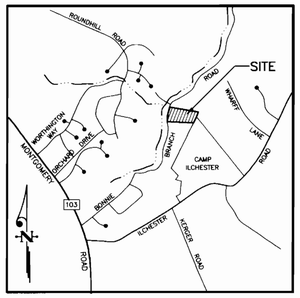
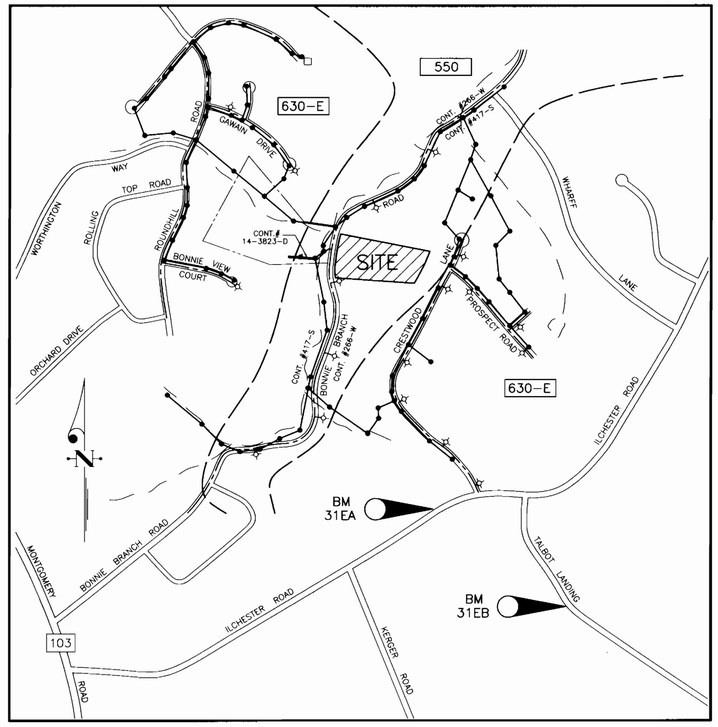


VICINITY MAP

SCALE: 1" = 2,000'

WATER AND SEWER STAKEOUT CHART

DESCRIPTION	W STA.	NORTH	EAST
8" 1/16 HB	0+38	571,734.900	1,374,103.121
8" W PC (R=287')	0+49	571,739.078	1,374,113.773
8" W PT	0+96	571,759.748	1,374,155.944
8" W PC (R=287')	1+20	571,771.857	1,374,176.254
8" W PT	1+81	571,797.308	1,374,231.546
8" W PC (R=287')	2+05	571,804.985	1,374,254.318
8" W PT	2+39.5	571,814.019	1,374,287.603
8" X 6" FHT	3+00	571,826.329	1,374,346.841
FIRE HYDRANT	3+00	571,810.032	1,374,351.972
8" CAP	3+13	571,828.974	1,374,359.569
MANHOLE NO. 11	——	571,727.744	1,374,042.737
MANHOLE NO. 12	——	571,718.923	1,374,093.476
MANHOLE NO. 13	——	571,729.407	1,374,125.979
MANHOLE NO. 14	——	571,777.765	1,374,208.685
MANHOLE NO. 15	——	571,801.117	1,374,276.242
MANHOLE NO. 16	——	571,819.557	1,374,363.059



WATER CODE: G01
SEWER CODE: 1255000
TEST GRADIENT: 700

LOCATION MAP

SCALE: 1" = 600'

BENCH MARKS

MONUMENT	DESCRIPTION	ELEVATION	NORTHING	EASTING
31EA	MONUMENT	469.603	569,641.123	1,374,815.935
31EB	MONUMENT	453.396	568,730.984	1,376,273.491

TYPE OF BUILDING	SINGLE FAMILY DETACHED
NO. OF LOTS/PARCELS	2 BUILDABLE
NO. OF WATER HOUSE CONNECTIONS	2
NO. OF SEWER HOUSE CONNECTIONS	2
DRAINAGE AREA	DEEP RUN (PATAPSCO)
TREATMENT PLANT	PATAPSCO WASTEWATER TREATMENT PLANT

GENERAL NOTES

PART I – GENERAL

1. Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
2. All horizontal controls are based on Maryland State Coordinates. [North American Datum of 1983 (NAD '83)].
3. All vertical controls are based on U.S.G.S. data.
4. All pipe elevations shown are invert elevations.
5. Clear all utilities by a minimum of 6". Clear all poles by 2'–0" minimum or tunnel as required. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event that the contractor's work requires the bracing of additional poles, any cost incurred by the owner for bracing of additional poles or damages shall be deducted from money owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
6. For details not shown on the drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (Latest Edition). The contractor shall have a copy of Volume IV on the job.
7. Where test pits have been made on existing utilities, they are noted by the symbol at the location of the test pit. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.
8. Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

