

LEGEND

R.O.W. LINE		EX. TREE LINE	$\sim\sim\sim\sim$
PROPERTY LINE	Pjakid 1994 de Primer de la companya	EX. ELEC. BOX	
EX. FENCE LINE EX. CONTOUR	**************************************	EX. MAILBOX	
LIMIT OF DISTURBANCE	LOD	EX. MANHOLE (SANITARY)	S
SILTFENCE	S.F S.F 	EX. CLEANOUT (SANITARY) b
STD. INLET PROTECTION		EX. SANITARY SEWER	emergumous pena cooleame un binacherone spisatesse oriente de emergeum de altres e
PROP. STORM DRAIN		EX. WATER MAIN	
PROP. MANHOLE PROP. INLET		EX. STORMDRAIN	Continue and April Continue and
PROP. END SECTION	\triangle	EX. INLET	
PROP. EASEMENT	proposassipleativeness andia some statem statements or a second	EX. PROPERTY CORNER	⊡ •
PROP. SWALE		EX. CABLE TV PEDESTAL	⊡
		EX. 4" ROOF DRAIN	- Annothing and
		EX. SWALE	and Mark that the same was true [Species and

11-25-03

TEMPORARY SEEDING NOTES

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

<u>Seedbed Preparation: Loosen upper three inches of soil by raking,</u> discing or other acceptable means before seeding, if not previously loosened.

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

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 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. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 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.

NOTE:

CONTRACTOR SHALL ONLY OPEN ENOUGH TRENCH THAT CAN BE BACKFILLED AND STABILIZED THE SAME DAY

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long—lived vegetative cover is needed.

<u>Seedbed Preparation: Loosen upper three inches of soil by raking,</u> discing or other acceptable means before seeding, if not previously loosened.

<u>Soil Amendments</u>: In lieu of soil test recommendations, use one of the following schedules:

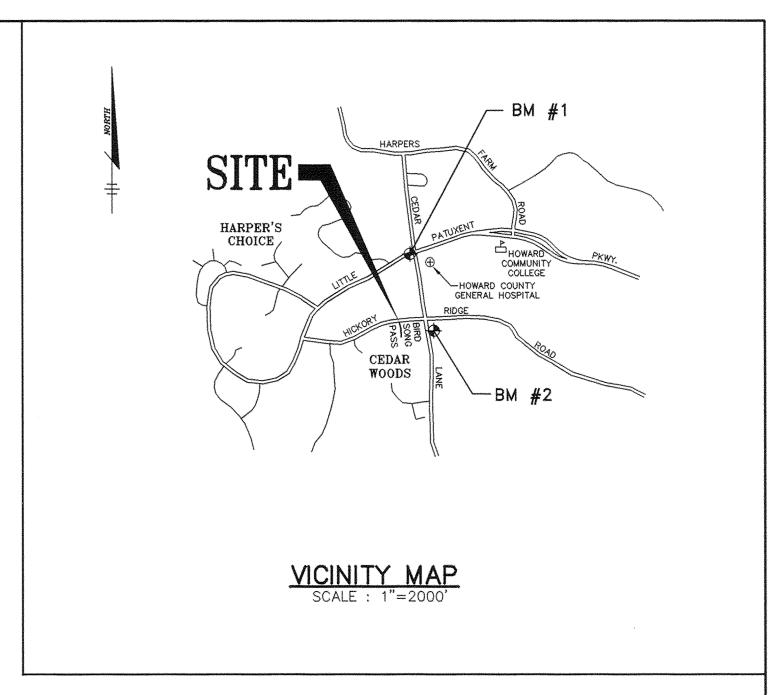
- 1) Preferred Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10—10—10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30—0—0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).
- 2) Acceptable Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10—10—10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 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 (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:

- 2 tons per acre of well—anchored mulch straw and seed as soon as possible in the spring.
- 2) Use sod.
- 3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching: Apply 1—1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

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



GENERAL NOTES

- 1. All construction will be in accordance with the latest Standards and Specifications of Howard County.
- 2. Existing utilities are shown for the convenience of the Contractor and the completeness or accuracy of the same is not guaranteed. The Contractor shall determine the location and elevation of the existing utilities before trench excavation begins. He shall protect service connections and maintain their uninterruped service. Any damage caused by the Contractor shall be repaired immediately. The cost of such repairs shall be borne by the
- 3. Roadside drainage ditches, culverts and underdrains which are damaged or destroyed by construction will be restored to a condition at least equal to that prior to the start of construction at the Contractor's expense.
- 4. All areas disturbed within Easements and Right—Of—Ways shall be restored to a condition of at least equal to that which existed prior to the start of construction. The cost of such shall be borne by the Contractor.
- 5. All horizontal controls are based on NAD 83.
- 6. Vertical controls are based on U.S.G.S. datum.

