

**GENERAL NOTES:**

- All materials and construction to be in accordance with Howard County Road Construction Code & Specs.
- This plan is covered by Final Development Plan, Phase 1B - Part 1.
- Any damage to county owned rights of way shall be corrected at the developer's expense.
- Installation of Traffic Control Devices shall be in accordance with the latest edition of the Manual of Uniform Traffic Control.
- Topography was compiled from actual field survey.
- The area included in this submission is located on Tax Map #35.
- All driveways are to be privately owned and maintained.
- All easements are based on Howard County Geographic Control traverse which is based on Maryland State Plane Coordinate System.
- Class "C" trench bedding shall be used under all storm drainage, unless shown otherwise.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elev. of main by digging test pits, by means of all crossings well in advance of construction.
- The contractor or developer shall contact the Construction Inspector/Survey Division 24 hrs in advance of commencement of work at 992-2417 or 732-7272.
- All downspouts drains shall be handled by one of the following methods:
  - Downspout to splash blocks and discharge to ground having good percolation.
  - Downspout in front of units piped to curb. (Fronts of all units shall be handled by method B or C)
  - Downspout connected to storm drain.
- The developer agrees to work with the Dept. of Licenses and Inspections to resolve any problems caused by roof water discharge.
- Hendicapped Parking Spots shown thus: "H" shall be placed in appropriate location shown in plan in accordance with the "Maryland Code for the Handicapped" Section 5-01-205 (See Detail, Sht. 5)
- Storm Water Management for this development is under the road construction development for Section 3, Area 1 - F. 83-122.

**Sheet Index**

- Site Development Plan
- Site Development Plan
- Site Development Plan
- Sediment & Erosion Control Plan
- Sediment & Erosion Control Plan
- Sediment & Erosion Control Plan
- Landscape Planting Plan
- 8A. Stormwater Management Details
- 8B. Landscape Plan
- 8C. Clubhouse Details

**LEGEND:**

- Contour Interval 2' (1")
- Existing Contour 120'
- Proposed Contour 120'
- Spot Elevation 120'
- Direction of Drainage
- Existing Trees to be saved
- 100 yr. Flood Plain Elevation

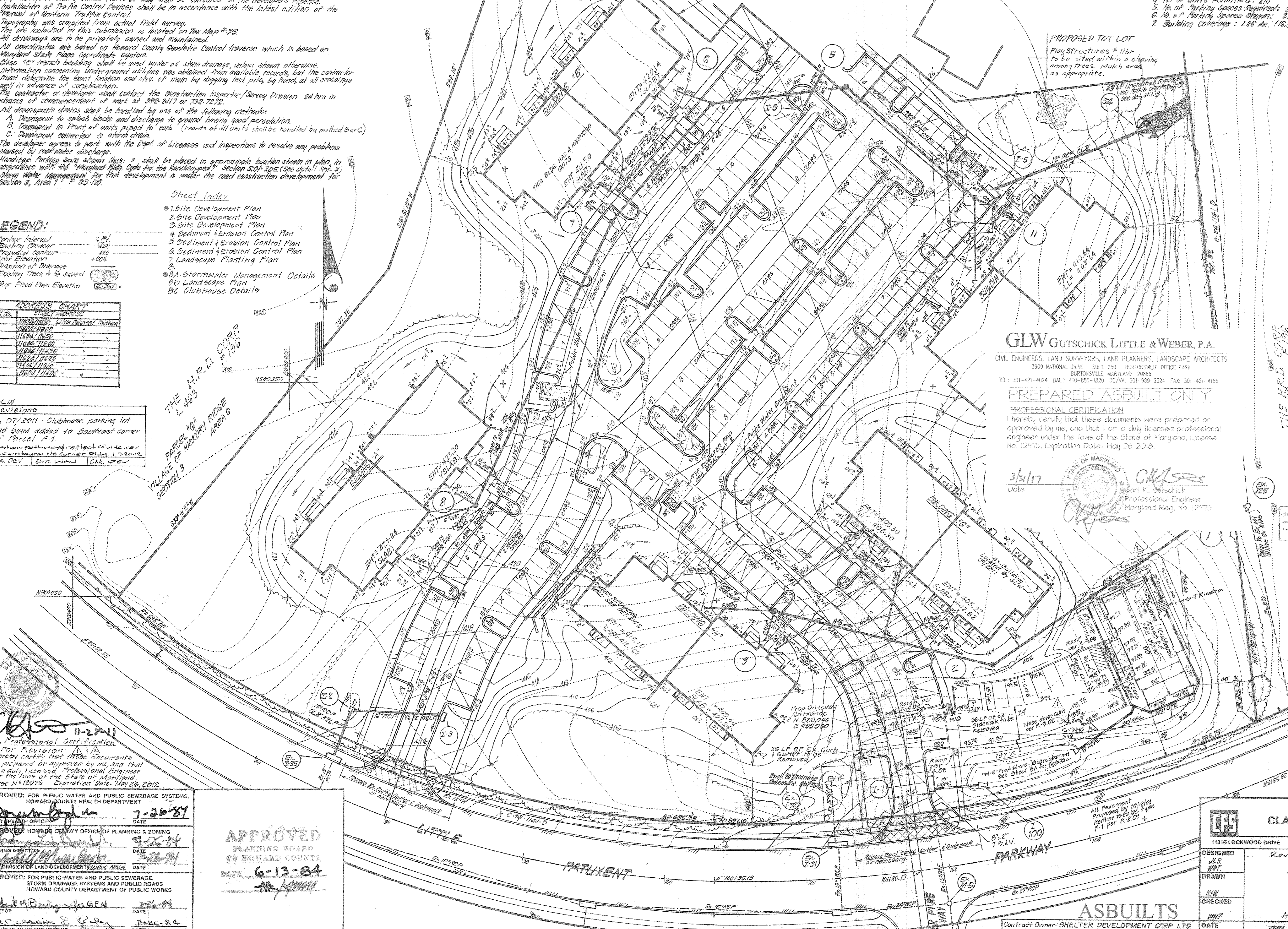
**ADDRESS CHART**

| Bldg. No. | Street Address                      |
|-----------|-------------------------------------|
| 1         | 11674/11670 Little Patuxent Parkway |
| 2         | 11674/11670                         |
| 3         | 11674/11670                         |
| 4         | 11674/11670                         |
| 5         | 11674/11670                         |
| 6         | 11674/11670                         |
| 7         | 11674/11670                         |
| 8         | 11674/11670                         |
| 9         | 11674/11670                         |
| 10        | 11674/11670                         |

**GLW Revisions**

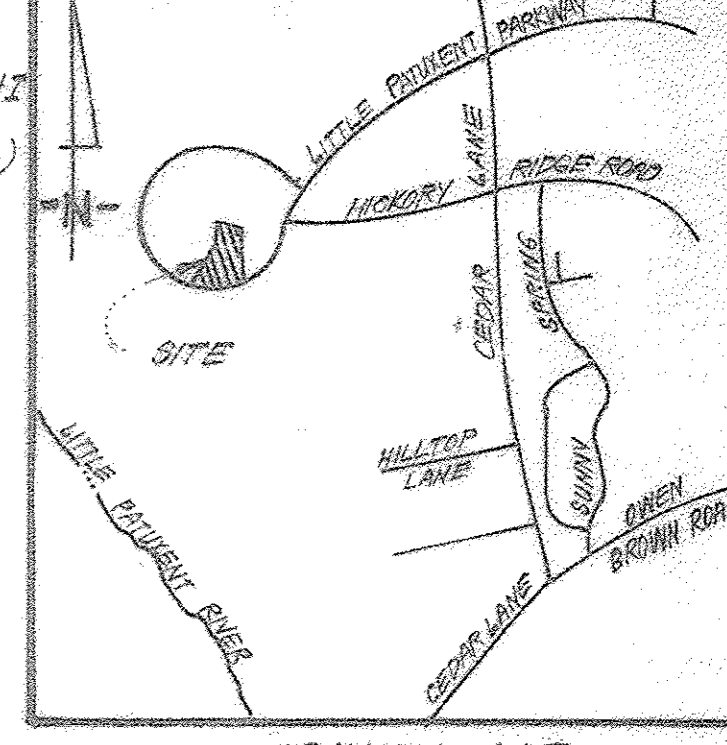
Δ 07/2011 - Clubhouse parking lot and SWM added to Southeast corner of Parcel F-1  
 A show roadway reflect of white, per A contours NE corner Pda. 172012  
 DDB, DEV. Dm. WAD. Chk. CEV

# ASBUILTS



**SITE ANALYSIS:**

- Zoning: New Town (Apts) F.O.P. Phase 1B-A Part I
- Total Area: 11,000 Acres
- No. of Units Shown: 191 (See Unit Area Schedule)
- No. of Units Permitted: 210
- No. of Parking Spaces Required: 277 (1.5/Unit)
- No. of Parking Spaces Shown: 295
- Building Coverage: 1.86 Ac. (16.9%)



**DEVELOPER'S/BUILDER'S CERTIFICATE**

"I/we certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

Signature of Developer/Builder: *Mark Lynch* Date: 7-10-84

**GLW GUTSCHICK LITTLE & WEBER, P.A.**

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

**PREPARED ASBUILT ONLY**

**PROFESSIONAL CERTIFICATION**  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 124715, Expiration Date: May 26 2018.

3/31/17 Date  
 Carl K. Gutschick Professional Engineer Maryland Reg. No. 124715

Unit count revised from 188 to 191 on 12-13-84.  
 M.H.

Prepared for: **HOWARD** 808  
 Name  
 and meets Technical Requirements  
 7-17-84 Date  
 U.S. Soil Conservation Service

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

Stephen F. Fisher 7-17-84  
 Approved Date

The revision made 07/2011 was to add a clubhouse and associated parking, utilities, and stormwater management facility.



**ENGINEER'S CERTIFICATE**

I hereby 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.

Q. Nelson Clark 7-10-84  
 G. Nelson Clark Date

| SUBDIVISION NAME         | SECT. AREA | LOT/PARCELS |
|--------------------------|------------|-------------|
| VILLAGE OF HICKORY RIDGE | 3 E        | 157         |
| FLATTOP OF BUCKLE        | 35         | 574         |
| 5220                     | 10         | 574         |

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 7-26-84

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 9-26-84

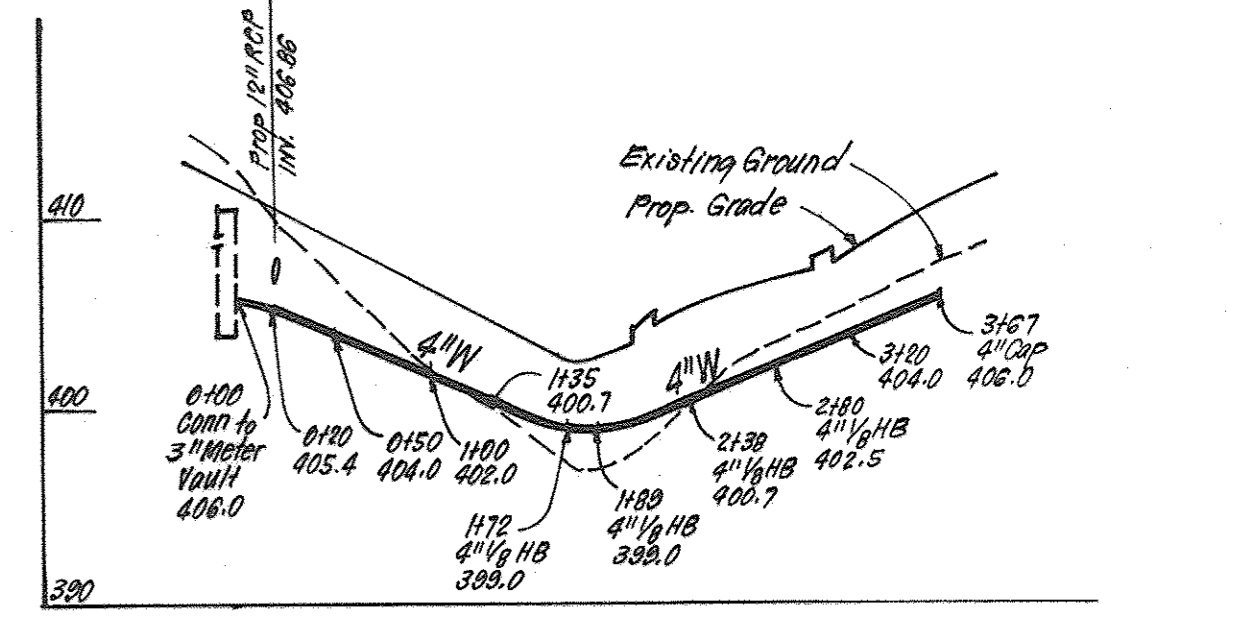
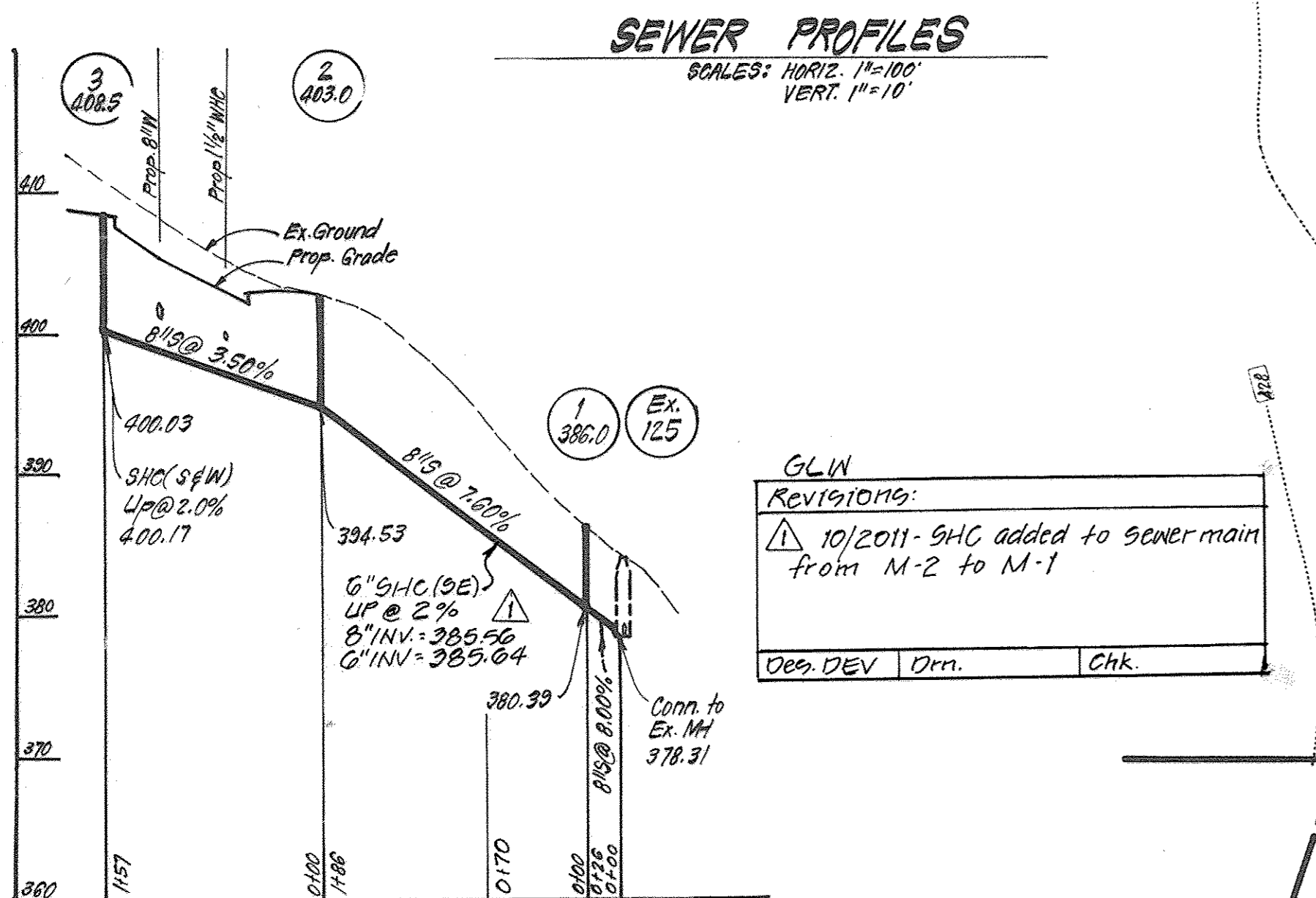
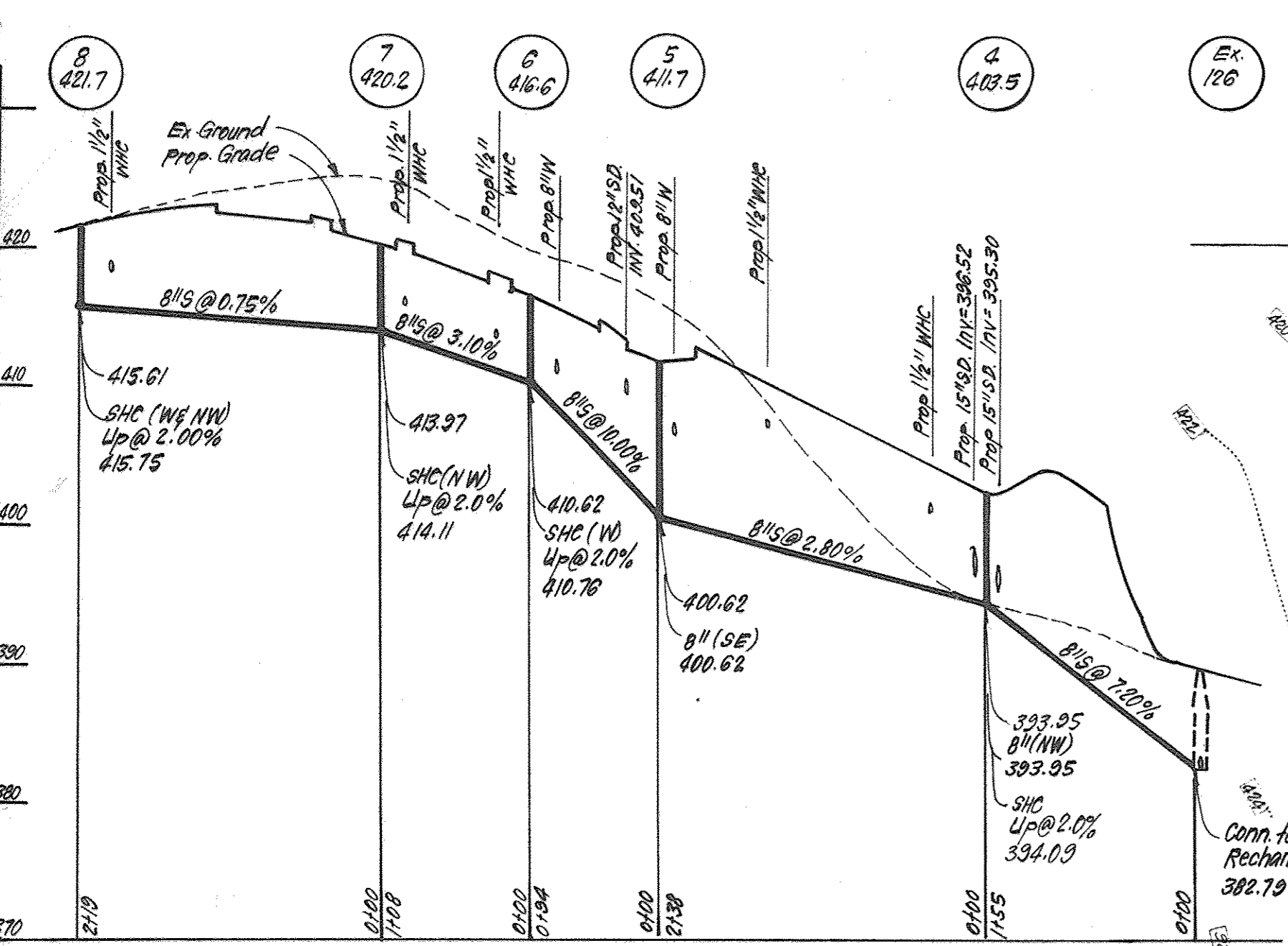
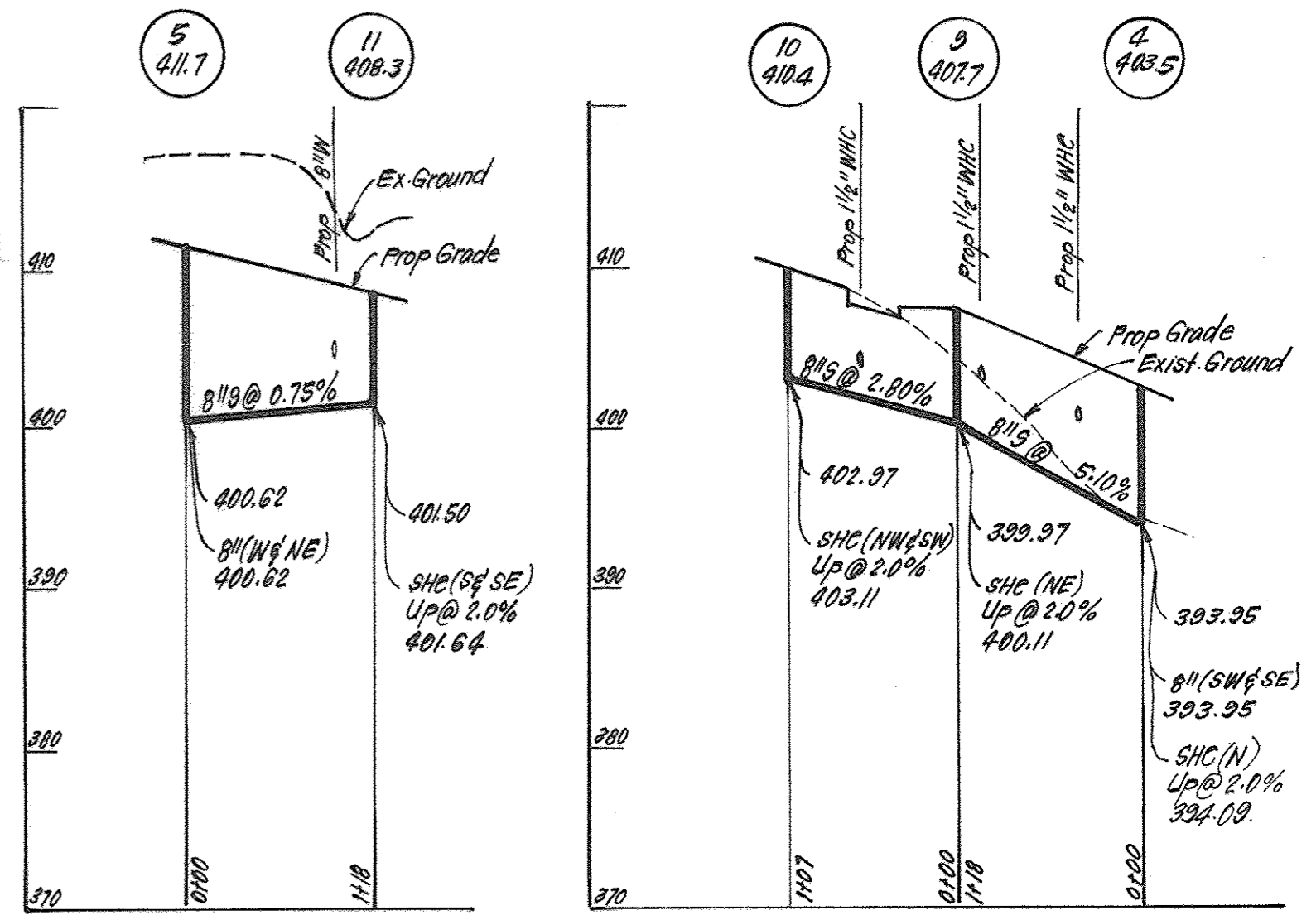
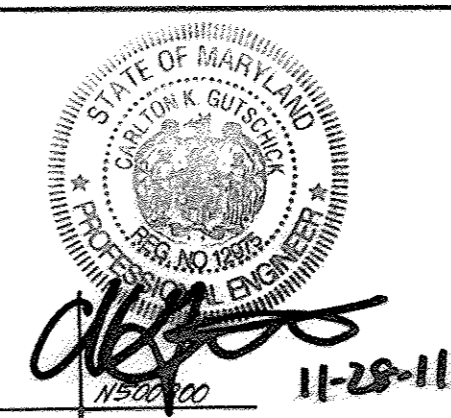
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 7-26-84

CHIEF BUREAU OF ENGINEERING  
 7-26-84

**APPROVED**  
 PLANNING BOARD OF HOWARD COUNTY  
 DATE 6-13-84

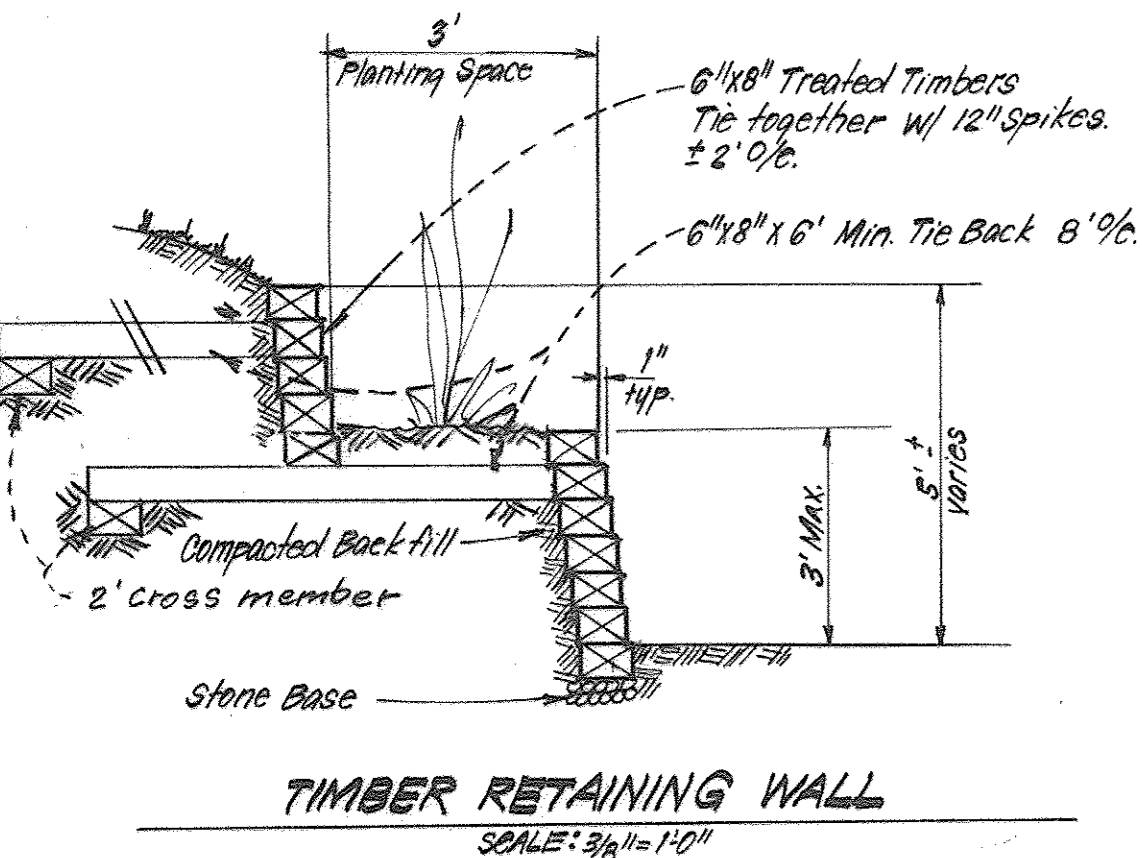
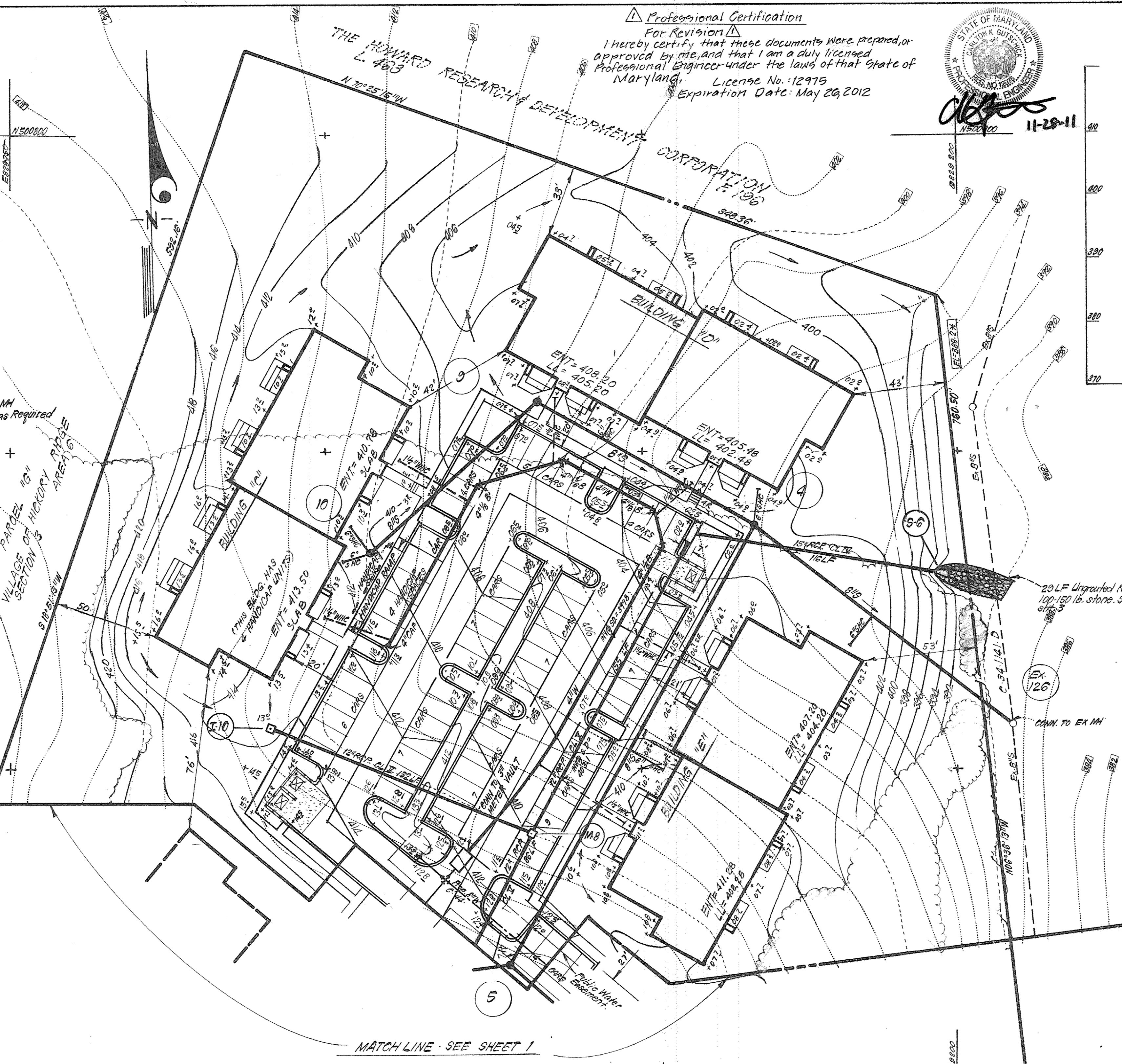
| CLARK · FINEFROCK & SACKETT   |  |                   |
|---|--|-------------------|
| ENGINEERS · PLANNERS · SURVEYORS                                    |  |                   |
| 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 (301) 593-3400 |  |                   |
| DESIGNED JLS  | Revised Site Development Plan                  | SCALE 1"=30'      |
| DRAWN WHF   | PARCEL "F-1"                                   | DRAWING 10F-8     |
| K/W   | A RESUBDIVISION OF PARCEL "F"                  | JOB NO. 83-086    |
| CHECKED WHF   | VILLAGE OF HICKORY RIDGE                       | FILE NO. 83-086-X |
| DATE MAR. 2011  | SECTION 3 AREA 2                               |                   |
| 5-14-84   | 5TH ELECTION DISTRICT                          |                   |
|   | HOWARD COUNTY, MARYLAND                        |                   |
|   | CONTRACT OWNER: SHELTER DEVELOPMENT CORP. LTD. |                   |
|   | 1 East Lexington Street, #404                  |                   |
|   | Baltimore, Maryland 21201                      |                   |

