_
		PMENT PLAN	
SWM P SECOND ELECTION		AINAGE AREA	MAP COUNTY, N
SECOND ELECTION	DISTRICT		TAX MA
DESIGNED BY:	J.P.D.	SCALE	30
		AS SHOWN	GRID
DRAWN BY:	LP.D.	DEED DEE	17

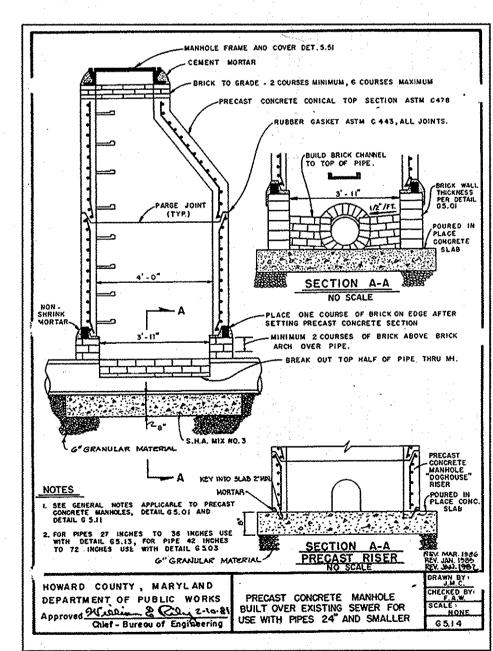
CHECKED BY: J.P.D.

SITE DEVELO	ADDITIONS)	S ,. ,	≩ 7	7-21-05 DATE	CNEWAY POOP. () EXIT, GRADES & REVISION		CND
ND ELECTION DISTRICT		COUNTY, MARYL	AND	DRAWING	COMPLETED	4-20-05	
SIGNED BY: J.P.D.	SCALE AS SHOWN	TAX MAP 30	M .	C. MAP 5 D D-13	JOB # 03053		SHEET
AWN BY: J.P.D.	DEED REF.	GRID 17	PL	AT REF.	FILES G:\JOBS\2003\	03053\	3
ECKED BY: J.P.D.	1310/514 8188/2	PARCEL 239		12/65	DRAWINGS\SHEET3.dwg	OF	7



NOT TO SCALE





DEPARTMENT OF PLANNING AND ZONING

APPROVED:

Chief, Development Engineering Division

Chief, Division of Land Developmen

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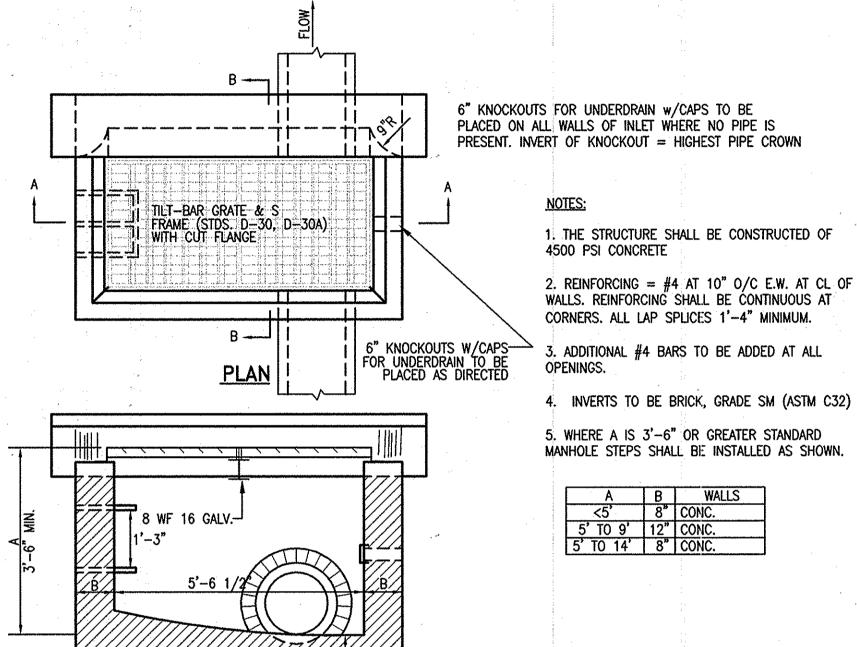


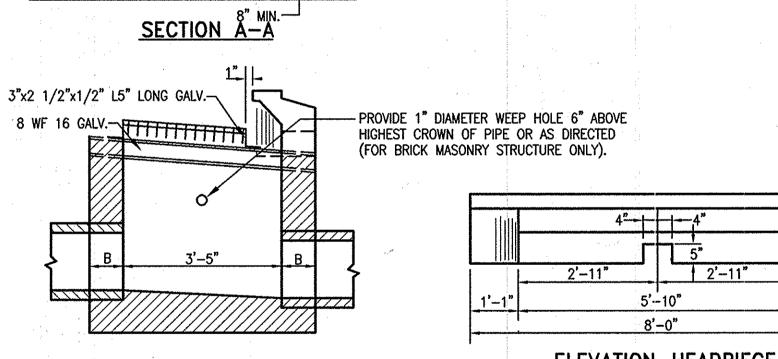
FROM	то	PIPE TYPE	SIZE	LENGT
I - 3	1-2	ULTRA-FLO	15"	385
I-2	M-1	ULTRA-FLO	15"	55'
I – 5	M-4	ULTRA-FLO	15"	[42 ¹]
ette en Su		Same of the same of		
SF-1	M-4	ULTRA-FLO	12"	20"
				(

STRUCTURE SCHEDULE

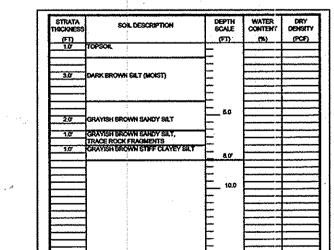
STRUCTURE	INVERT	INVERT	TOP ELEVATION	NORTHING/EASTING/ SEE NOTE BELOW
DOUBLE 'S' COMBINATION INLET		420.93	423.48	569,570.42 / 1,361,822.12
TYPE 'D' INLET	41.4.05	413.60	417.89	569,651.14 / 1,361,563.88
DOUBLE 'S' COMBINATION INLET	412.79			569,6 <i>72.</i> 43 / 1,361,600.33
LIVEOUS CONOUNTE MANAGED IN NO. O.	41539	415,38	42353	569,373 54 / 1,361, <i>83</i> 5 50
PRECAST CONCRETE MANHOLE	111.28	410.38	414.28	569,694.79 / 1,361,648.59
	DOUBLE 'S' COMBINATION INLET TYPE 'D' INLET DOUBLE 'S' COMBINATION INLET PRECAST CONCRETE MANHOLE 1114 41608	DOUBLE 'S' COMBINATION INLET TYPE 'D' INLET DOUBLE 'S' COMBINATION INLET PRECAST CONCRETE MANHOLE 114 41608 419:78 41539	DOUBLE 'S' COMBINATION INLET TYPE 'D' INLET DOUBLE 'S' COMBINATION INLET DOUBLE 'S' COMBINATION INLET PRECAST CONCRETE MANHOLE IN 41608 419.78 415.38	DOUBLE 'S' COMBINATION INLET 420.93 423.48 TYPE 'D' INLET 414.05 413.60 417.89 DOUBLE 'S' COMBINATION INLET 412.79 (412.66 415.88 PRECAST CONCRETE MANHOLE 1144.416.08 419.78 415.38 423.53

DOUBLE 'S' INLETS ARE COORDINATED TO THE CENTERLINE OF THE INLET ALONG THE PROJECTED FLOWLINE. TYPE 'D' INLET IS COORDINATED TO THE CENTERLINE OF THE BOX AND MANHOLES ARE COORDINATED TO

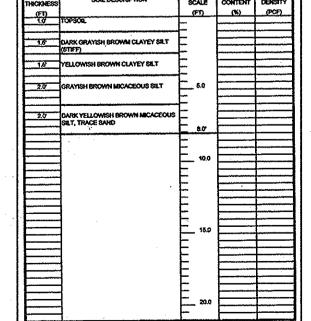


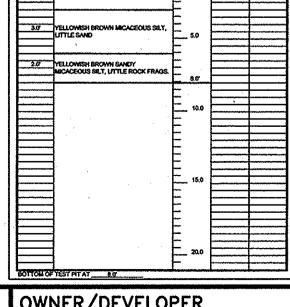


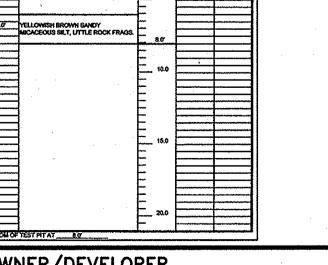
MODIFIED DOUBLE TYPE 'S' COMB. INLET



STRATA THICKNESS	SOIL DESCRIPTION	SCALE	CONTENT	DENSITY
(FT)		Œ	(%)	(PCF)
(FT) 1,0*	TOPSOIL	_		
]			
		—		
2.0	DARK BROWN LIKACEOUS GILT	-		
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	ł			
3.0	ORANGE BROWN INICACEOUS SRIT WI	5.0		
400	TRACE SAND			
1		6.0		
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DRAWN BY: COLUMBIA, MARYLAND 21045

CHECKED BY:

OAKLAND RIDGE INDUSTRIAL PARK, SEC. I, LOTS 4 & 7 (PARKING ADDITIONS)
SITE DEVELOPMENT PLANS SWM NOTES & DETAILS AS SHOWN

1 18" #10 DOWEL EA. COLUMN --

#Ŝ BARS **O** 16 O∕C E.W. E.F.

PIPE & STRUKTURE SCHEDILE
7-21-05 DEXIT, GRADES & STORMDRAIN (ND
DATE REVISION BY DRAWING COMPLETED_

🛕 dail 7/8'& hole 🛊

ANCHOR (QUIKRETE 8620-31) 4 #6 REBAR INTO BTM. SLAB

FOR EACH CONCRETE COLUMN

· 🕭 5 #3 TIES @ 12" EACH COLUMN

SDP-04-115

CONSTRUCTION SPECIFICATIONS

THIS STORMWATER MANAGEMENT FACILITY SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY'S "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION".

THIS UNDERGROUND MANAGEMENT FACILITY SHALL NOT BE CONSTRUCTED OR PLACED IN SERVICE UNTIL ALL OF THE CONTRIBUTING AREA HAS BEEN STABILIZED AND APPROVED BY THE RESPONSIBLE INSPECTOR.

STRUCTURAL BACKFILL MATERIAL

THE BACKFILL MATERIAL SHALL BE TAKEN FROM AN APPROVED BORROW AREA. ALL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZED STONES, FROZEN OR OTHER OBJECTIONABLE MATERIAL.

. PLACEMENT & COMPACTION THE BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 4 INCHES IN THICKNESS AND COMPACTED BY HAND TEMPERS OR OTHER COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPES. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN 4 FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF 24 INCHES OR GREATER OVER THE STRUCTURE OR PIPE.

5. PIPE CONDUITS MATERIALS (CORRUGATED STEEL PIPE): THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-19Q TYPE A WITH WATERTIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND. COATED C.M.P. SHALL HAVE A MINIMUM COATING THICKNESS OF 10 MIL ON BOTH SIDES OF PIPE AND SHALL MEET REQUIREMENTS OF AASHTO M-245 AND M-246.

ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. WATERTIGHT COUPLING BANDS OR FLANGES SHALL BE USED AT ALL JOINTS. DIMPLE BANDS ARE NOT CONSIDERED TO BE WATERTIGHT. BEDDING THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSUITABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIALS SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH MATERIAL COMPACTED TO PROVIDE ADEQUATE SUPPORT. LAYING PIPE THE PIPE SHALL BE PLACED WITH INSIDE CIRCUMFERENTIAL LAPS POINTING DOWNSTREAM AND WITH THE LONGITUDINAL LAPS AT THE SIDES. BACKFILLING BACKFILL SHALL CONFORM TO STRUCTURAL BACKFILL AS SHOWN ABOVE. OTHER DETAILS SILT, TRAPPING MANHOLES. ETC. SHALL BE AS SHOWN ON THE DRAWINGS. REINFORCED CONCRETE PIPE: MATERIALS: REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM C-361.

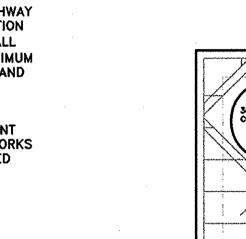
CONCRETE SHALL MEET MINIMUM REQUIREMENTS SET FORTH IN MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 918 (PORTLAND CEMENT CONCRETE MIXTURES), MIX NO. 3. REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60. REBARS SHALL HAVE 3" COVER (MINIMUM) AND A MINIMUM OVERLAP OF 30 BAR DIAMETERS, EXCEPT AS NOTED ON THE PLAN. STEEL ANGLES AND ANCHOR BARS SHALL BE ASTM A-36.

