3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.

4. The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five working days prior to starting any excavation work.

5. Site area: 24.9 acres.

6. All plan dimensions are to face of curb unless otherwise noted.

7. Existing topography is shown per As-Built plans conducted in March, 2001 by Shanaberger & Lane.

8. Coordinates and bearings are based upon the MD State plan system (NAD '27).

9. Water and sewer is public.

10. All existing water is per Contract No. 24-3968-D. All existing sewer is per Contract No. 24-3968-D.

11. All existing public storm drain is per F-92-15, F-01-200, and F-00-74.

12. Use trench bedding class "C" for storm drains.

13. Project background: See Dept. of Planning & Zoning File Numbers: P-86-22, S-84-44, S-85-28, F-86-127, F-86-182, F-87-63, WP-98-130, F-96-76, F-00-74, FDP Phase 236-A-1, F 01-189, F-01-200, F 04-164, WP 05-03 and SDP

14. Existing utilities are based on approved design plans for construction and field location by Gutschick, Little & Weber, P.A.

15. There is no floodplain within the disturbed area of this site.

16. There are no wetlands within the disturbed area of this site.

17. A minimum of 20' shall be maintained between any street light and any tree.

18. A traffic study is not required for this extension.

19. Stormwater Management for the proposed improvements is provided by a regional facility. The facility provides both quantity and quality management for the road extension and the future development on the individual parcels. An update to the Stormwater Management Report was submitted and approved under F 00-74. 20.

20. This project is exempt from the Forest Conservation Requirements of Subtitle 12 per Section 16.1202 (b)(1)(iv) which states that a planned unit development (New Town) which has Preliminary Plan approval and 50% or more of the land is recorded and substantially developed before 12/31/92.

21. Landscaping requirements for the parcels created by this submission will be satisfied at the Site Development Plan stage.

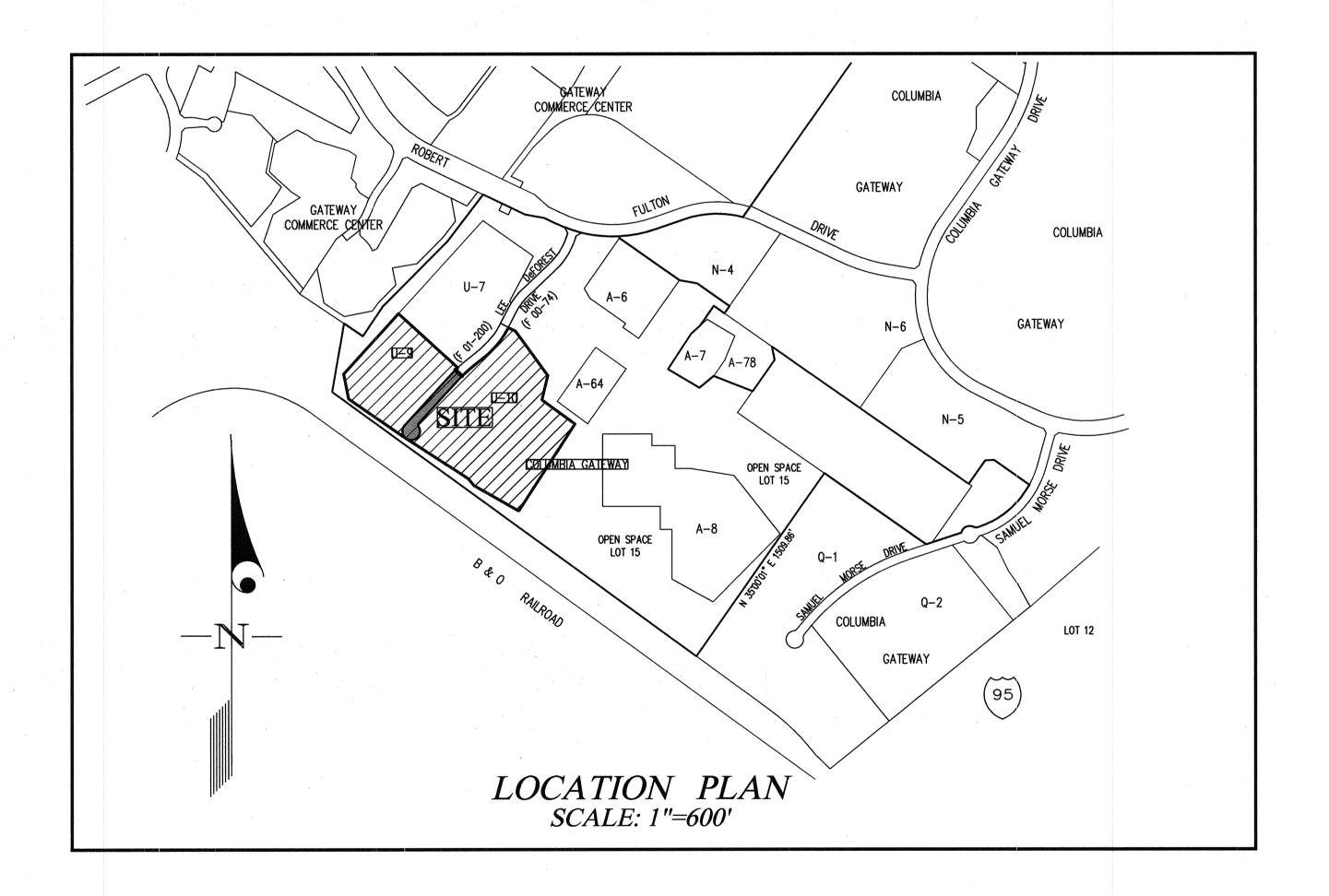
22. This site is zoned New Town, Employment Center Industrial (FDP -236-A-1) by the 2/2/2004 Comprehensive Zoning Plan.