Howard County Department of Public Works

- 7. All pipe elevations shown \bigcirc are invert elevations
- . Clear all utilities by a minimum of 12". Clear all poles by 3'-0" minimum or tunnel as required. Coordinate with the utility companies to schedule any necessary bracing of the poles.
- 9. Storm drains shall have a minimum cover of 18" except where greater depths are indicated.
- 10. For details not shown on the drawings, and for materials required, refer
- to Specifications.

 11. Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
 - AT&T
 Baltimore Gas & Electric Co. Contractor Services
 Baltimore Gas & Electric Co. Underground Damage Control
 Miss Utility
 1-800-257-7777
 Bureau of Utilities, Howard County Department of Public Works
 410-393-3553
 410-850-4620
 410-787-9068
 1-800-257-7777
 410-313-4900
 Bureau of Engineering Construction Inspection Division,
- 12. Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs located on private property within the construction strip, and outside the immediate line of excavation are not to be removed or damaged by the
- 13. Contractor shall remove trees, stumps and roots along the immediate line of excavation. Payment for such removal shall be included in the unit price bid for construction of the stormdrain.
- 14. Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.
- 15. Sediment control to be provided as shown and shall be approved by the Sediment Control Inspector before starting any site grading. Trench length is limited to three (3)pipe lengths at any one time, to be stabilized immediately.
- 16. Trenching and backfilling shall be in accordance with Howard County by the Maryland Department of the Environment and the Soil Conservation Service. standard detail G2.01.
- 17. All work shall comply with all applicable provisions of the "1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control" issued
- 18. Boundary and topographic information shown here is based on County deeds
- and field surveys by Reimer Muegge & Associates, Inc. dated January 1999.

 3. It shall be distinctly understood that failure to mention specifically any work wh
- 19. It shall be distinctly understood that failure to mention specifically any work which would be required to complete the project shall not relieve the Contractor of his responsibility to perform such work.
- 20. The Contractor shall note that in the case of a discrepancy between the scaled and the figure dimensions shown on the plans, the figure dimensions shall govern.
- 21. At the end of each working day, all sediment control measures will be inspected and left in operational condition.
- 22. Contractor shall immediately remove all spoil material from site to an approved
- 23. Contractor shall exercise caution when working adjacent to the existing sewer. Repair of damage to the sewer shall be at the contractors cost.

DEPARTMENT OF PUBLIC WORKS

HOWARD, COUNTY, MARYLAND

Engineers. Surveyors. Planners. Landscape Architects.

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.

DRN: B.C.R.

STORM DRAIN BLAN & NOTES

CHIEF, DIVISION OF TRANSPORTATION DATE AND SPECIAL PROJECTS

8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282 10/03/03 GRAEME C. LAKE #20745

DRN: B.C.R.

CHK: G.C.L.

