

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PRELIMINARY & LANDSCAPE PLAN
3	SCHEMATIC GRADING & SEDIMENT CONTROL PLAN
4	STORM DRAIN DEBRIS AREA MAP
5-6	PRELIMINARY ROAD PROFILES
7-8	PRELIMINARY FOREST CONSERVATION PLAN

**DEVELOPMENT CRITERIA**  
**"THE COURTYARDS AT WAVERLY WOODS - WEST"**  
**PLANNED SENIOR COMMUNITY**

1. MAJORITY OF 350 HOUSING UNITS WILL BE SPECIFICALLY DESIGNED FOR RESIDENTS OVER THE AGE 55 WITH WALKING PATHS, SEATING AREAS AND RECREATIONAL AMENITIES ON A 19400 ACRES BUILDING SITE.
2. 35 MODERATE INCOME DWELLINGS ARE REQUIRED TO BE PROVIDED.
3. THE PROJECTED DENSITY OF THE HOUSING IS 2,6290 UNITS PER NET ACRE.
4. ALL OF THE 139 SINGLE FAMILY ATTACHED GARAGE VILLAS TOWNHOUSES WILL BE CONSTRUCTED WITH FIRST FLOOR MASTER BEDROOMS AND SECOND AND THIRD BEDROOMS UPSTAIRS.
5. ALL OF THE SINGLE FAMILY ATTACHED AND DETACHED UNITS WILL HAVE 2-CAR GARAGES.
6. THE EXTERIOR WALLS OF BOTH THE SINGLE FAMILY ATTACHED GARAGE VILLAS TOWNHOUSES AND DETACHED UNITS WILL BE BRICK AND/OR STONE AND HARD-PLANK.
7. ACCESS TO AND CIRCULATION WITHIN ALL OF THE BUILDINGS WILL BE WITHIN THE DESIGN CRITERIA OF THE AMERICANS WITH DISABILITIES ACT (ADA).
8. THERE WILL BE A RECREATION PATH THROUGH THE COMMUNITY.
9. WAVERLY WOODS GOLF COURSE IS AVAILABLE TO THE RESIDENTS.
10. A SHUTTLE SERVICE WILL TRANSPORT RESIDENTS TO MEDICAL AND OTHER SERVICES, AS NECESSARY.
11. VEHICULAR ACCESS INTO AND OFF OF THE SITE WILL BE THROUGH BARNESLEY WAY TO BE BUILT LEADING TO HARRIOTTVILLE ROAD.
12. A 4490 SQUARE FOOT COMMUNITY BUILDING, CONTAINING A LIBRARY, MEETING ROOMS AND OTHER ACTIVITY AREAS WILL BE BUILT ON-SITE.
13. THE INTERIOR OF THE COMMUNITY BUILDING WILL BE THE SAME STONE AND HARD-PLANK AS THE CONDOMINIUM SINGLE FAMILY ATTACHED GARAGE VILLAS TOWNHOUSES AND DETACHED UNITS.
14. PERSONS ELIGIBLE TO PURCHASE ANY OF THE DWELLINGS MUST BE 55 YEARS OF AGE OR OLDER.
15. CHILDREN UNDER THE AGE OF 18 MAY NOT RESIDE IN A DWELLING FOR MORE THAN 90 DAYS IN A CALENDAR YEAR.

**UNIVERSAL DESIGN GUIDELINES**  
**FOR AGE-RESTRICTED ADULT HOUSING IN HOWARD COUNTY**

The Howard County Zoning Regulations allow for "active adult housing" as either a conditional use in residential zoning districts or as a permitted use in the Planned Senior Community, Planned Office Research, Community Center, Transition, and Residential Institutional zoning districts. Active adult developments must be appropriately designed for adults at least 55 years of age. Site improvements must ensure accessible routes between parking, dwelling units and common areas. Individual dwellings must incorporate universal design features to be adaptable for residents with mobility and functional limitations that either result from aging.

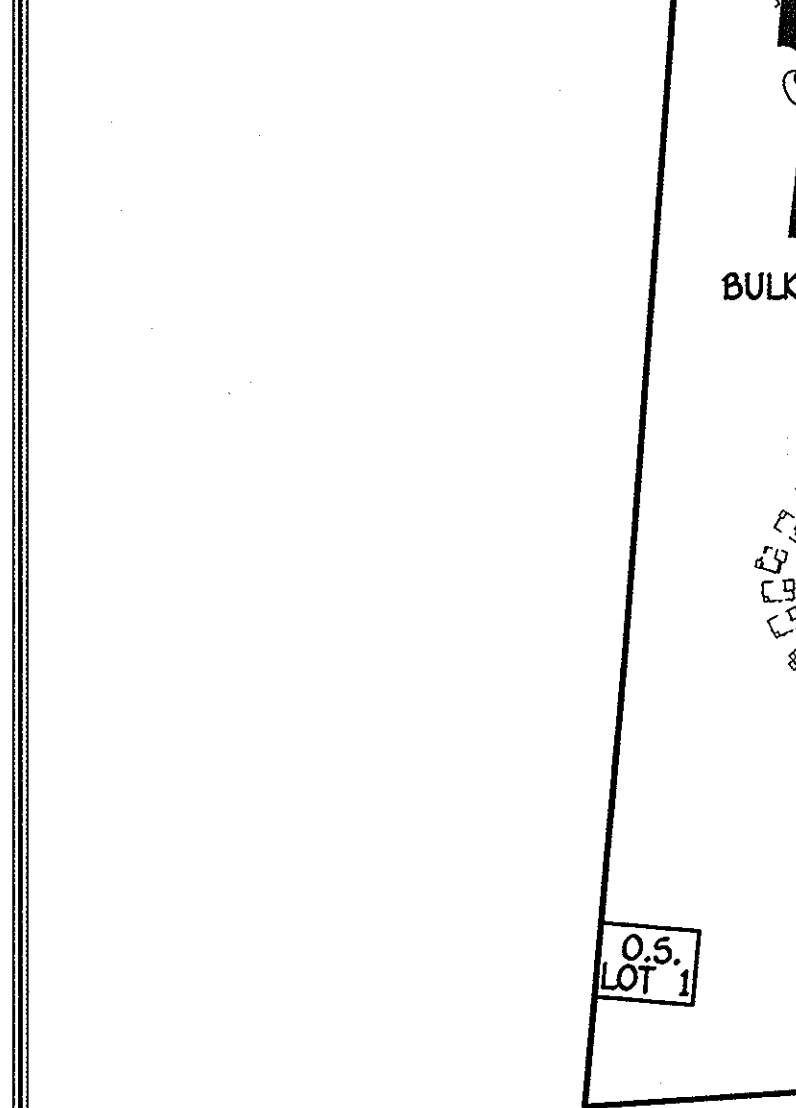
Design standards for site accessibility and usable common areas have been established for multi-unit housing by the Americans with Disabilities Act and the Fair Housing Act of 1988. While recognized standards for individual units for older adults have not been established, "universal design" is a relatively new, evolving concept that provides some guidance.

Accordingly, the Department of Planning and Zoning met with several senior housing developers, representatives for the Home for Life Coalition of Howard County, and the Department of Inspections, Licenses, and Permits to discuss minimum requirements. Design views were expressed regarding what features should be required vs. optional features vary considerably in cost, relevance for different users, and adaptability to different sites and project types. Developers' chief concerns were that the current model does not address a need for most universal design features since the oldest boomers are still relatively young and aren't focused on how their needs may change over time. Concern was also expressed about increasing the cost of senior housing if more universal design features are required rather than optional.

These guidelines reflect a middle position focusing on requiring those features that are relatively inexpensive if part of initial construction but would require major renovation to retrofit in the future. Items that are relatively less expensive to retrofit in the future are listed as desirable or optional.

- REQUIRED:**
- for multi-family apartment or condo developments, an accessible path between parking, dwelling units, and common areas that meets ADA standards
  - for single family detached and attached developments, a "no-step" access to the front entrance to the community building and all dwellings if no-step entrance is desirable, but not required at other entrances
  - 30" wide front door with exterior lighting of the entrance
  - all interior doorways at least 32" wide (30" is preferable)
  - hallways at least 30" wide, 60"x42" is preferable
  - complete living area including master bedroom & bath on first floor for elevator access if multi-story rental/condo development
  - lever handles on interior and exterior doors
  - landing for grab bars in walls in bathroom with rear toilet and shower
- DESIRABLE:**
- low maintenance exterior materials
  - covered main entry
  - extra door approach with 30"x24" of clearance at side adjacent to handle
  - smooth transitions between floors (vertical threshold of 2" or less)
  - slip resistant flooring
  - minimum accessible path between main living rooms preferably 30"x42"
  - lever handles on kitchen and bathroom sinks, plus shower
  - anti-slip devices on all planning surfaces
  - 5' turning radius on T turn in kitchen and first floor bathroom
  - pointed and rounded approach measuring space in front of appliances and plumbing fixtures
  - main electrical breaker box located on the first floor
  - switches, doorbells, thermostats, and breaker boxes should be located no more than 48" above the floor, electrical receptacles should be at least 15" above the floor

- OPTIONAL:**
- security system
  - visual ID of visitors
  - visual smoke detectors
  - handrails on both sides of exterior and interior stairs
  - flood lighting in kitchen, bath and other work spaces
  - rocker light switches
  - lighting in closets and pantry
  - clear roads adjustable from 2 to 5'-0"
  - multi-level or adjustable kitchen counter tops and work spaces
  - pocket shelves for kitchen base cabinets
  - front mounted controls on stove
  - installation of grab bars in bathroom
  - hand held showerhead in shower
  - cutless shower



**PHASING PLAN VIEW**  
NO SCALE

PHASING TABULATION			
PHASE	NUMBER OF TENTATIVE ALLOCATIONS	ALLOCATION YEAR	PLANNING AREA
I	10	2010	ELLICOTT CITY
II	50	2011	SENIOR EAST
III	100	2012	SENIOR EAST
IV	100	2013	SENIOR EAST
V	90	2014	SENIOR EAST

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 18722 BENTLEY NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21114  
HW 881 - 2955

