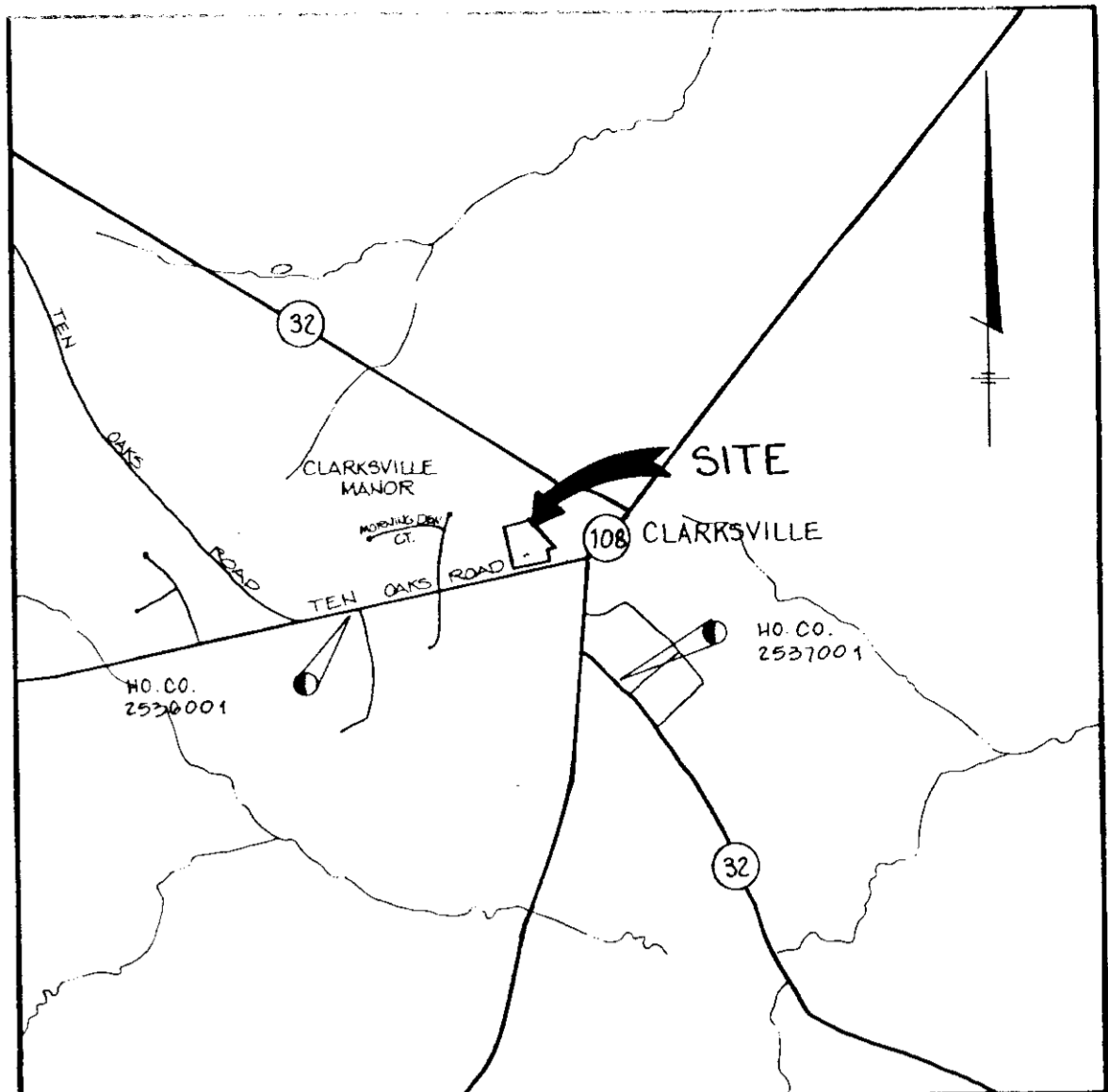




SHEET INDEX	
NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT CONTROL AND SOILS PLAN
3	DETAILS
4	DRAINAGE AREA MAP
5	STORMWATER MANAGEMENT NOTES AND DETAILS
6	LANDSCAPE PLAN

**BENCH MARKS**  
 HO. CO. 2936001 ELEV. 469.94  
 34'± SOUTH OF TEN OAKS ROAD 0.5 MILES ± WEST OF MARYLAND ROUTE 108.  
 HO. CO. 2937001 ELEV. 471.77  
 20.8'± EAST OF MARYLAND ROUTE 52 0.1 MILES ± SOUTH OF MARYLAND ROUTE 108.



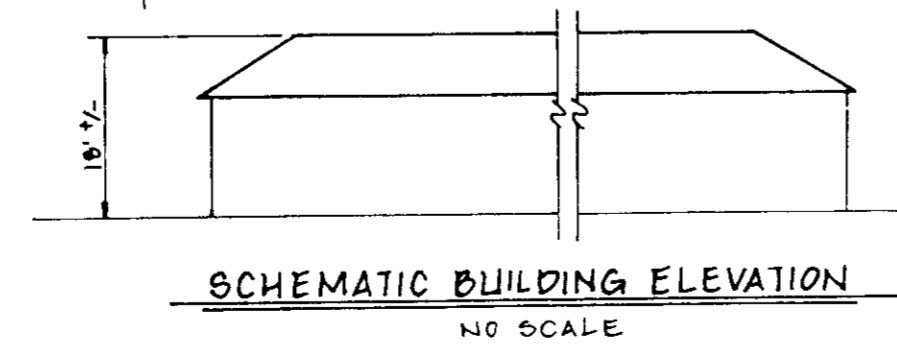
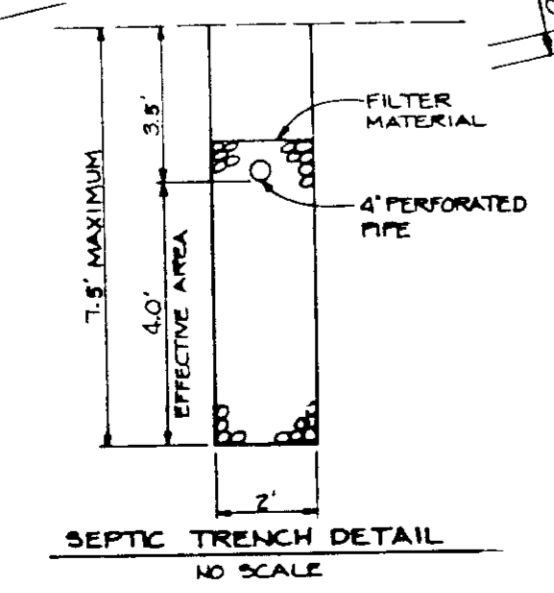
**VICINITY MAP**  
 SCALE: 1" = 2000'

SITE ANALYSIS	
TOTAL AREA OF SUBMISSION	3.0 ACRES +/-
PRESENT ZONING	B-2
PROPOSED USE	RETAIL CENTER
AREA OF PROPOSED BUILDINGS	9,910 SF +/-
BUILDING COVERAGE	9,910 SF (7.6%) OF GROSS AREA
TOTAL AREA OF PROPOSED PARKING LOT	26,320 SF +/- (70.1%) OF GROSS AREA
GREEN SPACE REMAINING ON-SITE	94,450 SF +/- (72.3%) OF GROSS AREA

TOTAL NUMBER OF PARKING REQUIRED	
BUILDING 'A' RETAIL	5 SPACES PER 1000 SF = 4950 SF = 25
BUILDING 'B' RETAIL	5 SPACES PER 1000 SF = 4960 SF = 25
<b>TOTAL REQUIRED</b>	<b>= 50</b>
NUMBER OF STANDARD PARKING SPACES PROVIDED	= 56
NUMBER OF HANDICAPPED PARKING SPACES PROVIDED	= 3
TOTAL NUMBER OF PARKING SPACES PROVIDED	= 59

- PRIVATE WATER AND SEWER NOTES**
- THIS AREA DESIGNATES A PRIVATE SEWERAGE AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWER DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS SEWERAGE SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAY SHALL NOT BE NECESSARY.
  - ALL WELLS AND SEPTIC SYSTEMS WITHIN 200' OF THE PROPERTY HAVE BEEN SHOWN.
  - WATER SUPPLY IS SUBJECT TO GROUNDWATER APPROPRIATION AND USE PERMIT NO. H0936817(81) ISSUED DECEMBER 1, 1993.
  - A WATER FLOW METER SHALL BE PLACED ON AN INCOMING LINE IN AN ACCESSIBLE LOCATION, FOR EACH BUILDING.
  - REQUIRED SEPTIC TRENCHES**  
 MAXIMUM SEWERAGE DESIGN FLOW ALLOCATION FOR THIS PROPERTY IS 2000 GPD PER PERC CERTIFICATION.  
 TRENCH DESIGN LAND RATE: 1.0 G.P.E.F./DAY  
 2000 GPD / 1.0 G.P.E.F./DAY = 2000 SF  
 2000 SF / 4.0 FT = 500 LF OF TRENCH REQUIRED  
 TRENCH PROVIDED 530 L.F.
  - ALL CLEANOUTS WITHIN THE PARKING AREA SHALL BE OF TRAFFIC BEARING CONSTRUCTION.

- General Notes:**
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
  - The contractor or developer shall contact the Construction Inspection Division 24 hours in advance of commencement of work at (410) 313-1060.
  - The contractor shall notify "Miss Utility" at 1 800-257-7777 at least 48 hours prior to any excavation work.
  - Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
  - All plan dimensions are to the face of curb unless otherwise noted.
  - Topography shown hereon is field run by the TSA Group, Inc. at 2' contour interval on or about November 1993.
  - Horizontal and vertical control are taken from Howard County control points 2536001 and 2537001.
  - Water and sewer is private for this site.
  - Stormwater management will be provided by extended detention.
  - No wetlands exist on this site.
  - The traffic study for this site is prepared by Lee Cunningham & Assoc. (April 1994).
  - Stormwater management facility will be privately owned and maintained.
  - Exterior lighting shall be directed downward and away from any adjacent residential properties or road right-of-ways.
  - For sanitary profile see sheet 5 of 6.
  - A 5' level landing shall be provided at all main entrances to these buildings to be utilized by handicapped persons. The elevation of this landing shall coincide with the building finished floor elevation.



ADDRESS CHART	
BLDG	STREET ADDRESS
A	6365 TEN OAKS ROAD
B	6365 TEN OAKS ROAD

SUBDIVISION NAME	SECT./AREA	LOT / PARCEL NO.
CLARKSVILLE MANOR	N/A	LOT 2/398

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
11205	12	B-2	34	5TH	6051.01

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPT.	<i>John Zoglus</i>	1-17-95
COUNTY HEALTH OFFICER		DATE
APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.	<i>James J. Lee</i>	1/30/95
DIRECTOR		DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	<i>William J. Smith</i>	1/27/95
DIRECTOR		DATE
APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	<i>Anna Stumm</i>	2/2/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH		DATE

2	10-11-95	REVISE HANDICAP PARKING LOCATION
1	2-20-95	REVISE BUILDING 'B' LOCATION AND ADD CANOPY OVERHANGS
NO.	DATE	REVISION

**TSA GROUP, INC.**  
 planning • architecture • engineering • surveying  
 6400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-8100

OWNER / DEVELOPER	PROJECT:
MARY AGNES LEWIS 6305 TEN OAKS ROAD CLARKSVILLE, MARYLAND 21029	CLARKSVILLE CENTER (RETAIL CENTER) (F-07-07) F-94-123 LOCATION: CLARKSVILLE MANOR LOT 2 PLAT NO. 11205 TAX MAP 34 PARCEL NO. 398 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE:	SITE DEVELOPMENT PLAN
DATE:	APRIL 20, 1994 PROJECT NO. 501 JULY 5, 1994
DES: DAM	DRN: JWG
SCALE:	1"=30' DRAWING 1 OF 6



**SOILS CLASSIFICATIONS**  
 ChB2 CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED  
 EKA ELI OAK SILT LOAM, 0 TO 3 PERCENT SLOPES  
 EKB2 ELI OAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED  
 MIB2 MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED

NOTE: SILT FENCE FRONTING TEN OAKS ROAD SHALL BE STAKED AT 5' TO 5' INTERVALS.