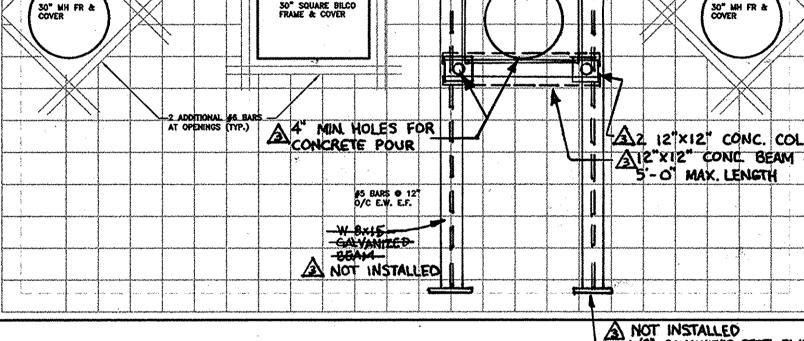
FACILITIES ALL DISTURBED AREA SHALL BE CONTROLLED BY AN EROSION AND SEDIMENT CONTROL PLAN WHICH HAS BEEN APPROVED BY HOWARD COUNTY DEPT.OF PUBLIC WORKS SOIL CONSERVATION DISTRICT. PROVIDE INLET PROTECTION FOR THOSE INLETS LOCATED ABOVE THE FACILITY UNTIL THE CONTRIBUTING AREAS HAVE BEEN STABILIZED.

ALL FILTER CLOTH SHALL BE POLYFILTER - X OR EQUIVALENT

ALL RIPRAP SHALL CONFORM TO HOWARD COUNTY SPECIFICATIONS.

11. CONSTRUCTION INSPECTION BY DESIGNATED ENGINEERS: THE CONSTRUCTION OF THIS FACILITY, AND CERTIFICATION THAT THIS FACILITY HAS BEEN BUILT IN ACCORDANCE WITH THE PLANS. SHALL BE UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER. THE ENGINEER SHALL BE NOTIFIED SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ARRANGEMENTS CAN BE MADE FOR: 1) INSPECTION OF PIPE TRENCH AND BEDDING, INSPECTION OF SPECIAL PIPE SECTIONS AND FIXTURES, AND 3) SUPERVISION OF RACKFILLING OPERATIONS. THE ENGINEER SHALL DIRECT THE HANDLING OF WATER DURING CONSTRUCTION, MINOR CHANGES NOT AFFECTING THE INTEGRITY OR PERFORMANCE OF THE FACILITY, AND THE REMOVAL AND REPLACEMENT

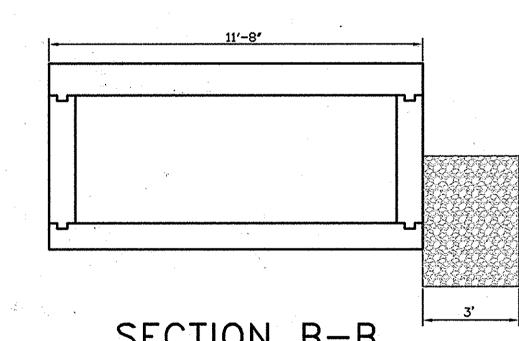




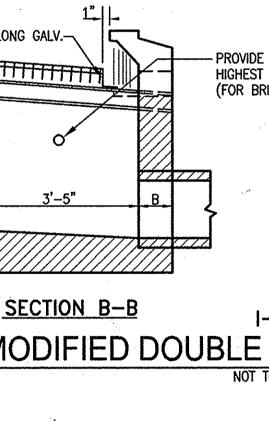
SCALE: 1" = 3

6" PERF PVC PIPE

#57 STONE FOR ROY VOLUME

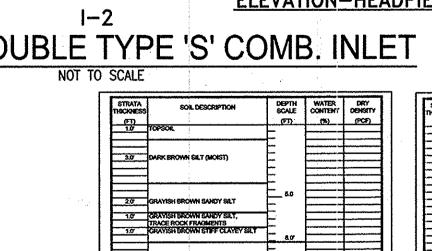


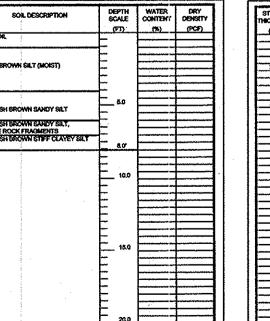


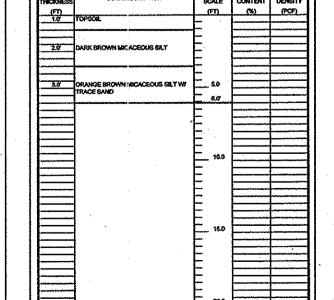


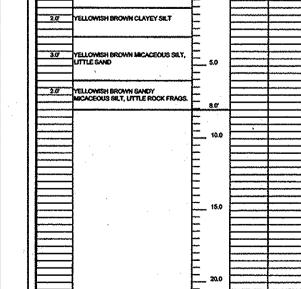
FOR AS BUILT 2/19/13

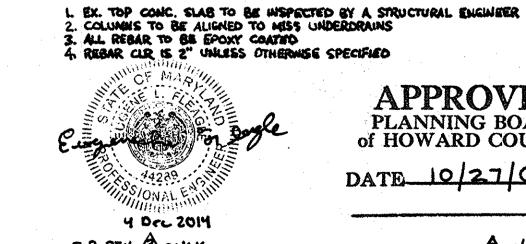
ELEVATION-HEADPIECE





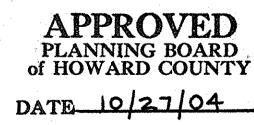






№ 2 #4° TOP 2 #8° BOTTOM

10" TYP.



10" BTM. SLAB

SCALE: 1" = 3'

SCALE: 1" = 3' AMANHOLE

MN 30" BUCO PRAME

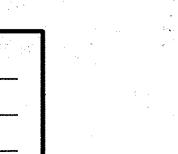
¢ COVER



DEED REF.

1310/514 8188/2

4 #3 STIRRUPS & 4:75" SECTION A-A



6/3/05

Richardson Engineering, LLC

730 W. Padonia Road, Suite 101 Cockeysville, Maryland 21030 Phone: 410-560-1502 Fax: 410-560-0827



OWNER/DEVELOPER WELLS FARGO PROPERTIES, INC. 2329 CENTRAL AVENUE NE MINNEAPOLIS, MINNESOTA 55479 CACC, LLP 9195 RED BRANCH ROAD

ATTN: STEPHEN SMITH

PHONE: 410-992-9570

COND ELECTION DISTRICT DESIGNED BY:

J.P.D.

J.P.D.

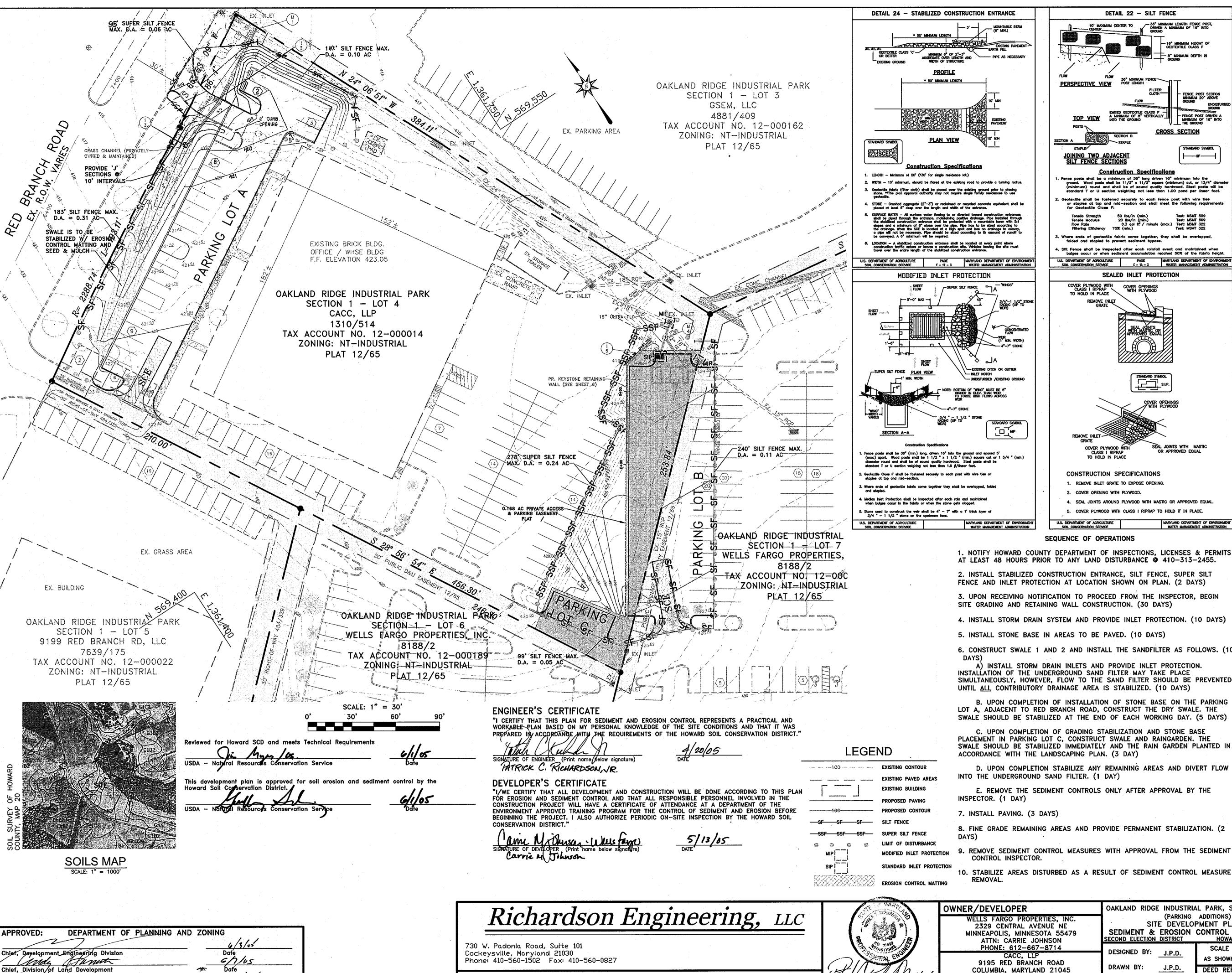
GRID D-13 FILES 6:\J08\$\2003\03053\ PARCEL 239 DRAWINGS\SHEET4.dwg

OUTFLOW CHAMBER

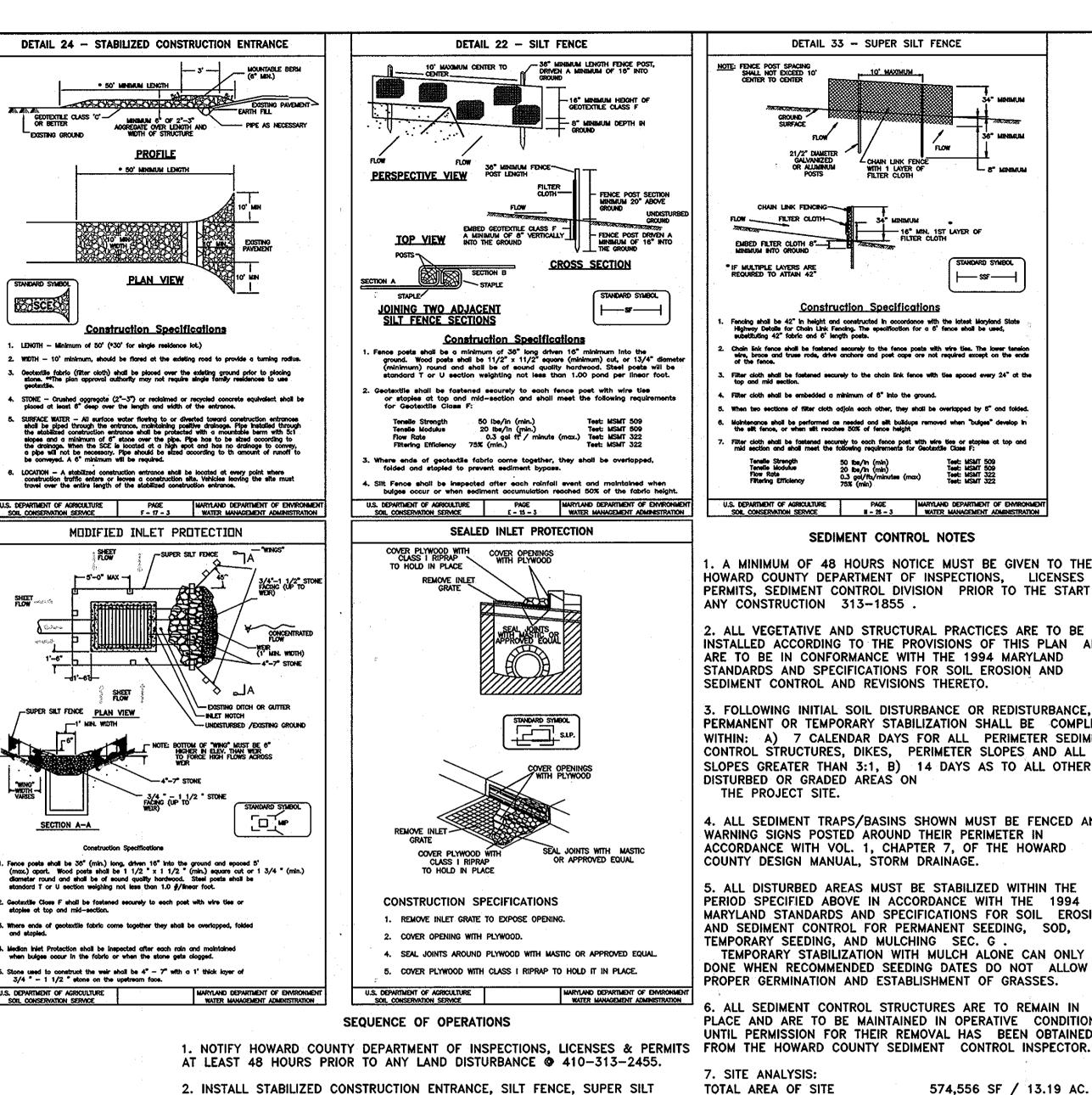
-cut concrete slab and

INSTALL NEW 30" SQUARE
BLCO PRAME & COVER
MANHOLE FRAME & COVER

ATTACHED WITH 5/6" STAINLESS STEEL EXPANSION COLTS TO EXISTING CONCRETE WALLS.