**Professional Certification**  
 For Revision I hereby certify that these documents were prepared, or approved by me, and that I am a duly licensed Professional Engineer under the laws of that State of Maryland, License No. 12975, Expiration Date: May 29, 2012

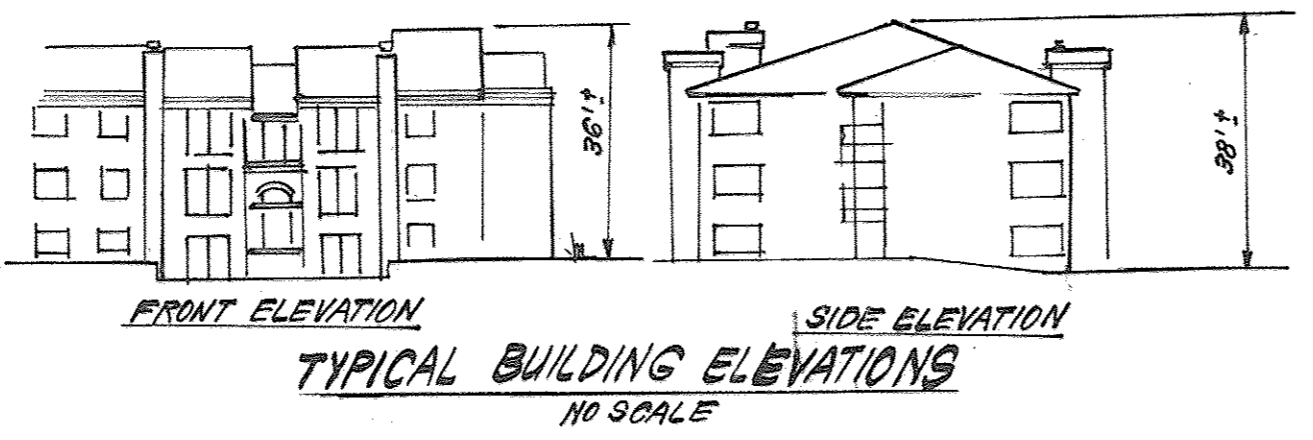


**WATER & SEWER PROFILES**  
 SCALES: HORIZ. 1"=100' VERT. 1"=10'

- WATER AND SEWER NOTES:**
- All sewer mains shall be P.V.C., C.S.P.X., V.P.P.X. or A.C.P. Class 2400 except where indicated.
  - All construction methods and materials for on-site private water & sewer systems shall follow the current edition of the Howard County Plumbing Code, supplemented by the Howard County Standard Details and Specifications where necessary.
  - All Water Mains shall be C.I.P. or D.I.P.
  - All Water Mains shall have a min. of 3.5' of cover.
  - Block all fittings with concrete.
  - Sewer house connections shall be built to within 5' of buildings, at a slope of 2.0%.
  - Areas where water house connections are to be built shall be at final grade and connections shall be laid with a minimum of 3.5' of cover.

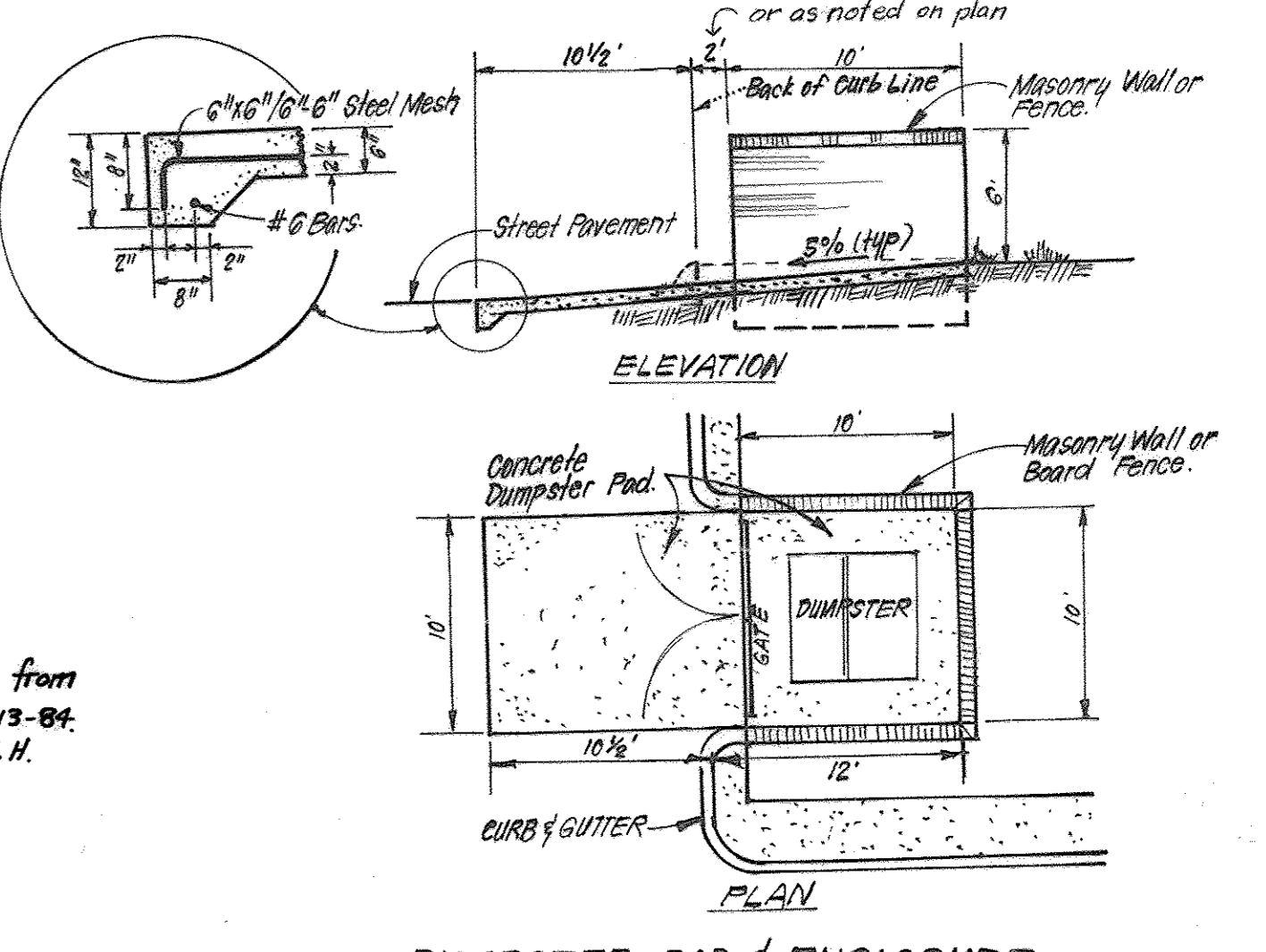


**TIMBER RETAINING WALL**  
 SCALE: 3/16"=1'-0"



**TYPICAL BUILDING ELEVATIONS**  
 NO SCALE

| UNIT AREA                  |                  | SCHEDULE |    |    |    |    |    |    | TOTALS     |
|----------------------------|------------------|----------|----|----|----|----|----|----|------------|
| UNIT TYPES                 | UNIT AREA (S.F.) | A        | B  | C  | D  | E  | F  | G  |            |
| 1/2 Bedroom                | 792              | 5        | 2  | 10 | 6  | 2  | 1  | 6  | 45         |
| 2/3 Bedroom                | 1070             | 12       | 10 | 12 | 12 | 12 | 12 | 12 | 92         |
| 1/2 Bedroom Split          | 1060             | 6        | 5  | 5  | 6  | 6  | 6  | 6  | 46         |
| 1/2 Bedroom Handicap       | 792              | 1        | 1  | 1  | 1  | 1  | 1  | 1  | 2          |
| 2/3 Bedroom Split Handicap | 1070             | 1        | 1  | 1  | 1  | 1  | 1  | 1  | 2          |
| 2/3 Bedroom Handicap       | 1160             | 2        | 2  | 2  | 2  | 2  | 2  | 2  | 4          |
| <b>TOTALS</b>              |                  |          |    |    |    |    |    |    | <b>191</b> |
| OFFICE                     | 792              | 1        |    |    |    |    |    |    | 1          |



**DUMPSTER PAD & ENCLOSURE**  
 NO SCALE



Reviewed for... **HOWARD S.C.D.**  
 Name: **John M. [Signature]**  
 Signature: **[Signature]** Date: **7-17-84**  
 U.S. Soil Conservation Service

**ENGINEER'S CERTIFICATE**  
 I hereby 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.

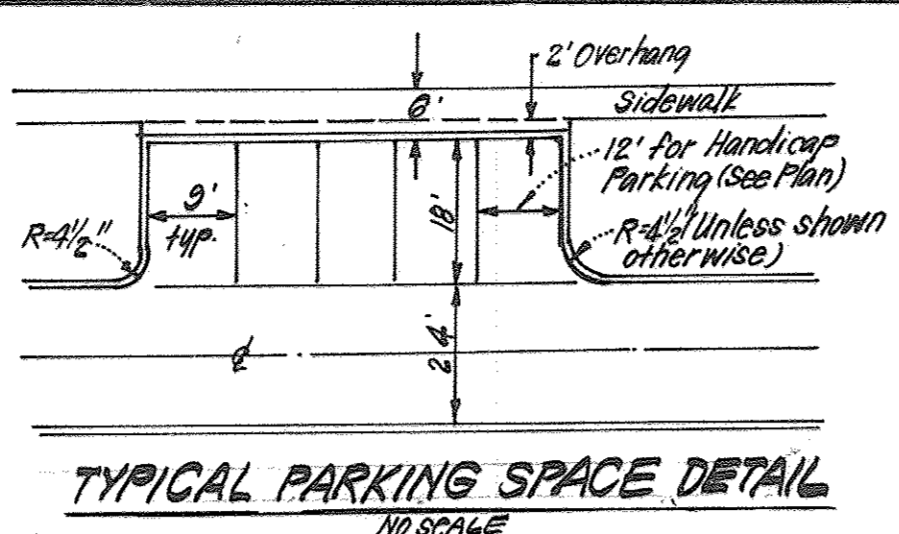
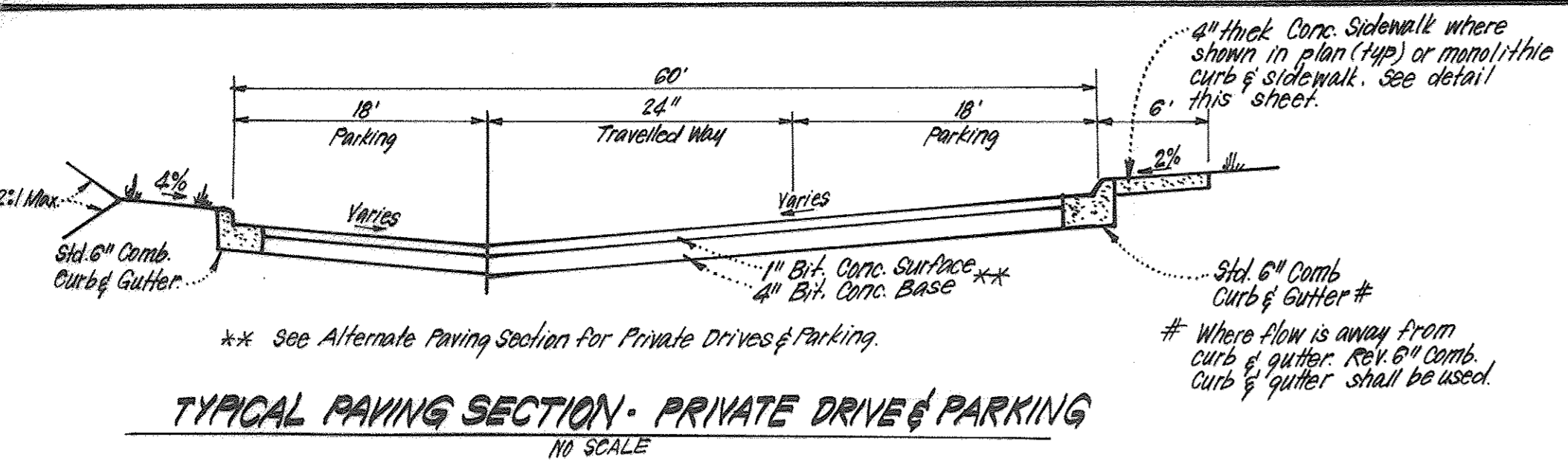
**[Signature]** 7-10-84  
 Date: 7-10-84

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 "I/we certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
 Signature of Developer/Builder: **[Signature]** Date: **7-10-84**

**APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,**  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: **[Signature]** DATE: **7-26-84**  
**APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING**  
 PLANNING DIRECTOR: **[Signature]** DATE: **7-26-84**  
 CHIEF DIVISION OF LAND DEVELOPMENT & ZONING ADMIN.: **[Signature]** DATE: **7-26-84**  
**APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE,**  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: **[Signature]** DATE: **7-26-84**  
 CHIEF BUREAU OF ENGINEERING: **[Signature]** DATE: **7-26-84**

**APPROVED PLANNING BOARD OF HOWARD COUNTY**  
 DATE: **6-13-84**

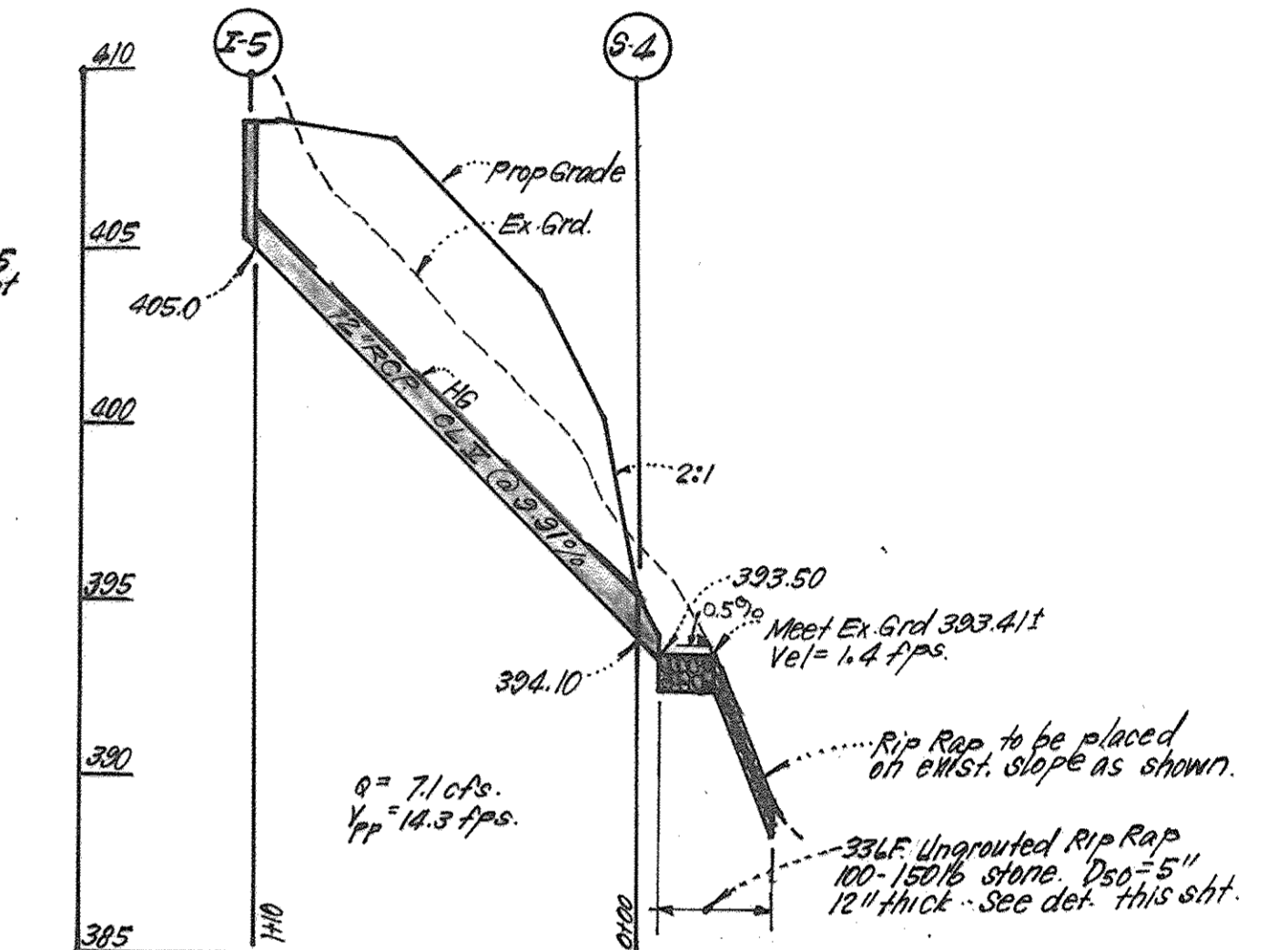
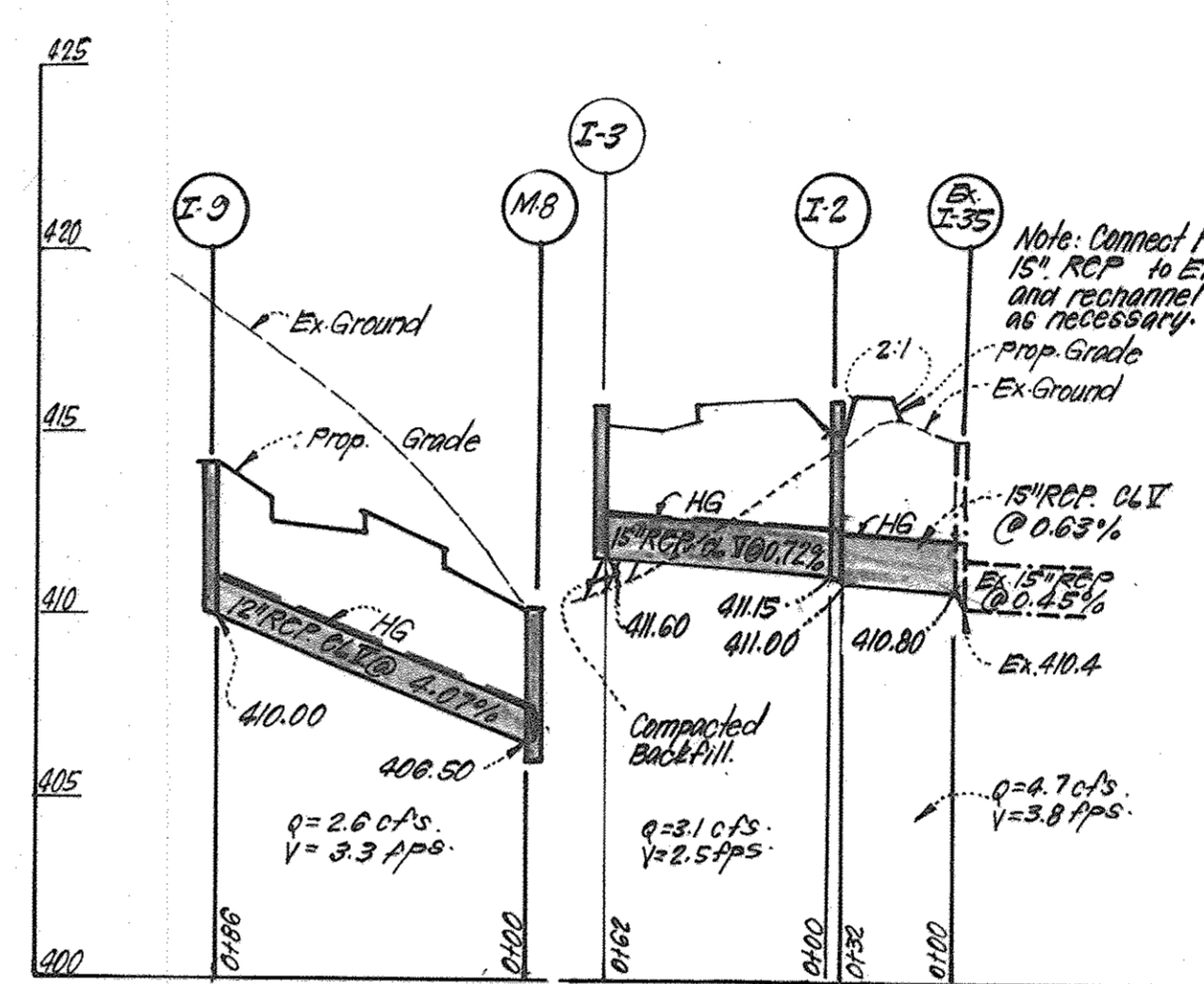
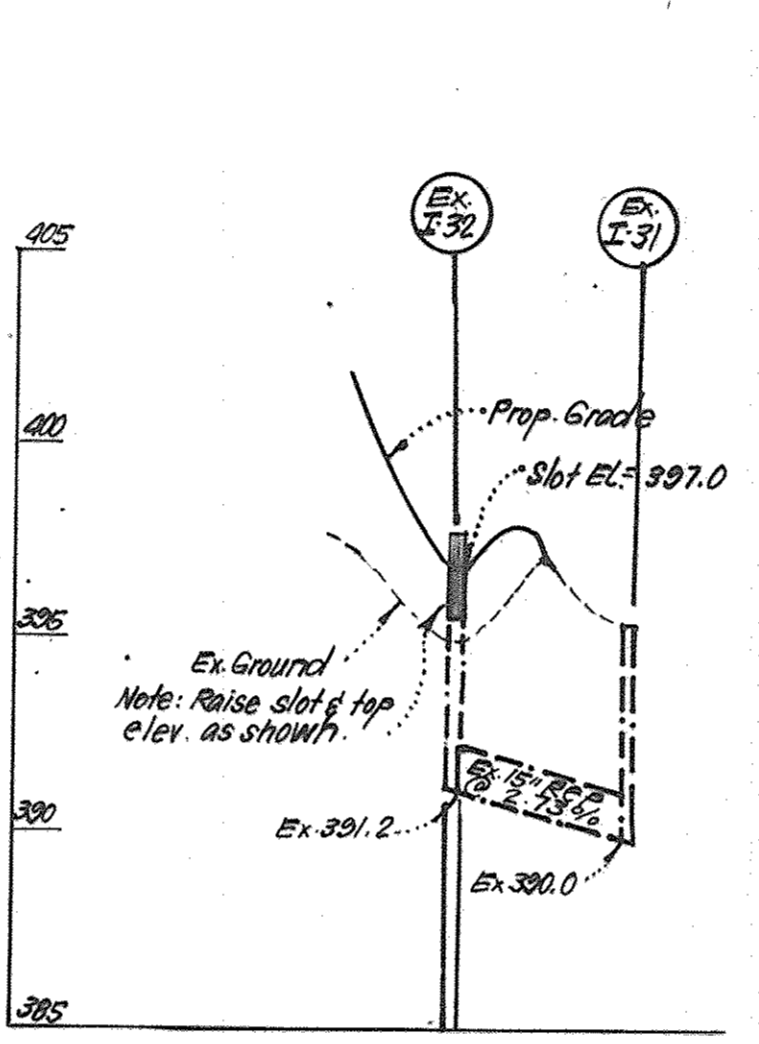
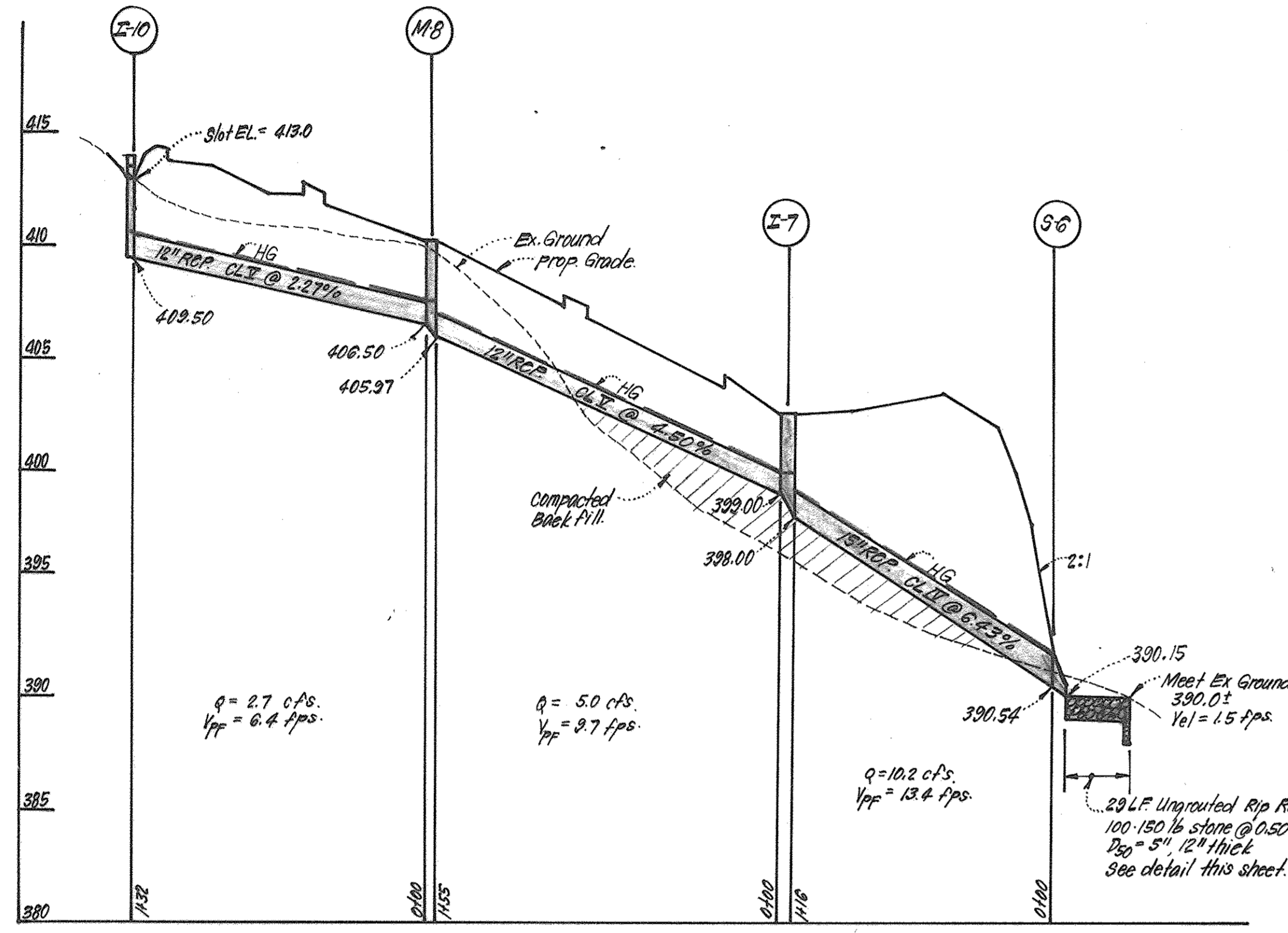
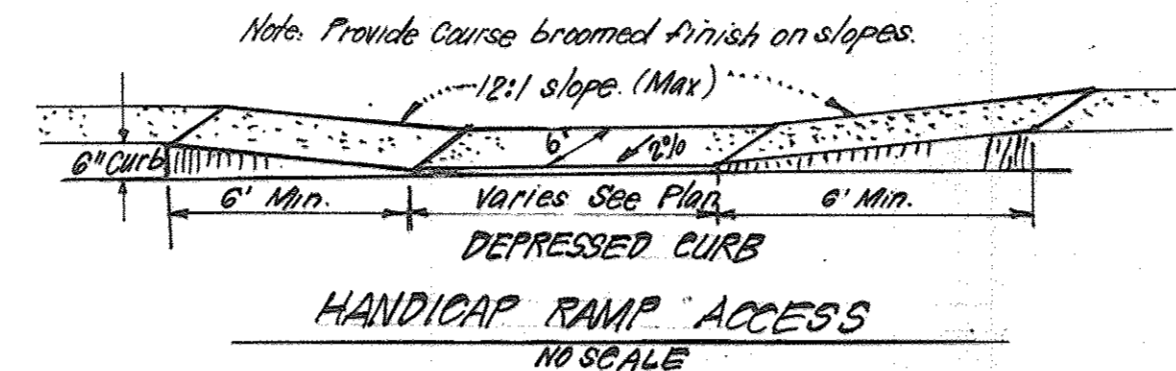
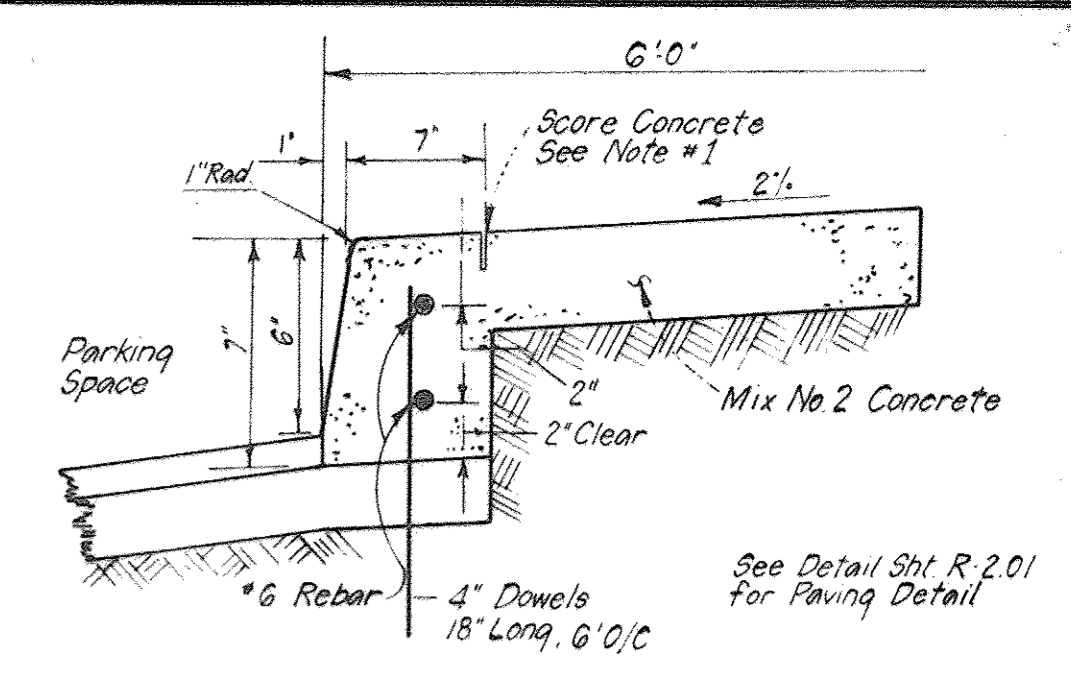
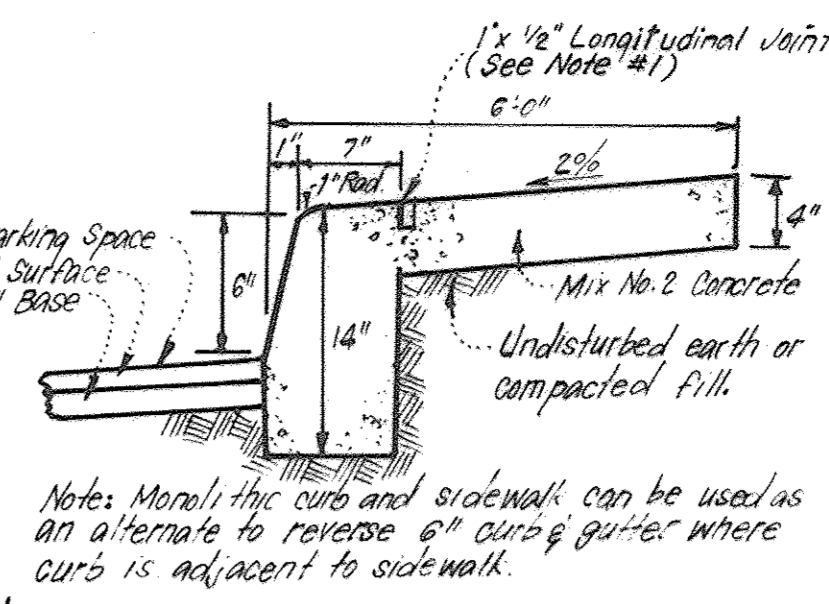
**NO AS-BUILT INFORMATION 03/31/2011**  
**CLARK FINEFROCK & SACKETT**  
 ENGINEERS • PLANNERS • SURVEYORS  
 11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400  
 DESIGNED: **[Signature]** SCALE: 1"=30'  
 DRAWN: **[Signature]** DRAWING: 2 OF 8  
 CHECKED: **[Signature]** JOB NO.: 83-086  
 DATE: **[Signature]** FILE NO.: 83-086-X  
 SITE DEVELOPMENT PLAN PARCEL "F-1" A RESUBDIVISION OF PARCEL "F" COLUMBIA VILLAGE OF HICKORY RIDGE SECTION 3 AREA 2 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: SHELTER DEVELOPMENT CORP. LTD. 1 East Lexington Street #402 Baltimore, Md 21201



