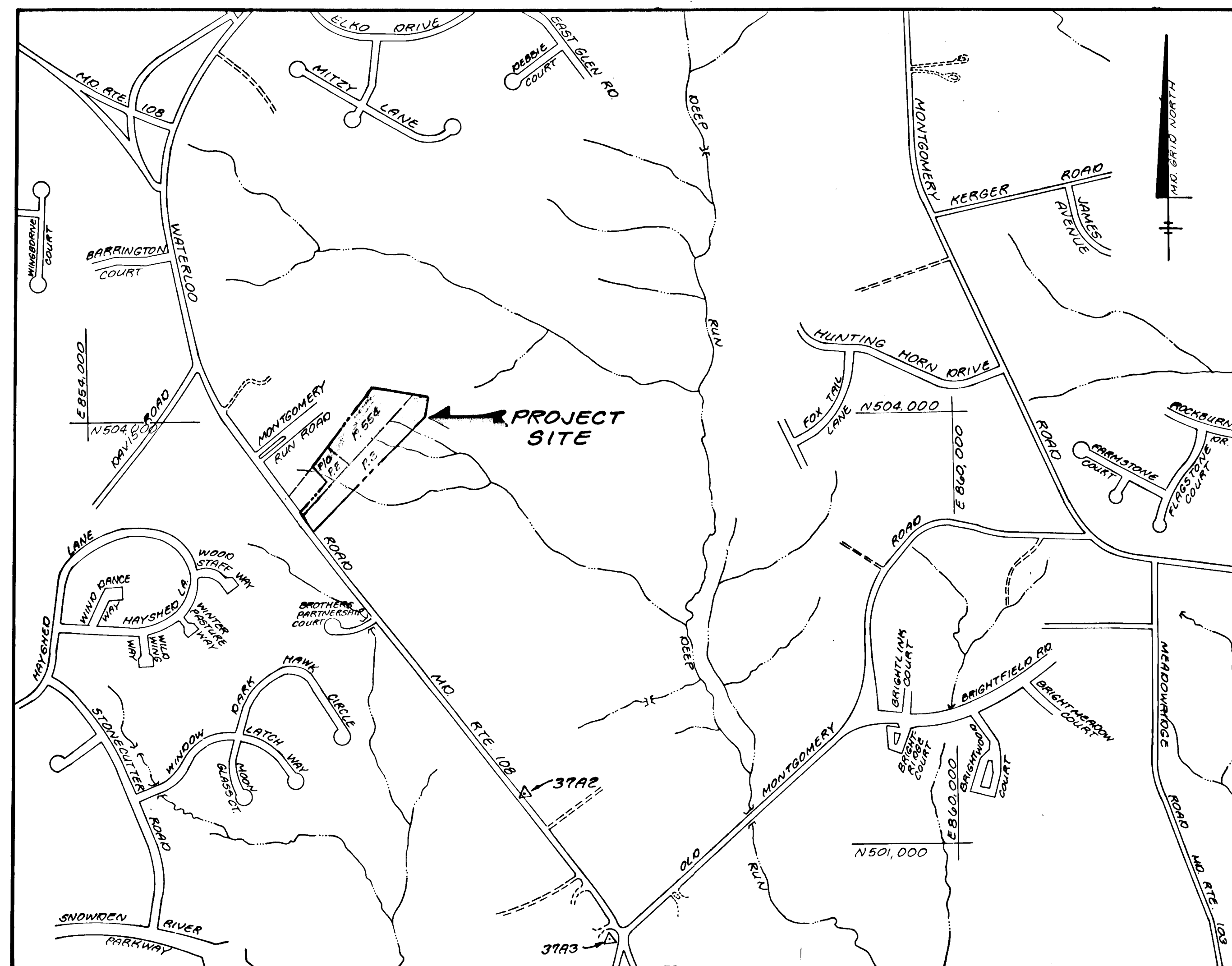


INDEX OF SHEETS	
SHEET NO.	TITLE
1	TITLE SHEET
2	PLAN AND PROFILE - MARYLAND RTE. 108
3	PLAN AND PROFILE - GOLDFINCH COURT
4	ROAD DETAILS
5	STORM DRAIN PROFILES / STRUCTURE SCHEDULE
6	DRAINAGE AREA MAP
7	STORMWATER MANAGEMENT DETAILS
8	GRADING AND SEDIMENT CONTROL PLAN
9	GRADING AND SEDIMENT CONTROL DETAILS
10	LANDSCAPE PLAN



**LOCATION MAP**

Scale: 1" = 600'

**BENCH MARKS:**

- 37A2: ELEV. 403.707  
CONCRETE MONUMENT 0.1 FT. BELOW SURFACE AT TOP OF SLOPE NORTH SIDE OF WATERLOO ROAD NEAR #5866.
- 37A3: ELEV. 385.659  
CONCRETE MONUMENT 0.3 FT. BELOW SURFACE AT TOE OF SLOPE SOUTHWEST QUADRANT OF WATERLOO ROAD AND OLD MONTGOMERY ROAD INTERSECTION.

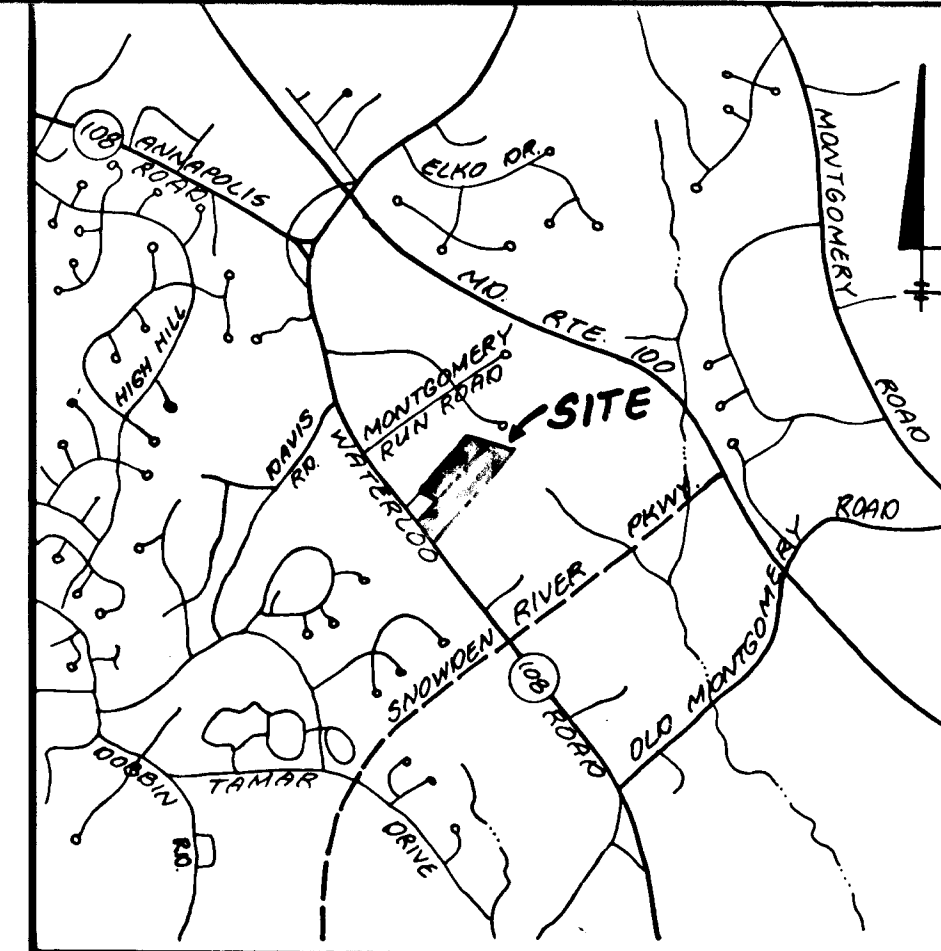
**PARKING TABULATION:**

- SINGLE FAMILY ATTACHER: 51 UNITS
- PARKING PROPOSED: 102 SPACES
- A. GARAGE UNITS: 51 x 2 SPACES/UNIT = 102 SPACES (1 SPACE IN GARAGE, 1 SPACE IN DRIVEWAY)
- B. PARKING RATIO: 2.0 SPACES/UNIT, PROVIDE 36' WIDTH PUBLIC ROAD

**NOTES: (Continued)**

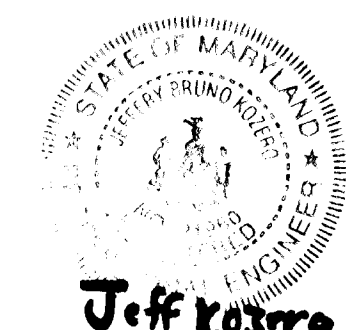
- Street lights will be required in this development in accordance with the Design Manual. Street light placement and the type of fixture and pole selected shall be in accordance with the latest Howard County Design Manual, Volume III (1993) and as modified by Guidelines for Street Lights in Residential Developments (July 1993). Minimum spacing of 20' shall be maintained between any street light and any tree.
- The Stormwater Management Facility is to be jointly maintained by the Homeowners Association and the County. The HOA will perform routine maintenance while the County will be responsible for yearly inspection, mowing once a year and correcting any structural problems that arise.
- 401 Permit #  
404 Permit #  
Application Tracking # 199540553  
Non-Tidal Wetlands # 94-NI-1049
- Retaining wall design prepared by Hillis-Corne Engineering Associates, Inc. dated July 26, 1995.
- The Forest Conservation Easement has been established to fulfill the requirements of the Howard County Code, Forest Conservation Act. No clearing, grading or construction is permitted within the Forest Conservation Easement except as shown on an approved Road Construction drawing or Site Development Plan. However, forest management practices as defined in the Code of Forest Conservation Easement are allowed.