**LEGEND**  
 --- SOIL GROUP BOUNDARY  
 --- SILT FENCE  
 [Symbol] STABILIZED CONSTRUCTION ENTRANCE  
 [Symbol] CURB INLET PROTECTION

PLAN  
 SCALE 1"=30'

SEQUENCE OF CONSTRUCTION

DAY 1	OBTAIN A GRADING PERMIT.
DAY 2-4	INSTALL STABILIZED CONSTRUCTION ENTRANCE, AND SILT FENCE.
DAY 5-10	GRADE SWM FACILITY AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.
DAY 11-20	GRADE REMAINDER OF SITE TO SUBGRADE AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDBED NOTES.
DAY 21-24	INSTALL STORM DRAINS USING INLET BLOCKING AT I-1, I-2 AND I-3.
DAY 25-45	COMPLETE INSTALLATION OF UTILITIES AND INSTALL CURB AND GUTTER, AND PAVING AND BUILDING CONSTRUCTION.
DAY 46-50	STABILIZE ALL REMAINING DISTURBED AREA IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.
DAY 51-55	REMOVE SILT FENCE AND INLET BLOCKING.

By the Developer:  
 "I/We certify that all development and/or construction will be done according to these Plans, 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 shall engage a registered professional engineer to supervise pond construction 1/3/95  
 I also authorize periodic on-site inspections by the Howard Soil Conservation District."  
 Signature of Developer: MARY AGNES LEWIS Date: \_\_\_\_\_

By the Engineer:  
 "I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that I am not a registered professional engineer to supervise pond construction. 1/3/95  
 Signature of Engineer: JOHN M. ELORRAGA, PE No. 16891 Date: 1/3/95

Reviewed for Howard Co. S.C.D.  
 and meets Technical Requirements  
 Signature: [Signature] Date: 1-3-95  
 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: 1/3/95  
 Howard S.C.D.

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.  
 [Signature] DATE: 1-17-95

APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 [Signature] DATE: 1/30/95  
 [Signature] DATE: 1/27/95

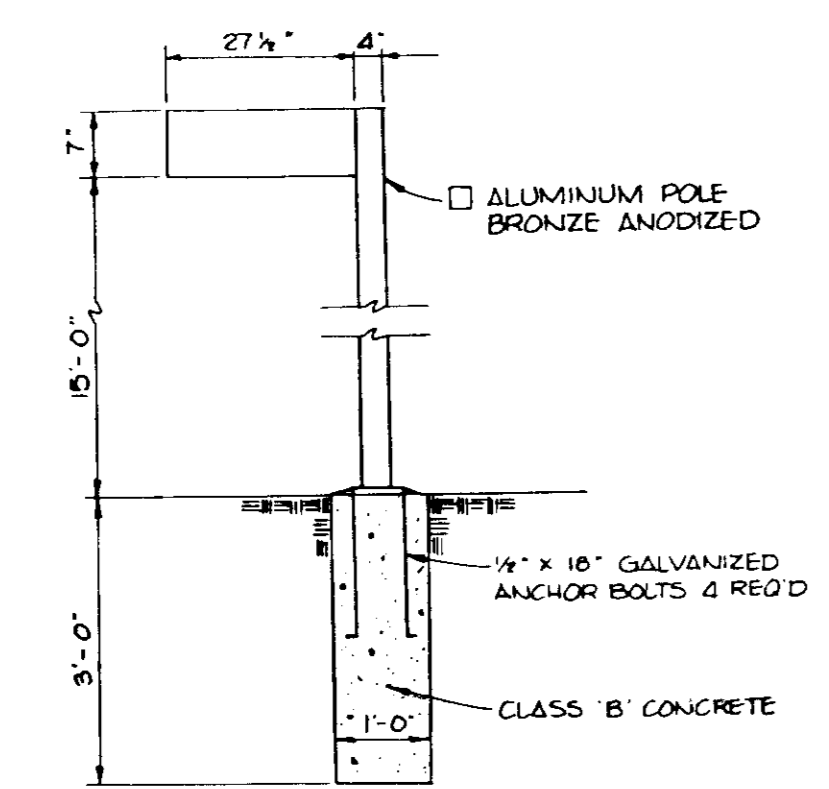
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] DATE: 2/3/95  
 [Signature] DATE: 2/3/95

NO.	DATE	REVISIONS
1	3-20-95	REVISE BUILDINGS BY LOCATION AND ADD CANOPY OVERHANG

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 800 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 480-8100

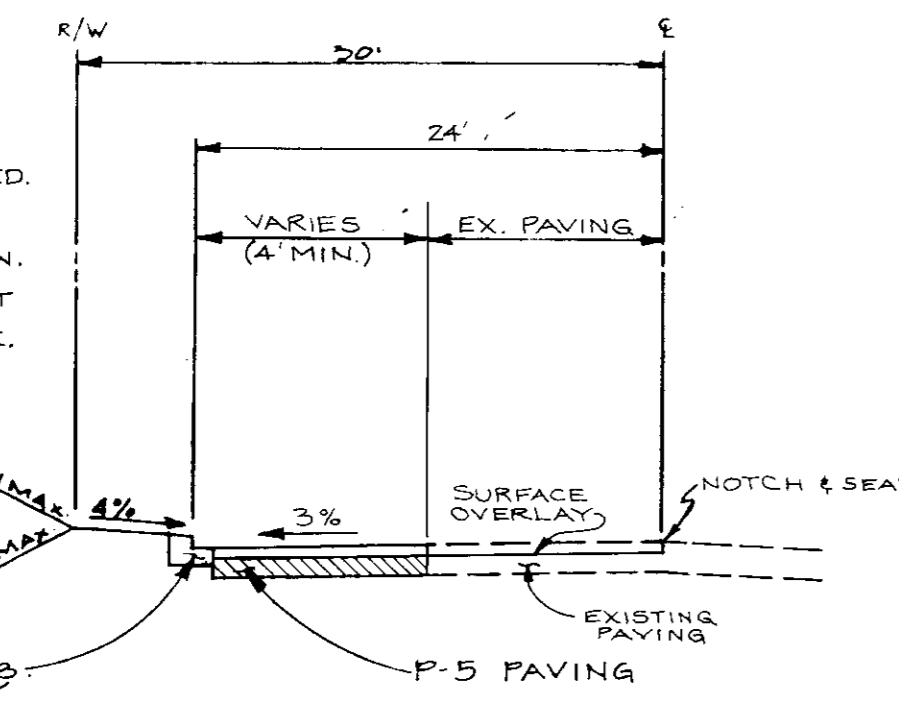
OWNER / DEVELOPER MARY AGNES LEWIS 6005 TEN OAKS ROAD CLARKSVILLE, MARYLAND 21024	PROJECT: CLARKSVILLE CENTER (RETAIL CENTER) F-87-57, F-94-125 LOCATION: CLARKSVILLE MANOR LOT 2 PLAT NO. 725C TAX MAP 34 PARCEL NO. 392 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: SEDIMENT CONTROL PLAN AND SOILS PLAN	DATE: APRIL 20, 1994 JULY 5, 1994
DES: DAM DRN: JWG	SCALE: 1"=30' DRAWING: 2 OF 6

- NOTES:
1. ALL LIGHT FIXTURES TO BE 150 WATT SODIUM VAPOR TYPE IS HIGH WITH METAL POLES AND DIRECTED DOWNWARD.
  2. LOCATION OF LIGHT FIXTURES ARE ON THE PLAN AND ARE SHOWN AS THUS  $\otimes$ .
  3. LIGHTS TO BE POLY QUAD 15 AS MANUFACTURED BY LIGHTOLIER OR APPROVED EQUAL.

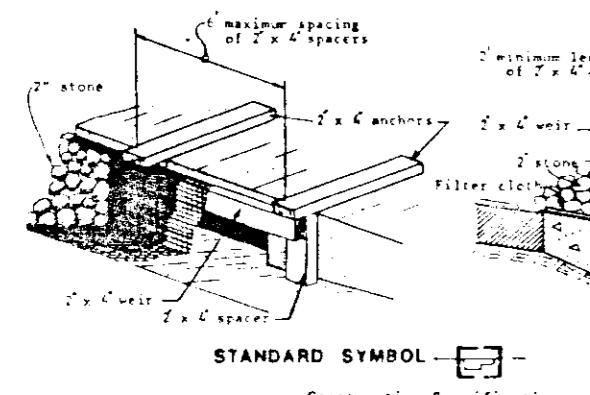


**PARKING LOT LIGHTING**  
NO SCALE

- NOTES:
1. THE SURFACE OVERLAY SHALL BE CARRIED TO THE  $\frac{1}{2}$ " OF THE ROAD AND NOTCHED AND SEALED.
  2. SURFACE OVERLAY COURSE TO BE EQUAL TO SURFACE COURSE OF TYPICAL SECTION.
  3.  $\frac{1}{2}$ " OF ROAD TO BE MILLED AT A DEPTH OF 1/4" x 1" WIDE USING A MILLING MACHINE.