**PIPE SCHEDULE**

| SIZE | TYPE       | LENGTH |
|------|------------|--------|
| 12"  | RCP CL I   | 483 LF |
| 15"  | RCP CL II  | 116 LF |
| 15"  | RCP CL III | 34 LF  |

**Notes:**  
1. Longitudinal joint between sidewalk & curb shall be continuous and to a depth of 1/4 the thickness of the sidewalk or 1" longitudinal joints shall run from back edge of sidewalk continuous to the bottom face of curb to a depth of 1/4 the sidewalk thickness or 1" and spaced 5' apart.  
2. Provide 1/4" expansion joints at 15' intervals. In longitudinal joints to full cross section.



|  |        |
|--|--------|
| Bituminous Conc. Surface                             | 1 1/2" |
| Bituminous Conc. Base                                | 4 1/2" |
| Prime  | 1"     |
| 6" Crusher Run Base (Placed in 2 Courses)            | 6"     |
| or   | 4 1/2" |
| 4 1/2" Dense Graded Stabilized Aggregate Base Course | 4 1/2" |

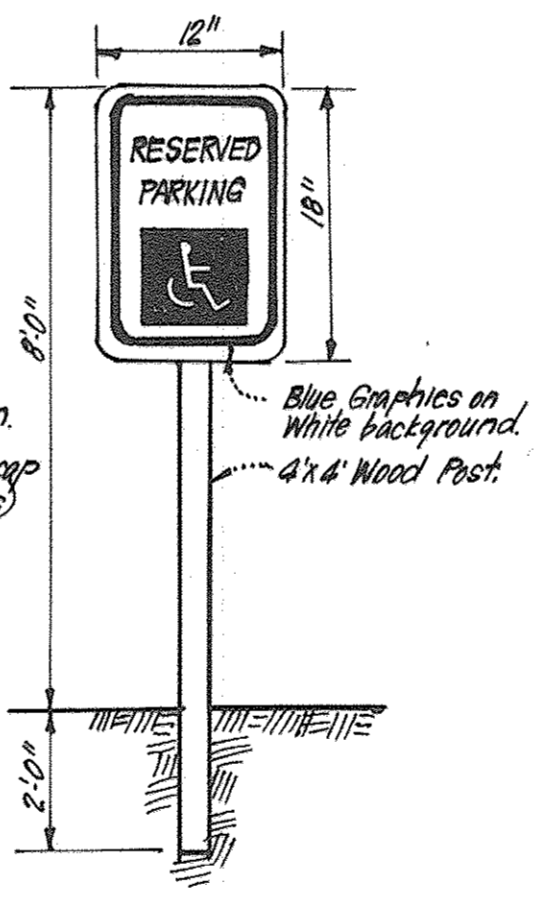
|  |          |
|--|----------|
| Bituminous Conc. Surface                         | 1"       |
| Bituminous Conc. Base                            | 2"       |
| Prime  | 1"       |
| 5" Crusher Run Base Course                       | 5" or 4" |
| or   | 4"       |
| 4" Dense Graded Stabilized Aggregate Base Course | 4"       |

|                          |        |
|--------------------------|--------|
| Bituminous Conc. surface | 1 1/2" |
| Bituminous Conc. Base    | 1 1/2" |
| 5" Bituminous Conc. Base | 5"     |

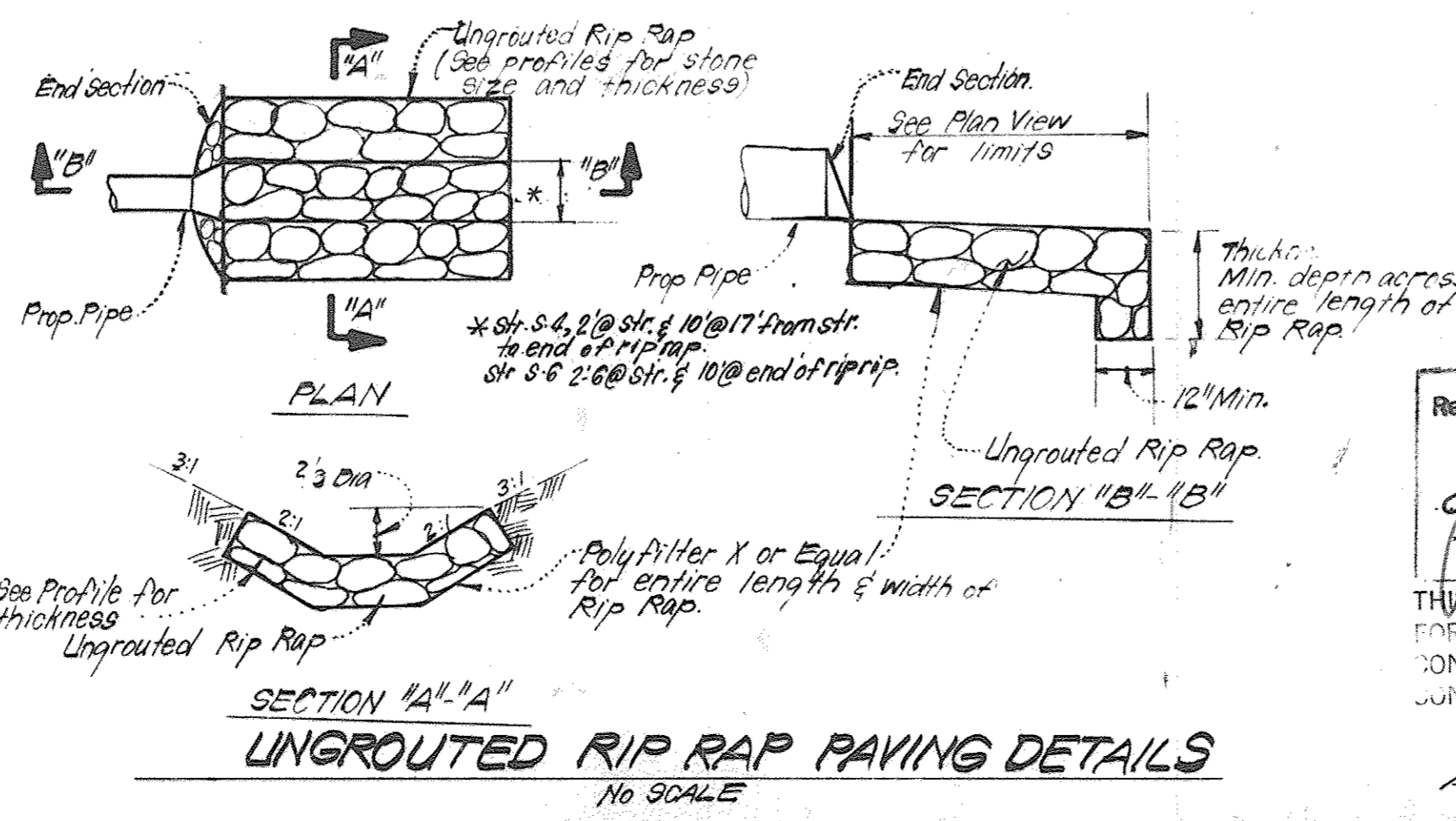
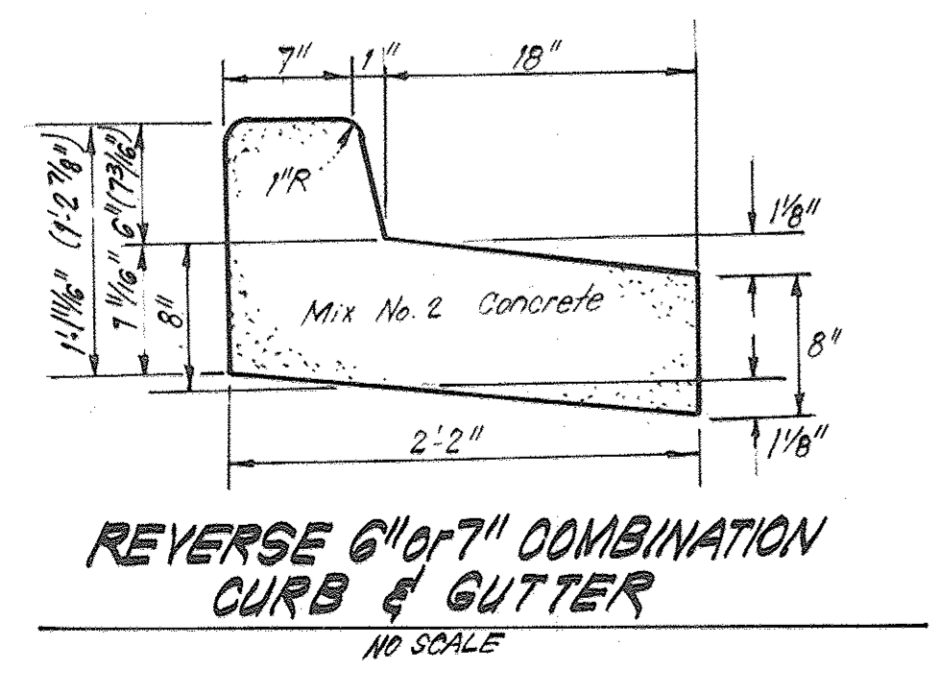
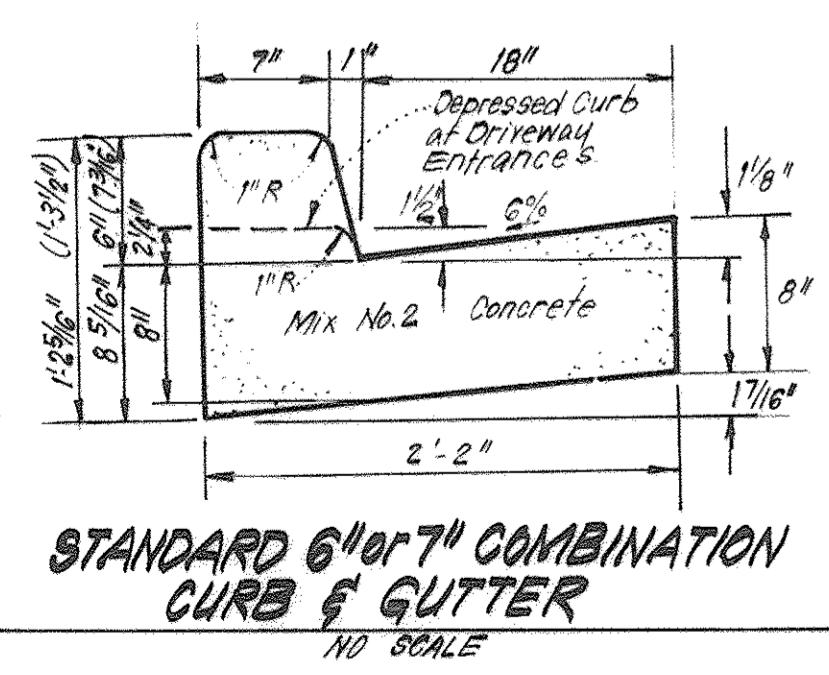
**ALTERNATE PAVING SECTION FOR ENTRANCES @ PUBLIC ROADS**  
NO SCALE

**ALTERNATE PAVING SECTION FOR PRIVATE DRIVES & PARKING**  
NO SCALE

**PAVING SECTION FOR ENTRANCES @ PUBLIC ROADS**  
NO SCALE



**NOTE:**  
1. Sign shall meet design standards of Federal Highway Administration.  
2. One sign required for each handicap parking spaces shown (10 places).



**STORM DRAINAGE PROFILES**  
SCALE: HORIZ: 1"=50'  
VERT: 1"=5'

**STRUCTURE SCHEDULE**

| No.    | TYPE                    | INV. IN | INV. OUT | TOP ELEVATION |        | REMARKS              | LOCATION         |
|--------|-------------------------|---------|----------|---------------|--------|----------------------|------------------|
|        |                         |         |          | UPPER         | LOWER  |                      |                  |
| * I-1  | A-10 Inlet w/Deflectors | 411.15  | 411.00   | 395.66        | 394.65 | Ho. Co. Std. SD/4.02 | W=2'-0" See Plan |
| * I-2  | B-Inlet                 | 411.15  | 411.00   | 415.83        | 415.83 | SD/4.11              | W=2'-6" "        |
| * I-3  | A-5 Inlet w/Deflectors  | 411.60  | 411.60   | 415.78        | 415.60 | SD/4.01              | W=2'-6" "        |
| * I-4  | Concrete End section    | 394.10  | 393.50   | -             | -      | SD/5.52              | Dia=18" "        |
| * I-5  | A-10 Inlet              | 405.00  | 405.00   | 408.50        | 408.50 | SD/4.02              | W=2'-6" "        |
| * I-6  | Concrete End section    | 390.54  | 390.15   | -             | -      | SD/5.52              | Dia=15" "        |
| * I-7  | A-10 Inlet              | 393.00  | 393.00   | 402.50        | 402.50 | SD/4.02              | W=2'-6" "        |
| M-8    | Shallow Brick Manhole   | 405.97  | 410.10   | -             | -      | G/5.05               | 48" Dia          |
| * I-9  | A-5 Inlet               | 410.00  | 410.00   | 415.00        | 415.00 | SD/4.01              | W=2'-6" "        |
| * I-10 | B-Inlet                 | 409.50  | 409.50   | 415.83        | 415.83 | SD/4.11              | 2'-6" Dia        |

\* Provide Slobs in all sides.  
\* See Ho. Co. Std. SD/4.83 for Inlet deflectors.  
Δ All Inverts to be fully developed.

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Soil Erosion and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Signature of Developer/Builder: *Mark Joseph* Date: 7-10-84



**ENGINEER'S CERTIFICATE**  
I hereby 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.

Signature: *G. Nelson Clark* Date: 7-10-84  
Contract Owner: SHELTER DEVELOPMENT CORP. LTD  
1 East Livingston Street #404  
Baltimore, Md. 21201

**NO ASBUILT INFORMATION 03/31/2017**

**CLARK • FINEFROCK & SACKETT**  
ENGINEERS • PLANNERS • SURVEYORS  
11314 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

|          |         |          |          |
|----------|---------|----------|----------|
| DESIGNED | JLS     | SCALE    | As Shown |
| DRAWN    | JLS     | DRAWING  | 3 OF 8   |
| CHECKED  | JLS     | JOB NO.  | 83-086   |
| DATE     | 5-14-84 | FILE NO. | 83-086-X |

**SITE DEVELOPMENT PLAN**  
PARCEL "F"  
A RESUBDIVISION OF PARCEL "F"  
**COLUMBIA**  
VILLAGE OF HICKORY RIDGE  
SECTION 3 AREA 2  
SITE SELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FOR: SHELTER DEVELOPMENT CORP. LTD  
1 East Livingston Street #404  
Baltimore, Md. 21201

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
Signature: *James Bond* Date: 7-26-84  
COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
Signature: *James Bond* Date: 7-26-84  
PLANNING DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Signature: *Robert M. Bingham* Date: 7-26-84  
DIRECTOR

Signature: *William S. Pugh* Date: 7-26-84  
CHIEF BUREAU OF ENGINEERING

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: 6-13-84  
*M. J. Quinn*

Reviewed for: **HOWARD** S.C.D.  
Name: *James M. Bond* Date: 7-17-84  
Signature: *James M. Bond*  
U.S. Soil Conservation Service  
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: *Stephen J. Fisher* Date: 7/17/84

TRAP No. 1 S.O.S.T. (ST-3)  
 D.A. = 1.2 Acres  
 Storage Required = 1.2 x 1800 = 2160 cf  
 Storage Provided = 2160 cf  
 Depth = 3'  
 Top of Stone Crest = 393.0  
 Bottom Elevation = 389.0  
 Bottom Dimensions = 10' x 22'  
 Cleanout Elev. = 391.0

TRAP No. 2 S.O.S.T. (ST-4)  
 D.A. = 0.9 Acres  
 Storage Required = 0.9 x 1800 = 1620 cf  
 Storage Provided = 1620 cf  
 Depth = 3'  
 Crest Elevation = 415.0  
 Bottom Elevation = 412.0  
 Bottom Dimensions = 24' x 12'  
 Cleanout Elev. = 413.50

TRAP No. 5 S.O.S.T. (ST-4)  
 D.A. = 1.1 Acres  
 Storage Required = 1.1 x 1800 = 1980 cf  
 Storage Provided = 1980 cf  
 Depth = 4'  
 Crest Elevation = 397.0  
 Bottom Elev. = 393.0  
 Bottom Dimensions = 25' x 7'  
 Cleanout Elev. = 395.0

- Sequence of Construction for 10/2011 Redline
1. Apply for a Grading Permit and arrange for the Pre-Construction meeting with the Sediment Control Inspector obtain the grading permit at the meeting (1 Day).
  2. Install Stabilized Construction Entrance and Perimeter Super Silt Fence (1 Day).
  3. Clear and Grade Site (21 Days).
  4. Install Utilities and begin Building Construction. Install AGIP on I-100 as soon as Inlet is installed (14 Days).
  5. Complete Building Construction and install Base pavement and Curb and gutter (90 Days).
  6. Once all Area draining to Facility A has been stabilized. Install Facility A and all Pond Landscaping (14 Days).
  7. Stabilize remaining LOD and install final of Landscaping (14 Days).