**VICINITY MAP**



**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 shall notify the Department of Public Works/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work.
- Project Background:  
Location: Ellicott City  
Zoning: RSA-8 (Residential: Single Attached)  
ZB/BA Ref:  
Election District: First  
Section/Area:  
Total Tract Area: 7.8483 Ac. plus/minus  
Number of Proposed Lots: 52 (51 SFA, 1 OS)  
Previous Submittals: SP4-04, WP94-10, SP94-04 (Approved 5/20/94)
- 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.
- Storm drain trenches within the public road right-of-way shall be backfilled and compacted in accordance with the Howard County Standard Specifications and Details - Design Manual Volume IV.
- Any damage to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the contractor's expense.
- The existing utilities shown hereon are located from field surveys and construction drawings of record. The approximate location of existing utilities are shown for the contractor's information and convenience. The contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service.
- The topography shown herein is compiled from field run data prepared by LDE, Inc., March, 1995.
- Horizontal and vertical datums are related to the Maryland State Plane Coordinate System as projected from Howard County control stations No. 37A2 and No. 37A3.
- Public water and public sewer will be available to the site by means of extensions.  
Water: Contract No. 14-3437-10  
Sewer: Contract No. 14-3437-10
- Wetlands delineation by M. A. Dirks & Co., Inc. dated July, 1993.
- Noise study compiled for this project by Design & Development Group dated October, 1993 and approved May 20, 1994.
- Traffic study compiled for this project by O. R. George & Associates, Inc. dated October, 1993 and approved May 26, 1994.
- Geotechnical report compiled for this project by Tech Earth and Environmental dated December 20, 1994.
- This plan subject to WP94-10 on March 22, 1994. The Planning Director approved waiver Section 16.116(a)(1) and 16.116(2)(i) to permit clearing and grading within the 25 ft. wetland buffers, wetlands and 50 ft. and 75 ft. stream buffers for units 1, 21 and 22-29 and the road to serve them; 16.120(c)(4) to permit a private road for SFA units to exceed 200 ft. in length by 12 ft. and 16.119(e)(5) to not require truncation at the intersection of two public road right-of-way lines, subject to conditions and as amended and approved by the Planning Director on 6/29/95.
- The proposed sidewalks and ramps design shall be in accordance with the ADA requirements.
- 95% compaction in all fill areas shall be determined by AASHTO T-180.



**ROAD & STORM DRAIN CONSTRUCTION PLANS**  
**MONTGOMERY TOWNSHIP**  
**LOTS 1 THRU 52**  
**1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND**

**AS-BUILT**  
AS PREPARED BY:  
THE TECH GROUP, INC.  
67 KETTERING DRIVE  
UPPER MARLBORO MD 20772

"I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS."

Parcel 2  
WILLIAM F. GRAY  
5661 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410) 465-8489

Parcel 3  
BERNARD FISCHER  
5671 Waterloo Road  
Ellicott City, MD 21043

Parcel 554  
EDWARD I. GRAY, SR.  
5665 Waterloo Road  
Ellicott City, MD 21043

**OWNERS**

**LDE, INC.**  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

Designed BDB/EOS	TITLE SHEET -FOR- <b>MONTGOMERY TOWNSHIP</b> LOTS 1 THRU 52	Scale As Shown
Drawn KOW	Tax Map #37 P/O Parcel 2, Parcel 3 & 554 1st Election District Howard County, Maryland	Sheet 1 of 10
Checked BOB	Previous Submittals: 394-04, WP94-10, SP94-04	LOE Job No 95-023
Date June 1995	DEVELOPER: NORTHERN TRADING CO. 3302 N. Ridge Road, Suite 112 Ellicott City, MD 21043 Phone: (410) 465-2020	File No.

**DEVELOPER'S CERTIFICATE**  
"I 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 will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."  
Signature of Developer: [Signature] Date: 3/21/95

**ENGINEER'S CERTIFICATE**  
"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 requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as built" plan of the pond within 30 days of completion."  
Signature of Engineer: BRUCE D. BURTON Date: 11/2/95

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for Small pond construction, soil erosion and sediment control.  
Patricia English/MSD 11/17/95  
Natural Resources Conservation Service

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.  
Robert W. Zickler/MSD 11/17/95  
Howard Soil Conservation District

APPROVED: Department of Public Works for Storm Drainage Systems and Roads  
Date: 11/21/95

APPROVED: Department of Planning and Zoning  
Date: 11/22/95

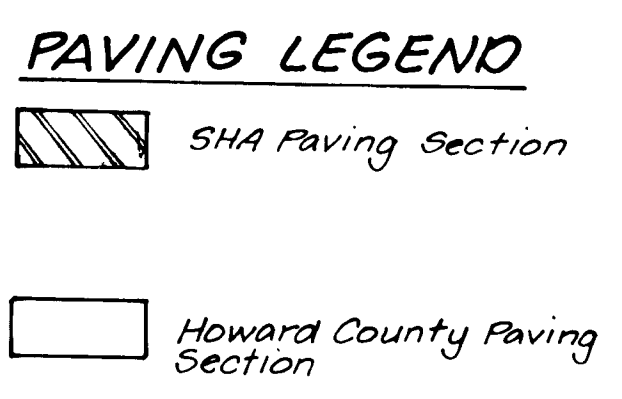
APPROVED: Department of Planning and Zoning  
Date: 11/22/95

APPROVED: Department of Planning and Zoning  
Date: 11/22/95

**SEE**

STREET SIGN LOCATION TABLE				STREET LIGHT LOCATION TABLE					
SYMBOL	STREET NAME	STATION	OFFSET	TYPE	SYMBOL	STREET NAME	STATION	OFFSET	TYPE
◆	Goldfinch Court	0+00	20' Left	R1-1 Stop Sign 30" x 30" Octagon	★	MD. RTE 108	100+27	42' Left	250 Watt HPS Vapor Fixture w/ Cut off optics mounted on a 30' High Breakaway Transformer Base Galvanized Steel Pole using 15' arm.

- NOTES:**
- For Street tree locations, see sheet 10 of 10.
  - For Storm drain profiles and structure schedule, see sheet 5 of 10. See structure schedule for storm drain locations.
  - All street lights shall be located 2 feet minimum to 4 feet maximum behind the curb. No trees shall be located within 20 feet of any street light. See detail sheet 4 of 10.
  - For detail of Noise Berm construction, see sheet 4 of 10.
  - All Community Owned Open Space lots, Recreation Areas and Landscaped Edges shall be maintained by the Homeowners Association.
  - All street lights and/or street signs shall be located 5 feet minimum from proposed drainage and utility structures.
  - Contractor shall adjust existing manhole # 7998 top to finished grade.
  - Contractor shall coordinate adjustment or relocation of existing GCE Pole # 254002 with appropriate Utility Companies. All utility poles shall be braced subsequent to and during construction.



APPROVED: Department of Public Works for Storm Drainage Systems and Roads.

*Richard M. Queller* 11/21/95  
Chief, Bureau of Highways

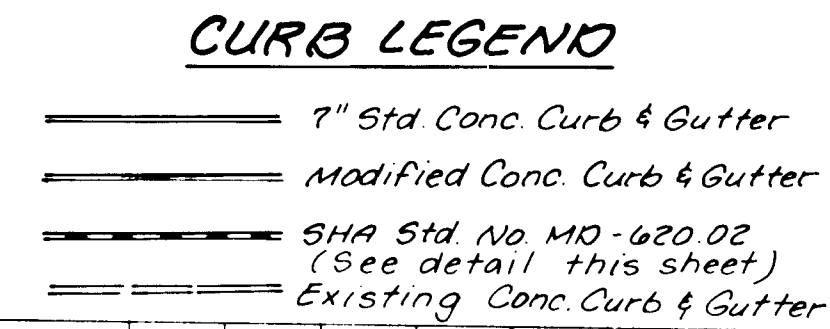
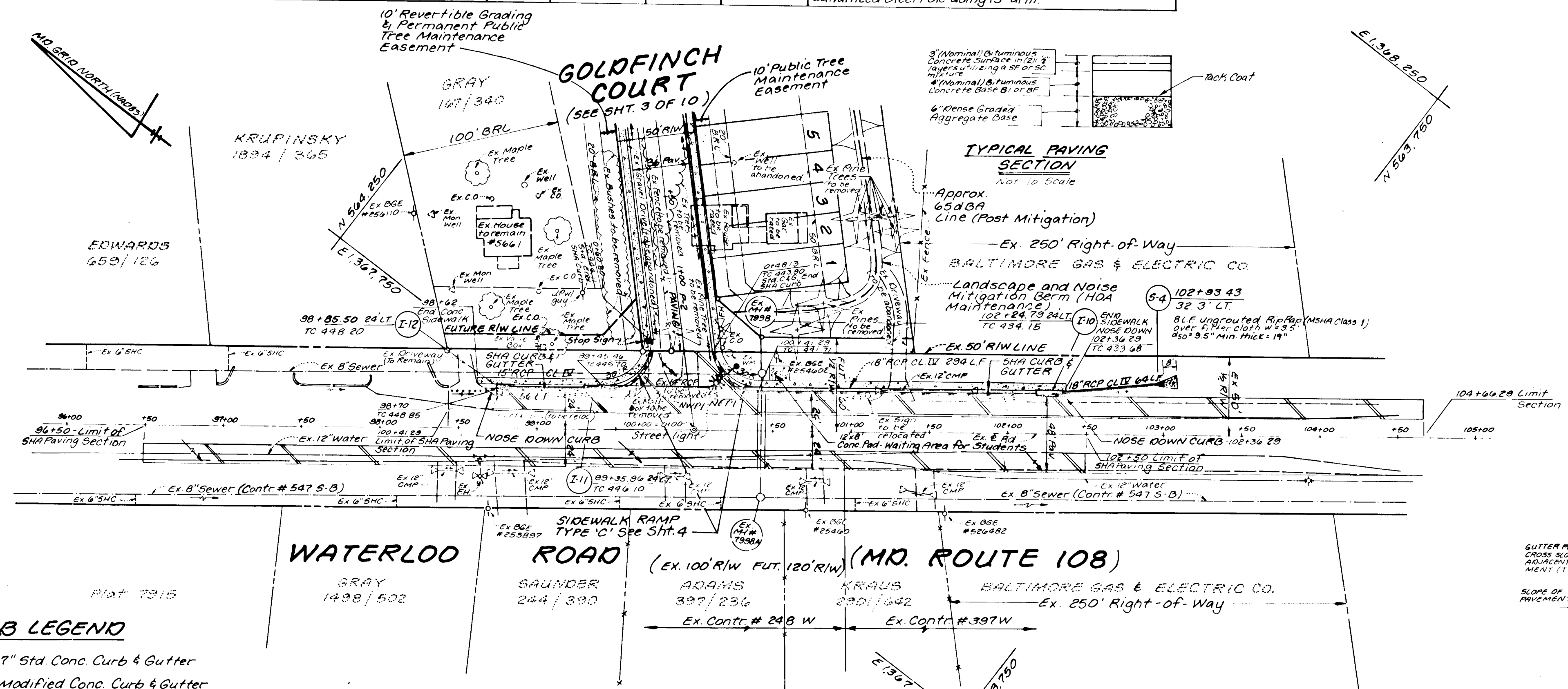
APPROVED: Department of Planning and Zoning.