State Highway Administration	410–531–5533
BG&E Co. Contractor Services	410–850–4620
BG&E Co. Under Ground Damage Control	410–291–4607
Miss Utility	1–800–257–7777
Colonial Pipeline Co.	410–549–4120
Howard County Department of Public Works Bureau of Utilities	410–313–4900
Bell Atlantic	1–800–446–5266

9. Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
10. Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
11. The contractor shall notify the Bureau of Highways, Howard County, at (410) 313–2450 at least five working days before any open cut of any County road or boring/jacking operation in County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(a) of the Howard County Code.

PART II – WATER

1. All water mains to be D.I.P. Class 52 unless otherwise noted.
2. Tops of all water mains to have a minimum of 3–1/2' cover unless otherwise noted.
3. Valves adjacent to tees shall be strapped to tees.
4. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
5. Fire hydrants shall be set to the bury line elevations shown of the drawings. All fire hydrants shall be restrained and buttressed with concrete in accordance with Standard Details. Soil around the fire hydrant shall be compacted in accordance with Sections 1000 and 1005 of the Standard Specifications.
6. The contractor shall not operate any water main valves on the existing water system.
7. All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
8. For sprinkler system for all townhomes or multi–family dwelling units shall have a minimum of 1" connection with a 3/4" meter.

PART III – SEWER

1. All sewer mains shall be DIP or P.V.C. unless otherwise noted.
2. All manholes shall be 4'–0" inside diameter unless othewise noted.
3. Force mains shall be D.I.P. only.
4. Manholes shown with 12" and 16" walls are for brick manholes only.
5. Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1" – 6" above finished grade unless otherwise noted on the drawings.
6. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLAN, F–01–208, DRAWINGS 2 & 3, SEDIMENT AND EROSION CONTROL.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

SIGNATURE — DATE 9/4/03

U. S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:

HOWARD S. C. D. — DATE 9/4/03

WATER & SEWER CONSTRUCTION PLANS
BONNIELASS
LOTS 1–4

1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

CONTRACT No. 14–3998–D

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS–BUILT QUANTITIES	AS–BUILT TYPE	AS–BUILT MANUFACTURER/SUPPLIER
8" S	555 LF			
4' DIA. MH	7 EA.			
8" W	313 LF			
4" SHC	30 LF			
1" WHC	20 LF			
FIRE HYDRANT	1 EA.			
12"x8" TS&V	1 EA.			

NAME OF UTILITY CONTRACTOR:

SURVEY AND DRAFTING DIVISION AS–BUILT DATE:

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES — DATE 8-27-03

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9/8/03

CLARK · FINEFROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY COLUMBIA, MD 21045
(410) 381–7500 BALT. (301) 621–8100 WASH.