**LEGEND:**

1. Contour Interval 2 Ft.
2. Existing Contour 430
3. Proposed Contour 430
4. Perimeter Dike
5. Straw Bale Dike or Silt Fence
6. Interceptor Shale
7. Stone Filter Inlet Protection
8. Diversion Dike
9. Super Silt Fence (Per MD-500 H-26-2)
10. Stabilized Construction Entrance
11. Inlet Protection (Per MD-500 E-16-5A)

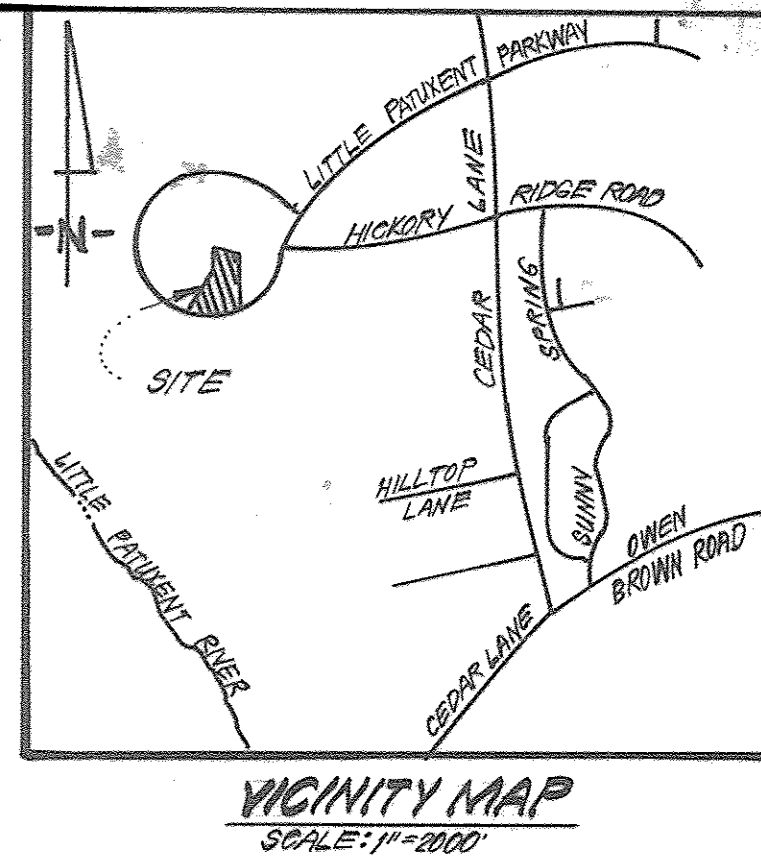
GLIN Revisions:

| Rev. No. | Rev. Description  | Rev. Date | Rev. By | Rev. Check |
|----------|---|-----------|---------|------------|
| 1        | 10/2011 - Clubhouse, Parking Lot and SWIM added to Southeast corner of Parcel F-1 |           |         |            |
| 2        | 11-28-11  |           |         |            |

I hereby certify that these documents were prepared or approved by me, and that I am duly licensed Professional Engineer, under the laws of the State of Maryland, License No. 12975, Expiration Date: May 26, 2012

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: *John Boyd* 7-26-84  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 PLANNING DIRECTOR: *Thomas Williams* 7-26-84  
 CHIEF DIVISION OF LAND DEVELOPMENT/ZONING ADMIN. DATE: 7-26-84  
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *Robert M. Berger* 7-26-84  
 CHIEF BUREAU OF ENGINEERING: *William S. Ryan* 7-26-84

**APPROVED**  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE: 6-13-84  
*W. S. Ryan*



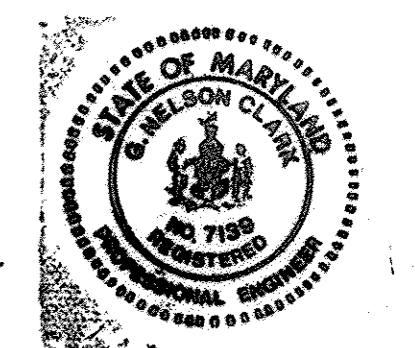
**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 "We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
 Signature of Developer/Builder: *Michael Boyd* Date: 5-16-84

Site Analysis (for 10/2011 Redline)  
 Total Area of Site: 11.0 AC ±  
 Area Disturbed: 0.94 AC ±  
 Area to be Roofed or Repaved: 0.14 AC ±  
 Area to be Vegetatively Stabilized: 0.75 AC ±  
 Total Cut: 350 cu yds  
 Total Fill: 350 cu yds  
 Off-site Waste/Borrow Area Location: None

Reviewed for: **HOWARD S.C.D.**  
 Name: *Howard Soil Conservation District*  
 and meets Technical Requirements  
 Signature: *Stephen T. Hulsh* Date: 7-17-84  
 U.S. Soil Conservation Service

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

Approved: *Stephen T. Hulsh* 7-17-84  
 Date



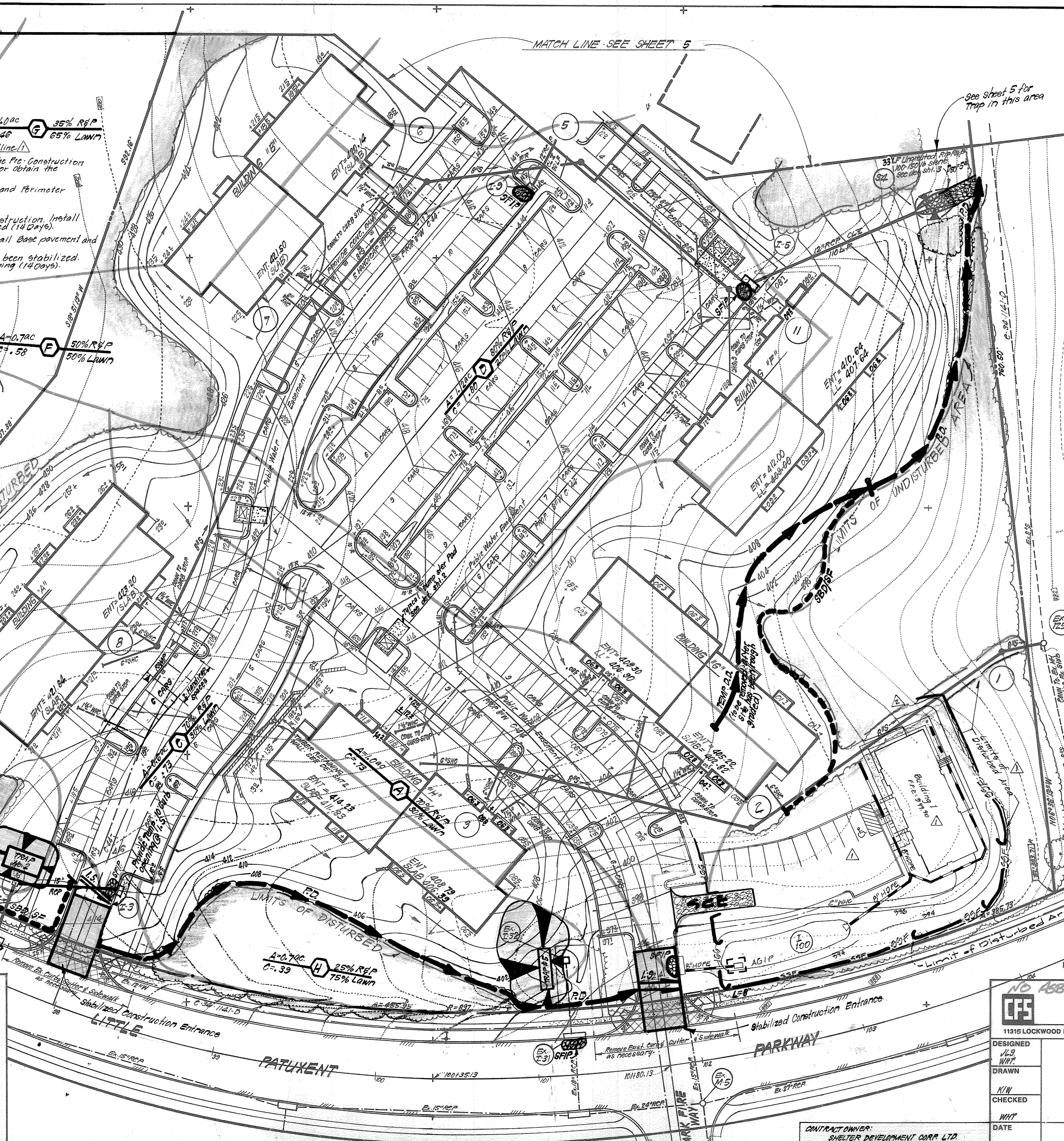
**ENGINEER'S CERTIFICATE**  
 I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
 Signature: *John C. Clark* Date: 5-15-84  
 G. Nelson Clark

(For A) *John C. Clark* 11-28-11  
 SUBDIVISION NAME: VILLAGE OF HICKORY RIDGE SECTION 3 LOT/PARCEL # 12  
 PLAT/BLK/1/2 BLOCK # 35 TAX ZONE MAP ELEC DIST CENSUS TR 5820 N.T. 5-PM  
 WATER CODE: SEWER CODE:

**NO ASBUILT INFORMATION 03/31/2017**  
**CLARK · FINEFROCK & SACKETT**  
 ENGINEERS · PLANNERS · SURVEYORS  
 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

|                         |                    |
|-------------------------|--------------------|
| DESIGNED: <i>W.S.R.</i> | SCALE: 1"=30'      |
| DRAWN: <i>W.S.R.</i>    | DRAWING: 40F8      |
| CHECKED: <i>W.S.R.</i>  | JOB NO.: 83-086    |
| DATE: 5-14-84           | FILE NO.: 83-086-X |

PROJECT: SHELTER DEVELOPMENT CORP LTD. 1 East Lexington Street #404 Baltimore, MD 21201



CONTRACT OWNER: SHELTER DEVELOPMENT CORP LTD. 1 East Lexington Street #404 Baltimore, MD 21201

SDP-84-283



**TRAP No. 4 S.O.S.T. (ST.3)**  
 D.A. = 3.8 Acres  
 Storage Required = 3.8 X 1800 = 6840 cf  
 Storage Provided = 6840 cf  
 Depth = 4'  
 Top of Stone Crest = 392.0  
 Bottom Elevation = 388.0  
 Bottom Dimensions = 106' X 7'  
 Clean Out EL = 390.0

**TRAP No. 3 S.O.S.T. (ST.3)**  
 D.A. = 2.6 Acres  
 Storage Required = 2.6 X 1800 = 4680 cf  
 Storage Provided = 4704 cf  
 Depth = 4'  
 Top of Stone Crest = 380.0  
 Bottom Elevation = 376.0  
 Bottom Dimensions = 76' X 6'  
 Clean Out EL = 378.0

A=1.0 AC 35% RRP  
 C=.46 65% LAWN

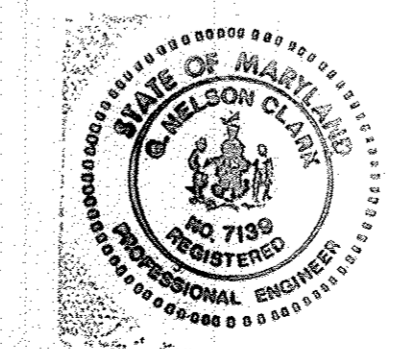
MATCH LINE - SEE SHEET 4

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 7-26-84  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 PLANNING DIRECTOR: *[Signature]* DATE: 7-26-84  
 CHIEF DIVISION OF LAND DEVELOPMENT & ZONING ADMIN. DATE: 7-26-84  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *[Signature]* DATE: 7-26-84  
 CHIEF BUREAU OF ENGINEERING DATE: 7-26-84

**APPROVED**  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE: 6-13-84  
*[Signature]*

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 "We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
 Signature of Developer/Builder: *[Signature]* DATE: 5-16-84

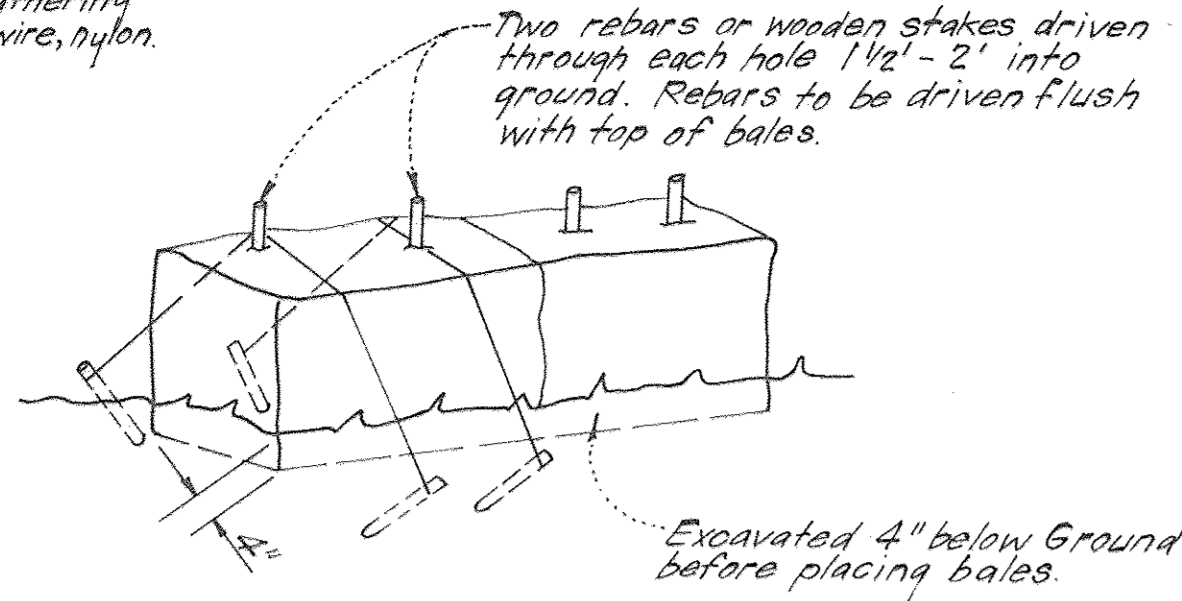
Reviewed for: HOWARD S.C.D.  
 Name  
 and meets Technical Requirements  
 Signature: *[Signature]* Date: 7-17-84  
 U.S. Soil Conservation Service  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Approved: *[Signature]* Date: 7-17-84



**ENGINEER'S CERTIFICATE**  
 I hereby 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.  
 Signature: *[Signature]* DATE: 5-15-84  
 CONTRACT OWNER: SHELTER DEVELOPMENT CORP. LTD.  
 1 East Lexington Street #402  
 Baltimore, Md. 21201

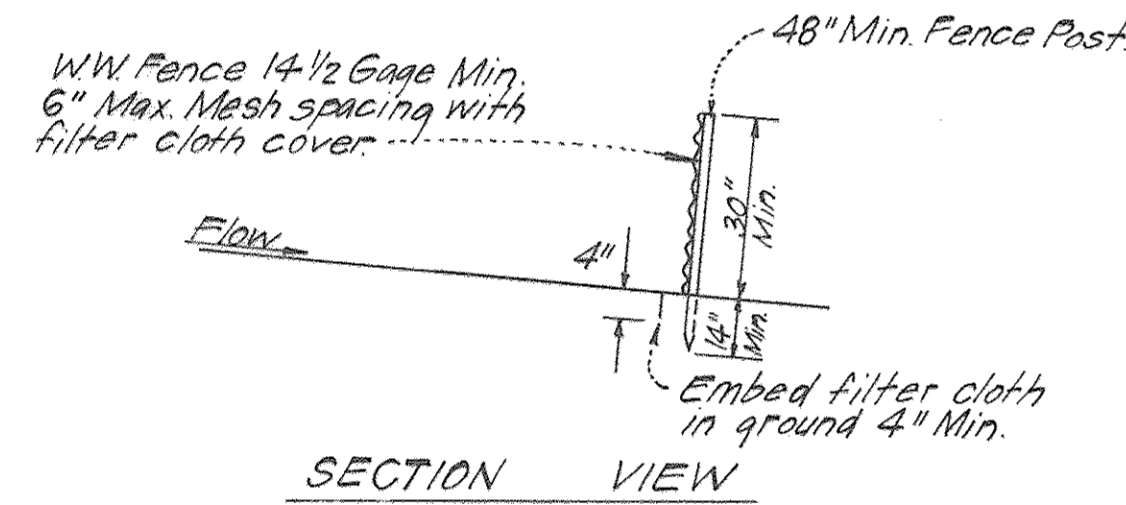
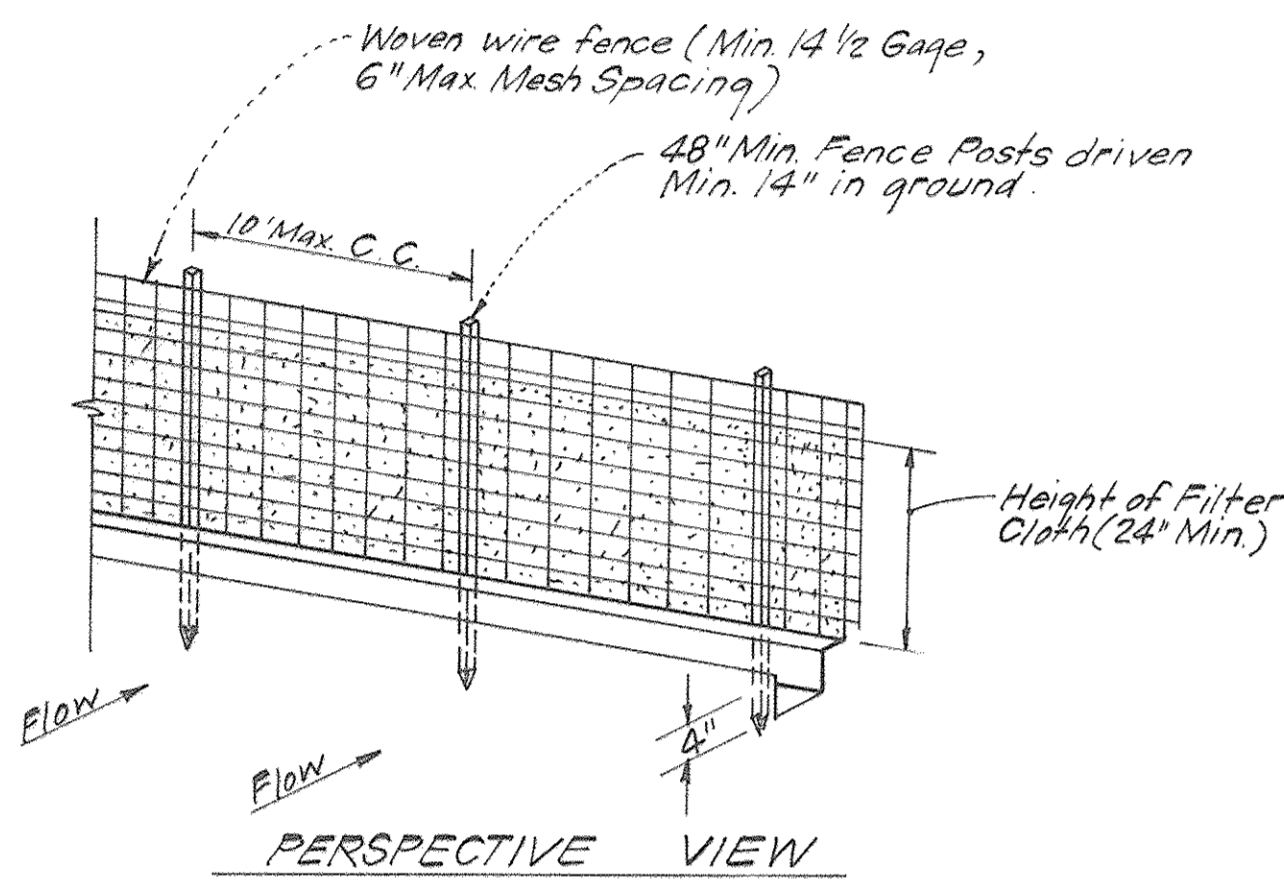
|  |   |                      |
|--|---|----------------------|
| NO ASBUILT INFORMATION 03/31/2017  |   |                      |
| <b>CLARK · FINEFROCK &amp; SACKETT</b><br>ENGINEERS · PLANNERS · SURVEYORS |   |                      |
| 11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400      |   |                      |
| DESIGNED<br>JLS  | <b>SEDIMENT &amp; EROSION CONTROL PLAN</b><br>PARCEL "F-1"<br>A RESUBDIVISION OF PARCEL "F"<br><b>COLUMBIA</b><br>VILLAGE OF HICKORY RIDGE<br>SECTION 3 AREA 2<br>5TH ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND<br>FOR: SHELTER DEVELOPMENT CORP. LTD.<br>1 East Lexington Street #402<br>Baltimore, Md. 21201 | SCALE<br>1"=30'      |
| WHT  |   | DRAWING              |
| DRAWN<br>KRW   |   | 50F8                 |
| CHECKED<br>WHT   |   | JOB NO.<br>83-086    |
| DATE<br>5-14-84  |   | FILE NO.<br>83-086-X |

All bales shall be tied with non-weathering materials, i.e., wire, nylon.



Note:  
1. In lieu of the use of rebar each straw bale may be fastened to ground with pegs (4 per bale and wire or nylon as shown above.)

**STRAW BALE DIKE DETAIL (S.B.D.)**  
NO SCALE

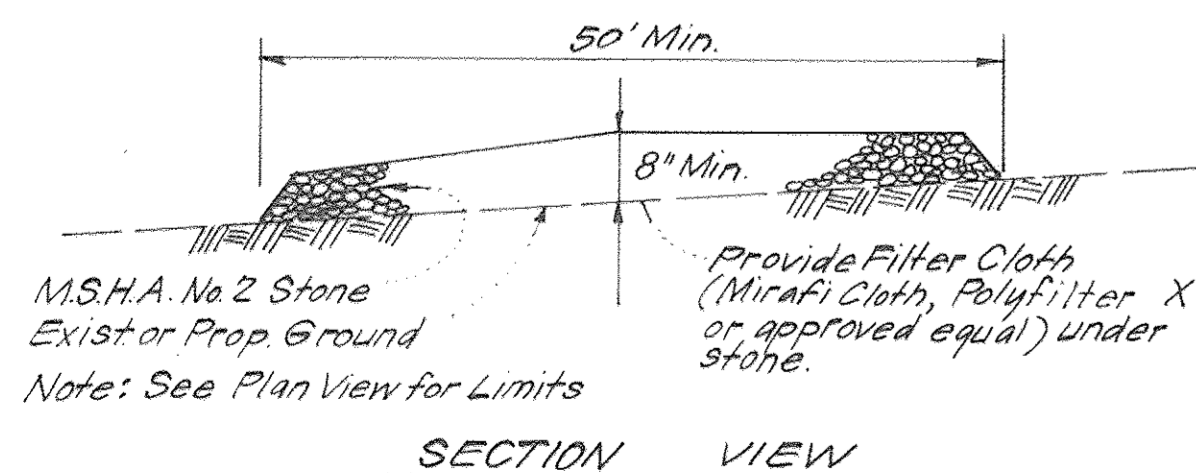


**CONSTRUCTION NOTES:**

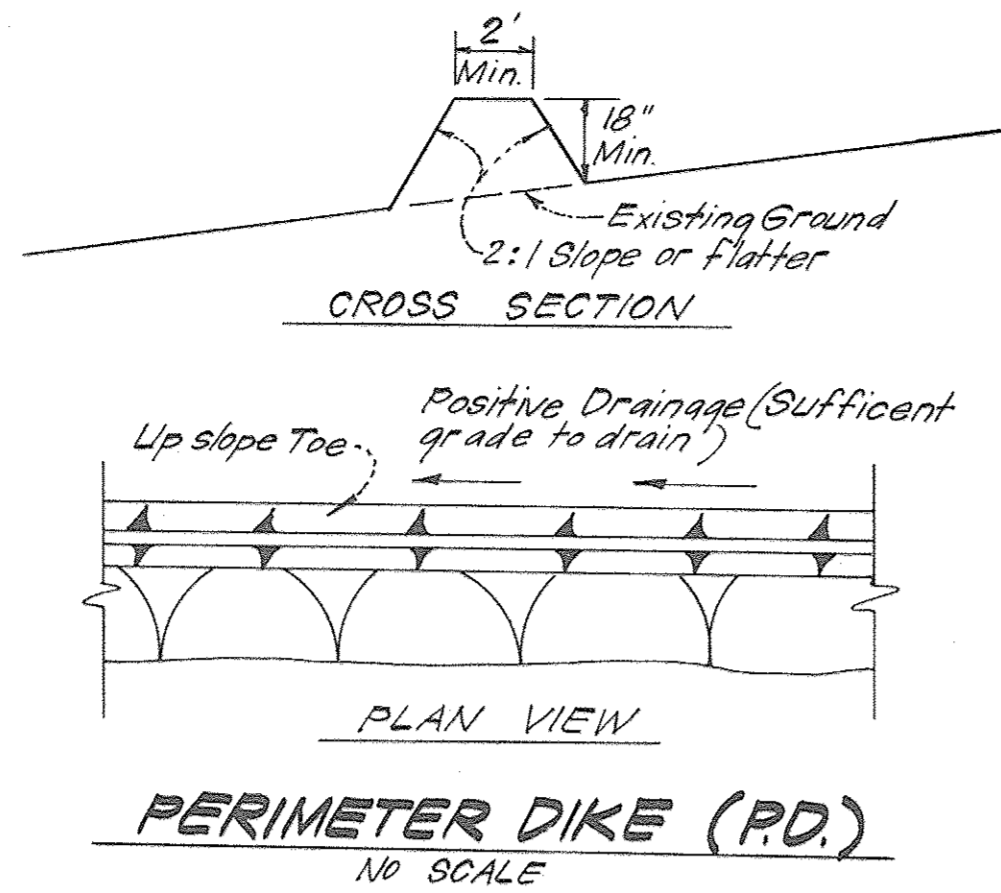
1. Woven wire fence to be fastened securely to fence posts with wire ties or straps.  
2. Filter cloth to be fastened securely to woven wire fence with wire ties spaced every 24 inches at top and mid-section.

POSTS: Steel, either T or U type or 2" Hardwood.  
FENCE: Woven wire, 1/4" Gage, Max 6" Mesh Opening.  
FILTER CLOTH: Filter X, Mirafi 100X, Laurel Erosion Control Cloth, Bidim, Polyfilter X or equal.

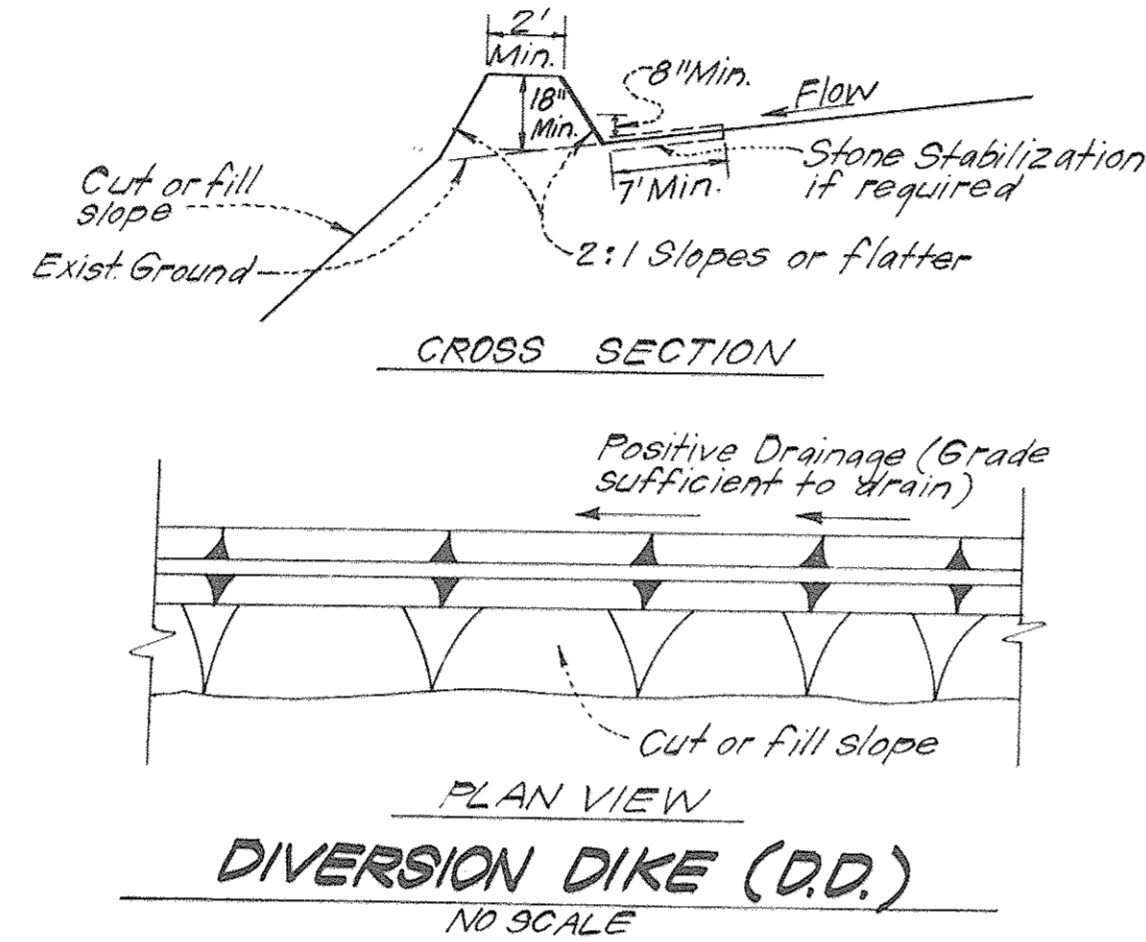
**SILT FENCE DETAIL (S.F.)**  
NO SCALE



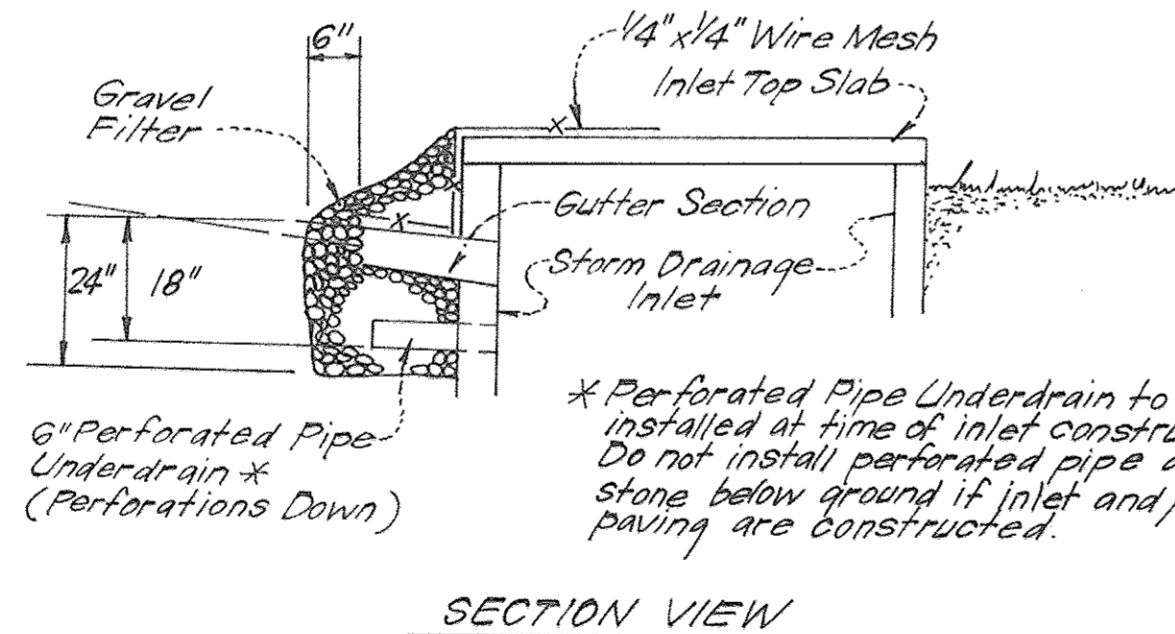
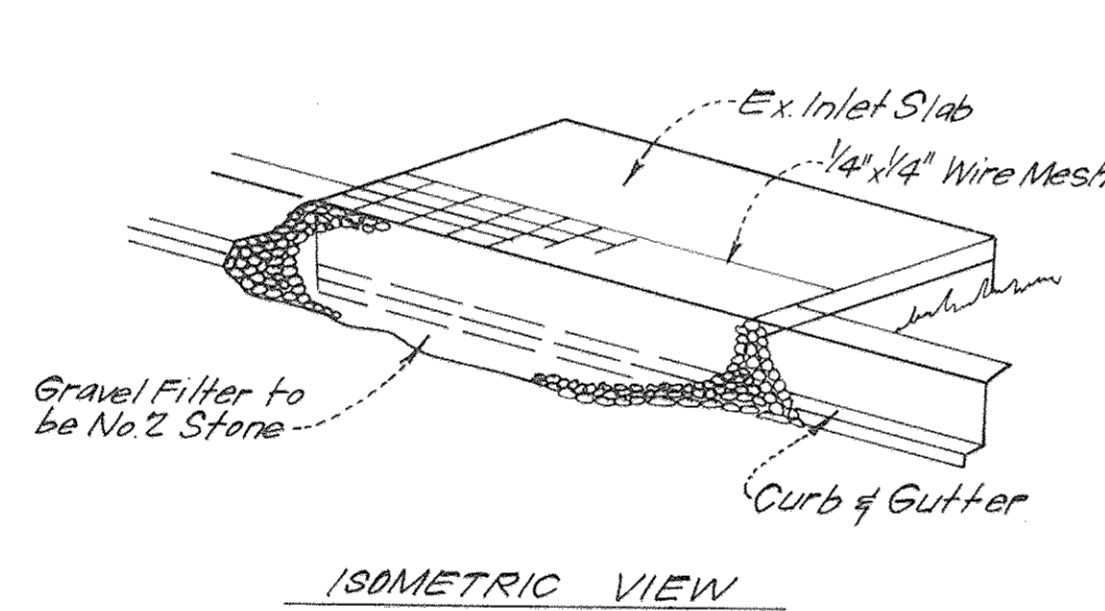
**STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE



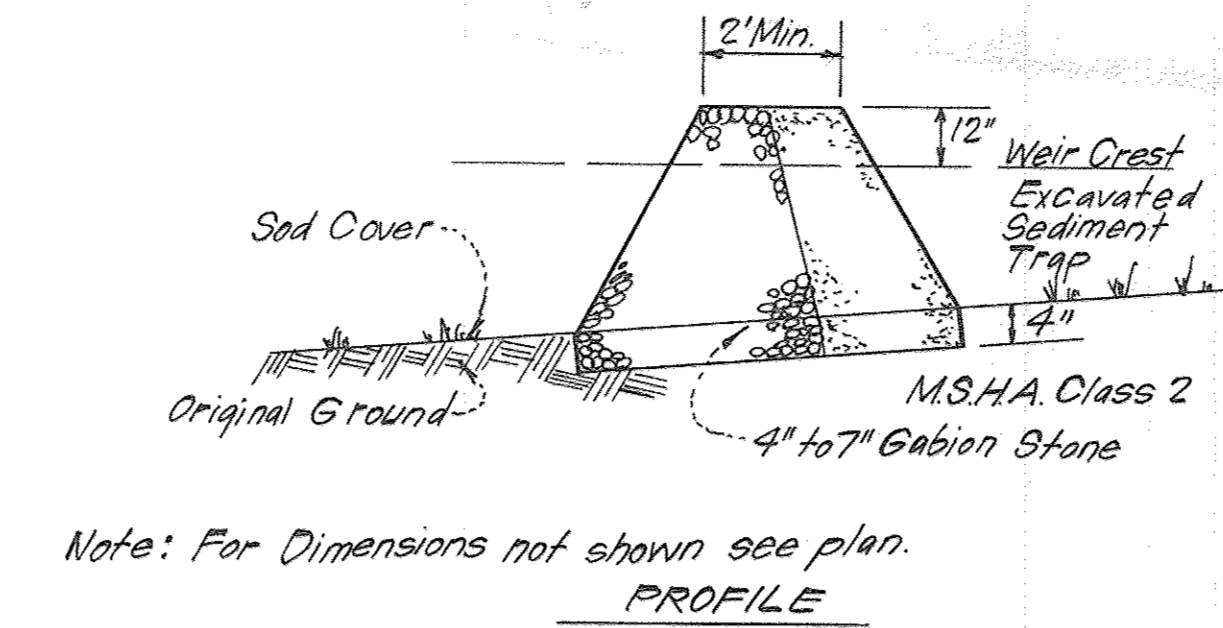
**PERIMETER DIKE (P.D.)**  
NO SCALE



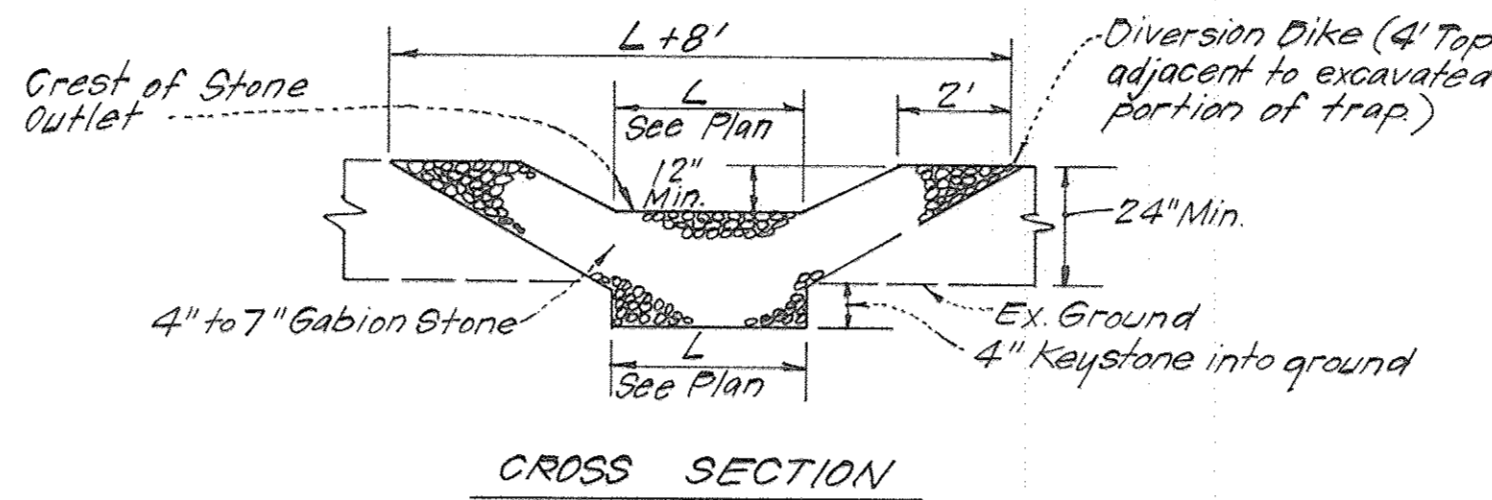
**DIVERSION DIKE (D.D.)**  
NO SCALE



**STONE FILTER INLET PROTECTION (S.F.I.P.)**  
NO SCALE

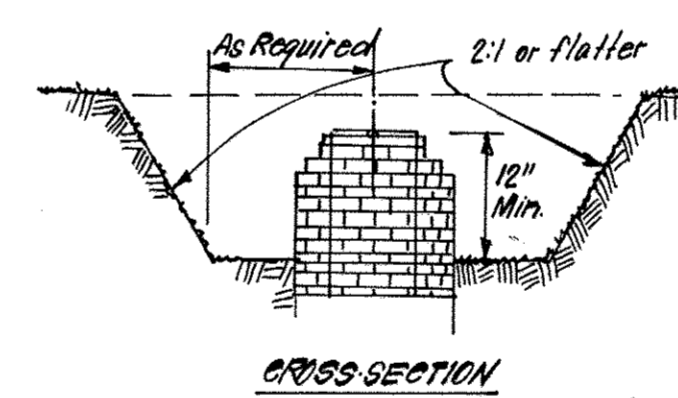
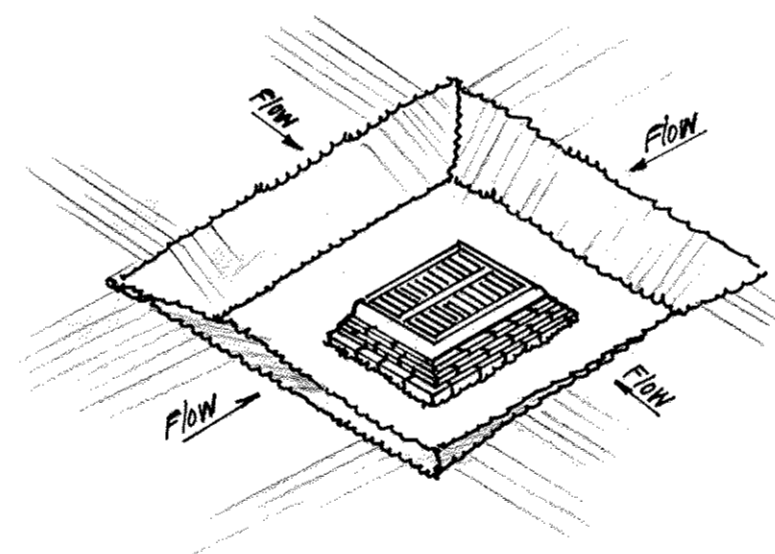


Note: For Dimensions not shown see plan.



Notes:  
1. Sediment Trap to be cleaned out when sediment reaches a level of 1 foot below crest of stone outlet.  
2. Bottom of Sediment Trap to be level and constructed to the dimensions shown on plan.  
3. Stone Outlet to be constructed through diversion dike adjacent to excavated trap.

**DETAILS OF STONE FILTER OUTLET FOR STONE OUTLET SEDIMENT TRAP (S.O.S.T.)**  
NO SCALE

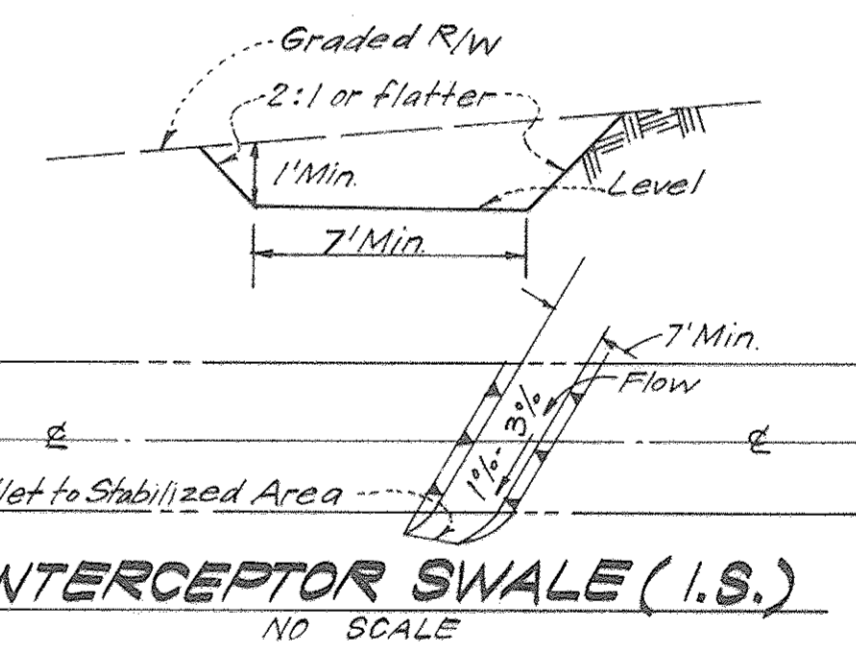


**STORM INLET SEDIMENT TRAP (S.I.S.T.)**  
NO SCALE

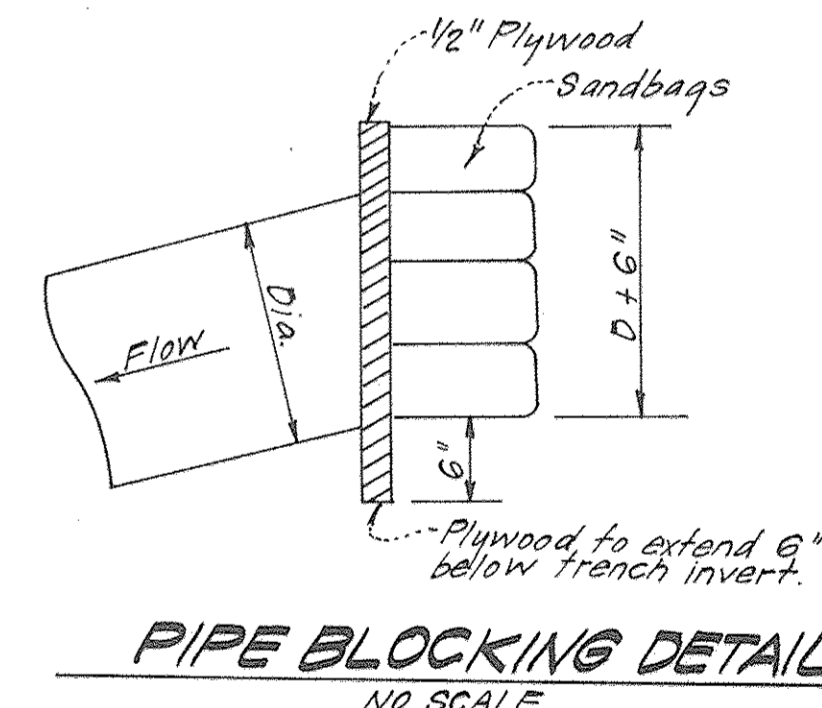
**GENERAL NOTES**

- Grading Permits shall be obtained prior to installation of Sediment Control & Grading.
- All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization except that the seed mixture will be annual rye applied at a rate of 1.4 lbs./1000 sf.
- Notify the Bureau of Inspections and Permits at least 24 hours before starting any work.
- All Sediment Control Practices to conform to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" and shall be adjusted to meet actual field conditions.
- Stabilization of Disturbed ground to be done as soon after construction as possible.
- All disturbed areas to be stabilized in accordance with the following Specifications:
  - Seed - certified 85% germination applied at the rate of 3 lbs./1000 sf. Mixture - 40% Kentucky Blue, 20% chewing Fescue, 20% Kentucky 31 and 20% annual rye.
  - Fertilizer - 10-10-10 applied at a rate of 23 lbs./1000 sf. Ground Agricultural Lime or Dolomitic Lime applied at a rate of 90 lbs./1000 sf.
  - Mulch - Weed free grain straw applied at a rate of 70-90 lbs./1000 sf. Mulch shall be secured to the ground by any approved method i.e.; asphalt tacks, chemical binder etc.
  - All Sod used shall be Maryland State Certified.
- All structural Sediment Control Measures are to remain in place until permission for their removal has been obtained from the Bureau of Inspections and Permits.
- On Site Inspection and Maintenance of all Sediment Control Measures including clean out of Sediment Traps and Dikes, and proper establishment of all planned vegetative measures will be the responsibility of the developer or his representative on the site, on a continuing day to day basis.
- It will be the developer's responsibility to provide additional Sediment & Erosion Control Devices to protect stabilized areas during construction.
- The Contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
- Approval of this plan is conditional upon the approval of Sediment Control Plan for the off-site waste or borrow area prior to the import of any borrow or export of waste to or from this site.
- All pipes to be blocked at the end of each day. See detail this sheet.
- Total Amount of Straw Bales or Silt Fence shown = 355 L.F.
- SITE ANALYSIS:
 

|                       |        |       |
|-----------------------|--------|-------|
| A. Total Area:        | 10.987 | Acres |
| B. Area to be Roofed: | 1.674  | Acres |
| C. Area to be Paved:  | 3.026  | Acres |
| D. Area to be Seeded: | 4.110  | Acres |
| E. Area Undisturbed:  | 2.177  | Acres |



**INTERCEPTOR SWALE (I.S.)**  
NO SCALE



**PIPE BLOCKING DETAIL**  
NO SCALE

**CONSTRUCTION SEQUENCE:**

- Install Stabilized Construction Entrance.
- Construct sediment & erosion control measures (except S.F.I.P.) and Storm Drainage, 2:1 to 2:1.25 and adjust as necessary to construct trap #5.
- Clear & Prepare Grade Site.
- Construct remainder of storm drainage (except outfall/s) and install S.F.I.P.s.
- Construct Utilities.
- Final grade and construct paving, sidewalks and buildings except paving and curb & gutter at 2:1 where shown.
- Stabilize all other areas onsite in accordance with Stds. and Specs.
- Remove sediment & erosion control measures after all areas draining to them have been stabilized and construct remainder of paving and storm drainage outfall/s.

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT  
*Joseph Bryden* 7-26-84  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*Thomas J. Harrison* 7-26-84  
PLANNING DIRECTOR DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Robert M. Bringer for GFN* 7-26-84  
DIRECTOR DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*William J. Kelly* 7-26-84  
CHIEF BUREAU OF ENGINEERING DATE

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 6-13-84  
*M. J. Ford*

DEVELOPER'S/BUILDER'S CERTIFICATE  
"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
*Michael Joseph* 5-16-84  
Signature of Developer/Builder Date

Reviewed for: *HOWARD* S.C.D.  
Name  
and meets Technical Requirements  
*John M. Seltzer* 7-17-84  
Signature Date  
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Stephen L. Haden* 7-17-84  
Approved Date



ENGINEER'S CERTIFICATE

I hereby 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.

*John M. Seltzer* 5-15-84  
Signature Date

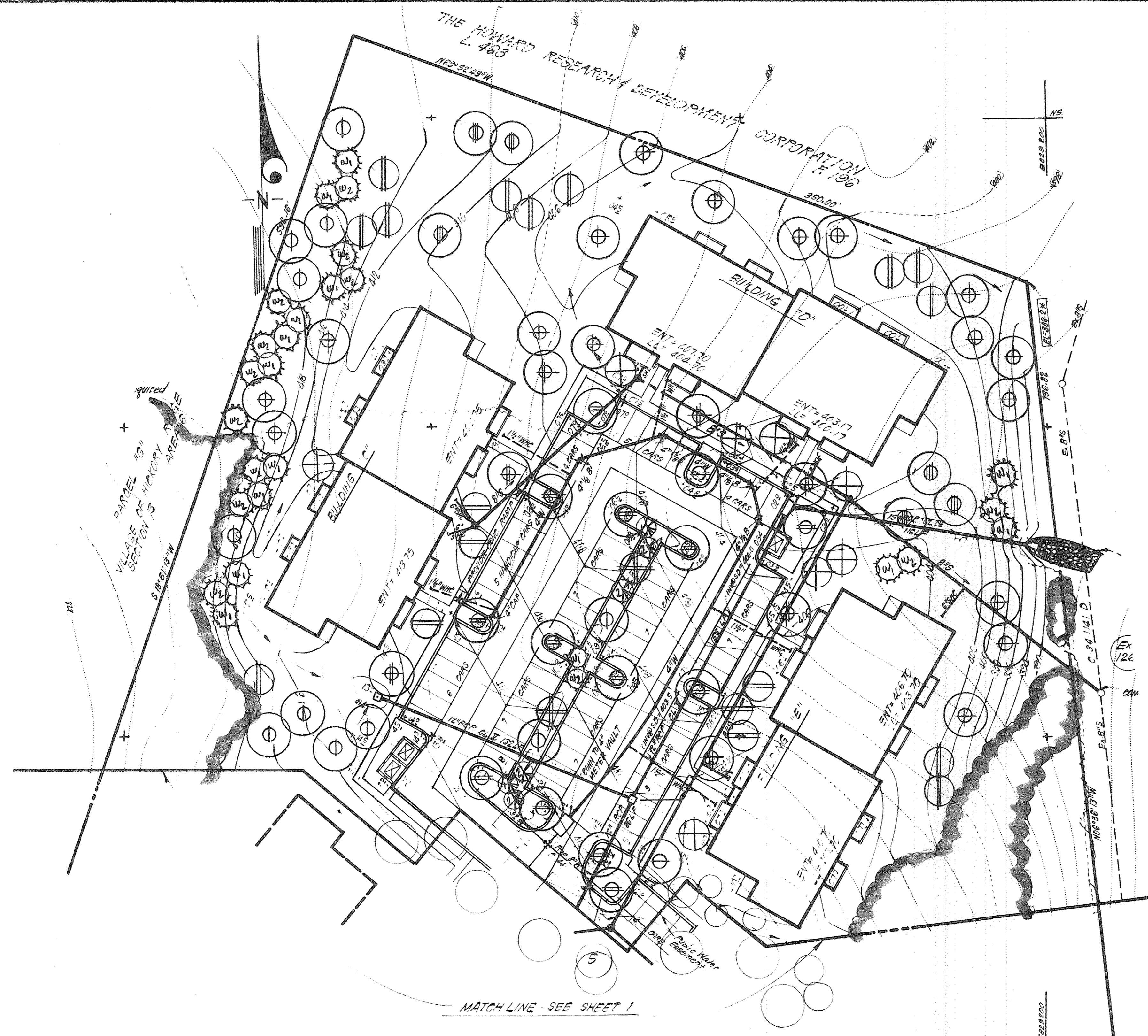
CONTRACT OWNER: SHELTER DEVELOPMENT CORP., LTD.  
1 EAST LEXINGTON ST. #404, BALTIMORE, MD. 21201

NO ASBUILT INFORMATION 03/31/2017

|   |         |                |
|---|---------|----------------|
| CLARK · FINEFROCK & SACKETT<br>ENGINEERS · PLANNERS · SURVEYORS |         | (301) 593-2400 |
| DESIGNED  | JLS     | SCALE          |
| DRAWN   | JLS     | AS SHOWN       |
| CHECKED   | JLS     | DRAWING        |
| DATE  | 5-14-84 | 6 OF 8         |
|   |         | JOB NO.        |
|   |         | 83-086         |
|   |         | FILE NO.       |
|   |         | 83-086-X       |

15135 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904

SEDIMENT & EROSION CONTROL PLAN  
PARCEL "E-1"  
A RESUBDIVISION OF PARCEL "F"  
**COLUMBIA**  
VILLAGE OF HICKORY RIDGE  
SECTION 3 AREA 2  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FOR: SHELTER DEVELOPMENT CORP. LTD.  
1 East Lexington Street #404  
Baltimore, Md. 21201

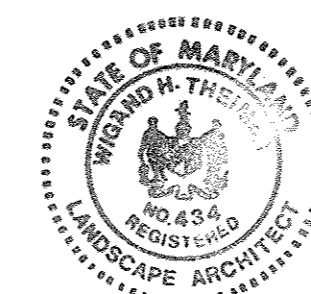


### PLANT SCHEDULE

| KEY | PLANT NAME  | SIZE                         | QUANT | REMARKS         |
|-----|---|------------------------------|-------|-----------------|
| ⊕   | ACER RUBRUM<br>RED MAPLE                                      | 2 1/2 - 3" CAL<br>12-14' HT. | 32    | 84B HEAVY HEADS |
| ⊕   | QUERCUS PALUSTRIS<br>PIN OAK                                  | 2 1/2 - 3" CAL<br>12-14' HT. | 28    | " " "           |
| ⊕   | QUERCUS RUBRA<br>RED OAK                                      | 2 1/2 - 3" CAL<br>12-14' HT. | 18    | " " "           |
| ⊕   | ZELKOYA SERRATA 'VILLAGE GREEN'<br>VILLAGE GREEN ZELKOYA      | 2 1/2 - 3" CAL<br>12-14' HT. | 56    | " " "           |
| ⊕   | ACER SACCHARUM 'GREEN MOUNTAIN'<br>GREEN MOUNTAIN SUGAR MAPLE | 2 1/2 - 3" CAL<br>12-14' HT. | 21    | " " "           |
| ⊕   | SALIX BABILONICA<br>BABYLON WEeping WILLOW                    | 2 1/2 - 3" CAL<br>12-14' HT. | 8     | " " "           |
| ⊕   | MALUS RADIANT<br>RADIANT CRABAPPLE                            | 2 - 2 1/2" CAL<br>8-10' HT.  | 27    | 84B HEAVY HEADS |
| ⊕   | PRUNUS S. KWANZALI<br>KWANZAN CHERRY                          | 2 - 2 1/2" CAL<br>8-10' HT.  | 31    | " " "           |
| ⊕   | CRATAEGUS MENTORENSIS<br>THORNLESS TOBA HAWTHORN              | 2 - 2 1/2" CAL<br>8-10' HT.  | 17    | " " "           |
| ⊕   | ACER CINNALA<br>AMUR MAPLE CLUMP                              | 8-10' HT.                    | 20    | " " "           |
| ⊗   | PINUS THUNBERGI<br>JAPANESE BLACK PINE                        | 6-7' HT.                     | 17    | 84B HEAVY       |
| ⊗   | PINUS THUNBERGI<br>JAPANESE BLACK PINE                        | 7-8' HT.                     | 28    | " " "           |
| ⊗   | PINUS STROBUS<br>EASTERN WHITE PINE                           | 6-7' HT.                     | 38    | " " "           |
| ⊗   | PINUS STROBUS<br>EASTERN WHITE PINE                           | 7-8' HT.                     | 40    | " " "           |
| ⊗   | FORSYTHIA SUSPENSIS<br>WEeping FORSYTHIA                      | 2-3' HT.                     | 40    | 84B HEAVY       |

**NOTE:**

- ALL PLANTING SHALL BE IN COMPLIANCE WITH COLUMBIA / HRD PLANTING SPECIFICATIONS
- CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES BEFORE DIGGING.
- SUBSTITUTIONS MAY BE PERMITTED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT (593-3400)



Wajad P. Thawin  
7-10-84

CONTRACT OWNER:  
SHELTER DEVELOPMENT CORP. LTD.  
1 EAST LEXINGTON ST. BALT, MD 21201

**CLARK • FINEFROCK & SACKETT** NO ASBUILT INFORMATION 03/31/2017  
ENGINEERS • PLANNERS • SURVEYORS  
11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 301 593 3400

**LANDSCAPE PLANTING PLAN**  
COLUMBIA PARCEL "F-1"  
A RESUBDIVISION OF PACEL 'F'

DESIGNED: WHT. SCALE: 1" = 30'  
DRAWN: DATE: DRAWING: 7 of 8  
CHECKED: VILLAGE OF HICKORY RIDGE 3/2 JOB NO.: 83-086  
DATE: 5.3.84 FOR: SHELTER DEVELOPMENT CORPORATION, LTD. FILE NO.: 83-086LS  
5TH ELECTION DISTRICT HOWARD COUNTY MARYLAND  
1 EAST LEXINGTON STREET BALTIMORE, MD. 21201

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER: [Signature] DATE: 7-26-84

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
PLANNING BOARD OF HOWARD COUNTY  
PLANNING DIRECTOR: [Signature] DATE: 7-26-84  
CHIEF DIVISION OF LAND DEVELOPMENT & ZONING ADMIN. DATE: 7-26-84

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR: [Signature] DATE: 7-26-84  
CHIEF BUREAU OF ENGINEERING: [Signature] DATE: 7-26-84