23. On August 23, 2004, WP-05-03; a waiver of Sections 16.144(a) and (f) to not be required to submit and obtain approval of sketch and preliminary plans for a major subdivision (non-residential with a public road), was granted.

COLUMBIA GATEWAY PARCEL 'U-9' AND 'U-10' AND THE EXTENSION OF

LEE DeFOREST DRIVE

STATION 12+90.00 TO STATION 18+25.22



LEGEND

336	Existing Contour
336	Proposed Contour
SUMMER SERVICE SERVICE SERVICE SUMMER SUMMER	Existing Curb & Gut
	Proposed Curb & Gu
\$	Existing Street Light
~ \$	Proposed Street Ligi
	Existing Storm Drain
	Proposed Storm Dra
	Existing Paving
	Proposed Paving
	Exisiting Paving(to b
$\langle \overline{I} \rangle$	Top of Curb Elevatio
	Exisiting Treeline
	Existing Sewer Main
	Existing Water Main
	Existing Gas Main
	Wetland Buffer

INDEX OF SHEETS

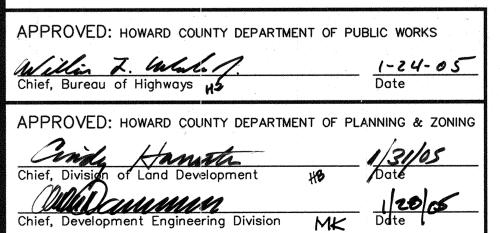
1. Cover Sheet

2. Lee DeForest Drive Plan, Profile & Details

3. Grading Plan/Storm Drain Drainage Area Map

4. Storm Drain Profiles

5. Sediment Control Plan/Notes and Details



GLWGUTSCHICK LITTLE & WEBER, P.A.

					4523 ENGINEERS (C. C. C
GLWGUTSCHICK LITTLE &WEBER, P.A.					
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARC	HITECTS				
3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866					
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186					
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\Drawings\91055\Part 3'\91055SRP1.dwg DES. BJM DRN. BJN	CHK. mjt	DATE	REVISION		В
					ACCUPATION OF THE PARTY.

OWNER and PREPARED FOR: GEAPE LAND HOLDINGS II, INC. c/o THE HOWARD RESEARCH & DEVELOPMENT CORP 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044 ATTN.: Chris Reld PH.: (410) 992-8900