· leur



FENCE AND INLET PROTECTION AT LOCATION SHOWN ON PLAN. (2 DAYS)

3. UPON RECEIVING NOTIFICATION TO PROCEED FROM THE INSPECTOR, BEGIN SITE GRADING AND RETAINING WALL CONSTRUCTION. (30 DAYS)

4. INSTALL STORM DRAIN SYSTEM AND PROVIDE INLET PROTECTION. (10 DAYS)

5. INSTALL STONE BASE IN AREAS TO BE PAVED. (10 DAYS)

6. CONSTRUCT SWALE 1 AND 2 AND INSTALL THE SANDFILTER AS FOLLOWS. (10 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY

A) INSTALL STORM DRAIN INLETS AND PROVIDE INLET PROTECTION. INSTALLATION OF THE UNDERGROUND SAND FILTER MAY TAKE PLACE SIMULTANEOUSLY, HOWEVER, FLOW TO THE SAND FILTER SHOULD BE PREVENTED UNTIL ALL CONTRIBUTORY DRAINAGE AREA IS STABILIZED. (10 DAYS)

B. UPON COMPLETION OF INSTALLATION OF STONE BASE ON THE PARKING LOT A. ADJACENT TO RED BRANCH ROAD, CONSTRUCT THE DRY SWALE. THE SWALE SHOULD BE STABILIZED AT THE END OF EACH WORKING DAY. (5 DAYS)

C. UPON COMPLETION OF GRADING STABILIZATION AND STONE BASE PLACEMENT IN PARKING LOT C, CONSTRUCT SWALE AND RAINGARDEN. THE SWALE SHOULD BE STABILIZED IMMEDIATELY AND THE RAIN GARDEN PLANTED IN ACCORDANCE WITH THE LANDSCAPING PLAN. (3 DAY)

D. UPON COMPLETION STABILIZE ANY REMAINING AREAS AND DIVERT FLOW INTO THE UNDERGROUND SAND FILTER. (1 DAY)

E. REMOVE THE SEDIMENT CONTROLS ONLY AFTER APPROVAL BY THE INSPECTOR. (1 DAY)

7. INSTALL PAVING. (3 DAYS)

8. FINE GRADE REMAINING AREAS AND PROVIDE PERMANENT STABILIZATION. (2

10. STABILIZE AREAS DISTURBED AS A RESULT OF SEDIMENT CONTROL MEASURE

DRAWN BY:

CHECKED BY:

DETAIL 33 - SUPER SILT FENCE Construction Specifications 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.

SEDIMENT CONTROL NOTES

U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMEN SOIL CONSERVATION SERVICE N - 28 - 3 WATER MANAGEMENT ADMINISTRATION

1. 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 313-1855

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING SEC. G. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY B 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

7. SITE ANALYSIS: TOTAL AREA OF SITE 574,556 SF / 13.19 AC. AREA DISTURBED 37,897SF / 0.87 AC. AREA TO BE: ROOFED OR PAVED 23,087 SF / 0.53 AC. VEGETATIVELY STABILIZED 14,810 SF / 0.34 AC.

1,363 CU. YDS TOTAL CUT TOTAL FILL 1,411 CU. YDS OFFSITE WASTE/BORROW AREA LOCATION- A SITE WITH A CURRENTLY ACTIVE GRADING PERMIT.

GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

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

APPROVAL BY THE INSPECTION AGENCY IS MADE. . TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED

AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS

APPROVED PLANNING BOARD of HOWARD COUNTY



-:	
	OWNER/DEVELOPER
	WELLS FARGO PROPERTIES, INC. 2329 CENTRAL AVENUE NE MINNEAPOLIS, MINNESOTA 55479 ATTN: CARRIE JOHNSON PHONE: 612-667-8714
	CACC, LLP 9195 RED BRANCH ROAD COLUMBIA, MARYLAND 21045

ATTN: STEPHEN SMITH

PHONE: 410-992-9570

DAKLAND RIDGE INDUSTRIAL PARK, SEC. I, LOTS 4 & (PARKING ADDITIONS) SITE DEVELOPMENT PLANS SEDIMENT & EROSION CONTROL PLAN & DETAILS SECOND ELECTION DISTRICT DESIGNED BY: AS SHOWN

1310/514

8188/2

PARCEL

7-21-05 (1) EXIT, GRADES ESTORMORAIN CND
DATE REVISION BY 4-20-05 DRAWING COMPLETED_ HOWARD COUNTY, MARYLAND A.D.C. MAP 5 GRID D-13 **GRID** 17 DEED REF. FILES 6:\J085\2003\03053\

RAWINGS\SHEET5.dwg

SHEET

SEDIMENT CONTROL NOTES

THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. NO FURTHER CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED. 2. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO GRADING OF THE SITE TO ENSURE COMPLIANCE WITH APPROVED PLANS. ANY WORK BEYOND LIMITS OF DISTURBANCE IS CONSIDERED

TO BE A VIOLATION OF THIS PLAN. 3. ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY, UPON OMPLETION OF INSTALLATION OF PERIMETER SEDIMENT CONTROL PRACTICES, THE SITE MUST BE INSPECTED BY DPW. NO ADDITIONAL CONSTRUCTION ACTIVITY WILL BE AUTHORIZED WITHOUT THE APPROVAL OF DPW. 4. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WAYS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION. IF

NECESSARY, A WASH RACK MAY NEED TO BE ESTABLISHED. 5. EARTH DIKES. SEDIMENT TRAPS. ETC. WILL BE LOCATED AS SHOWN ON THESE DRAWINGS. FIELD CHANGES AND MINOR ADJUSTMENTS ARE PERMISSABLE AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS, ALL SUCH CHANGES MUST BE APPROVED BY THE SITE INSPECTOR PRIOR TO INSTALLATION. MAJOR CHANGES TO THE APPROVED PLAN WILL REQUIRE REAPPROVAL BY THE HOWARD SOIL CONSERVATION DISTRICT

6. FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

SEVEN CALENDAR DAYS ON SLOPES GREATER THEN 3:1 AND ALL WATERWAYS, AND TO THE SURFACE OF ALL PERIMETER CONTROLS.

B: FOURTEEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAAS OF THE PROJECT SITE. SEDIMENT BASINS MUST BE BUILT TO DESIGN SPECIFICATIONS SHOWN. IF THE BASIN IS TO BE USED AS A FUTURE SWM POND. THE BASIN WILL BE BUILT IN ACCORDANCE WITH THE LATEST MD-378 SPECIFICATIONS. SPECIFIED MATERIALS MUST BE USED. NO CHANGES OR MODIFIACTIONS WILL BE MADE WITHOUT WRITTEN AUTHORIZATION OF THE HOWARD SOIL CONSERVATION DISTRICT

8. TEMPORARY FENCING SHALL BE PLACED AOUND ALL SEDIMENT BASINS, TRAPS, AND PONDS DURING CONSTRUCTION AND SITE GRADING.

9. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH NOI/NPDES REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES. 10. CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 1994 EROSION AND SEDIMENT CONTROL

STANDARD AND SPECIFICATIONS FOR LAND GRADING. 11. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO SAFELY CONVEY WATER DOWN SLOPES WITHOUT CAUSING EROSION.

12. OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO THE PROJECT SITE 13. ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC

RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED. 14. STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 1994 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS

15. TOPSOILING, LIMING, FERTILIZING, SEEDING, MULCHING, SADDLING, ETC. ARE ALL ESSENTIAL PARTS OF SEDIMENT CONTROL AND MUST BE COMPLTED ALONG WITH ALL OTHER PRACTICES. 16. TRAPS TO BE REMOVED SHALL BE DEWATERED AS PER THE 1994 EROSION AND SEDIMENT CONTROL SATNDARDS AND SPECIFICATIONS.

17. PRIOR TO REMOVAL OR CONVERSION OF SEDIMENT BASINS TO SWM FACILITIES, THE STORM DRAINS WILL BE FLUSHED.

18. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. SEDIMENT CONTROL PRACTICES MAY BE REMOVED ONLY WITH THE AUTHORIZATION OF DPW. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY. REMOVAL PRIOR TO INSPECTOR APPROVAL CONSTITUTES A VIOLATION.

Temporary Seeding Summary Permanent Seeding Summary

	Seed Mixture	(For Hardines: (From Table		3_)		rtilizer Ra (10-20-20)		Lime		Seed Mixture (For Hardiness Zone <u>6 B</u>) (From Table 26)				Fertilizer Rate	Lime Rate
No.		Application Rate (lb/ac)	Seeding Dates	Seeding Depths	×	P205	K20	Rate	No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	Kate
1	KENT, BLUESPASS, CREEPING RED OR HARD FESCUE	150	3/1 - 5/15	*					1	RYE	140	3/1 4/30 8/15 11/15	*		
	REDTOP		8/15 - 10/1		90 lb/oo	175 B/aq	175 B/ac	2 tons/oc	2	WEEPING LOVEGRASS	4	5/1 - 6/14	*	600 lb/ac	2 tone/oc (100 lb/ 1000 st)
2	TALL FESCUE WEEPING LOVEDRASS SERECIA LEPEDEZA	110 3 20	5/16 8/14	*.	(20 b) 1000 #)	(4.0 lb/ 1000 st)	(4.0 lb/ 1000 m)	(100 lb/ 1000 st)	3	TALL PESCUE	30	3/1 - 4/30 8/18 - 11/15	*	(15 lb/1000 ef)	

FOR HYDROSEEDING OR DRY SEEDING. APPLY AT SURFACE FOR DRILL.

SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

SITE PREPARATION

STABILIZE AS PER STANDARD RESPONSIBILITY NOTE #3. TEMPORARY PERIMETER DIKES AND SILT TRAPS; ETC., ARE TO BE PROVIDED AS PER THIS PLAN PRIOR TO GRADING OPERATIONS WITH LOCATION ADJUSTMENTS TO BE MADE IN THE FIELD AS NECESSARY AND TO BE MAINTAINED AT THE END OF THE WORKING DAY. THE MINIMUM AREA PRACTICAL SHALL BE DISTURBED FOR THE MINIMUM AMOUNT OF TIME POSSIBLE. PERMANENT SEEDING:

SEEDBED PREPARATION: AREA TO BE SEEDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 3 INCHES. THE TOP LAYER SHALL BE LOOSENED BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING OCCURS. APPLY 2 TONS OF DOLOMITIC LIMESTONE AND 1,000 POUNDS OF 10-20-20 FERTILIZER PER ACRE. HARROW OR DISK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF AT LEAST 3 INCHES ON SLOPES FLATTER THAN 3:1. NO ATTEMPT SHOULD BE MADE TO DRAG ANY DISKED AREA TO MAKE THE SOIL SURFACE SMOOTH AFTER DISKING.