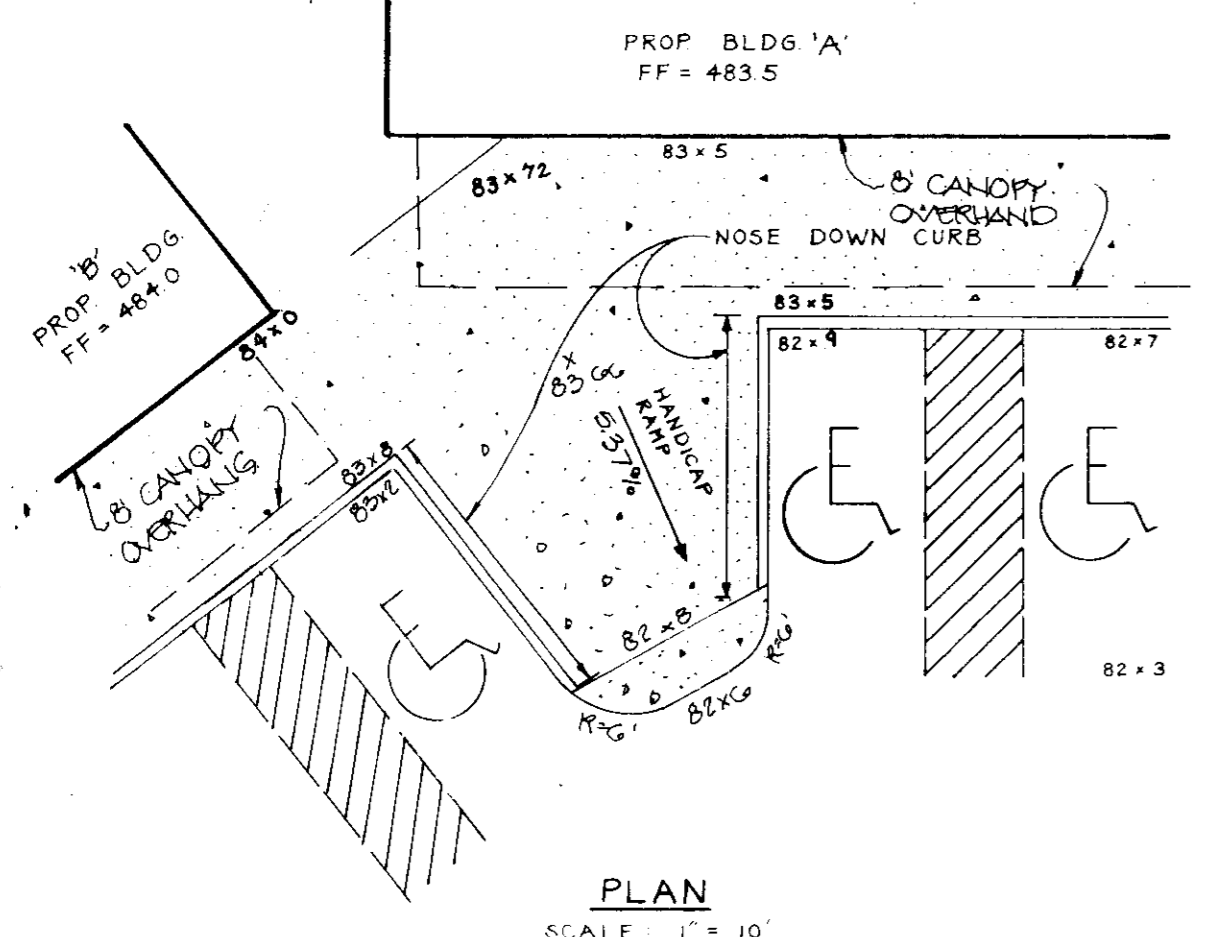


**TYPICAL WIDENING SECTION ALONG TEN OAKS ROAD**  
NO SCALE

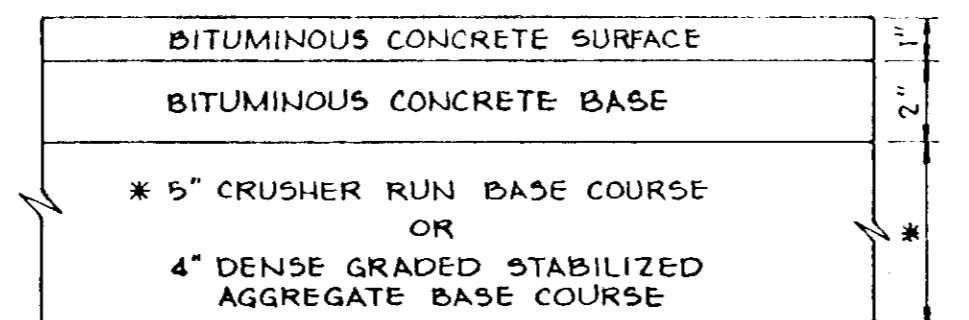


- Construction Specifications
1. Materials:
    - A. Curb shall be constructed of 2" x 4" construction grade lumber.
    - B. Wire mesh shall be of sufficient strength to support filter fabric, and stone for curb inlet, with water fully impounded against it.
    - C. Filter cloth shall be of a size approved for this purpose resistant to sunlight with stone size, 60#, 40-60, to allow sufficient drainage of water and removal of sediment.
    - D. Stone to be 2" to size and clean, stone flows shall clog the cloth.
  2. Curb Inlet Protection:
    - 1. Attach a continuous piece of wire mesh (20' min. width by throat length plus 4") to the 2" x 4" curb (leaving throat length plus 2") as shown on the standard drawing.
    - 2. Place a piece of approved filter cloth (40-60 mesh) of the same dimensions as the wire mesh over the wire mesh and accurately attach to the 2" x 4" curb.
    - 3. Generally nail the 2" x 4" curb to 6" long wooden spacers to be located between the wire mesh and filter fabric (see 4' apart).
    - 4. Place the assembly against the inlet throat and nail (minimum 2" length of 2" x 4" to the top of the curb at spacer locations). These 2" x 4" members shall extend across the inlet and be held in place by castings or alternate weight.
    - 5. The assembly shall be placed so that the end spaces are a minimum 1" beyond both ends of the throat opening.
    - 6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place stone 2" above the wire mesh and filter fabric in work zones as to prevent water from entering the inlet under or around the filter cloth.
    - 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
    - 8. Assume that stone flow does not bypass inlet by installing temporary mesh or asphalt dike directing flow into inlet.

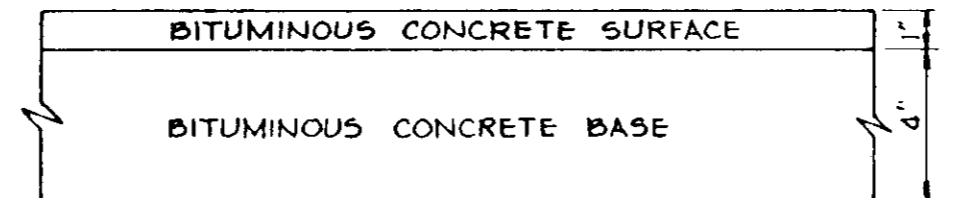
**CURB INLET PROTECTION**  
NO SCALE



**PLAN**  
SCALE: 1" = 10'

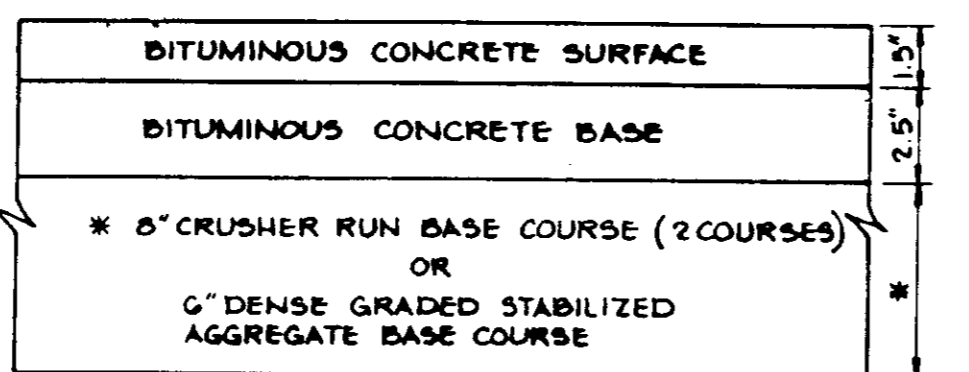


**(ALTERNATE)**

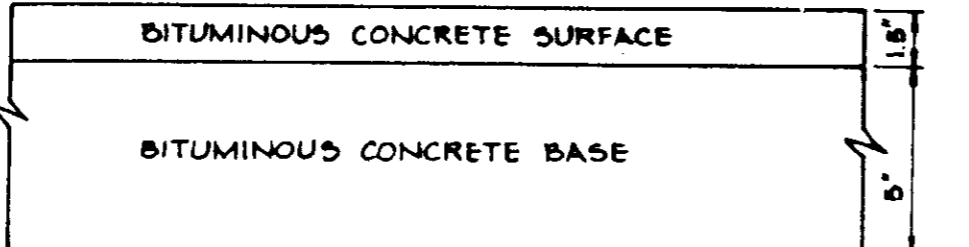


HOWARD COUNTY DESIGN MANUAL VOLUME IV  
STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-201)

**5" PAVING, P-1**  
PARKING BAYS ONLY

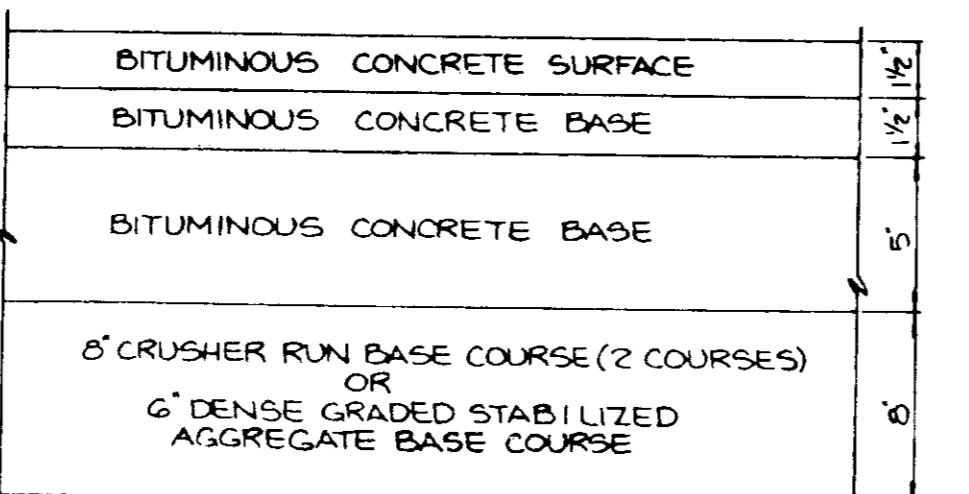


**(ALTERNATE)**

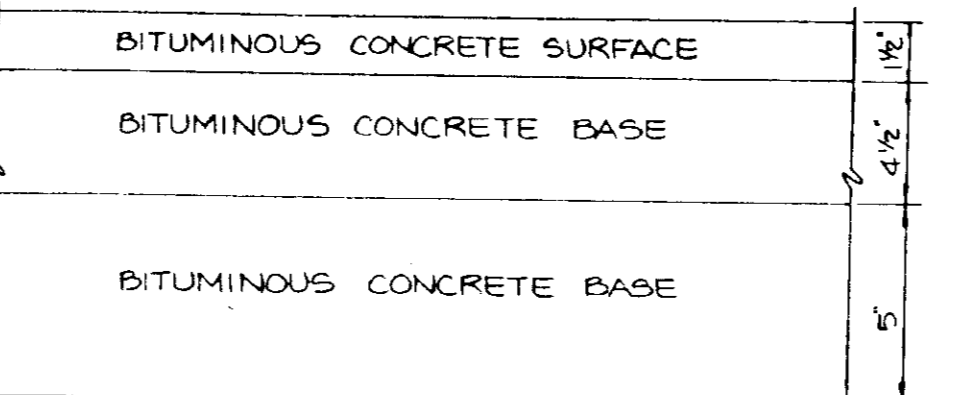


HOWARD COUNTY DESIGN MANUAL VOLUME IV  
STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-201)