**PRELIMINARY PLAN**

**GTW'S WAVERLY WOODS**

**SECTION 14**  
**BULK PARCEL 'A'**

**PHASE I - UNITS 2 THRU 7 & 36 THRU 39**

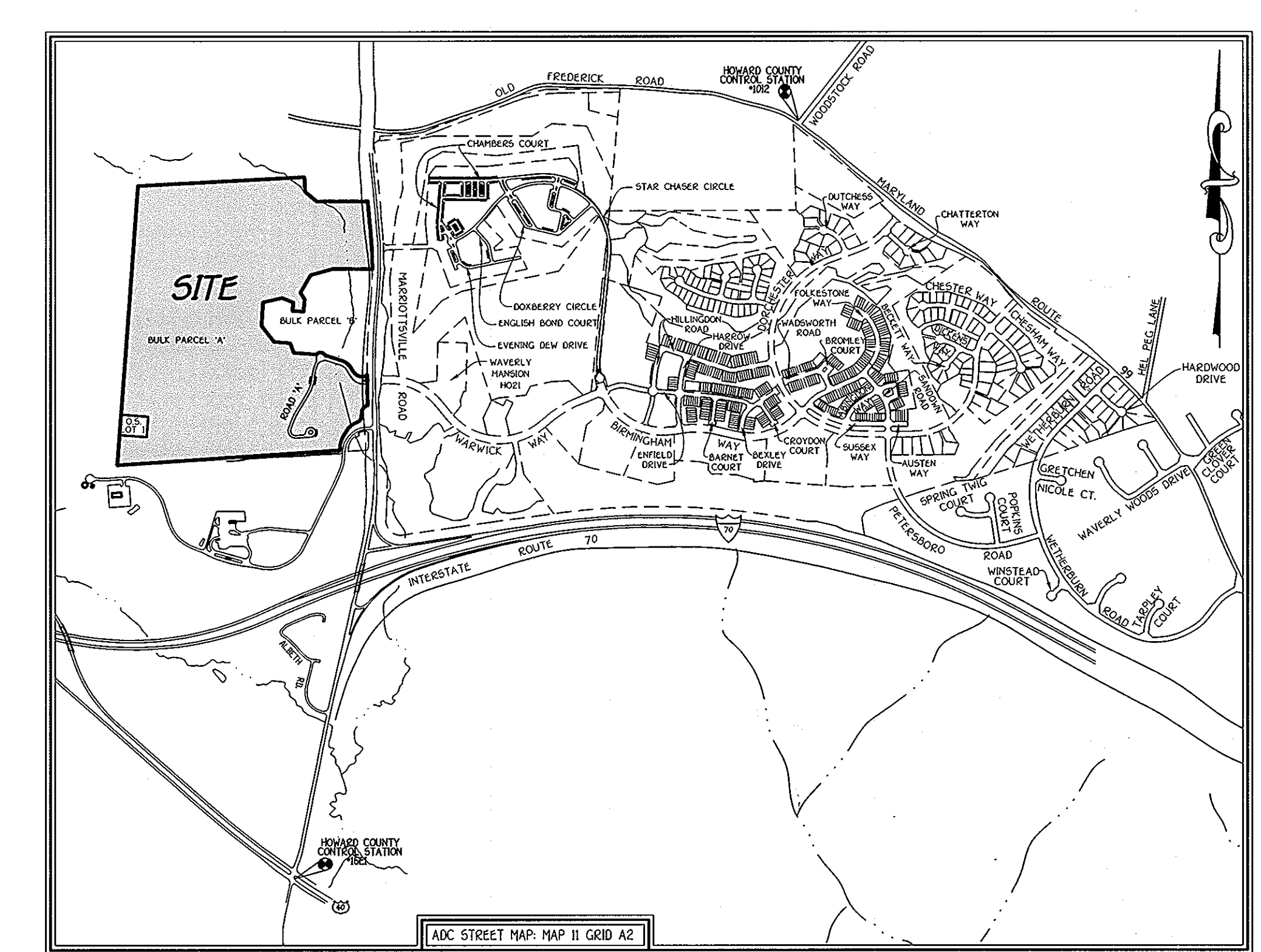
**"THE COURTYARDS AT WAVERLY WOODS - WEST"**  
**TOWNHOUSE & SINGLE FAMILY HOME CONDOMINIUMS**

**"AGE-RESTRICTED ADULT HOUSING COMMUNITY"**

**ZONED : PSC (PLANNED SENIOR COMMUNITY DISTRICT)**

**TAX MAP No. 16 GRID No. 3 & 4 PARCEL No. 120, P/O 221 & P/O 249**

**THIRD ELECTION DISTRICT**  
**HOWARD COUNTY, MARYLAND**



**VICINITY MAP**  
SCALE: 1" = 1200'

PARKING SPACE TABULATION (PHASE I)		
TYPE	REQUIRED	PROPOSED
SINGLE FAMILY HOMES - (2 UNITS)		
ATTACHED DOUBLE CAR GARAGE PARKING SPACES (4 PER UNIT - 2 GARAGE AND 2 DRIVEWAYS)	4 SPACES	8 SPACES
TOWNHOUSES (8 UNITS)		
ATTACHED DOUBLE CAR GARAGE PARKING SPACES (4 PER UNIT - 2 GARAGE AND 2 DRIVEWAYS)	16 SPACES	32 SPACES
ON-STREET PARKING SPACES	---	24 SPACES
TOTAL	20 SPACES	64 SPACES

STREET LIGHT CHART		
STREET NAME	STATION	OFFSET
BARNESLEY WAY (PUBLIC)	0+79	34R
	2+15	32L
	2+16	32R
	7+17	24R
ROAD 'A' (PUBLIC)	0+58	18R
ROAD 'A' (PUBLIC)	2+03	23R
	2+47	15L
	2+45	15L
	IN CUL-DE-SAC	
	N 517232-0	E 027950-2

**CONDITIONS OF APPROVAL**  
**WITHIN ZB 1027 M.**

1. PETITIONER SHALL HAVE THE OPTION OF PROVIDING THE REQUIRED 35 MODERATE INCOME HOUSING UNITS OFF-SITE AT WAVERLY GARDENS (ISD-04-60).
2. PETITIONER SHALL PROVIDE HANDICAP ACCESS TO THE GARAGES OF ALL DWELLING UNITS AS DETAILED IN THIS DECISION.
3. PETITIONER SHALL PROVIDE A CONNECTING PATHWAY TO THE PROPOSED COMMUNITY BUILDING AS DETAILED IN THIS DECISION.
4. PETITIONER SHALL INCLUDE THE SURVIVORSHIP PROVISIONS DETAILED IN THIS DECISION IN ITS AGE RESTRICTION ENFORCEMENT COVENANTS.
5. PETITIONER SHALL PROVIDE A MEDIAN DESIGN FOR THE ACCESS TO THE SUBJECT PROPERTY AS DETAILED IN THIS DECISION.
6. PETITIONER SHALL OFFER TO ALL RESIDENTS OF THE PROPOSED SUBJECT COMMUNITY DISCOUNTED MEMBERSHIPS IN THE HEALTH AND FITNESS CENTER AND WAVERLY WOODS GOLF COURSE AS DETAILED IN THIS DECISION.

(2) GRANTS THE PETITIONER'S REQUEST TO AMEND THE DOCUMENTED SITE PLAN AS PROPOSED BY PETITIONER FOR THOSE PORTIONS OF THE SITE SUBJECT TO THE ORIGINAL, APPROVED DOCUMENTED SITE PLAN IN ZB CASE 9299.

ROAD CLASSIFICATION CHART		
ROAD NAME	CLASSIFICATION	R/W WIDTH
BARNESLEY WAY	MINOR COLLECTOR	60'
ROAD 'A'	PRIVATE ACCESS STREET	N/A

STREET SIGN CHART			
STREET NAME	STATION	OFFSET	POSTED SIGN
BARNESLEY WAY	2+00	25R	SPEED LIMIT 30 MPH
ROAD 'A'	0+54	17L	STOP
ROAD 'A'	1+00	15R	SPEED LIMIT 25 MPH
BARNESLEY WAY	0+68	0'R	KEEP RIGHT
BARNESLEY WAY	1+13	0'R	KEEP RIGHT
BARNESLEY WAY	2+55	23L	ADVANCE INTERSECTION LINE CONTROL
BARNESLEY WAY	4+00	23L	SIGNAL AHEAD

**GENERAL NOTES CONTINUED:**

43. The Zoning Board of Howard County (ZB Case No. 1027M) on June 10, 2003 Approved The Reclassification Of 151.3 Acres From PSC To PSC Subject To The Following Conditions:
  1. Petitioner Shall Have The Option Of Providing The Required 35 Moderate Income Housing Units Off-Site At Waverly Gardens (ISD-04-60).
  2. Petitioner Shall Provide Handicap Access To The Garages Of All Dwelling Units As Detailed In This Decision.
  3. Petitioner Shall Provide A Connecting Pathway To The Proposed Community Building As Detailed In This Decision.
  4. Petitioner Shall Include The Survivorship Provisions Detailed In This Decision In Its Age Restriction Enforcement Covenants.
  5. Petitioner Shall Provide A Median Design For The Access To The Subject Property As Detailed In This Decision.
  6. Petitioner Shall Offer To All Residents Of The Proposed Subject Community Discounted Memberships In The Health And Fitness Center And Waverly Woods Golf Course As Detailed In This Decision.
- (2) Grants The Petitioner's Request To Amend The Documented Site Plan As Proposed By Petitioner For Those Portions Of The Site Subject To The Original Approved Documented Site Plan In ZB Case 9299.

ALSO BY DATE **11-10-08**  
Professional Engineer I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 202265, Expiration Date 2-22-09.

**OWNERS**  
GTW JOINT VENTURE c/o LAND DESIGN AND DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE, SUITE 102 ELLICOTT CITY, MARYLAND 21114 (410) 367-0422  
HOLE IN THE DONUT, LLC c/o LAND DESIGN AND DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE, SUITE 102 ELLICOTT CITY, MARYLAND 21114 (410) 367-0422  
WAVERLY WOODS DEVELOPMENT CORPORATION c/o LAND DESIGN AND DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE, SUITE 102 ELLICOTT CITY, MARYLAND 21114 (410) 367-0422

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Mark A. Layton*  
PLANNING DIRECTOR  
DATE: 11/10/08