B. SEEDING: APPLY THE FOLLOWING SEED MIXTURES BETWEEN 1 FEBRUARY AND 31 OCTOBER: KENTUCKY 31 TALL FESCUE 100 POUNDS PER ACRE RED TOP 15 POUNDS PER ACRE SERICA LESPEDEZA 30 POUNDS PER ACRE ANNUAL RYE GRASS 25 POUNDS PER ACRE OR GERMAN MILLET 20 POUNDS PER ACRE TOTAL 165 TO 175 POUNDS PER ACRE USE GERMAN MILLET BETWEEN 1 JUNE AND 15 AUGUST, APPLY SEED UNIFORMLY ON A MOIST, FIRM SEEDBED WITH A CYCLONE SEED DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEEDS AND FERTILIZER, RECOMMENDED ON SLOPES ONLY). MAXIMUM SEED DEPTH SHOULD BE 1/4" IN CLAYEY SOILS AND 1/2" IN SANDY SOILS WHEN USING OTHER THAN THE HYDROSEEDER METHOD. IRRIGATE IF SOIL MOISTURE IS DEFICIENT TO SUPPORT ADEQUATE GROWTH, UNTIL VEGETATION IS FIRMLY ESTABLISHED.

C. MULCHING: MULCH SHALL BE UNCHOPPED, UNROTTED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS.

GUARANTEED PERMANENT VEGETATIVE STABILIZATION OF ALL AREAS AFFECTED BY THE EXECUTION OF THIS CONTRACT IS REQUIRED. AREAS NOT STABILIZED WITH A VIABLE STAND OF PERMANENT VEGETATIVE COVER MUST BE OVERSEEDED, LIMED AND FERTILIZED AND, IF NECESSARY, STRAW MULCHED AND TACKED BY NO LATER THAN THE FOLLOWING GROWING SEASON FOLLOWINGH INITIAL STABILIZATION EFFORTS.

4. TEMPORARY SEEDING:

LIME: 100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET FERTILIZER: 15 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET. PERENNIAL RYE, ITALIAN RYE - 0.92 POUNDS PER 1,000 SQUARE FEET (FEBRUARY 1 THROUGH APRIL 30 OR AUGUST 15 THROUGH NOVEMBER 1) MILLET - 0.92 POUNDS PER 1,000 SQUARE FEET (MAY 1 THROUGH AUGUST 15)

5. NO FILLS MAY BE PLACED ON FROZEN GROUND. ALL FILL TO BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS, EACH LAYER HAVING A LOOSE THICKNESS OF NOT MORE THAN 8". ALL FILL IN ROADWAYS AND PARKING AREAS IS TO BE COMPACTED TO 90% DENSITY; COMPACTION TO BE DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR). ANY FILL WITHIN BUILDING AREA IS TO BE COMPACTED TO A MINIMUM OF 95% AS DETERMINED BY METHODS PREVIOUSLY MENTIONED. ALL OTHER FILLS SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND PREVENT EROSION AND SLIPPAGE.

PERMANENT SOD:

PERMANENT SOD IS TO BE KENTUCKY 31 TALL FESCUE, STATE APPROVED SOD: LIME AND FERTILIZE PER PERMANENT SEEDING SPECIFICATIONS AND LIGHTLY IRRIGATE SOIL PRIOR TO LAYING SOD. SOD IS TO BE LAID ON THE CONTOUR WITH ALL ENDS TIGHTLY SHUTTING, JOINTS ARE TO BE STAGGERED BETWEEN ROWS. WATER AND ROLL OR TAMP SOD TO INSURE POSITIVE ROOT CONTACT WITH THE SOIL. ADDITIONAL WATERING FOR ESTABLISHMENT MAY BE REQUIRED. SOD IS NOT TO BE APPLIED ON FROZEN GROUND.

<u>TOPSOIL</u> SPECIFICATIONS

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH

B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND

C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. D. THE SOIL IS SO ACID'F6:1HAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2: 1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT I MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE **FOLLOWING:**

A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN

B. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS

C. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS/1,000 SQUARE FEET) PRIOT TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION -- SECTION I - VEGETATIVE STABILIZATION METHODS & MATERIALS.

TOPSOIL APPLICATION

I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, DRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS & BASINS.

II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED. SHALL BE MAINTAINED. ALBEIT 4" OR 8" HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND SLIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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 SOIL CONSERVATION DISTRICT

SIGNATURE OF ENGINEER (Print name below signature)
PATRICK C. RICHARDSON, JR

SPECIFICATIONS FOR RETAINING WALL

MODULAR CONCRETE RETAINING WALL

1.00 KEYSTONE UNITS A. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING STRUCTURAL AND GEOMETRIC REQUIREMENTS MEASURED IN ACCORDANCE WITH APPROPRIATE REFERENCES:

COMPRESSIVE STRENGTH = 3000 PSI MINIMUM;

UNIT SIZE - 8" (H) X 18" (W) X 18" (D) MINIMUM; UNIT WEIGHT - 100 LBS/UNIT MINIMUM FOR STANDARD WEIGHT AGGREGATES; INTER-UNIT SHEAR STRENGTH - 1500 PLF MINIMUM AT 2 PSI NORMAL PRESSURE;

GEOGRID/UNIT PEAK CONNECTION STRENGTH -1000 PLF MINIMUM AT 2 PSI NORMAL FORCE B. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING CONSTRUCTABILITY REQUIREMENTS: VERTICAL SETBACK = 1/8"± PER COURSE (NEAR VERTICAL) OR 1"+ PER COURSE PER THE DESIGN; ALIGNMENT AND GRID POSITIONING MECHANISM — FIBERGLASS PINS, TWO PER UNIT MINIMUM; MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE — 1/2 INCH.

2.01 SHEAR CONNECTORS

A. SHEAR CONNECTORS SHALL BE 1/2 INCH DIAMETER THERMOSET ISOPTHALIC POLYESTER RESIN-PULTRUDED FIBERGLASS REINFORCEMENT RODS OR EQUIVALENT TO PROVIDE CONNECTION BETWEEN VERTICALLY AND HORIZONTALLY ADJACENT UNITS. STRENGTH OF SHEAR CONNECTORS BETWEEN VERTICAL ADJACENT UNITS SHALL BE APPLICABLE OVER A DESIGN TEMPERATURE OF 10 DEGREES F TO + 100 DEGREES F.

3. SHEAR CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEOGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.

2.02 BASE LEVELING PAD MATERIAL A. MATERIAL SHALL CONSIST OF A COMPACTED CRUSHED STONE BASE OR NON-REINFORCED CONCRETE AS

SHOWN ON THE CONSTRUCTION DRAWINGS. 2.05 GEOGRID SOIL REINFORCEMENT

. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF GEOGRIDS MANUFACTURED SPECIFICALLY FOR SOIL REINFORCEMENT APPLICATIONS AND SHALL BE MANUFACTURED FROM HIGH TENACITY POLYESTER YARN OR HIGH DENSITY POLYETHYLENE. POLYESTER GEOGRID SHALL BE KNITTED FROM HIGH TENACITY POLYESTER FILAMENT YARN WITH A MOLECULAR WEIGHT EXCEEDING 25,000 MEG/M AND A CARBOXYL END GROUP VALUES LESS THAN 30. POLYESTER GEOGRID SHALL BE COATED WITH AN IMPREGNATED PVC COATING THAT RESISTS PEELING, CRACKING, AND STRIPPING

2.06 DRAINAGE PIPE A. THE DRAINAGE PIPE SHALL BE PERFORATED OR SLOTTED PVC PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-3034 OR CORRUGATED HDPE PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-1248.

3.00 BASE LEVELING PAD A. LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, TO A MINIMUM THICKNESS OF 6 INCHES AND EXTEND LATERALLY A MINIMUM OF 6" IN FRONT AND BEHIND THE MODULAR WALL UNIT.

3. SOIL LEVELING PAD MATERIALS SHALL BE COMPACTED TO A MINIMUM OF 95 % STANDARD PROCTOR DENSITY PER ASTM D-698 C. LEVELING PAD SHALL BE PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.

3.01 MODULAR UNIT INSTALLATION

. FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED. 3. PLACE THE FRONT OF UNITS SIDE-BY-SIDE, DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS, LAYOUT

OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. . INSTALL SHEAR/CONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.). PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURE BACKFILL. E. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL

3.02 STRUCTURAL GEOGRID INSTALLATION , GEOGRID SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT. . GEOGRID REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THE CONSTRUCTION DESIGN DRAWINGS OR AS DIRECTED BY THE ENGINEER.

. THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE MODULAR WALL UNITS. PLACE THE NEXT COURSE OF MODULAR CONCRETE UNITS OVER THE GEOGRID. THE GEOGRID SHALL BE PULLED TAUT, AND ANCHORED PRIOR TO BACKFILL PLACEMENT ON THE GEOGRID.). GEOGRID REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTHS AND PLACED SIDE—BY—SIDE TO PROVIDE 100% COVERAGE AT EACH LEVEL. SPLICED CONNECTIONS BETWEEN SHORTER PIECES OF GEOGRID OR GAPS BETWEEN ADJACENT PIECES OF GEOGRID ARE NOT PERMITTED.

3.03 REINFORCED BACKFILL PLACEMENT . REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES

THE DEVELOPMENT OF SLACK IN THE GEOGRID AND INSTALLATION DAMAGE. 3. FOUNDATION SOILS MUST BE EXAMINED BY THE SOILS ENGINEER TO ASSURE THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS ASSUMED DESIGN STRENGTHS. . REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES WHERE

HAND COMPACTION IS USED, OR 8 - 10 INCHES WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED . REINFORCED BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE DRY OF OPTIMUM. + 0%. - 3%. . ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET FROM THE TAIL OF

THE MODULAR CONCRETE UNIT. . TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOGRID REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOGRID.

RUBBER TIRED EQUIPMENT MAY PASS OVER GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.

3.04 CAP INSTALLATION A. CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER ADHESIVE RECOMMENDED BY THE MANUFACTURER

PLACEMENT AND COMPACTION, SHALL NOT EXCEED TWO COURSES.

3.05 AS-BUILT CONSTRUCTION TOLERANCES . VERTICAL ALIGNMENT: \pm 1.5" OVER ANY 10' DISTANCE. . WALL BATTER: WITHIN 2 DEGREES OF DESIGN BATTER. HORIZONTAL ALIGNMENT: ± 1.5" OVER ANY 10' DISTANCE. CORNERS, BENDS, CURVES ± 1 FT TO THEORETICAL LOCATION.

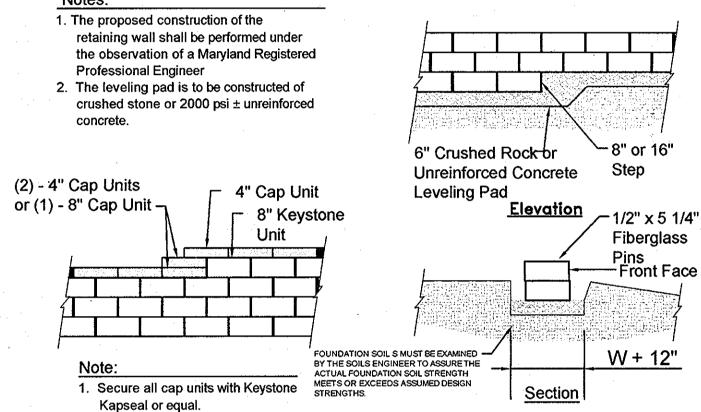
. MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE 1/2 INCH.

APPROVEL PLANNING BOARD of HOWARD COUNTY

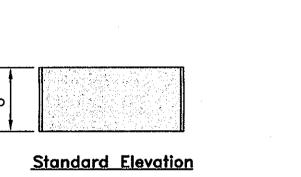
Rock or Stone) 6 GEOGRID LENGTH FOR VERT, LOCATION Approximate Limits of SOIL BACKFILL Excavation Finished Grade Retained Soil FOR VERT. LOCATION) 4" Perforated PVC Drainage Tile FOUNDATION SOIL S MUST BE EXAMINED BY THE SOILS ENGINEER TO ASSURE THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR -Unreinforced Concrete or Crushed Stone Leveling Pad Typical Reinforced Wall Section

428 426 TOP WALL-PR. GRADE-ALONG TOP -37' GEOGRID--EX. GRADE KEYSTONE RETAINING 40' GEOGRID GEOGRID 12' GEOGRID-GEOGRID SHALL EXTEND 6' BEHIND THE WALL RETAINING WALL PROFILE

HORZ. 1" = 20'VERT. 1" = 2'



Leveling Pad Detail Top of Wall Steps



-Keystone Cap Unit

Keystone Standard

Unit Drainage Fill

(3/4" Crushed

CHECKED BY:

18"

<u>Standard Plan</u>

Geogrid is to be Placed on Level

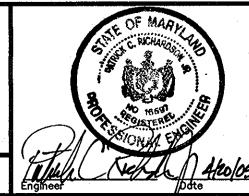
Backfill and Extended Over the Fiberglass Pins. Place Next Unit. Pull Grid Taught and Backfill. Stake as required.

