# GRASSROOTS
# CRISIS INTERVENTION CENTER OF HOWARD COUNTY
## Howard County , Maryland

ELEVATION & FOOTPRINT

NOT TO SCALE

SITE LOCATION PLAN

SCALE: 1" = 100'

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VICINITY MAP

SCALE: 1" = 2000'

### Sheet Index

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## General Notes

1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
2. The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection division at 410-313-1880 at least five (5) working days prior to the start of work.
3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
4. Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs be in place prior to the placement of any asphalt.
5. Street light placement and the type of fixture and pole shall be in accordance with the Howard County Design Manual, Volume III (1993) and as modified by "Guidelines for Street Lights in Residential Developments (June 1993)." A minimum 20 feet spacing shall be between the light and any tree.
6. The existing topography is taken from field run survey with 2' contour intervals prepared by DMW dated July 9, 2005
7. The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 41CC and 3513 were used for this project.
8. Sidewalk ramps shall meet current ADA requirements.
9. Water is public, Contract No. 24-3265-D
10. Sewer is public Contract No. 20-0916-D
11. Stormwater Management for this project will be provided using a stormceptor facility. All computations are based on the MDE 2000 Maryland Stormwater Design Manual Volumes I & II and Howard County requirements. No recharge or stream channel protection volume is required because the project is a redevelopment site.
12. Existing utilities are based on field survey and plans of record.
13. There are no wetlands, wetland buffers, streams, nor stream buffers on this site.
14. There is no floodplain on this site.
15. No traffic study is required for this project.
16. Street trees shall be planted at least 5' from any inlet structure.
17. This project complies with Section 16.1200 of the Howard County Code for Forest Conservation. Under this plan, no forest clearing or retention is proposed. Forest Conservation will be provided by payment of a fee-in-lieu in the ammount of $ 1,590.90.
18. Relocated fire hydrant and relocated sanitary sewer shall be done under Contract # 24-4414-D
19. There are no cemeteries on this site.
20. No Historic Resources as designated by Howard County exist on this site.
21. No Steep slopes as defined by Howard County exist on this site.
22. A design manual waiver is being requested to waive sections 4.1.1.B2 & 5.2.4.I of the Howard County Design Manual, Vol. I to allow a pipe size of less than 12" for storm drainage. A Design Manual waiver to Section 5.4.B.5 of Design Manual Vol. II is also being requested to waive the 10' setback from the sewer easement to the building.
23. This project is subject to Council Resolution 41-2006 which was approved May 1, 2006.
24. This project is also subject to a License Agreement between Howard County Board of Education and Howard County Maryland dated February 27, 2006 which allows the use of the License area for a parking lot.
25. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.
26. This project is not subject to APFO requirements.

## Parking Tabulation

1. Parking Requirements are based on the Parking Study Dated April 3, 2006 by Synthesis, Inc.
   Required Parking 30 Spaces
   Parking Provided: 2 HC
   28 Regular
   30 Total

## Site Analysis Data Chart

### 1. General Site Data

a. Present Zoning: R-SC Per the Feb. 2, 2004 Comprehensive Zoning Plan
b. Applicable DPZ File References: SDP-76-20, SDP-89-20, SDP-01-116 and SDP-01-116
c. Existing Use of Site or Structure(s): Crisis Intervention Center
d. Proposed Use of Site or Structure(s): Crisis Intervention Center
Proposed Water and Sewer Systems: Public X Private ____

### 2. Area Tabulation

| | |
|---|---|
| a. Total Area of Site: | 1.34 Ac.± |
| Parking Liscense Agreement Area: | 0.22 Ac. |
| Building Parcel Area: | 0.92 Ac. |
| R/W | 0.2 Ac. |
| b. Area of Floodplain: | 0 Ac. |
| c. Area of Steep Slopes (25% or Greater): | 0 Ac. |
| d. Net Area of Site: | 1.34 Ac. |
| e. Area of Proposed Building: | 0.28 Ac. |
| f. Area of Proposed Open Space Lots: | 0 Ac. |
| g. Area of Proposed Public Roads: | 0 Ac. |
| h. Building Coverage | 21% |
| i. Limit of Disturbance (Project Area) = | 1.22 Ac.± |
| j. Maximum number of employees = | 15 |
| k. Floor Space | |
| Basement = | 2,523 SF |
| 1st Floor = | 12,220 SF |
| 2nd Floor = | 10,407 SF |

### BENCHMARK

DESCRIPTION

| BM1 | BM2 |
|---|---|
| #41CC | #3513 |
| N 552494.279 | N 553573.696 |
| E 1347062.42 | E 1346098.12 |
| ELEVATION = 416.09 | ELEVATION = 400.70 |

### County Council Of Howard County, Maryland

2006 Legislative Session — Legislative Day No. 6

Resolution No. 41 -2006

Introduced by: The Chairman at the request of the County Executive

A RESOLUTION pursuant to Section 16.301 of the Howard County Code granting a variance from the front, rear, and side primary structure setbacks and use setbacks at the Grassroots Crisis Intervention Center located at 6700 Freetown Road.

Introduced and read first time April 3, 2006.

By order Sheila M. Tolliver, Administrator

Read for a second time at a public hearing on April 17, 2006.

By order Sheila M. Tolliver, Administrator

This Resolution was read the third time and was Adopted ✓ Adopted with amendments__, Failed__, Withdrawn__, by the County Council on May 1, 2006

Certified By Sheila M. Tolliver, Administrator

NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN ALL CAPITALS indicates additions to existing law; Strike-out indicates material deleted by amendment; Underlining indicates material added by amendment

**WHEREAS,** Section 16.301 of the Howard County Code provides that variances for governmental uses from the strict application of the zoning regulations are granted by the County Council by Resolution following a public hearing; and

**WHEREAS,** the Grassroots Crisis Intervention Center, Inc. has proposed the construction of a new Grassroots Crisis Intervention Center at 6700 Freetown Road in Columbia; and

**WHEREAS,** the site is zoned R-SC, a category that imposes certain primary structure setbacks (building restriction lines) and use setbacks for certain uses and structures; and

**WHEREAS,** the Grassroots Crisis Intervention Center has proposed:

1. A 24 foot primary structure setback along the entire front (eastern) edge of the property;
2. A 0 foot primary structure and use setback along the entire rear (western) edges of the property; and
3. A 0 foot primary structure and use setback along the side (northern) property line on both sides of the property line; and

**WHEREAS,** the Board of Education of Howard County owns the property abutting the boundary on the western and northern sides and it is the intention of Grassroots Crisis Intervention Center to have a parking lot straddle the northern boundary line; and

**WHEREAS,** use of the property owned by the Board of Education of Howard County on the northern boundary is covered by a License Agreement dated February 27, 2006; and

**WHEREAS,** the primary structure setbacks (building restriction lines) and use setbacks affect the appropriate placement of the new Grassroots Crisis Intervention Center and its parking lot on the site; and

**WHEREAS,** the Grassroots Crisis Intervention Center has requested a variance from the strict application of the primary structure setbacks (building restriction lines) and use setbacks for the renovation and expansion of the Grassroots Crisis Intervention Center within:

1. The 30 foot primary structure setback (building restriction line) along the front (eastern) edge of the property;
2. The 30 foot primary structure setback (building restriction line) and the 20 foot use setback along the rear (western) edge of the property; and
3. The 7.5 foot primary structure setback (building restriction line) and the 20 foot use setback along the side (northern) edge of the property; and

**WHEREAS,** the County Council finds that the proposed variance from the primary structure setbacks (building restriction line) and use setbacks of the R-SC district for this governmental purpose is in the public interest.

**NOW, THEREFORE, BE IT RESOLVED** by the County Council of Howard County, Maryland, this 1st day of May, 2006 that, for the construction of a new Grassroots Crisis Intervention Center at 6700 Freetown Road, it grants a variance from:

1. The 30 foot primary structure setback (building restriction line) along the front (eastern) edge of the property;
2. The 30 foot primary structure setback (building restriction line) and the 20 foot use setback along the rear (western) edge of the property; and
3. The 7.5 foot primary structure setback (building restriction line) and the 20 foot use setback along the side (northern) edge of the property.

## DATA SOURCES

1. Coordinates and bearings shown on this plat are referred to the system of coordinates established in The Maryland Coordinate System - NAD 83(1991), and are based upon the following National Spatial Reference System Control Stations:

| | Designation | North(sFT) | East(sFT) | Description |
|---|---|---|---|---|
| BM1 | 41CC | 552494.279 | 1347062.42 | Disc Set in Concrete |
| BM2 | 3513 | 553573.696 | 1346098.12 | Disc Set in Concrete |

2. Elevations shown on this plat are referred to the North American Vertical Datum (NGVD 1929) with locate references to the following National Geodetic Survey Control Stations:

| | Designation | Elevation | General Location |
|---|---|---|---|
| BM1 | 41CC | 416.09 | Martin Rd. near corner with Freetown Rd. |
| BM2 | 3513 | 400.70 | Harriet Tubman La. by Atholton HS |

3. All utilities shown hereon are based solely on field location. No comparison to, or enhancement has been made from any utility drawings. The location of any underground utility shown hereon is approximate and must be verified prior to the commencement of any construction activity.
4. The direction of under ground pipes shown hereon are approximate and; therefore, are for reference only.
5. The date of the latest field work performed by DMW is JULY 9, 2005
6. The survey was performed without the benefit of a Title Report.

DATA SOURCES

BOUNDARY SHOWN PER BOUNDARY SURVEY DATED JULY 9, 2005, PREPARED BY DAFT- McCUNE - WALKER, INC.

SOILS (IF SHOWN) TAKEN FROM HOWARD COUNTY SOIL SURVEY, 1968.

THE EXISTING TOPOGRAPHY IS TAKEN FROM LOW LEVEL FLIGHT AND AREIAL SURVEY WITH 2' CONTOUR INTERVALS PREPARED BY 3DI, DATED APRIL 8, 2002 AND ON-SITE FIELD RUN TOPOGRAPHY BY DMW, INC. DATED JULY 9, 2005.

| ADDRESS CHART | |
|---|---|
| LOT/PARCEL # | STREET ADDRESS |
| PAR 292 and 406 | 6700 FREETOWN ROAD, COLUMBIA, MD. 21044 |
| | |

PERMIT INFORMATION CHART

| | | | | | |
|---|---|---|---|---|---|
| Subdivision Name N/A | | | Section/Area N/A | | Lot/Parcel No. 292 & 406 |
| Plat # or L/F 1728/175 | Grid # 24 | Zoning R-SC | Tax Map No. 35 | Elect Distr 5 | Census Tract 605602 |
| Water Code E-29 | | | Sewer Code | | 532500 |

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/28/06

CHIEF, DIVISION OF LAND DEVELOPMENT ✓TKM 11/28 — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|
| | | |
| | | |

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT

**GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35, GRID 24 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SDP-76-20 SDP-89-20

TITLE

**COVER SHEET** C-1

DMW
Daft·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*

11-20-06
Date

STATE OF MARYLAND — CHARLES VICTOR ... III — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=100' |
| DRAWING NO. | 1 of 15 |

SDP-06-137

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## LEGEND

| | |
|---|---|
| | EX. TREELINE |
| | EX. MINOR CONTOUR (2' INT.) |
| | EX. MAJOR CONTOUR (10' INT.) |
| | AREA OF INTERPOLATED CONTOURS |
| | EX. STRUCTURE |
| | PROP. TREELINE (IF SHOWN) |
| | PROPERTY BOUNDARY |
| | RIGHT OF WAY LINE |
| | ADJACENT LOT LINE |
| | PROP. LOT LINE |
| | BUILDING SETBACK LINE |
| | EX. CURB AND GUTTER |
| | PROP. CURB AND GUTTER |
| | PROP. REVERSE CURB |
| 450 | PROP. MINOR CONTOUR |
| 448 | PROP. MAJOR CONTOUR |
| | ROADWAY CENTERLINE |
| | SOIL TYPE DELINEATION LINE |
| | EX. UTILITY POLE |
| | EASEMENT AREAS |
| | LIMIT OF DISTURBANCE |
| 8" W. | EX. WATER |
| 8" S. | EX. SEWER |
| 24" D. | EX. STORM DRAIN |
| 8" W. | PROP. WATER |
| 8" S. | PROP. SEWER |
| 24" D. | PROP. STORM DRAIN |
| | CONCRETE PAVING |
| 6" RD | 6" HDPE ROOF DRAIN |
| | EX. FENCE |
| | PROP. FENCE |

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

| | |
|---|---|
| DIRECTOR | 11/29/06 DATE |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | 11/29/06 DATE |
| CHIEF, DIVISION OF LAND DEVELOPMENT | 11/29/06 DATE |

| DATE | NO. | REVISION |
|---|---|---|
| | | |
| | | |

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT

# GRASSROOTS CRISIS INTERVENTION CENTER

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

## SITE AND GRADING PLAN C-2

**DMW**
Daft-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*

11-20-06
Date

STATE OF MARYLAND — CHARLES VICTOR MAISE II — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 2 of 15 |

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## LEGEND

| | |
|---|---|
| EX. TREELINE | |
| EX. MINOR CONTOUR (2' INT.) | |
| EX. MAJOR CONTOUR (10' INT.) | |
| EX. STRUCTURE | |
| EX. CURB AND GUTTER | |
| EX. UTILITY POLE | |
| PROPERTY BOUNDARY | |
| RIGHT OF WAY LINE | |
| ADJACENT LOT LINE | |
| ROADWAY CENTERLINE | |
| TO BE DEMOLISHED | |
| TBR | TO BE REMOVED |

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/28/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT