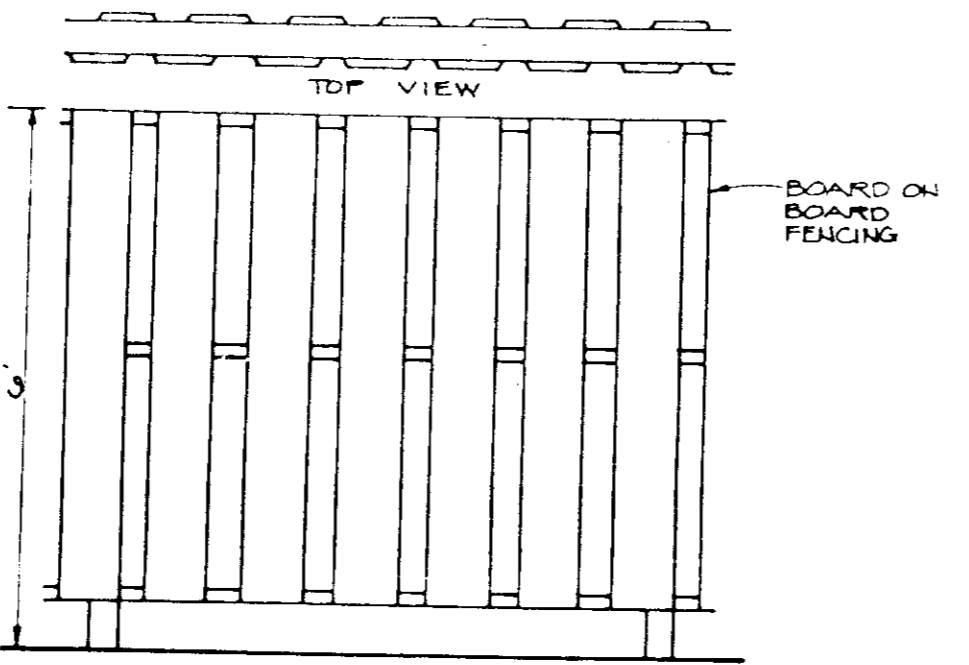
**6 1/2" PAVING, P-2**  
TRAVELWAYS



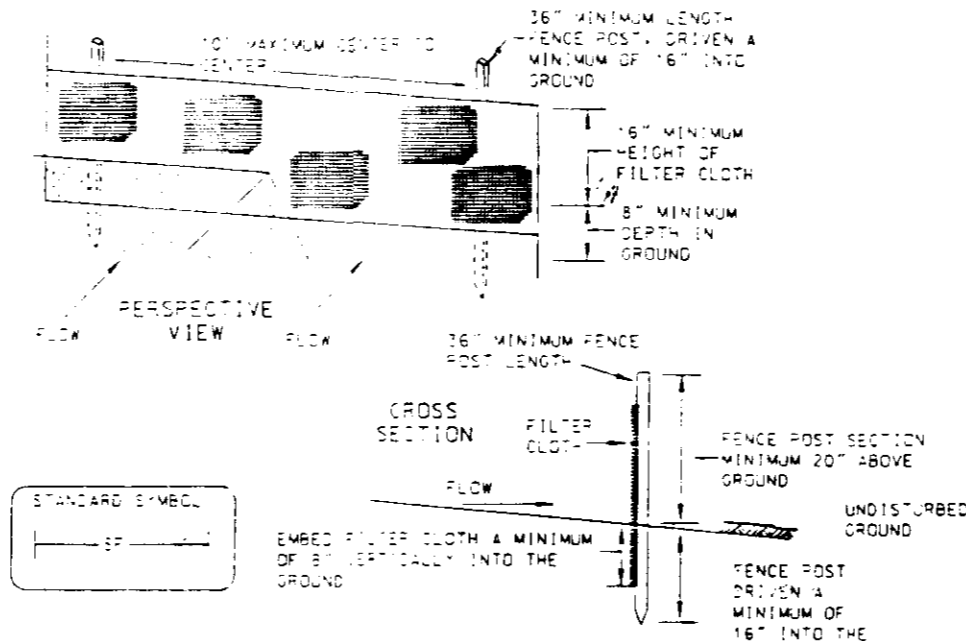
**(ALTERNATE)**



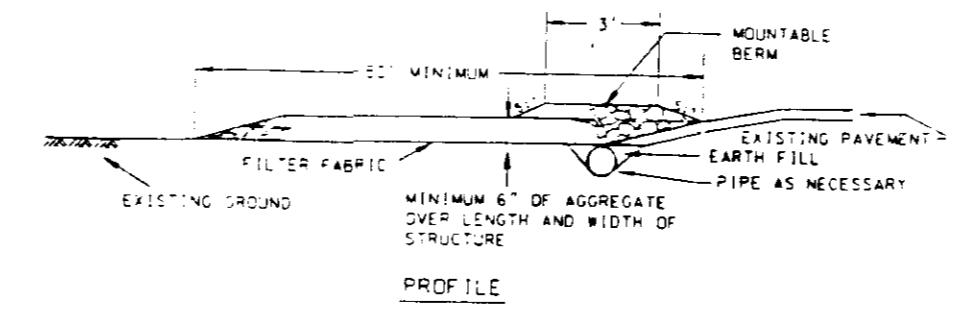
**11" PAVING, P-5**  
TEN OAKS ROAD WIDENING



**DUMPSTER ENCLOSURE**  
NO SCALE



**SILT FENCE**  
NO SCALE



**STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE



**HANDICAP SIGN DETAIL**



**\$98 FINE**  
VIOLATION FINE SIGN DETAIL  
NO SCALE

**STANDARD SEDIMENT CONTROL NOTES**

- 1) A minimum of 48 hours notice must be given to the Howard County Department of Inspection, Licenses and Permits, Sediment Control Division prior to the start of any construction, (313-1850).
- 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 SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL", revisions thereto.
- 3) Following initial soil disturbances or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 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 Volume 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Section 51), sod (Section 54), temporary seeding (Section 50) and mulching (Section 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	.30 Acres
Area Disturbed	2.7 Acres
Area to be Roofed or Paved	1.3 Acres
Area to be Vegetatively Stabilized	0.9 Acres
Total Cut	3500 Cu. Yds.
Total Fill	3500 Cu. Yds.
Offsite Waste/Borrow Area Location	N/A
- 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 control 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 inspections 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 can be back filled and stabilized within one working day, whichever is shorter.

**SEEDING PREPARATION**

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 lbs/1000 sq ft) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 lbs/1000 sq ft) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 10-0-0 UREAFORM FERTILIZER (9 lbs/1000 sq ft).
  - 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 lbs/1000 sq ft) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 lbs/1000 sq ft) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 lbs/1000 sq ft) OF KENTUCKY 31 TALL FESCUE FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (1.05 lbs/1000 sq ft) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 26, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 lbs/1000 sq ft) OF UNKILTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (5 gal/1000 sq ft) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 6 FEET OR HIGHER, USE 348 GALLONS PER ACRE (16 gal/1000 sq ft) FOR ANCHORING.

**TEMPORARY SEEDING PREPARATION**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

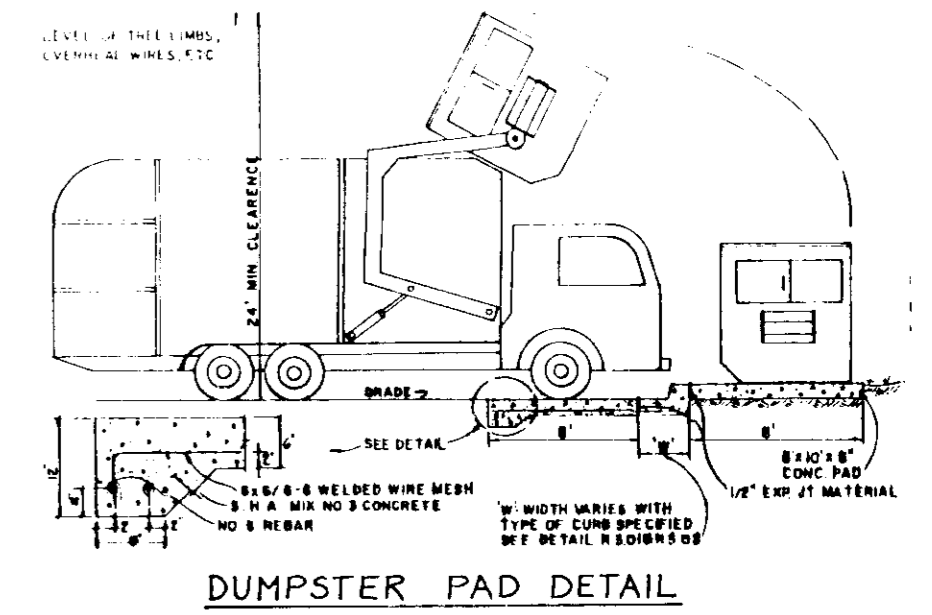
SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 100 LBS PER ACRE 10-10-10 FERTILIZER (14 lbs/1000 sq ft).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 lbs/1000 sq ft). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (1.05 lbs/1000 sq ft). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 26, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 lbs/1000 sq ft) OF UNKILTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (5 gal/1000 sq ft) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 6 FT. OR HIGHER, USE 348 GALLONS PER ACRE (16 gal/1000 sq ft) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR SITE AND METHODS NOT COVERED.



**DUMPSTER PAD DETAIL**

By the Developer:

"I/We certify that all development and/or construction will be done according to these plans, 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 shall engage a registered professional engineer to supervise pond construction Jan 13/95

I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: MARY AGNES LEWIS  
Date: 11/14/94

By the Engineer:

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction Jan 13/95

Signature of Engineer: JOHN M. FLORRAGA, PE No. 16891  
Date: 11/14/94

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

Approved: J. R. P. [Signature] Date: 1/3/95  
Howard S.C.D.

Reviewed for Howard S.C.D. Name: [Signature] Date: 1-3-95  
Signature: [Signature] U.S. Soil Conservation Service

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.  
Date: 1-17-95

APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
Date: 1/30/95

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
Date: 2/3/95

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
Date: 2/2/95

NO.	DATE	REVISION
1	9-30-95	REVISE BUILDING BY LOCATION AND ADD CANOPY OVERHANGS

T S A GROUP INC.  
planning • architecture • engineering • surveying  
8400 Baltimore National Pike • Kilcoot City, Maryland 21043 • (410) 465-8100

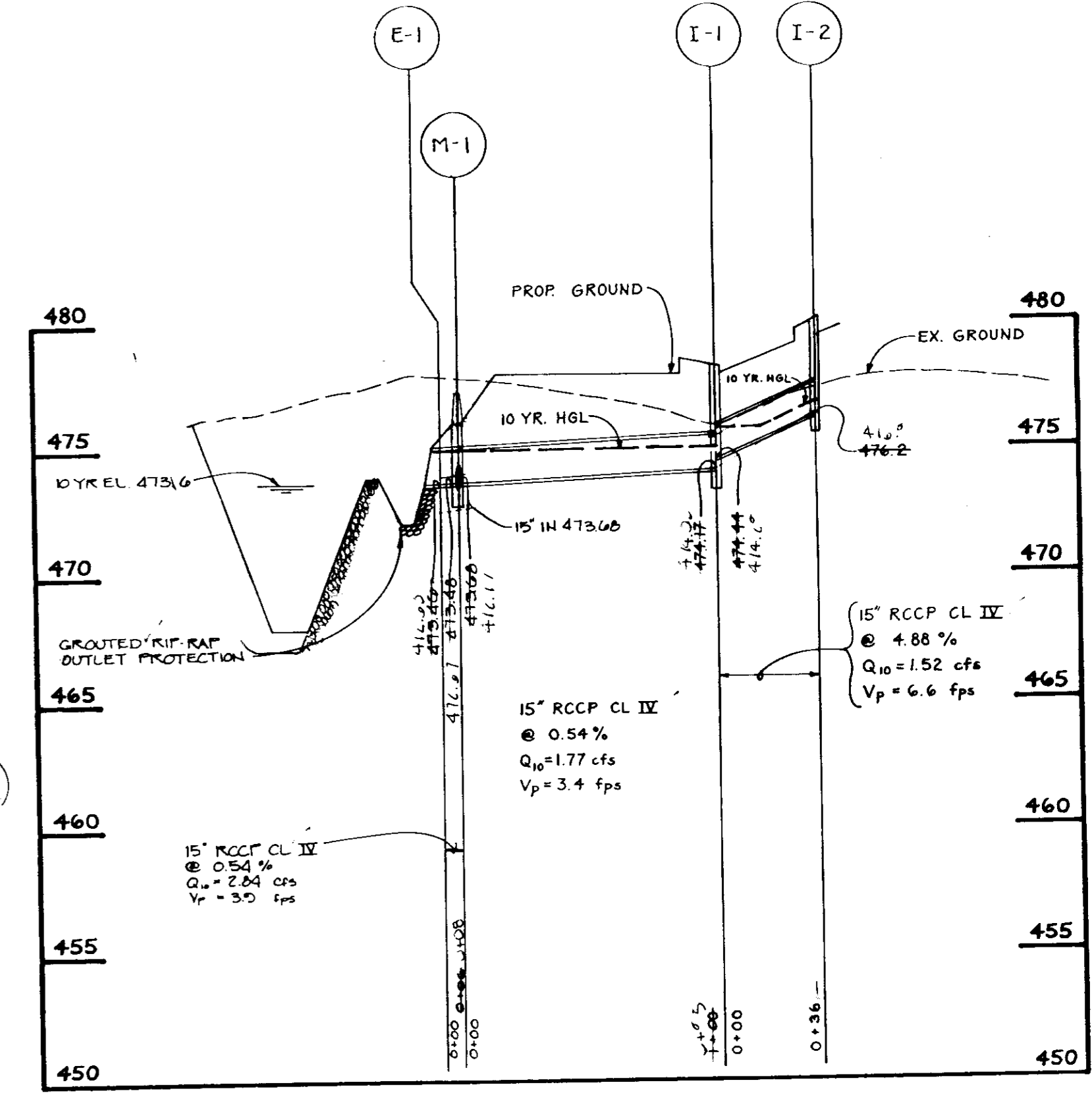
OWNER / DEVELOPER: MARY AGNES LEWIS, 6005 TEN OAKS ROAD, CLARKSVILLE, MARYLAND 21029