*Olga Stummery* 11/21/95  
Chief, Division of Land Development and Research

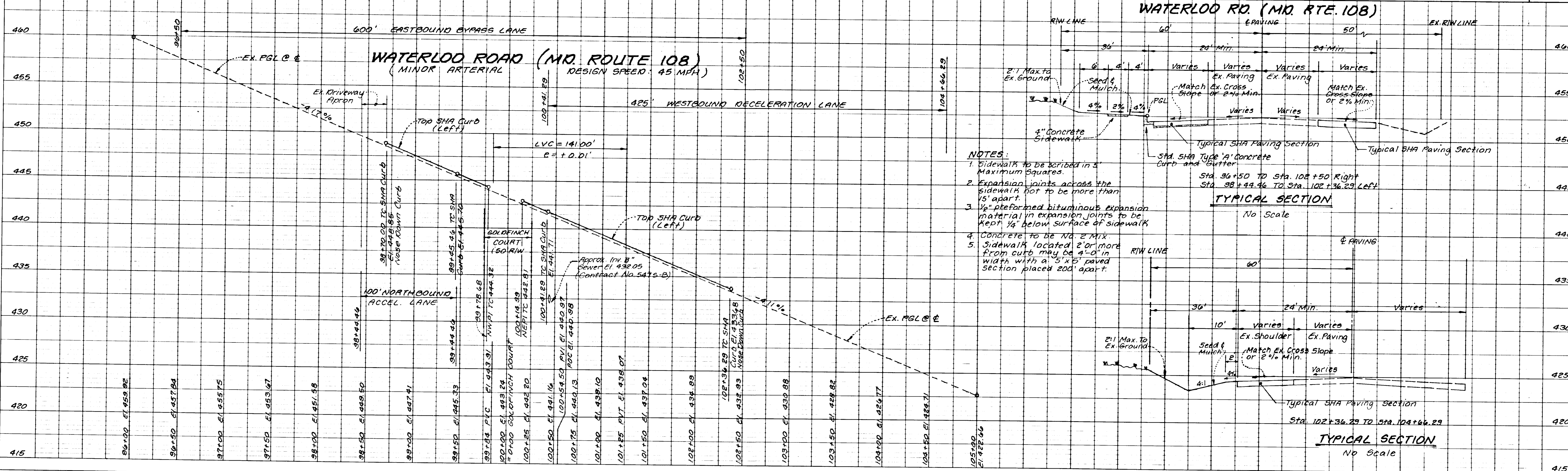
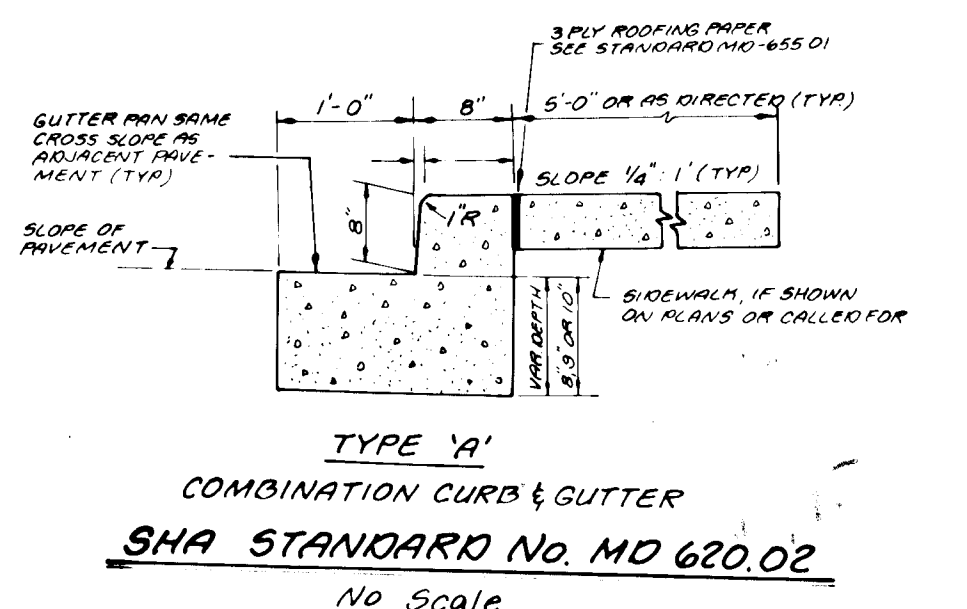
*John J. ...* 11/21/95  
Chief, Development Engineering Division

**LDE, INC.**  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

Designed: EOS	PLAN AND PROFILE <b>MARYLAND ROUTE 108 (WATERLOO RD.)</b>	Scale: As Shown
Drawn: KBW	<b>MONTGOMERY TOWNSHIP</b> LOTS 1 THRU 52	Sheet: 2 of 10
Checked: COB	Tax Map # 37 P/O Parcel 2, Parcel 3 & 554 1st Election District Howard County, Maryland Previous Submittals: 594-04, WP94-10, SP94-04	LDE Job No: 95-023
Date: June 1995	DEVELOPER <b>NORTHERN TRADING CO.</b> 3300 N. Ridge Road, Suite 112 Ellicott City, MD 21043 Phone: (410) 465-2020	File No.



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



- NOTES:**
- Sidewalk to be scribbled in 3 Maximum Squares.
  - Expansion joints across the sidewalk not to be more than 15' apart.
  - 1/2" preformed bituminous expansion material in expansion joints to be kept 1/4" below surface of sidewalk.
  - Concrete to be No. 2 MIX.
  - Sidewalk located 2' or more from curb may be 4'-0" in width with a 5' x 5' paved section placed 20' apart.

**TYPICAL SECTION**  
No Scale

**TYPICAL SECTION**  
No Scale

**PROFILE**  
Scale: 1" = 50' Horiz.  
1" = 5' Vert.

PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE  
NATIONAL PRINTING

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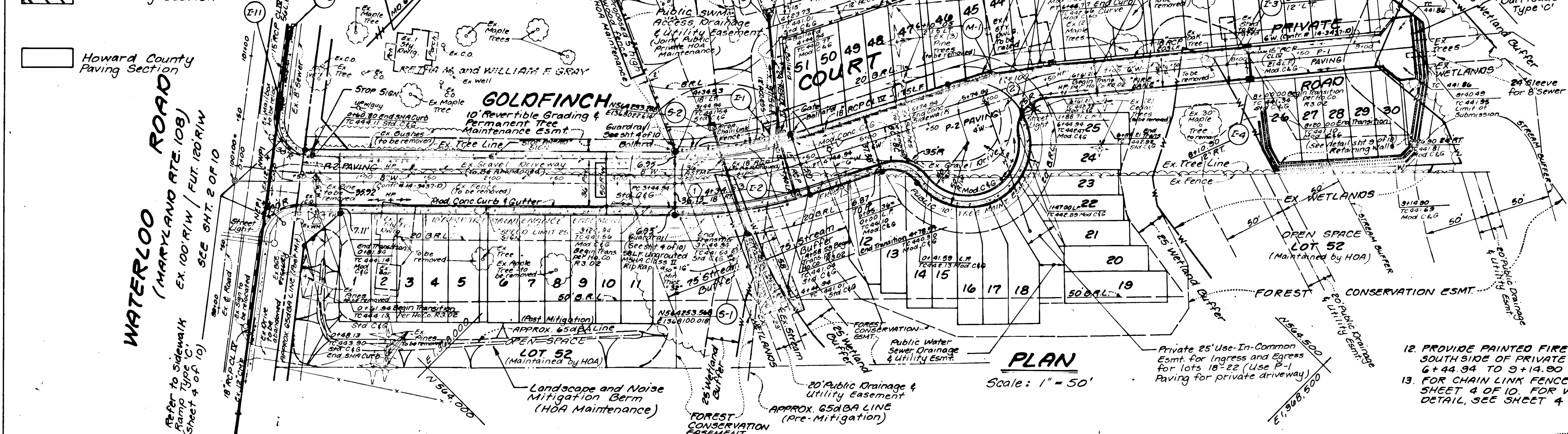
**CURVE DATA**

NO.	RADIUS	LENGTH	DELTA	TAN.	LCB	CHORD
1	314.00'	100.00'	18°07'54"	50.42	99.58 N36°18'06"E	100.00'
2	100.00'	22.16'	12°41'57"	11.13	22.12' N33°35'07"E	22.16'

**PAVING LEGEND**

SHA Paving Section

Howard County Paving Section



- NOTES:**
- FOR STREET TREE LOCATIONS, SEE SHEET 10 OF 10.
  - FOR STORM DRAIN PROFILES AND STRUCTURE SCHEDULE, SEE SHEET 5 OF 10.
  - SEE SHEET 2 OF 10 FOR WATERLOO ROAD (MD RTE. 10B) PLAN AND PROFILE.
  - ALL STREET LIGHTS SHALL BE LOCATED 2 FT MINIMUM TO 4 FEET MAXIMUM BEHIND THE CURB. NO TREES SHALL BE LOCATED WITHIN 20 FT OF ANY STREET LIGHT. SEE DETAIL SHEET 4 OF 10.
  - FOR DETAILS OF NOISE BERM CONSTRUCTION, SEE SHEET 4 OF 10.
  - ALL COMMUNITY OWNED OPEN SPACE LOTS, RECREATION AREAS, AND LANDSCAPED EDGES SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
  - ALL STREET LIGHTS AND/OR STREET SIGNS SHALL BE LOCATED 5 FT MINIMUM FROM PROPOSED DRAINAGE AND UTILITY STRUCTURES.
  - INSTALL STANDARD GUARDRAIL W/BERM (TYPE 2) GOLDFINCH COURT STA 3+50 TO STA 4+25 RIGHT AND STA 3+50 TO STA 4+00 LEFT SEE STD. DETAIL R-717.
  - INSTALL DEADEND BARRICADE (TYPE 'C') AT TERMINUS AT PRIVATE ROAD STA. 3+40.43. SEE STD. DETAIL R-712.
  - INSTALL CHAIN LINK FENCE AT PERIMETER OF STORM WATER MANAGEMENT POND. SEE DETAIL SHEET 4 OF 10.
  - SEE SHEET 9 OF 10 FOR RETAINING WALL DETAILS. CONTRACTOR SHALL PROVIDE 24" DIA. SLEEVE UNDER WALL FOR PROPOSED 8" SEWER. SEE WATER AND SEWER CONSTRUCTION DRAWINGS FOR DETAILS.
  - PROVIDE PAINTED FIRELANE CURB ON SOUTH SIDE OF PRIVATE ROAD & STA. 4+44.94 TO 5+14.80.
  - FOR CHAIN LINK FENCE DETAIL, SEE SHEET 4 OF 10. FOR WOOD FENCE DETAIL, SEE SHEET 4 OF 10.

APPROVED: Department of Planning and Zoning.

Jim Jaraman 11/21/95  
Chief, Division of Land Development and Research

APPROVED: Department of Public Works for Storm Drainage Systems and Roads.