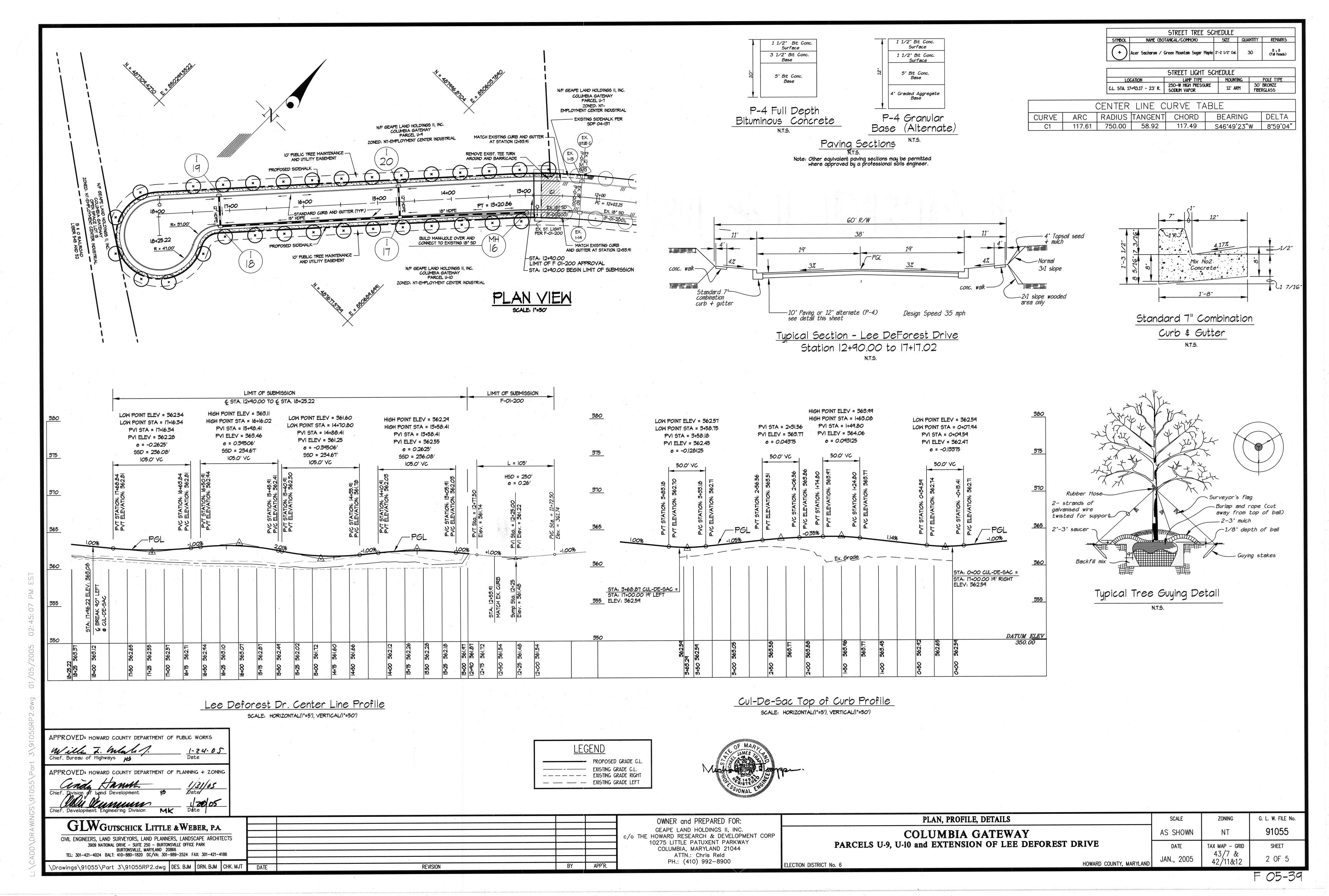
COVER SHEET
COLUMBIA GATEWAY
PARCELS U-9, U-10 and EXTENSION OF LEE DEFOREST DRIVE
ELECTION DISTRICT No. 6 HOWARD COUNTY, MARYLAND