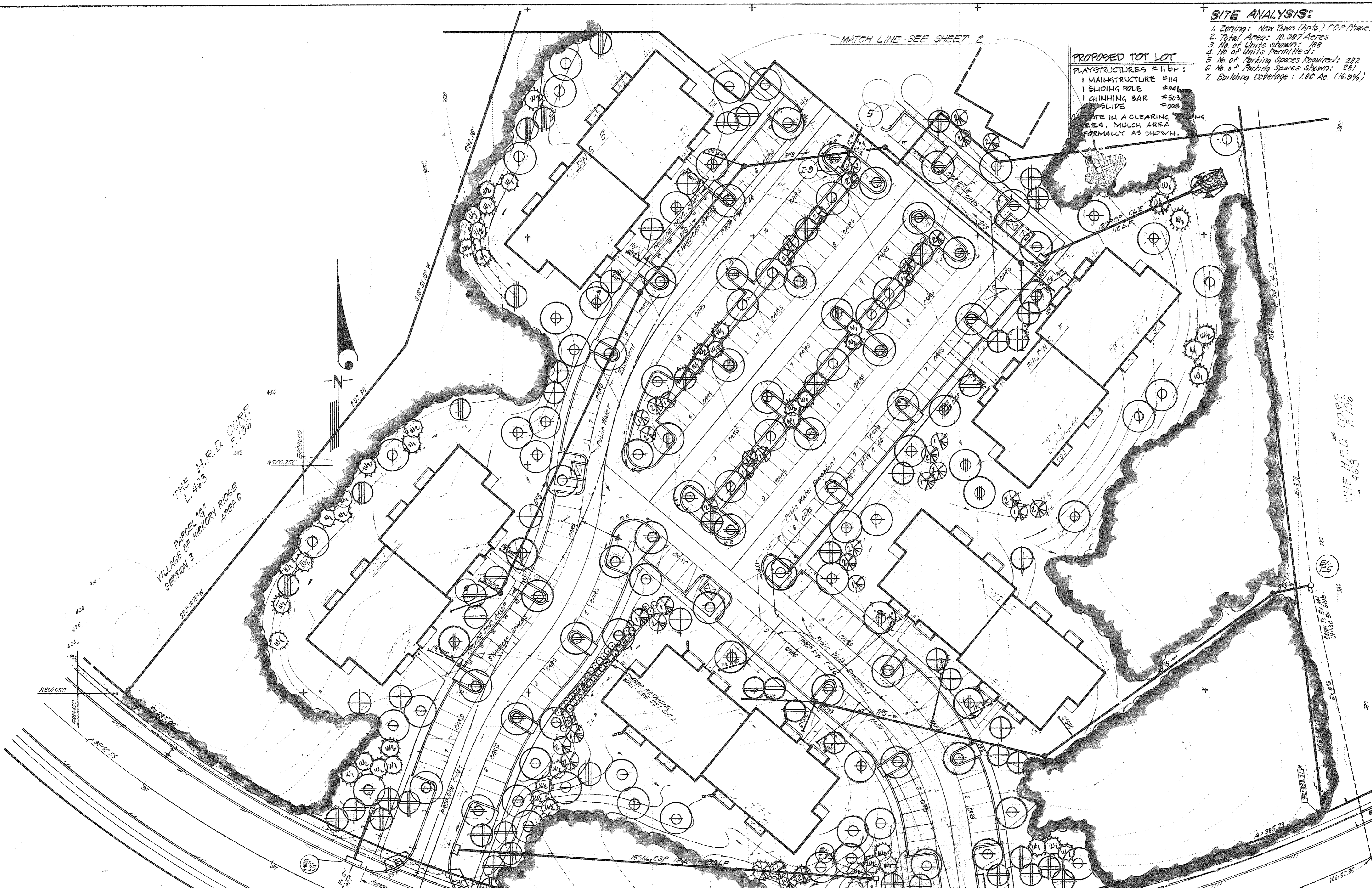
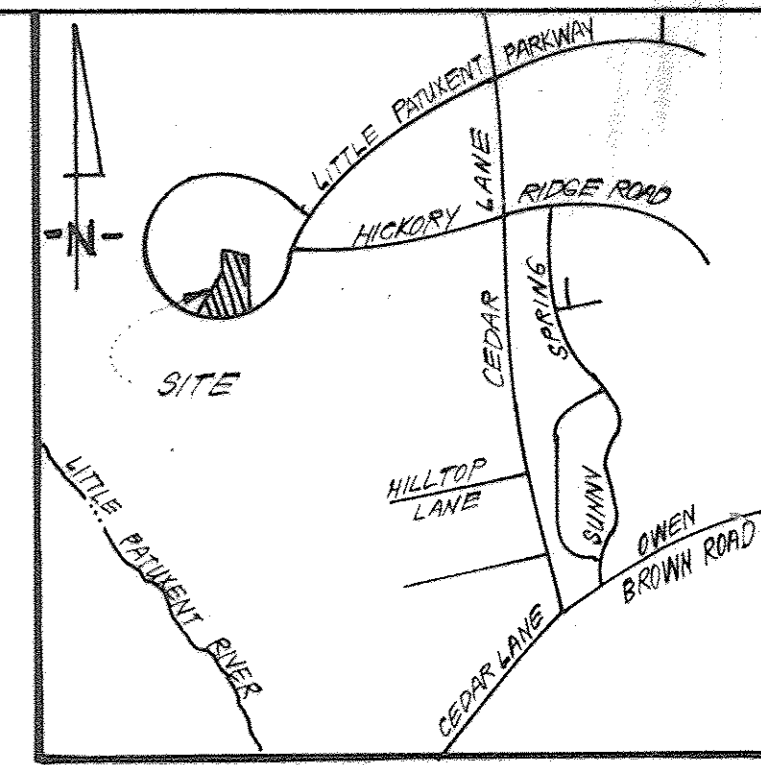
**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: 6-13-84

- SITE ANALYSIS:**
1. Zoning: New Town (Apts) FDP Phase.
  2. Total Area: 10.987 Acres
  3. No. of Units Shown: 188
  4. No. of Units Permitted: 188
  5. No. of Parking Spaces Required: 282
  6. No. of Parking Spaces Shown: 281
  7. Building Coverage: 1.66 Ac. (16.9%)

**PROPOSED TOT LOT**

PLAYSTRUCTURES #1164:  
 1 MAINSTRUCTURE #114  
 1 SLIDING POLE #046  
 1 CHINING BAR #503  
 1 SLIDE #008

NOTE IN A CLEARING AREAS, MULCH AREA FORMALLY AS SHOWN.



THE H.A.R.D. CORP.  
 PARCEL # 16  
 VILLAGE OF HICKORY RIDGE  
 SECTION 3  
 AREA 2

THE H.A.R.D. CORP.  
 L. 463  
 463

STATE OF MARYLAND  
 WIGGAM & THEISS  
 LANDSCAPE ARCHITECTS  
 Wiggam R. Theiss  
 7.10.84

|                  |                          |            |       |              |      |
|------------------|--------------------------|------------|-------|--------------|------|
| SUBDIVISION NAME | VILLAGE OF HICKORY RIDGE | SECT./AREA | 3 / 2 | LOT/PARCEL # | 15-1 |
| PLAT/BLK/F       | BLK 4                    | ZONE       | 35    | ELEV. DIST.  | 5' M |
| PLAT/BLK/F       | BLK 4                    | ZONE       | 35    | ELEV. DIST.  | 5' M |
| WATER CODE       |                          | SEWER CODE |       |              |      |

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: *Robert M. Bevington* DATE: 7-26-84

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 PLANNING DIRECTOR: *Robert M. Bevington* DATE: 7-26-84

CHIEF DIVISION OF LAND DEVELOPMENT/ZONING ADMIN.  
 DATE: 7-26-84

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *Robert M. Bevington* DATE: 7-26-84

CHIEF BUREAU OF ENGINEERING  
 DATE: 7-26-84

**APPROVED**  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE: 6-13-84  
*M. J. Wynn*

**NO RESULT INFORMATION 08/31/2017**

**CLARK · FINEFROCK & SACKETT**  
 ENGINEERS · PLANNERS · SURVEYORS

11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED: WHT SCALE: 1"=30'

DRAWN: WHT DRAWING: 8018

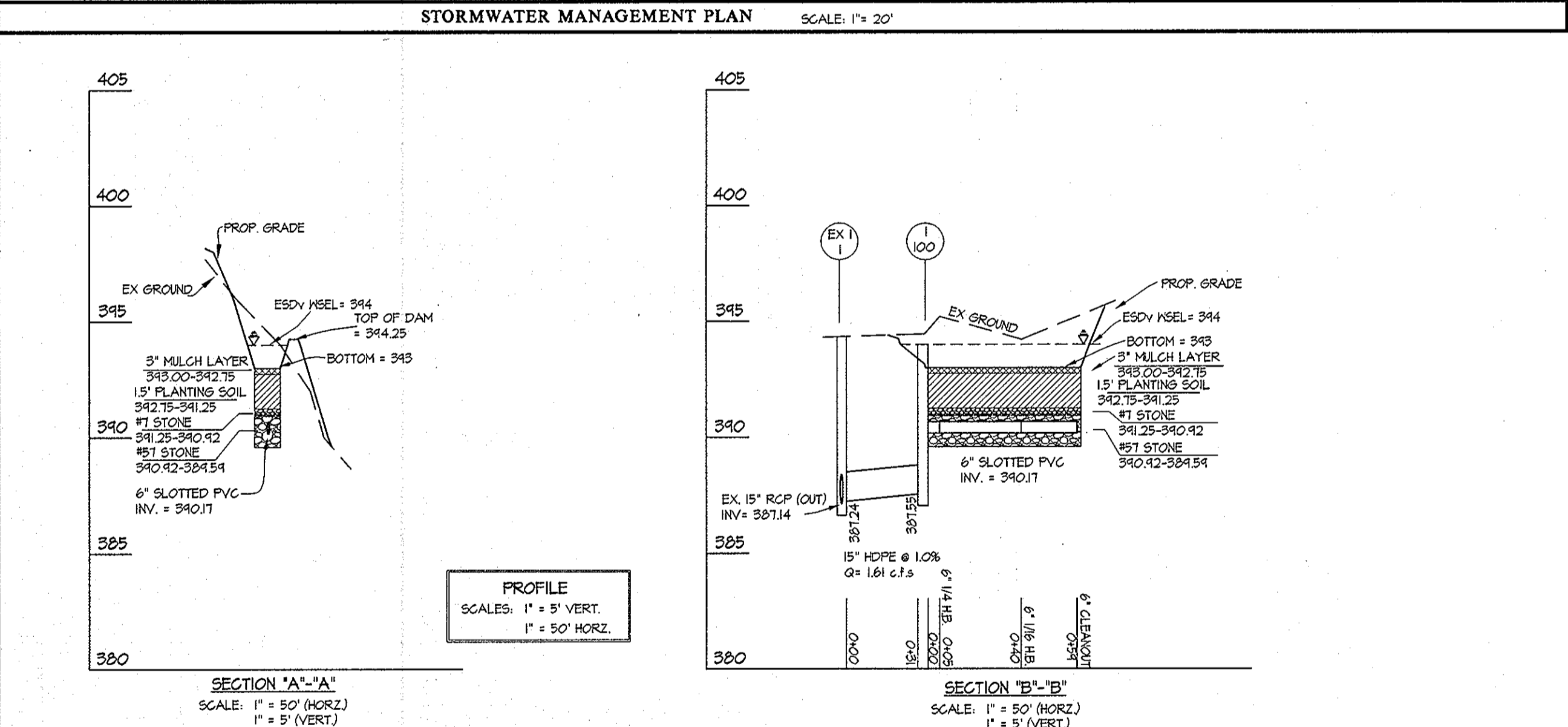
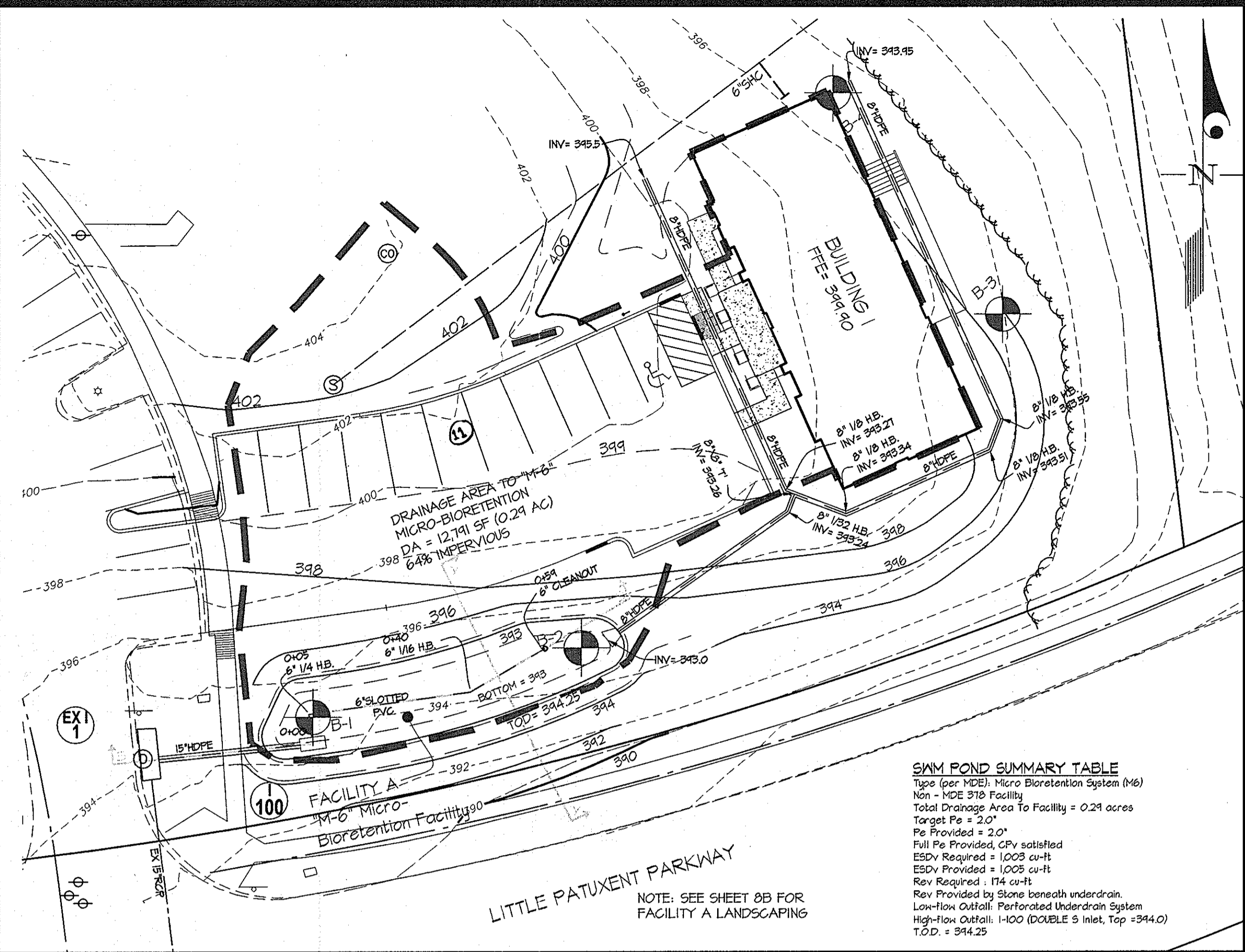
CHECKED: WHT JOB NO.: 83-086

DATE: 5-3-84 FILE NO.: 83-086-LS

CONTRACT OWNER:  
 SHELTER DEVELOPMENT CORP. LTD.  
 1 EAST LEXINGTON STREET #404  
 BALTIMORE, MD 21201

FOR: SHELTER DEVELOPMENT CORP. LTD.  
 1 EAST LEXINGTON STREET #404  
 BALTIMORE, MD 21201





**S.D. Pipe Summary Table**  
 PRIVATELY OWNED AND MAINTAINED

| Size (in.) | Type        | Quantity (L.F.) | Remarks           |
|------------|-------------|-----------------|-------------------|
| 6          | SLOTTED PVC | 51              | SCHEDULE 40       |
| 8          | HDPE        | 251             | AD5 N12 or equiv. |
| 15         | HDPE        | 31              | AD5 N12 or equiv. |

**S.D. STRUCTURE SCHEDULE**

| NO.   | TYPE      | WIDTH (INSIDE) | TOP ELEVATION |       | INVERT ELEVATION |        | STANDARD DETAIL | NOTES | LOCATION                 | OWNERSHIP & MAINTENANCE |
|-------|-----------|----------------|---------------|-------|------------------|--------|-----------------|-------|--------------------------|-------------------------|
|       |           |                | UPPER         | LOWER | UPPER            | LOWER  |                 |       |                          |                         |
| 1-100 | DOUBLE 3' | 2'-15"         | 344.00        | ----  | 340.11           | 337.55 | HO. CO. D. 4.25 |       | N. 499.026<br>E. 824.028 | PRIVATE                 |

APPROVED  
 PLANNING BOARD OF HOWARD COUNTY  
 DATE: 1/2

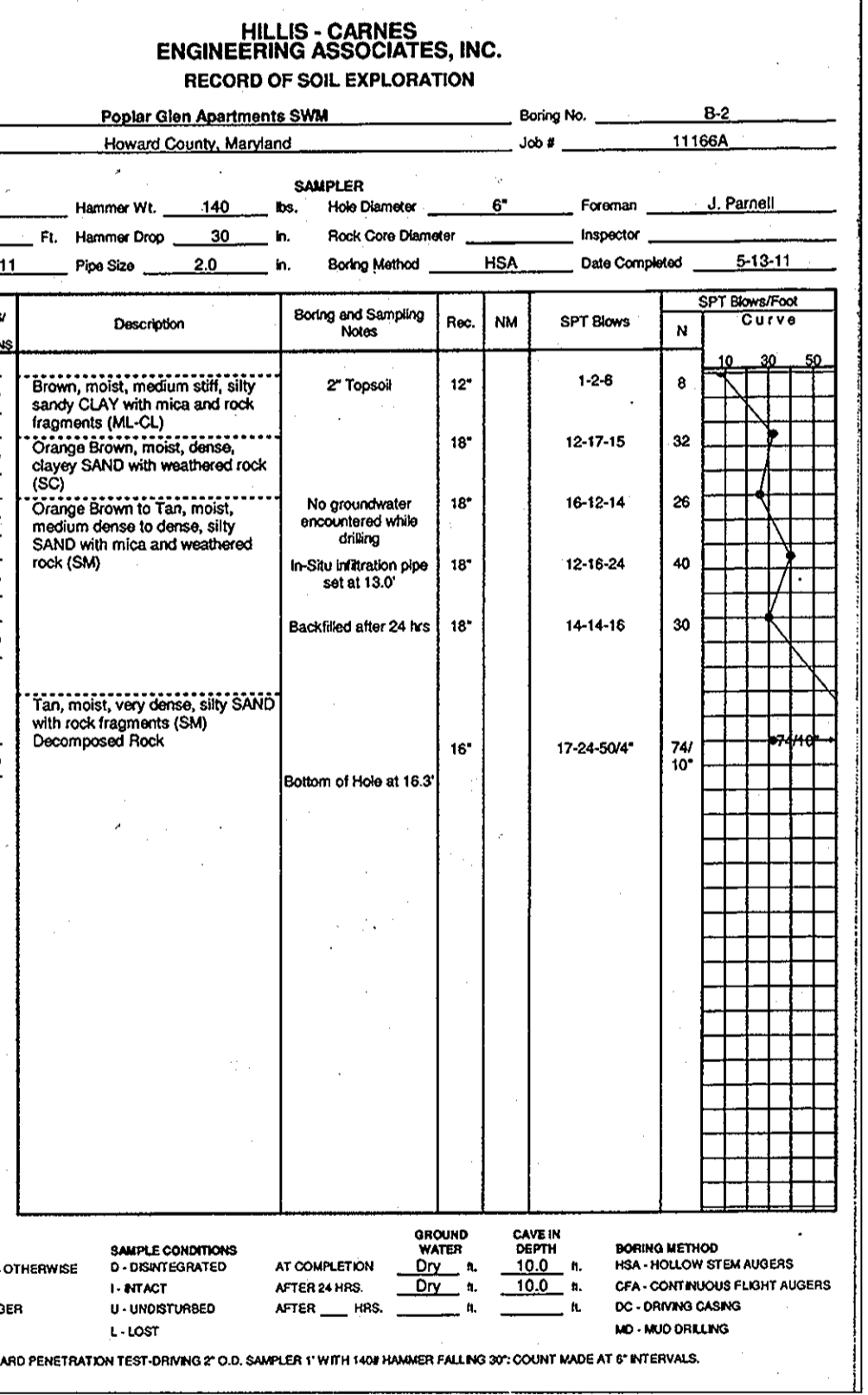
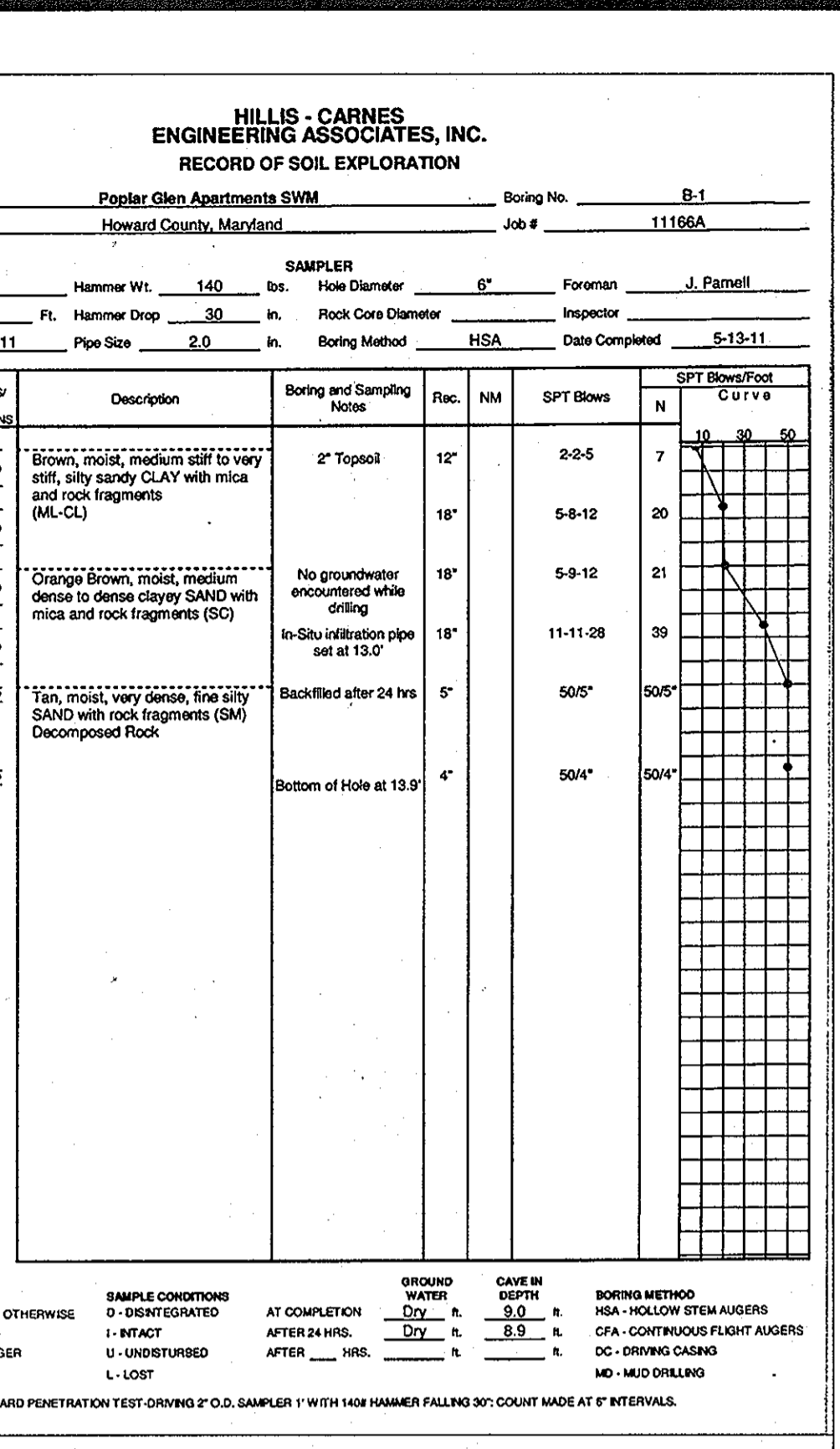
\* UNDER 3000 sq. ft. of disturbance

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
David A. Long, Jr. 4/12/12  
 Director Date  
Kevin Shindler 4-20-12  
 Chief, Division of Land Development 86 Date  
Chad Clark 3-29-12  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 FAX: 301-421-4188

| DATE | REVISION | BY | APPR. |
|------|----------|----|-------|
|      |          |    |       |

PREPARED FOR:  
 Bozzuto Management Company  
 7850 Walker Drive  
 Suite 400  
 Greenbelt, MD 20770  
 Maureen Habernern  
 301-446-2235



**APPENDIX B.1 - SUPPLEMENTAL POND SPECIFICATIONS (NON-318)**  
 SUPPLEMENTAL STORMWATER PONDS AND WETLAND SPECIFICATIONS (NON-318)

THESE NOTES AND SPECIFICATIONS ARE IN ADDITION TO THE MD-318 SPECIFICATIONS. IF THERE IS ANY QUESTION AS TO THE APPLICABILITY, THE MD-318 SPECIFICATIONS SUPERCEDE.

- IT IS PREFERRED TO USE THE SAME MATERIAL IN THE EMBANKMENT AS IS BEING INSTALLED FOR THE CORE TRENCH. IF THIS IS NOT POSSIBLE BECAUSE THE APPROPRIATE MATERIAL IS NOT AVAILABLE, A DAM CORE WITH A SHALL MAY BE USED. THE CROSS-SECTION OF THE STORMWATER FACILITY SHOULD SHOW THE LIMITS OF THE DAM CORE (UP TO 10-YEAR WATER SURFACE ELEVATION) AS WELL AS THE ACCEPTABLE MATERIALS FOR THE SHEL. THE SHAPE OF THE DAM CORE AND THE MATERIAL TO BE USED IN THE SHEL SHOULD BE PROVIDED BY THE GEOTECHNICAL ENGINEER.
- IF THE CONSTRUCTION TESTS FOR THE SITE IMPROVEMENTS IS USING MODIFIED PROCTOR (ASHFTO T-99), THEN TO MAINTAIN ON-SITE CONSISTENCY, THE MODIFIED PROCTOR MAY BE USED IN LIEU OF A STANDARD PROCTOR (ASHFTO T-99). THE MINIMUM DENSITY USING THE MODIFIED PROCTOR TEST METHOD SHALL BE AT LEAST 92% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF 12% OF THE OPTIMUM. THE MINIMUM REQUIRED DENSITY USING THE STANDARD PROCTOR TEST METHOD SHALL BE AT LEAST 95% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF 12% OF THE OPTIMUM.
- FOR ALL STORMWATER MANAGEMENT FACILITIES, A GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE MUST BE PRESENT TO VERIFY CONSTRUCTION IN ACCORDANCE WITH THE SELECTED TEST METHOD. THIS INFORMATION NEEDS TO BE PROVIDED IN A REPORT TO THE DESIGN ENGINEER, SO THAT CERTIFICATION OF THE CONSTRUCTION OF THE FACILITY, IN ACCORDANCE WITH MD-318 SPECIFICATIONS, CAN BE MADE.
- A 4-INCH LAYER OF TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS OF THE DAM EMBANKMENT. SEEDING, LIMING, FERTILIZING, MULCHING, ETC. SHALL BE IN ACCORDANCE WITH MD-318 SPECIFICATIONS. THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL PERMANENT SEEDING SECTION IN CHAPTER 20. THE PURPOSE OF THE TOPSOIL IS TO ESTABLISH A GOOD GROWTH OF GRASS, WHICH IS NOT ALWAYS POSSIBLE WITH SOME OF THE MATERIALS THAT MAY BE PLACED FOR THE EMBANKMENT FILL.
- GEOTEXTILE PLACED BENEATH RIP-RAP SHALL BE CLASS "C" GEOTEXTILE OR BETTER (SEE SECTION 24.0, MATERIAL SPECIFICATIONS, 1984 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (MDE, 1984). SOME ACCEPTABLE GEOTEXTILES THAT MEET THE CLASS "C" CRITERIA INCLUDE:  
 ANOCO 4552  
 GEOLON N10  
 NEETEC N01  
 CARTRAGE EX-105  
 MIRAFI 180-N

THIS IS ONLY A PARTIAL LISTING OF AVAILABLE GEOTEXTILES BASED ON INFORMATION PROVIDED BY THE MANUFACTURERS OF THE 1984 SPECIFIERS GUIDE DATED DECEMBER 1986. IT IS THE RESPONSIBILITY OF THE ENGINEER TO VERIFY THE ADEQUACY OF THE MATERIAL AS THERE ARE CHANGES IN THE MANUFACTURING PROCESS AND THE TYPE OF FABRIC USED, WHICH MAY AFFECT THE CONTINUED ACCEPTANCE.