Andrew M. Davelle 11-21-95  
Chief, Bureau of Highways

PLAN  
SUBMITTED: \_\_\_\_\_  
NOTED: \_\_\_\_\_  
DATE: \_\_\_\_\_

**CURB LEGEND**

7" Std. Conc. Curb & Gutter

Modified Conc. Curb & Gutter

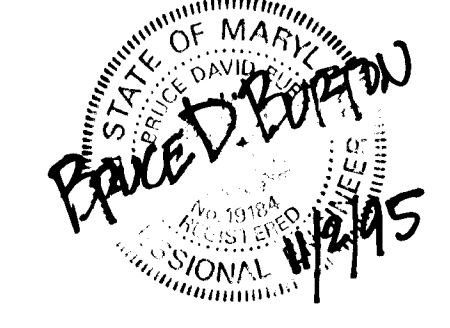
SHA Std. No. MD-620.02

**STREET SIGN LOCATION TABLE**

SYMBOL	STREET NAME	STATION	OFFSET	TYPE
■	GOLDFINCH CT	2+00	20' Left	R2-1 SPEED LIMIT 25 SIGN 20"x30" Rectangle
■	GOLDFINCH CT	0+60	20' Left	R1-1 STOP SIGN 30"x30" Octagon
■	GOLDFINCH CT	2+00	20' Right	W3-1A "STOP AHEAD" 36"x36" diamond

**STREET LIGHT LOCATION TABLE**

SYMBOL	STREET NAME	STATION	OFFSET	TYPE
*	GOLDFINCH COURT	6+31	14' Right	100 Watt HPS Vapor Traditional Post Top Fixture Mounted on a 14' High Black Fiberglass Pole



LDE, INC.  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

DESIGNED: EDS  
DRAWN: KBW  
CHECKED: BOB  
DATE: June, 1995

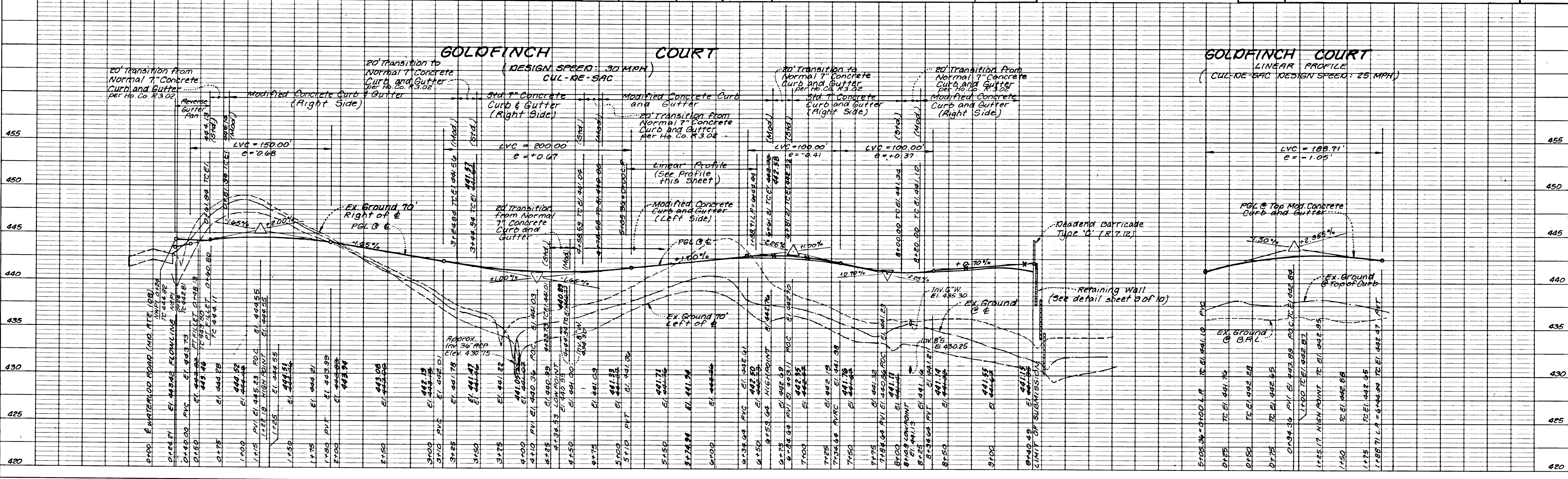
PLANNED AND PROFILE  
**GOLDFINCH COURT**  
MONTGOMERY TOWNSHIP  
LOTS 1 THRU 52

Tax Map # 37 P/O Parcel 2, Parcel 3 & 554  
1st Election District  
Howard County, Maryland  
Previous Submittals: 594-04, WP94-10, SP94-04

DEVELOPER  
NORTHERN TRADING CO.  
3300 Ridge Road Suite 112  
Ellicott City, MD 21043 Phone: (410) 465-2020