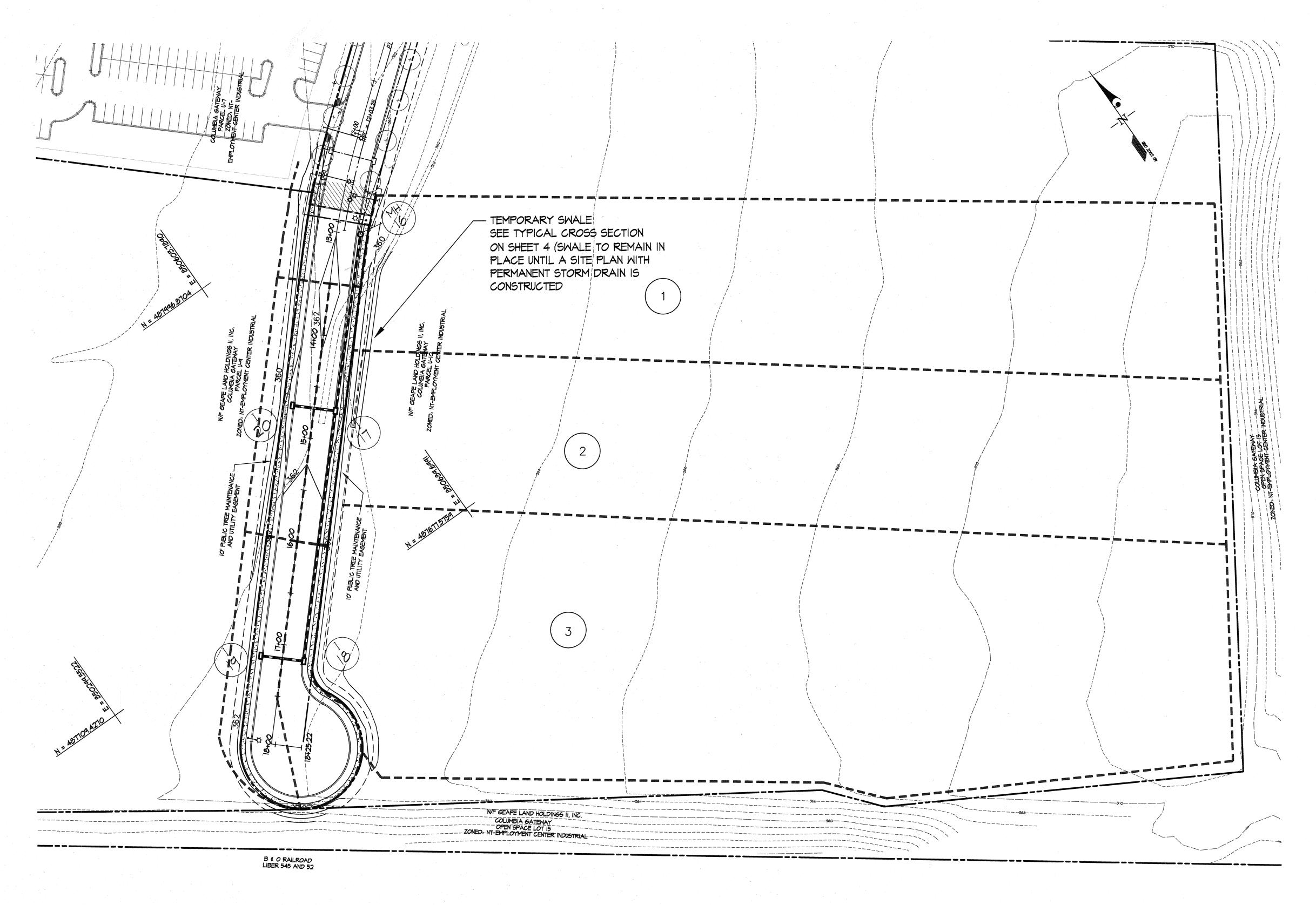
ELEV. 319.793

2243001

ELEV. 332,929

VICINITY MAP 1"=2000'





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS Chief, Bureau of Highways 43



DRAINAGE AREA INFORMATION								
NAME	DRAINAGE AREA (ac.)	PERVIOUS (ac.)	IMPERVIOUS (ac.)	% IMP.	C-FACTOR			
1-20	0.29	0.18	0.11	38	0.52			
I-19	0.30	0.16	0.14	47	0.57			
I-18	0.25	0.06	0.19	76	0.78			
I-17	0.17	0.06	0.11	65	0.70			
1	2.99	2.99	-	0	0.25			
2	2.87	2.87	_	0	0.25			
3	4.39	4.39		0	0.25			

GLWGUTSCHICK LITTLE &WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

GLWGUTSCHICK LITTLE &WEBER, P.A.					
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186					C
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OWNER and PREPARED FOR: GEAPE LAND HOLDINGS II, INC.
c/o THE HOWARD RESEARCH & DEVELOPMENT CORP
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN.: Chris Reld
PH.: (410) 992-8900

GRADING PLAN/DRAINAGE AREA MAP	SCALE	ZONING
COLUMBIA GATEWAY	1"=50'	NT
PARCELS U-9, U-10 and EXTENSION OF LEE DEFOREST DRIVE	DATE	TAX MAP - G
ELECTION DISTRICT No. 6 HOWARD COUNTY, MARYLAND	JAN., 2005	43/7 & 42/11&1