- A RULE OF THUMB TO DETERMINE WHEN AN EXCAVATED POND MAY NEED TO BE CONSIDERED AN EMBANKMENT POND IS AS FOLLOWS:  
 PROVIDES CALCULATION OF  $10H + 20$  FEET + L, WHERE H HEIGHT FROM POND BOTTOM TO TOP OF DAM. IF THE PROJECTION OF L DOWNSTREAM IS A HORIZONTAL LINE FROM THE UPSTREAM TOE OF SLOPE IS BELOW EXISTING GROUND, THE POND CAN BE CONSIDERED AN EXCAVATED POND. IN ADDITION, THE EXISTING GROUND SLOPE, DOWNSTREAM OF THE TOE, MUST BE LESS THAN 10%.
- THE DESIGN ENGINEER AND GEOTECHNICAL ENGINEER SHOULD MAKE THE DETERMINATION THAT THE SETTLEMENT OF THE POND WILL NOT CAUSE EXCESSIVE JOINT EXTENSION. FOR FURTHER INFORMATION ON JOINT ANALYSIS, SEE NRCE PUBLICATION TR-18.
- FILL PLACEMENT SHALL NOT EXCEED A MAXIMUM 8-INCH. EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF THE EMBANKMENT.
- THE EMBANKMENT FILL SHALL NOT BE PLACED HIGHER THAN THE CENTERLINE OF THE PRINCIPAL SPILLWAY UNTIL AFTER THE PRINCIPAL SPILLWAY HAS BEEN INSTALLED. IF THE EMBANKMENT NEEDS TO BE EXCAVATED TO INSTALL THE PRINCIPAL SPILLWAY, THE SIDE SLOPES OF A CUT TO REPAIR A DAM INSTALL A PRINCIPAL SPILLWAY FOR AN EXCAVATED POND, OR OTHER REPAIR WORK, SHALL BE NO LESS THAN 2:1.
- THE SIDE SLOPES OF A CUT TO REPAIR A DAM INSTALL A PRINCIPAL SPILLWAY FOR AN EXCAVATED POND, OR OTHER REPAIR WORK, SHALL BE NO LESS THAN 2:1.

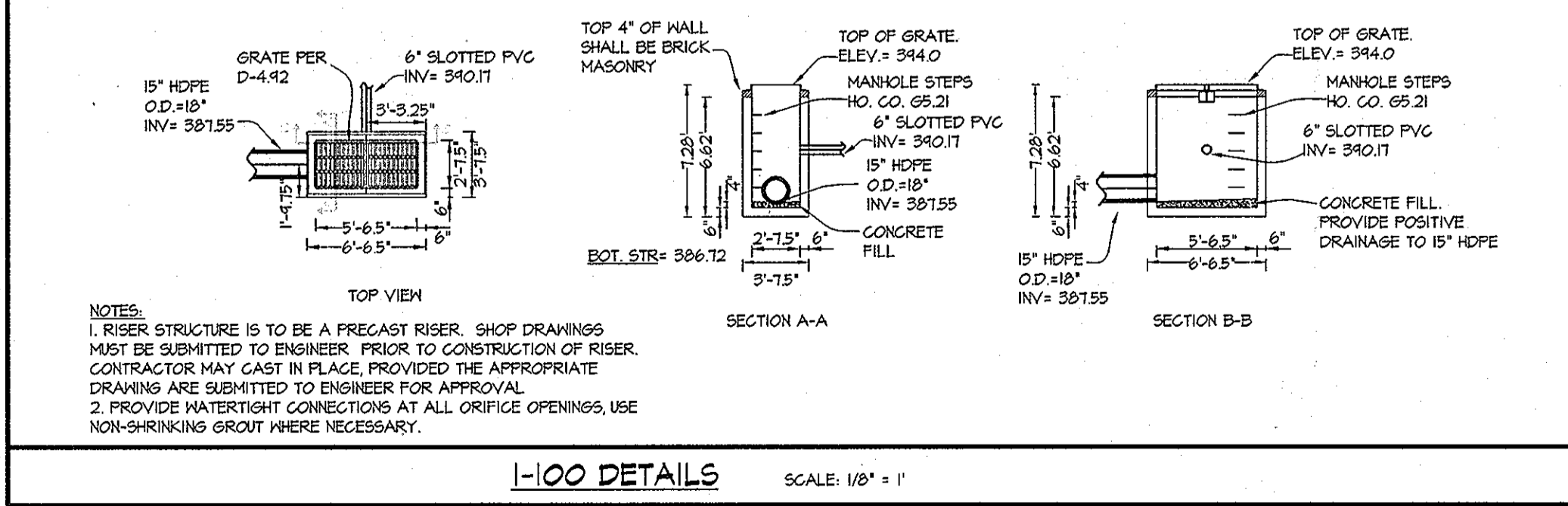
**APPENDIX B.3 - SPECIFICATIONS FOR BIO-RETENTION FACILITIES**

- MATERIAL SPECIFICATIONS**  
 THE ALLOWABLE MATERIALS TO BE USED IN BIORETENTION AREA ARE DETAILED IN TABLE B.3.2.
- PLANTING SOIL**  
 THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DRIPPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH OR PROVE A HURDLE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.06.01.05.  
 THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:  
 PH RANGE 5.2 - 7.0  
 ORGANIC MATTER 15 - 4% (BY WEIGHT)  
 MAGNESIUM 35 LB/AC  
 PHOSPHORUS (PHOSPHATE - P2O5) 15 LB/AC  
 POTASSIUM (POTASH - K2O) 85 LB/AC  
 SOLUBLE SALTS NOT TO EXCEED 500 PPM
- BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.**  
 SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY. SHOULD THE PH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.
- COMPACTION**  
 IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN EXCAVATION HOES TO REMOVE ORIGINAL SOIL IF BIORETENTION APPENDIX B.3 CONSTRUCTION SPECIFICATIONS FOR SAND FILTERS, BIORETENTION AND OPEN CHANNELS B.3.5 AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TIRE TREADS. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRE RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.  
 COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHisel PLOW RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.  
 ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY FORDING WATER BEFORE PREPARING (ROTOTILLING) BASE.  
 WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.  
 WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SETTLE SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

- PLANT MATERIAL  
 SEE PLANTING SHEET
- PLANT INSTALLATION  
 MULCH SHOULD BE PLACED TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.  
 ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED 50% OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.  
 TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.  
 GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.
- THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFATS OR AT A MINIMUM DEFATS THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
- UNDERDRAINS  
 UNDERDRAINS ARE TO BE PLACED ON A 3'-0" WIDE SECTION OF FILTER CLOTH PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.  
 THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
- MISCELLANEOUS  
 THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

**OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3) MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SHALE (M-8), ENHANCED FILTERS (M-4)**

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND DRINKS. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREES, DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

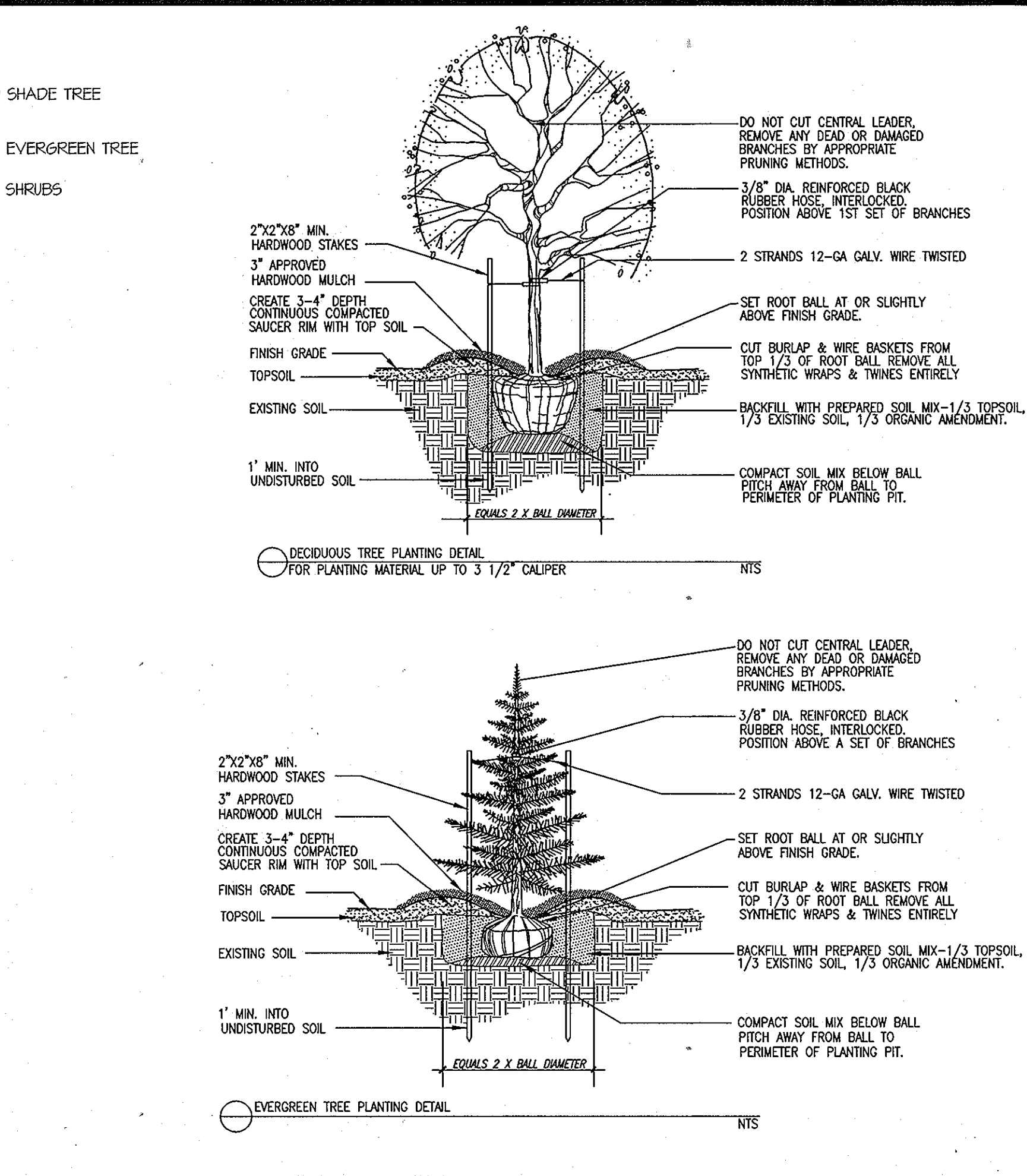
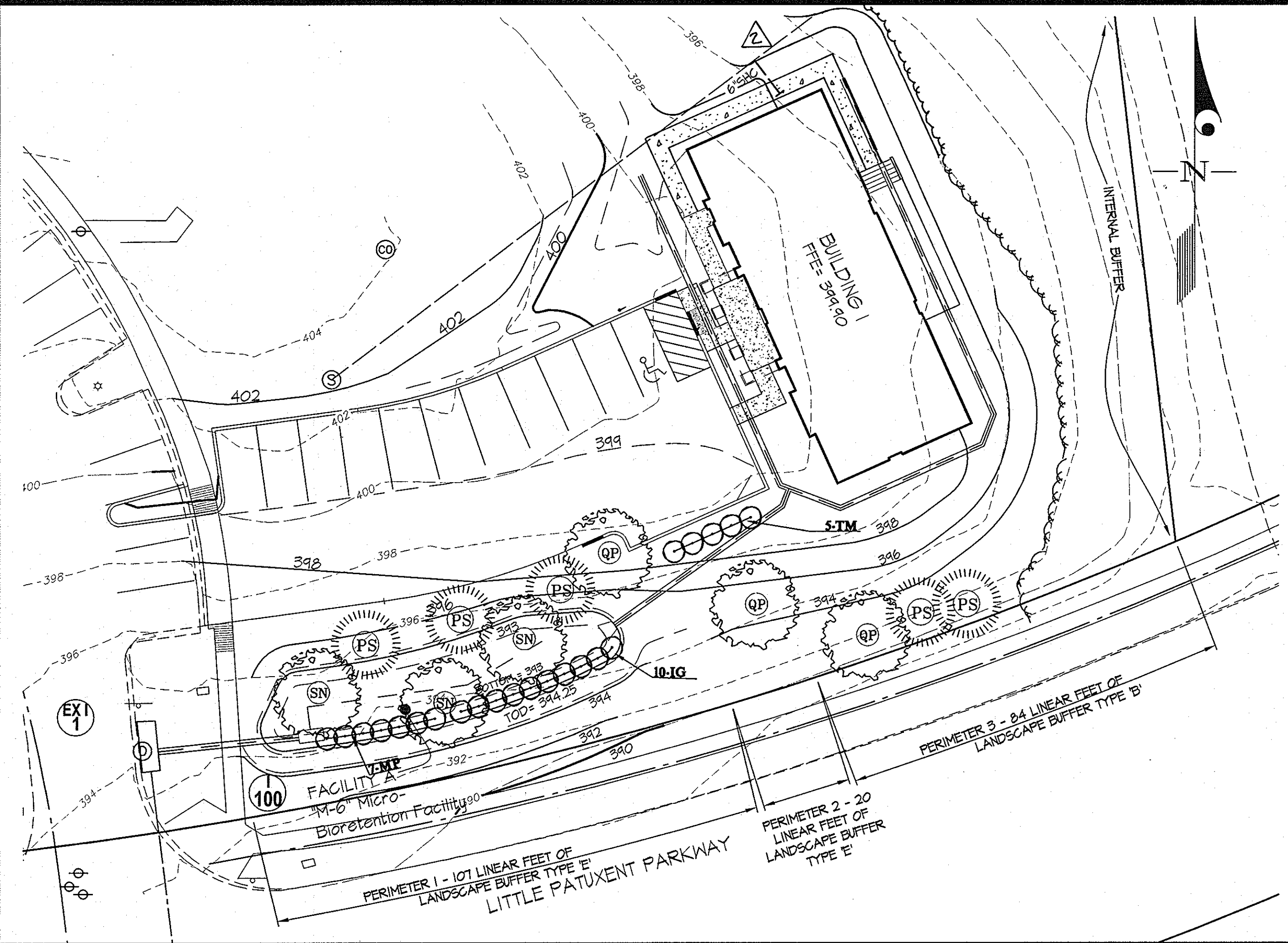


**STORMWATER MANAGEMENT DETAILS**  
 Revised Site Development Plan  
**COLUMBIA - VILLAGE OF HICKORY RIDGE**  
 SECTION 3 AREA 2 - PARCEL "F-1"  
 A RESUBDIVISION OF PARCEL "F"

SCALE: AS SHOWN  
 ZONING: NT  
 G. L. W. FILE NO.: 10061

DATE: March, 2012  
 TAX MAP - GRID: 35 - 10  
 SHEET: 8A OF 8

ELECTION DISTRICT No. 5  
 HOWARD COUNTY, MARYLAND



**PLANT MATERIALS AND PLANTING METHODS**

**A. Plant Materials**

The landscape contractor shall furnish and install and/or dig, ball, burlap and transport all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names  
Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards  
All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of disease, insect pests and mechanical injuries.

3. Plant Measurements  
All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

4. Staking, Guying and Wrapping  
All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 galvanized steel wire, for trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4' take-up. For trees over 5" caliper, provide 3/16" 7 strand cable cadmium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance  
The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee  
All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

8. Sodding  
All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas" latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.

b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball; diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

LANDSCAPE PLAN SCALE: 1" = 20'

| SCHEDULE A   | BUFFER "1"                                   | BUFFER "2"                                   | BUFFER "3"   |
|--|--|--|--|
| PERIMETER LANDSCAPE CATEGORY   | PARKING TO ROADWAY (LITTLE PATUXENT PARKWAY) | PARKING TO ROADWAY (LITTLE PATUXENT PARKWAY) | BUFFER SIDE OF BUILDING FROM ROADWAY (LITTLE PATUXENT PARKWAY) |
| BUFFER TYPE  | E  | E  | B  |
| LINEAR FEET OF ROADWAY FRONTAGE/BLDG PERIMETER                                   | 107  | 20   | 84   |
| CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)  | NONE   | NONE   | NONE   |
| CREDIT FOR WALL, FENCE, OR BERM (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED) | NONE   | NONE   | YES, EXISTING FOREST 34 LINEAR FEET                            |
| PLANTINGS REQUIRED   |  |  |  |
| SHADE TREES  | 1:40 = 3                                     | 1:40 = 1                                     | 1:50 = 1   |
| EVERGREEN TREES  | 0  | 0  | 2  |
| SHRUBS   | 1:4 = 27                                     | 1:4 = 5                                      | 0  |
| PLANTINGS PROVIDED   |  |  |  |
| SHADE TREES  | 3  | 1  | 1  |
| EVERGREEN TREES  | 5  | 0  | 2  |
| OTHER TREES  | 0  | 5  | 0  |
| SHRUBS   | 0  | 0  | 0  |
| SUBSTITUTIONS OTHER (2:1 SUB)  |  |  |  |
| SHRUBS (10:1 SUB)  | 5 EVERGREEN FOR 27 SHRUBS                    |  |  |

| SYMBOL                         | QTY. | NAMES (BOTANICAL / SCIENTIFIC)              | SIZE/COMMENTS       |
|--------------------------------|------|---|---------------------|
| <b>SHADE TREES</b>             |      |   |                     |
| QP                             | 3    | QUERCUS PALUSTRIS / PIN OAK                 | 2.5 - 3" CAL. MIN.  |
| SN                             | 3    | SALIX NIGRA / BLACK WILLOW                  | 2.5 - 3" CAL. MIN.  |
| <b>EVERGREEN TREES</b>         |      |   |                     |
| IO                             | 5    | PINUS STROBUS / EASTERN WHITE PINE          | 7-8 FT. HT. MIN.    |
| <b>SHRUBS/ORNAMENTAL GRASS</b> |      |   |                     |
| TM                             | 5    | TAXUS MEDIA 'DENSIFORMIS' / DENSIFORMIS YEW | 2.5'-3" HT. - CONT. |
| IG                             | 10   | ILEX GLABRA / INKBERRY                      | 24"-36" HT. - CONT. |
| MP                             | 7    | MYRICA PENNSYLVANICA / BAYBERRY             | 24"-36" HT. - CONT. |

| PERIMETER | SW-F   | ADJACENT LAND USE | LINEAR FEET OF PERIMETER | LANDSCAPE BUFFER TYPE | CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) | # OF PLANTS REQUIRED | # OF PLANTS PROVIDED |
|-----------|--------|-------------------|--------------------------|-----------------------|---|----------------------|----------------------|
| 1         | FAC. A | ROADWAY           | 107                      | B                     | NO  | 3                    | 3                    |

| PLANT TYPE                   | SCHEDULES | TOTAL OF EACH PLANT TYPE | SURETY/PLANT REQUIRED | TOTAL SURETY FOR EACH PLANT TYPE |
|------------------------------|-----------|--------------------------|-----------------------|----------------------------------|
| SHADE TREES                  | A B C     | 6                        | \$500.00              | \$3,000.00                       |
| EVERGREEN TREES              | 2 N/A     | 2                        | \$150.00              | \$300.00                         |
| ORNAMENTAL TREES             | 0 N/A     | 0                        | \$150.00              | \$0.00                           |
| SHRUBS                       | 32 N/A    | 32                       | \$50.00               | \$1,600.00                       |
| <b>TOTAL SURETY REQUIRED</b> |           |                          |                       | <b>\$5,200.00</b>                |

| SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING |  |
|---|--|
| NUMBER OF PARKING SPACES                      | 11 SPACES (new uncovered spaces)       |
| NUMBER OF TREES REQUIRED                      | 1 (1 SHADE TREE PER 20 PARKING SPACES) |
| NUMBER OF TREES PROVIDED                      | 1                                      |
| SHADE TREES                                   | 1                                      |
| OTHER TREES (2:1 substitution)                | N/A                                    |

**APPROVED**  
**PLANNING BOARD OF HOWARD COUNTY**  
 DATE: 1/2

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: [Signature] Date: 4-22-12  
 Chief, Division of Land Development: [Signature] Date: 3-28-12  
 Chief, Development Engineering Division: [Signature] Date: 3-28-12

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 FAX: 410-889-1820 DC/VAC: 301-989-2524 FAX: 301-421-4188

| DATE    | REVISION  | BY  | APP'R. |
|---------|---|-----|--------|
| 1-20-12 | 1. Add sidewalk & tree contours NE corner Bldg. 1 | WJL | PEV    |