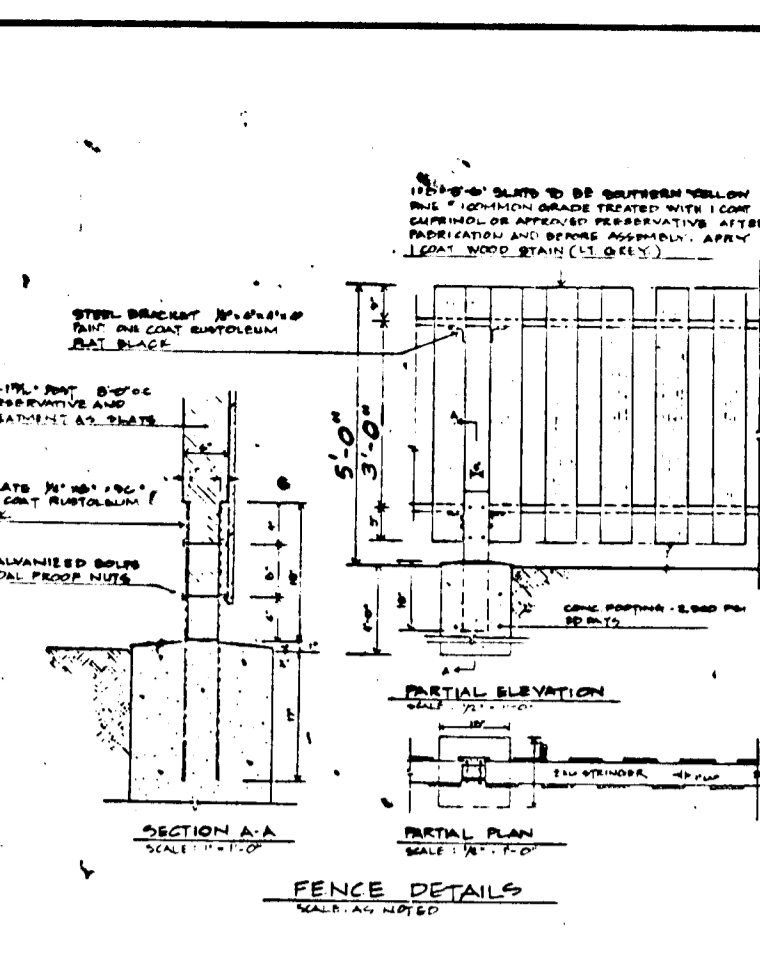
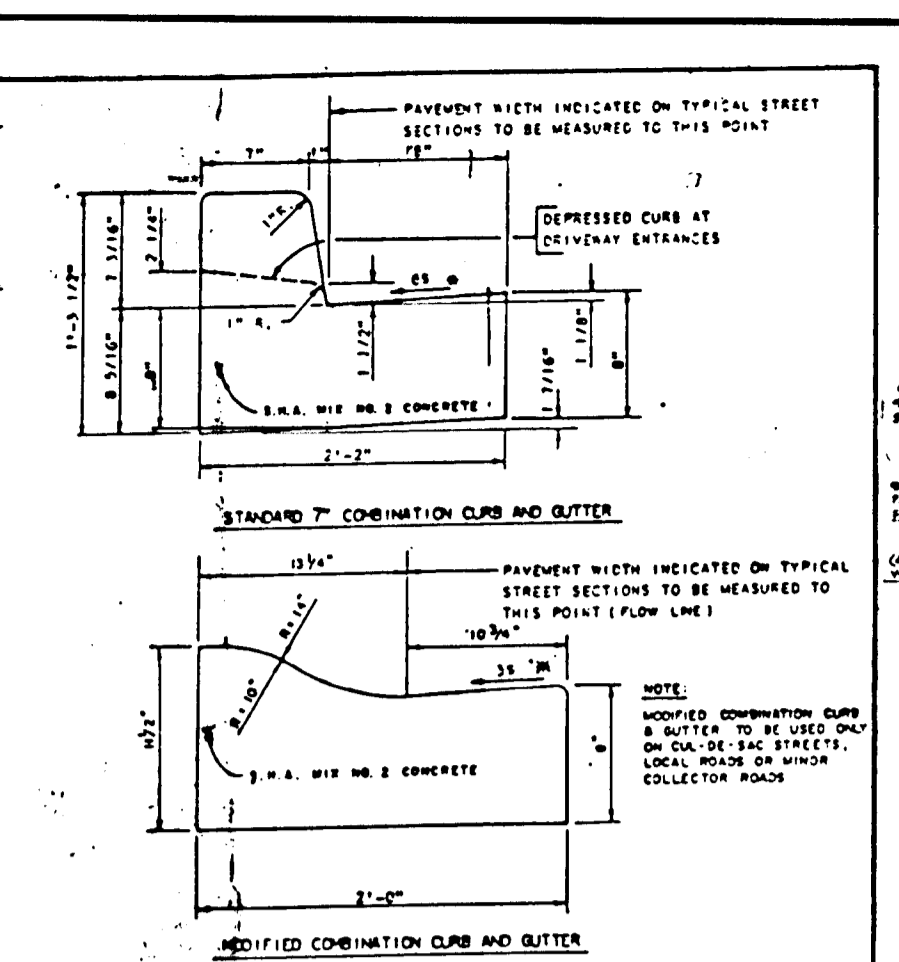
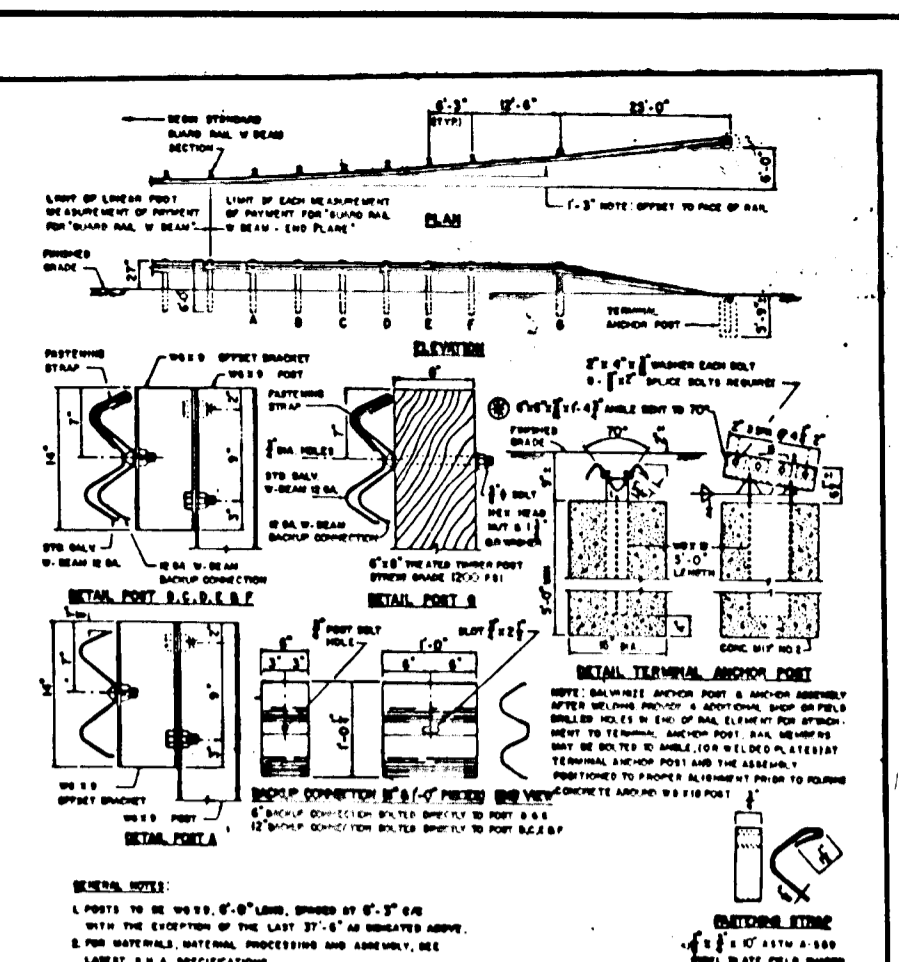
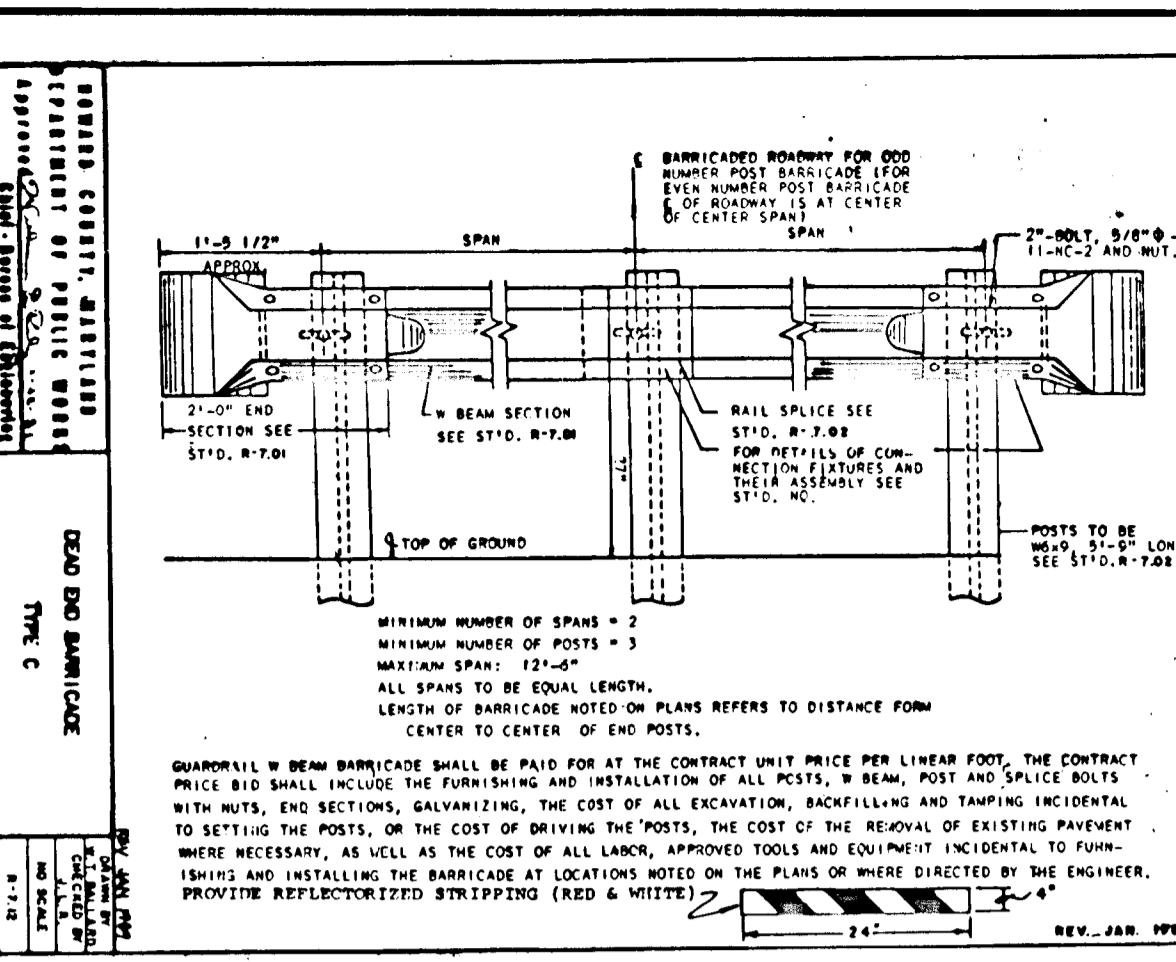
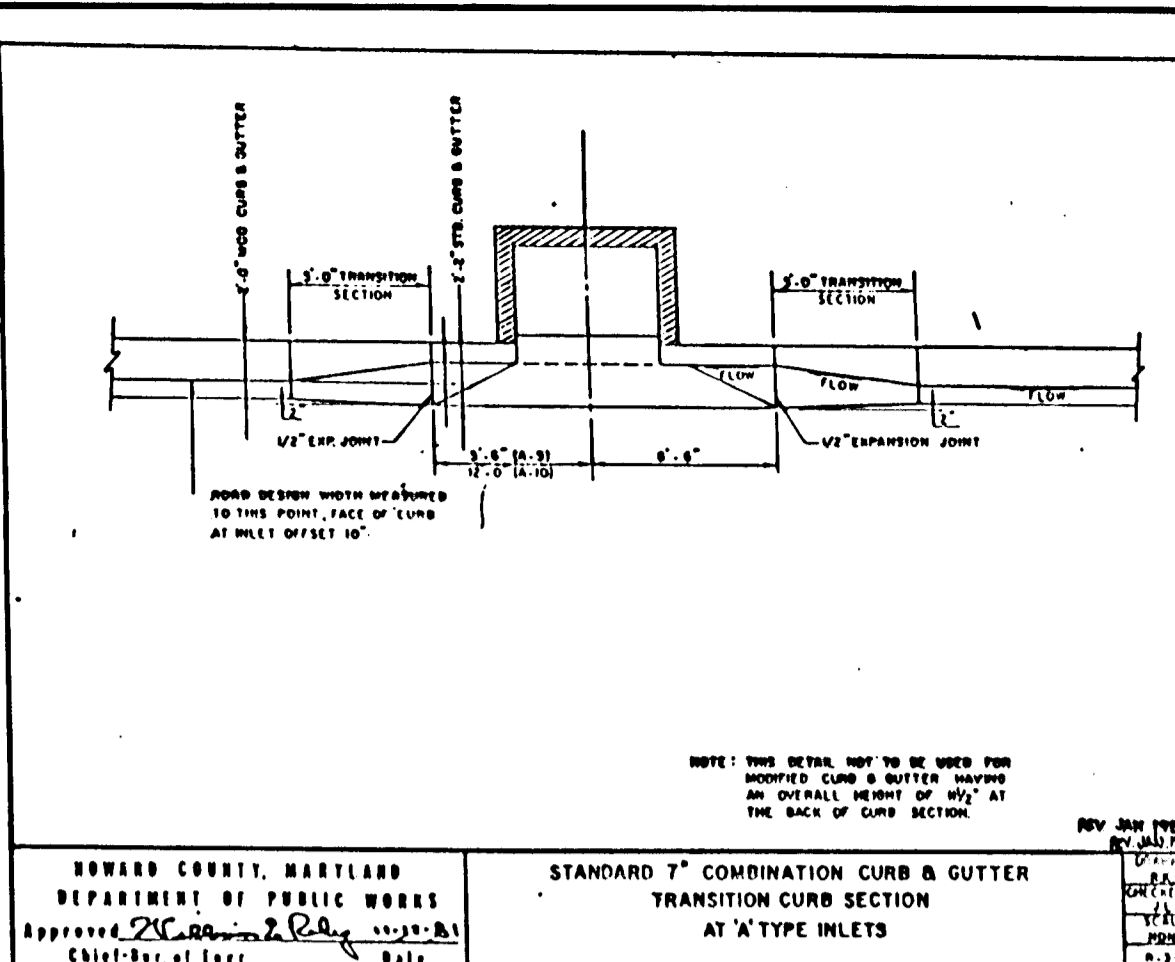
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LDE Job No: 95-023  
File No: \_\_\_\_\_