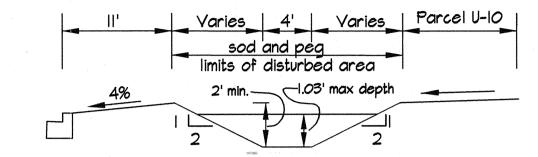
3 OF 5

G. L. W. FILE No.

	STRUCTURE SCHEDULE							
		WIDTH	TOP ELE	EVATION	invert e	LEVATION		
NO.	TYPE	(INSIDE)	UPPER	LOWER	UPPER	LOWER	STANDARD DETAIL	LOCATIONS & REMARKS
	-					-		(CENTERLINE STA.)
1-17	A-5 INLET	2'-6"	361.62	361.62	357.14	357.04	HC STD SD-4.40	14+71 - LEFT 19'
1-18	A-5 INLET	2'-6"	362.56	362.56	358.68	358.33	HC STD SD-4.40	17+16 - LEFT 19'
1-19	A-5 INLET	2'-6"	362.56	362.56	100 MP 400	358.88	HC STD SD-4.40	17+16 - RIGHT 19'
1-20	A-5 INLET	2'-6"	361.62	361.62	مد مد مد مد	357.59	HC STD SD-4.40	14+71 - RIGHT 19'
MH-16	MANHOLE	4' DIA.	362.15	362.15	356.20	356.18	HC STD 6-5.12	12+99 - LEFT 23'
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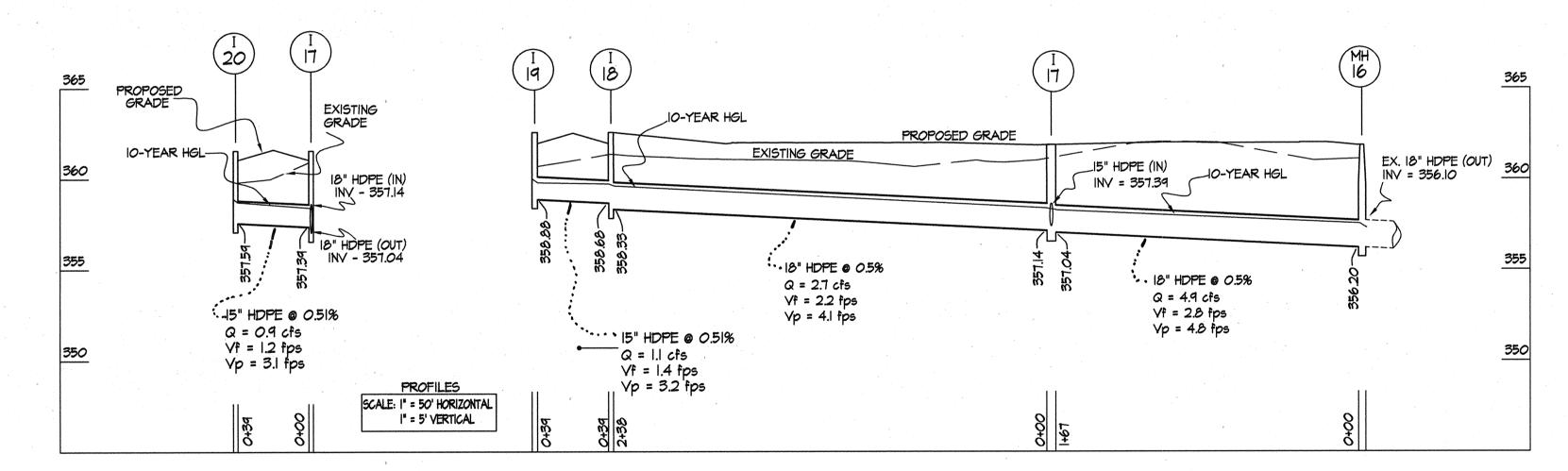
PIPE SUMMARY TABLE						
Size (in)	Туре	Quantity (LF)	Remarks			
15.0	HDPE	78	ADS N12 or equiv.			
18.0	HDPE	405	ADS N12 or equiv.			

NOTES: 1. ALL STRUCTURES TO BE PRECAST. 2.TOP OF STRUCTURE FOR TYPE D INLETS IS TO THE TOP OF THE TOP SLAB.

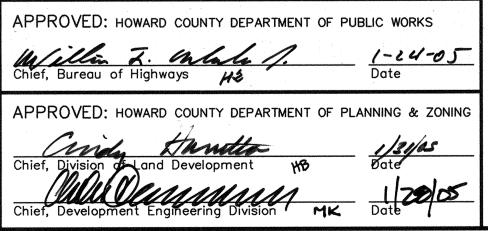


I. FOR ADDITONAL STABILIZATION INFORMATION SEE SECTION 20.0 IN THE MDE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (1994 EDITION).

