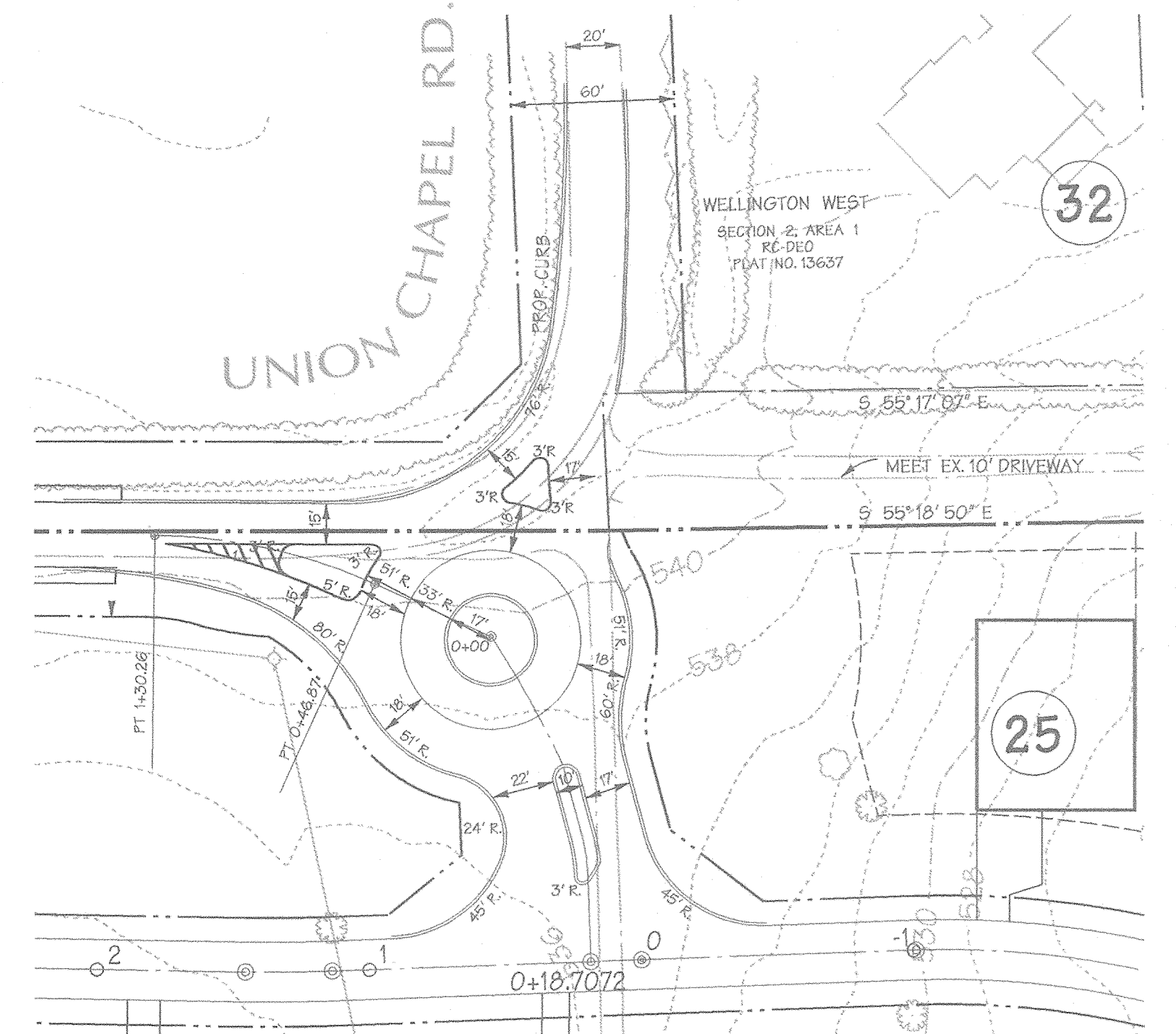
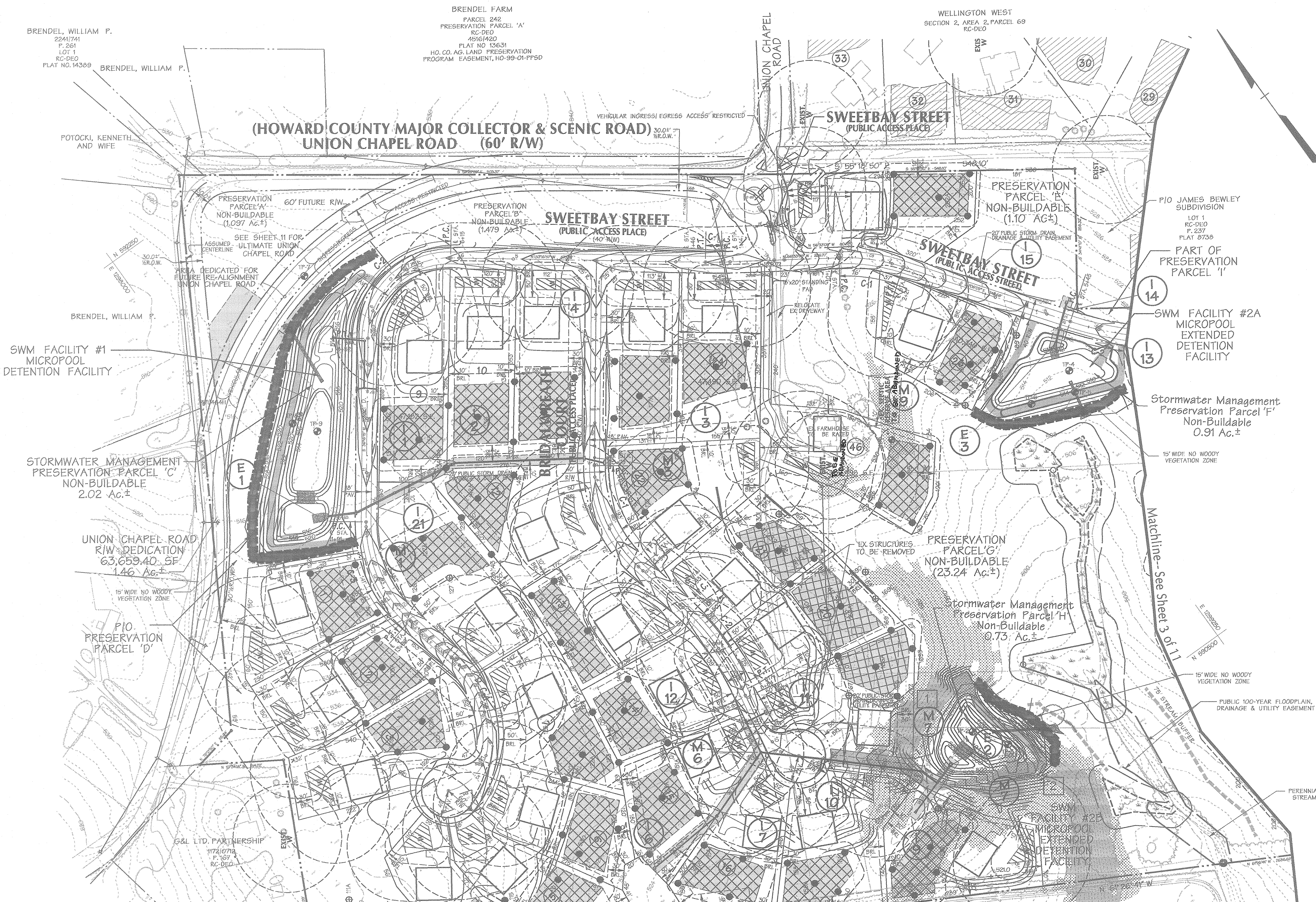


STEEP SLOPES	
SLOPE No.	AREA (SQ. FT.)
1	9,163
2	38,262

CENTERLINE ALIGNMENT CURVE DATA			
BRIDLWREATH COURT			
CURVE NO.	DELTA	RADIUS	LENGTH
C-1	20° 13' 31"	340.00'	120.02'
C-2	29° 16' 11"	600.00'	306.51'

SWEETBAY STREET			
CURVE NO.	DELTA	RADIUS	LENGTH
C-1	03° 02' 43"	600.00'	31.89'
C-2	90° 00' 00"	150.00'	235.61'
C-3	48° 56' 42"	240.00'	205.02'
C-4	52° 21' 36"	200.00'	182.77'
C-5	74° 00' 59"	92.00'	116.84'



TRAFFIC CIRCLE PLAN
Scale: 1"=50'

DATA SOURCES:
Boundary per DMW survey dated - September, 2003.
Topo taken from low level flight and aerial survey prepared by Virginia Resource mapping, March 7, 2002.
Adj. septic approximated from adjacent plats and DMW field visits, July, 2001.
Soils taken from Howard County Soil Survey, 1968.
Surveyed wetland and stream limits shown on approved Jurisdictional Determination Plan (CENAB-OP-RM5) 03-65273-11

Note: SWM Facility shall be owned by the Homeowners Association (H.O.A.). The H.O.A. shall perform mowing/trash removal maintenance. All other maintenance shall be performed by Howard County. The SWM easement is owned by Howard County.

COORDINATE CHART

PT.	NORTHING	EASTING
1	591319.7385	1297718.3666
55	590795.3127	1297456.9161
203	591353.4498	1299540.0056
204	591141.0381	1299393.0005
208	590754.0343	1297906.6953
209	590765.1664	1297609.8940
212	591402.4392	1297588.1993
221	592308.5773	1298192.8190
223	591419.7125	1297672.0795
505	591665.3633	1299089.3132

SOIL LEGEND

SYMBOL	NAME	SLOPE	SEPTIC	EROSION
Ba	Baile Silt Loam		Severe	
ChB2	Chester Silt Loam	3% - 8%	Slight	Moderately eroded
G1A	Glencel Loam	0% - 3%	Slight	
G1B2	Glencel Loam	3% - 8%	Slight	Moderately eroded
G1C2	Glencel Loam	8% - 15%	Moderate	Moderately eroded
GnA	Glennville Silt Loam	0% - 3%	Severe	
GnB2	Glennville Silt Loam	3% - 8%	Severe	Moderately eroded
M1B2	Manor Loam	3% - 8%	Slight	Moderately eroded
M1C2	Manor Loam	8% - 15%	Moderate	Moderately eroded
M1D2	Manor Loam	15% - 25%	Severe	Moderately eroded
MtD2	Mt. Airy Channery Loam	15% - 25%	Severe	Moderately eroded

LEGEND

- Existing Contour
- Existing Stream
- Existing Building
- Existing Woods line
- Existing Septic Area
- Proposed Lot Line
- Proposed Well Area
- Proposed Well
- Proposed Lot Lines
- Proposed Building Restriction Line
- Soil Boring Location
- Proposed Septic Reserve Area
- 15' NON WOODY VEGETATION BUFFER
- 75' Stream Buffer
- 25' Wetland Buffer
- Wetland
- Floodplain Limit
- SLOPES BETWEEN 15% AND 25%
- SLOPES GREATER THAN 25%
- STEEP SLOPE NUMBER
- PROPOSED STORM DRAIN
- BUILDING RESTRICTION LINES
- PROPOSED BUILDING

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR DATE 8/21/06

APPROVED FOR PRIVATE WATER & PRIVATE SEWERAGE SYSTEMS
8/21/06
DATE

8/16/06
Date
Professional Engr. No. 14230

Date	No.	Revision Description

OWNER / DEVELOPER:
OWNER: John C. Bewley, Revocable Trust
Margaret B. Bewley, Revocable Trust
15359 Union Chapel Road
Woodbine, Maryland 21797
DEVELOPER: Grayson Development Co., L.L.C.
c/o Koren Development Co.
815 Center Park Drive
Suite 104
Columbia, Maryland 21046

DMW
DRAFT-McCune-Walker, Inc.
300 East Pennsylvania Avenue
Thousand Oaks, Maryland 21788
(410) 296-3333
Fax 396-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