# GRASSROOTS CRISIS INTERVENTION CENTER

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

## DEMOLITION PLAN

C-3

DMW
Daft·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*

11-20-06
Date

STATE OF MARYLAND — CHARLES VICTOR M... III — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 3 of 15 |

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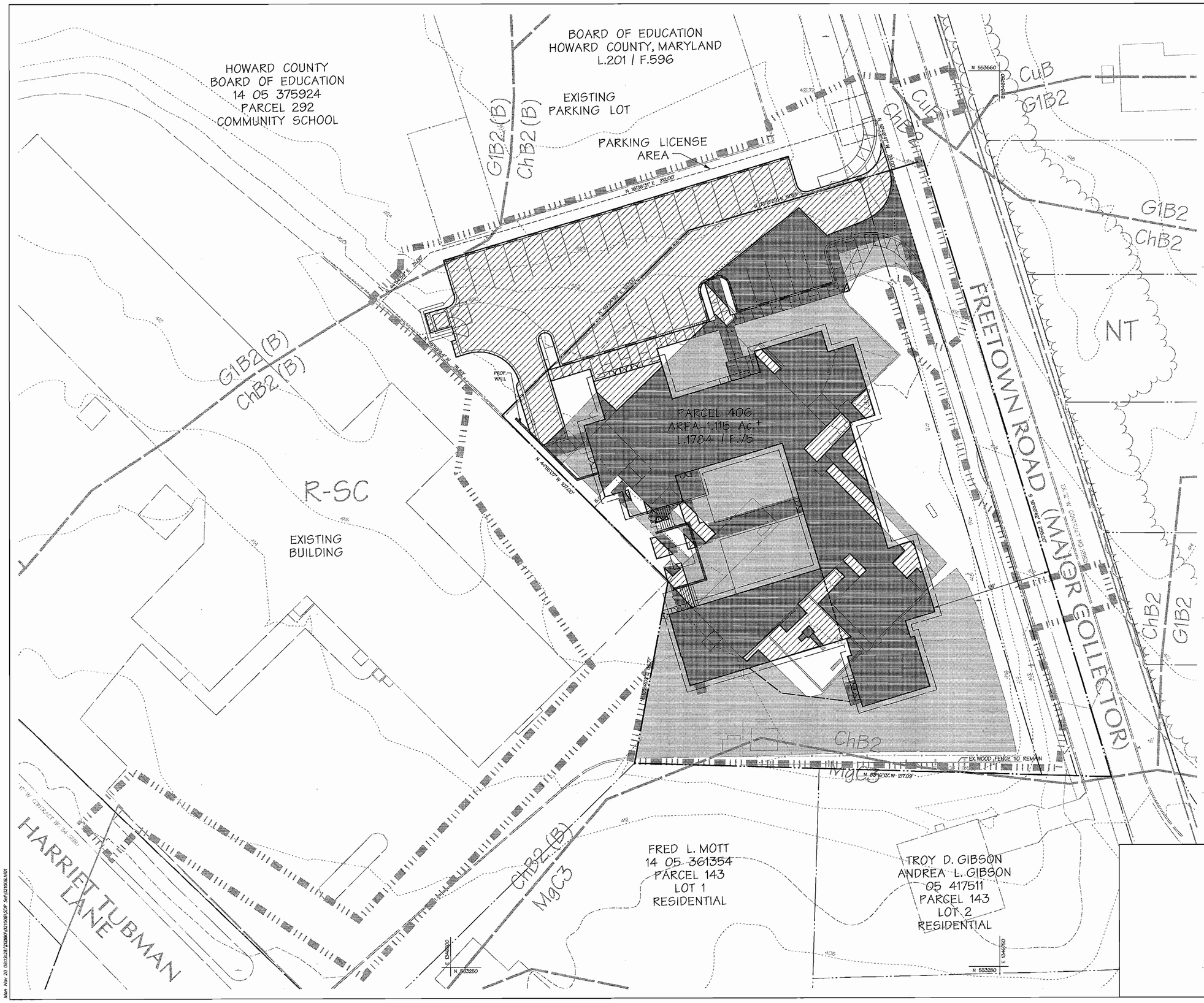


## SUMMARY

EXISTING IMPERVIOUS = 0.63 AC
PROPSED IMPERVIOUS = 0.61 AC
NET REDUCTION IN IMPERVIOUS AREA = 0.02 AC.

## LEGEND

- REDEVELOPMENT (EX. PAVING TO PROP. PAVING) = 0.30 AC
- EX. LAWN TO IMPERVIOUS = 0.31 AC
- EX. PAVING TO LAWN = 0.33 AC
- LIMIT OF DISTURBANCE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

| | |
|---|---|
| DIRECTOR | DATE 11/29/06 |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE 11/28/06 |
| CHIEF, DIVISION OF LAND DEVELOPMENT | DATE 11/29/06 |

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
**GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
**STORMWATER MANAGEMENT REDEVELOPMENT PLAN** C-4

DMW
Daft·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

11-20-06
Date

STATE OF MARYLAND
CHARLES VICTOR MAYER
No. 20784
REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 4 of 15 |

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Hardin-Kight Associates, Inc
7624 W B & A Road, Suite 100
Glen Burnie, Maryland 21061

Office: (410) 553-0802
Fax: (410) 553-0808

# Record of Soil Exploration

Contracted With: GRASS ROOTS CRISIS INTERVENTION CENTER
Projects Name: GRASS ROOTS CRISIS SUPPORT CENTER
Location: HOWARD COUNTY, MD

Boring: B-1
Job #: 06131

Datum FF=421.0 | Hammer Wt. 140 lbs. | Rock Core Dia. -- | Foreman Geomatrix
Surf. Elev. =420.1 | Hammer Drop 30 in. | Hole Diameter 6.0" | Inspector J. Penn
Date Started 3/1/06 | Pipe Size 2 in. | Boring Method HSA | Date Finished 3/1/06

| Elev. in ft. | Soil Description* Color, Moisture, Density Plasticity, Size Proportions | Strata Depth | Depth Scale (FT) | Sample Coed | Blows / 6" | No. | Type | Rec. | Boring & Sample Notes |
|---|---|---|---|---|---|---|---|---|---|
| ** | Brown, moist, loose, non-plastic, mica, sandy SILT (ML) | | 0.0 | I | 3-5-3 | 1 | DS | 11" | *Visual |
| 418.1 | | 2.0 | | | | | | | 2" of Topsoil |
| | Orange brown, moist to wet, loose, mod plastic, mica, sandy SILT (ML)* | | | I | 3-2-2 | 2 | DS | 10" | |
| 414.7 | | 5.4 | 5.0 | | | | | | |
| | Red brown, moist, loose, slight to non-plastic, mica, silty SAND (SM)* | | | I | 3-3-3 | 3 | DS | 13" | |
| 412.6 | | 7.5 | | | | | | | |
| | White, pink, moist, loose, mica, sandy SILT (ML)* (saprolite) | | | I | 3-4-5 | 4 | DS | 12" | Relic structure |
| 409.7 | | 9.6 | | | | | | | |
| | Orange brown, moist, stiff, slight to medium plastic, mica, sandy SILT (ML)* (saprolite) | 10.4 | 10.0 | I | 4-8-6 | 5 | DS | 14" | |
| 407.1 | White, pink, moist, medium dense, slight to non-plastic, mica, silty SAND (SM)* (saprolite) | 13.0 | | | | | | | |
| 405.1 | | 15.0 | 15.0 | | | | | | |
| | Gray, moist, loose, non-plastic micaceous, silty SAND (SM)* (saprolite) | | | I | 2-3-3 | 6 | DS | 14" | Placed pipe for WLMP |
| | Bottom of Hole at 15.0' | | 20.0 | | | | | | |
| | | | 25.0 | | | | | | |
| | | | 30.0 | | | | | | |

Sampler Type
DS- Driven Split Spoon
PT- Pressed Shelby Tube
CA- Continuous Flight Auger
RC- Rock Core

Sample Conditions
D- Disintegrated
I- Intact
U- Undisturbed
L- Lost

Boring Method
HSA- Hollow Stem Augers
CFA- Continuous Flight Augers
DC- Driven Casing
MD- Mud Drilling

Water at Completion after 24 hours
Caved 15.0'

STANDARD PENETRATION TEST - DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS

Hardin-Kight Associates, Inc
7624 W B & A Road, Suite 100
Glen Burnie, Maryland 21061

Office: (410) 553-0802
Fax: (410) 553-0808

# Record of Soil Exploration

Contracted With: GRASS ROOTS CRISIS INTERVENTION CENTER
Projects Name: GRASS ROOTS CRISIS SUPPORT CENTER
Location: HOWARD COUNTY, MD

Boring: B-2
Job #: 06131

Datum FF=421.0 | Hammer Wt. 140 lbs. | Rock Core Dia. -- | Foreman Geomatrix
Surf. Elev. =420.5 | Hammer Drop 30 in. | Hole Diameter 6.0" | Inspector J. Penn
Date Started 3/1/06 | Pipe Size 2 in. | Boring Method HSA | Date Finished 3/1/06

| Elev. in ft. | Soil Description* Color, Moisture, Density Plasticity, Size Proportions | Strata Depth | Depth Scale (FT) | Sample Coed | Blows / 6" | No. | Type | Rec. | Boring & Sample Notes |
|---|---|---|---|---|---|---|---|---|---|
| ** | Red brown, moist, very loose to loose, slight to non-plastic, silty, micaS SAND (SM)* (FILL) | | 0.0 | I | 2-1-2 | 1 | DS | 10" | *Visual |
| 418.0 | | 4.5 | | | | | | | 2" of Topsoil |
| | Red brown to yellow brown, moist to wet, loose, slight to medium plastic, silty, clayey, micaS SAND (SC-SM)* (possible fill) | | | I | 2-1-2 | 2 | DS | 4" | |
| 413.2 | | 7.3 | 5.0 | | | | | | |
| | Gray, moist, medium dense, non-plastic, mica, silty SAND (SM)* (saprolite) | | | I | 2-2-3 | 3 | DS | 9" | |
| 410.2 | | 10.3 | 10.0 | I | 10-13-14 | 4 | DS | 15" | Relic structure |
| | Pink to white, gray, medium dense, non-plastic, mica, sandy SILT (ML)* (saprolite) | | | I | 4-5-7 | 5 | DS | 14" | |
| 405.5 | | 15.0 | 15.0 | | | | | | |
| | Bottom of Hole at 15.0' | | | I | 3-4-7 | 6 | DS | 15" | |
| | | | 20.0 | | | | | | Installed screen and pipe |
| | | | 25.0 | | | | | | |
| | | | 30.0 | | | | | | |

Sampler Type
DS- Driven Split Spoon
PT- Pressed Shelby Tube
CA- Continuous Flight Auger
RC- Rock Core

Sample Conditions
D- Disintegrated
I- Intact
U- Undisturbed
L- Lost

Boring Method
HSA- Hollow Stem Augers
CFA- Continuous Flight Augers
DC- Driven Casing
MD- Mud Drilling

Water at Completion after 24 hours
Caved

STANDARD PENETRATION TEST - DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS

Hardin-Kight Associates, Inc
7624 W B & A Road, Suite 100
Glen Burnie, Maryland 21061

Office: (410) 553-0802
Fax: (410) 553-0808

# Record of Soil Exploration

Contracted With: GRASS ROOTS CRISIS INTERVENTION CENTER
Projects Name: GRASS ROOTS CRISIS SUPPORT CENTER
Location: HOWARD COUNTY, MD

Boring: B-3
Job #: 06131

Datum FF=421.0 | Hammer Wt. 140 lbs. | Rock Core Dia. -- | Foreman Geomatrix
Surf. Elev. =423.8 | Hammer Drop 30 in. | Hole Diameter 6.0" | Inspector J. Penn
Date Started 3/1/06 | Pipe Size 2 in. | Boring Method HSA | Date Finished 3/1/06

| Elev. in ft. | Soil Description* Color, Moisture, Density Plasticity, Size Proportions | Strata Depth | Depth Scale (FT) | Sample Coed | Blows / 6" | No. | Type | Rec. | Boring & Sample Notes |
|---|---|---|---|---|---|---|---|---|---|
| ** | Brown, red brown, moist, medium dense, medium plastic, clayey, mica SAND (SC)* | | 0.0 | I | 2-2-8 | 1 | DS | 11" | *Visual |
| 421.8 | | 2.0 | | | | | | | 3" of Topsoil |
| | Yellow brown, moist to wet, medium stiff, slightly plastic, sandy SILT (ML)* | | | I | 3-3-5 | 2 | DS | 14" | |
| 418.8 | | 5.2 | 5.0 | | | | | | |
| | Red brown, moist, medium dense, slightly plastic, silty SAND (SM)* | | | I | 3-4-7 | 3 | DS | 14" | |
| 413.8 | | 10.0 | | | | | | | |
| | | | 10.0 | I | 5-5-8 | 4 | DS | 11" | |
| | Bottom of Hole at 10.0' | | | | | | | | Backfilled at completion |
| | | | 15.0 | | | | | | |
| | | | 20.0 | | | | | | |
| | | | 25.0 | | | | | | |
| | | | 30.0 | | | | | | |

Sampler Type
DS- Driven Split Spoon
PT- Pressed Shelby Tube
CA- Continuous Flight Auger
RC- Rock Core

Sample Conditions
D- Disintegrated
I- Intact
U- Undisturbed
L- Lost

Boring Method
HSA- Hollow Stem Augers
CFA- Continuous Flight Augers
DC- Driven Casing
MD- Mud Drilling

Water at Completion —
Caved 3.9'