PROJECT: CLARKSVILLE CENTER (RETAIL CENTER), P-87-57, P-94-123, LOCATION CLARKSVILLE MARIK LOT 2 PLAT NO 7252, TAX MAP 24 PARCEL NO 598, 0TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: DETAILS

DATE: APRIL 20, 1994  
PROJECT NO. 501

DES. DAM, DRN. JWG, SCALE: AS SHOWN, DRAWING 2 OF 6



NO.	TYPE	LOCATION	INVERT IN	INVERT OUT	FTC ELEVATION	40 CO STD
I-1	A-5 W/DFEL	SEE SITE PLAN	474.44	474.44	477.60	SD-4.40/SD-4.01
I-2	A-5	SEE SITE PLAN	---	476.20	480.00	SD-4.40/SD-4.01
E-1	END SECTION	SEE SITE PLAN	---	473.46	---	SD-5.51
I-3	A-5	SEE SITE PLAN	---	471.50	479.40	SD-4.40/SD-4.01
M-1	SHALLOW MANHOLE	SEE SITE PLAN	15' 473.68	15' 473.48	472.3	G-5.12

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPT.  
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 1-17-95

APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 DIRECTOR: *[Signature]* DATE: 1/30/95  
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 1/27/95

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 DIRECTOR: *[Signature]* DATE: 2/3/95  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 2/2/95

NO. 1 DATE 3-30-95 REVISION: REVISE BUILDING BY LOCATION AND ADD CANOPY OVERHANGS

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 846 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 460-8100

OWNER / DEVELOPER: MARY AGNES LEWIS  
 6009 TEN OAKS ROAD  
 CLARKSVILLE, MARYLAND 21024

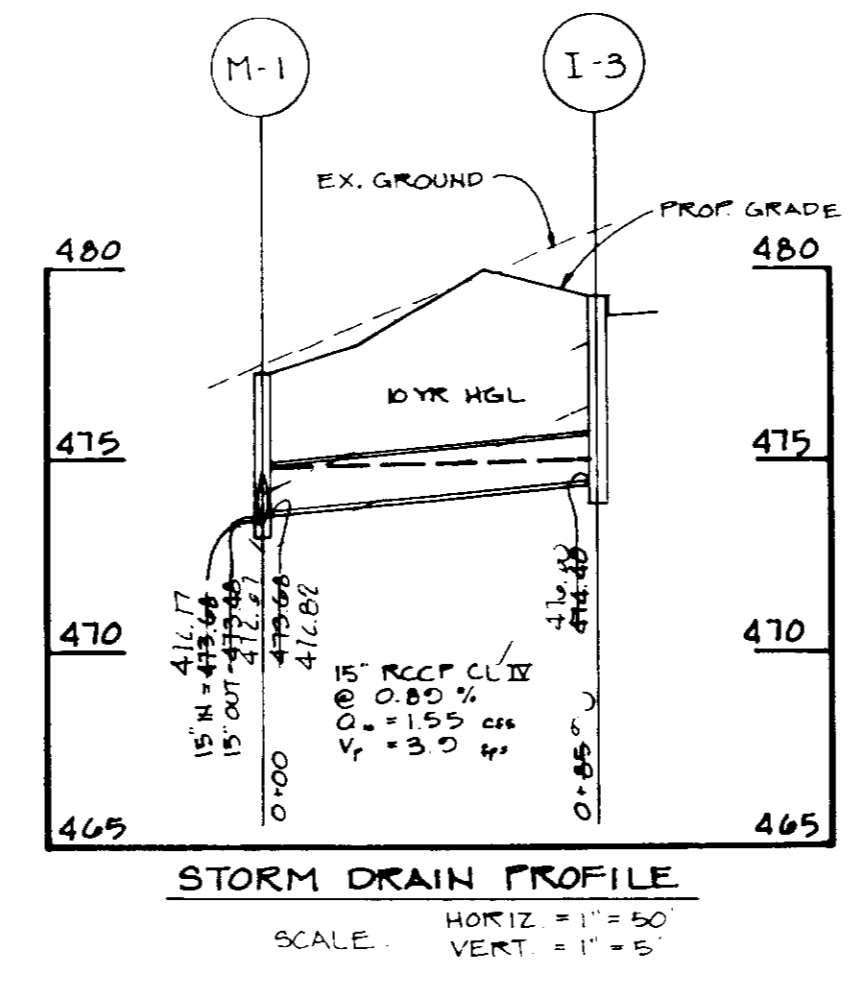
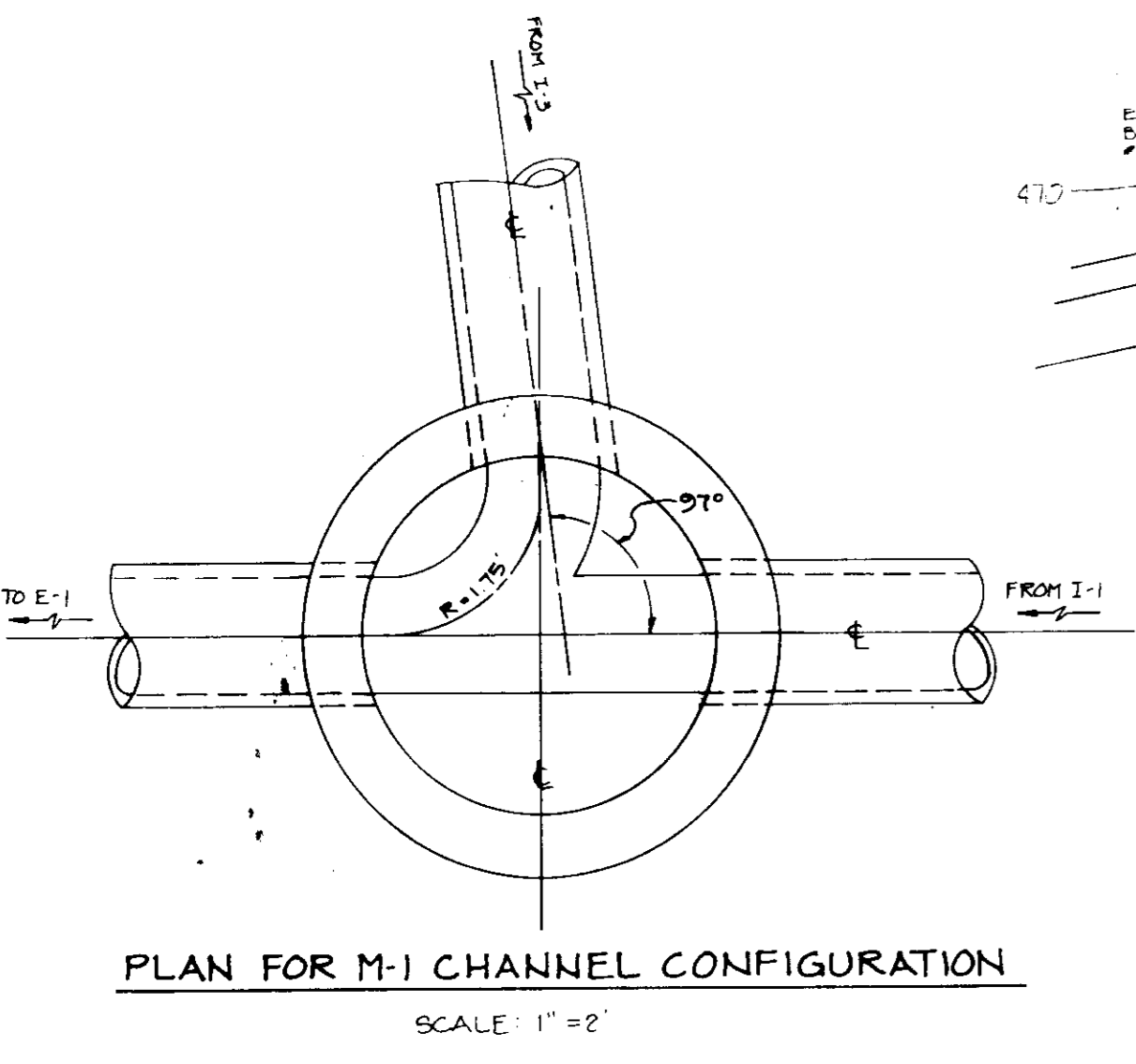
PROJECT: CLARKSVILLE CENTER  
 (RETAIL CENTER)  
 F-87-57, F-94-123  
 LOCATION: CLARKSVILLE MANOR, LET 2 PLAT NO. 7501  
 TAX MAP 34 PARCEL NO. 399  
 5TH ELECTRIC DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: DRAINAGE AREA MAP

DATE: APRIL 20, 1994  
 JULY 5, 1994

PROJECT NO. 501

DES. DAM ERN. JWG SCALE: 1" = 30' DRAWING 4 OF 6



*Donald Man*  
 AS-BUILT 10/25/95

**Site Preparation**  
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, brush, logs and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

**Earth Fill**  
Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification CC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

**Placement** - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 6" thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

**Compaction** - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be covered by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and it to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

**Cut Off Trench** - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

**Structure Backfill**  
Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

**Rock Riprap**  
All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one third the greatest dimension of the fragment.

The rock shall have the following properties:

- Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
- Absorption not more than three percent.
- Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

**Care of Water during Construction**  
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to pumps from which the water shall be pumped.