**GENERAL NOTES**

1. SUBJECT PROPERTY ZONED PSC IN ACCORDANCE WITH ZB 1027 M APPROVED ON JUNE 10, 2003 BY THE ZONING BOARD OF HOWARD COUNTY, MARYLAND FOR A RECLASSIFICATION OF 150.743 ACRES FROM PSC TO PSC. PREVIOUS HOWARD COUNTY FILES: 5-94-07, 2B-9299-1, 2B-1027M AND PLAT NUMBER 15022 (0-09-03), 15068 (F-04-03), 1508 (F-04-04), 15028 (F-04-07), 5-04-03, PB CASE NO. 301, F-08-159, WP-95-23, FOREST PLATS FOR F-90-80 ON THE WEST SIDE OF HARRIOTTVILLE ROAD WERE NOT RECORDED AND WILL BE RELOCATED ON GTW'S WAVERLY WOODS, F-07-032. DEED REFERENCES: L 2221 / F. 297 DATED 0-28-1994, L 4463 / F. 123 DATED 10-14-1999 AND L 5500 / F. 160 DATED 04/01/2001.
2. TOTAL AREA OF PROPERTY = 149.40 AC.
3. TOTAL AREA OF FLOODPLAIN = 16.31 AC.
4. TOTAL AREA OF SLOPES IN EXCESS OF 2% = 0.00 AC.
5. NET TRACT AREA = 133.09 AC.
6. AREA OF PUBLIC ROAD 87' (BARNESLEY WAY) = 1.34 AC.
7. TOTAL NUMBER OF BUILDABLE UNITS ALLOWED = 1064 UNITS (03309 AC X 8 UNITS/NET AC) = 1064 UNITS
8. TOTAL NUMBER OF PROPOSED AGE-RESTRICTED UNITS FOR ENTIRE SECTION 14 = 350 (2,6290 UNITS PER NET ACRE)
  - A. NUMBER OF UNITS PROPOSED UNDER PHASE I = 10 UNITS
  - B. NUMBER OF UNITS PROPOSED UNDER PHASE II = 25 UNITS
  - C. NUMBER OF UNITS PROPOSED UNDER PHASE III = 215 UNITS
9. C. THE HOMEOWNERS' ASSOCIATION WILL ENFORCE AGE RESTRICTIONS.
  - A. OPEN SPACE REQUIRED = 52.29 AC.
  - B. TOTAL OPEN SPACE PROVIDED = 83.15 AC. (55.73' CREDITED OPEN SPACE PROVIDED = 82.33 AC. (55.11) NOW-CREDIT OPEN SPACE PROVIDED = 0.82 AC. (9.92))
10. THE PROPERTY SHOWN IS LOCATED IN THE METROPOLITAN PLANS.
11. TOPOGRAPHIC INFORMATION ESTABLISHED AT 2 FOOT CONTOUR INTERVALS BASED ON AERIAL PHOTOGRAPHIC CONTOUR MAPPING (05-08 ABOUT NOVEMBER 1998 PROVIDED BY HANCOCK ASSOCIATES, INC.).
12. BOUNDARY OUTLINE IS BASED ON A FIELD MONUMENTED SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT AUGUST 2008.
13. D.E.L. DENOTES BUILDING RESTRICTION LINE.
14. REFUSE COLLECTION, SNOW REMOVAL AND PRIVATE ROAD MAINTENANCE WILL BE PROVIDED BY THE HOMEOWNERS' ASSOCIATION.
15. REQUIRED PARKING TABULATION (PHASES I THRU VI)
  - A. SINGLE FAMILY DETACHED PARKING PROVIDED = 422 SPACES (211 UNITS X 2 SPACES (1 GARAGE & 1 PARKING PAD))
  - B. SINGLE FAMILY ATTACHED PARKING PROVIDED = 0 SPACES
  - C. COMMUNITY CENTER PARKING SPACES REQUIRED = 4,490 sq-ft. X 3.3 SPACES/1000 sq-ft. = 14,822 OR 15 SPACES
  - D. TOTAL PARKING SPACES PROVIDED = 715 SPACES (870 SPACES - 90 SPACES - 24 SPACES)
  - E. OVERALL PARKING SPACE RATIO = 64 SPACES/UNIT (64 SPACES FOR 10 UNITS)
16. BARNESLEY WAY IS A PUBLIC ROAD AND MAINTAINED BY HOWARD COUNTY, MARYLAND.
17. ALL INTERIOR ROADS AND PARKING AREAS ARE PRIVATELY OWNED AND MAINTAINED BY THE COURTYARDS AT WAVERLY WOODS - WEST CONDOMINIUMS.
18. PUBLIC WATER AND SEWERAGE WILL BE USED WITHIN THE PROJECT, CONTRACT NO. 24-330-D.
19. FOREST STAND DELINEATION PREPARED BY ENVIRONMENTAL SYSTEM ANALYSIS, INC. AND APPROVED ON NOVEMBER 30, 1993 UNDER 5-94-07.
20. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
  - B) SURFACE - SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
  - C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 FOOT TURNING RADIUS
  - D) STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (MSL LOADING)
  - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER STRUCTURAL CLEARANCES - MINIMUM 12 FEET
  - F) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
21. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEOETIC CONTROL, WHICH IS BASED UPON MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY CONTROL STATIONS 1012 AND 1661 WERE USED FOR THIS PROJECT. HOWARD COUNTY MONUMENT 1012 N 6010601.777 ELEV. = 445.577 E 1345336.7580
22. HOWARD COUNTY MONUMENT 1661 N 593250.9222 E 134092.710 ELEV. = 509.924
23. ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS.
24. STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH HOWARD COUNTY AND MARYLAND 378 SPECIFICATIONS. FOR PHASE I, WATER QUALITY WILL BE PROVIDED BY A MICRO-POL FACILITY. STORMWATER MANAGEMENT FUND IS PRIVATELY OWNED BY THE HOA AND JOINTLY MAINTAINED BY THE HOA AND HOWARD COUNTY, MARYLAND. NOTE THE STORMWATER MANAGEMENT STUDY FOR GTW'S WAVERLY WOODS, SECTION 12, BULK PARCEL A, HAS BEEN COMPARED TO THE HYDROLOGY BASELINE STUDY PREPARED BY MILDENBERG ASSOCIATES, INC., OCTOBER, 1994, FOR CONSISTENCY WITH THE ORIGINAL ASSUMPTIONS.
25. THE TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP AND APPROVED ON NOVEMBER 30, 2008, AS PART OF 5-94-07 AND AMENDED UNDER 5-06-03 AND APPROVED ON JANUARY 17, 2009.
26. SOILS INFORMATION TAKEN FROM SOIL MAP NO. 17, SOIL SURVEY, HOWARD COUNTY, MARYLAND, JULY, 1968 ISSUE, THE SOILS INVESTIGATION REPORT WAS PREPARED BY E.L.E. INC. ON JUNE 28, 1994.
27. STREET LIGHTS WILL BE PROVIDED IN ACCORDANCE WITH THE DESIGN MANUAL, STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1998) AND GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (LUMI 1990). THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN AND STREET LIGHT AND ANY TREE.
28. PERMITS APPLICABLE FOR THIS SUBDIVISION ARE AS FOLLOWS: WETLAND PERMIT AUTHORIZATION NO. CENAB-0P-RP GTW PROPERTY 91-0921-5, MDE WATER QUALITY CERTIFICATION NO. 91-WQ-0480 AND MDE WATER MANAGEMENT ADMINISTRATION LETTER OF RECEIPT TRACKING NO. 19909021 AND 19980909 (91-WQ-0602).
29. ALL HANDICAP SPACES SHALL MEET CURRENT ADA REQUIREMENTS.
30. WP 95-23 WAS APPROVED ON 1/23/99 FOR DISTURBANCE TO WETLANDS, FLOODPLAIN, OR THEIR BUFFERS IN CERTAIN AREAS THROUGHOUT THE WAVERLY WOODS PROJECT. THE AREAS APPROVED UNDER THIS PLAN WERE ASSOCIATED WITH THAT AREA OF THE PROJECT EAST OF HARRIOTTVILLE. THE PROPOSED BARNESLEY WAY ROAD ACCESS SHOWN ON THE SKETCH PLAN HAS BEEN DETERMINED A NECESSARY DISTURBANCE FOR THE PURPOSE OF A PUBLIC ROAD ACCESS INTO THE SITE. PER SECTION 18(B)(1) ALL APPLICABLE MAPS AND COPIES OF ENGINEERS PERMITS ARE BEING PROCESSED FOR THE PROPOSED ROAD CROSSING, WHICH WILL BE VIA A BRIDGE CROSSING AT THE DIRECTION OF MDE AND THE CORPS OF ENGINEERS. DETAILED DESIGN PLANS WILL BE PREPARED WITH THE FINAL PLANS.
31. TOTAL FOREST CONSERVATION COLLECTION FOR GTW'S WAVERLY WOODS, SECTION 14, PARCEL 'A'
  - A. AFTER THE RECORDING OF PRIOR GTW'S WAVERLY WOODS RECORD PLATS INCLUDING F-08-159, SECTION 14, JOINT VENTURE, THE REMAINING FOREST OBLIGATION IS 7.46 ACRES. RETENTION (95% ACRES = 78.24 ACRES) AND 15.11 ACRES REFORESTATION (08.8 ACRES = 53.69 ACRES) TO BE PROVIDED ON GTW'S WAVERLY WOODS, SECTION 14.
  - B. SEE ATTACHED MASTER OVERALL FOREST CONSERVATION, GTW'S WAVERLY WOODS' TABULATION SHOWN ON SHEET 4.
  - C. PHASE ONE FOREST CONSERVATION OBLIGATION
    1. PROPOSED NUMBER OF UNITS IN PHASE ONE = 10 UNITS
    2. TOTAL NUMBER OF UNITS IN SECTION 14 = 350 UNITS
    3. FOREST RETENTION REQUIRED = 0.499 ACRES (10 UNITS/350 UNITS X 17.46 ACRES)
    4. FOREST RETENTION PROVIDED = 0.499 ACRES
    5. FOREST REFORESTATION REQUIRED = 0.432 ACRES (10 UNITS/350 UNITS X 15.11 ACRES)
    6. FOREST REFORESTATION PROVIDED = 0.432 ACRES
32. THE PREVIOUS WETLANDS REPORT PREPARED BY ENVIRONMENTAL SYSTEMS ANALYSIS, INC. AND APPROVED WITH 5-94-07 ON NOVEMBER 30, 1993 HAS BEEN RECEIPTED UNDER THIS PLAN BY ECO-SCIENCE PROFESSIONALS, INC. DATED APRIL 2006 AND APPROVED WITH 5-06-03 ON JANUARY 17, 2009.
33. THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY HANS GROUP DATED MARCH 2008 AND WAS APPROVED UNDER THE 5-06-03 PLAN DATED JANUARY 17, 2009. A REVISED NOISE STUDY WAS PREPARED BY HANS GROUP DATED MAY 2009 AND APPROVED UNDER P-08-010 ON THE 65 DBA NOISE CONTOUR LINE DRAWN ON THIS PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 DBA NOISE EXPOSURE. THE 65 DBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
34. THE HOWARD COUNTY LANDFILL IS LOCATED IMMEDIATELY WEST OF THIS PROJECT.
35. THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
36. NO HISTORIC STRUCTURES OR CEPTERIES EXIST ON THE SUBJECT PROPERTY.
37. SOIL TYPES TAKEN FROM HOWARD COUNTY SOIL SURVEY DATED JULY 1968, PAGES 8 & 9 AND WERE THE BASIS FOR THE 5M HYDROLOGY.
38. THE PLANNING BOARD APPROVED, ON NOVEMBER 1, 2007, PB CASE NO. 301, GTW'S WAVERLY WOODS, SECTION 14, BULK PARCEL 'A', "THE COURTYARDS AT WAVERLY WOODS - WEST" A COMPREHENSIVE SKETCH PLAN (5-06-13) AND DEVELOPMENT CRITERIA FOR THE DEVELOPMENT OF 350 AGE-RESTRICTED ADULT HOUSING UNITS (39 SINGLE FAMILY ATTACHED UNITS AND 211 SINGLE FAMILY DETACHED UNITS) ON 149.40 ACRES OF LAND ZONED PLANNED SENIOR COMMUNITY.
39. DECS ON THE UNITS ARE ALLOWED TO EXTEND TO 10 FEET INTO THE PROJECT BOUNDARY SETBACK.
40. TOTAL NUMBER OF "MODERATELY INCOME HOUSING UNITS" (MIHU) REQUIRED FOR THIS SITE PER THE "PSC" ZONING DISTRICT IS 10% OF THE TOTAL NUMBER OF UNITS CALCULATED AS FOLLOWS:
  - A. TOTAL NUMBER OF UNITS = 1064 UNITS X 10% = 106 UNITS
  - B. TOTAL NUMBER OF "MIHU" PROVIDED = 35 UNITS PER ZB CASE NO. 1027M AND PB CASE NO. 301 (THE REQUIRED MIHU UNITS ARE PROVIDED IN "WAVERLY GARDENS" (HARRIOTTVILLE ROAD) IN THE 102 UNIT BUILDING).
  - C. IN ACCORDANCE WITH ZONING SECTIONS 127.1A.B & 1.6, THE REQUIRED MINIMUM SQ.FT. FLOOR AREA OF THE COMMUNITY BUILDING SHALL BE COMPUTED AS FOLLOWS:
    - a. 20 sq-ft. OF FLOOR AREA PER UNIT FOR THE FIRST 99 UNITS = 1,980 sq-ft.
    - b. 10 sq-ft. OF FLOOR AREA PER UNIT FOR EACH ADDITIONAL UNIT ABOVE 99 = 2,510 sq-ft.
    - c. TOTAL sq-ft. FLOOR AREA REQUIRED FOR THE COMMUNITY BUILDING = 4,490 sq-ft.
41. THE COMMUNITY BUILDING WILL BE CONSTRUCTED UNDER THE SITE DEVELOPMENT PLAN WITH PHASE III OF SECTION 14.
42. THE ORIGINAL OR BASE MODEL FLOODPLAIN STUDY FOR GTW'S WAVERLY WOODS WAS PREPARED BY HILDBERG, BONDRE & ASSOC., DATED 01/19/01 AND APPROVED UNDER 5-94-07 IN OCTOBER, 1991.
43. A REVISED FLOODPLAIN STUDY WAS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED NOVEMBER, 2008 AND APPROVED UNDER F-07-032.
44. A REVISED FLOODPLAIN STUDY WAS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED APRIL 17, 2008 THAT MODELS THE PROPOSED CULVERTS FOR THE BARNESLEY WAY STREAM CROSSING. THIS FLOODPLAIN STUDY WAS APPROVED FOR P-08-010 ON 11/23/08.