TITLE:
Bewley Property
Lots 1-46, Non-Buildable Preservation Parcels A-N
PRELIMINARY PLAN & SOILS MAP
Tax Map 14, Grid 20, Parcel 66, Zone RC-DEO
Election District No. 3 Howard County, Maryland

Des. By: MJP	Scale: 1"=100'	Proj. No. D1067C
Dwn. By: M55	Date: 6/21/06	
Chk. By:	Approved:	2 of 11

COORDINATE CHART

PT.	NORTHING	EASTING
201	589469.8104	1300266.4976
202	590409.1564	1300990.7023
205	590899.7477	1299741.6477
206	591153.0925	1299916.9817
207	590312.9961	1300921.5613

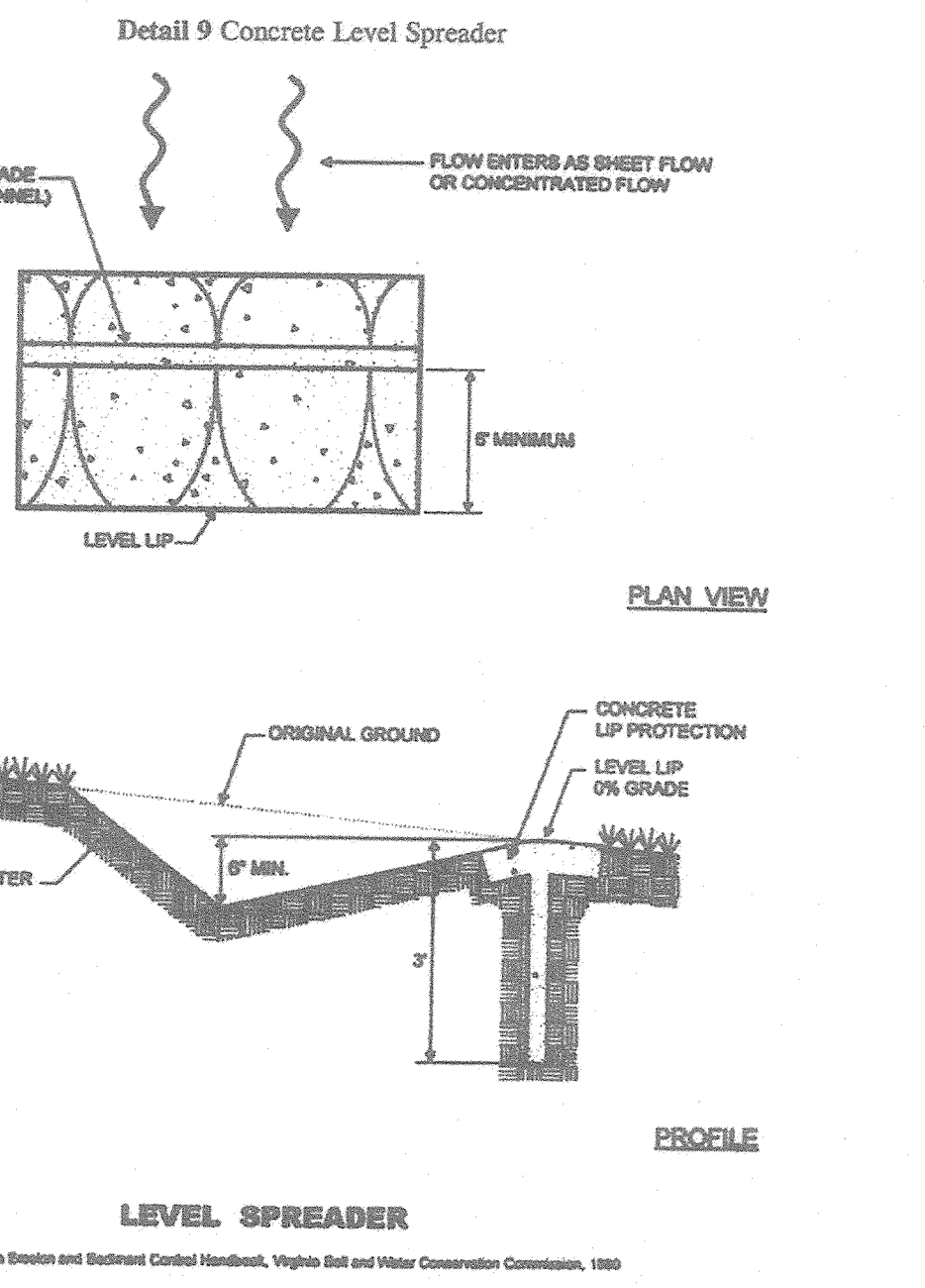
STEEP SLOPES	
SLOPE No.	AREA (SQ. FT.)
3	15,588
4	2,033
5	5,237

CENTERLINE ALIGNMENT CURVE DATA

SWEETBAY STREET			
CURVE NO.	DELTA	RADIUS	LENGTH
C-2	29° 16' 11"	600.00'	306.51'
C-3	16° 30' 24"	100.00'	28.81'
C-4	38° 36' 22"	140.00'	94.33'
C-5	49° 44' 42"	355.00'	308.21'
C-6	96° 41' 33"	230.00'	388.14'
C-7	29° 25' 40"	250.00'	128.40'
C-8	44° 24' 56"	105.00'	81.39'

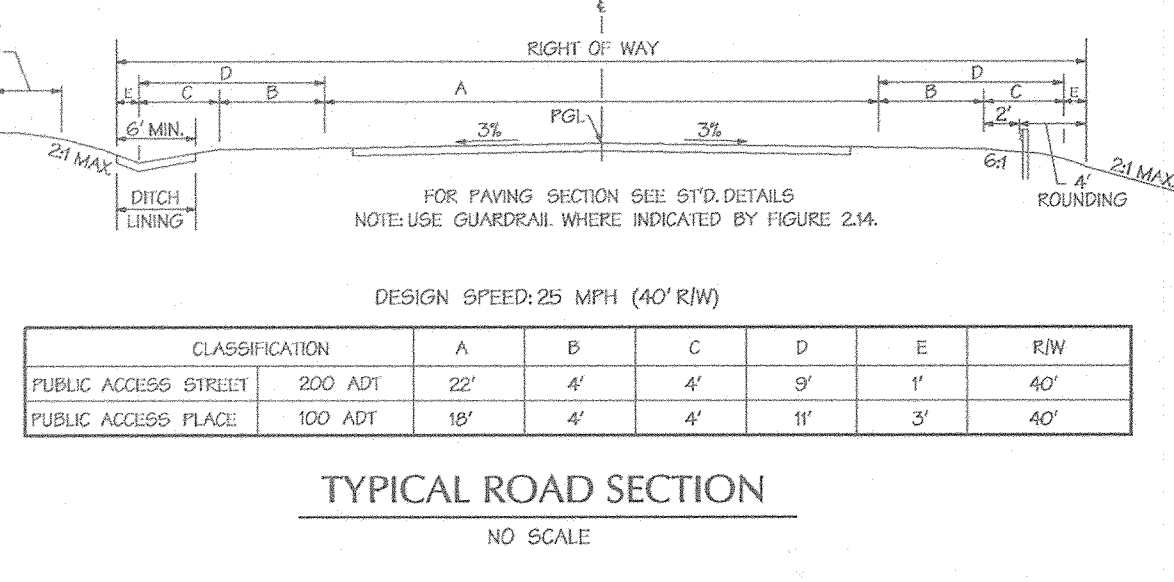
WINTERHAZEL COURT			
CURVE NO.	DELTA	RADIUS	LENGTH
C-1	16° 47' 16"	200.00'	58.60'
C-2	22° 53' 38"	200.00'	79.91'

Appendix D.8. Miscellaneous Details for Compliance with Performance Criteria



LEGEND

- Existing Contour
- Existing Stream
- Existing Building
- Existing Woods line
- Soils Lines & Designations
- Existing Septic Area
- Proposed Lot Line
- Proposed Well Area
- Proposed Well
- Proposed Lot Lines
- Proposed Building Restriction Line
- Soil Boring Location
- Proposed Septic Reserve Area
- 7 Lot Number
- 75' Stream Buffer
- 25' Wetland Buffer
- Wetland
- Floodplain Limit
- SLOPES BETWEEN 15% AND 25%
- SLOPES GREATER THAN 25%
- 2 STEEP SLOPE NUMBER
- PROPOSED STORM DRAIN
- BUILDING RESTRICTION LINES
- PROPOSED BUILDING
- 152 Passed Perc Test
- ⊙ 152 Failed Perc Test
- 15' Non Woody Vegetation Buffer



DATA SOURCES:
 Boundary per DMW survey dated - September, 2003.
 Topo taken from low level flight and aerial survey performed by Virginia Resource mapping, March 7, 2002.
 Adj. septic approximated from adjacent plats and DMW field visits, July, 2001.
 Soils taken from Howard County Soil Survey, 1968.
 Surveyed wetland and stream limits shown on approved Jurisdictional Determination Plan (CENAB-OP-RMS) 03-69273-11

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY
 Planning Director: [Signature] DATE: 8/20/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division Date
 Chief, Division of Land Development Date
 Director Date
 APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 Robert J. Wells 8/21/06
 County Health Officer Date
 Howard County Health Department: [Signature]

DMW
 Daft-McCune-Walkers, Inc.
 300 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3323
 Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

TITLE:
Bewley Property
 Lots 1-46, Non-Buildable Preservation Parcels A-N
PRELIMINARY PLAN & SOILS MAP
 Tax Map 14, Grid 20, Parcel 66, Zone RC-DEO
 Election District No. 3 Howard County, Maryland

Des. By: MJP Scale: 1"=100' Proj. No. 01067C
 Drn. By: MSS Date: 6/21/06
 Chk. By: MJP Approved: **3 of 11**

8/16/06
 Date
 [Signature]
 Professional Engr. No. 14230



LEGEND

- Existing Contour
 - Existing Stream
 - Existing Building
 - Existing Woods line
 - Existing Septic Area
 - Proposed Lot Line
 - Proposed Well Area
 - Proposed Well
 - Proposed 100' Well Circle
 - Proposed Lot Lines
 - Proposed Building Restriction Line
 - Proposed Septic Reserve Area
 - Lot Number
 - Approximate Stream Buffer
 - Floodplain Limit
 - 25' Wetland Buffer
 - Wetland
- FOR SEDIMENT CONTROL
- SILT FENCE SYSTEM
 - SUPER SILT FENCE SYSTEM
 - LIMIT OF DISTURBANCE
 - EARTH DIKE
 - STABILIZED CONSTRUCTION ENTRANCE
 - SOIL BORING LOCATION
 - LEVEL SPREADER
 - 15' NON WOODY VEGETATION BUFFER

DATA SOURCES:

Boundary per DMW survey dated - September, 2003.
 Topo taken from low level flight and aerial survey prepared by Virginia Resource mapping, March 7, 2002.
 Adj. septic approximated from adjacent plats and DMW field visits, July, 2001.
 Surveyed wetlands and stream limits shown on approved Jurisdictional Determination Plan (CENAB-OP-RMS) 03-05273-11.
 Soils taken from Howard County Soil Survey, 1968.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division _____ Date _____

Chief, Division of Land Development _____ Date _____

Director _____ Date _____

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Robert W. Walker 8/21/06
 County Health Officer Date
 Howard County Health Department

Date	No.	Revision Description

OWNER/DEVELOPER:

OWNER: John C. Bewley, Revocable Trust
 Margaret B. Bewley, Revocable Trust
 15359 Union Chapel Road
 Woodbine, Maryland 21737

DEVELOPER: Grayson Development Co., L.L.C.
 c/o Koren Development Co.
 815 Center Park Drive
 Suite 104
 Columbia, Maryland 21045