STANDARD PENETRATION TEST - DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/29/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
**GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **STORMWATER MANAGEMENT SPECIFICATIONS AND BORING LOGS** C-5

DMW
Daft-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

11-20-06
Date

STATE OF MARYLAND — CHRISTOPHER V. SCHAEFER — No. 20184 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20184

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | AS SHOWN |
| DRAWING NO. | 5 of 15 |

SDP-06-137

Mon Nov 20 08:12:58 I:\2006\02100\02100B\SDP Set\021008.M02

Mon Nov 20 08:28:29 2006 I:\2006\02100\02100B\SDP Set\02100B.M02

11/28/2006 8:12:49 AM gorbris c:\hpm\02100\02100B\SDP Set\02100B.M02

| | | |
|---|---|---|
| 0.05 AC. C=0.6 | A | ZONING R-SC % IMP = 60% |
| 0.20 AC. C=0.7 | B | ZONING R-SC % IMP = 85% |
| 0.07 AC. C=0.7 | C | ZONING R-SC % IMP = 70% |
| 0.07 AC. C=0.7 | D | ZONING R-SC % IMP = 70% |

HOWARD COUNTY BOARD OF EDUCATION
14 05 375924
PARCEL 232
COMMUNITY SCHOOL

BOARD OF EDUCATION
HOWARD COUNTY, MARYLAND
L.201 | F.596

ABANDONED SEPTIC TANK TO BE FILLED WITH SLURRY

PARCEL 406
AREA=1.46 AC.±
L.764 | F.75
ZONED RSC

EX. CONCRETE TO BE REMOVED

EX. WOOD FENCE TO REMAIN

EX. H.H. TO BE RELOCATED

PIPE OUTLET CAST IN CURB

EX. CONCAST CABLE

EX. SANITARY SEWER CONTRACT NO. 24W-2089-W

EX. SANITARY SEWER CONTRACT NO. 24S-2089-D

EX. SANITARY SEWER CONTRACT NO. 21S-2089-D

EX. STORM DRAIN CONTRACT NO. 24D-2089-D

20' SEWER EASEMENT AS SHOWN IN L.1784 | F.75

20' STORM DRAIN EASEMENT

20' SANITARY SEWER EASEMENT

POTENTIAL GAS CONNECTION

FRED L. MOTT
14 05 361354
PARCEL 143
LOT 1
RESIDENTIAL
ZONED RSC

TROY D. GIBSON
ANDREA L. GIBSON
05 417511
PARCEL 143
LOT 2
RESIDENTIAL
ZONED RSC

FREETOWN ROAD (MAJOR COLLECTOR)

HARRIET TUBMAN LANE

G1B2(B) ChB2(B) MgC3

CuB G1B2 ChB2 MgC3

N 553660 E 1342020

N 553250 E 1342020

## LEGEND

- EX. TREELINE
- EX. MINOR CONTOUR (2' INT.)
- EX. MAJOR CONTOUR (10' INT.)
- AREA OF INTERPOLATED CONTOURS
- EX. STRUCTURE
- PROP. TREELINE (IF SHOWN)
- PROPERTY BOUNDARY
- RIGHT OF WAY LINE
- ADJACENT LOT LINE
- PROP. LOT LINE
- BUILDING SETBACK LINE
- EX. CURB AND GUTTER
- PROP. CURB AND GUTTER
- PROP. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- ROADWAY CENTERLINE
- SOIL TYPE DELINEATION LINE
- EX. UTILITY POLE
- EASEMENT AREAS
- LIMIT OF DISTURBANCE
- 8" W. EX. WATER
- 8" S. EX. SEWER
- 24" D. EX. STORM DRAIN
- 8" W. PROP. WATER
- 8" S. PROP. SEWER
- 24" D. PROP. STORM DRAIN
- PROP. SWM DRAINAGE AREA
- PROP. STORM DRAIN DRAINAGE AREAS

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

| | |
|---|---|
| DIRECTOR | DATE 11/29/06 |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE 11/20/06 |
| CHIEF, DIVISION OF LAND DEVELOPMENT | DATE 11/21/06 |

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
**GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
**DRAINAGE AREA AND SOILS MAP** C-6


**DMW**
Dait-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*


11-20-06
Date

Professional Engr. No. 20181

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 6 of 15 |

SDP-06-137

Mon Nov 20 08:15:38 2006 \02100\02100SDP Sht\02100B.DAT

Mon Nov 20 08:56:36 2006 a\02100\02100SDP Sht\02100B.DAT

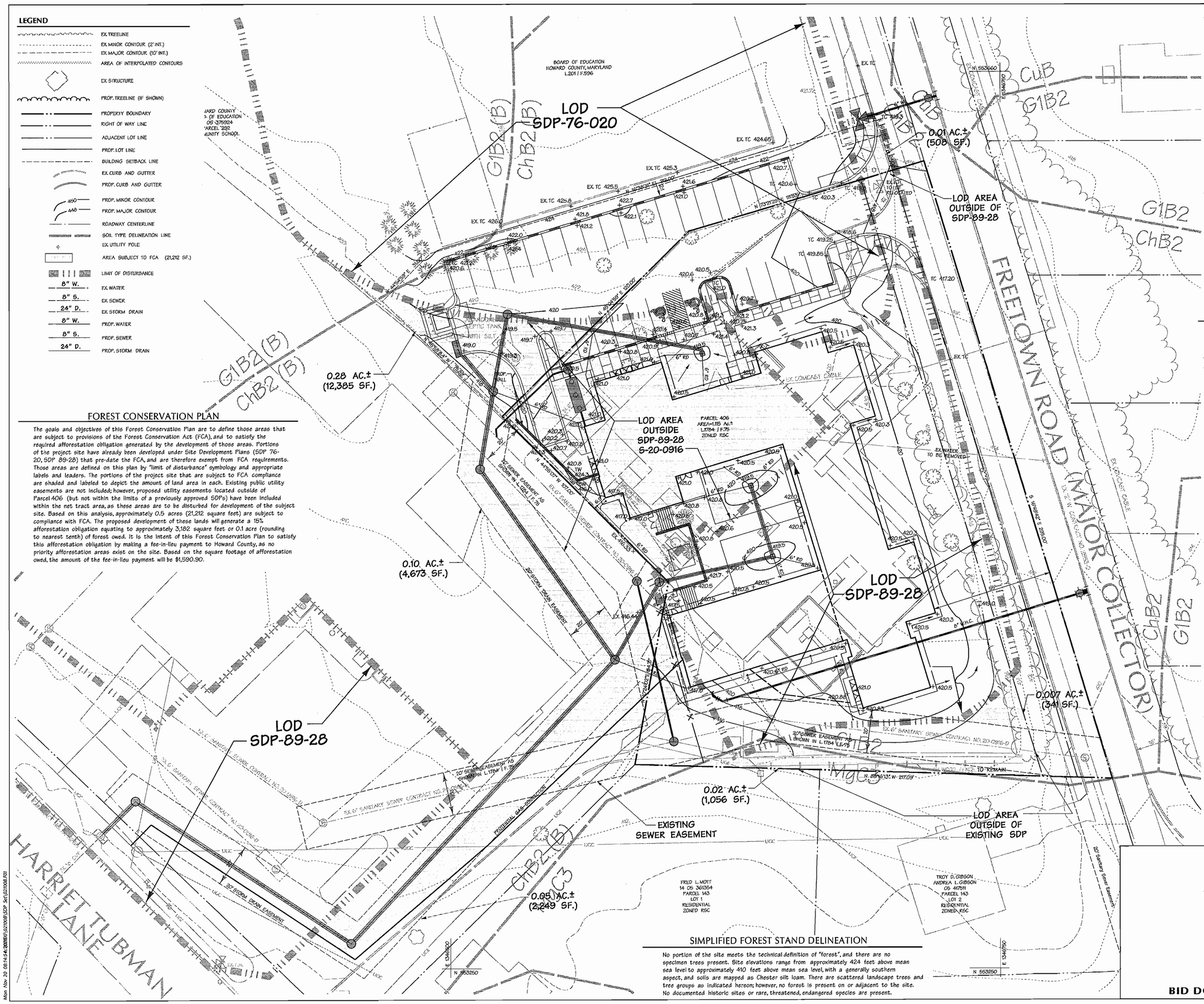
11/20/2006 8:15:31 AM gorbuts c:\hpm\02100\02100B.hpm n:\02100\02100B\SDP Sht\02100B.DAT 02100B.DAT

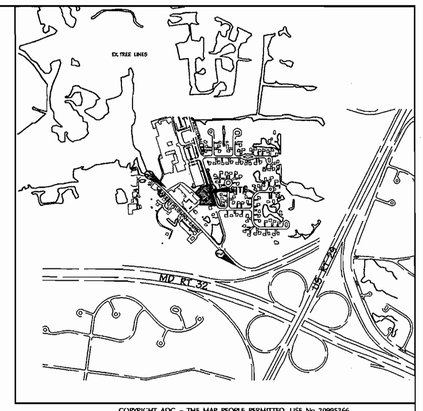
## LEGEND

- EX. TREELINE
- EX. MINOR CONTOUR (2' INT.)
- EX. MAJOR CONTOUR (10' INT.)
- AREA OF INTERPOLATED CONTOURS
- EX. STRUCTURE
- PROP. TREELINE (IF SHOWN)
- PROPERTY BOUNDARY
- RIGHT OF WAY LINE
- ADJACENT LOT LINE
- PROP. LOT LINE
- BUILDING SETBACK LINE
- EX. CURB AND GUTTER
- PROP. CURB AND GUTTER
- 450 PROP. MINOR CONTOUR
- 448 PROP. MAJOR CONTOUR
- ROADWAY CENTERLINE
- SOIL TYPE DELINEATION LINE
- EX. UTILITY POLE
- AREA SUBJECT TO FCA (21,212 SF.)
- LIMIT OF DISTURBANCE
- 8" W. EX. WATER
- 8" S. EX. SEWER
- 24" D. EX. STORM DRAIN
- 8" W. PROP. WATER
- 8" S. PROP. SEWER
- 24" D. PROP. STORM DRAIN

## FOREST CONSERVATION PLAN

The goals and objectives of this Forest Conservation Plan are to define those areas that are subject to provisions of the Forest Conservation Act (FCA), and to satisfy the required afforestation obligation generated by the development of those areas. Portions of the project site have already been developed under Site Development Plans (SDP 76-20, SDP 89-28) that pre-date the FCA, and are therefore exempt from FCA requirements. Those areas are defined on this plan by "limit of disturbance" symbology and appropriate labels and leaders. The portions of the project site that are subject to FCA compliance are shaded and labeled to depict the amount of land area in each. Existing public utility easements are not included; however, proposed utility easements located outside of Parcel 406 (but not within the limits of a previously approved SDPs) have been included within the net tract area, as these areas are to be disturbed for development of the subject site. Based on this analysis, approximately 0.5 acres (21,212 square feet) are subject to compliance with FCA. The proposed development of these lands will generate a 15% afforestation obligation equating to approximately 3,182 square feet or 0.1 acre (rounding to nearest tenth) of forest owed. It is the intent of this Forest Conservation Plan to satisfy this afforestation obligation by making a fee-in-lieu payment to Howard County, as no priority afforestation areas exist on the site. Based on the square footage of afforestation owed, the amount of the fee-in-lieu payment will be $1,590.90.




COPYRIGHT ADC - THE MAP PEOPLE, PERMITTED USE No. 20995366

## VICINITY MAP

SCALE: 1" = 1000'

## FOREST CONSERVATION CALCULATIONS

| BASIC SITE DATA | ACRES (1/10) |
|---|---|
| GROSS SITE AREA | 1.34 |
| AREA WITHIN 100 YEAR FLOODPLAIN | 0.0 |
| *NET TRACT AREA | 0.5 |
| LAND USE CATEGORY | RSC |

| INFORMATION FOR CALCULATIONS | |
|---|---|
| A. NET TRACT AREA | 0.5 |
| B. REFORESTATION THRESHOLD (20% x A) | 0.1 |
| C. AFFORESTATION MINIMUM (15% x A) | 0.1 |
| D. EXISTING FOREST ON NET TRACT AREA | 0.0 |
| E. FOREST AREAS TO BE CLEARED | 0.0 |
| F. FOREST AREAS TO BE RETAINED | 0.0 |

| AFORESTATION CALCULATIONS | |
|---|---|
| A. NET TRACT AREA | 0.5 |
| B. AFFORESTATION THRESHOLD (15% x A) | 0.1 |
| C. EXISTING FOREST ON NET TRACT AREA | 0.0 |
| D. FOREST AREAS TO BE CLEARED | 0.0 |
| E. FOREST AREAS TO BE RETAINED | 0.0 |

AFFORESTATION PROVIDED: 0.1± ACRE (FEE-IN-LIEU)

*NOTE: THE REMAINDER OF THE SITE WAS NETTED OUT THE CALCULATIONS BASED ON BEING WITHIN THE L.O.D OF PREVIOUS SDP'S

NOTE: THERE ARE NO FLOODPLAINS, STEEP SLOPES, WETLANDS, WETLAND BUFFERS, STREAMS, NOR STREAM BUFFERS ON THIS SITE.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

| | |
|---|---|
| DIRECTOR | DATE 11/29/06 |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE 11/29/06 |
| CHIEF, DIVISION OF LAND DEVELOPMENT | DATE 11/29/06 |

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
# GRASSROOTS CRISIS INTERVENTION CENTER

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **FOREST CONSERVATION AND FOREST STAND DELINEATION PLAN** C-7

DMW
Daft·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*

11/20/06 Date

STATE OF MARYLAND THOMAS H. REBSHER REGISTERED LANDSCAPE ARCHITECT NO. 268

Landscape Architect No. 268

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 7 of 15 |

BID DOCUMENTS

SDP-06-137

Mon Nov 20 08:14:54 2006 M:\2100\02100B\SDP Set\02100B.f01

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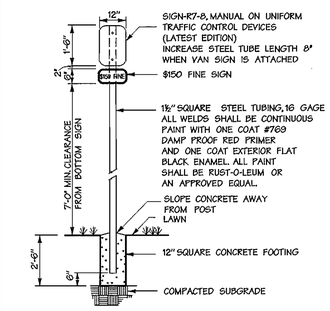
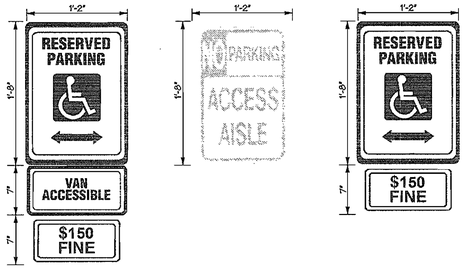



NOTES:
1. DISTANCE FROM GROUND TO BOTTOM OF SIGN SHALL BE 7'-0".
2. SEE HANDICAPPED PARKING SPACE DETAIL THIS SHEET FOR LOCATION OF HANDICAPPED SIGN.
3. SIGNS SHALL CONFORM TO CURRENT ADA CRITERIA.