**TITLE SHEET**

**GTW'S WAVERLY WOODS**  
**SECTION 14**  
**BULK PARCEL 'A'**  
**PHASE I - UNITS 2 THRU 7 & 36 THRU 39**  
**"THE COURTYARDS AT WAVERLY WOODS - WEST"**  
TOWNHOUSE & SINGLE FAMILY HOME CONDOMINIUMS  
"AGE-RESTRICTED ADULT HOUSING COMMUNITY"

TAX MAP No. 16 PARCEL No. 120, P/O 221 & P/O 249 GRID No. 3 & 4  
THIRD ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN  
DATE: NOVEMBER 10, 2008  
SHEET 1 OF 8



**STREET TREE SCHEDULE**

QUANTITY	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
672.72 x 2 = 1345.44 1345.44 / 40 = 33.636 34 TREES	ACER RUBRUM "OCTOBER GLORY" RED MAPLE	2 1/2"-3" CAL.	40' APART ALONG BARNSELY WAY
1133.05 x 2 = 2266.10 2266.10 / 40 = 56.65 57 TREES	ACER RUBRUM "ARMSTRONG" ARMSTRONG COLUMNAR RED MAPLE	2 1/2"-3" CAL.	40' APART ALONG ROAD 'A'

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Paul A. Leget*  
PLANNING DIRECTOR  
12/1/08  
DATE

**SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF TYPE 'B' PERIMETER	DI: 64'
CREDIT FOR EXISTING VEGETATION (NO. YES AND %)	YES (160')
CREDIT FOR OTHER LANDSCAPING (NO. YES AND %)	NO
NUMBER OF TREES REQUIRED: SHADE TREES EVERGREEN TREES	481 LF. 10 12

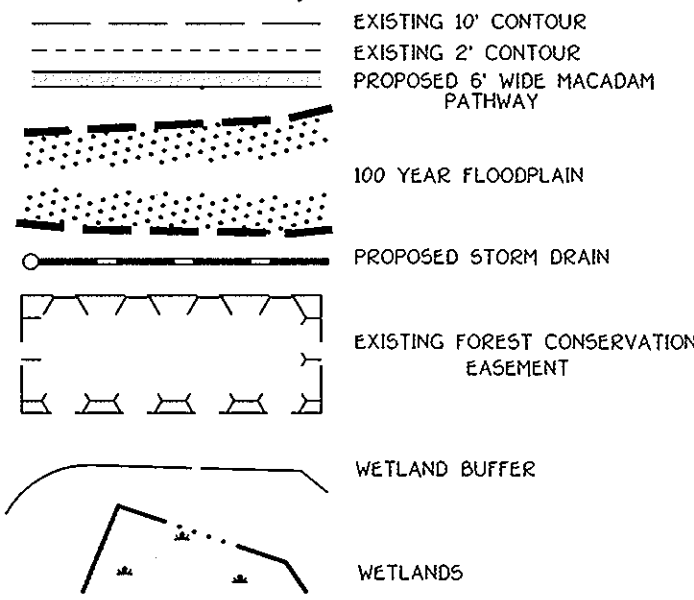
**SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING**

NUMBER OF DWELLING UNITS	10
NUMBER OF TREES REQUIRED: (10U: 5FA) (1:3 DU APTS)	10

**SCHEDULE B - RESIDENTIAL PARKING LOT INTERNAL LANDSCAPING**

NUMBER OF PARKING SPACES	24
NUMBER OF TREES REQUIRED (10:1)	2

**LEGEND**



**TRAFFIC CONTROL SIGNS**

ROAD NAME	CENTERLINE STA.	OFFSET	POSTED SIGN	SIGN CODE
ROAD 'A'	0+25	17'	STOP	21-1
ROAD 'A'	1+50	15' R	SPEED LIMIT 25	22-1

**CENTERLINE CURVE DATA**

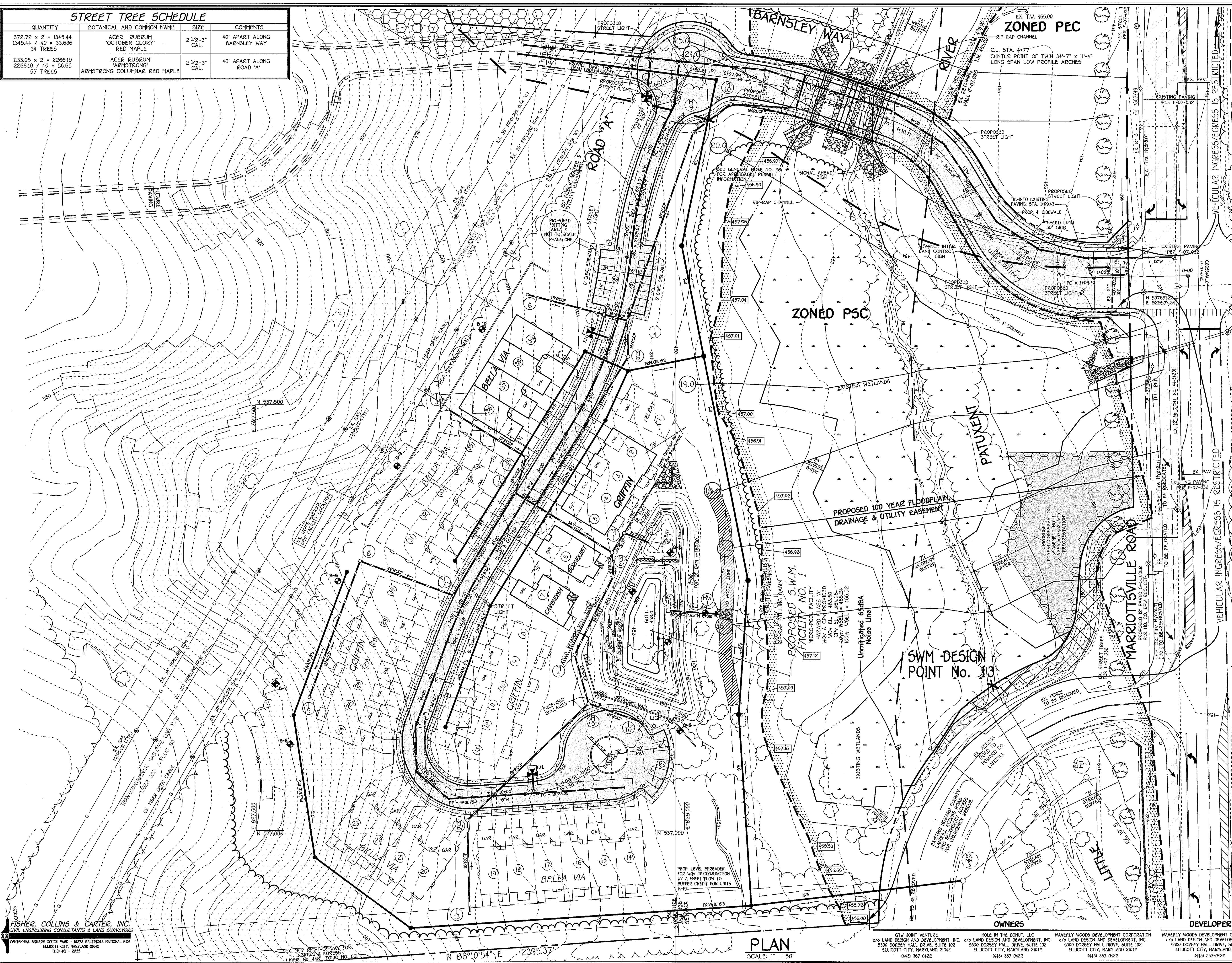
ROAD NAME	STA. TO STA.	RADIUS	LENGTH	DELTA
BARNSELY WAY	1+09.43 - 2+69.69	150.00'	160.26'	61°12'50"
BARNSELY WAY	3+20.34 - 4+30.71	150.00'	110.37'	42°09'24"
BARNSELY WAY	5+07.99 - 6+07.99	550.00'	100.00'	10°25'02"
ROAD A	0+66.48 - 2+28.67	500.00'	162.19'	17°04'41"
ROAD A	2+28.67 - 4+50.02	500.00'	221.35'	25°19'25"
ROAD A	6+30.97 - 7+30.97	500.00'	100.00'	11°27'33"
ROAD A	8+32.42 - 9+61.75	65.00'	129.33'	114°07'06"
ROAD A	10+23.05 - 11+31.06	150.00'	108.01'	41°15'22"

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

PERIMETER	P-1	P-2
CATEGORY	ADJACENT TO ROAD	ADJACENT TO NON-RES.
LANDSCAPE TYPE	C	C
LINEAR FEET OR ROADWAY FRONTAGE/PERIMETER	811'	946'
CREDIT FOR EXISTING VEGETATION (YES, NO LINEAR FEET)	100%	100%
(DESCRIBE BELOW IF NEEDED)		
CREDIT FOR WALL, FENCE OR BERM (YES, NO LINEAR FEET)	NO	NO
(DESCRIBE BELOW IF NEEDED)		
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0	0
EVERGREEN TREES	0	0
SHRUBS (17')	0	0

*Paul A. Leget*  
ALSO REGISTERED PROFESSIONAL ENGINEER  
11/10/08  
DATE  
"Professional Engineer" hereby certifies that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20749, Expiration Date 2-22-09."

**PRELIMINARY & LANDSCAPE PLAN**  
**GTW'S WAVERLY WOODS**  
SECTION 14  
BULK PARCEL 'A'  
PHASE I - UNITS 2 THRU 7 & 36 THRU 39  
"THE COURTYARDS AT WAVERLY WOODS - WEST"  
TOWNHOUSE & SINGLE FAMILY HOME CONDOMINIUMS  
"AGE-RESTRICTED ADULT HOUSING COMMUNITY"  
SHEET 2 OF 9  
SCALE: AS SHOWN  
DATE: NOVEMBER 10, 2008  
SHEET 2 OF 9



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10725 BALTIMORE NATIONAL Pk.  
ELLICOTT CITY, MARYLAND 21042  
410-481-2955

**PLAN**  
SCALE: 1" = 50'

**OWNERS**  
GTW JOINT VENTURE  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSEY HALL DRIVE, SUITE 102  
ELLICOTT CITY, MARYLAND 21042  
(410) 367-0422

**DEVELOPER**  
WAVERLY WOODS DEVELOPMENT CORPORATION  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSEY HALL DRIVE, SUITE 102  
ELLICOTT CITY, MARYLAND 21042  
(410) 367-0422



*Mark A. Lytle* 11/10/09  
PLANNING DIRECTOR THE DATE

**SUMMARY TABLE #1**

The following is a summary of the peak discharges taken from the TR-20 output for each of the drainage areas and study points.

Drainage Point	One-Year Storm (cfs)	Ten-Year Storm (cfs)
13 @ Landfill Culvert	25.3	355.9
14	25.3	352.9
17	2.2	42.7

Drainage Area	One-Year Storm (cfs)	Ten-Year Storm (cfs)
13-A to BMP #1 @ D.P.#13	In: 15.7 Out: 0.5 @ 463.51	In: 58.0 Out: 49.3 @ 466.42
14-A to BMP #3 @ D.P.#14	In: 43.7 Out: 1.4 @ 467.83	In: 172.8 Out: 90.7 @ 469.39
Area 13-B	9.5	41.1
Area 14-B	12.4	67.8
17-A to BMP #2 @ D.P.#17	In: 22.4 Out: 0.6 @ 514.18	In: 87.0 Out: 50.4 @ 515.18
Area 17-B	1.6	18.3
Total @ D.P.#13	25.3	375.9
Total @ D.P.#14	24.0	381.7

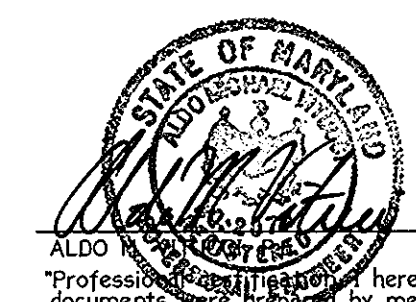
**SUMMARY TABLE #2**

The following is a summary of the Recharge, WQ, and CP Requirements:

Recharge Vol. for Entire Site	13.31 acres or 1,109 acre-feet	1,109 acre-feet via % Volume Method
WQ <sub>10</sub>		
14-A	1,404 acre-feet	1,504 ac. Ft. @ BMP Facility #3
13-A	0,4583 acre-feet	0,4583 ac. Ft. @ BMP Facility #1
13-B	0,1105 acre-feet	Via Credits & Non-Development
14-B	0,1011 acre-feet	Via Credits & Non-Development
17-A	0,9655 acre-feet	0,9655 ac. Ft. @ BMP Facility #2
17-B	0,0247 acre-feet	Via Credits & Non-Development
C-3M	0,0226 acre-feet	Via Credits & Non-Development
CP <sub>10</sub>		
14-A	3,1513 acre-feet	3,1513 ac. Ft. @ BMP Facility #3
13-B	0,6376 acre-feet	0,6376 ac. Ft. @ BMP Facility #1
17-A	1,3748 acre-feet	1,3748 ac. Ft. @ BMP Facility #2