A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

8/16/06
Date

Professional Engr. No. 14530

TITLE: Bewley Property
 Lots 1-46, Non-Buildable Preservation Parcels A-N
 PRELIMINARY GRADING and
 SEDIMENT & EROSION CONTROL PLAN
 Tax Map 14, Grid 2D, Parcel 66, Zone RC-DEO
 Election District No. 3 Howard County, Maryland

Des. By:	Scale: 1"=100'	Proj. No. 01067C
Drn. By:	Date: 6/21/06	4 of 11
Chk. By:	Approved:	

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

William P. Brendel
 PLANNING DIRECTOR DATE

LEGEND

- Existing Contour
- - - Existing Stream
- Existing Building
- ▨ Existing Woods line
- ▩ Existing Septic Area
- Proposed Lot Line
- Proposed Well Area
- Proposed Well
- Proposed 100' Well Circle
- Proposed Lot Lines
- Proposed Building Restriction Line
- ▩ Proposed Septic Reserve Area
- 7 Lot Number
- Approximate Stream Buffer
- 25' Wetland Buffer
- Wetland
- ▨ Roof Top Disconnection Credit (Lot Ac.)
- ▨ Non-Roof Top Disconnection Credit (Lot Ac.)
- FOR SEDIMENT CONTROL
- SILT FENCE SYSTEM
- SUPER SILT FENCE SYSTEM
- LIMIT OF DISTURBANCE
- EARTH DIKE
- SOIL BORING LOCATION
- LEVEL SPREADER
- 15' NON WOODY VEGETATION BUFFER

DATA SOURCES:

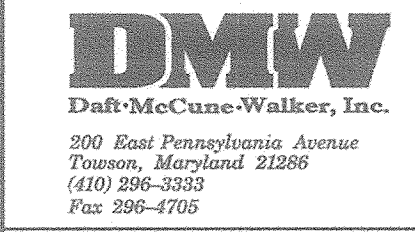
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APPROVED: DEPARTMENT OF PLANNING AND ZONING	
Chief, Development Engineering Division	Date
Chief, Division of Land Development	Date
Director	Date
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS	
Robert J. Walker	8/21/06
County Health Officer	Date
Howard County Health Department	MD
Date	Revision Description

OWNER/DEVELOPER:

OWNER:
 John C. Bewley, Revocable Trust
 Margaret B. Bewley, Revocable Trust
 15359 Union Chapel Road
 Woodbine, Maryland 21797

DEVELOPER:
 Grayson Development Co., L.L.C.
 c/o Koren Development Co.
 515 Center Park Drive
 Suite 104
 Columbia, Maryland 21045



8/16/06
 Date

Professional Engr. No. 14230

TITLE:
Bewley Property
 Lots 1-46, Non-Buildable Preservation Parcels A-N
**PRELIMINARY GRADING and
 SEDIMENT & EROSION CONTROL PLAN**
 Tax Map 14, Grid 20, Parcel 66, Zone RC-DEO
 Election District No. 3 Howard County, Maryland

Des. By: Scale: 1"=100' Proj. No. 01067C
 Dwn. By: Date: 6/21/06
 Chk. By: Approved: 5 of 11

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

David A. Lougher
 PLANNING DIRECTOR

8/21/06
 DATE



Forest Conservation Goals and Objectives

The goals and objectives of this Preliminary Forest Conservation Plan are to identify areas of existing forest retention and forest clearing necessitated by the proposed development program, and to plan for the replacement of lost forest resources by identifying areas to be replanted. Final calculations, a planting plan that will recommend species with respective tolerances to the varying moisture regimes within the reforestation areas, and reforestation survey information will be detailed on the forthcoming Final Forest Conservation Plan.

Forest Conservation Calculations

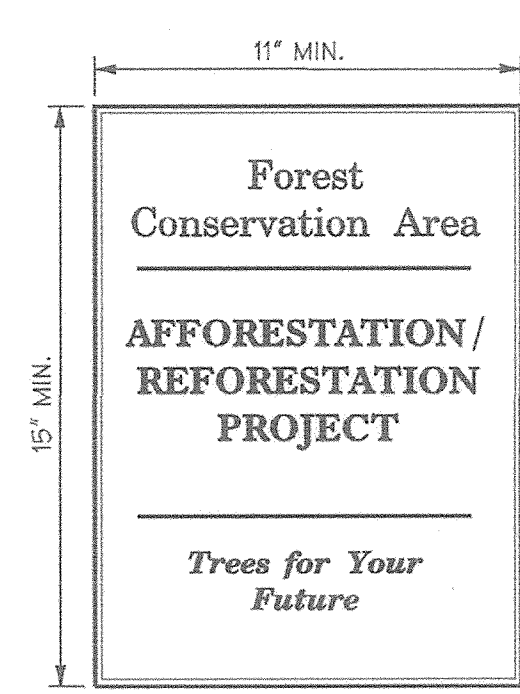
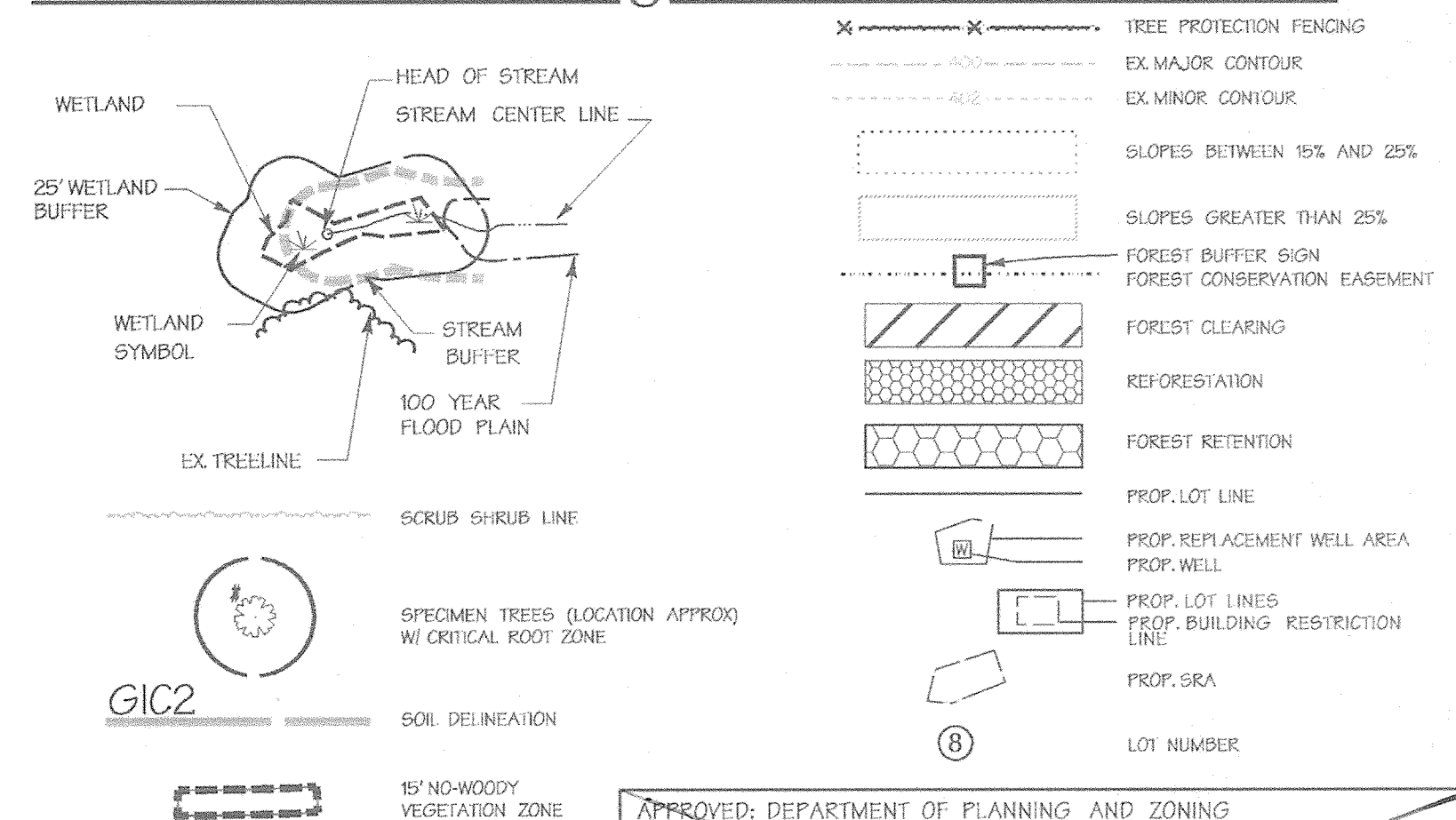
BASIC SITE DATA	ACRES (1110)
GROSS SITE AREA	98.2
AREA WITHIN 100' YEAR FLOODPLAIN	0.8
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	0.0
NET TRACT AREA	97.4
LAND USE CATEGORY	RESIDENTIAL/RURAL-MEDIUM DENSITY

INFORMATION FOR CALCULATIONS	ACRES (1110)
A. NET TRACT AREA	97.4
B. REFORESTATION THRESHOLD (25% x A)	24.4
C. AFFORESTATION MINIMUM (20% x A)	19.5
D. EXISTING FOREST ON NET TRACT AREA	25.6
E. FOREST AREAS TO BE CLEARED	10.8
F. FOREST AREAS TO BE RETAINED	14.8
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	1.2
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	9.6
I. FOREST AREA RETAINED ABOVE REFORESTATION THRESHOLD	0.0

AFFORESTATION CALCULATIONS	ACRES (1110)
A. NET TRACT AREA	97.4
B. REFORESTATION THRESHOLD (25% x A)	24.4
C. EXISTING FOREST ON NET TRACT AREA	25.6
D. FOREST AREAS TO BE CLEARED	10.8
E. FOREST AREAS TO BE RETAINED	14.8
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	1.2
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	9.6
H. FOREST AREA RETAINED ABOVE REFORESTATION THRESHOLD	0.0

CLEARING ABOVE THE THRESHOLD ONLY	ACRES (1110)
IF FOREST AREAS TO BE RETAINED ARE GREATER THAN THE REFORESTATION THRESHOLD (IF E IS GREATER THAN B), THE FOLLOWING CALCULATIONS APPLY	
REFORESTATION FOR CLEARING ABOVE THRESHOLD	0.3
FX14	19.1
REFORESTATION FOR CLEARING BELOW THRESHOLD	
Gx2	19.4
TOTAL REFORESTATION REQUIRED (FX14) + (Gx2)	20.4
REFORESTATION PROVIDED	20.4

Legend



SIGNS TO BE PLACED ON METAL POSTS 5'± ABOVE FINISH GRADE PRIOR TO PLANTING. PLACE SIGNS EVERY 100'± AROUND PERIMETER OF FOREST CONSERVATION AREA.

Permanent Signage
Not to Scale

SPECIMEN TREES			
TREE NUMBER	DESCRIPTION	CONDITION	STATUS
1	46" WHITE OAK	FAIR	TO BE SAVED
2	36" RED MAPLE	GOOD	TO BE SAVED
3	37" WHITE PINE	FAIR	TO BE SAVED
4	36" RED MAPLE	GOOD	TO BE SAVED
5	39" WHITE OAK	POOR	TO BE SAVED
6	40" WHITE OAK	GOOD	TO BE SAVED

DATA SOURCES:
Boundary per DMW survey dated - September, 2003.
Topo taken from low level flight and aerial survey prepared by Virginia Resource Mapping, March 7, 2002.
Adjacent septic approximated from adjacent plats and DMW field visits, July, 2001.
Soils taken from Howard County Soil Survey, 1968.
Surveyed Wetland and Stream limits as shown on approved Jurisdictional Determination Plan (CENAB-OP-RMS) 03-65273-11
Existing forest edge taken from photogrammetry on March 7, 2002.

FOREST CONSERVATION EASEMENT 1
0.9± ACRES TOTAL
0.9± ACRES REFORESTATION.