**Stabilization**  
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Department of Transportation and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

**Erosion and Sediment Control**  
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

SAMPLER		SAMPLER	NO.	COR.	BLWGS FT	NO.	REC.	BORING & SAMPLING NOTES
DATE	HAMMER							
2-11-93	140	1	2-3-5	1	16"			Topsoil
		2	6-12-22	2	16"			
		3	5-8-10	3	16"			
		4	5-9-12	4	16"			
		5	6-7-8	5	16"			
		6	4-8-12	6	16"			No water encountered while drilling
Bottom of Boring at 18.5'								

SAMPLER TYPE	SAMPLE CONDITIONS	GROUND WATER DEPTH	BORING METHOD
DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED	D-DISINTEGRATED	AT COMPLETION	MS-HOLLOW STEM AUGERS
PT-PRESSED SHELVEY TUBE	U-UNDISTURBED	AFTER	CS-COAST FLIGHT AUGERS
SC-CONTINUOUS FLIGHT AUGER	L-LOST		DC-DRAWING CASING
NC-ROCK CORE			MS-MIXED DRILLING

TEST-1

SAMPLER		SAMPLER	NO.	COR.	BLWGS FT	NO.	REC.	BORING & SAMPLING NOTES
DATE	HAMMER							
2-11-93	140	1	4-5-6	1	14"			Topsoil
		2	3-5-8	2	16"			
		3	6-12-12	3	16"			
		4	7-9-12	4	16"			
		5	4-6-7	5	16"			
		6	7-6-6	6	16"			No water encountered while drilling
Bottom of Boring at 18.5'								

SAMPLER TYPE	SAMPLE CONDITIONS	GROUND WATER DEPTH	BORING METHOD
DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED	D-DISINTEGRATED	AT COMPLETION	MS-HOLLOW STEM AUGERS
PT-PRESSED SHELVEY TUBE	U-UNDISTURBED	AFTER	CS-COAST FLIGHT AUGERS
SC-CONTINUOUS FLIGHT AUGER	L-LOST		DC-DRAWING CASING
NC-ROCK CORE			MS-MIXED DRILLING

TEST-2

SAMPLER		SAMPLER	NO.	COR.	BLWGS FT	NO.	REC.	BORING & SAMPLING NOTES
DATE	HAMMER							
2-11-93	140	1	4-5-9	1	14"			Topsoil
		2	5-7-4	2	16"			
		3	6-8-9	3	16"			
		4	5-7-10	4	16"			
		5	3-3-4	5	16"			
		6	4-8-9	6	16"			No water encountered while drilling
Bottom of Boring at 16.5'								

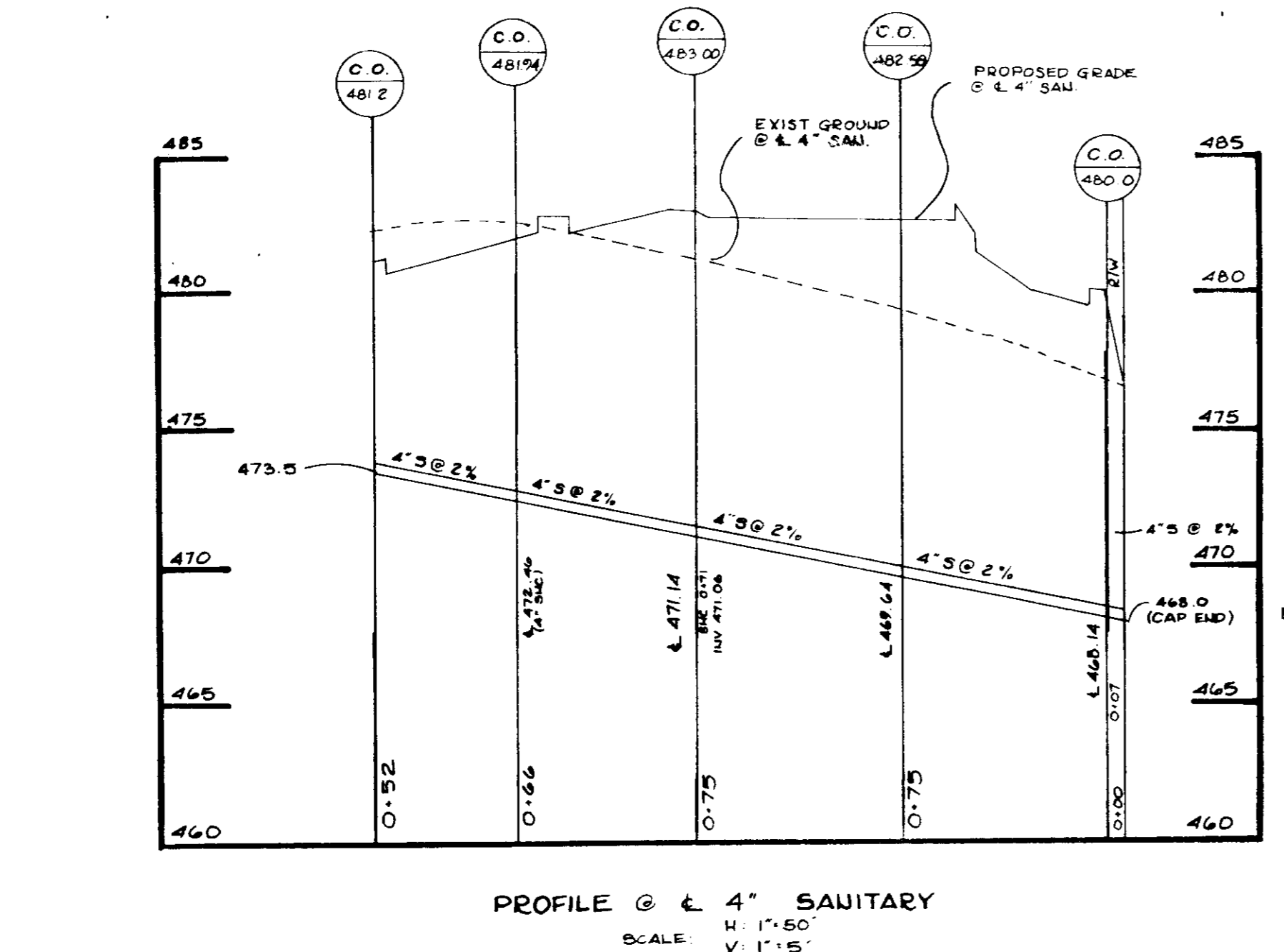
SAMPLER TYPE	SAMPLE CONDITIONS	GROUND WATER DEPTH	BORING METHOD
DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED	D-DISINTEGRATED	AT COMPLETION	MS-HOLLOW STEM AUGERS
PT-PRESSED SHELVEY TUBE	U-UNDISTURBED	AFTER	CS-COAST FLIGHT AUGERS
SC-CONTINUOUS FLIGHT AUGER	L-LOST		DC-DRAWING CASING
NC-ROCK CORE			MS-MIXED DRILLING

TEST-3

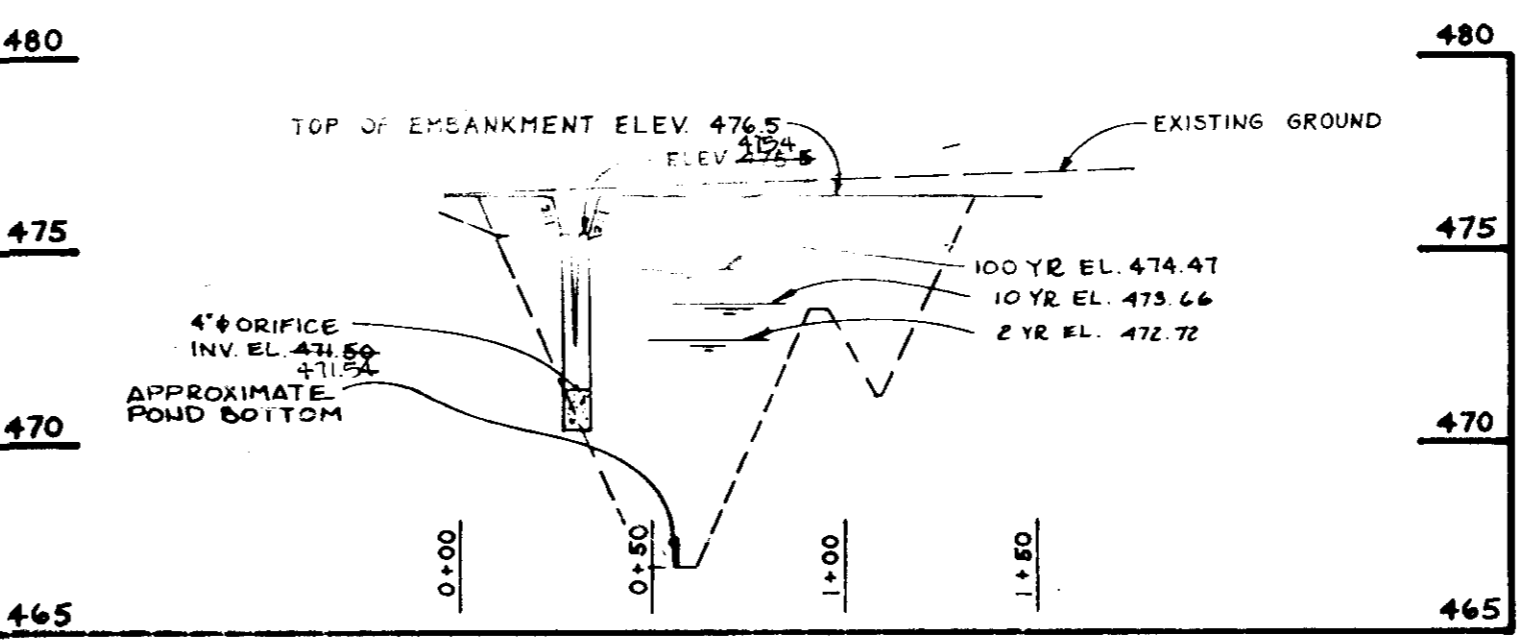
SAMPLER		SAMPLER	NO.	COR.	BLWGS FT	NO.	REC.	BORING & SAMPLING NOTES
DATE	HAMMER							
2-11-93	140	1	3-4-5	1	16"			Topsoil
		2	7-11-14	2	16"			
		3	5-6-11	3	16"			
		4	7-8-4	4	16"			
		5	5-6-8	5	16"			
		6	4-8-9	6	16"			No water encountered while drilling
Bottom of Boring at 16.5'								

SAMPLER TYPE	SAMPLE CONDITIONS	GROUND WATER DEPTH	BORING METHOD
DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED	D-DISINTEGRATED	AT COMPLETION	MS-HOLLOW STEM AUGERS
PT-PRESSED SHELVEY TUBE	U-UNDISTURBED	AFTER	CS-COAST FLIGHT AUGERS
SC-CONTINUOUS FLIGHT AUGER	L-LOST		DC-DRAWING CASING
NC-ROCK CORE			MS-MIXED DRILLING