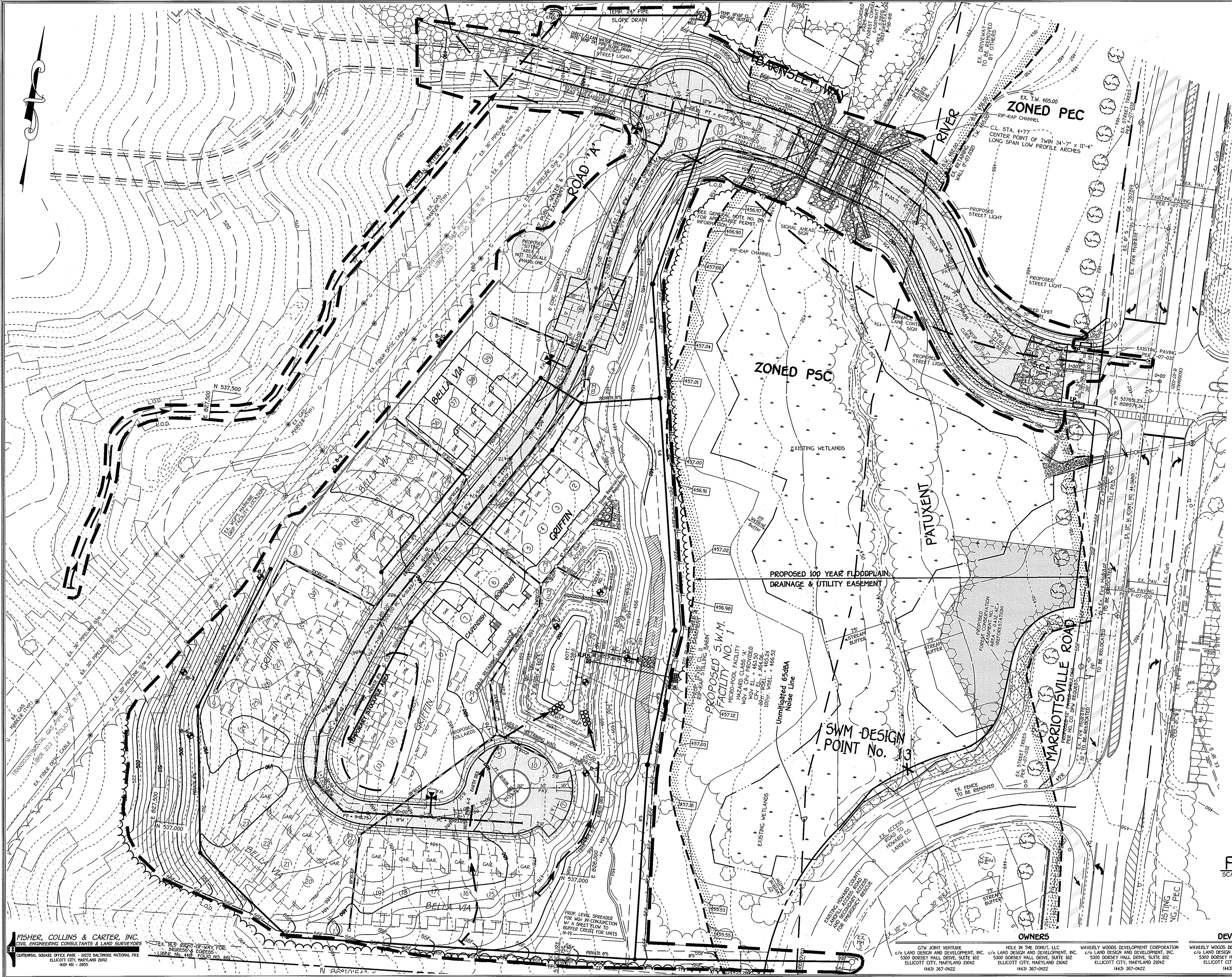
**LEGEND**

- SGF—SGF—SGF— SUPER-SILT FENCE
- SF—SF—SF— SILT FENCE
- TP—TP—TP— TREE PROTECTION FENCE
- SC.E. STABILIZED CONSTRUCTION ENTRANCE
- A-2 → EARTH DIKE
- — — — — LIMIT OF DISTURBANCE
- G.I.P. GABION INFLOW PROTECTION



**PLAN**  
SCALE: 1" = 50'

**SCHEMATIC GRADING & SEDIMENT CONTROL PLAN**  
**GTW'S WAVERLY WOODS SECTION 14**  
**BULK PARCEL 'A'**  
PHASE I - UNITS 2 THRU 7 & 36 THRU 39  
"THE COURTYARDS AT WAVERLY WOODS - WEST"  
TOWNHOUSE & SINGLE FAMILY HOME CONDOMINIUMS  
"AGE-RESTRICTED ADULT HOUSING COMMUNITY"  
ZONED: P5C  
TAX MAP No: 16 PARCEL No: 120, P/O 221 & P/O 249 GRID No: 3 & 4  
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: NOVEMBER 10, 2009  
SCALE: AS SHOWN SHEET 3 OF 8



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
1000 WASHINGTON SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
410.481.2955

**OWNERS**  
GTW JOINT VENTURE  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSET HALL DRIVE, SUITE 102  
ELICOTT CITY, MARYLAND 21042  
(410) 367-0422

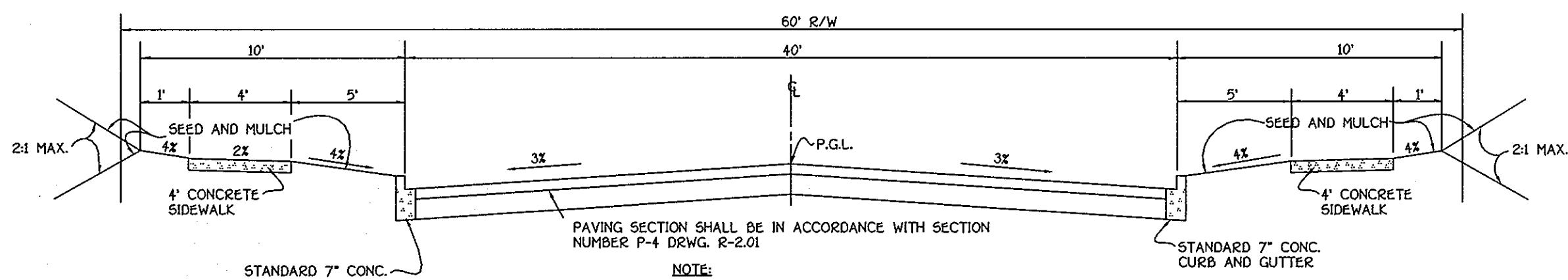
**DEVELOPER**  
WAVERLY WOODS DEVELOPMENT CORPORATION  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSET HALL DRIVE, SUITE 102  
ELICOTT CITY, MARYLAND 21042  
(410) 367-0422







*Paul A. Wynn*  
PLANNING DIRECTOR  
12/1/08  
DATE

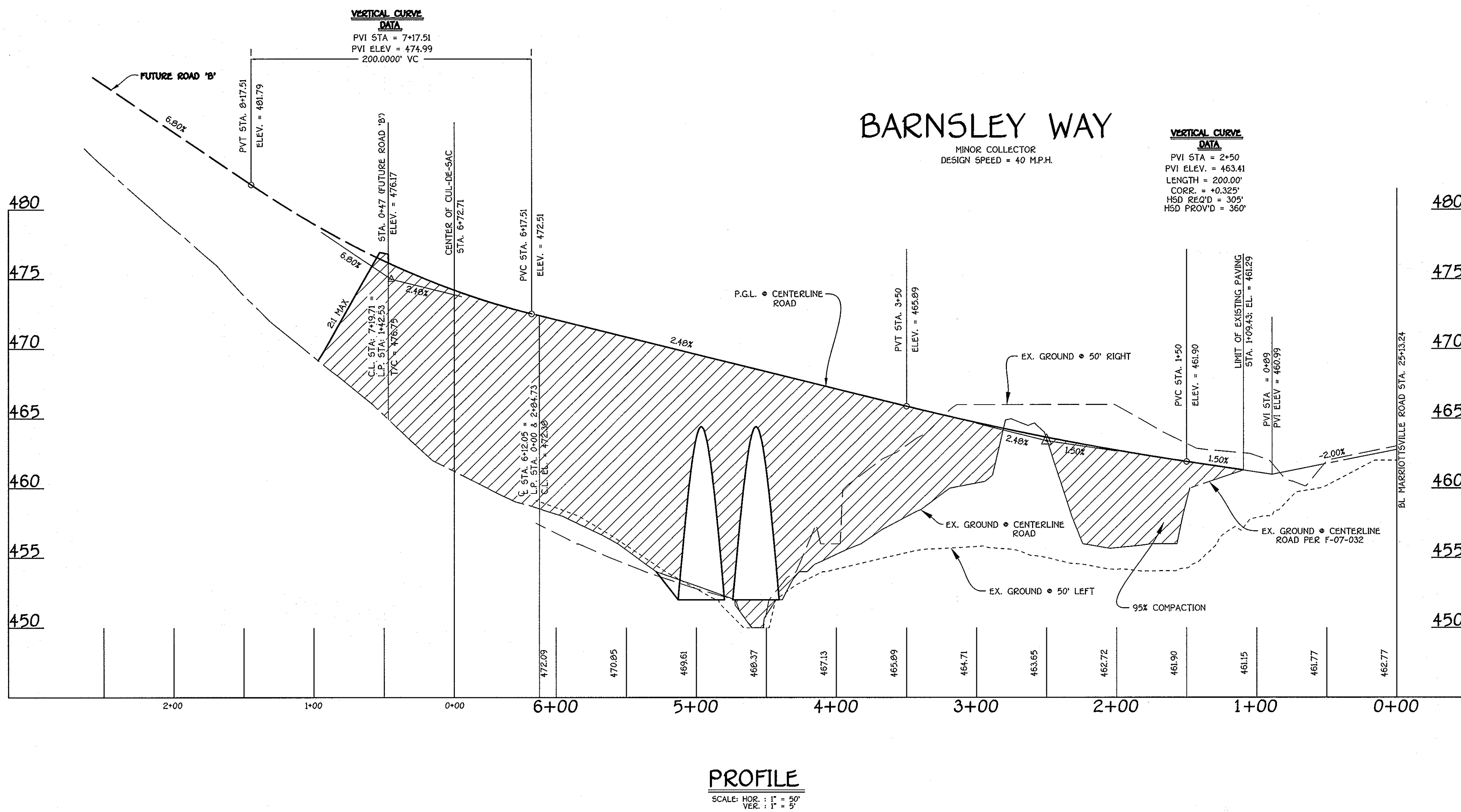


TYPICAL ROADWAY SECTION (BARNESLEY WAY)