FOREST CONSERVATION EASEMENT 3
1.4± ACRES TOTAL
1.4± ACRES REFORESTATION

FOREST CONSERVATION EASEMENT 5
1.1± ACRES TOTAL
1.1± ACRES REFORESTATION

FOREST CONSERVATION EASEMENT 6
23.3± ACRES TOTAL (22.8 AC CREDIT)
11.1± ACRES REFORESTATION (INCLUDES 0.3 AC REFORESTATION IN FLOODPLAIN)
12.1± ACRES RETENTION
0.5± ACRES FOREST IN FLOODPLAIN (NO CREDIT AREA WITHIN FLOODPLAIN)

FOREST CONSERVATION EASEMENT 10
0.3± ACRES TOTAL
0.3± ACRES REFORESTATION

FOREST CONSERVATION EASEMENT 4
2.1± ACRES TOTAL
2.1± ACRES REFORESTATION

FOREST CONSERVATION EASEMENT 2
0.8± ACRES TOTAL
0.8± ACRES REFORESTATION

STORM WATER MANAGEMENT EASEMENT
& JAMES HEINZ

FUTURE R/W
63,659.40 SF
1.46 Ac.±

P10 PRESERVATION PARCEL 'D'

& TERRY THURSTON

G&L LTD. PARTNERSHIP

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division: [Signature] Date: []
Chief, Division of Land Development: [Signature] Date: []

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
County Health Officer: [Signature] Date: 8/21/06
Howard County Health Department: [Signature]

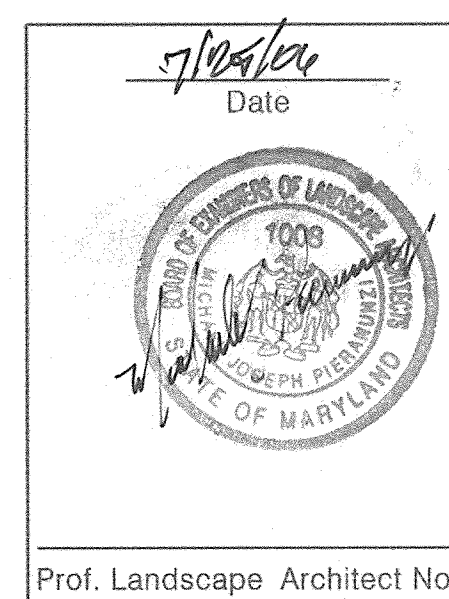
Date	No.	Revision Description

OWNER/DEVELOPER:
OWNER: John C. Bewley, Revocable Trust
Margaret B. Bewley, Revocable Trust
15359 Union Chapel Road
Woodbine, Maryland 21797
DEVELOPER: Grayson Development Co., L.L.C.
c/o Karen Development Co.
815 Center Park Drive
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DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

TITLE: **Bewley Property**
Lots 1-46, Non-Buildable Preservation Parcels A-N
PRELIMINARY FOREST CONSERVATION PLAN
Tax Map 14, Grid 20, Parcel 66, Zone RC-DEO
Election District No. 3
Howard County, Maryland

Des. By: SNH	Scale: 1"=100'	Proj. No. 01067C
Drn. By: WDE, MGS	Date: 6/21/06	6 of 11
Chk. By:	Approved:	



Conceptual Reforestation Plant List

Species	Common	Spec	Quantity +PU	Spacing	Status	Species	Common	Spec	Quantity +PU	Spacing	Status
COVER A: MOIST AREAS/LOW UPLANDS						COVER B: WELL-DRAINED AREAS					
Quercus palustris	Pin oak	1" cal. container grown	TBD x 3.5	15' x 15' OC	FACU	Quercus rubra	Northern red oak	1" cal. container grown	TBD x 3.5	15' x 15' OC	FACU
Acer rubrum	Red maple	3/6" ctr grn live stakes	TBD x 2	15' x 15' OC	FAC	Pinus virginiana	Virginia pine	3/6" container grown	TBD x 2	8' x 8' OC	FACU
Salix nigra	Black willow	1" cal. container grown	TBD x 3.5	15' x 15' OC	FACW+	Juniperus virginiana	Red-cedar	18" - 24" ctr grown	TBD x 1	8' x 8' OC	FACU
Betula nigra	River birch	1" cal. container grown	TBD x 3.5	15' x 15' OC	FACW	Sassafras albidum	Sassafras	24" - 36" ctr grown	TBD x 2	8' x 8' OC	FACU-
Fraxinus pennsylvanica	Green ash	1" cal. container grown	TBD x 3.5	15' x 15' OC	FACW	Hamamelis virginiana	Witch hazel	24" - 36" ctr grown	TBD x 2	8' x 8' OC	FAC-
Lindera benzoin	Northern spicebush	18" - 24" ctr grown	TBD x 1	8' x 8' OC	FACW-	Fraxinus americana	White ash	1" cal. container grown	TBD x 3.5	15' x 15' OC	FACU



DATA SOURCES:
 Boundary per DMW survey dated - September, 2003.
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 Adjacent septic approximated from adjacent plats and DMW field visits, July, 2001.
 Soils taken from Howard County Soil Survey, 1968.
 Surveyed Wetland and Stream limits as shown on approved Jurisdictional Determination Plan (CENAB-OP-RMS) 03-65273-11
 Existing forest edge taken from photogrammetry on March 7, 2002.

General Notes

This project complies with the requirements of Section 16.1200 of the Howard County Code of forest conservation with a total obligation of 35.26 acres provided by 14.6 acres of on-site retention and 20.4 acres of on-site reforestation.

The forest conservation easement has been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. No clearing, grading or construction is permitted within the forest conservation easement, however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

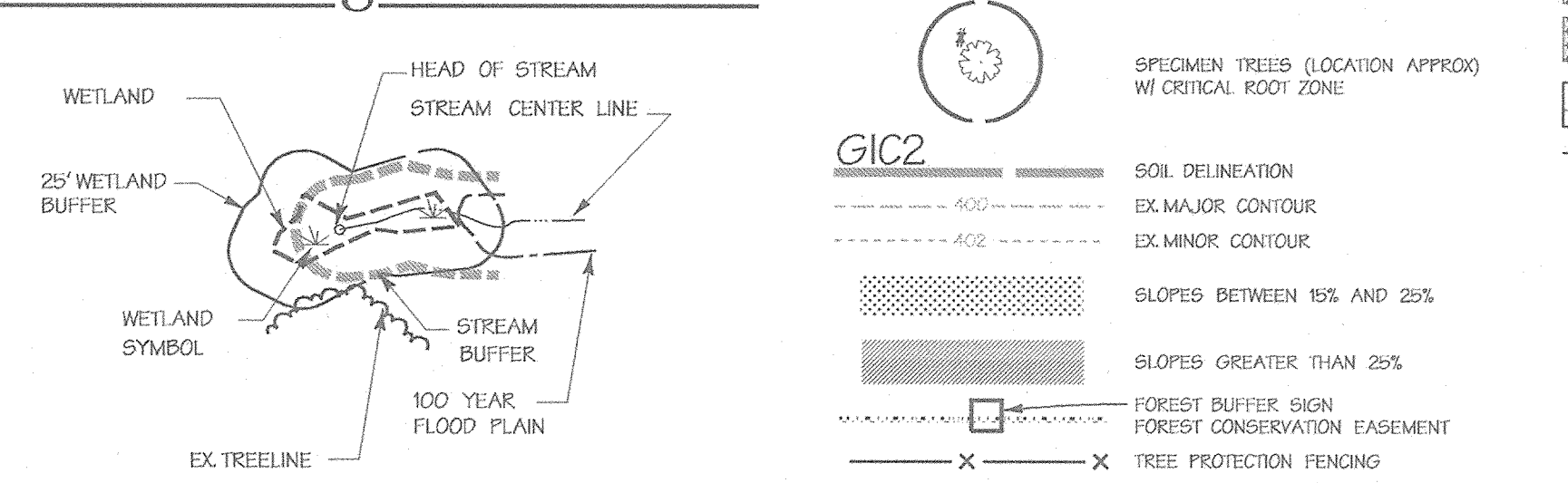
One inch caliper trees should be planted along the outer perimeter of the FCE. The species may be randomly placed.

Whip plantings should be installed in a curvilinear pattern to facilitate maintenance but avoid a grid appearance. Tree shelters should be installed on all whip plantings.

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY
 Planning Director: *[Signature]* DATE: 8/14/06

LINE	RETENTION (INCLUDES FLOODPLAIN) (acres)	REFORESTATION (INCLUDES FLOODPLAIN) (acres)	TOTAL FLOODPLAIN (acres)	FOREST IN FLOODPLAIN (acres)	TOTAL EASEMENT (acres)
1	0.0	0.9	0.0	0.0	0.9
2	0.0	0.8	0.0	0.0	0.8
3	0.0	1.4	0.0	0.0	1.4
4	0.0	2.1	0.0	0.0	2.1
5	0.0	1.1	0.0	0.0	1.1
6	12.1	11.1	0.0	0.5	23.2
7	0.0	1.3	0.0	0.0	1.3
8	2.0	1.2	0.0	0.0	3.2
9	0.7	0.2	0.0	0.0	0.9
10	0.0	0.3	0.0	0.0	0.3
TOTAL	14.6	20.4	0.0	0.5	35.2

Legend



- FOREST PROTECTION**
- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, GRADING ACTIVITIES.
 - THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA, NOT OTHERWISE PROTECTED, WILL BE WITHIN FOREST PROTECTION DEVICES.
 - ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
 - ATTACHMENT OF SIGNS OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS, OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
 - INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM D-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
 - THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILES OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
 - REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
 - THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
 - ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.
- PRE-CONSTRUCTION MEETING**
- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS, SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
 - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS, AND EQUIPMENT STAGING AREA;
 - INSPECT ALL NECESSARY ADJUSTMENTS;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.
- CONSTRUCTION MONITORING**
- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
 - ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
 - THE CONSTRUCTION PROCEDURES SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER. SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE OR SUITABLE MANUFACTURED SOIL AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
 - SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE OR SUITABLE SOIL MANUFACTURED SOLID MIX AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
 - ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY, AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA, AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.
- PLANTING SPECIFICATIONS AND NOTES**
- SITE PREPARATION AND SOILS**
- PROTECTION FENCING IS TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
 - DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
 - SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE OR SUITABLE MANUFACTURED SOIL AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
 - SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE OR SUITABLE SOIL MANUFACTURED SOLID MIX AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
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- PLANT STORAGE AND INSPECTION**
- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
 - FOR BALL AND BURLAP NECESSARY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
 - PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
 - UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

- PLANT INSTALLATION**
- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKFIELD SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, BASE SOILS SHOULD BE EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER GENEROUSLY TO SETTLE SOIL BACKFILLED AROUND TREES. PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
 - CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THROUGH LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED, PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES THEY WERE HERE FIRST.
 - CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSEMED FROM THE SOIL. IF THE ROOTS ENCRIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
 - FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FORM ROOT BALL, THEN FEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
 - FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FIVE (5), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED, WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
 - AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING, AS INDICATED ON PLANT LIST, TO OBTAIN A MORE NATURAL APPEARANCE.
 - NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE VERY DEEP, WELL DRAINED NATURE OF THE NATIVE SOILS FOUND ON THIS SITE, COMBINED WITH THE LOSSINESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.
- FERTILIZING**
- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
 - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
 - IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALY, AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT, AS NEEDED, WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.
- MAINTENANCE SCHEDULE**
- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
 - ASSESS TREE MORTALITY OF PLANTING STOCK. REMOVE AND REPLACE DEAD OR DISEASED PLANTING.
 - VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY AFFECTING THE PLANTED STOCK.
 - REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
 - REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING THE PLANTING STOCK.
 - A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT END OF THE 24 MONTH MAINTENANCE PERIOD. IF NOT, ADDITIONAL PLANTING MUST BE REQUIRED TO ACHIEVE THIS GOAL.
- SUPERVISION**
- ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER QUALIFIED PROFESSIONAL AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.18.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division _____ Date _____

Chief, Division of Land Development _____ Date _____

Director _____ Date _____

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

[Signature] 8/14/06
 County Health Officer
 Date
 Howard County Health Department

Date	No.	Revision Description

OWNER/DEVELOPER:
 OWNER: John C. Bewley, Revocable Trust
 Margaret B. Bewley, Revocable Trust
 15359 Union Chapel Road
 Woodbine, Maryland 21797

DEVELOPER: Grayson Development Co., L.L.C.
 c/o Karen Development Co.
 815 Center Park Drive
 Suite 104
 Columbia, Maryland 21045

DMW
 Dan-McCormac-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3253
 Fax 286-4700

Bewley Property
 Lots 1-46, Non-Buildable Preservation Parcels A-N
PRELIMINARY FOREST CONSERVATION PLAN
 Tax Map 14, Grid 20, Parcel 66, Zone RC-DEO
 Election District No. 3 Howard County, Maryland

Des. By: SNH Scale: 1"=100' Proj. No. 01067C
 Dwn. By: WDE, MGS Date: 6/21/06
 Chk. By: Approved: **7 of 11**



NOTES:
 1. LANDSCAPING & STREET TREES FOR THIS SUBDIVISION WILL BE PROVIDED ON THE FINAL PLANS IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL.