Grid & Pin Connection

DRAWINGS\SHEET6.dwg

Richardson Engineering,

730 W. Padonia Road, Suite 101 Cockeysville, Maryland 21030 Phone: 410-560-1502 Fax: 410-560-0827



OWNER/DEVELOPER WELLS FARGO PROPERTIES, INC. 2329 CENTRAL AVENUE NE MINNEAPOLIS, MINNESOTA 55479 ATTN: CARRIE JOHNSON PHONE: 612-667-8714 CACC, LLP 9195 RED BRANCH ROAD COLUMBIA, MARYLAND 21045

ATTN: STEPHEN SMITH

PHONE: 410-992-9570

8" Min. Low Permeable Soil-

BACFILL MUST BE COMPACTED FILL

(PARKING ADDITIONS) SITE DEVELOPMENT PLANS

8188/2

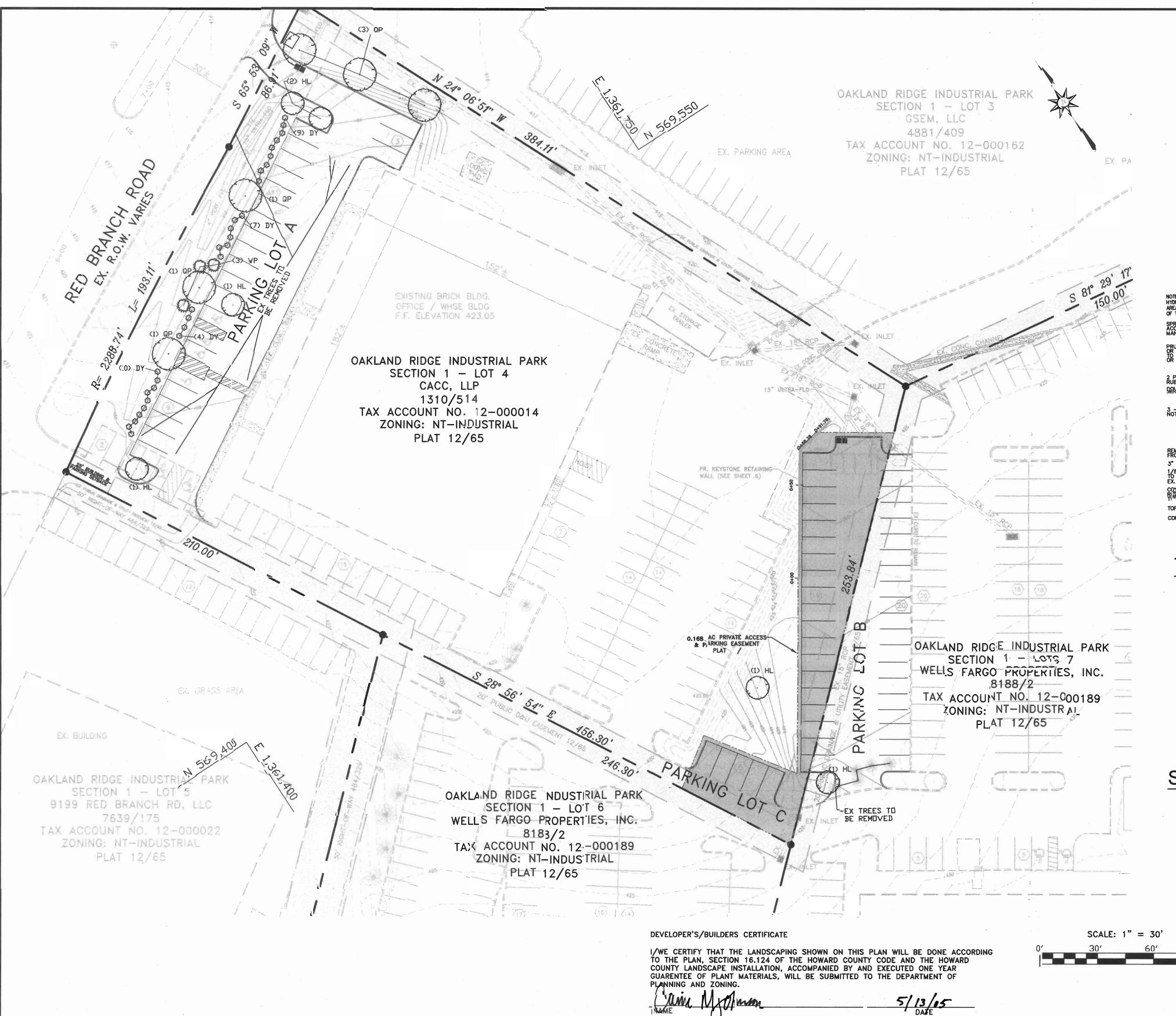
Install Pipe To

OAKLAND RIDGE INDUSTRIAL PARK, SEC. I, LOTS 4 & 7 REVISION SEDIMENT & EROSION CONTROL NOTES /
RETAINING WALL DETAILS
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAN 4-20-05 DRAWING COMPLETED_ TAX MAP SHEET A.D.C. MAP 5 DESIGNED BY: GRID D-13 AS SHOWN 17 DEED REF TILES 6:\JOBS\2003\03053\ 1310/514 PARCEL

239

12/65

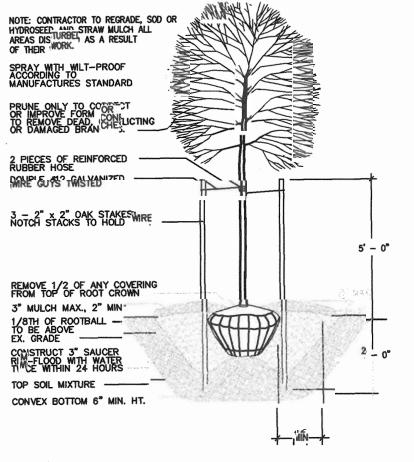
DEPARTMENT OF PLANNING AND ZONING Chief, Development Engineering Divisio with tunn Chief. Division of Land Developmen



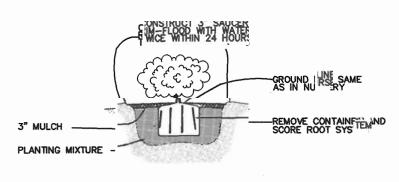
PLANT LIST

QTY.	SYM.	BOTANICAL NAME	COMMON NAME	REMARKS
6	QP	QUERCUS PHELLOS	WILLOW OAK	2 1/2"-3" CAL.
6	HL	GLEDITSIA TRIACANTHOS INERMIS 'HALKA'	HALKA HONEYLOCUST	2 1/2"-3" CAL.
30	DY	TAXUS MEDIA DENSIFORMIS	PENSIFORMIS YEW	24_30"
3	WP	PINUS STROBUS	WHILE BINE	6-8' HGT

AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.



TREE PLANTING DETAIL NOT TO SCALE



SHRUB PLANTING DETAIL

NOT TO SCALE

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS
LANDSCAPE TYPE	E
LINEAR FEET OF ROADWAY/ FRONTAGE/PERIMETER	282
CREDIT FOR EXISTING VEGETATION (YES NO. LINEAR FEET)	0
CREDIT FOR WALL FENCE OR BERM (YES NO. LINEAR FEET)	0
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	1/40'=7
SHRUBS	1/4'=70
NUMBER OF PLANTS PROVIDED SHALE TREES EVERGREEN TREES C)THER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION)	9 3 0 50

THE SEVEN REQUIRED TREES HAVE BEEN PROVIDED ALONG WITH AN ADDITIONAL 5 TREES THAT ARE USED AS SUBSTITUTION FOR THE SHRUBS. EACH SUBSTITUTED TREE CORRESPONDS WITH TEN SHRUBS, THUS 50 SHRUBS ARE REPLACED BY TREES.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	62
NUMBER OF TREES REQUIRED	3
NUIMBER OF REQUIRED ISLANDS	3
NUMBER OF PROVIDED ISLANDS	4
NUIMBER OF TREES PROVIDED	
SHADE TREES	3
OTHER TREES (2:1 SUBSTITUTION)	0

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124
OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEV. AGREEMENT IN THE AMOUNT OF \$4,950.00. THIS SURETY IS BASED ON 12 SHADE TREES AT \$300.00 EACH, 3 EVERGREEN TREES AT \$150.00 EACH AND 30 SHRUBS (\$\bigsigma\$ \$30.00.

THE OWNER, TENTANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, ADN 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

APPROVED PLANNING BOARD of HOWARD COUNTY

Richardson Engineering, LLC

730 W. Padonia Road, Suite 101 Cockeysville, Maryland 21030 Phone: 410-560-1502 Fax: 410-560-0827

DEPARTMENT OF PLANNING AND ZONING

4/8/05

Chief, Development Engineering Di vision
Chief, Division of Land Development



	T
OWNER/DEVELOPER	OAKLA
WELLS FARGO F'ROPERTIES, INC.	1
2329 CENTRAL AVENUE NE	
MINNEAPOLIS, MINNESOTA 55479	SECOND
ATTN: CARRIE JOHNSON	SECONE
PHONE: 612-667-8714	DE SIG
CACC, LLP	DE -
	DRAW
COLUMBIA, MARYLAND 21045	DRAW
	WELLS FARGO F ^{'R} OPERTIES, INC. 2329 CENTRAL AVENUE NE MINNEAPOLIS, MINNESOTA 55479 ATTN: CARRIE JOHNSON PHONE: 612-667-8714

ATTN: STEPHEN SMITH

PHONE: 410-993-9570

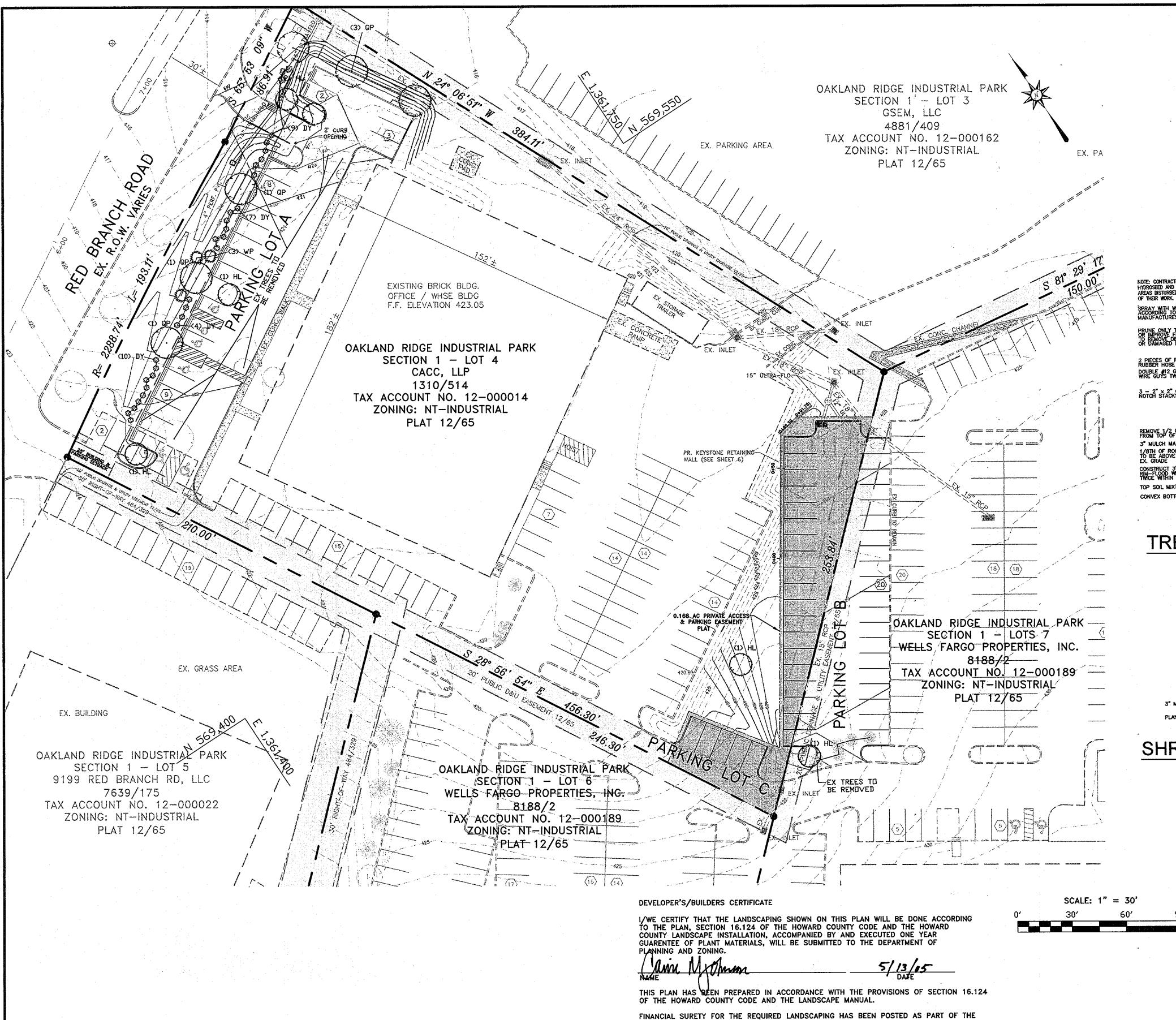
-	OAKLAND RIDGE INDUST (PARKIN	G ACIDITIONS)	
	SILE LIEVEL	APING PLAN	COUNTY, M
	DE SIGNED By: J.P.D.	SCALE AS SHOWN	TAX MAI 30

CHECKED BY: J.P.D.