TEMPORARY SWALE



STORM DRAIN PROFILE SCALE: I" = 50' HORIZ. I" = 5' VERT.



GLWGUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186 \Drawings\91055\Part 3\91055RP4.dwg DES. BJM DRN. BJM CHK. mjt

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t	DATE	REVISION	BY	APP'R.

OWNER and PREPARED FOR: GEAPE LAND HOLDINGS II, INC. c/o THE HOWARD RESEARCH & DEVELOPMENT CORP 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044 ATTN.: Chris Reld PH.: (410) 992-8900

STORM DRAIN PROFILES, SCHEDULES AND DETAILS AS SHOWN COLUMBIA GATEWAY PARCELS U-9, U-10 and EXTENSION OF LEE DEFOREST DRIVE JAN., 2005 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 6

F 05-39

G. L. W. FILE No.

91055

SHEET

4 OF 5

TAX MAP - GRID

43/7 & 42/11&12

DATE

PERMANENT SEEDING NOTES

where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

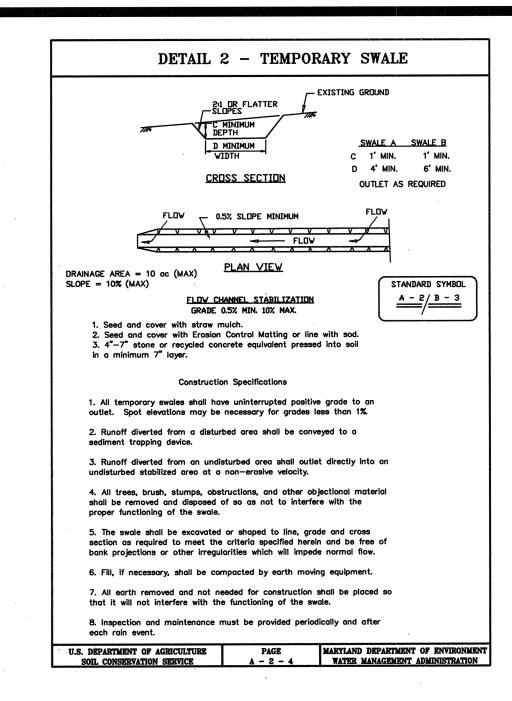
Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is

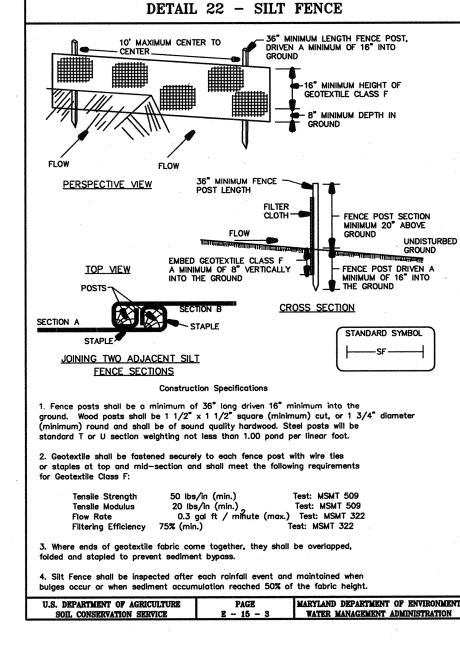
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless

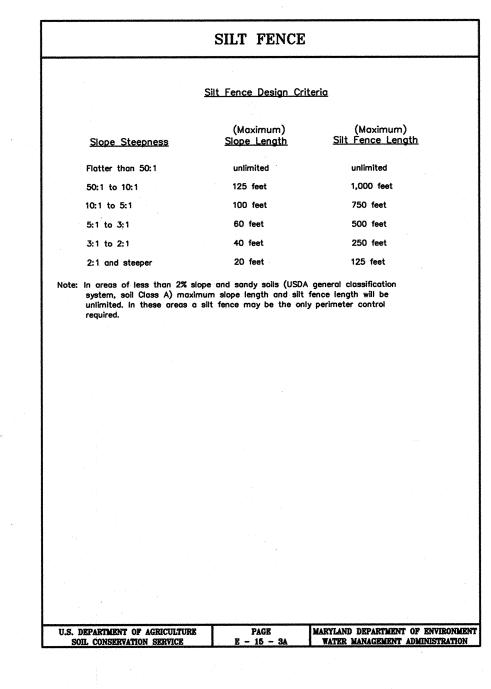
Soil Amendments: In lieu of soil test recommendations, use one