SIGN COLORS:
LETTERS AND BORDER - GREEN
WHITE H.C. SYMBOLS ON BLUE BACKGROUND
BACKGROUND - WHITE

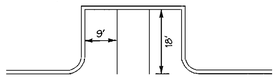
## Handicap Parking Sign




## Handicap Parking Sign Details

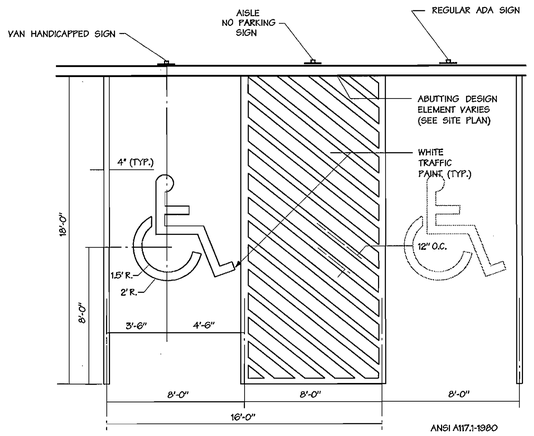
Lasite.cel/HCP1

Not To Scale




## TYPICAL PARKING LAYOUT DETAIL

Not To Scale

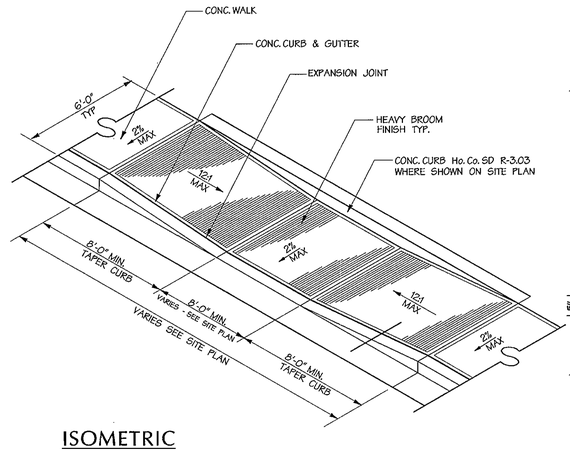



ANSI A117.1-1980

Conplan.cel/TRCHCV

Scale: 1"=5'

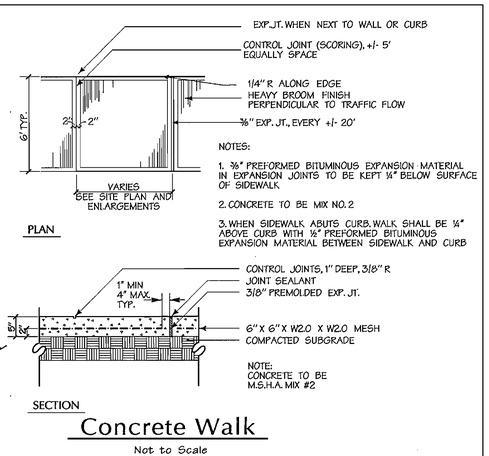
## Handicapped Van Parking Space




ISOMETRIC

## Handicapped Ramp - A

Not To Scale

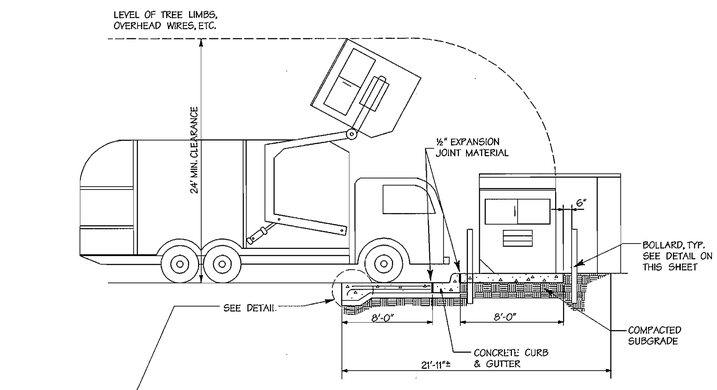


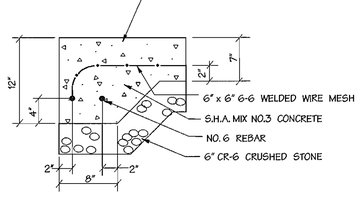

NOTES:
1. ½" PREFORMED BITUMINOUS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT ¼" BELOW SURFACE OF SIDEWALK.
2. CONCRETE TO BE MIX NO. 2
3. WHEN SIDEWALK ABUTS CURB, WALK SHALL BE ¼" ABOVE CURB WITH ½" PREFORMED BITUMINOUS EXPANSION MATERIAL BETWEEN SIDEWALK AND CURB

NOTE:
CONCRETE TO BE M.S.H.A. MIX #2

## Concrete Walk

Not to Scale



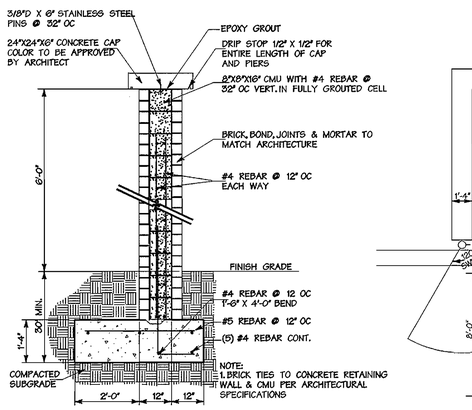




Section

NOTE: SEE STANDARD HOWARD COUNTY DETAIL R11.01 FOR ADDITIONAL DIMENSIONS

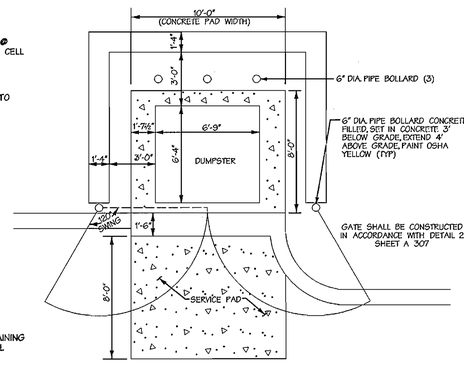
## Service Pad and Dumpster Bin

Not to Scale



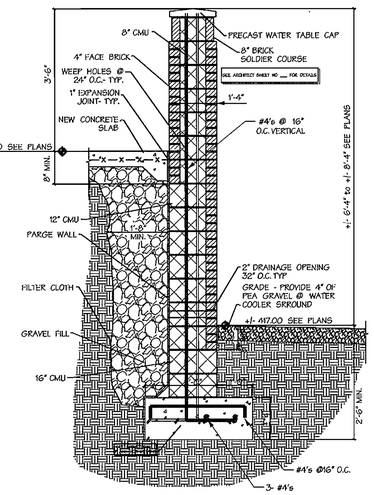

## DUMPSTER ENCLOSURE WALL

Not To Scale




## DUMPSTER ENCLOSURE

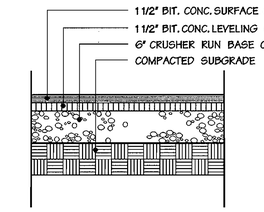
NOT TO SCALE




## Retaining Wall at Property Line

See Structural Computations by Skarda Engineering for Supporting Data

Not to Scale



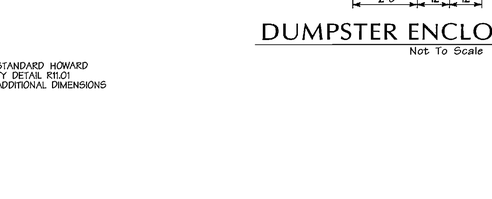

P-2 GRANULAR BASE FOR ONSITE TRAVELWAYS

## Paving Detail

Not to Scale

NOTE: PAVING SECTION TO BE APPROVED BY GEO-TECHNICAL ENGINEER

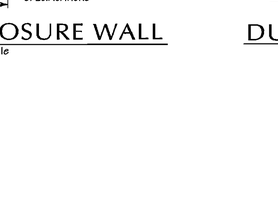



## 6" Combination Curb & Gutter

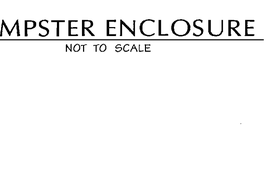
Not to Scale

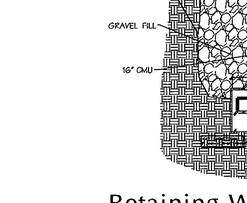
NOTE: 7" CURB TO BE USED ONLY ALONG FREETOWN ROAD




## Bollard

Not to Scale




## 7" Combination Curb and Gutter

Not To Scale

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/29/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT **GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **DETAIL SHEET** — C-8


DMW
Daft-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4706

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


11-20-06
Date

STATE OF MARYLAND — CHRIS VICTOR MAUER — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | AS SHOWN |
| DRAWING NO. | 8 of 15 |

SDP-06-137

Mon Nov 20 08:11:32 2006 J:\2006\02100\02100SP.SDP Set\02100B.SP2

11/20/2006 8:11:32 AM gotvtis c:\hpm\02100B.hpm n:\02100\02100B\SDP Set\02100B.SP2 02100B.SP2

## DEVELOPER'S| BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME — DATE 11/2/06

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL."

THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

## NOTES:

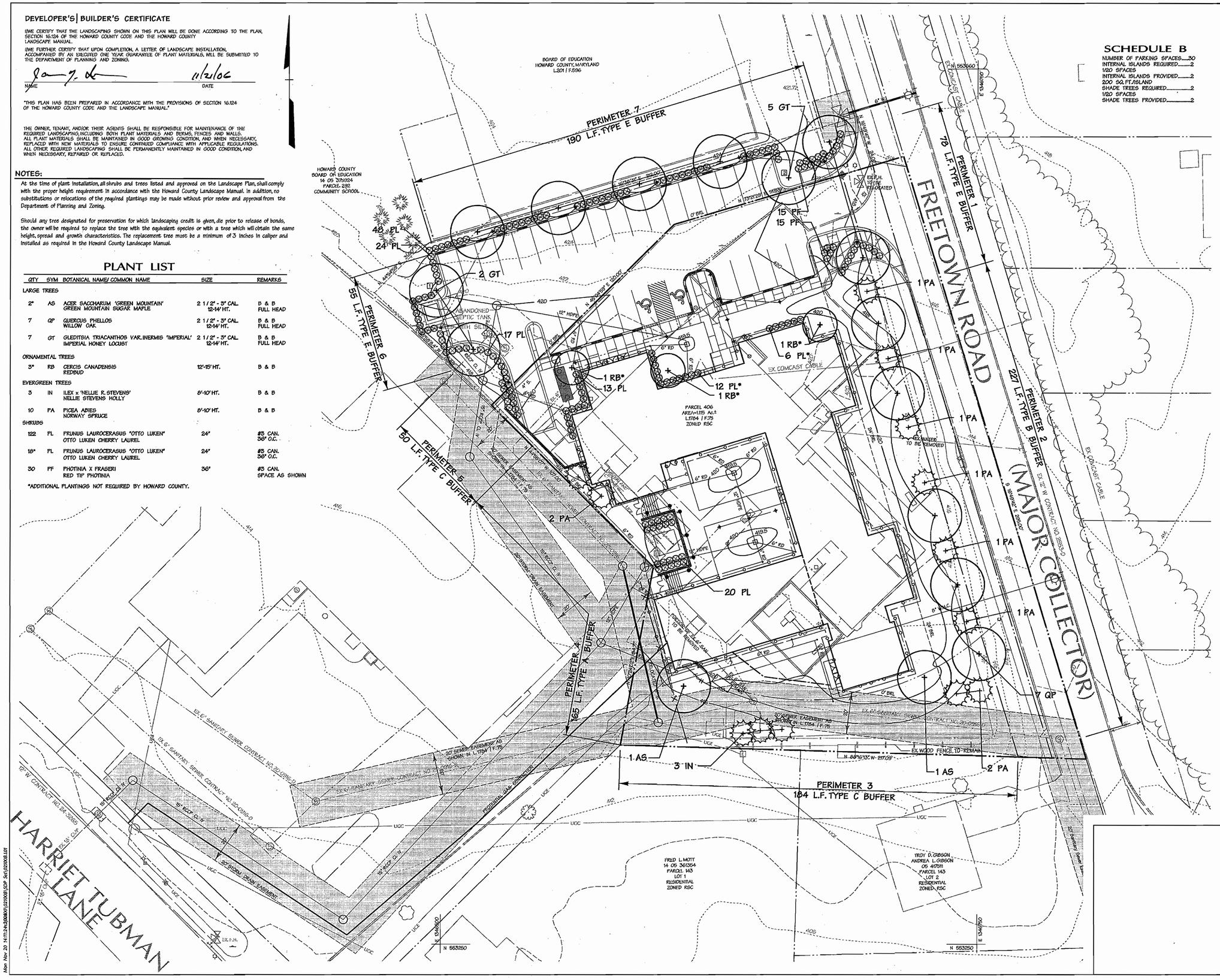
At the time of plant installation, all shrubs and trees listed and approved on the Landscape Plan, shall comply with the proper height requirement in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocations of the required plantings may be made without prior review and approval from the Department of Planning and Zoning.