LEGEND

- Existing Contour
- Existing Stream
- Existing Building
- Existing Woods line
- Existing Septic Area
- Proposed Lot Line
- Proposed Well Area
- Proposed Well
- Proposed 100' Well Circle
- Proposed Lot Lines
- Proposed Building Restriction Line
- Proposed Septic Reserve Area
- 7 Lot Number
- Approximate Stream Buffer
- 25' Wetland Buffer
- Wetland
- FOREST CONSERVATION EASEMENT
- FOREST CLEARING
- REFORESTATION
- FOREST RETENTION
- STREET TREES
- 15' NON WOODY VEGETATION BUFFER

DATA SOURCES:
 Boundary per DMW survey dated - September, 2003.
 Topo taken from low level flight and aerial survey prepared by Virginia Resource mapping, March 7, 2002.
 Adj. septic's approximated from adjacent plats and DMW field visits, July, 2001.
 Surveyed wetland and stream limits shown on approved Jurisdictional Determination Plan (CENAB-03-65273-II)
 Soils taken from Howard County Soil Survey, 1966.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division _____ Date _____

Chief, Division of Land Development _____ Date _____

Director _____ Date _____

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Robert A. Wilson _____ 8/24/06
 County Health Officer Date
 Howard County Health Department *rgd*

Date	No.	Revision Description

OWNER/DEVELOPER:

OWNER:
 John C. Bowley, Revocable Trust
 Margaret B. Bowley, Revocable Trust
 15359 Union Chapel Road
 Woodbine, Maryland 21797

DEVELOPER:
 Grayson Development Co., L.L.C.
 c/o Koran Development Co.
 515 Center Park Drive
 Suite 104
 Columbia, Maryland 21045

DMW
 Daft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-5322
 Fax 296-4705

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

TITLE:
Bewley Property
 Lots 1-46, Non-Bulldable Preservation Parcels A-N
PRELIMINARY LANDSCAPE PLAN
 Tax Map 14, Grid 2D, Parcel 66, Zone RC-DEO
 Election District No. 3 Howard County, Maryland

Des. By: CRH Scale: 1"=100' Proj. No. 01067C
 Dwn. By: CRH Date: 6/21/06
 Chk. By: MJP Approved: **8 of 11**

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

Wanda J. Taylor 8/24/06
 PLANNING DIRECTOR DATE

1/24/06
 Date

Wanda J. Taylor
 PLANNING DIRECTOR

Professional L.A. No. 1008

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT to ROADWAYS	ADJACENT to PERIMETER PROP.															
		P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13	P 14	P 15	P 16	
LANDSCAPE TYPE "A"																	
LINEAR FEET OF PERIMETER		515 LF	1922 LF	1907 LF	556 LF	1461 LF	851 LF	2179 LF	800 LF	839 LF							
LANDSCAPE TYPE "B"	P 1																
LINEAR FEET OF PERIMETER		454 LF															
LANDSCAPE TYPE "C"																	
LINEAR FEET OF PERIMETER																	
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A	N/A	N/A	415 LF (1046 LF REMAINING)	132 LF (789 LF REMAINING)	2019 LF (180 LF REMAINING)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CREDIT FOR BERM (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NUMBER OF PLANTS REQUIRED																	
SHADE TREES	9	9	32	32	9	17	12	3	13	14	5	6	5	3	4	3	
EVERGREEN TREES	11	--	--	--	--	--	--	--	--	--	7	7	6	4	5	4	
SHRUBS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
NUMBER OF PLANTS PROVIDED*																	
SHADE TREES																	
EVERGREEN TREES																	
OTHER TREES (2 :1 SUBSTITUTION)																	
SHRUBS (10 :1 SUBSTITUTION)																	
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)																	

NOTE: STREET TREES WILL BE PROVIDED @ 1/40 LF. 321 STREET TREES SHOWN
NOTE: THE DEVELOPER WILL PROVIDE ALL PERIMETER LANDSCAPE OBLIGATIONS

**SCHEDULE D
STORMWATER MANAGEMENT
AREA LANDSCAPING**

POND	1	2A	2B	3A	3B	3C
LINEAR FT OF PERIMETER (TYPE "B")	1427 LF	784 LF	702 LF	389 LF	906 LF	561 LF
NUMBER OF TREES REQUIRED						
SHADE TREES @ 1/50 L.F.	29	16	14	5	14	10
EVERGREEN TREES @ 1/40 L.F.	36	20	16	6	16	12
CREDIT FOR EXISTING VEGETATION	NA	NA	NA	158 LF (231 LF REMAINING)	201 LF (705 LF REMAINING)	68 LF (488 LF REMAINING)
CREDIT FOR OTHER LANDSCAPING	NA	NA	NA	NA	NA	NA
NUMBER OF TREES PROVIDED						
SHADE TREES						
EVERGREEN TREES						
SHRUBS						

NOTE: THE DEVELOPER WILL PROVIDE ALL SWM LANDSCAPE OBLIGATIONS, TO BE PROVIDED AT THE FINAL PLAN STAGE.

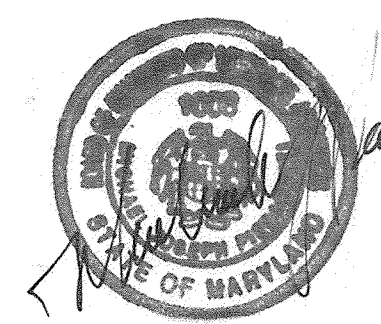
LEGEND

- Existing Contour
- Existing Stream
- Existing Building
- Existing Woods line
- Existing Septic Area
- Proposed Lot Line
- Proposed Well Area
- Proposed Well
- Proposed 100' Well Circle
- Proposed Lot Lines
- Proposed Building Restriction Line
- Proposed Septic Reserve Area
- 7 Lot Number
- Approximate Stream Buffer
- 25' Wetland Buffer
- Wetland
- FOREST CONSERVATION EASEMENT
- FOREST CLEARING
- REFORESTATION
- FOREST RETENTION
- STREET TREES
- PROPOSED WOODS LINE
- 15' NON WOODY VEGETATION BUFFER

DATA SOURCES:

- Boundary per DMW survey dated - September, 2003.
- Topo taken from low level flight and aerial survey prepared by Virginia Resource mapping, March 7, 2002
- Adj. septic approximated from adjacent plats and DMW field visits, July, 2001.
- Soils taken from Howard County Soil Survey, 1968.
- Surveyed Wetland and stream limits as shown on approved Jurisdictional Determination Plan (CENAB-07-RM5) 03-65273-11
- Existing forest edge taken from photogrammetry on March 7, 2002

Approved: *Robert A. Walker*
Date: Aug 18 2006



Professional L.A. No. 1008

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division _____ Date _____

Chief, Division of Land Development _____ Date _____

Director _____ Date _____

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Robert A. Walker 8/21/06
County Health Officer Date
Howard County Health Department

Date	No.	Revision Description

OWNER/DEVELOPER:

OWNER: John C. Bewley, Revocable Trust
Margaret B. Bewley, Revocable Trust
15359 Union Chapel Road
Woodbine, Maryland 21797

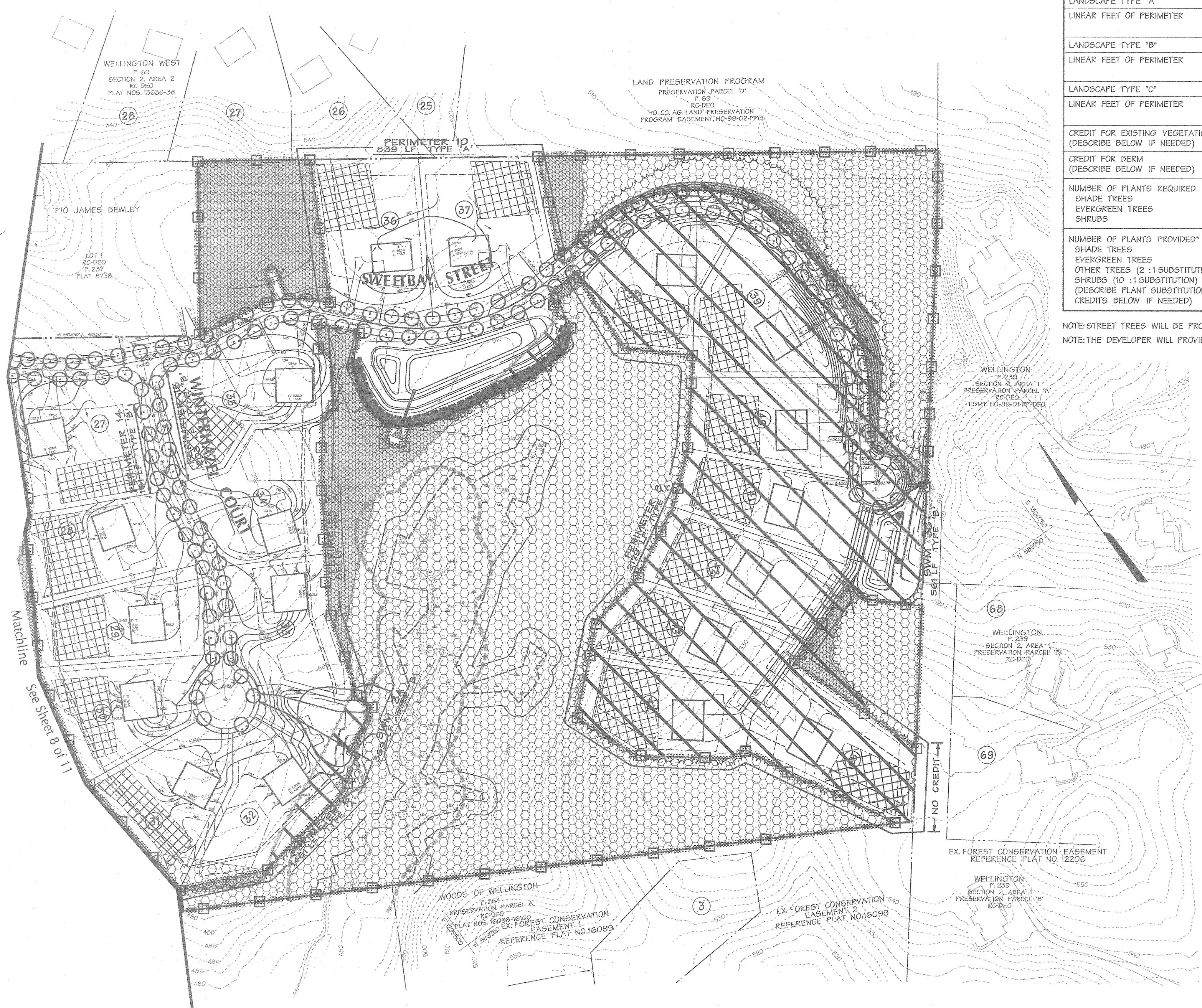
DEVELOPER: Grayson Development Co., L.L.C.
c/o Karen Development Co.
815 Center Park Drive
Suite 104
Columbia, Maryland 21045