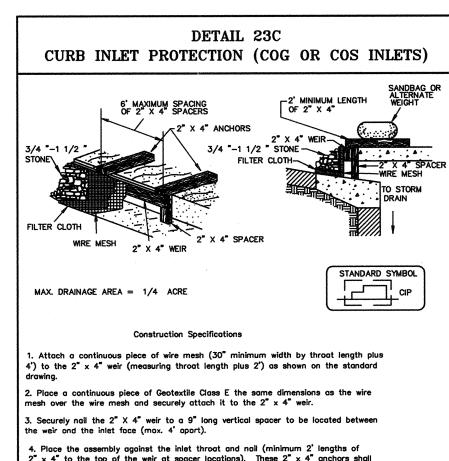
1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000) sg ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348









2" x 4" onthe top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight. 5. The assembly shall be placed so that the end spacers are a minimum 1' beyond 6. Form the 1/2 " x 1/2 " wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2 stone over the wire mesh and geotextile in such a manner to prevent water from

7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clagged with sediment

8. Assure that storm flow does not bypass the inlet by installing a temporary

earth or asphalt dike to direct the flow to the inlet.

Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing. 2. Vegetative Cover - See standards for temporary vegetative cover 3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaces about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow. 5. Barriers - Solid board fences, silt fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing. 6. Calcium Chloride - Apply at rates that will keep surface moist. May need Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.

2. Topsoiling - Covering with less erosive soil materials. See standards for

3. Stone - Cover surface with crushed stone or coarse gravel.

DUST CONTROL

Definition

To prevent blowing and movement of dust from exposes soil surfaces, reduce on and off-site

Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movements where on and

Controlling dust blowing and movement on construction sites and roads

damage, health hazards, and improve traffic safety.

off-site damage is likely without treatment.

U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE F-17-3 WATER MANAGEMENT ADMINISTRATION

previously loosened).

of the following schedules

- unreaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 Ibs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15. seed with 2-1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

SEQUENCE OF CONSTRUCTION NOTES

1. Obtain grading permit and arrange on-site pre-construction meeting with Sediment Control Inspector.(1 day)

2. Install Stabilized Construction Entrance and Silt Fence as shown on these plans. Relocate Diversion Swale to run along the south side of Lee DeForest Drive and into Stub-A. Stabilize temporary swale with sod. (1 Week)

3. After S.O.C. item #2 has been completed and stabilized, grade site and construct the storm drain system. (2 Weeks)

4. Install curb & gutter and base pave. Fine grade the site and stabilize disturbed areas with grass, seed and mulch. (2 weeks)

5. When areas draining to the sediment control devices have been stabilized, and permission has been granted from the sediment control inspector, remove the sediment control devices except for the temporary diversion swale (swale is to remain in place until a site plan with permanent storm drainage is approved for Parcel U-10)(3 days).

6. Install surface paving and street trees. (1 week)

These plans have been reviewed for the Howard

Soil Conservation District and meet the technical

Tatural Resource Conservation Service

Im Mugus

7. Remove any remaining sediment control devices and stabilize as necessary. (2

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. (410) 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.

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 and 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 12. of the HOWARD COUNTY DESIGN MANUAL, Storm

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, 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.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

Site Analysis:	*
Total Area of Site (Gross)	: 24.9± AC
Area Disturbed (for grading)	: 1.49± AC
Area to be roofed or paved	: 0.61± AC
Area to be vegetatively stabilized	: 0.88± AC
Net Cut	: 1,500 C.)
Net Fill	: 1,500 C. Y
Off—site waste/borrow area location	on: N/A