Should any tree designated for preservation for which landscaping credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and installed as required in the Howard County Landscape Manual.

## PLANT LIST

| QTY | SYM | BOTANICAL NAME/ COMMON NAME | SIZE | REMARKS |
|---|---|---|---|---|
| **LARGE TREES** | | | | |
| 2* | AS | ACER SACCHARUM 'GREEN MOUNTAIN' GREEN MOUNTAIN SUGAR MAPLE | 2 1/2" - 3" CAL. 12-14' HT. | B & B FULL HEAD |
| 7 | QP | QUERCUS PHELLOS WILLOW OAK | 2 1/2" - 3" CAL. 12-14' HT. | B & B FULL HEAD |
| 7 | GT | GLEDITSIA TRIACANTHOS VAR. INERMIS 'IMPERIAL' IMPERIAL HONEY LOCUST | 2 1/2" - 3" CAL. 12-14' HT. | B & B FULL HEAD |
| **ORNAMENTAL TREES** | | | | |
| 3* | RB | CERCIS CANADENSIS REDBUD | 12'-15' HT. | B & B |
| **EVERGREEN TREES** | | | | |
| 3 | IN | ILEX x 'NELLIE R. STEVENS' NELLIE STEVENS HOLLY | 8'-10' HT. | B & B |
| 10 | PA | PICEA ABIES NORWAY SPRUCE | 8'-10' HT. | B & B |
| **SHRUBS** | | | | |
| 122 | FL | PRUNUS LAUROCERASUS "OTTO LUKEN" OTTO LUKEN CHERRY LAUREL | 24" | #3 CAN. 36" O.C. |
| 18* | FL | PRUNUS LAUROCERASUS "OTTO LUKEN" OTTO LUKEN CHERRY LAUREL | 24" | #3 CAN. 36" O.C. |
| 30 | FF | PHOTINIA X FRASERI RED TIP PHOTINIA | 36" | #3 CAN. SPACE AS SHOWN |

*ADDITIONAL PLANTINGS NOT REQUIRED BY HOWARD COUNTY.




## SCHEDULE B

NUMBER OF PARKING SPACES.....30
INTERNAL ISLANDS REQUIRED.....2
1/20 SPACES
INTERNAL ISLANDS PROVIDED.....2
200 SQ. FT./ISLAND
SHADE TREES REQUIRED.....2
1/20 SPACES
SHADE TREES PROVIDED.....2

## SCHEDULE A
## PERIMETER LANDSCAPE EDGE

| CATEGORY | ADJACENT to RIGHT OF WAY | | ADJACENT to PERIMETER PROP. | | | | |
|---|---|---|---|---|---|---|---|
| LANDSCAPE TYPE "A" | | | | 4 | | | |
| LINEAR FEET OF PERIMETER | | | | 165 | | | |
| LANDSCAPE TYPE "B" | | 2 | | | | | |
| LINEAR FEET OF PERIMETER | | 227 | | | | | |
| LANDSCAPE TYPE "C" | | | 3 | | 5 | | |
| LINEAR FEET OF PERIMETER | | | 184 | | 50 | | |
| LANDSCAPE TYPE "D" | | | | | | | |
| LINEAR FEET OF PERIMETER | | | | | | | |
| LANDSCAPE TYPE "E" | 1 | | | | | 6 | 7 |
| LINEAR FEET OF PERIMETER | 78 | | | | | 55 | 190 |
| CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED) | | | | | | | |
| CREDIT FOR FENCE (DESCRIBE BELOW IF NEEDED) | | | 50% | | | | |
| NUMBER OF PLANTS REQUIRED | | | | | | | |
| SHADE TREES (20) | 2 | 5 | 2 (4) | 3 | 1 | 2 | 5 |
| EVERGREEN TREES (15) | | 6 | 5 (9) | | 2 | | |
| SHRUBS (62) | 20 | | | | | 14 | 48 |
| NUMBER OF PLANTS PROVIDED | | | | | | | |
| SHADE TREES (14) | 2 | 5 | 2 | | | 1 | 4 |
| EVERGREEN TREES (15) | | 6 | 5 | 2 | | | |
| SHRUBS (162) | 20 | | | 20 | 30 | 24 | 58 |

## LEGEND

- PROPERTY LINE
- EASEMENT LINE
- EX. CONTOURS
- EX. FIRE HYDRANT
- EX. UTILITIES
- EX. BUILDING
- EX. FENCE
- EX. TREE LINE
- EX. TREE
- EX. CURB & GUTTER
- EX. TELEPHONE POLE
- PROP. CURB & GUTTER
- PROP. CONC. WALK
- PROP. CONTOURS
- PROP. BUILDING
- PROP. LIGHT (BY LIGHTING CONSULTANT)
- PARKING LOT ISLAND PER LANDSCAPE MANUAL
- EXISITNG BGE OVERHEAD ELECTRIC UTILITY LINE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/29/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

**OWNER /DEVELOPER**

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
# GRASSROOTS CRISIS INTERVENTION CENTER

AREA — TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE — **LANDSCAPE PLAN** — C-9


DMW
Daft-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*


11/20/06 Date
STATE OF MARYLAND THOMAS H. REPSHER NO. 299 REGISTERED LANDSCAPE ARCHITECT
Landscape Arch. No. 299

| | |
|---|---|
| DESIGNED BY : | MJP |
| DRAWN BY: | SRG/SHH |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 9 of 15 |

SDP-06-137


Mon Nov 20 14:17:24 2006 N:\02100\B\02100B01.DGN Set\02100B\SDP Set\02100B.LOT
Mon Nov 20 14:18:24 2006 N:\02100\B\02100B01.DGN Set\02100B\SDP Set\02100B.LOT
11/28/2006 2:11:15 PM goutts c:\hpm\02100B.hpm n:\02100\02100B\SDP Set\02100B.LOT 02100B.LOT

## OUTDOOR LIGHT FIXTURE INFORMATION

| FIXTURE NO. | HEIGHT (FEET) | TYPE | SHIELD | INTENSITY LUMENS | INTENSITY WATTAGE |
|---|---|---|---|---|---|
| S1 | 1.5 | BOLLARD | RIBBED 360° OUTPUT MINIMAL (7') SPREAD | 2000 | 15 |
| S2 | 2 | RECESSED STEP LIGHT | NONE | 1050 | 75 |
| S3 (TYP.) | REFER TO ARCH ELEVATIONS | SOFFIT TYPE LIGHTING | WALL WASH | 1510 | 26 |

NOTE: LIGHTING DESIGN BY SCHLENGER / PITZ AND ASSOCIATES, INC

## LEGEND

- PROPERTY LINE
- EASEMENT LINE
- EX. CONTOURS
- EX. FIRE HYDRANT
- EX. UTILITIES
- EX. BUILDING
- EX. FENCE
- EX. TREE LINE
- EX. TREE
- EX. CURB & GUTTER
- EX. TELEPHONE POLE
- PROP. CURB & GUTTER
- PROP. CONC. WALK
- PROP. CONTOURS
- PROP. BUILDING

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/4/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
**GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
**LIGHTING PLAN** C-10


DMW
Daft-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


11/20/06
Date

STATE OF MARYLAND
THOMAS H. REPSHER
NO. 268
REGISTERED LANDSCAPE ARCHITECT

Landscape Arch. No. 268

| | |
|---|---|
| DESIGNED BY : | MJP |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 10 of 15 |

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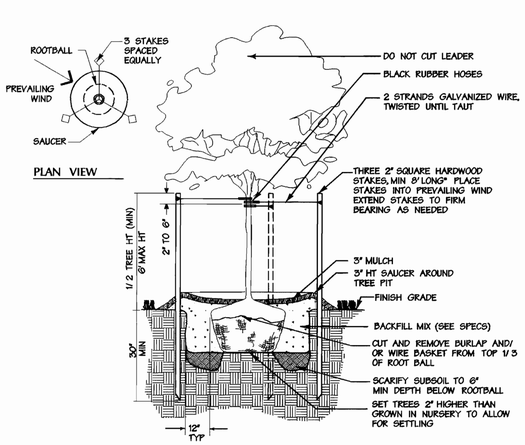
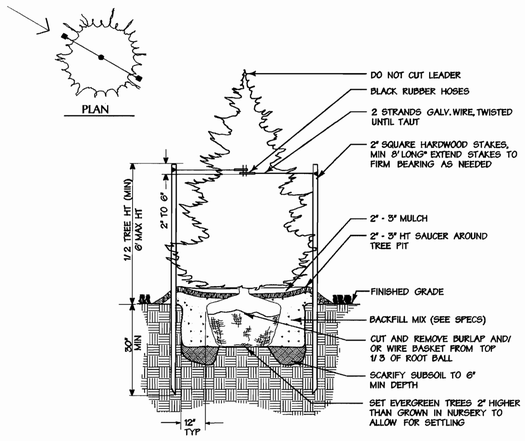


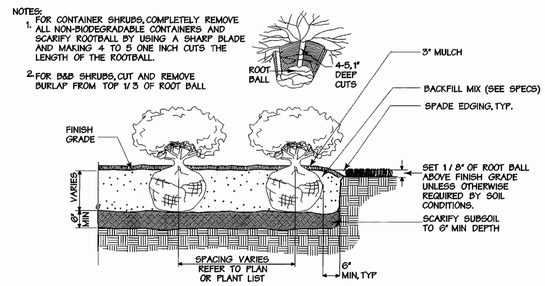

## Deciduous Tree Planting Detail

Not to Scale



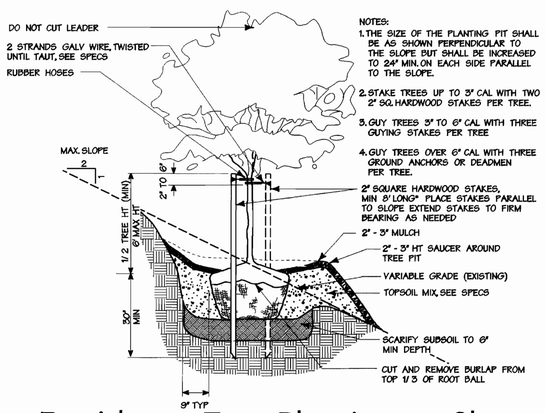

## Evergreen Tree Planting Detail

Not to Scale



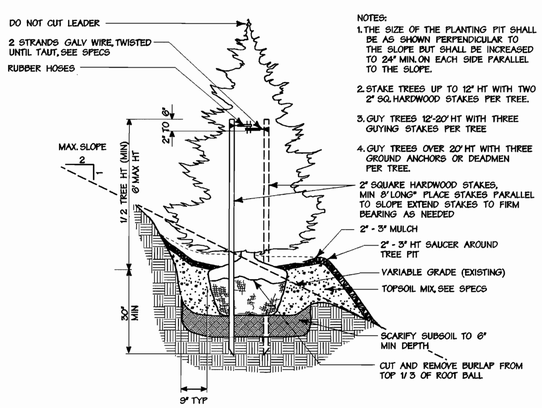

## Shrub Bed Planting Detail

Not to Scale




## Deciduous Tree Planting on Slope

Not to Scale




## Evergreen Tree Planting on Slope

Not to Scale

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/29/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
**GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35 ZONED R-SC PARCEL 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **LANDSCAPE DETAILS** C-11


Daft-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*


11/20/06
Date

STATE OF MARYLAND — THOMAS H. REPSHER — No. 268 — REGISTERED LANDSCAPE ARCHITECT

Landscape Arch. No. 268

| | |
|---|---|
| DESIGNED BY : | MJP |
| DRAWN BY: | WDE |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | N/A |
| DRAWING NO. | 11 of 15 |