DFFD RFF 1310/514 8188/2

I, LOTS 4 &	: 7		***************************************				_
COUNTY, MARY	LAND	DATE DRAWING	COMPLETE	RE\ ^{#IQ} ON	4-20-(05	BY	_
TAX MAP 30 GRID	A.D.	C. MAP 5	JOB #_	03053		SHEET	
17	PL	AT REF.	FILES G	:\JOE ₅ \2003\0	3053\ N ₃	7	-

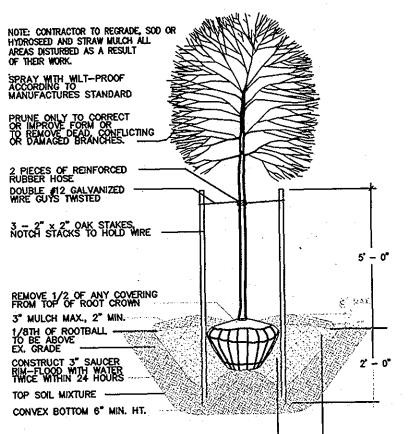
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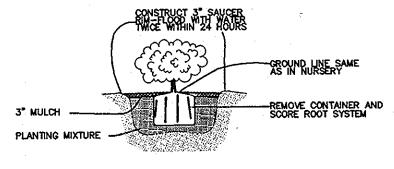
PLANT LIST

QTY.	SYM.	BOTANICAL NAME	COMMON NAME	REMARKS
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30	DY	TAXUS MEDIA DENSIFORMIS	DENSIFORMIS YEW	24-30"
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TREE PLANTING DETAIL NOT TO SCALE



SHRUB PLANTING DETAIL

NOT TO SCALE

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS
LANDSCAPE TYPE	E
LINEAR FEET OF ROADWAY/ FRONTAGE/PERIMETER	282
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NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	1/40'=7 0 1/4'=70
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION)	9 3 0 50

THE SEVEN REQUIRED TREES HAVE BEEN PROVIDED ALONG WITH AN ADDITIONAL 5 TREES THAT ARE USED AS SUBSTITUTION FOR THE SHRUBS. EACH SUBSTITUTED TREE CORRESPONDS WITH TEN SHRUBS, THUS 50 SHRUBS ARE REPLACED BY TREES.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

I ANNINO LOT INTLINIAL LAND	JOAI III
NUMBER OF PARKING SPACES	62
NUMBER OF TREES REQUIRED	3.
NUMBER OF REQUIRED ISLANDS	3
NUMBER OF PROVIDED ISLANDS	4
NUMBER OF TREES PROVIDED	
SHADE TREES	3
OTHER TREES (2:1 SUBSTITUTION)	0

APPROVED PLANNING BOARD of HOWARD COUNTY

PARCEL 239

Richardson Engineering, LLC

DEV. AGREEMENT IN THE AMOUNT OF \$4,950.00. THIS SURETY IS BASED ON 12 SHADE

THE OWNER, TENTANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND

PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR

TREES AT \$300.00 EACH, 3 EVERGREEN TREES AT \$150.00 EACH AND 30 SHRUBS \$ \$30.00.

BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, ADN WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE

730 W. Padonia Road, Suite 101 Cockeysville, Maryland 21030 Phone: 410–560–1502 Fax: 410–560–0827

DEPARTMENT OF PLANNING AND ZONING



· · · · · · · · · · · · · · · · · · ·	
OWNER/DEVELOPER	
 WELLS FARGO PROPERTIES, INC.	
2329 CENTRAL AVENUE NE	
MINNEAPOLIS, MINNESOTA 55479	
ATTN: CARRIE JOHNSON	
PHONE: 612-667-8714	
CACC, LLP	
9195 RED BRANCH ROAD	
001111/014 144/01/141/0 04045	

COLUMBIA, MARYLAND 21045 ATTN: STEPHEN SMITH PHONE: 410-992-9570

(PARKING ADDITIONS) SITE DEVELOPMENT PLANS LANDSCAPING PLAN SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLANI DESIGNED BY: AS SHOWN

DEED REF.

1310/514 8188/2

J.P.D.

DRAWN BY:

CHECKED BY:

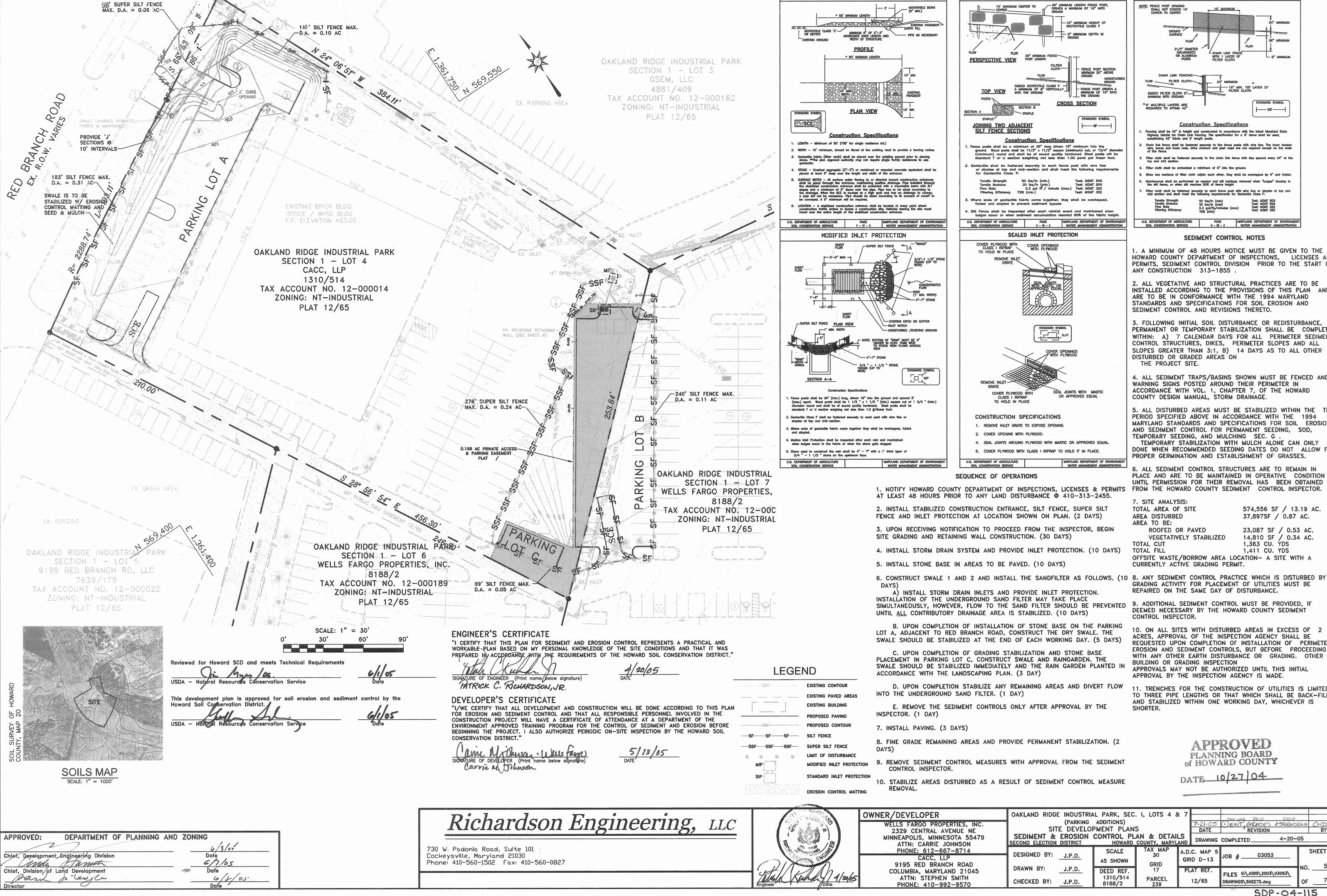
OAKLAND RIDGE INDUSTRIAL PARK, SEC. I, LOTS 4 & 7 One way Peop. REOD

7-21-05 (1) EXIT, GRADES & STORMDERN CATO

DATE REVISION BY 4-20-05 A.D.C. MAP 5 GRID D-13

FILES G:\JOBS\2003\03053\

SDP-04-115



DETAIL 33 - SUPER SILT FENCE FILTER CLOTH-*IF MULTIPLE LAYERS AR REQUIRED TO ATTAIN 42 Construction Specifications ANY CONSTRUCTION 313-1855 . 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

DETAIL 22 - SILT FENCE

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

SSF----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. . Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section. When two sections of filter cloth adjain each other, they shall be overlapped by 6" and folded Maintenance shall be performed as needed and sait buildups removed when "builges" develop in the sait fence, or when sait reaches 50% of fence height

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

INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE. PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7. OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING SEC. G . 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

7. SITE ANALYSIS: 574.556 SF / 13.19 AC. TOTAL AREA OF SITE AREA DISTURBED 37,897SF / 0.87 AC. AREA TO BE: ROOFED OR PAVED 23,087 SF / 0.53 AC. 14.810 SF / 0.34 AC. VEGETATIVELY STABILIZED 1,363 CU. YDS TOTAL CUT TOTAL FILL 1,411 CU. YDS

OFFSITE WASTE/BORROW AREA LOCATION- A SITE WITH A CURRENTLY ACTIVE GRADING PERMIT.

GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION

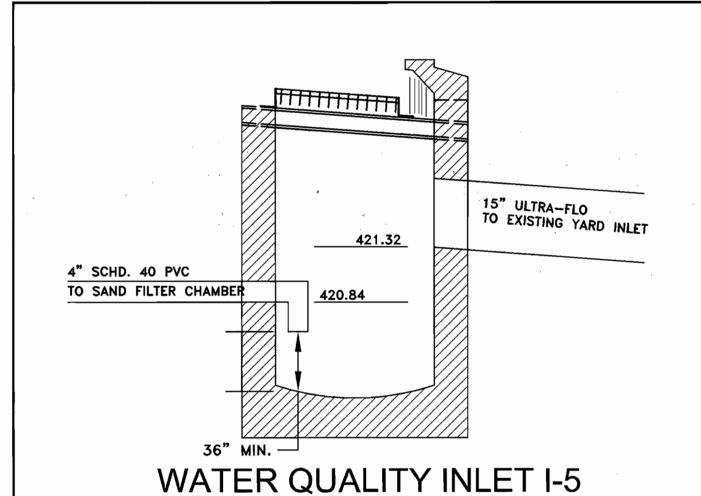
APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

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

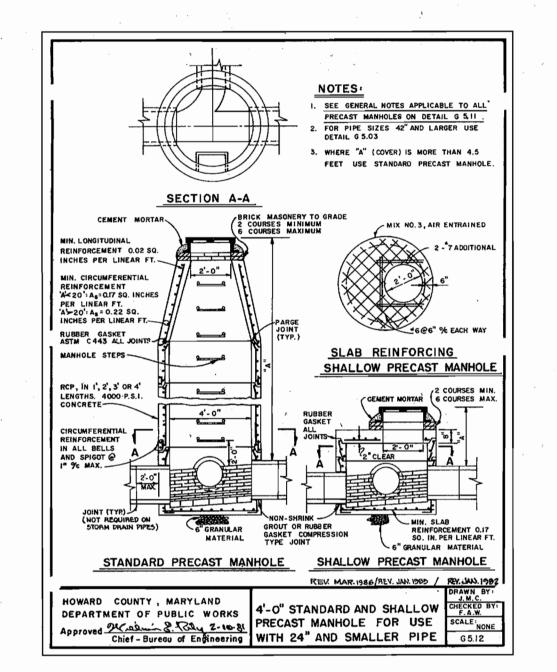
> APPROVED PLANNING BOARD of HOWARD COUNTY

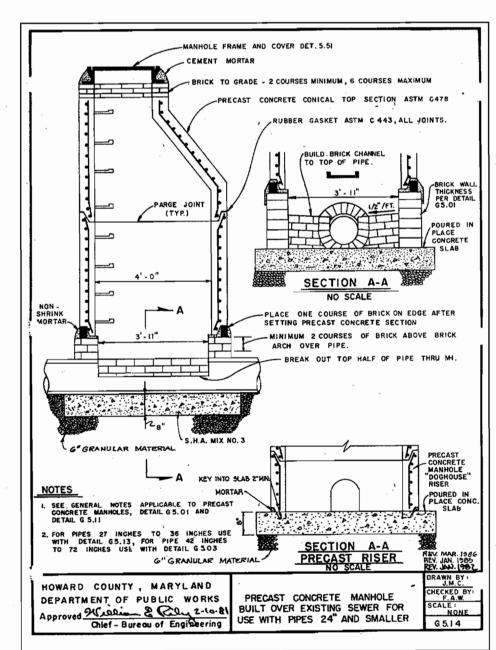
OAKLAND RIDGE INDUSTRIAL PARK, SEC. I, LOTS 4 &