NO SCALE

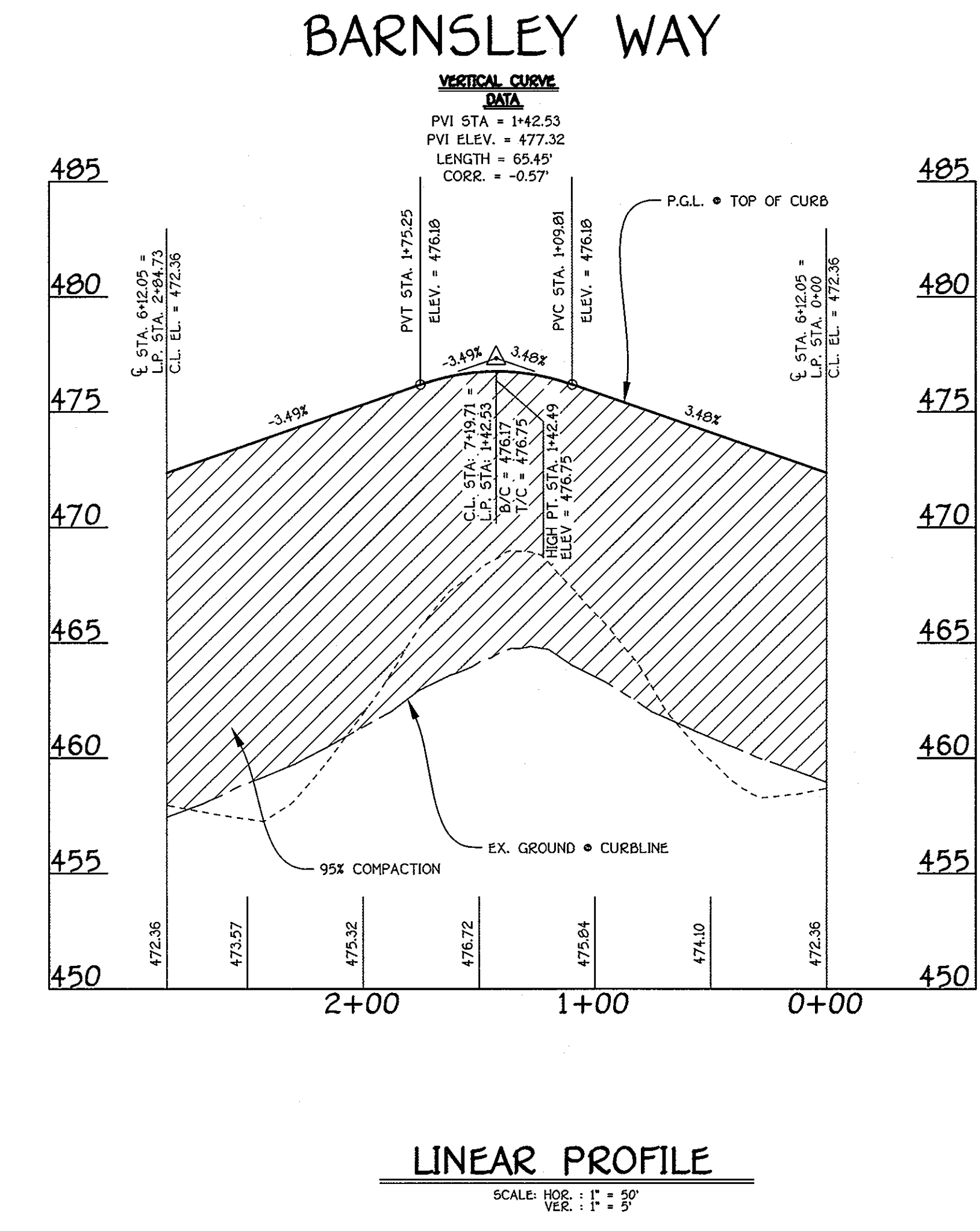
ROADWAY INFORMATION CHART

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
BARNESLEY WAY	MINOR COLLECTOR	40 M.P.H.	PSC	0+00 TO 6+72.71	P-4



PROFILE

SCALE: HOR. : 1" = 50'  
VER. : 1" = 5'



LINEAR PROFILE

SCALE: HOR. : 1" = 50'  
VER. : 1" = 5'

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21042  
4100 461 - 2055

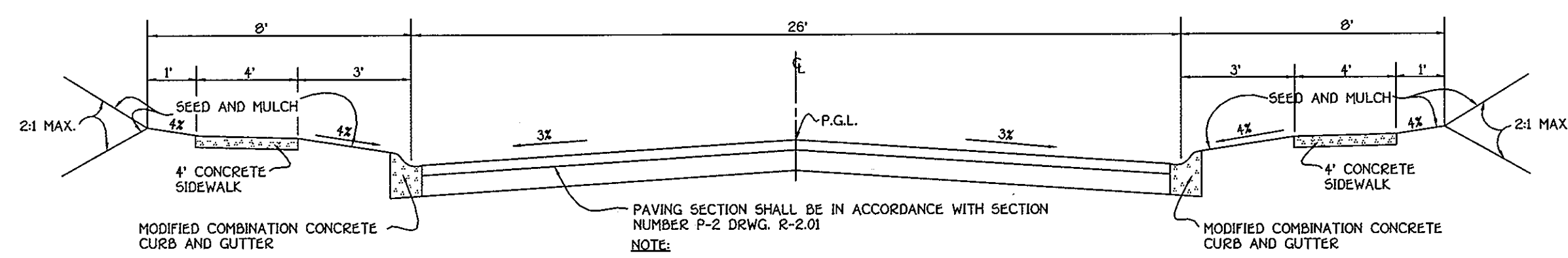
STATE OF MARYLAND  
Professional Engineer Seal  
I hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-09.  
ALDO T. [Signature]  
DATE: 11/2/08

OWNERS  
GTW JOINT VENTURE  
HOLE IN THE DONUT, LLC  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSEY HALL DRIVE, SUITE 102  
ELLICOTT CITY, MARYLAND 21042  
(410) 367-0422

DEVELOPER  
WAVERLY WOODS DEVELOPMENT CORPORATION  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSEY HALL DRIVE, SUITE 102  
ELLICOTT CITY, MARYLAND 21042  
(410) 367-0422

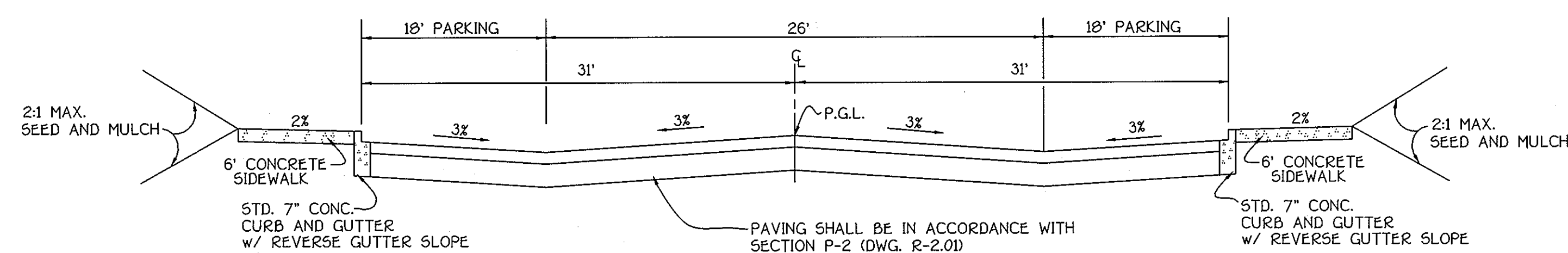
PRELIMINARY ROAD PROFILES  
GTW'S WAVERLY WOODS  
SECTION 14  
BULK PARCEL 'A'  
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"THE COURTYARDS AT WAVERLY WOODS - WEST"  
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"AGE-RESTRICTED ADULT HOUSING COMMUNITY"  
ZONED PSC  
TAX MAP No: 16 PARCEL No: 120, P/O 221 & P/O 249 GRID NO: 3 & 4  
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: NOVEMBER 10, 2008  
SHEET 5 OF 8

*Mark A. Lynch*  
PLANNING DIRECTOR  
12/1/08  
DATE



TYPICAL ROADWAY SECTION (ROAD 'A')

NO SCALE

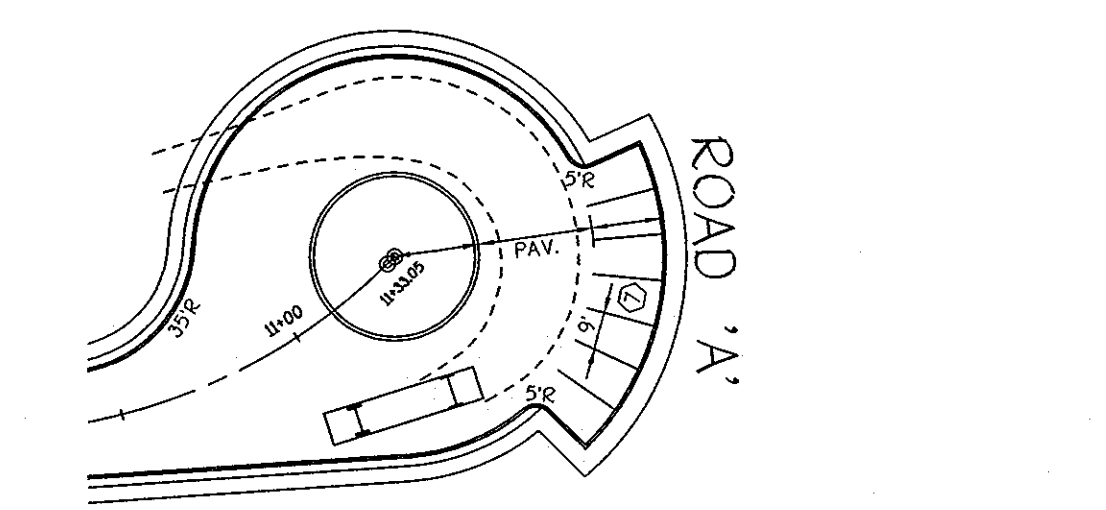
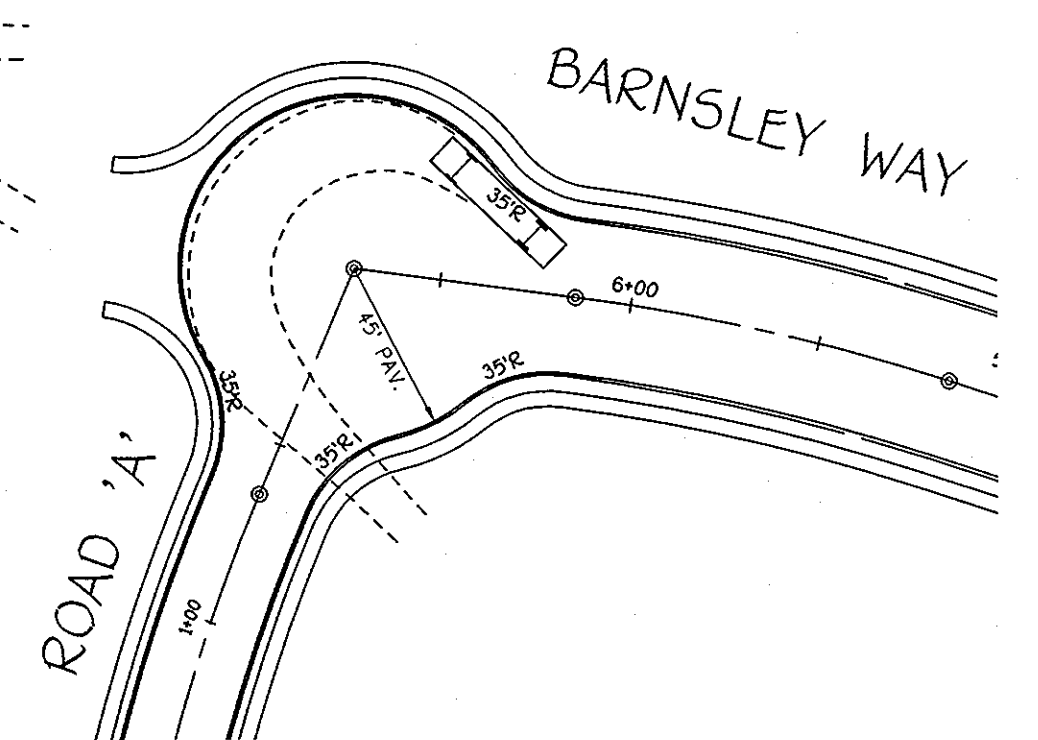
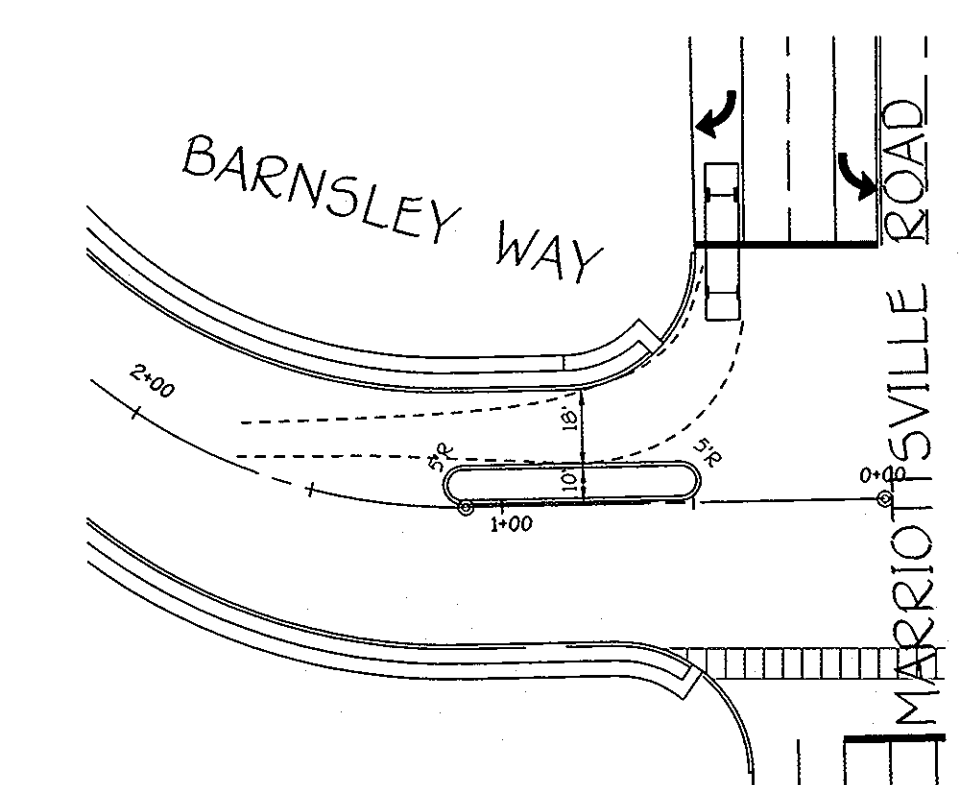