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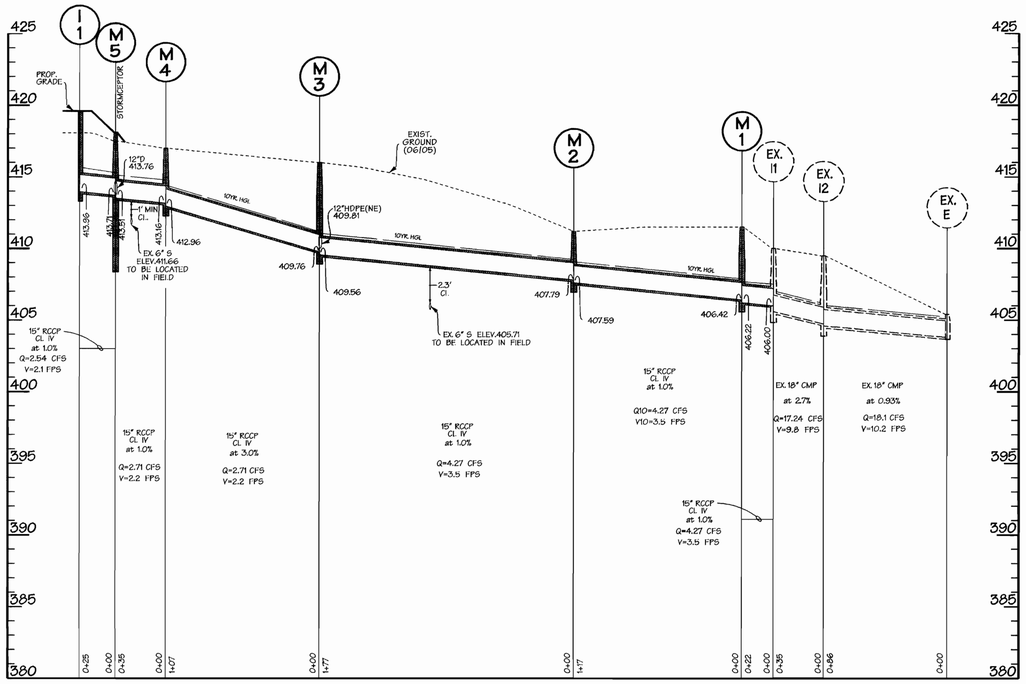
## PROPOSED SANITARY

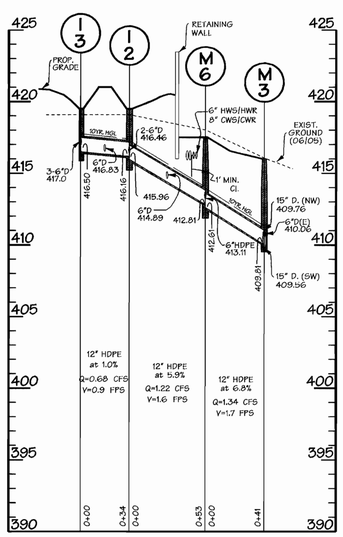
| NO. | TYPE | SIZE | INV. OUT | TOP ELEV. | LOCATION |
|---|---|---|---|---|---|
| SMH-21 | STD 5-1.31 | 48" | 404.71 | 416.0 | SEE PLAN |
| SMH-22 | STD 5-1.31 | 48" | 409.50 | 416.3 | SEE PLAN |
| SMH-23 | STD 5-1.31 | 48" | 416.33 | 420.5 | SEE PLAN |

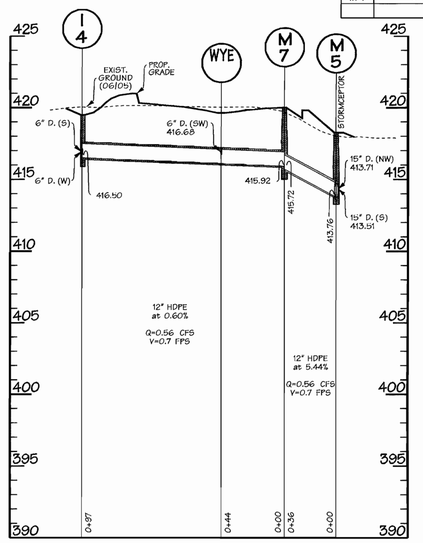
## STRUCTURE SCHEDULE

| NO. | TYPE | SIZE | INV. OUT | TOP ELEV. | LOCATION |
|---|---|---|---|---|---|
| I-1 | TYPE 'A-5' INLET SD-4.01 | 24"x24" | 413.96 | 419.6 | SEE PLAN |
| I-2 | NDS 2413,2404, 2410 CATCH BASIN | 24"x24" | 415.96 | 419.5 | SEE PLAN |
| I-3 | NDS 2413,2404, 2410 CATCH BASIN | 24"x24" | 416.50 | 419.5 | SEE PLAN |
| I-4 | NDS 2413,2404, 2410 CATCH BASIN | 24"x24" | 416.50 | 419.5 | SEE PLAN |
| | AND CATCH BASIN EXTENTION 2418 | | | | |
| M-1 | STD. G-5.12 | 48" | 406.22 | 411.3 | SEE PLAN |
| M-2 | STD. G-5.12 | 48" | 407.59 | 411.3 | SEE PLAN |
| M-3 | STD. G-5.12 | 48" | 409.56 | 416.0 | SEE PLAN |
| M-4 | STD. G-5.12 | 48" | 412.96 | 417.5 | SEE PLAN |
| M-5 | STORMCEPTOR, SEE BELOW | 48" | 413.51 | 418.2 | SEE PLAN |
| M-6 | STD. G-5.12 | 48" | 412.61 | 417.00 | SEE PLAN |
| M-7 | STD. G-5.12 | 48" | 415.72 | 420.00 | SEE PLAN |
| | | | | | |

NOTE: ELEVATION FOR TYPE 'D' INLETS IS THROAT OPENING ELEVATION, TOP OF CURB FOR TYPE 'A-5'

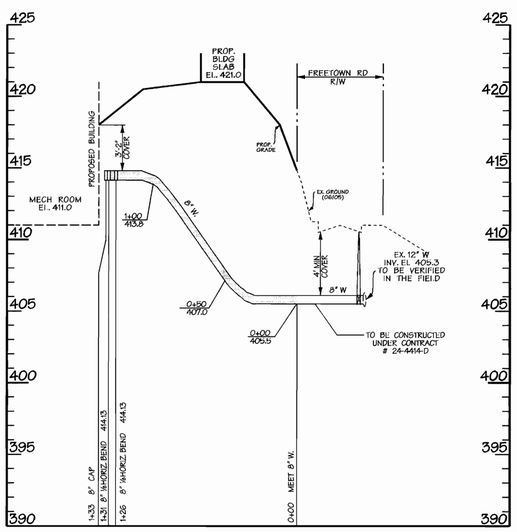


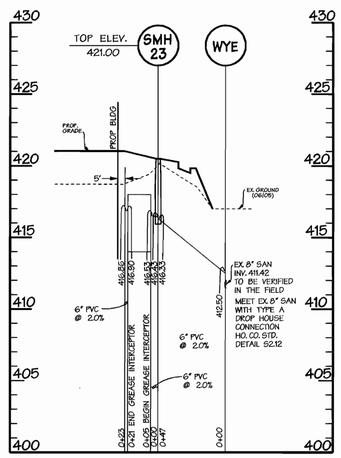

# STORM DRAIN PROFILES

SCALE: HORIZ. 1"=50'
VERT. 1"=5'




# WATER CONNECTION

SCALE: HORIZ. 1"=50'
VERT. 1"=5'




# SANITARY PROFILE

SCALE: HORIZ. 1"=50'
VERT. 1"=5'

## PIPE SCHEDULE

| SIZE | TYPE & CLASS | LENGTH |
|---|---|---|
| 6" | HDPE | 440' |
| 6" | PVC | 125' |
| 12" | HDPE | 486' |
| 15" | HDPE | 260' |

## Precast Concrete Stormceptor® Order Request Form

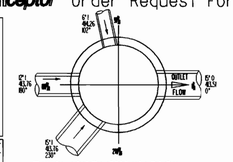
**Contractor Information**
Name
Address
City
State
Zip
Contact
Phone
Fax

**General/Prime Contractor**
Name
Phone
Fax

**Owner Information**
Name: Howard County DPW
Phone: (410)
Fax: (410)

**Stormceptor® Model**

| | | | | | |
|---|---|---|---|---|---|
| 450i | ☒ | 2400 | ☐ | 7200 | ☐ |
| 900 | ☐ | 3600 | ☐ | 8000+ | ☐ |
| 1200 | ☐ | 4800 | ☐ | 10000+ | ☐ |
| 1800 | ☐ | 5000 | ☐ | 60000+ | ☐ |




Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (id), and invert elevation (if it). Clearly mark inlet pipes with an 'I' and outlet pipes with an 'O'. Please provide the inlet/outlet pipe angle in degrees.

| | |
|---|---|
| Manhole Number | M-5 |
| Top Elevation (ft) | 418.2 |
| Inlet Pipe Invert (ft) | 413.71 |
| Outlet Pipe Invert (ft) | 413.51 |
| *2 Inlet Pipe Invert (ft) * | 413.76 |
| *2 Outlet Pipe Invert (ft) * | |
| Pipe Type | RCCP |
| Inlet Pipe Inside Diameter (ID) | 15" |
| Inlet Pipe Outside Diameter (OD) | 19½" |
| Outlet Pipe Inside Diameter (ID) | 15" |
| Outlet Pipe Outside Diameter (OD) | 19½" |

* for use with series units only

Project Name * Grassroots Crisis Intervention Center
Bonded? ..... Bonding Company ..... Telephone ..... Bond # .....
Tax Exempt? ..... Approximate time frame of delivery (weeks) .....
Delivery Address Street (For Permits) *
City: * State: * Zip Code: *
Designer Company: DMW, Inc.
Designer Contact: Jeff Schwab Phone: (410) 296-3333 Fax: (410) 296-4705
* These fields must be filled out for processing.

Hydro Conduit

PLEASE FILL OUT COMPLETELY AND FAX TO:
ATTN: BRIAN GINGRICH FAX: (301)698-5351, PHONE: (800)414-7960 Ext. 240

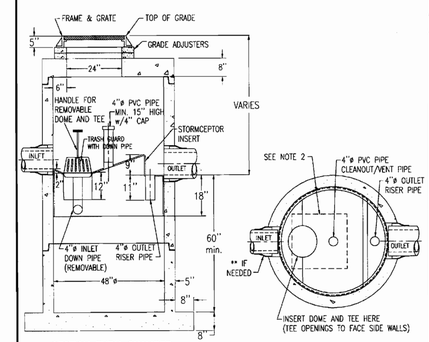
## Hydro Conduit

Stormceptor®

STC 4501 Precast Concrete Stormceptor (450 US Gallon Capacity)

PROJECT:
LOCATION:

DR. BY: N. BALDWIN
CK. BY:
DATE: MARCH 20, 200
SCALE: N.T.S.
DWG. #




SECTION THRU CHAMBER

SECTION THRU PLAN VIEW

NOTE :
1. THE USE OF FLEXIBLE CONNECTIONS IS RECOMMENDED AT THE OUTLET WHERE APPLICABLE.
2. THE COVER SHOULD BE POSITIONED OVER THE 4"ø CLEANOUT/VENT PIPE AND THE 4"ø INLET DOWN PIPE.
3. THE STORMCEPTOR SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4985148, #5498331, #5725760, #5753115, #5849181.
4. CONTRACTOR TO PROVIDE CRANE TO SET UNIT (HEAVIEST SECTION WEIGHS 5000 LB)

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/28/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
**GRASSROOTS CRISIS INTERVENTION CENTER**

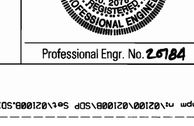
AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **UTILITY PROFILES** C-12


DMW
Daft-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4706

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


11-20-06
Date




Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | AS SHOWN |
| DRAWING NO. | 12 of 15 |

SDP-06-137

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## LEGEND

| | |
|---|---|
| EX. TREELINE | ROADWAY CENTERLINE |
| EX. MINOR CONTOUR (2' INT.) | SOIL TYPE DELINEATION LINE |
| EX. MAJOR CONTOUR (10' INT.) | EX. UTILITY POLE |
| AREA OF INTERPOLATED CONTOURS | EASEMENT AREAS |
| EX. STRUCTURE | LIMIT OF DISTURBANCE |
| PROP. TREELINE (IF SHOWN) | 8" W. EX. WATER |
| PROPERTY BOUNDARY | 8" S. EX. SEWER |
| RIGHT OF WAY LINE | 24" D. EX. STORM DRAIN |
| ADJACENT LOT LINE | 8" W. PROP. WATER |
| PROP. LOT LINE | 8" S. PROP. SEWER |
| BUILDING SETBACK LINE | 24" D. PROP. STORM DRAIN |
| EX. CURB AND GUTTER | SSF SUPER SILT FENCE |
| PROP. CURB AND GUTTER | STABILIZED CONSTRUCTION ENTRANCE |
| 450 PROP. MINOR CONTOUR | CIP CURB INLET PROTECTION |
| 448 PROP. MAJOR CONTOUR | AGIP AT GRADE INLET PROTECTION |