() EXIT, GRADES ESTORMORAIN CND REVISION BY SITE DEVELOPMENT PLANS SEDIMENT & EROSION CONTROL PLAN & DETAILS 4-20-05 DRAWING COMPLETED_ HOWARD COUNTY, MARYLAND SHEET A.D.C. MAP 5 GRID D-13 PLAT REF. FILES 6:\JOBS\2003\03053\ PARCEL 239 12/65 DRAWINGS\SHEET5.dwg



NOT TO SCALE





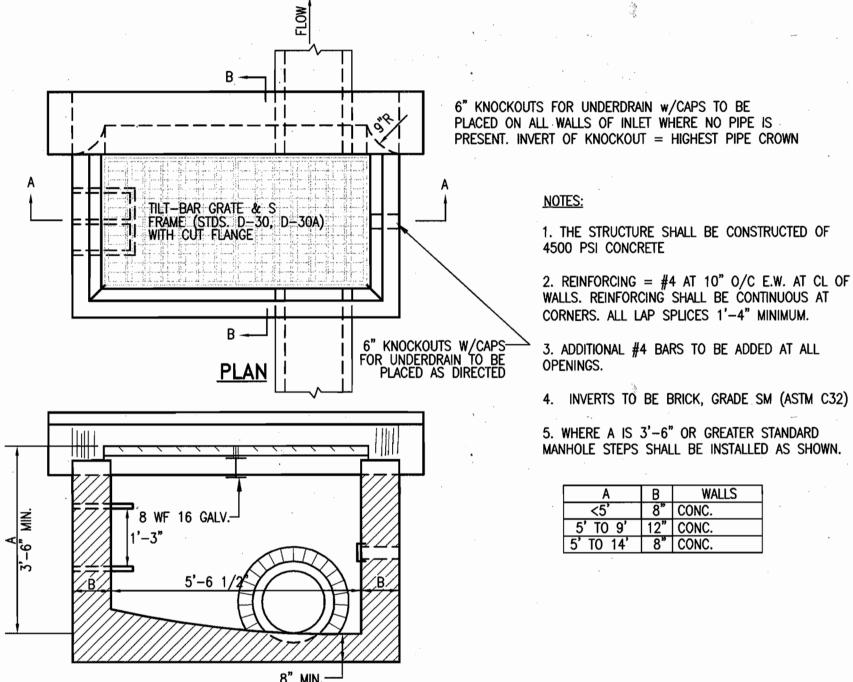
PIPE SCHEDULE

FROM	то	PIPE TYPE	SIZE	LENGTH
1-3	I-2	ULTRA-FLO	15"	385
1-2	M-1	ULTRA-FLO	15"	55'
1-5	M-4	ULTRA-FLO	15"	23'
M-4	EX. I-1	ULTRA-FLO	15"	11'
SF-1	M-4	ULTRA-FLO	12"	30'
	٠.			

STRUCTURE SCHEDULE

	<u> </u>				
NO.	STRUCTURE	INVERT IN	INVERT OUT	TOP ELEVATION	NORTHING/EASTING/ SEE NOTE BELOW
I-5	DOUBLE 'S' COMBINATION INLET		421.32	423.82	569,360.92 / 1,361,756.05
I - 3	TYPE 'D' INLET	414.29	413.27	417.00	569,659.84/ 1,361,563.82
I-2	DOUBLE 'S' COMBINATION INLET	411.87	411.67	416.03	569,673.44 / 1,361,599,37
M-4	PRECAST CONCRETE MANHOLE	419.69	416.50	423.08	569,368.46 / 1,361,765.18
M-1	PRECAST CONCRETE MANHOLE	410.95	103.73	413.10	569,699.54 / 1,361,648.29

DOUBLE 'S' INLETS ARE COORDINATED TO THE CENTERLINE OF THE INLET ALONG THE PROJECTED FLOWLINE. TYPE 'D' INLET IS COORDINATE TO THE CENTERLINE OF THE BOX AND MANHOLES ARE COORDINATED TO



3"x2 1/2"x1/2" L5" LONG GALV.—

8 WF 16 GALV.

SECTION B-B

CONSTRUCTION SPECIFICATIONS

THIS STORMWATER MANAGEMENT FACILITY SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY'S "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION".

THIS UNDERGROUND MANAGEMENT FACILITY SHALL NOT BE CONSTRUCTED OR PLACED IN SERVICE UNTIL ALL OF THE CONTRIBUTING AREA HAS BEEN STABILIZED AND APPROVED BY THE RESPONSIBLE INSPECTOR.

3. STRUCTURAL BACKFILL MATERIAL

OVER THE STRUCTURE OR PIPE.

THE BACKFILL MATERIAL SHALL BE TAKEN FROM AN APPROVED BORROW AREA. ALL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZED STONES, FROZEN OR OTHER OBJECTIONABLE MATERIAL.

4. PLACEMENT & COMPACTION THE BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 4 INCHES IN THICKNESS AND COMPACTED BY HAND TEMPERS OR OTHER COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPES. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED

TO OPERATE CLOSER THAN 4 FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF 24 INCHES OR GREATER

5. PIPE CONDUITS MATERIALS (CORRUGATED STEEL PIPE): THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-190 TYPE A WITH WATERTIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND. COATED C.M.P. SHALL HAVE A MINIMUM COATING THICKNESS OF 10 MIL ON BOTH SIDES OF PIPE AND SHALL MEET REQUIREMENTS OF AASHTO M-245 AND M-246.

ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. WATERTIGHT COUPLING BANDS OR FLANGES SHALL BE USED AT ALL JOINTS. DIMPLE BANDS ARE NOT CONSIDERED TO BE WATERTIGHT. BEDDING THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSUITABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIALS SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH MATERIAL COMPACTED TO PROVIDE ADEQUATE SUPPORT. LAYING PIPE THE PIPE SHALL BE PLACED WITH INSIDE CIRCUMFERENTIAL LAPS POINTING DOWNSTREAM AND WITH THE LONGITUDINAL LAPS AT THE SIDES. BACKFILLING BACKFILL SHALL CONFORM TO STRUCTURAL BACKFILL AS SHOWN ABOVE. OTHER DETAILS SILT, TRAPPING MANHOLES, ETC. SHALL BE AS SHOWN ON THE DRAWINGS. REINFORCED CONCRETE PIPE: MATERIALS: REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM C-361.

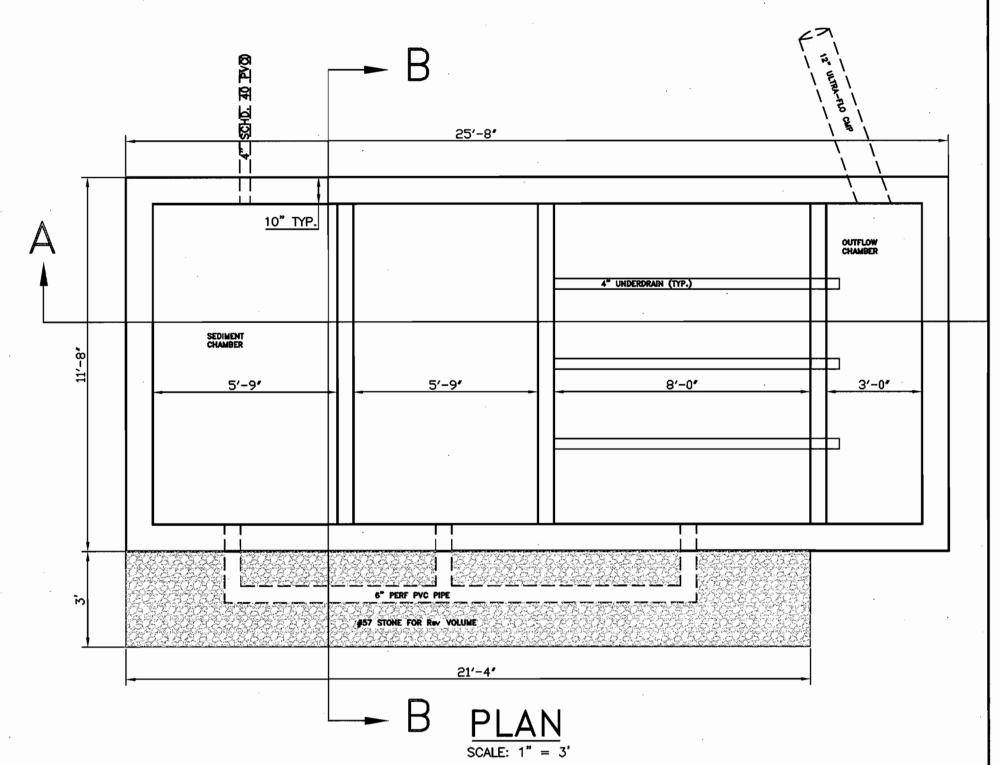
CONCRETE SHALL MEET MINIMUM REQUIREMENTS SET FORTH IN MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 918 (PORTLAND CEMENT CONCRETE MIXTURES), MIX NO. 3. REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60. REBARS SHALL HAVE 3" COVER (MINIMUM) AND A MINIMUM OVERLAP OF 30 BAR DIAMETERS, EXCEPT AS NOTED ON THE PLAN. STEEL ANGLES AND ANCHOR BARS SHALL BE ASTM A-36.

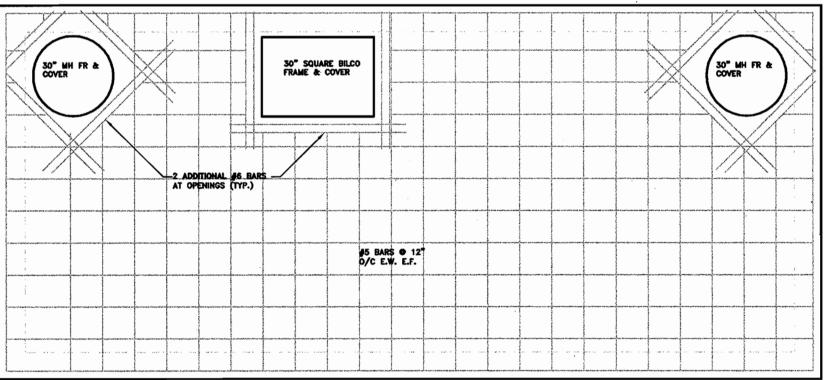
FACILITIES ALL DISTURBED AREA SHALL BE CONTROLLED BY AN EROSION AND SEDIMENT CONTROL PLAN WHICH HAS BEEN APPROVED BY HOWARD COUNTY DEPT.OF PUBLIC WORKS SOIL CONSERVATION DISTRICT. PROVIDE INLET PROTECTION FOR THOSE INLETS LOCATED ABOVE THE FACILITY UNTIL THE CONTRIBUTING AREAS HAVE BEEN STABILIZED.

ALL FILTER CLOTH SHALL BE POLYFILTER - X OR EQUIVALENT.

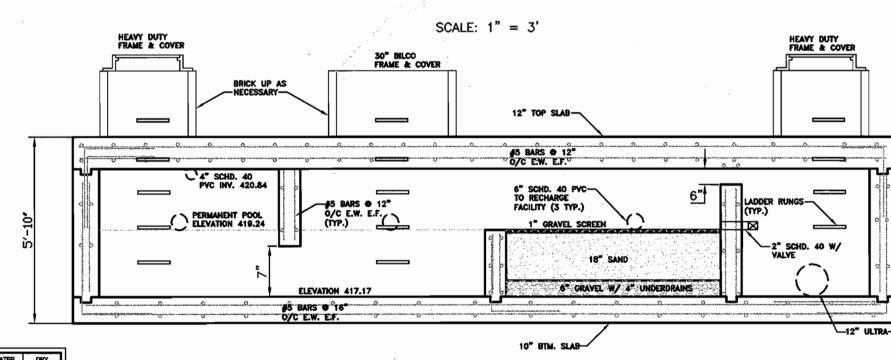
ALL RIPRAP SHALL CONFORM TO HOWARD COUNTY SPECIFICATIONS.