STATE OF MARYLAND — NELSON CLARK — No. 10 — 8-27-03

DES:	JTR
DRN:	LAI
CHK:	CCM
DATE:	8–8–00

BY	NO.	REVISION	DATE

TITLE SHEET

600' SCALE MAP NO. 31 BLOCK NO. 10

BONNIELASS
LOTS 1–4

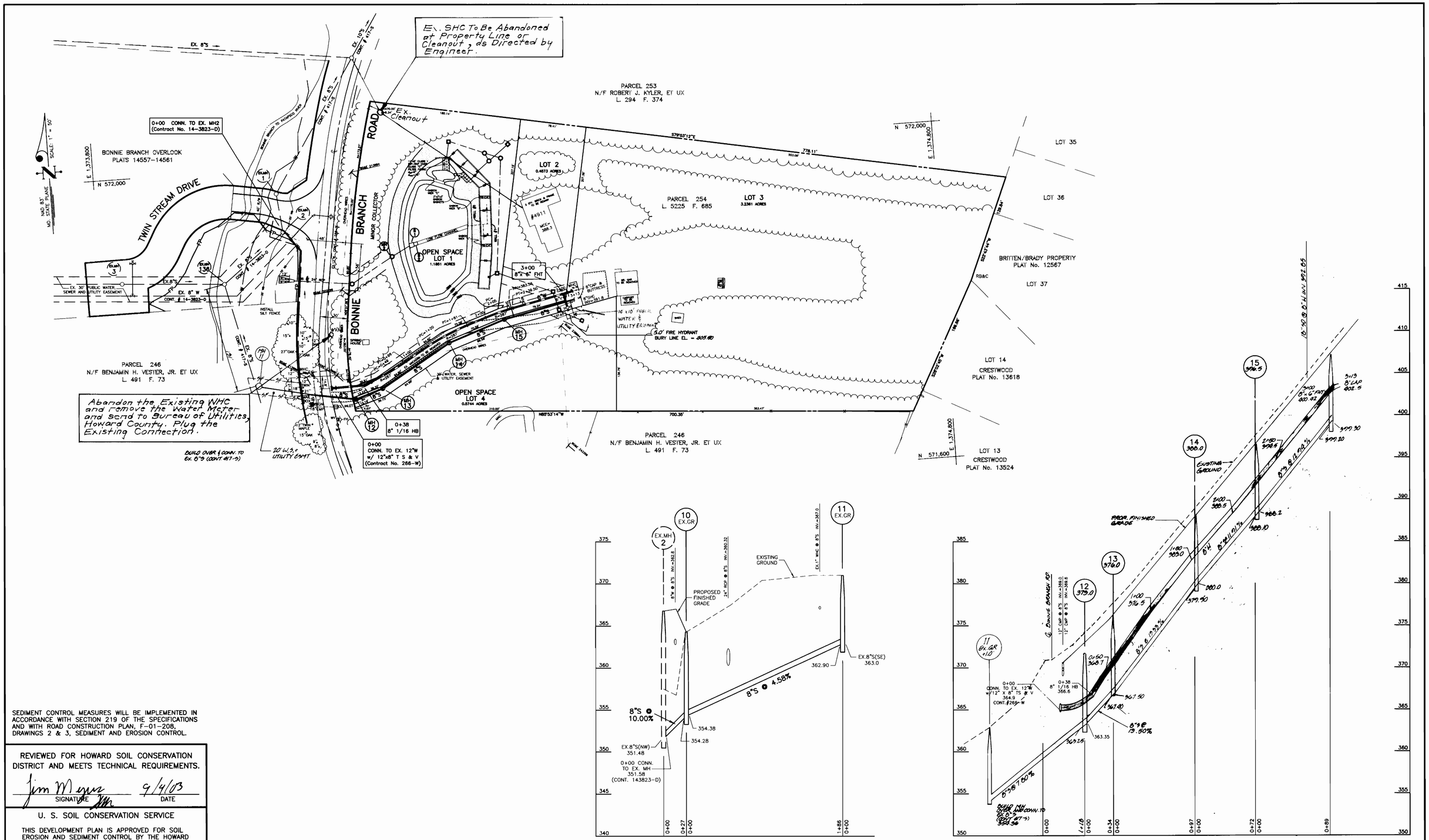
1ST ELECTION DISTRICT
CONTRACT No. 14–3998–D

SCALE: AS SHOWN

SHEET 1 OF 2

00–098–WS1

(1A) 01A RESUBMIT 03 SEP 03 15:15 9uA unit pm RANCO-2W/82A1E1MW09-BB000/01MW15-1281-1281L.pltwd/D:C



SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLAN, F-01-208, DRAWINGS 2 & 3, SEDIMENT AND EROSION CONTROL.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

SIGNATURE — DATE 9/4/03

U. S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:

HOWARD S. C. D. — DATE 9/4/03

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES — DATE 8-27-03

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9/2/03

CLARK · FINEFROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY COLUMBIA, MD 21045
(410) 381-7500 BALT. (301) 621-8100 WASH.

STATE OF MARYLAND — G. NELSON CLARK — No. 7171

DES: JTR				
DRN: LAI				
CHK: CCM	JH	2	REV W/ L.S. BTWN MH 12 & 16, ELIMINATE 16	8-21-05
DATE: 12-19-01	AS	1	Abandonment of Existing WHC and SHC	11-19-03
	BY	NO.	REVISION	DATE

PLAN AND PROFILE

600' SCALE MAP NO. 31 BLOCK NO. 10

BONNIELASS
LOTS 1-4

1ST ELECTION DISTRICT
CONTRACT No. 14-3998-D

SCALE: AS SHOWN

SHEET 2 OF 2

00-098-WS2

C:\0\0\00098WSE\2\2\LAI\PLAN\14-3998-D\10\ 03 SEP 18 15:15 EDA JMT CONVERTED TO HEIDI