DMW
Duff-McCune-Walkers, Inc.
330 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax: 398-4795

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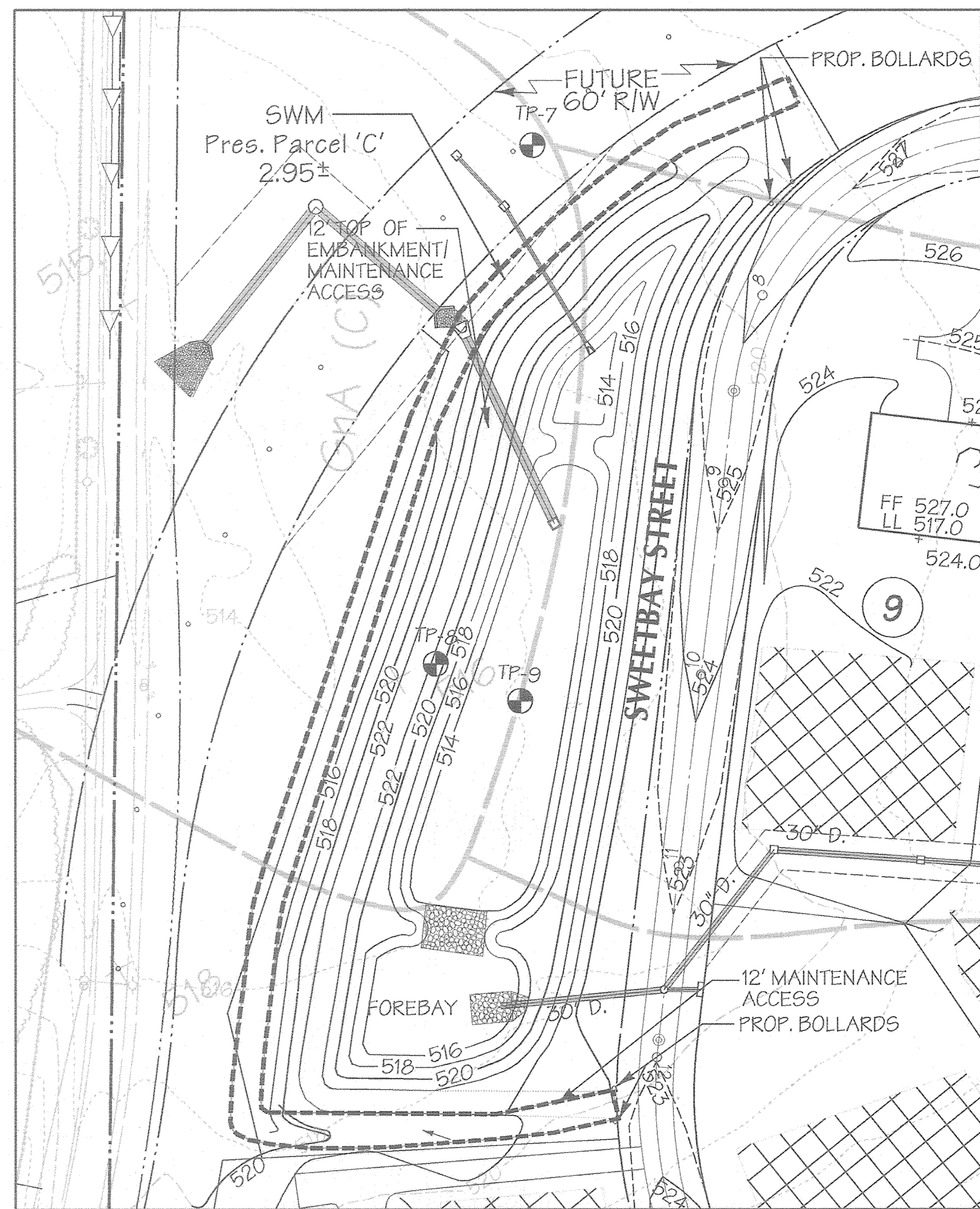
TITLE: **Bewley Property**
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Tax Map 14, Grid 20, Parcel 66, Zone RC-DEO
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Des. By: CRH Scale: 1"=100' Proj. No. 01067C
Dwn. By: CRH Date: 6/21/06
Chk. By: MJF Approved: 9 of 11

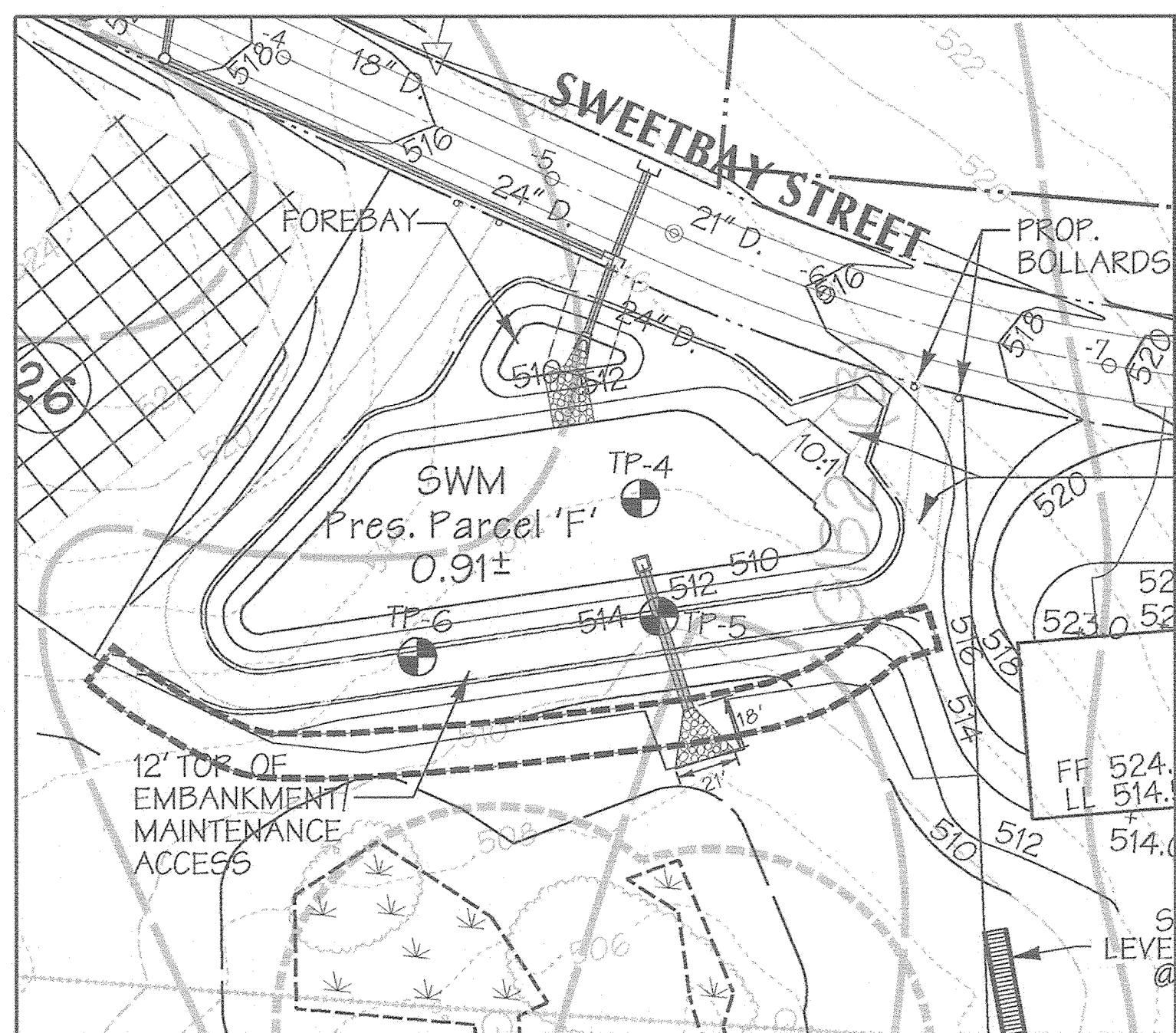


TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

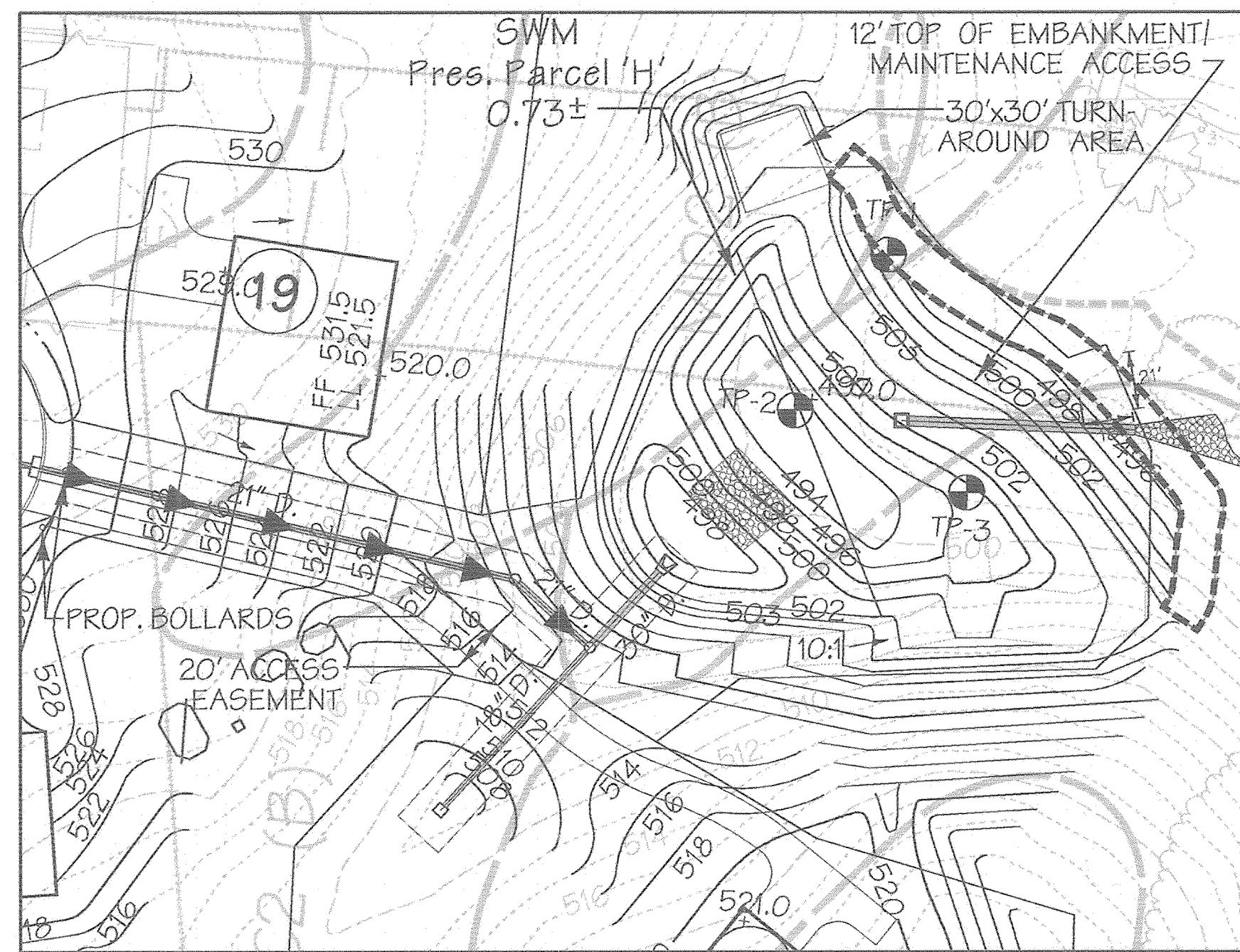
Robert A. Walker 8/21/06
PLANNING DIRECTOR DATE