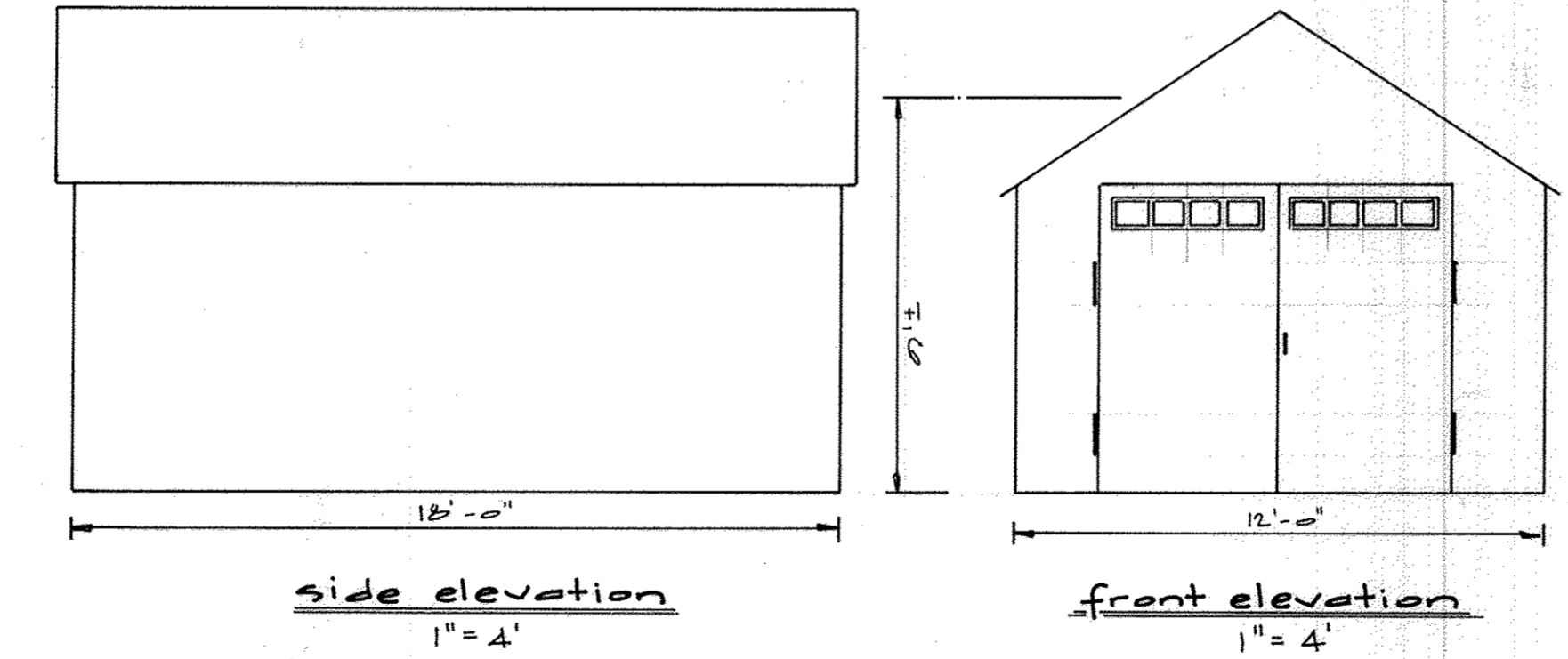
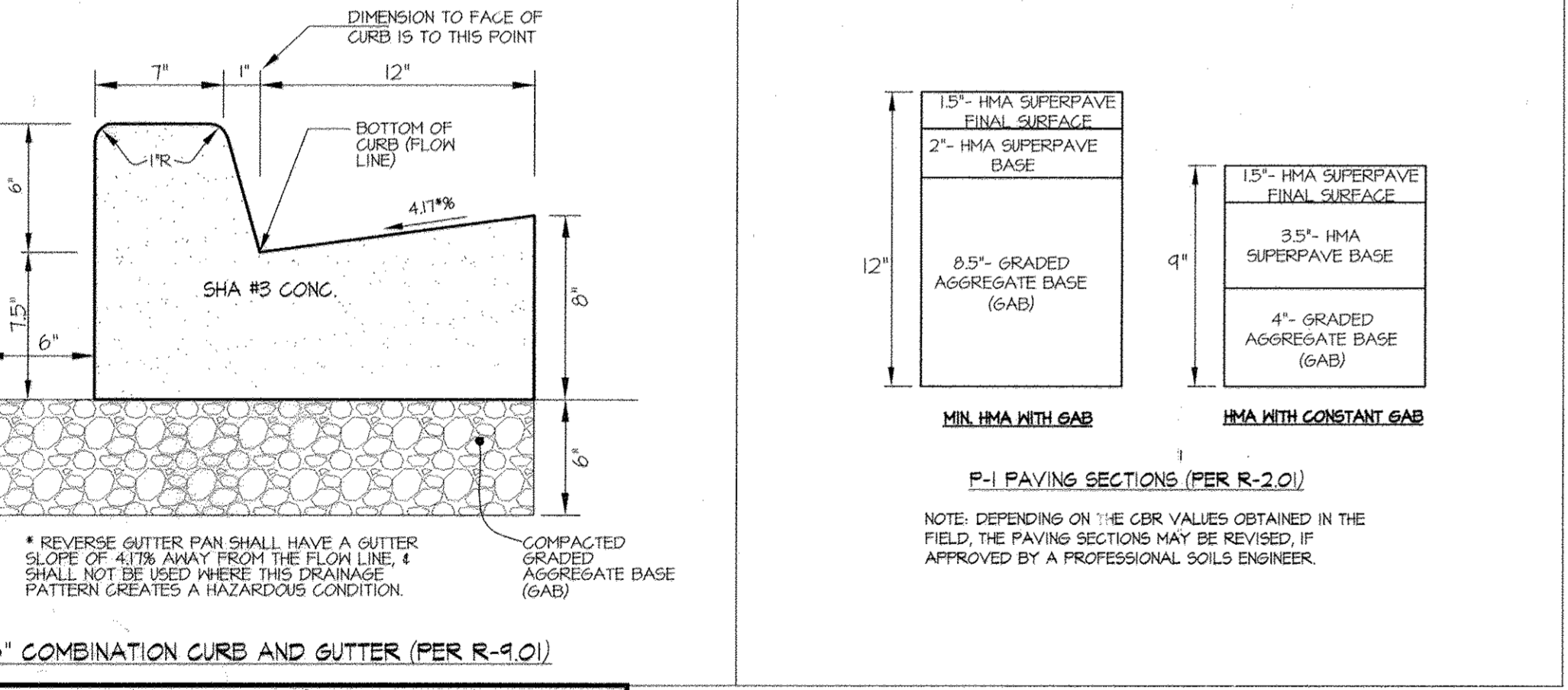
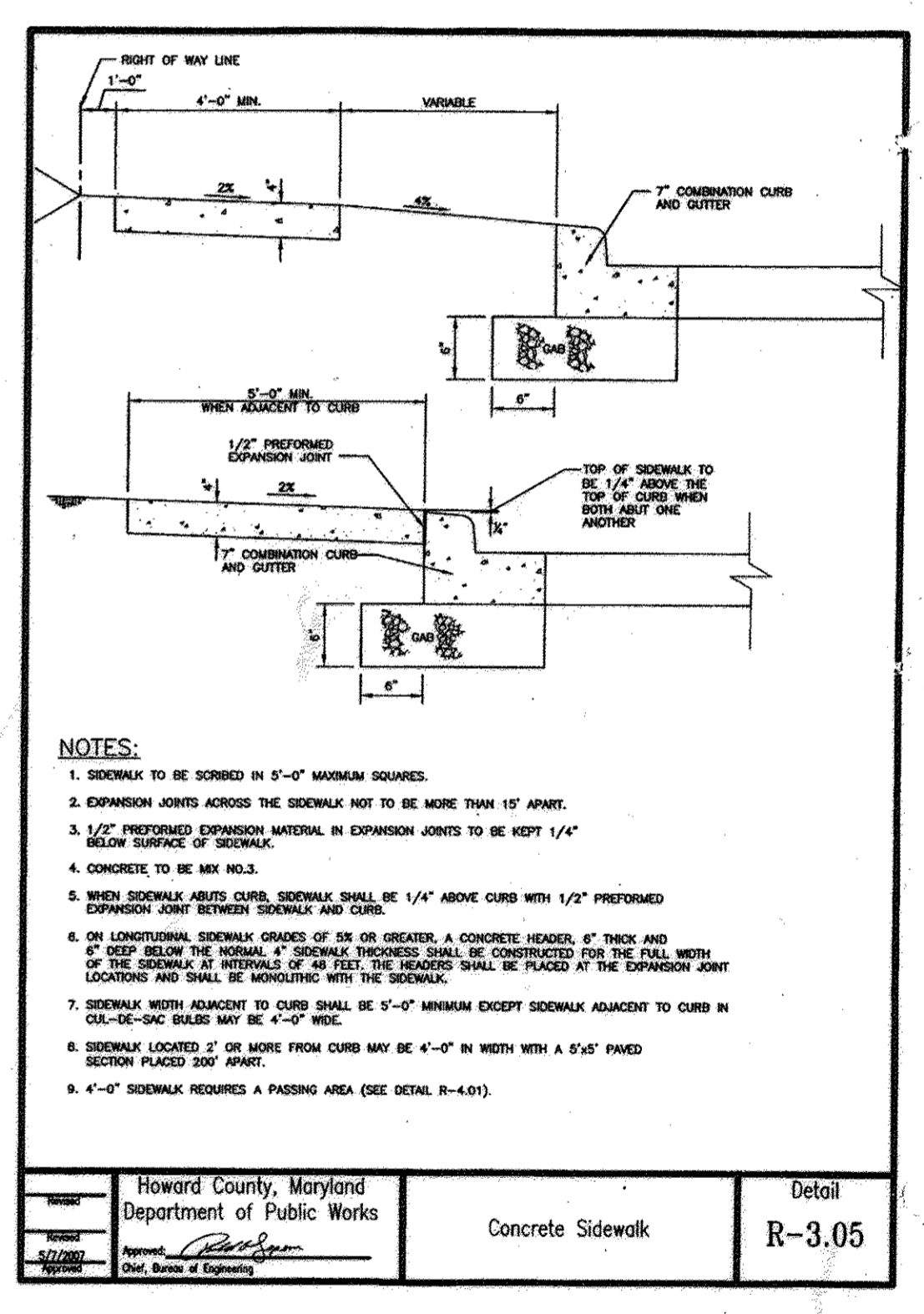
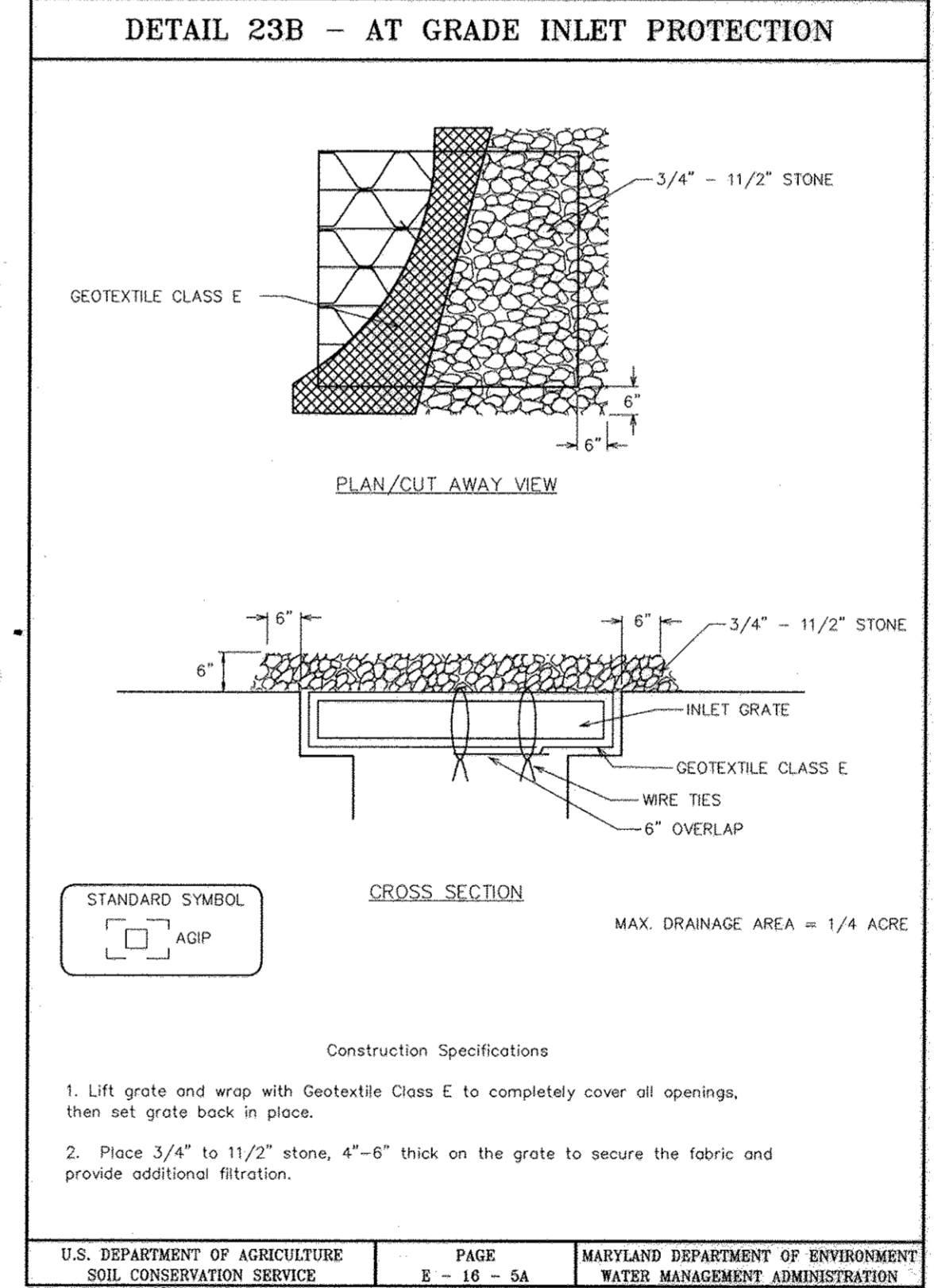
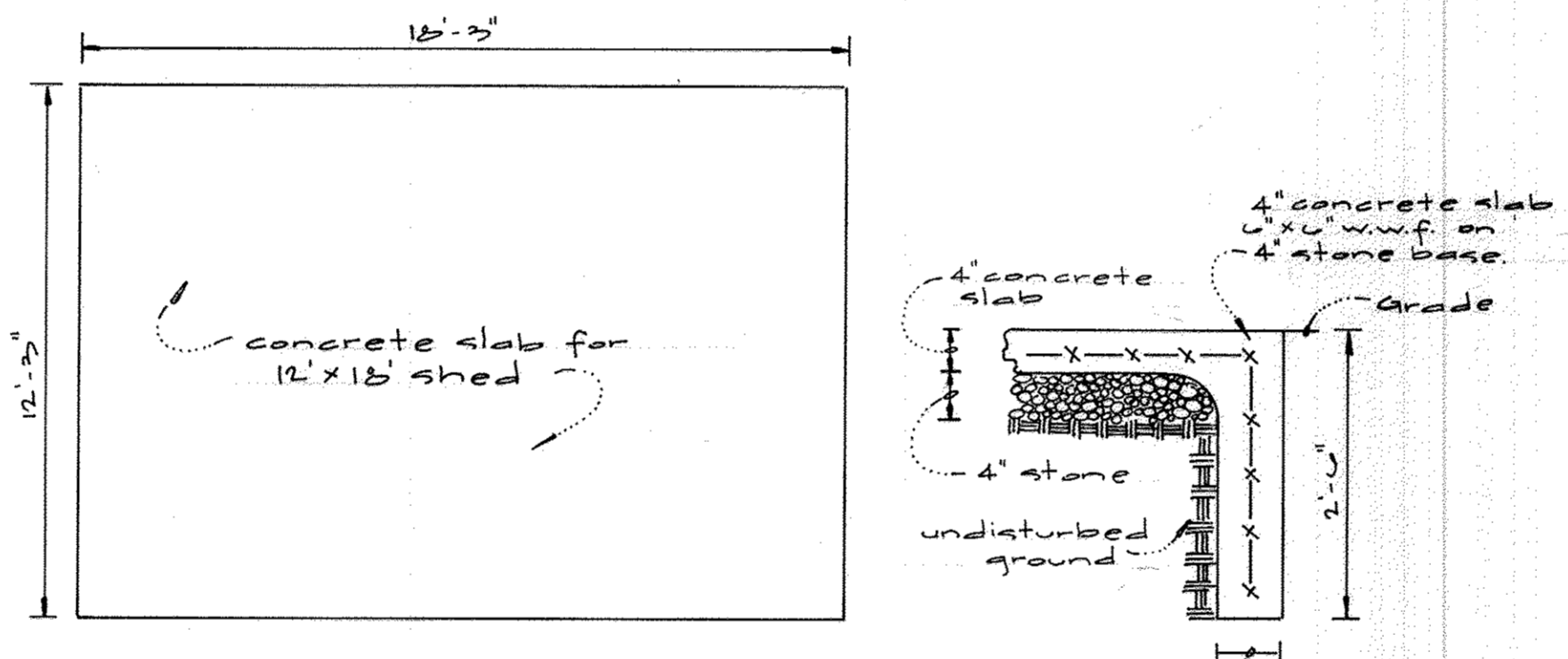
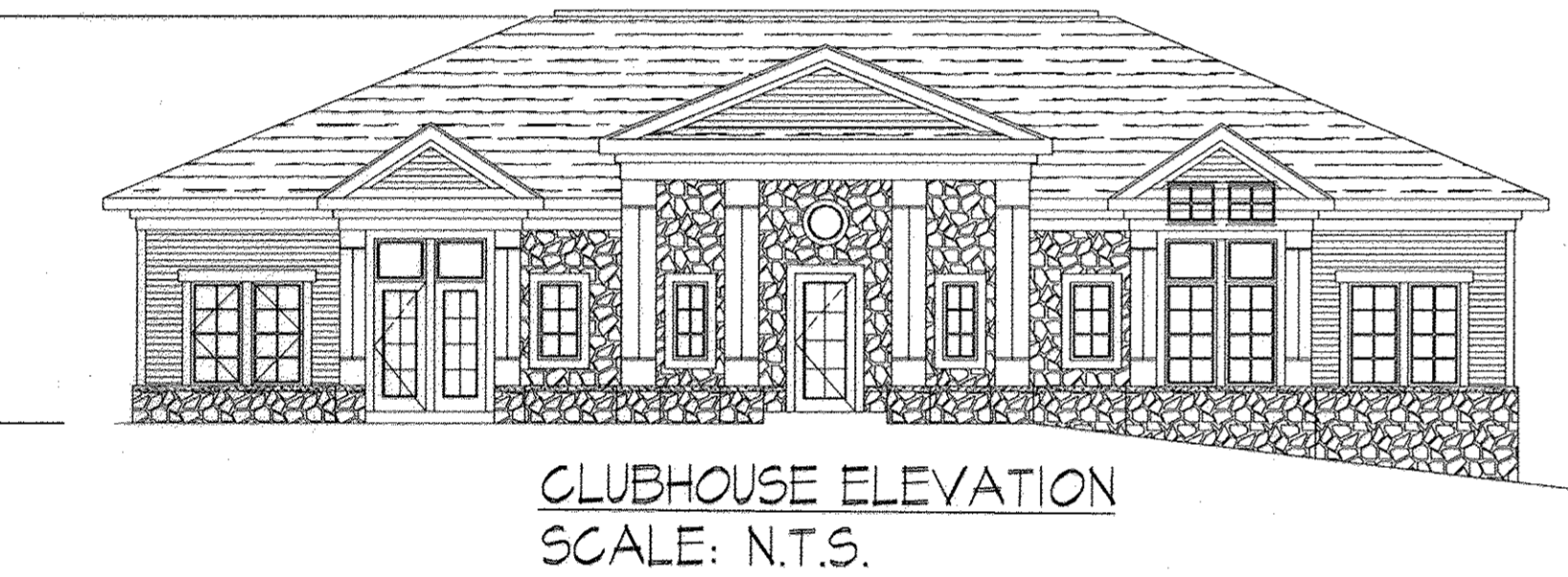
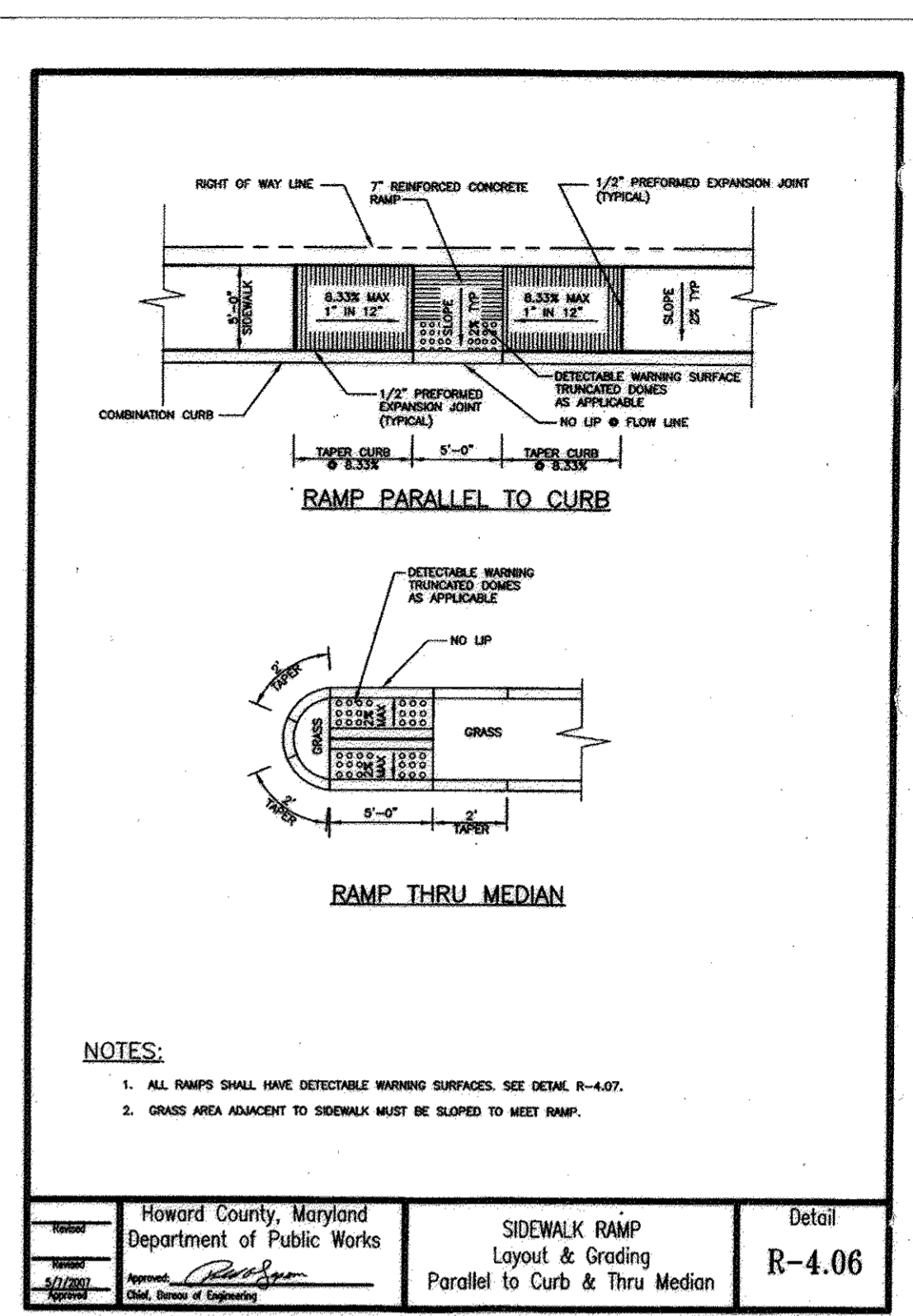
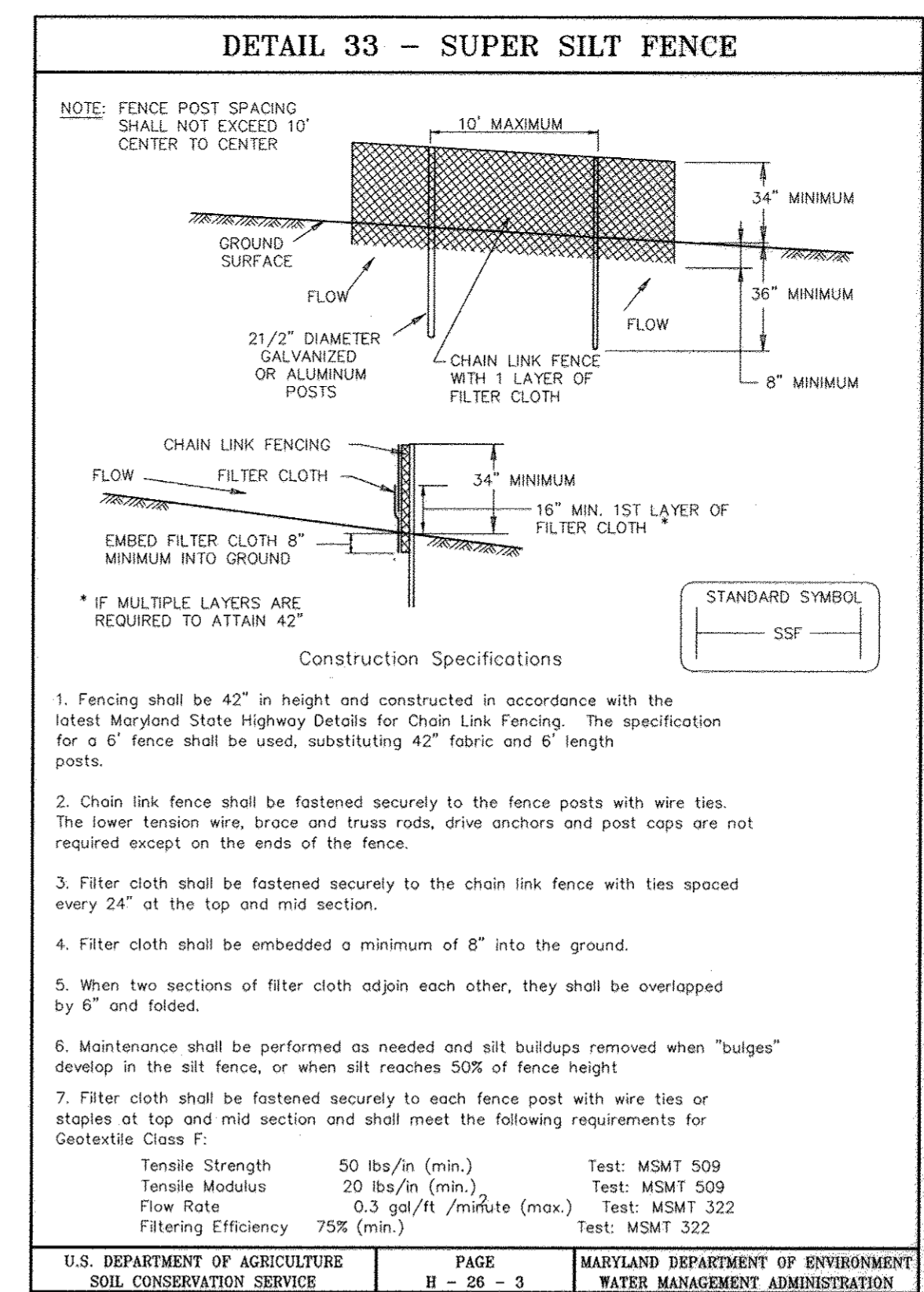
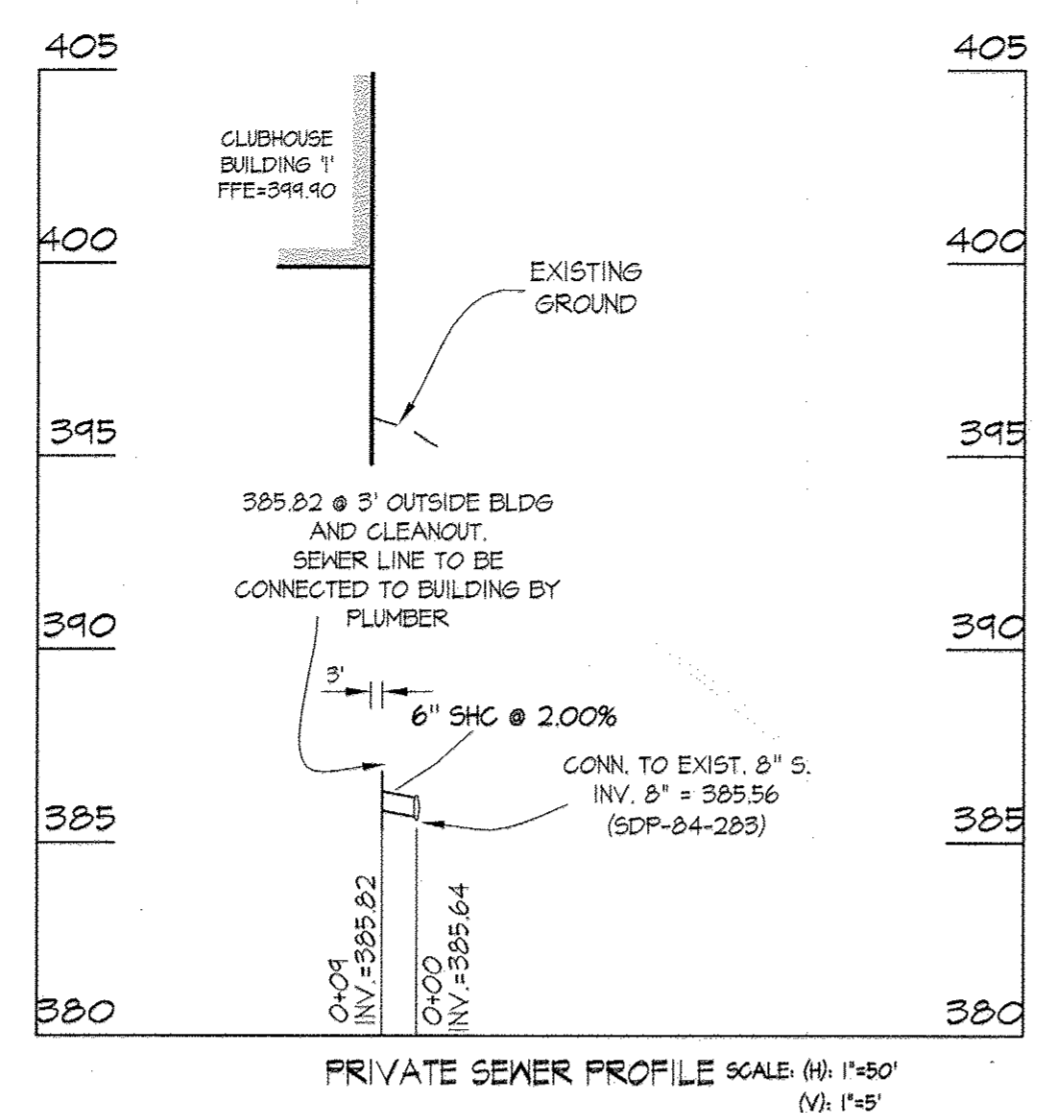
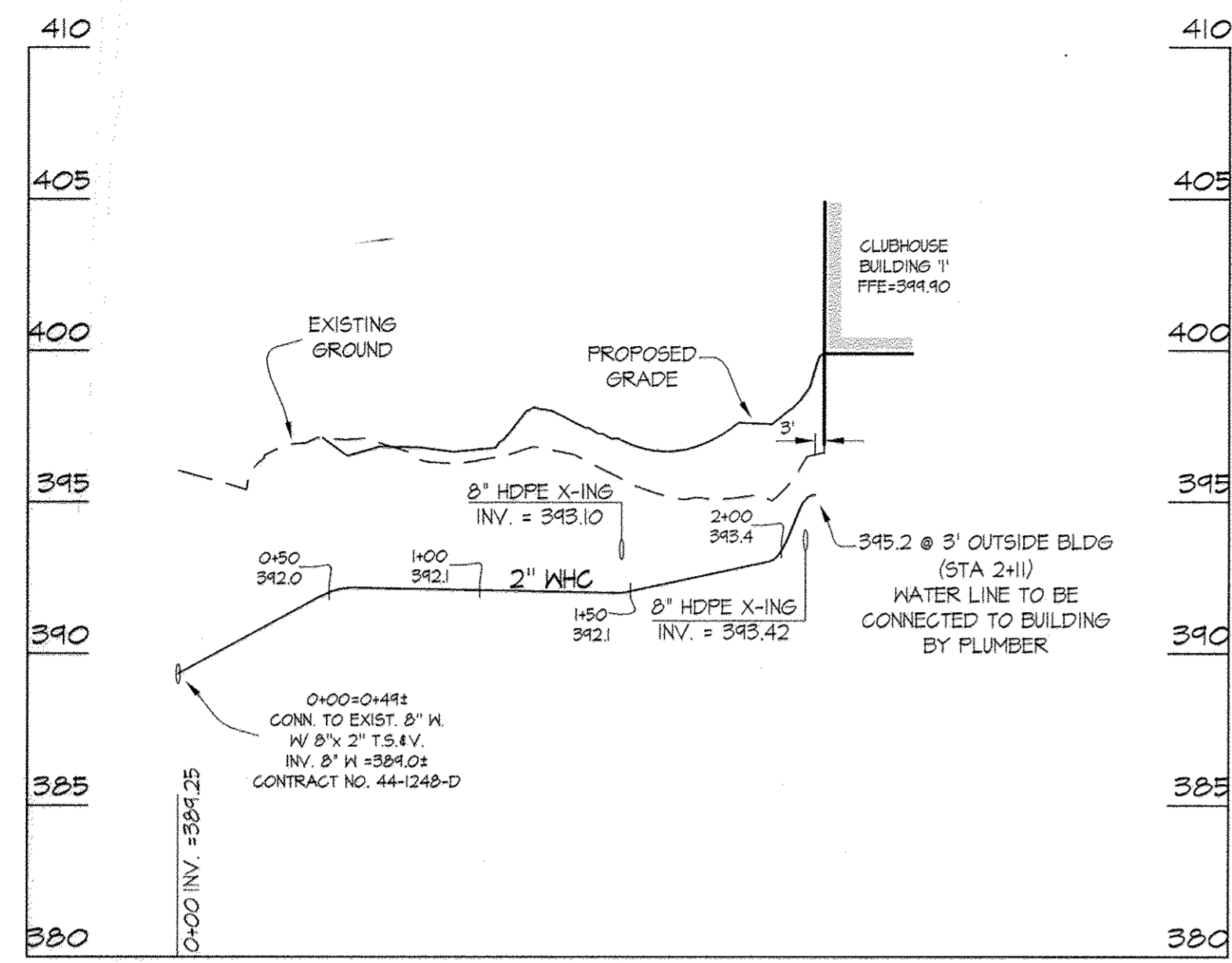
PREPARED FOR:  
 Bozzuto Management Company  
 7850 Walker Drive  
 Suite 400  
 Greenbelt, MD 20770  
 Maureen Haberern  
 301-446-2235

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1278.  
 EXPIRATION DATE: MAY 26, 2012  
 11-28-11

**LANDSCAPE PLAN**  
 Revised Site Development Plan  
**COLUMBIA - VILLAGE OF HICKORY RIDGE**  
 SECTION 3 AREA 2 - PARCEL "F-1"  
 A RESUBDIVISION OF PARCEL "F"

| SCALE       | ZONING         | G. L. W. FILE NO. |
|-------------|----------------|-------------------|
| 1" = 20'    | NT             | 10061             |
| DATE        | TAX MAP - GRID | SHEET             |
| March, 2012 | 35 - 10        | 8B OF 8           |

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!



APPROVED  
PLANNING BOARD OF HOWARD COUNTY  
DATE N/A

ENGINEER'S CERTIFICATE  
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.  
Signature: CKL Date: 11-28-11

BUILDER'S CERTIFICATE  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD.  
Signature: Maureen Haberman Date: 12/5/11

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.  
Signature: WJA Date: 3/24/12

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: WJA Date: 3/24/12

GLWGUTSCHICK LITTLE & WEBER, P.A.  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20886  
TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

| DATE     | REVISION                | BY  | APPR. |
|----------|-------------------------|-----|-------|
| 09-27-11 | Added slab shed details | CKL |       |

PREPARED FOR:  
Bozzuto Management Company  
7850 Walker Drive  
Suite 400  
Greenbelt, MD 20770  
Maureen Haberman  
301-446-2235

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE NO. 12878  
EXPIRATION DATE: MAY 26, 2012  
Signature: CKL Date: 11-28-11

CLUBHOUSE DETAILS  
Revised Site Development Plan INFORMATION  
COLUMBIA - VILLAGE OF HICKORY RIDGE  
SECTION 3 AREA 2 - PARCEL "F-1"  
A RESUBDIVISION OF PARCEL "F"  
NO ASBUILT  
03/31/2017

|             |               |                   |
|-------------|---------------|-------------------|
| SCALE       | ZONING        | G. L. W. FILE NO. |
| AS SHOWN    | NT            | 10061             |
| DATE        | TAX MAP - GRD | SHEET             |
| March, 2012 | 35 - 10       | 8C OF 8           |