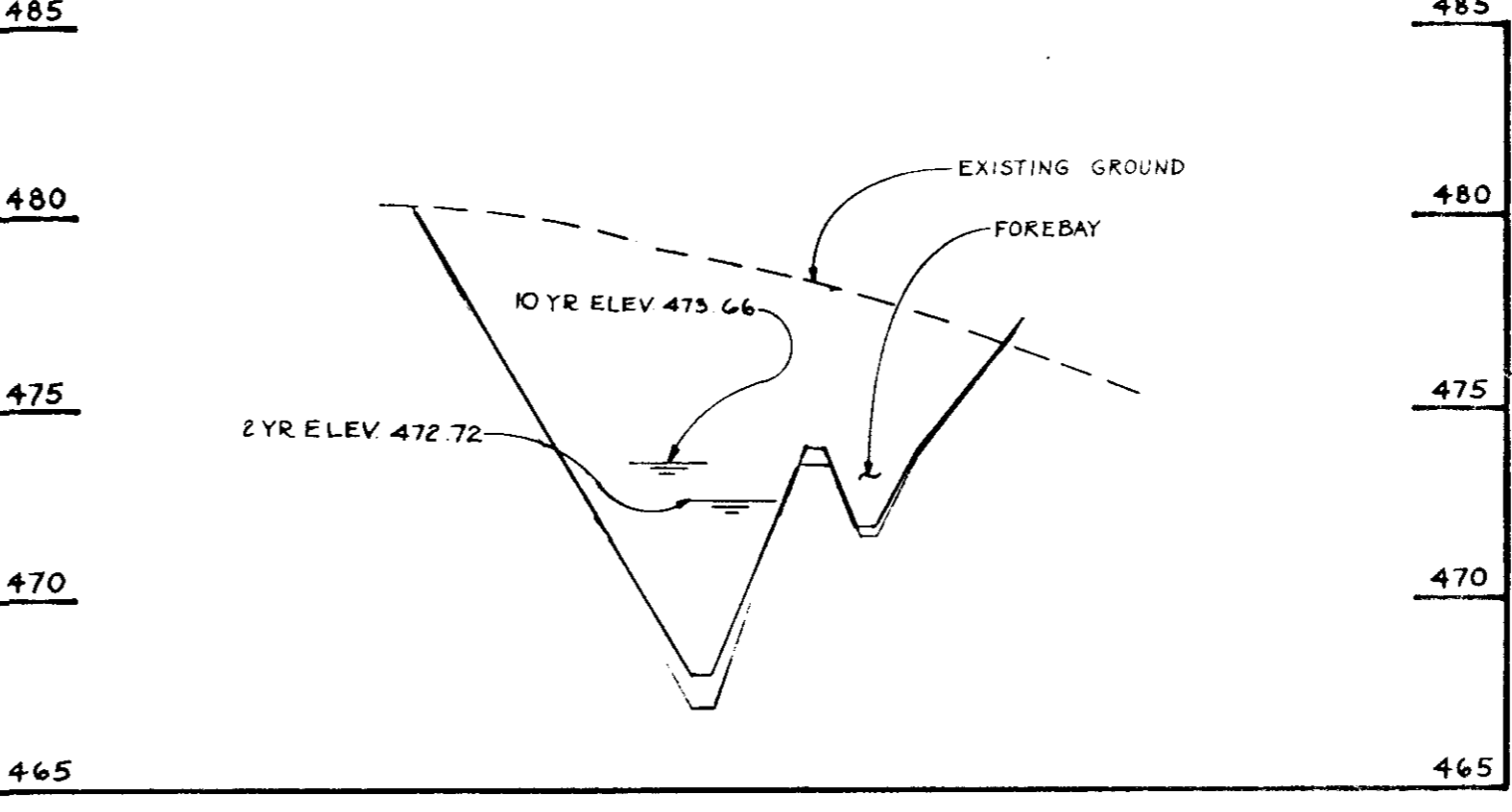
TEST-4



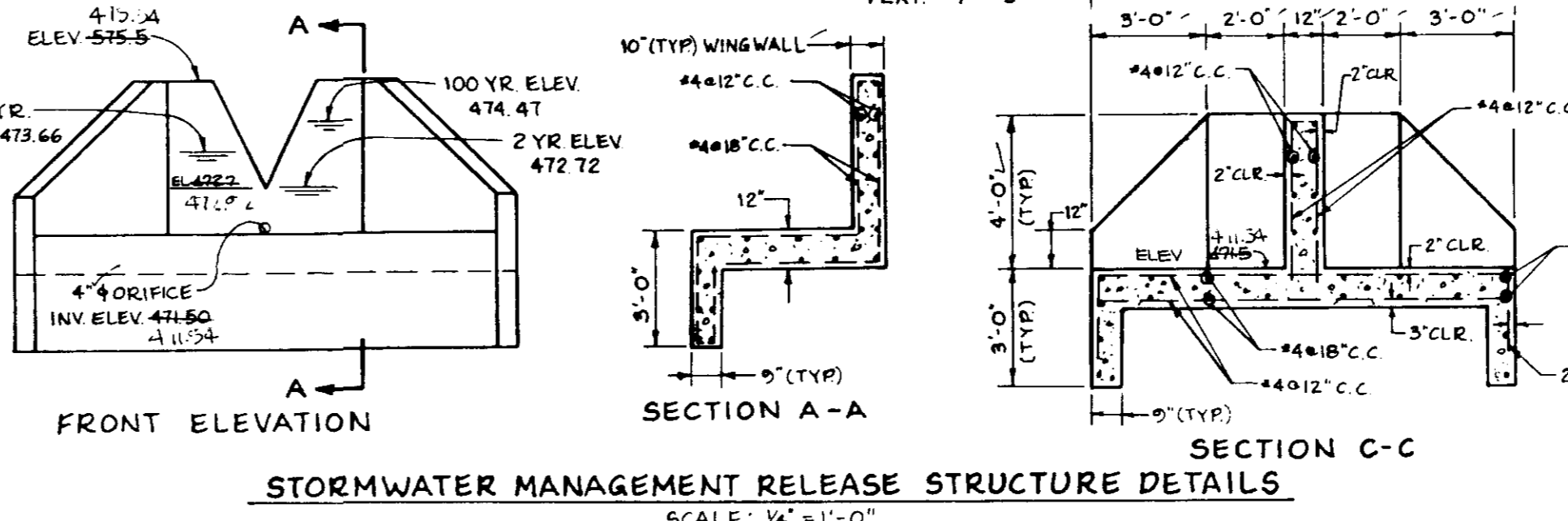
PROFILE @ 4' SAUITARY  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



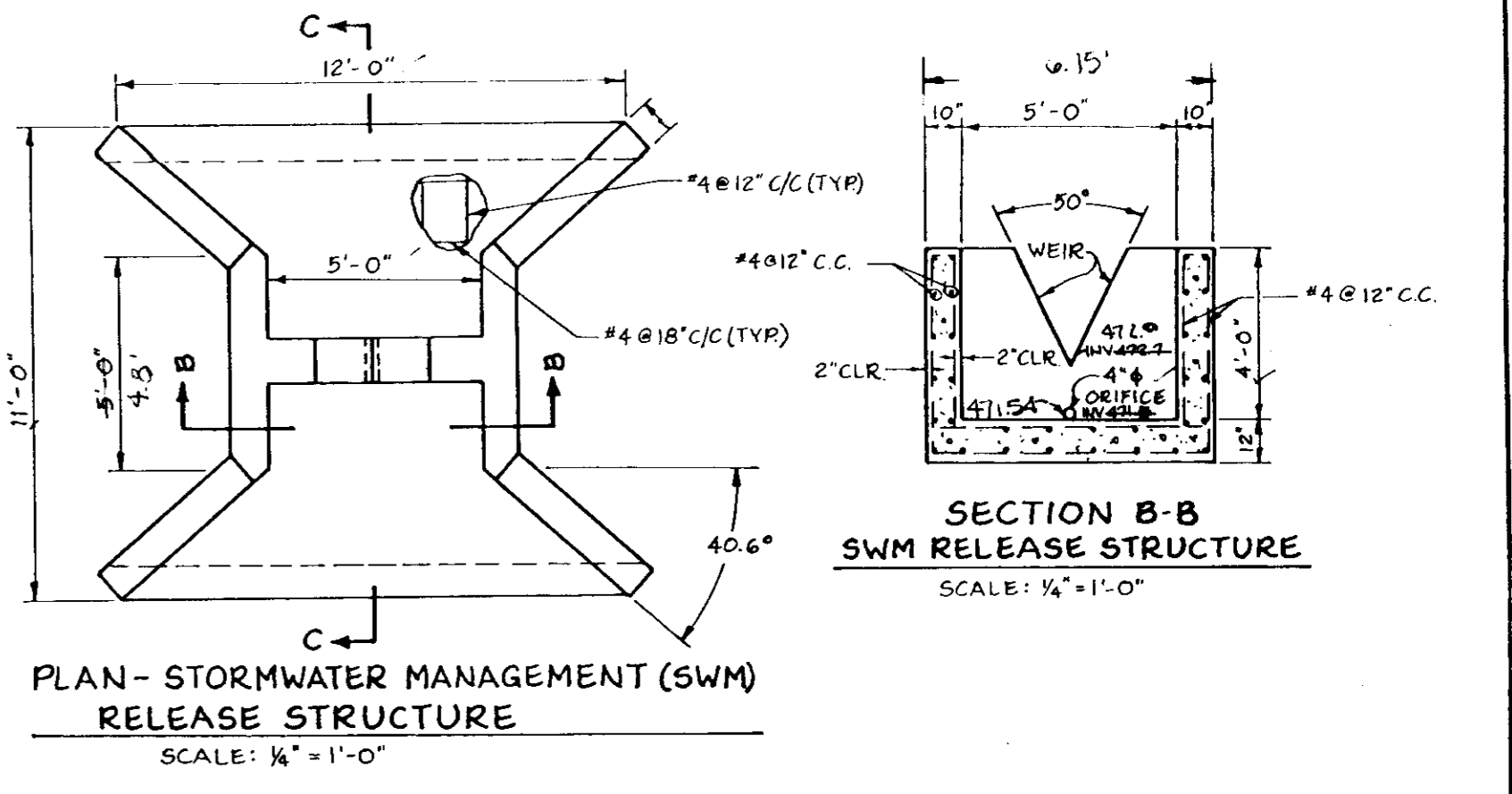
SECTION B-B ALONG E SPILLWAY  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



SECTION A-A THROUGH SWMF  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



FRONT ELEVATION and SECTION C-C  
SCALE: 1/4" = 1'-0"



PLAN-STORMWATER MANAGEMENT (SWM) RELEASE STRUCTURE  
SCALE: 1/4" = 1'-0"

**BY THE DEVELOPER:**  
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION JUNE 13/95

DEVELOPER: MARY AGNES LEWIS DATE: 12-21-94

**BY THE ENGINEER:**  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION JUNE 13/95

ENGINEER: JOHN M. ELORRAGA, P.E. # 16891 DATE: 10/14/94

**SWM RELEASE STRUCTURE NOTES:**

- ALL EXPOSED EDGES TO HAVE 1/4" x 1/4" CHAMFERS OR AS DIRECTED.
- CONCRETE SHALL BE SHA MIX NO 3 (f.c. 3500 P.S.I. @ 28 DAYS).
- REINFORCING STEEL SHALL BE ASTM A-615 GRADE 60.