TYPICAL ROADWAY SECTION WITH OFF STREET PARKING (ROAD 'A')

NO SCALE

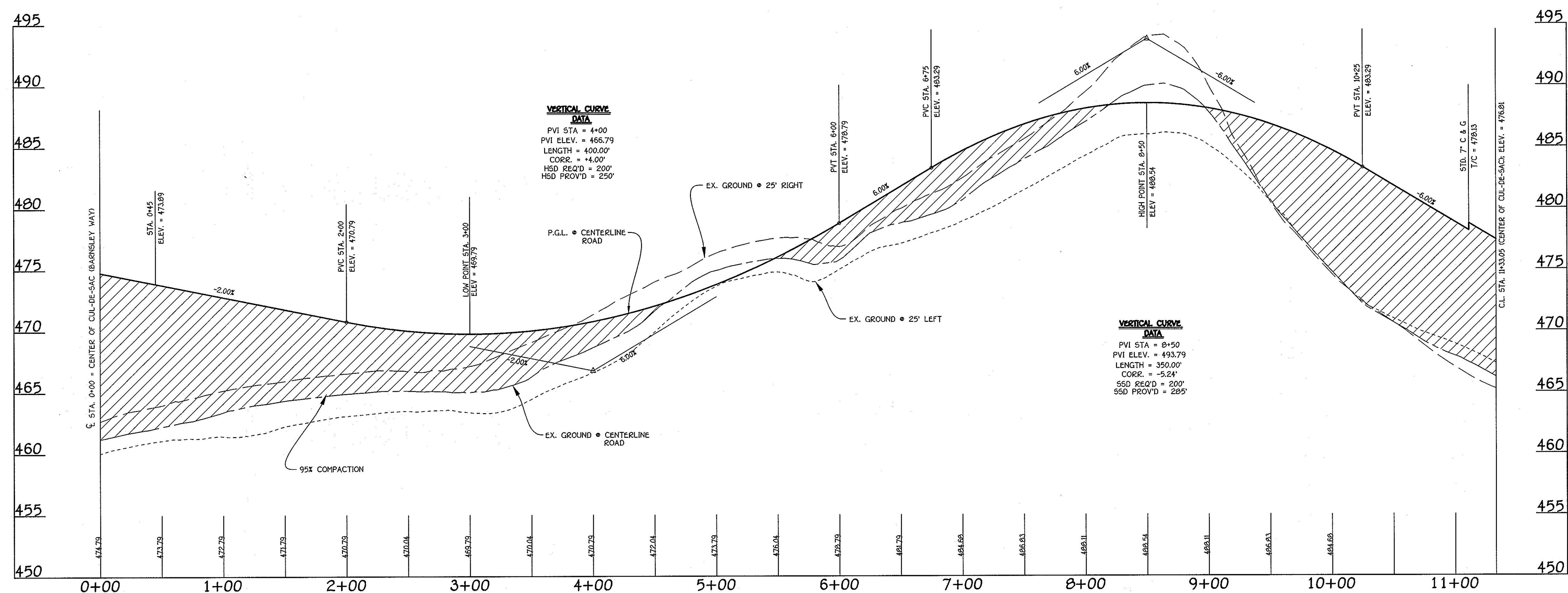
ROADWAY INFORMATION CHART					
ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
ROAD 'A'	PRIVATE ACCESS STREET	30 MPH	PSC	0+00 TO 2+07	P-2
ROAD 'A'	PRIVATE ACCESS STREET	30 MPH	PSC	2+94 TO 11+33.05	P-2

ROADWAY INFORMATION CHART					
ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
ROAD 'A'	PRIVATE ACCESS STREET	30 MPH	PSC	2+07 TO 2+94	P-2



TURNING MOVEMENT DETAILS  
SCALE: 1" = 50'

**ROAD 'A'**  
PRIVATE ACCESS STREET  
DESIGN SPEED = 30 M.P.H.



PROFILE  
SCALE: HOR. 1" = 50'  
VER. 1" = 5'

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21042  
4100 461 - 2000



ALDO  
DATE 11-10-08  
"I, ALDO, hereby certify that these documents were prepared by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-09."

**OWNERS**  
GTW JOINT VENTURE  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
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WAVERLY WOODS DEVELOPMENT CORPORATION  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSEY HALL DRIVE, SUITE 102  
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**DEVELOPER**  
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TOWNHOUSE & SINGLE FAMILY HOME CONDOMINIUMS  
"AGE-RESTRICTED ADULT HOUSING COMMUNITY"  
ZONED: PSC  
TAX MAP No: 16 PARCEL No: 120, P/O 221 & P/O 249 GRID No: 3 & 4  
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: NOVEMBER 10, 2008  
SHEET 6 OF 8



MATCH LINE SEE SHEET 0



OPEN SPACE LOT 1  
31775 SQ. FT.  
TO BE DEDICATED  
TO HOWARD COUNTY

PROPOSED  
FOREST CONSERVATION  
EASEMENT NO.  
AREA = 0.432 AC.±  
(REFORESTATION)

**Residential And Golf Use  
FOREST CONSERVATION WORKSHEET  
VERSION 1.0**

**Commercial And Golf Use  
FOREST CONSERVATION WORKSHEET  
VERSION 1.0**

BASIC SITE DATA:	
GROSS SITE AREA	497.2
AREA WITHIN 100 YEAR FLOODPLAIN	19.0
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	19.0
AREA WITHIN OVERHEAD TRANSMISSION LINES	19.0
NET TRACT AREA INTA: LAND USE CATEGORY: Residential And Golf Use	487.2
INFORMATION FOR CALCULATIONS:	
NET TRACT AREA INTA	487.2
FOREST CONSERVATION THRESHOLD	80% X NTA
AFFORESTATION THRESHOLD	73%
EXISTING FOREST COVER:	
EXISTING FOREST ON NTA	193.6
EXISTING FOREST ABOVE CONSERVATION THRESHOLD	56.2
BREAK EVEN POINT (IF APPLICABLE) (95.2x0.2) + 97.4	116.6
FOREST TO BE CLEARED	135.3
FOREST TO BE RETAINED	56.3
REFORESTATION CALCULATIONS	
CLEARING ABOVE THRESHOLD	
CLEARED ABOVE THRESHOLD	XI/4 ACRES
FOREST RETAINED ABOVE THRESHOLD	ACRES
REFORESTATION REQUIRED (a-b)	
CLEARING BELOW THRESHOLD	
a. FOREST CLEARED ABOVE THRESHOLD - 96.2 X 1/4: 24.1 ACRES	
b. FOREST CLEARED BELOW THRESHOLD - 39.1 X 2: 78.2 ACRES	
REFORESTATION REQUIRED (a-b)	102.3

BASIC SITE DATA:	
GROSS SITE AREA	208.2
AREA WITHIN 100 YEAR FLOODPLAIN	37.0
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	37.0
AREA WITHIN OVERHEAD TRANSMISSION LINES	37.0
NET TRACT AREA INTA: LAND USE CATEGORY: Commercial And Golf Use	170.3
INFORMATION FOR CALCULATIONS:	
NET TRACT AREA INTA	170.3
FOREST CONSERVATION THRESHOLD	15% X NTA
AFFORESTATION THRESHOLD	12%
EXISTING FOREST COVER:	
EXISTING FOREST ON NTA	100.0
EXISTING FOREST ABOVE CONSERVATION THRESHOLD	25.3
BREAK EVEN POINT (IF APPLICABLE) (95.4x0.2) + 25.5	42.6
FOREST TO BE CLEARED	73.9
FOREST TO BE RETAINED	37.4
REFORESTATION CALCULATIONS	
CLEARING ABOVE THRESHOLD	
CLEARED ABOVE THRESHOLD 73.5 XI/4: 18.4 ACRES	
FOREST RETAINED ABOVE THRESHOLD: 11.9 ACRES	
REFORESTATION REQUIRED (a-b)	5.5
CLEARING BELOW THRESHOLD	
a. FOREST CLEARED ABOVE THRESHOLD	
b. FOREST CLEARED BELOW THRESHOLD	
REFORESTATION REQUIRED (a-b)	

**NOTE:**  
SEE SHEET 1, GENERAL NOTE 3I, FOR FOREST CONSERVATION OBLIGATION.

**PLAN**  
SCALE: 1" = 100'

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*David L. Goyette*  
PLANNING DIRECTOR

*[Signature]*  
DATE

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 3272 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21114  
410-461-2955

**Eco-Science Professionals, Inc.**  
CONSULTING ECOLOGISTS

MD DNR Qualified Professional  
USACOE Wetland Delineator  
Certification # WDCP93MD06100448  
JOHN P. CANOLES



DATE: 11.10.08

**OWNERS**

GTW JOINT VENTURE  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
5300 DORSEY HALL DRIVE, SUITE 102  
ELLICOTT CITY, MARYLAND 21042  
(443) 367-0422

HOLE IN THE DONUT, LLC  
c/o LAND DESIGN AND DEVELOPMENT, INC.  
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**DEVELOPER**

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**PRELIMINARY FOREST CONSERVATION PLAN  
GTW'S WAVERLY WOODS  
SECTION 14  
BULK PARCEL 'A'  
PHASE I - UNITS 2 THRU 7 & 36 THRU 39  
"THE COURTYARDS AT WAVERLY WOODS - WEST"  
TOWNHOUSE & SINGLE FAMILY HOME CONDOMINIUMS  
"AGE-RESTRICTED ADULT HOUSING COMMUNITY"**

TAX MAP No: 16 PARCEL No: 120, P/O 221 & P/O 249 GRID No: 3 & 4  
THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN DATE: NOVEMBER 10, 2008  
SHEET 7 OF 8

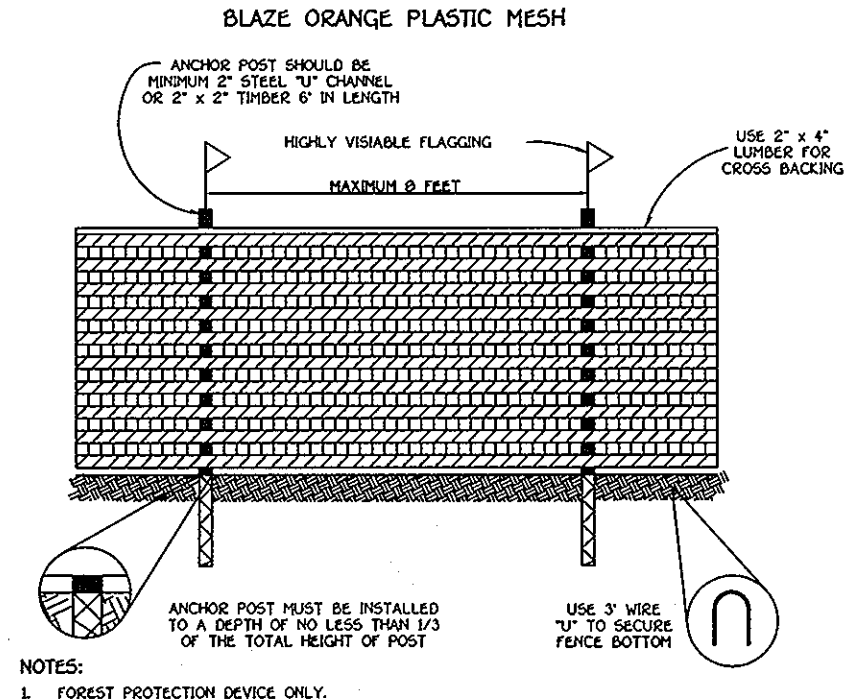


**FCE Planting Area # 1 - 0.432 acres**

Planting required: 1350 WHIPS PER ACRE @ 0.432 x 350 = 151 WHIPS  
 Planting provided: 709 1/2 WHIPS and 10 - 1" trees