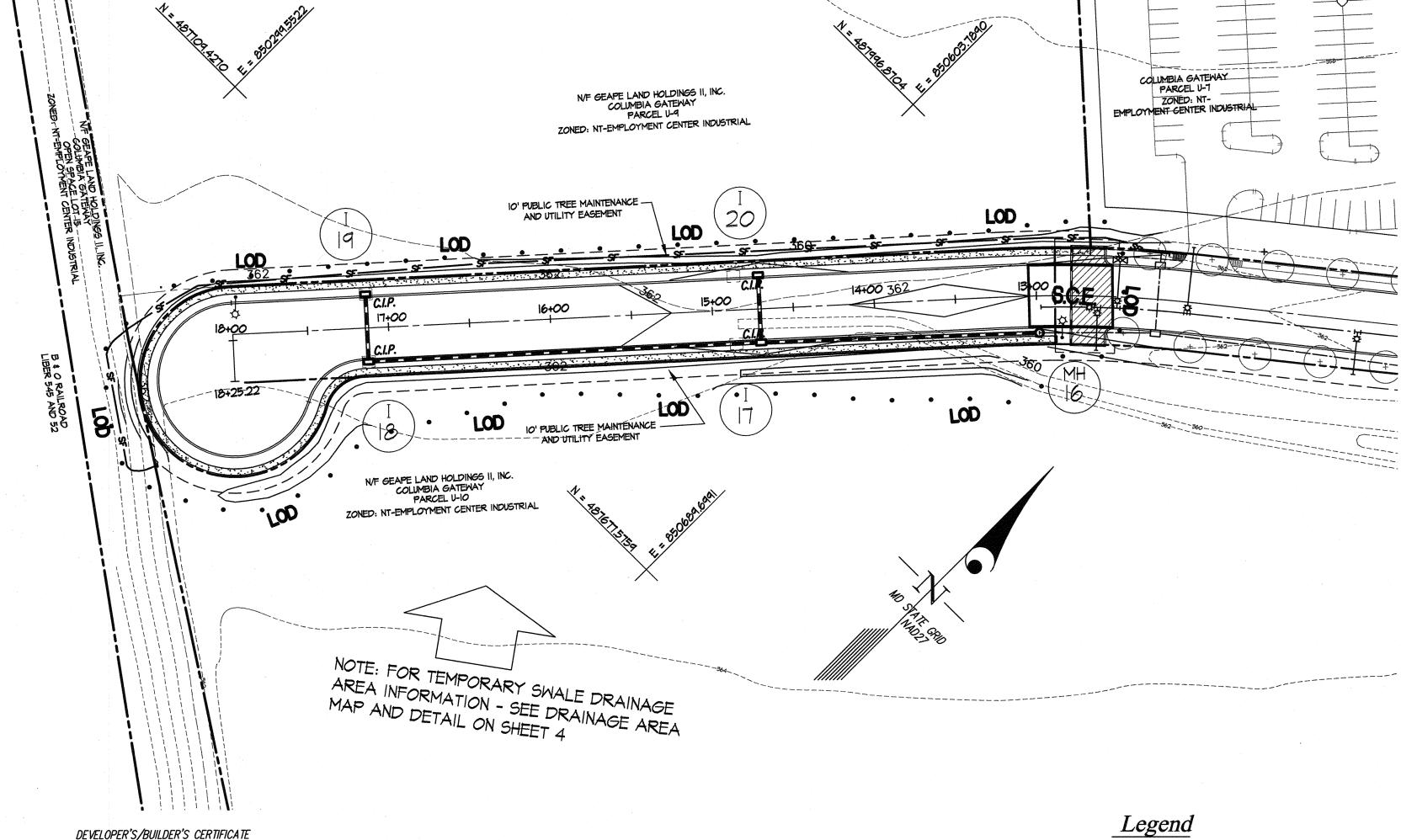
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control

10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

11. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation



"I/We certify that all development and/or 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 HSCD."

ENGINEER'S CERTIFICATE

"I 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 Soil Conservation

ELECTION DISTRICT No. 6

360 8CE

LIMIT OF DISTURBANCE

SUPER SILT FENCE PROPOSED INTERMEDIATE CONTOUR PROPOSED INDEX CONTOUR

EXISTING CONTOUR STABALIZED CONSTRUCTION ENTRANCE

CURB INLET PROTECTION

GLWGUTSCHICK LITTLE & WEBER, P.A.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways

MWWammun

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\Drawings\91055\Part 3\91055RP5.dwg DES. BJM DRN. BJM CHK. mjt

1-24-05

BY APP'R. REVISION

OWNER and PREPARED FOR: GEAPE LAND HOLDINGS II, INC. c/o THE HOWARD RESEARCH & DEVELOPMENT CORP 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044 ATTN.: Chris Reld PH.: (410) 992-8900

SEDIMENT AND EROSION CONTROL PLAN **COLUMBIA GATEWAY** PARCELS U-9, U-10 and EXTENSION OF LEE DEFOREST DRIVE

G. L. W. FILE No. SCALE 1"=50' DATE TAX MAP - GRID SHEET JAN., 2005 5 OF 5 42/11&12 HOWARD COUNTY, MARYLAND