AS-BUILT 10-25-95

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPT.  
John M. Elorraga DATE: 1-17-95

APPROVED: FOR STORM DRAINAGE AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
James G. Lewis DATE: 1/30/95

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
James G. Lewis DATE: 1/27/95

APPROVED: DIVISION OF LAND DEVELOPMENT AND RESEARCH  
James G. Lewis DATE: 2/3/95

Anna Srinivasa DATE: 2/2/95

TSA GROUP, INC.  
planning • architecture • engineering • surveying  
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410-480-8100)

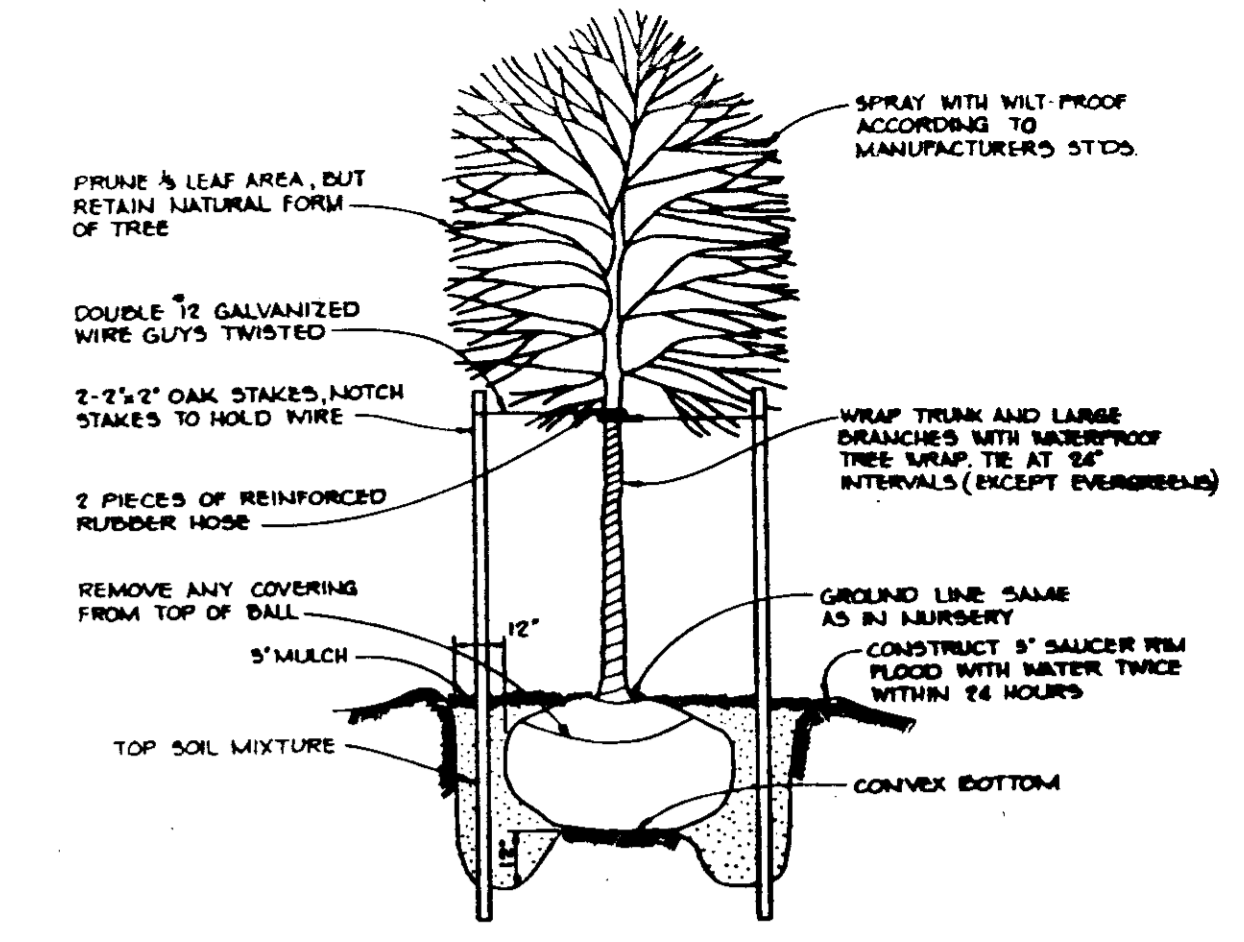
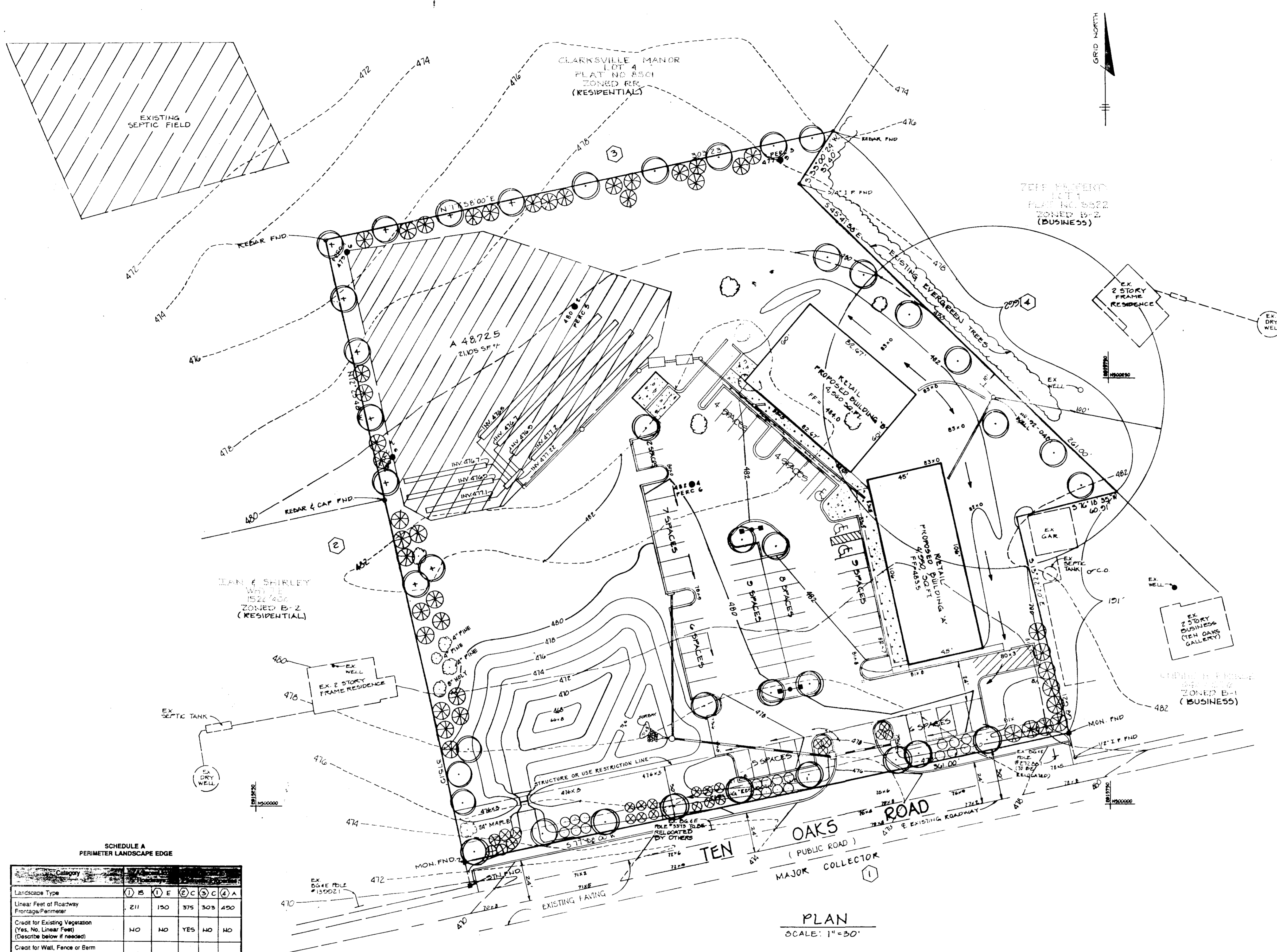
OWNER/DEVELOPER: MARY AGNES LEWIS  
6005 TEN OAKS ROAD  
CLARKSVILLE, MARYLAND 21029

PROJECT: CLARKSVILLE CENTER  
(RETAIL CENTER)  
LOCATION: CLARKSVILLE MANOR LOT 2 PLAT NO.725E  
TAX MAP 34 PARCEL 39E  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

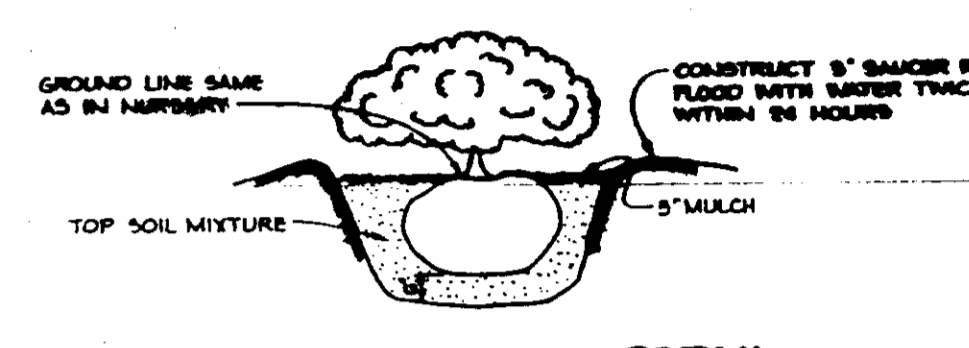
TITLE: STORMWATER MANAGEMENT NOTES AND DETAILS

DATE: APRIL 20, 1994 PROJECT NO. 0501  
JULY 5, 1994

DES: DAM DRN: SHS SCALE: AS SHOWN DRAWING 5 OF 6



**TREE PLANTING DETAIL**  
NO SCALE



**SHRUB PLANTING DETAIL**  
NO SCALE

NOTES:  
 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.  
 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$7,500.00.

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.  
*Stephen Paul*  
 COUNTY HEALTH OFFICER 1-7-95 DATE

APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*James J. Shaw*  
 DIRECTOR 1/30/96 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Paul R. Brown*  
 CHIEF BUREAU OF ENGINEERING M.K. DOHOKS 1/27/95 DATE

*Joseph R. Smith*  
 DIRECTOR 2/5/95 DATE

*China Jaramonji*  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH 2/6/95 DATE

1	3-30-95	REVISE BUILDING 'B' LOCATION AND CANOPY OVERHANGS
NO	DATE	REVISION

TSA GROUP, INC.  
 planning • architecture • engineering • surveying  
 8800 Baltimore Avenue, Park • Elliott City, Maryland 21643 • (410) 460-8100

OWNER / DEVELOPER: MARY AGNES LEWIS, 6005 TEN OAKS ROAD, CLARKSVILLE, MARYLAND 21029

PROJECT: CLARKSVILLE CENTER (RETAIL CENTER)  
 F-87-57, F-94-123  
 LOCATION: CLARKSVILLE MANOR LOT 2 PLAT NO. 7252, TAX MAP 34, PARCEL NO. 39B, 5TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: **LANDSCAPE PLAN**

DATE: APRIL 20, 1994  
 JULY 5, 1994  
 PROJECT NO. 501  
 SCALE: 1"=30'  
 DRAWING 6 OF 6

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

Category	(1) B	(1) E	(2) C	(3) C	(4) A
Linear Feet of Roadway Frontage/Perimeter	211	150	375	303	450
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO	NO	YES	NO	NO
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO	NO	NO	NO	NO
Number of Plants Required					
Shade Trees	4	4	10	8	8
Evergreen Trees	1	3	17	16	-
Shrubs	1	3	36	-	-
Number of Plants Provided					
Shade Trees	4	4	10	8	7
Evergreen Trees	-	-	17	16	5
Other Trees (2:1 substitution)	-	-	-	-	-
Shrubs (10:1 substitution)	10	34	-	-	-
(Describe plant substitution credits below if needed)					

**SCHEDULE B PARKING LOT INTERNAL LANDSCAPING**

Number of Parking Spaces	60
Number of Trees Required	3
Number of Plants Provided	
Shade Trees	6
Other Trees (2:1 substitution)	-

PLANT LIST (CONT)				PLANT LIST			
SYMBOL	QUANTITY	NAME	REMARKS	SYMBOL	QUANTITY	NAME	REMARKS
(+)	10	TILIA TOMENTOSA SILVER LINDEN	2 1/2" MIN. CAL. B & D FULL HEAD	(•)	30	ACER RUBRUM RED MAPLE	2 1/2" MIN. CAL. B & D FULL HEAD
				(○)	20	JUNIPERUS CHINENSIS PRUITZERIANA COMPACTA/ COMPACT PRUITZER JUNIFER.	2' - 2 1/2' HT.
				(⊗)	24	EUONYMUS ALATUS "COMPACTA" DWARF WINGED EUONYMUS	2' - 2 1/2' HT.
				(⊙)	42	PINUS STROBUS EASTERN WHITE PINES	6' - 8' HT. UNSHARDED

**PLAN**  
SCALE: 1"=30'