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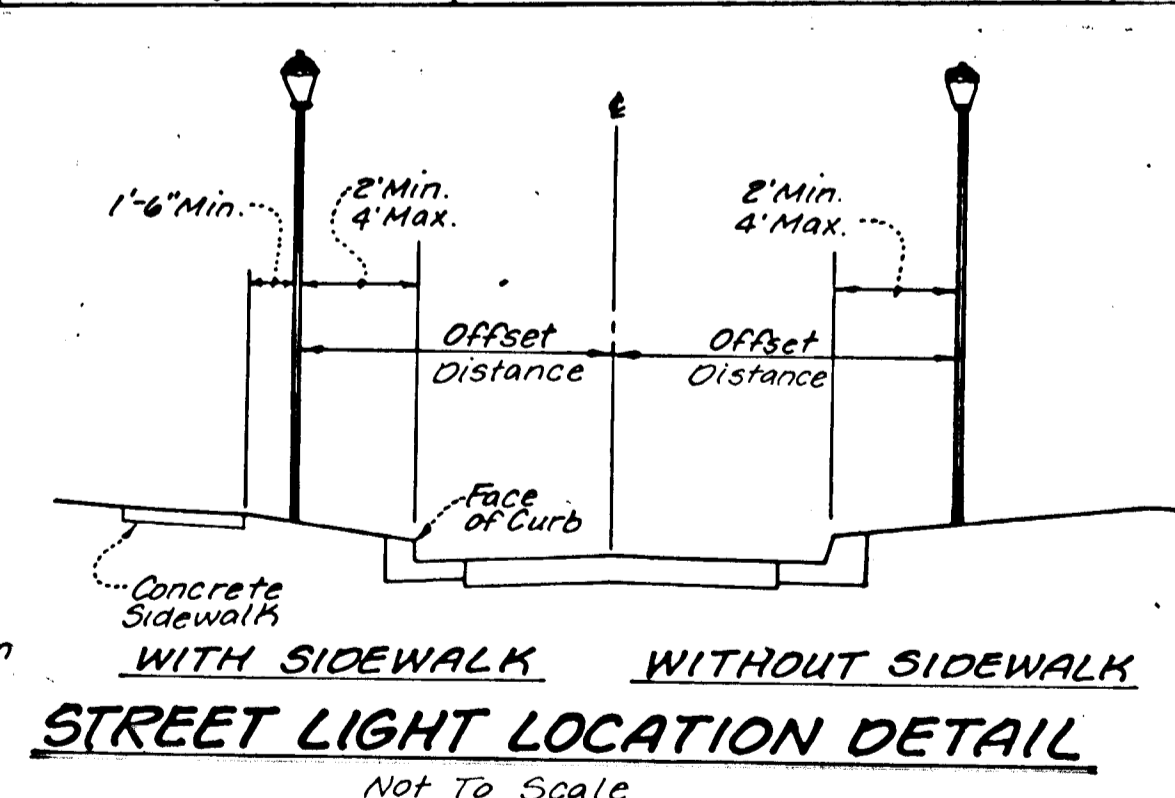
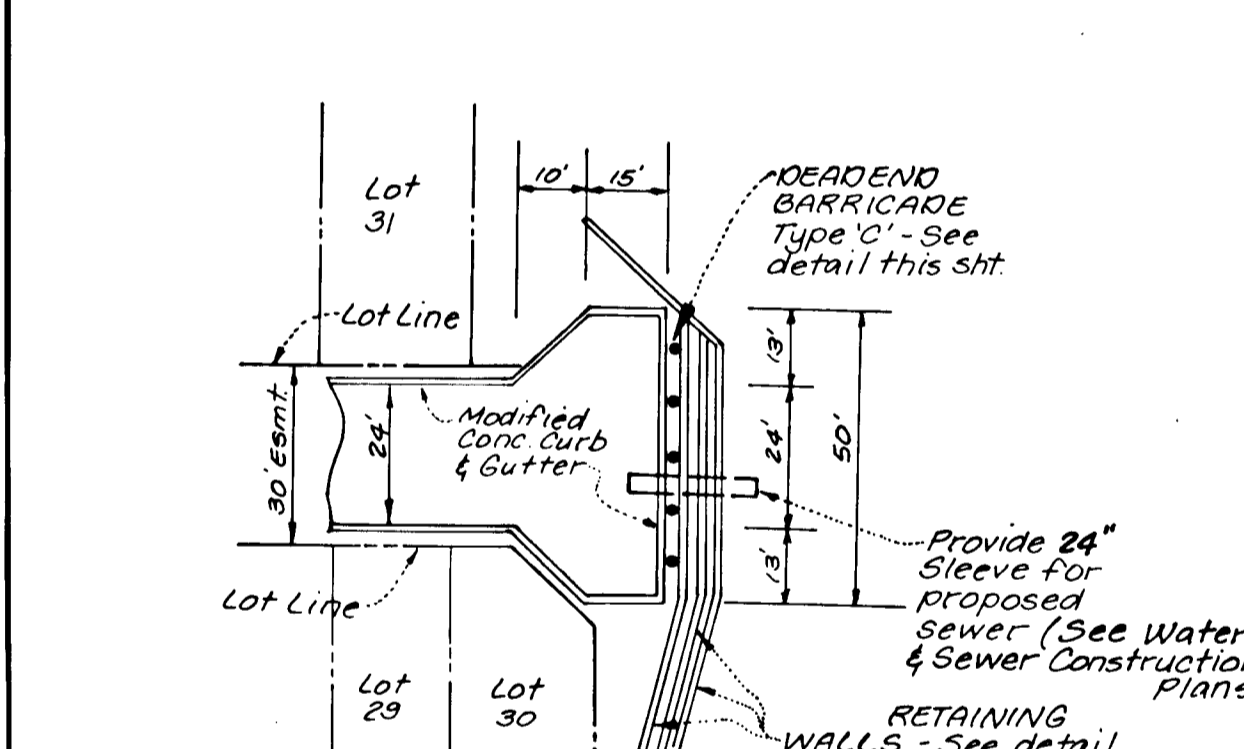
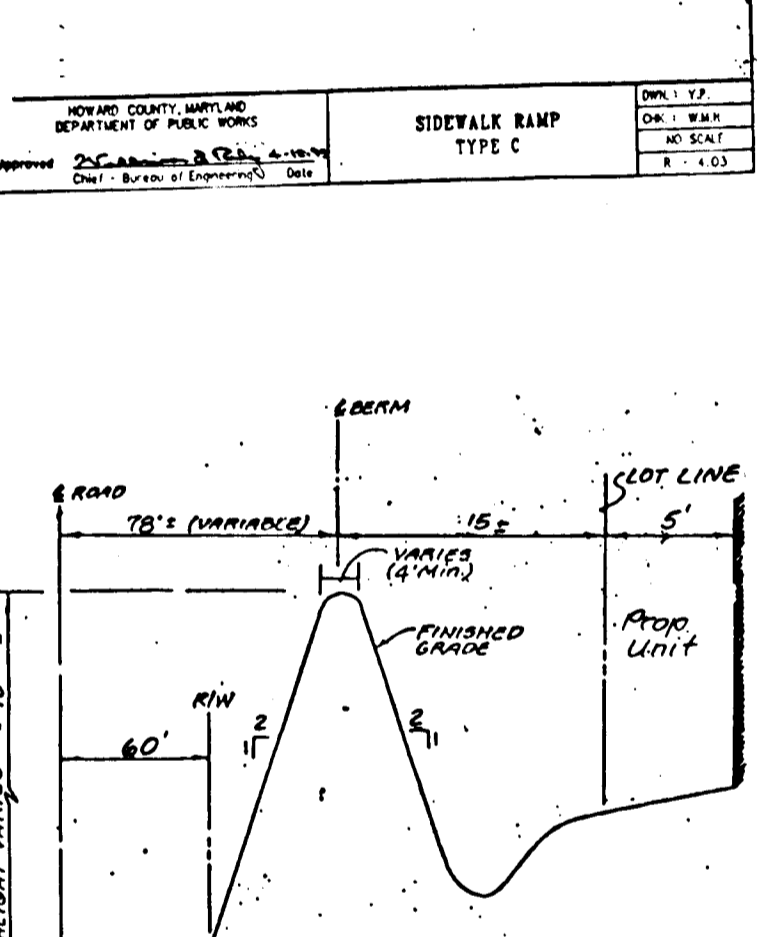