Qty	Species	Size	Spacing
6	Acer rubrum - Red maple	1" cal	15' o.c.
12	Quercus alba - White oak	1" cal	15' o.c.
10 Total 1" cal whip trees			
20	Acer rubrum - Red maple	2-3 whip	11' o.c.
20	Cercis canadensis - Red bud	2-3 whip	11' o.c.
20	Cornus florida - Flowering dogwood	2-3 whip	11' o.c.
15	Liriodendron tulipifera - Tulip poplar	2-3 whip	11' o.c.
15	Prunus serotina - Black cherry	2-3 whip	11' o.c.
10	Robinia pseudo-acacia - Black locust	2-3 whip	11' o.c.
10	Quercus alba - White oak	2-3 whip	11' o.c.
10	Viburnum prunifolium - Blackhaw	2-3 whip	11' o.c.
120 Total whip plantings			

1" CAL TREES = 200/ACRE (10 TREES/2000 = 0.09 AC.  
 WHIPS w/shelters = 350/ACRE = (350 x 0.432 AC. (0.432 - 0.09)) = 120 WHIPS



NOTES:  
 1. FOREST PROTECTION DEVICE ONLY.  
 2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.  
 3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.  
 4. ROOT DAMAGE SHOULD BE AVOIDED.  
 5. PROTECTIVE FLAGGING SHOULD BE USED.  
 6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

**TREE PROTECTION DETAIL**  
 NOT TO SCALE

**ON-SITE SIGNAGE**

**FOREST CONSERVATION EASEMENT**

UNAUTHORIZED DISTURBANCE OF VEGETATION IS PROHIBITED VIOLATORS SUBJECT TO PENALTIES UNDER THE HOWARD COUNTY FOREST CONSERVATION ACT OF 1991.

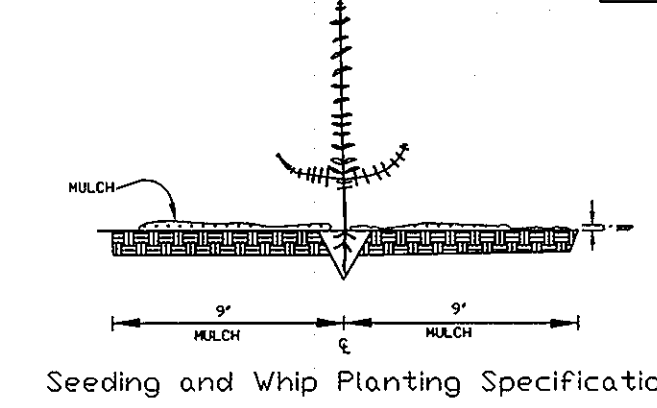
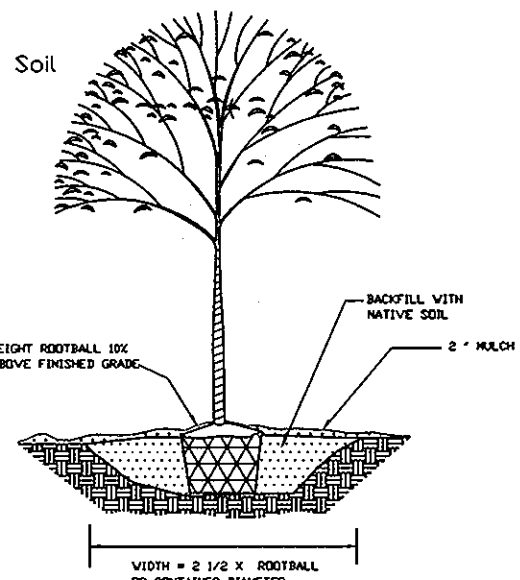
**TREES FOR YOUR FUTURE**

**PFCEP NOTES**

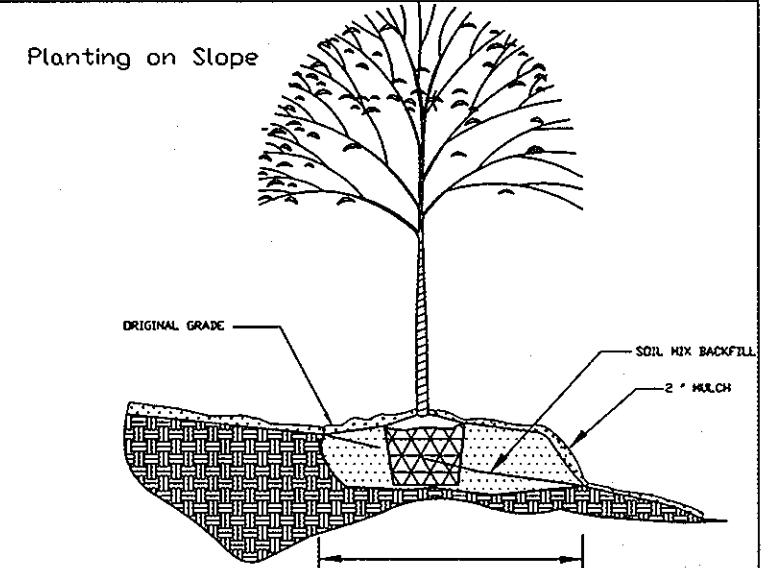
- Any Forest Conservation Easement (FCE) area shown hereon is subject to protective covenants which may be found in the Land Records of Howard County which restrict the disturbance and use of these areas.
- Forested areas occurring outside of the FCE shall not be considered part of the FCE and shall not be subject to protective land covenants.
- Limits of disturbance shall be restricted to areas outside the limit of temporary fencing or the FCE boundary, whichever is greater.
- There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ.
- No stockpiles, parking areas, equipment clearing areas, etc. shall occur within areas designated as Forest Conservation Easements.
- Temporary fencing shall be used to protect forest resources during construction. The fencing shall be placed along all FCE boundaries which occur within 15 feet of the proposed limits of disturbance.
- Permanent signage shall be placed 50-100' apart along the boundaries of all areas included in Forest Conservation Easements.
- The Forest Conservation Act requirements will be met through the onsite retention of 0.499 acres of forest and 0.432 acres of onsite reforestation. Total Forest Conservation Obligation = 0.931 ac. (PHASE ONE)

Note: THE FOREST CONSERVATION EASEMENTS WILL BE ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.030 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

Undisturbed Soil



Seeding and Whip Planting Specification



**SOIL CLASSIFICATION**

Soil Sym.	Name	HYDROLOGIC GROUP
Ba	Belle silt loam	D
BrC2	Beltville silt loam	C
BrC3	Beltville silt loam	C
BrD2	Beltville silt loam	C
BrF	Brownie loam	C
ChA	Chester silt loam	B
ChB2	Chester silt loam	B
ChC2	Chester silt loam	B
ChC3	Chester silt loam	B
ChC4	Chester silt loam	B
Co	Codorus silt loam	C
CuB	Cornus silt loam	B
DaK	Dalanco silt loam	C
DeB2	Dalanco silt loam	C
ElkB2	Elk oak silt loam	B
ElkC3	Elk oak silty clay loam	B
ElkB2	Elkboro loam	B
ElkC2	Elkboro loam	B
GIA	Glenelo loam	B
GIB2	Glenelo loam	B
GIC2	Glenelo loam	B
GIC3	Glenelo loam	B
GID2	Glenelo loam	B
GID3	Glenelo loam	B
GnA	Glenville silt loam	C
GnB2	Glenville silt loam	C
Ha	Hatboro silt loam	D
Kn	Kirkers silt loam	D
MnB2	Minor gravelly loam	B
MnC2	Minor gravelly loam	B
MIA	Minor loam	B
MIB2	Minor loam	B
MIC2	Minor loam	B
MIC3	Minor loam	B
MID2	Minor loam	B
MID3	Minor loam	B
MIE	Minor loam	B

HYDRIC SOILS  
 SOILS SUBJECT TO HYDRIC CONDITIONS  
 SOILS MAP - Pg 8 & Pg 9



MATCH LINE SEE SHEET 7

PLAN  
 SCALE: 1" = 100'

PROPOSED FOREST CONSERVATION EASEMENT NO. 2  
 AREA = 0.499 AC. (RETENTION)

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10722 BALTOUR NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2955

Eco-Science Professionals, Inc.  
 CONSULTING ECOLOGISTS

MD DNR Qualified Professional  
 USACOE Wetland Delineator  
 Certification # WDCP93MD06100448  
 JOHN P. CANOLIS

STATE OF MARYLAND  
 PROFESSIONAL ENGINEERS  
 ILLCOB  
 DATE  
 ILLCOB  
 DATE  
 ILLCOB  
 DATE

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OWNERS  
 GTW JOINT VENTURE  
 c/o LAND DESIGN AND DEVELOPMENT, INC.  
 5300 DORSEY HALL DRIVE, SUITE 102  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 367-0422

DEVELOPER  
 WAVERLY WOODS DEVELOPMENT CORPORATION  
 c/o LAND DESIGN AND DEVELOPMENT, INC.  
 5300 DORSEY HALL DRIVE, SUITE 102  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 367-0422

PRELIMINARY FOREST CONSERVATION PLAN  
**GTW'S WAVERLY WOODS SECTION 14**  
 BULK PARCEL 'A'  
 PHASE I - UNITS 2 THRU 7 & 36 THRU 39  
 "THE COURTYARDS AT WAVERLY WOODS - WEST"  
 TOWNHOUSE & SINGLE FAMILY HOME CONDOMINIUMS  
 "AGE-RESTRICTED ADULT HOUSING COMMUNITY"  
 TAX MAP No: 16 PARCEL No: 120, P/O 221 & P/O 249 GRID No: 3 & 4  
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: NOVEMBER 10, 2008  
 SHEET 8 OF 8

**COORDINATE TABLE**

Point	North	East
231	N 535731.8401	E 825806.5426
232	N 537581.9295	E 825806.5274
240	N 538256.9276	E 825806.5272
243	N 537550.6419	E 825806.5154
208	N 539446.8954	E 827833.5782
2017	N 539687.1174	E 827840.2743
2016	N 539682.7948	E 827858.7213
2015	N 539263.2281	E 827829.7174
303	N 539246.2354	E 828242.4196
201	N 538827.7260	E 828229.8603
2013	N 539741.3015	E 829146.4059
2012	N 539788.8462	E 827858.2250
2011	N 539658.6842	E 827833.5130
2010	N 539523.7043	E 827833.5130
2009	N 538980.2332	E 827823.6639
2008	N 538402.9745	E 827823.6639
2007	N 538486.5053	E 827780.8314
2006	N 538413.4361	E 827780.8314
2005	N 538413.4361	E 827780.8314
2004	N 538237.9735	E 827368.8480
2003	N 538066.8601	E 827368.8480
2002	N 538093.3063	E 827677.8791
303	N 537714.8602	E 828504.1807
302	N 537714.8602	E 828504.1807
317	N 537312.5452	E 828449.2380
349	N 537257.2886	E 828443.4584
350	N 537462.5759	E 828443.4584
353	N 537142.1742	E 828358.6265
354	N 537142.1742	E 828358.6265
355	N 536927.5333	E 828358.6265
356	N 536927.5333	E 828358.6265