DEC. 2001

BY NO. REVISION

DATE

STORM DRAIN PLAN & NOTES

BLOCK NO. 5,11

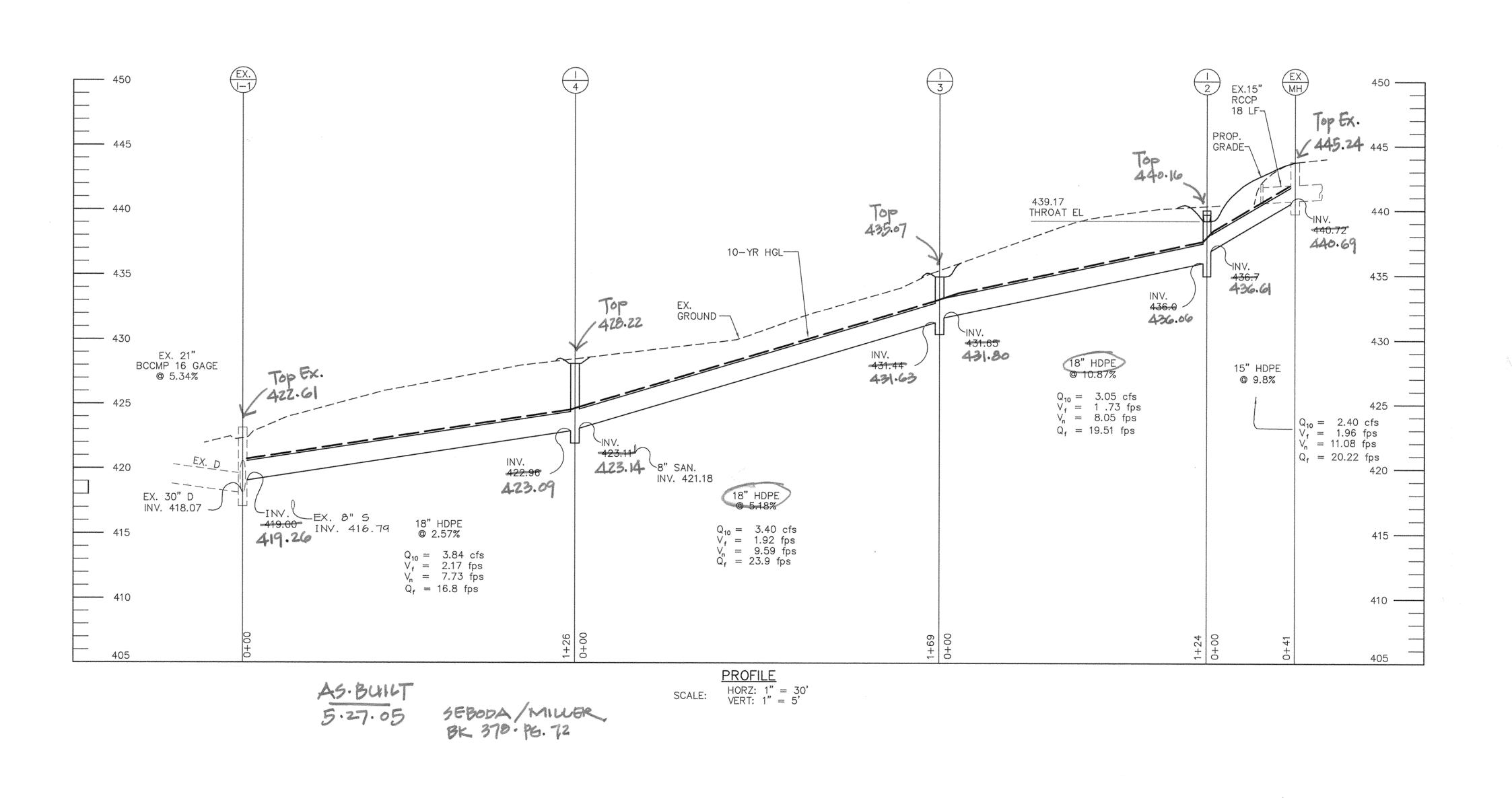
600' SCALE MAP NO. 35

BIRD SONG PASS STORM DRAIN IMPROVEMENT 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. D-1118-47 SCALE AS SHOWN

410-313-1880

SHEET 1 OF 2

STRUCTURE SCHEDULE						
STRUCTURE NUMBER	LOCATION	TYPE	TOP GRATE ELEV.	INV. IN	INV. OUT	REMARKS
EX. MH1	N 561775.85 E 1344151.65		443.8±	440.92±	440.72	REMOVE EX. 15" RCP CONNECT NEW 15" HDPE
1-2	N 561750.75 E 1344119.09	D	440.0	436.70	436.00	HO. CO. STD. SD—4.39 PROVIDE THROAT ON ALL 4 SIDES.
1–3	N 561740.44 E 1343995.63	SINGLE WR	435.2	431.65	431.44	HO. CO. STD. SD-4.37
1-4	N 561726.85 E 1343831.24	SINGLE WR	428.5	423.11	422.96	HO. CO. STD. SD-4.37
EX. I-1	N 561713.73 E 1343677.58	STD. 4'-0"	423.2	419.41	419.19	



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

11/25/03

DATE CHIEF, BUREAU OF ENGINEERING DATE CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

Patton Harris Rust & Associates, pc Engineers. Surveyors. Planners. Landscape Architects.

8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282

11/25/03 DATE

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ALEXANDER COMPLETE	GRAEME	C.	LAKE	#2074

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	DRN:	B.C.R.					COLLEGE & DROELLES
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	CHK:	G.C.L.					
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745	DEC.	2001	BY	NO.	REVISION	DATE	 600' SCALE MAP NO. 35 BLOCK NO. 5,11

BIRD SONG PASS STORM DRAIN IMPROVEMENT 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. D-1118-47

SCALE AS SHOWN SHEET _2_ OF _2_