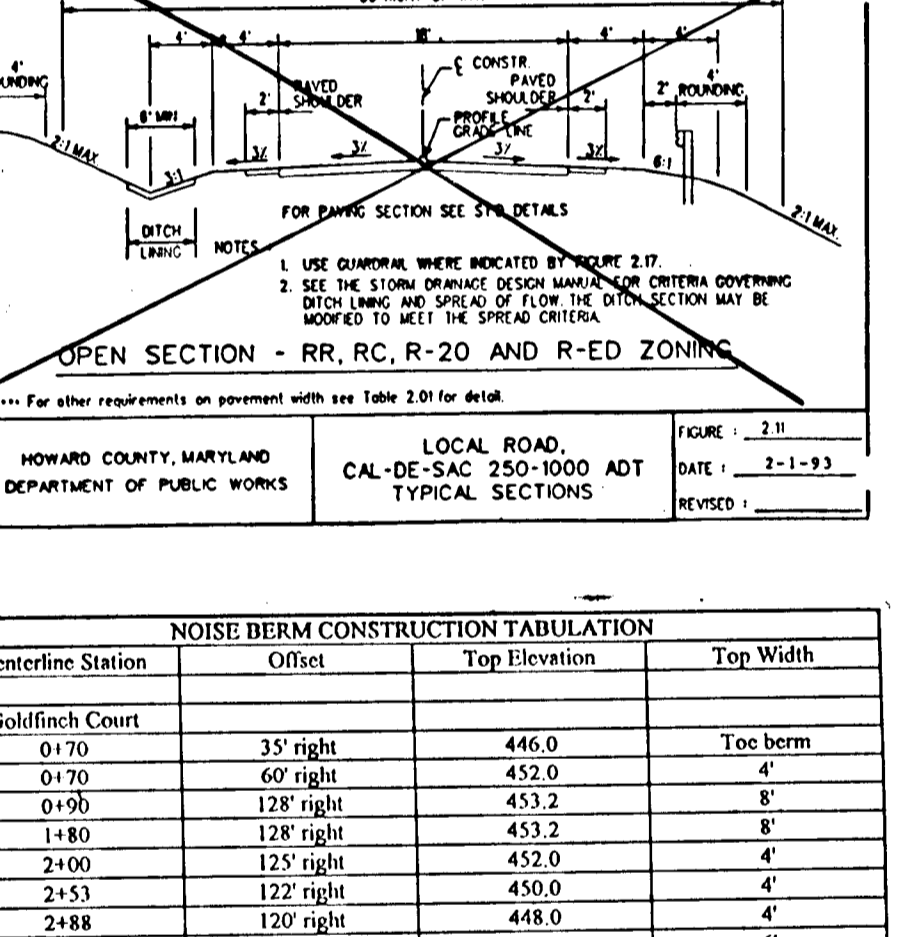
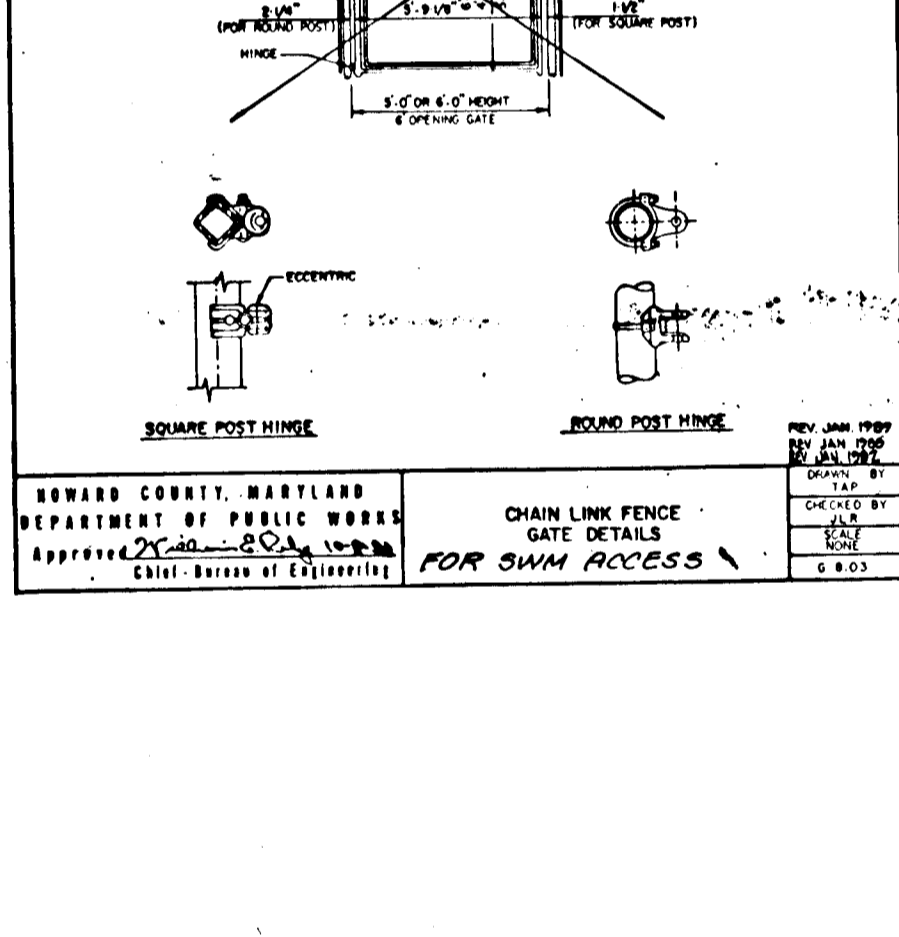
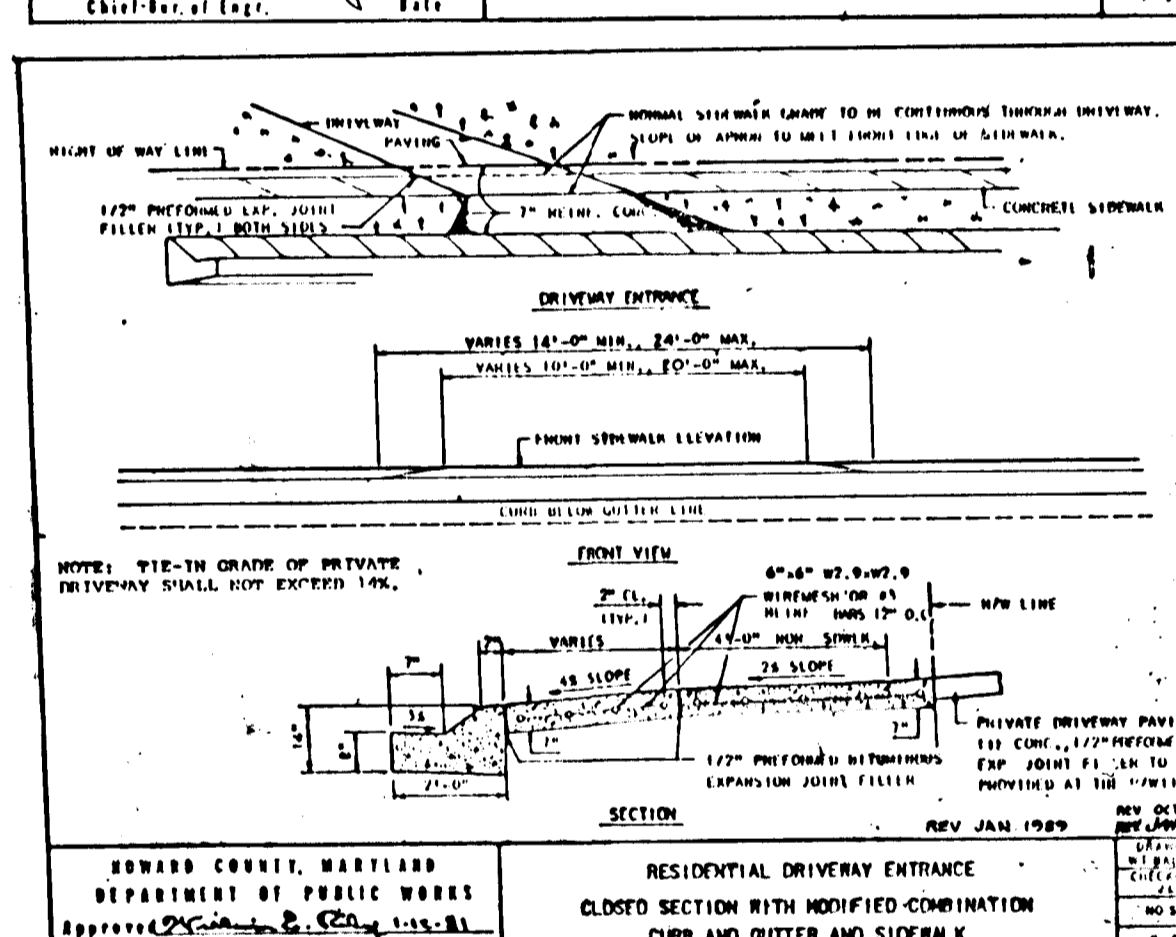
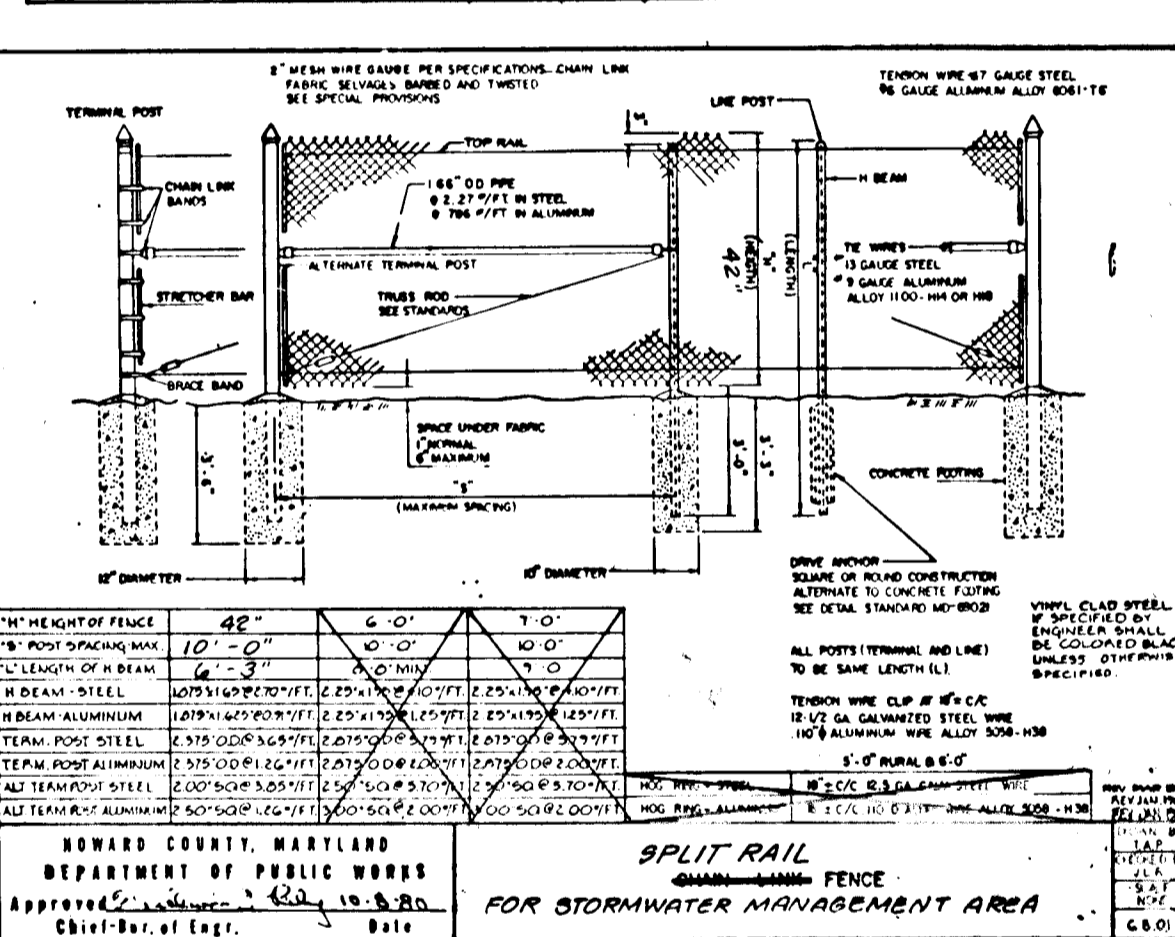
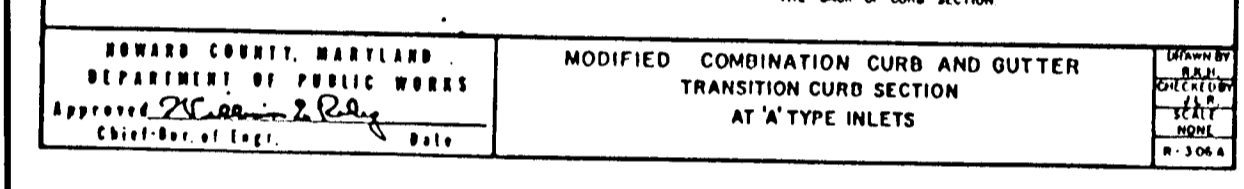