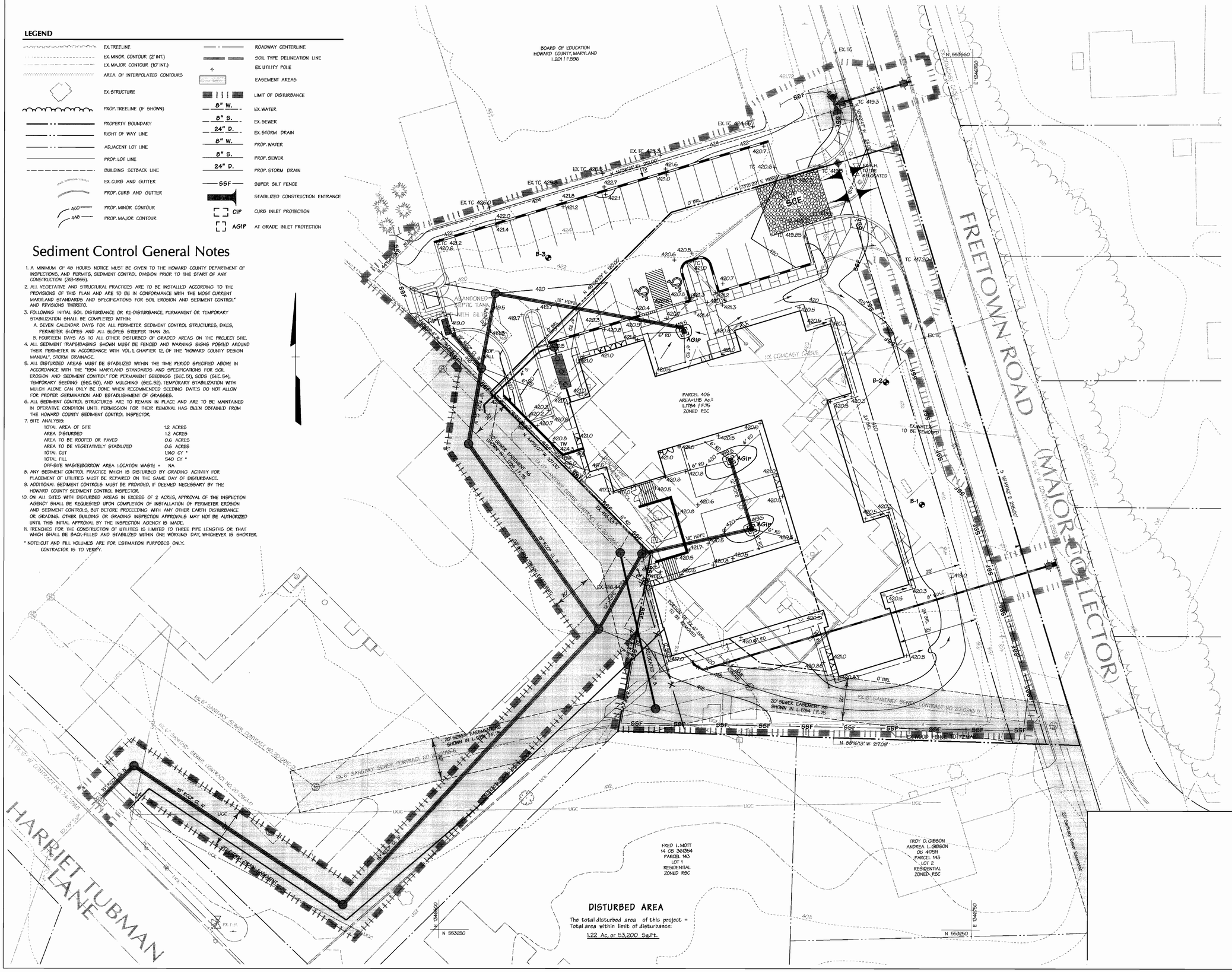
## Sediment Control General Notes

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
   A. SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1.
   B. FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL.1, CHAPTER 12, OF THE "HOWARD COUNTY DESIGN MANUAL", STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDINGS (SEC.51), SODS (SEC.54), TEMPORARY SEEDINGS (SEC.50), AND MULCHING (SEC.52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

| | |
|---|---|
| TOTAL AREA OF SITE | 1.2 ACRES |
| AREA DISTURBED | 1.2 ACRES |
| AREA TO BE ROOFED OR PAVED | 0.6 ACRES |
| AREA TO BE VEGETATIVELY STABILIZED | 0.6 ACRES |
| TOTAL CUT | 1,140 CY * |
| TOTAL FILL | 540 CY * |
| OFF-SITE WASTE/BORROW AREA LOCATION WASTE = | NA |

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

* NOTE: CUT AND FILL VOLUMES ARE FOR ESTIMATION PURPOSES ONLY. CONTRACTOR IS TO VERIFY.




### DISTURBED AREA

The total disturbed area of this project = Total area within limit of disturbance:
1.22 Ac, or 53,200 Sq.Ft.

## UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL MEASURES

1. Excavated trench material shall be placed on upstream side of trench.
2. Immediately following pipe installation, the trench shall be backfilled, compacted and immediately stabilized (mulched, seeded, and/or sodded mechanical stabilization) at the end of each work day.
3. Silt fence shall be placed immediately downstream of any disturbed area intended to remain disturbed longer than one (1) working day. (silt fence as per SCS standard drawing - E-15-3).
4. The contractor shall disturb and open trench only the minimum practical area required to accomplish the work designated for each day.
5. All sediment and erosion control practices and vegetative stabilization shall be in accordance with the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas". Any erosion and sediment control practices damaged by utility construction are to be repaired immediately.

**BY THE DEVELOPER :**

**I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.**

DEVELOPER — DATE 11/20/06

**BY THE ENGINEER :**

**I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.**

Charles V. Maine — ENGINEER — DATE 11-20-06

**THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.**

NATURAL RESOURCES CONSERVATION SERVICE — DATE 11/27/06

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 11/27/06

**APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.**

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/29/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|

**OWNER /DEVELOPER**

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
# GRASSROOTS CRISIS INTERVENTION CENTER

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
## SEDIMENT AND EROSION CONTROL PLAN
C-13


DMW
Daft 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


11-20-06
Date

STATE OF MARYLAND — CHARLES VICTOR MAINE II — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 13 of 15 |

SDP-06-137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# STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

## SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. SITE PREPARATION

I. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms waterways, or sediment control basins.

II. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

III. Schedule required soil test to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

I. Soil test must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.

II. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.

III. Lime materials shall be ground limestone (hydrated or brunt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98 - 100% will pass through a #20 mesh sieve.

IV. Incorporate lime and fertilizer into the top 3 - 5 inches of soil by disking or other suitable means.

C. SEEDBED PREPARATION

I. TEMPORARY SEEDING

A. Seedbed preparation shall consist of loosening soil to a depth of 3 inches to 5 inches by means of suitable agricultural or construction equipment, such a disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

B. Apply fertilizer and lime as prescribed on the plans.

C. Incorporate lime and fertilizer into the top 3 - 5 inches of soil by disking or other suitable means.

II. PERMANENT SEEDING

A. Minimum soil conditions required for permanent vegetative establishment:

1. Soil ph shall be between 6.0 and 7.0.
2. Soluble salts shall be less than 500 parts per million (PPM).
3. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if Lovegrass or Serecia Lespedeza is to be planted. Then a sandy soil (< 30% silt plus clay) would be acceptable.
4. Soil shall contain 1.5% minimum organic matter by weight.
5. Soil must contain sufficient pore space to permit adequate root penetration.
6. If these conditions cannot be met by the soils on site, adding topsoil is required in accordance with Section 21 - Standard and Specification for Topsoil.

B. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3 - 5 inches to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.

C. Apply soil amendments as per soil test or as included on the plans.

D. Mix soil amendments into the top 3 - 5 inches of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1 - 3 inches of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. SEED SPECIFICATIONS

I. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.

II. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80 F. can weaken bacteria and make the inoculant less effective.

E. METHODS OF SEEDING

I. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or cultipacker seeder.

A. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following:
Nitrogen; maximum of 100 pounds per acre total of soluble
Nitrogen; P205 (phosphorous): 200 pounds per acre; K20 (potassium): 200 pounds per acre.

B. Lime: Use only ground agricultural limestone, (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

C. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

II. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

A. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the temporary or permanent seeding summaries or tables 25 or 26. The seeded area shall then be rolled with a weighed roller to provide good seed soil contact.

B. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

III. Drill or cultipacker seeding: Mechanized seeders that apply and cover seed with soil.

A. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least ¼ inch of soil covering.

Seedbed must be firm after planting.

B. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)

I. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weeds seeds as specified in the Maryland Seed Law.

II. Wood cellulose fiber mulch (WCFM)

A. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.

B. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

C. WCFM, including dye shall contain no germination or growth inhibiting factors.

D. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedings.

E. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic.

F. WCFM must conform to the following physical requirements:
Fiber length to approximately 10 mm., diameter approximately 1mm., ph range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. MULCHING SEEDED AREAS - Mulch shall be applied to all seeded areas immediately after seeding.

I. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.

II. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons per acre. Mulch shall be applied in a uniform loose depth of between 1inches and 2 inches. Mulch applied shall achieve a uniform distribution and depth so that the surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons per acre.

III. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 pounds per acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

H. SECURING STRAW MULCH - Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:

I. A mulch anchoring tool is a tractor drawn implement design to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.

II. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys or on crest of banks. The remainder of area should appear uniform after binder application. Synthetic binders - such as Acrylic DLR (agro-tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

IV. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

## SECTION II - TEMPORARY SEEDING

VEGETATION - Annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, permanent seeding is required.

| Seed Mixture (Hardiness Zone 7A) | | | | | Fertilizer Rate (10-10-10) | Lime Rate |
|---|---|---|---|---|---|---|
| No. | Species | Application Rate (Lb./Ac.) | Seeding Dates | Seeding Depths | | |
| 1 | Annual Ryegrass | 50 | 2/1 - 4/30<br>8/15 - 11/1 | ¼"-½" | 600 Lbs./Ac.<br>(15 Lbs./1000 SF) | 2 Tons/Ac.<br>(100 Lbs./1000 SF) |
| 2 | Weeping Lovegrass | 4 | 5/1 - 8/14 | ¼"-½" | | |

## SECTION III - PERMANENT SEEDING

Seeding grass and legumes to establish ground cover for a minimum of one year on disturbed areas generally receiving low maintenance.

| Seed Mixture No. 3 (Hardiness Zone 7A) | | | | | ** Fertilizer Rate (10-20-20) | | | ** Lime Rate |
|---|---|---|---|---|---|---|---|---|
| % | Species | Application Rate (Lb./Ac.) | Seeding * Dates | Seeding Depths | N | P205 | K20 | |
| 85 | Rebel II Tall Fescue | 125 | 3/1 - 5/15<br>8/15 - 11/15 | ¼"-½" | 90 Lb./Ac. (2 Lb./ 1000 Sq.Ft.) | 175 Lb./Ac. (4 Lb./ 1000 Sq.Ft.) | 175 Lb./Ac. (4 Lb./ 1000 Sq.Ft.) | 2 Tons/Ac. (100 Lb./ 1000 Sq.Ft.) |
| 10 | Pennfine Perennial Ryegrass | 15 | | | | | | |
| 5 | Kenblue Kentucky Bluegrass | 10 | | | | | | |

* For 5-16 through 8-14 add two (2) pounds of Weeping Lovegrass per acre or ten (10) pounds of Millet per acre to seed mixture (i.e. Mix #3 shown).

** At time of fine grading, fertilizer and lime rates will be based on soil test results; (see section 1.B.1). Copy of recommended rates to be supplied to the Sediment COntrol Inspector.

## SECTION IV - SOD

To provide quick cover on disturbed areas (2:1 grade or flatter)

A. GENERAL SPECIFICATIONS

I. Class of turfgrass sod shall be Maryland or Virginia State certified or approved. Sod labels shall be made available to the job foreman and inspector.

II. Sod shall be machine cut at a uniform soil thickness of¾", plus or minus¼", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.

III. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.

IV. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.

V. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

B. SOD INSTALLATION

I. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.

II. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which air drying of the roots.

III. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.

IV. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

C. SOD MAINTENANCE

I. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4 inches. Watering should be done during the heat of the day to prevent wilting.

II. After the first week, sod watering is required as necessary to maintain adequate moisture content.

III. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2 inches and 3 inches unless otherwise specified.

## SECTION V - TURFGRASS ESTABLISHMENT

Areas where turfgrass may be desired may include lawns, parks, playgrounds, and commercial sires which will receive a medium high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1½inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.

Note: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

A. TURFGRASS MIXTURES

I. Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended certified Kentucky Bluegrass cultivars seeding rate: 1.5 to 2.0 pounds per 1000 square feet. A minimum of three Bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

II. Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass cultivars/certified Kentucky Bluegrass seeding rate: 2 pounds mixture per 1000 square feet. A minimum of 3 Kentucky Bluegrass cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.

III. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; certified Tall Fescue cultivars 95-100%, certified Kentucky Bluegrass cultivars 0 - 5%, seeding rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.

IV. Kentucky Bluegrass/Fine Fescue - Shade mixture - For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; certified Kentucky Bluegrass cultivars 30-40% and certified Fine Fescue and 60-70%. Seeding rate: 1½- 3 pounds per 1000 square feet. A minimum of 3 Kentucky Bluegrass cultivars must be chosen. With each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

Note: Turfgrass varieties should be selected form those listed in the most current University of Maryland publication, agronomy mimeo number 77, "Turfgrass Cultivar Recommendations for Maryland".

B. IDEAL TIMES OF SEEDING

Western Maryland: March 15 - June 1, August 1 - October 1 (hardiness zones - 5B, 6A).

Central Maryland: March 1 - May 15, August 15 - October 15 (hardiness zone - 6B).

Southern Maryland, Eastern Shore: March 1 - May 15, August 15 - October 15 (hardiness zones - 7A , 7B).

C. IRRIGATION

If soil moisture is different, supply new seedlings with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

D. REPAIRS AND MAINTENANCE

Inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season.

I. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.

II. If the stand provides less than 40% ground coverage, re-establish following original lime, fertilizer, seedbed preparation and seeding recommendations.

III. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of the rates originally applied may be necessary.

IV. Maintenance fertilizer rates for permanent seedings are shown in Table 24, for lawns and other medium high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" bulletin number 171.

*U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE* — G - 20 - 1A — *MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION*

Vegetative Stabilization

### TABLE 28 STONE SIZE

| | Size Range | D50 | D100 | AASHTO | Weight |
|---|---|---|---|---|---|
| Number 57 * | ⅜" - 1½" | ½" | 1½" | M-43 | N/A |
| Number 1 | 2" - 3" | 2½" | 3" | M-43 | N/A |
| Rip-Rap ** | 4" - 7" | 5½" | 7" | N/A | N/A |
| Class I | N/A | 9.5" | 15" | N/A | 150 Lb. max. |
| Class II | N/A | 16" | 24" | N/A | 700 Lb. max. |
| Class III | N/A | 23" | 34" | N/A | 2000 Lb. max. |

* This classification is to be used on the inside face of stone outlets and check dams.