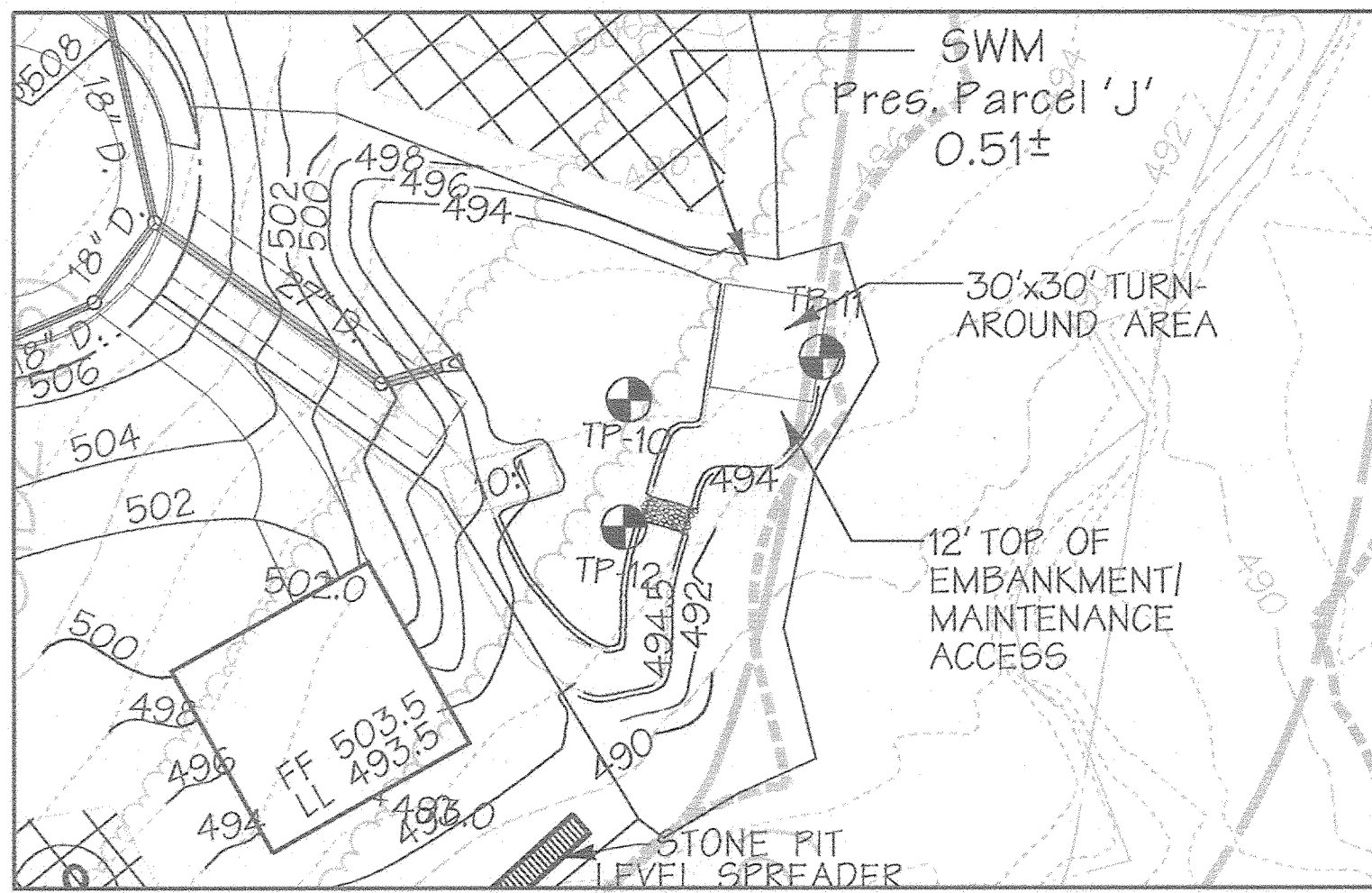
SWM FACILITY #1
MICROPOOL
DETENTION FACILITY



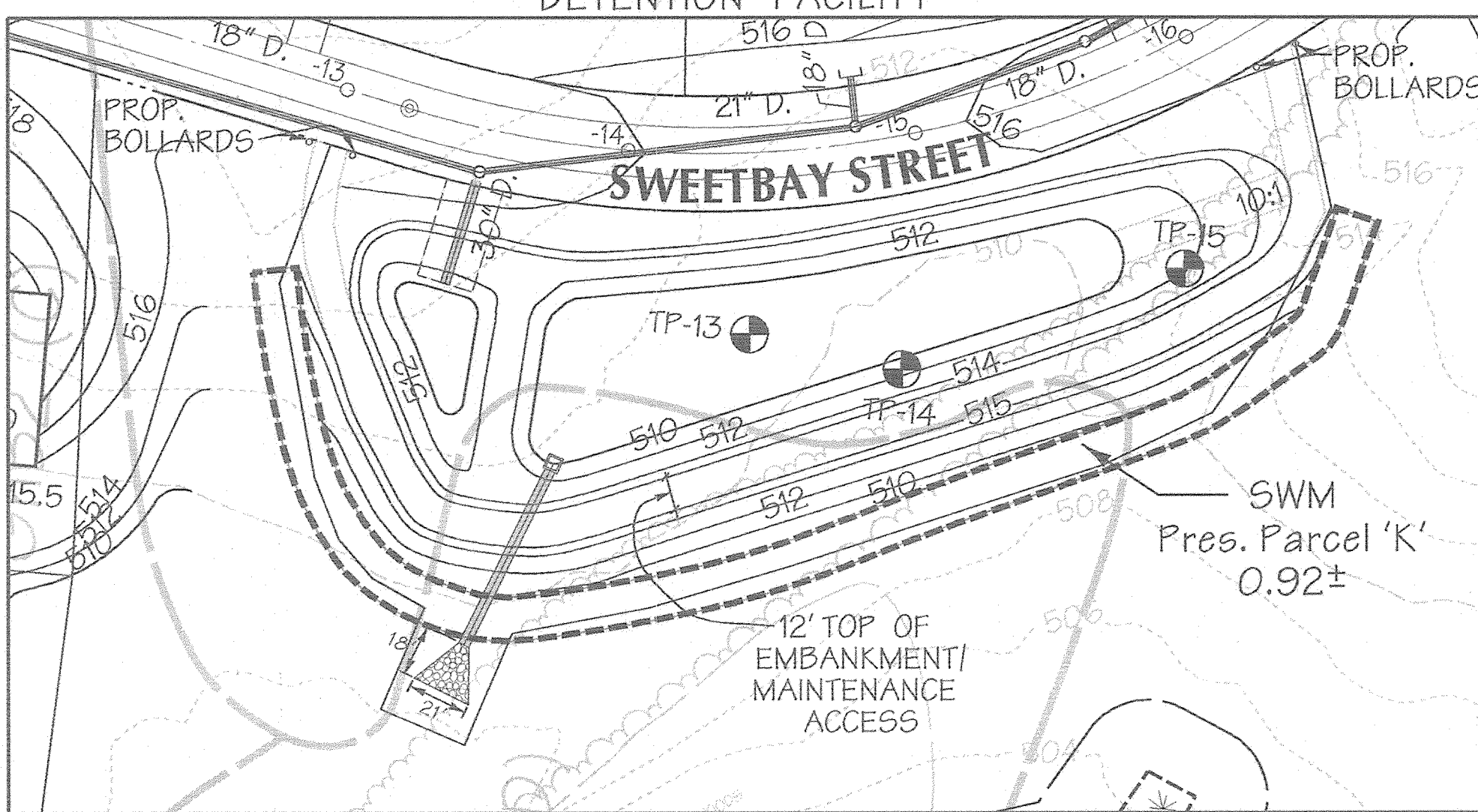
SWM FACILITY #2A
MICROPOOL EXTENDED
DETENTION FACILITY



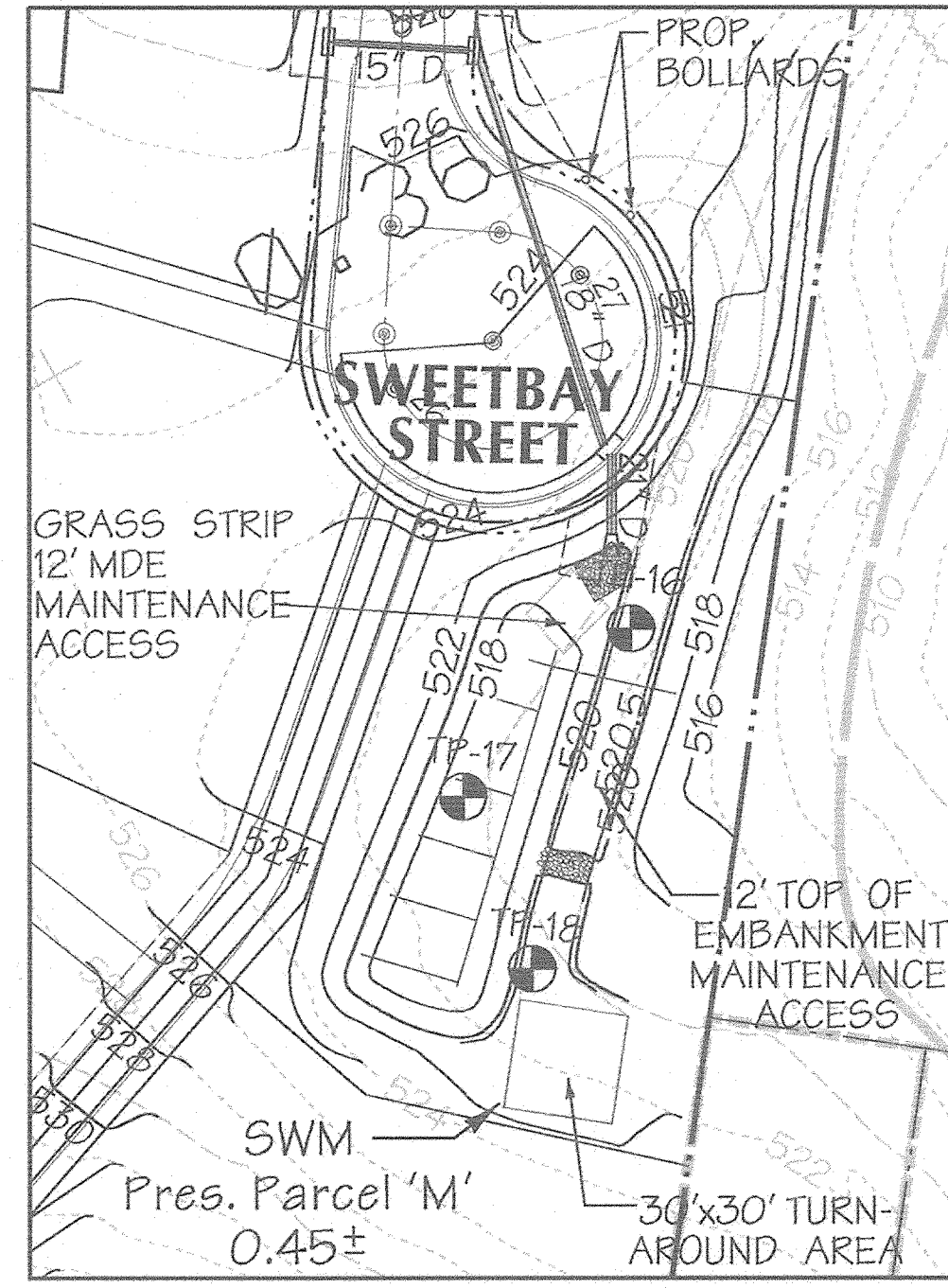
SWM FACILITY #2B
MICROPOOL EXTENDED
DETENTION FACILITY