11. CONSTRUCTION INSPECTION BY DESIGNATED ENGINEERS:
THE CONSTRUCTION OF THIS FACILITY, AND CERTIFICATION THAT THIS FACILITY HAS BEEN BUILT IN ACCORDANCE WITH THE PLANS, SHALL BE UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER. THE ENGINEER SHALL BE NOTIFIED SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ARRANGEMENTS CAN BE MADE FOR: 1) INSPECTION OF PIPE TRENCH AND BEDDING, INSPECTION OF SPECIAL PIPE SECTIONS AND FIXTURES, AND 3) SUPERVISION OF BACKFILLING OPERATIONS. THE ENGINEER SHALL DIRECT THE HANDLING OF WATER DURING CONSTRUCTION, MINOR CHANGES NOT AFFECTING THE INTEGRITY OR PERFORMANCE OF THE FACILITY, AND THE REMOVAL AND REPLACEMENT









SECTION A-A SCALE: 1" = 3

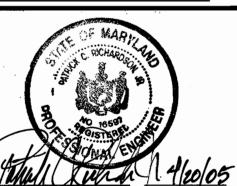
APPROVED
PLANNING BOARD
of HOWARD COUNTY DATE 10/27/04

730 W. Padonia Road, Suite 101 Cockeysville, Maryland 21030 Phone: 410-560-1502 Fax: 410-560-0827

PROVIDE 1" DIAMETER WEEP HOLE 6" ABOVE HIGHEST CROWN OF PIPE OR AS DIRECTED

(FOR BRICK MASONRY STRUCTURE ONLY).

MODIFIED DOUBLE TYPE 'S' COMB. INLET



OWNER/DEVELOPER	\Box
WELLS FARGO PROPERTIES, INC. 2329 CENTRAL AVENUE NE MINNEAPOLIS, MINNESOTA 55479 ATTN: CARRIE JOHNSON PHONE: 612-667-8714	s
CACC, LLP 9195 RED BRANCH ROAD	7

COLUMBIA, MARYLAND 21045

ATTN: STEPHEN SMITH

PHONE: 410-992-9570

OAKLAND RIDGE INDUSTRIAL PARK, SEC. I, LOTS 4 & 7 (PARKING ADDITIONS)
SITE DEVELOPMENT PLANS SWM NOTES & DETAILS DESIGNED BY: J.P.D. AS SHOWN DRAWN BY:

PIPE & STRUGUEE SCHEDULE
7-21-05 (DEXIT, GRADES & STORMDRAIN (ND
DATE REVISION BY 4-20-05 DRAWING COMPLETED_ HOWARD COUNTY, MARYLAN A.D.C. MAP GRID D-13 DEED REF. FILES 6:\JOBS\2003\03053\ 1310/514 8188/2 PARCEL 239 CHECKED BY: DRAWINGS\SHEET4.dwg

SDP-04-115

PPROVED:	DEPARTMENT OF PLANNING	G AND ZONING
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ef, Developmer	Engineering Division	Date
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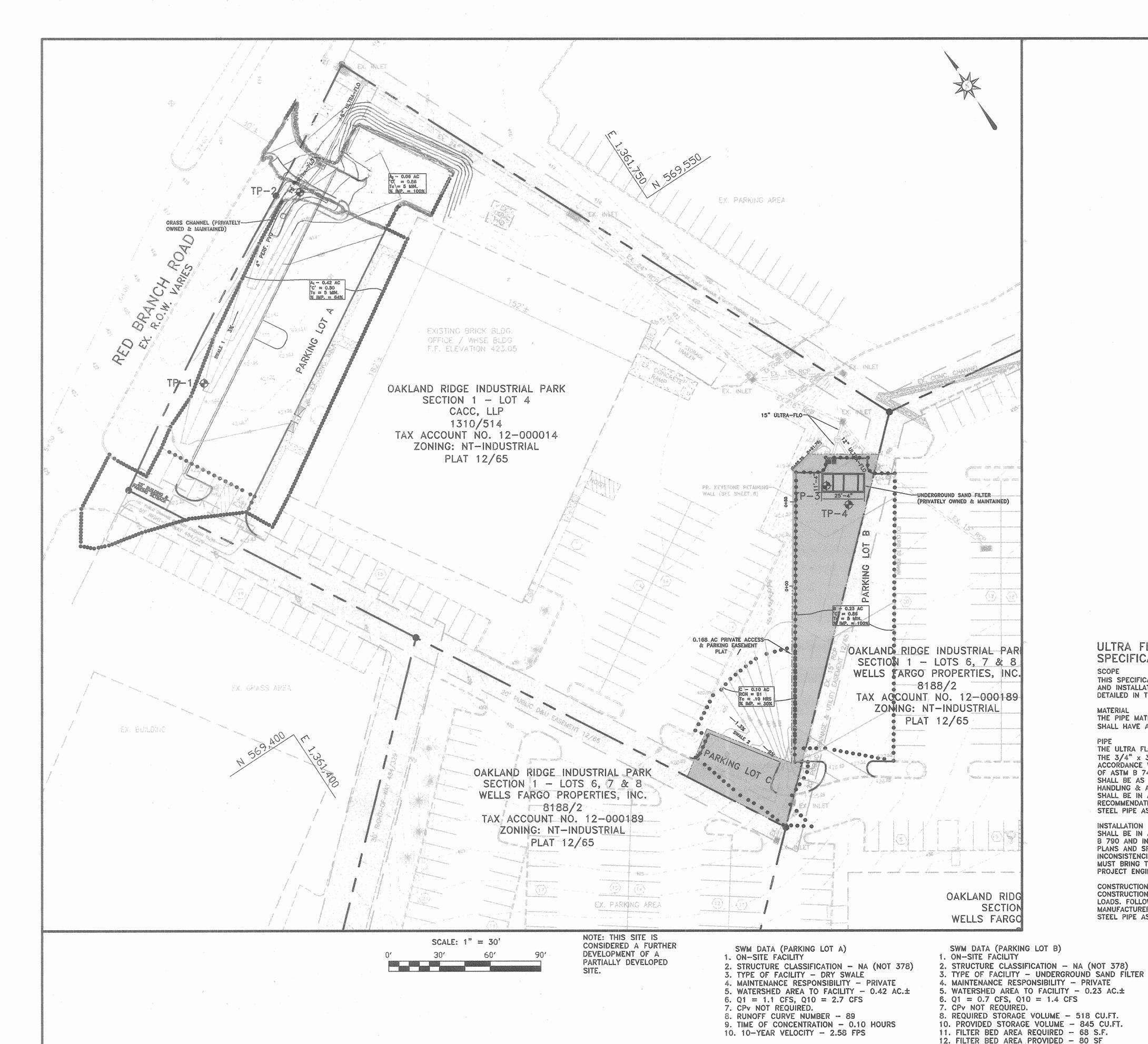
ELEVATION-HEADPIECE

2'-11"

SECTION B-B

2.0" YELLOWISH BROWN CLAYEY SILT

Richardson Engineering, LLC



APPROVED:

Chief, Development Engineering Division

march to cery

Chief, Division of Land Development

DEPARTMENT OF PLANNING AND ZONING

18/28

6/4/05

-STABILIZE W/ EROSION CONTROL MATTING AND SEED & MULCH (MATTING STABILIZE W/ EROSION CONTROL MATTING AND SHALL EXTEND UP THE SEED & MULCH (MATTING SHALL EXTEND 6" UP SLOPES TO A MIN. 12" DEPTH) -THE SLOPES) -PEA GRAVEL MATTING-1" SCHD 40 DIAPHRAGM MATTING-B" GRAYEL WRIFFED BY FILTER CLOTH e, combesse sw Q10 = 0.4 cfsV10 = 1.6 fpsQ10 = 2.7 cfsSECTION THROUGH V10 = 2.6 fpsNOTE: FOR SPECIFICATIONS SEE TABLE THIS SHEET SWALE 2 SECTION THROUGH NOT TO SCALE SWALE 1

MATERIAL SPECIFICATIONS

NOT TO SCALE

MATERIAL	SPECIFICATION/TEST METHOD	SIZE	NOTES						
'CONCRETE' SAND	CLEAN AASHTO-M-6 OR ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND						
GEOTEXTILE FABRIC	ASTM-D-4633 (PUNCTURE STRENGTH -125 LB.) ASTM-D-4632 (TENSILE STRENGTH - 300 LB.)	0.08" THICK EQUIVALENT OPENING SIZE OF #80 SIEVE	MUST MAINTAIN 125 GPM PER SQ. FT. FLOW RATE						
UNDERDRAIN PIPING	F758, TYPE PS 28 OR AASHTO-M-278	4"-6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW, MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES						
UNDERDRAIN GRAVEL	AASHTO-M-43	0.375"-0.75"							
TOP SOIL	SAND 35% TO 60% SILT 30% TO 55% CLAY 0% TO 10%	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM OR LOAM						

APPROVED
PLANNING BOARD
OF HOWARD COUNTY

SAND FILTER MAINTENANCE SCHEDULE

1. THE SEDIMENT CHAMBER OUTLET DEVICES SHALL BE CLEANED AND/OR REPAIRED

2. DEBRIS AND LITTER SHALL BE REMOVED AS NECESSARY TO INSURE PROPER

6. THE MAINTENACE LOGBOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR

INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.

3. SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENTATION CHAMBER WHEN IT

ACCUMULATES TO A DEPTH OF 6 INCHES. VEGETATION WITHIN THE CHAMBER SHALL BE

HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL. THE OWNER MUST FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED

5. A LOGBOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY

7. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN

OPEN CHANNEL MAINTENANCE SCHEDULE

STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINEIF THE

3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND

4. VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS

5. REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT ACCUMULATES TO A DEPTH OF

VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS

THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

1. THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR

2. THE OPEN CHANNEL SHALL BE MOWED A MINIMUM OF AS NEEDED DURING THE

GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6".

4. WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72

WHEN DRAWDOWN TIMES WITHIN THE CHAMBER EXCEED 36 HOURS.

OPERATION OF THE SYSTEM.

MATERIALS AND LIQUID.

AS NEEDED.

THREE INCHES.

SOON AS IT IS NOTICED.

LIMITED TO A HEIGHT OF 18 INCHES.

FACILITY IS FUNCTIONING PROPERLY.

ULTRA FLO STORM SEWER PIPE **SPECIFICATIONS**

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE ULTRA FLO PIPE DETAILED IN THE PROJECT PLANS.

THE PIPE MATERIAL SHALL BE ALUMINUM AND SHALL HAVE A MANNING'S OF .012.

THE ULTRA FLO SHALL BE MANUFACTURED WITH THE 3/4" x 3/4" x 7-1/2" EXTERNAL RIBS IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ASTM B 745. THE PIPE SIZES AND GAGES SHALL BE AS SHOWN ON THE PROJECT PLANS. HANDLING & ASSEMBLY SHALL BE IN ACCORDANCE WITH THE

RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION.

INSTALLATION

SHALL BE IN ACCORDANCE WITH ASTM B 788 AND B 790 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS, THE CONTRACTOR MUST BRING THEM TO THE ATTENTION OF THE PROJECT ENGINEER.

CONSTRUCTION LOADS CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE GUIDELINES OF THE MANUFACTURER OR THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION.

- SWM DATA (PARKING LOT C) SWALE IS PROVIDED FOR RÉCHARGE ONLY. 2. WATER QUALITY IS PROVIDED FOR THIS AREA IN AREA A BY TREATING AN EQUIVALENT AMOUNT OF EXISTING
- IMPERVIOUS. 3. STRUCTURE CLASSIFICATION - NA (NOT 378) 4. TYPE OF FACILITY - GRASS CHANNEL 5. MAINTENANCE RESPONSIBILITY - PRIVATE 6. WATERSHED AREA TO FACILITY - 0.10 AC.±
- 8. CPv NOT REQUIRED. 9. RUNOFF CURVE NUMBER - 89

7. Q1 = 0.15 CFS, Q10 = 0.43 CFS

10. TIME OF CONCENTRATION - 0.10 HOURS 11. 10-YEAR VELOCITY - 1.62 FPS

0.23 0.10

CHECKED BY:

100-YR ACREAGE WQv 10-YR Rev Cpv SUB-AREA (ACRES) (CU FT) (CU FT) (CU FT) (CFS) (CFS) NOT NOT CONVEYED SAFELY REQ'D 0.48133 1021 REQ'D CONVEYED 103 690 REQ'D REQ'D SAFELY GRASS |PROV'D FOR NOT CONVEYED NOT SAFELY REQ'D CHANNEL IN AREA A REQ'D

STORMWATER MANAGEMENT SUMMARY

Richardson Engineering, LLC

730 W. Padonia Road, Suite 101 Cockeysville, Maryland 21030 Phone: 410-560-1502 Fax: 410-560-0827



13. TOTAL SITE AREA - 0.23 AC.±

15. TIME OF CONCENTRATION - 0.10 HOURS

14. RUNOFF CURVE NUMBER - 98

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SITE DEVELOPMENT PLANS					REVISION		
SWM PLAN & DR ECOND ELECTION DISTRICT	DRAWING COMPLETED						
	E.	COUNTY, MARYL					
DESIGNED BY: J.P.D.	SCALE	TAX MAP A.E		.C. MAP 5	JOB #_	03053	
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