** This classification is to be used when ever small rip-rap is required. The State Highway Administration designation for this stone is stone for gabions (905.01.04).

### STONE FOR GABION BASKETS

| Basket Thickness | | Size of Individual Stones | |
|---|---|---|---|
| Inches | MM | Inches | MM |
| 6 | 150 | 3 - 5 | 75 - 125 |
| 9 | 225 | 4 - 7 | 100 - 175 |
| 12 | 300 | 4 - 7 | 100 - 175 |
| 18 | 460 | 4 - 7 | 100 - 175 |
| 36 | 910 | 4 - 12 | 100 - 300 |

Note: Recycled concrete equivalent may be substituted for all stone classifications. Recycled concrete equivalent shall be concrete broken into the sizes meeting the appropriate classification, shall contain no steel reinforcement, and shall have a density of 150 pounds per cubic foot.

### TABLE 27 GEOTEXTILE FABRICS

| Class | Apparent Opening Size MM. Max. | Grab Tensile Strength Lb. Min. | Burst Strength PSI. Min. |
|---|---|---|---|
| A | 0.30 ** | 250 | 500 |
| B | 0.60 | 200 | 320 |
| C | 0.30 | 200 | 320 |
| D | 0.60 | 90 | 145 |
| E | 0.30 | 90 | 145 |
| F (silt fence) | 0.40-0.80 * | 90 | 190 |

* US Standard sieve CW-02215 ** .50 MM max. for super silt fence

The properties shall be determined in accordance with the following procedures:
- Apparent opening size msmt 323
- Grab tensile strength ASTMD 1682: 4 x 8" specimen, 1 x 2" clamps, 12" min. strain rate in both principal directions of geotextile fabric.
- Burst strength: ASTMD D 3786.

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolephins, polyesters, or polyamides. The geotextile fabric shall resist deterioration from ultraviolet exposure

In addition, classes A through E shall have a 0.01 cm./sec. minimum permeability when tested in accordance with msmt 507, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

Silt fence
Class F geotextile fabric for silt fence shall have a 50 lb./in. minimum tensile strength and a 20 lb./in. minimum tensile modules when tested in accordance with msmt 509. The material shall also have a 0.3 gal./ft./min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with msmt 322. Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amount of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected usable construction life at a temperature range of 0 to 120 degrees fahrenheit.

*H - 24 - 1*

MATERIALS SPECIFICATIONS

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — DATE 11/20/06

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Charles V. Main — 11-20-06
ENGINEER — DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myers — 4/27/06
NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

John R Robertson — 11/27/06
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/24/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|
| | | |
| | | |

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT **GRASSROOTS CRISIS INTERVENTION CENTER**

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **SEDIMENT AND EROSION CONTROL NOTES** — C-14

DMW
Daft·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*

11-20-06
Date

STATE OF MARYLAND — CHARLES VICTOR MAIN II — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

| | |
|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | AS SHOWN |
| DRAWING NO. | 14 of 15 |

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CONSTRUCTION SPECIFICATIONS

1. FENCING SHALL BE 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY (SHA) DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6' LENGTH POSTS.
2. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
3. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE. THE CHAIN LINK FENCING SHALL BE SIX (6) GAUGE OR HEAVIER.
4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
5. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
6. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE — H - 26 - 3 — MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

## Super Silt Fence

Not To Scale

## Sequence of Operations

| | |
|---|---|
| 1. Obtain Grading permit. | 1 DAY |
| 2. Notify HCD Department of Inspections 410-313-1855 at least 48 hours prior to beginning any work. Department of Inspections (410)313-1855 at least 48 hours prior to beginning work. | 1 DAY |
| 3. Clear and grub for and install the Stabilized Construction Entrance and install Super Silt Fence(SSF). | 1 DAY |
| 4. Notify HCD Department of Inspection, upon completion of said installation. | 1 DAY |
| 5. Demolish existing buildings and remove pavement. | 1 DAY |
| 6. Grade site and begin building construction. | 1 WEEK |
| 7. Install utilities. Construction outside of silt fence protections shall be graded and stabilized in one work day. This is subject to the sediment control inspector, who can require sediment and erosion control measures at any time if deemed necessary. | 6 MONTHS |
| 8. Fine grade and construct paving and sidewalks. | 1 WEEK |
| 9. With the permission of the Sediment Control Inspector, remove sediment control measures and stabilize any areas disturbed by their removal. | 1 WEEK |

DESIGN CRITERIA

| SLOPE | SLOPE STEEPNESS | SLOPE LENGTH (MAXIMUM) | SILT FENCE LENGTH (MAXIMUM) |
|---|---|---|---|
| 0 - 10% | 0 - 10:1 | UNLIMITED | UNLIMITED |
| 10 - 20% | 10:1 - 5:1 | 200 FEET | 1,500 FEET |
| 20 - 33% | 5:1 - 3:1 | 100 FEET | 1,000 FEET |
| 33 - 50% | 3:1 - 2:1 | 100 FEET | 500 FEET |
| 50% + | 2:1 + | 50 FEET | 250 FEET |

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE — H - 26 - 3A — MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

## Super Silt Fence

Not To Scale

CONSTRUCTION SPECIFICATIONS

1. LENGTH - MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).
2. WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC CLASS C (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE.** THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
6. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

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

## Stabilized Construction Entrance

Not To Scale

MAX. DRAINAGE AREA = 1/4 ACRE

STANDARD SYMBOL SIP

CONSTRUCTION SPECIFICATIONS

1. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE NOTCH ELEVATION.
2. DRIVE THE 2" x 4" CONSTRUCTION GRADE LUMBER POSTS 1' INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2" x 4" FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL. THE TOP OF THE FRAME (WEIR) MUST BE 6" BELOW ADJACENT ROADWAYS WHERE FLOODING AND SAFETY ISSUES MAY ARISE.
3. STRETCH THE ½" x ½" WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT A POST.
4. STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE EXTENDING FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED DOWN.
5. BACKFILL AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
6. IF THE INLET IS NOT IN A SUMP, CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.
7. THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE — E - 16 - 5 — MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

## Standard Inlet Protection

Not To Scale

PLAN / CUT AWAY VIEW

STANDARD SYMBOL AGIP

CROSS SECTION

MAX. DRAINAGE AREA = 1/4 ACRE

CONSTRUCTION SPECIFICATIONS

1. LIFT GRATE AND WRAP WITH GEOTEXTILE CLASS E TO COMPLETELY COVER ALL OPENINGS, THEN SET GRATE BACK IN PLACE.
2. PLACE ¾" TO 1½" STONE, 4"-6" THICK ON THE GRATE TO SECURE THE FABRIC AND PROVIDE ADDITIONAL FILTRATION.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE — E - 16 - 5A — MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

## At Grade Inlet Protection

Not To Scale

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — 11/20/06 — DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

ENGINEER — DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myers — 11/27/06
NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

John R Robertson — 11/27/06
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

11/29/06
DIRECTOR — DATE

11/6/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

11/29/06
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

| DATE | NO. | REVISION |
|---|---|---|
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| | | |

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT

# GRASSROOTS CRISIS INTERVENTION CENTER

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

# SEDIMENT AND EROSION CONTROL DETAILS

C-15

DMW
Daft·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

11-20-06
Date

STATE OF MARYLAND — CHARLES VICTOR ... II — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

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|---|---|
| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | AS SHOWN |
| DRAWING NO. | 15 of 15 |

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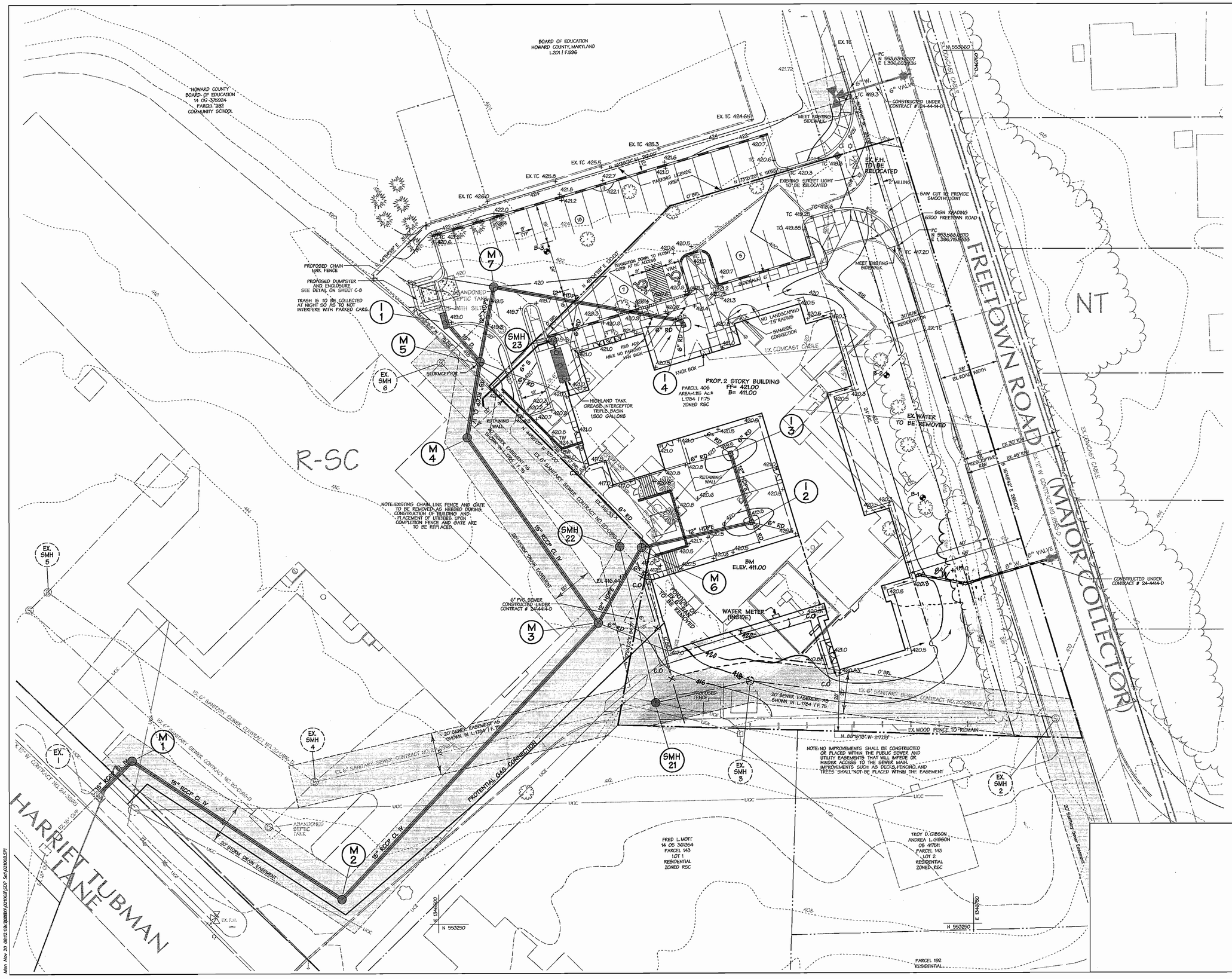


## LEGEND

- EX. TREELINE
- EX. MINOR CONTOUR (2' INT.)
- EX. MAJOR CONTOUR (10' INT.)
- AREA OF INTERPOLATED CONTOURS
- EX. STRUCTURE
- PROP. TREELINE (IF SHOWN)
- PROPERTY BOUNDARY
- RIGHT OF WAY LINE
- ADJACENT LOT LINE
- PROP. LOT LINE
- BUILDING SETBACK LINE
- EX. CURB AND GUTTER
- PROP. CURB AND GUTTER
- PROP. REVERSE CURB
- 450 PROP. MINOR CONTOUR
- 448 PROP. MAJOR CONTOUR
- ROADWAY CENTERLINE
- SOIL TYPE DELINEATION LINE
- EX. UTILITY POLE
- EASEMENT AREAS
- LIMIT OF DISTURBANCE
- 8" W. EX. WATER
- 8" S. EX. SEWER
- 24" D. EX. STORM DRAIN
- 8" W. PROP. WATER
- 8" S. PROP. SEWER
- 24" D. PROP. STORM DRAIN
- CONCRETE PAVING
- 6" RD 6" HDPE ROOF DRAIN
- EX. FENCE
- PROP. FENCE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 11/29/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/29/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 11/29/06

| DATE | NO. | REVISION |
|---|---|---|
| 4-6-17 | 1 | RELOCATE WATER LINE & INSIDE METER |

OWNER /DEVELOPER

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043

PROJECT
# GRASSROOTS CRISIS INTERVENTION CENTER

AREA TAX MAP 35 ZONED R-SC PARCELS 292 and 406
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
## SITE AND GRADING PLAN — C-2


DMW
Daft-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


11-20-06
Date

STATE OF MARYLAND — CHARLES VICTOR HOLMES — No. 20784 — REGISTERED PROFESSIONAL ENGINEER

Professional Engr. No. 20784

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| DESIGNED BY : | CVS |
| DRAWN BY: | GMO |
| PROJECT NO : | 02100.B |
| DATE : | 11/21/06 |
| SCALE : | 1"=20' |
| DRAWING NO. | 2 of 15 |

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