SWM FACILITY #3A
BIORETENTION AREA



SWM FACILITY #3B
MICROPOOL EXTENDED
DETENTION FACILITY



SWM FACILITY #3C
BIORETENTION AREA

Legend

- ADJACENT PROPERTY LINE
- EXISTING CONTOURS
- EXISTING SPOT ELEVATION
- PROPOSED CONTOURS
- 4' OF EXISTING STREAM
- EXISTING TREE LINE
- WETLANDS
- WETLAND BUFFER
- LIMIT OF WETLANDS
- PROPOSED ROAD
- EX. EDGE OF ROAD
- EXISTING BUILDINGS
- SOIL LINES AND LABELS
- BGE OVERHEAD ELECTRIC TOWERS
- PROPOSED LOT LINES
- PROPOSED LOT NUMBERS
- PROPERTY BOUNDARY
- PROPOSED ROAD R/W LINES
- STREAM BUFFER
- SOIL BORINGS
- 15' NON WOODY VEGETATION BUFFER

Structure Number	POND #1	POND #2A	POND #2B	POND #3A	POND #3B	POND #4
Structure Type	MICROPOOL ED FACILITY	MICROPOOL ED FACILITY	MICROPOOL ED FACILITY	MICROPOOL ED FACILITY	MICROPOOL ED FACILITY	MICROPOOL ED FACILITY
Water Quality Type						
Structure Classification	'A'	'A'	'A'	'A'	'A'	'A'
Watershed Area to Facility (SWM)	24.60 AC.	10.09 AC.	14.88 AC.	3.44 AC.	11.10 AC.	2.75 AC.
Level of Management Required	10-YR.	10-YR.	10-YR.		10-YR.	
Level of Management Provided	10-YR.	10-YR.	10-YR.		10-YR.	
Top Width Provided	12'	12'	12'	12'	12'	12'
Maximum Height of Fill	4.0'	4.0'	6.0'		4.0'	
Freeboard Required	2.0'	2.0'	2.0'		2.0'	
Freeboard Provided	2.4'	2.05'	2.96'		2.29'	
WQ _v Required (Ac-ft)	0.67	0.10	0.23	0.11	0.16	0.06
WQ _v Provided (Ac-ft)	0.70	0.11	0.28	0.15	0.20	0.07
Re _v Req'd. (%area method) (Ac)	1.95	1.40	0.59	0.029	0.59	0.23
Re _v Provided (Ac)	3.08	1.79	2.51	0.15	2.36	0.87
C _p Required (Ac-ft)	0.60	0.17	0.29	N/A	0.27	N/A
C _p Provided (Ac-ft)	1.33	0.25	0.37	N/A	0.46	N/A
Normal Pool Elev.						
WQ _v Water Surface Elev. (WSE)	517.75	510.25	497.38	N/A	510.25	N/A
C _p Water Surface Elev.	518.50	511.30	498.75	N/A	511.50	N/A
Riser Crest Elev.	518.75	511.65	499.0	N/A	511.75	N/A
100 Yr Water Surface Elev.	519.97	512.44	500.04	N/A	512.71	N/A
Pond Vol. Below 100 Yr. WSE (Ac-ft)	0.60	0.49	N/A	0.70	N/A	
Forebay Volume Required (Ac-ft)	0.063	0.015	0.021	N/A	0.02	N/A
Forebay Volume Provided (Ac-ft)	0.21	0.021	0.056	N/A	0.06	N/A

DATA SOURCES:
 Boundary per DMW survey dated - September, 2003.
 Topo taken from low level flight and aerial survey prepared by Virginia Resource mapping, March 7, 2002.
 Septics approximated from adjacent plats and DMW field visits, July, 2001.
 Approximate wetland limits from DMW field visits, July, 2001.
 Soils taken from Howard County Soil Survey, 1968.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division _____ Date _____

Chief, Division of Land Development _____ Date _____

Director _____ Date _____

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Robert J. Wales 8/21/06
 County Health Officer Date

Howard County Health Department 1797

Date	No.	Revision Description

OWNER/DEVELOPER:
 OWNER: John C. Bewley, Revocable Trust; Margaret B. Bewley, Revocable Trust; 15355 Union Chapel Road; Woodbine, Maryland 21797
 DEVELOPER: Grayson Development Co., L.L.C. c/o Karen Conroy; 815 Center Park Drive; Suite 104; Columbia, Maryland 21045

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

Joseph A. Wright 8/21/06
 PLANNING DIRECTOR DATE

7/25/06
 Date

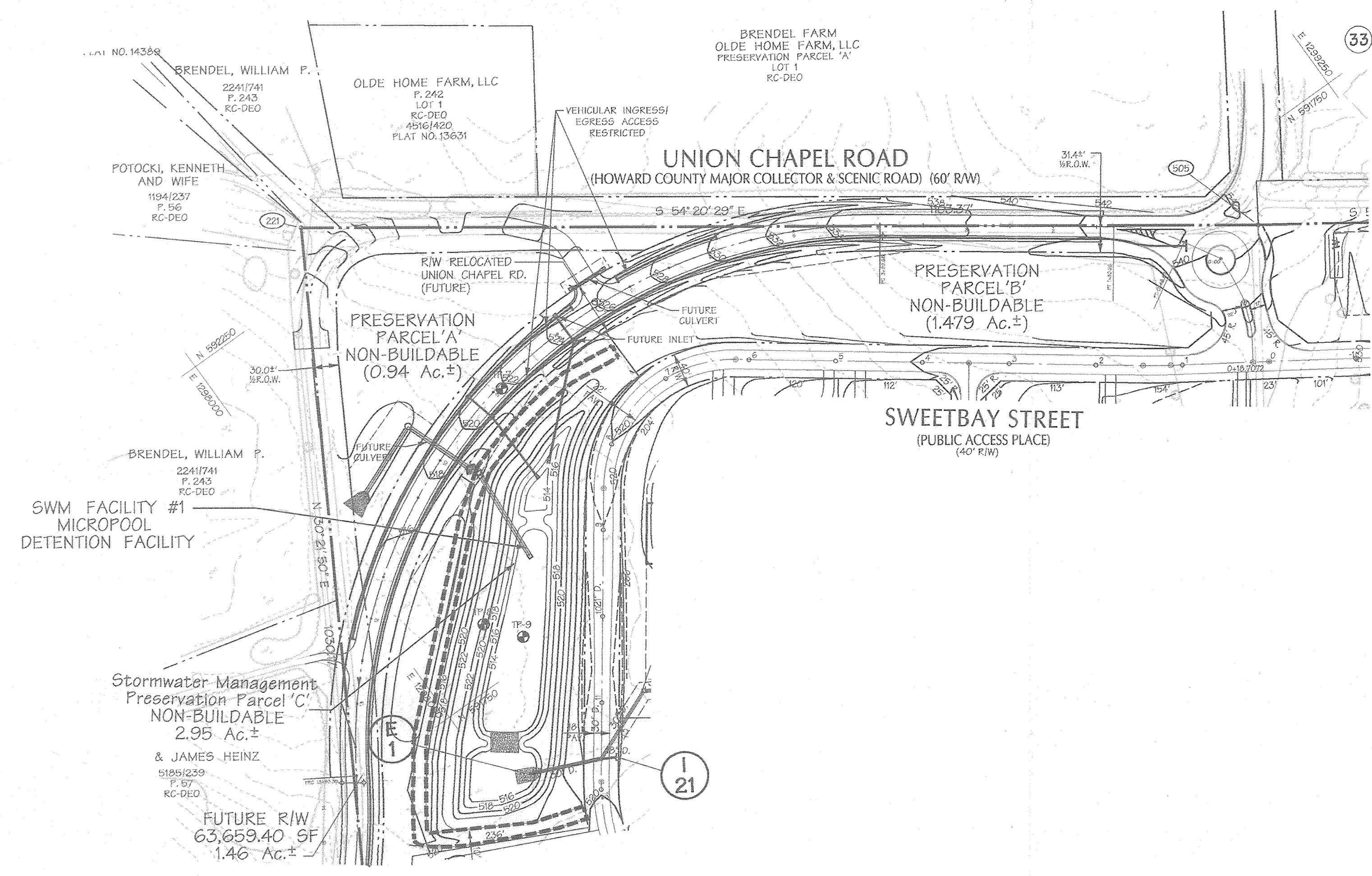
Jeffrey J. Wright 7/25/06
 Professional Engr. No. 14230

DMW
 Draft-McCune-Walkers, Inc.
 300 West Pennsylvania Avenue
 Tucson, Maryland 21286
 (410) 296-3333
 Fax: 296-4708

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

TITLE: **Bewley Property**
 Lots 1-46, Non-Buildable Preservation Parcels A-N
PRELIMINARY SWM PLAN & SWM FACILITIES
 Tax Map 14, Grid 20, Parcel 66, Zone RC-PEO
 Election District No. 3 Howard County, Maryland

Des. By:	Scale: 1"=50'	Proj. No. 01067C
Drn. By:	Date: 6/21/06	10 of 11
Chk. By:	Approved:	



PLAN
SCALE: 1" = 100'

DATA SOURCES:
 Boundary per DMW survey dated - September, 2003.
 Topo taken from low level flight and aerial survey prepared by Virginia Resource mapping, March 7, 2002.
 Adj. septic approximated from adjacent plats and DMW field visits, July, 2001.
 Soils taken from Howard County Soil Survey, 1968.
 Surveyed wetland and stream limits shown on approved Jurisdictional Determination Plan (CENAB-OP-RMS) 03-65273-11.
 Note: SWM Facility shall be owned by the Homeowners Association (H.O.A.). The H.O.A. shall perform mowing/trash removal maintenance. All other maintenance shall be performed by Howard County. The SWM easement is owned by Howard County.

- LEGEND**
- Existing Contour
 - Existing Stream
 - Existing Building
 - Existing Woods line
 - Soils Lines & Designations
 - Existing Septic Area
 - Proposed Lot Line
 - Proposed Well Area
 - W --- Proposed Well
 - Proposed Lot Lines
 - Proposed Building Restriction Line
 - Soil Boring Location
 - Proposed Septic Reserve Area
 - 15' NON WOODY VEGETATION BUFFER
 - ⑦ Lot Number
 - 75' Stream Buffer
 - 25' Wetland Buffer
 - Wetland
 - Floodplain Limit
 - SLOPES BETWEEN 15% AND 25%
 - SLOPES GREATER THAN 25%
 - ② STEEP SLOPE NUMBER
 - PROPOSED STORM DRAIN
 - BUILDING RESTRICTION LINES
 - PROPOSED BUILDING

7/25/06
Date

Jeffrey Schmal
Professional Engr. No. 14230

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
Chief, Development Engineering Division	Date
Chief, Division of Land Development	Date
Director	Date
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS	
<i>Richard J. Walker</i> County Health Officer	7/21/06 Date
Howard County Health Department	MJD
Date	No. Revision Description
OWNER/DEVELOPER:	
OWNER: John C. Bewley, Revocable Trust Margaret B. Bewley, Revocable Trust 15359 Union Chapel Road Woodhine, Maryland 21797	DEVELOPER: Grayson Development Co., L.L.C. c/o Koren Development Co. 315 Center Park Drive Suite 104 Columbia, Maryland 21045
DMW Darr-McCune-Walker, Inc.	
200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3322 Fax 296-4705	
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals	
TITLE: Bewley Property	
ULTIMATE RELOCATED UNION CHAPEL ROAD (BY OTHERS)	
Tax Map 14, Grid 20, Parcel 66, Zone RC-DEO Election District No. 3 Howard County, Maryland	
Des. By: KAD	Scale: 1"=100'
Drn. By:	Date: 6/21/06
Chk. By:	Approved:
Professional Engr. No. 14230	11 of 11

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

Paul A. ...
PLANNING DIRECTOR