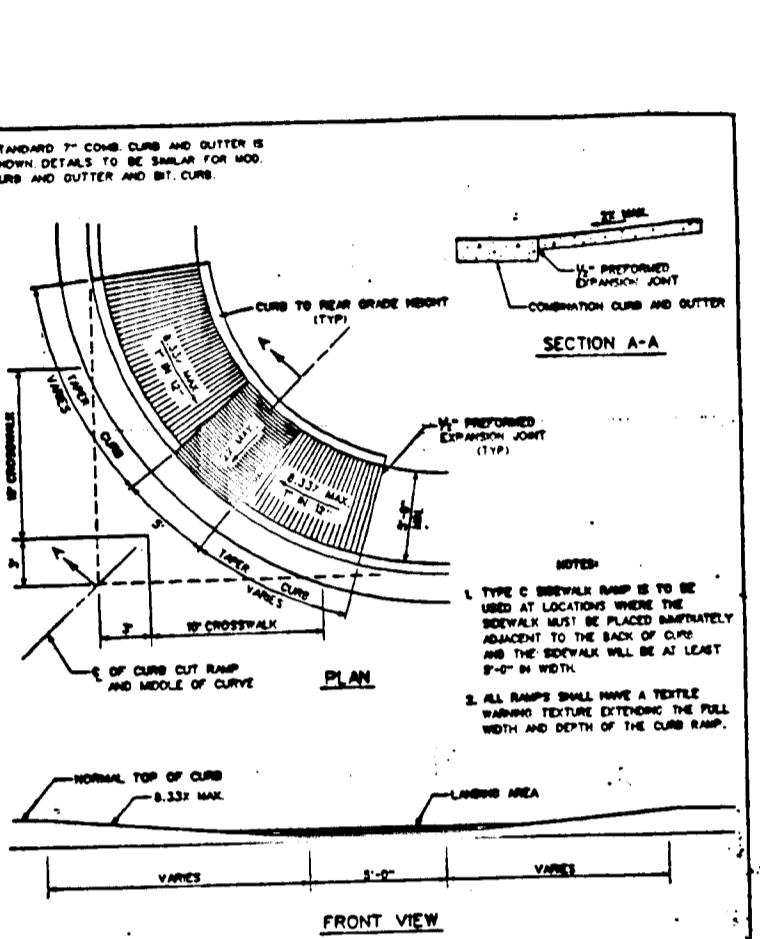
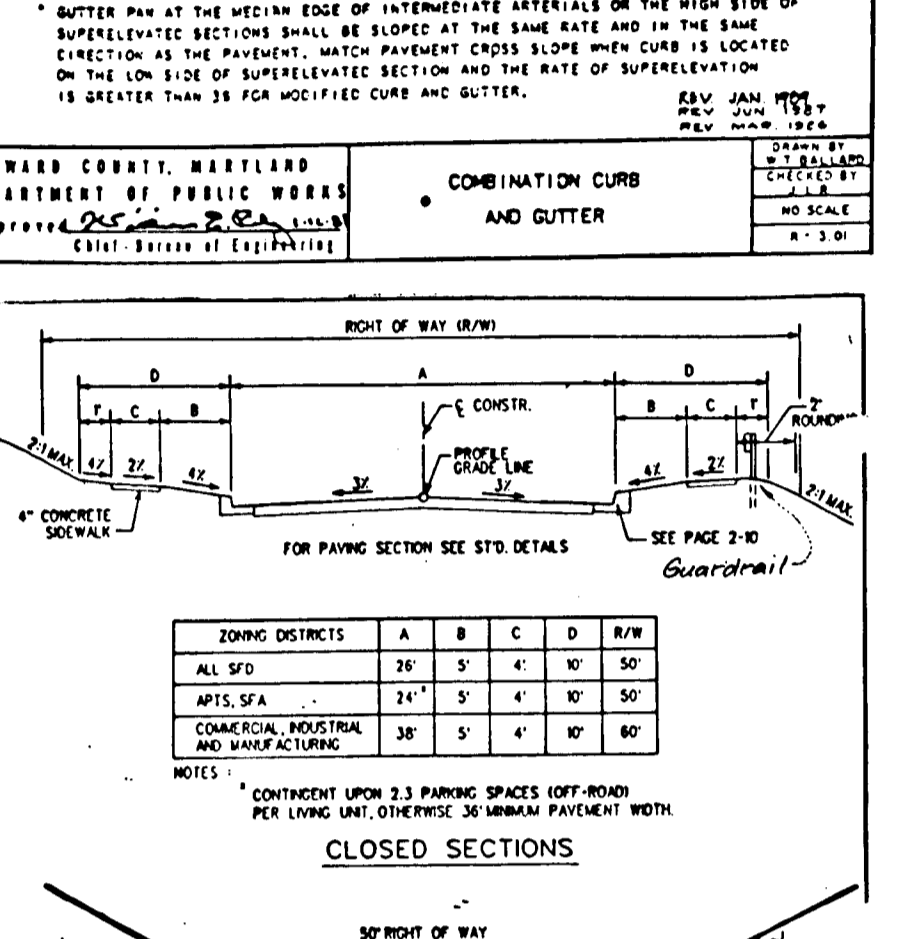
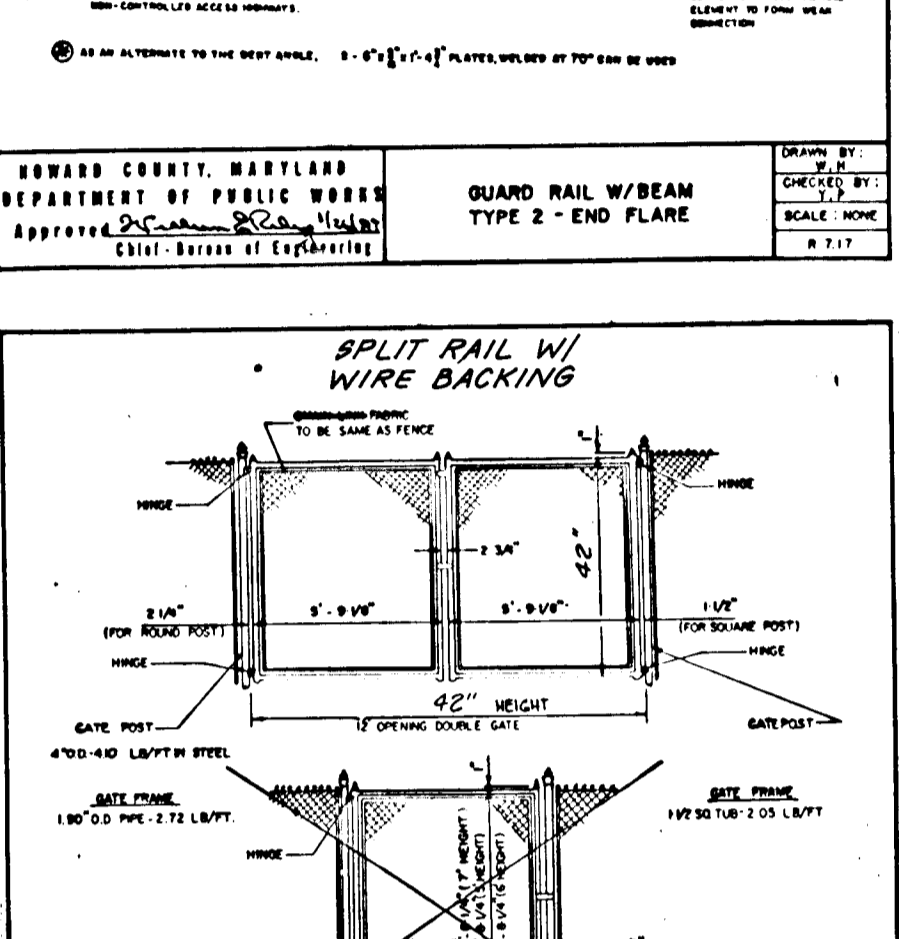
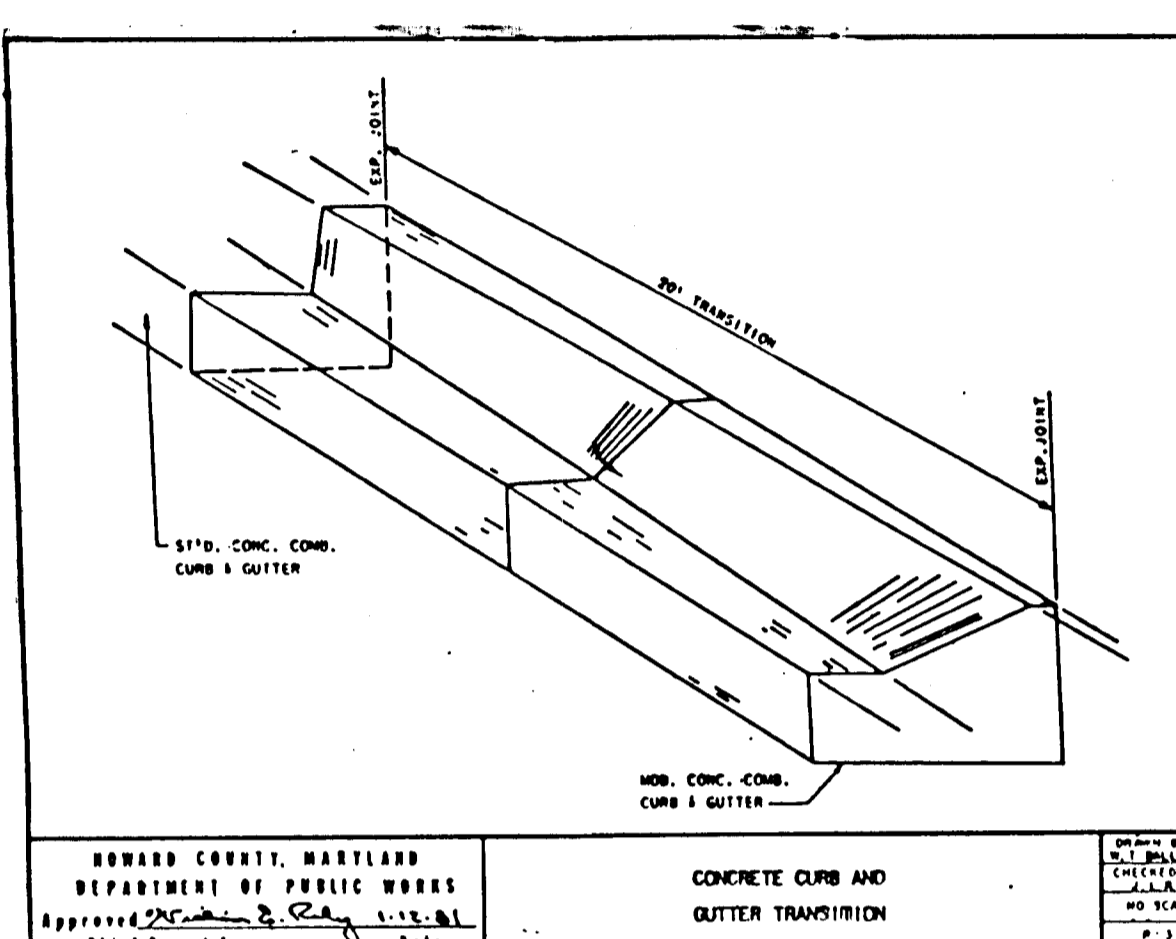
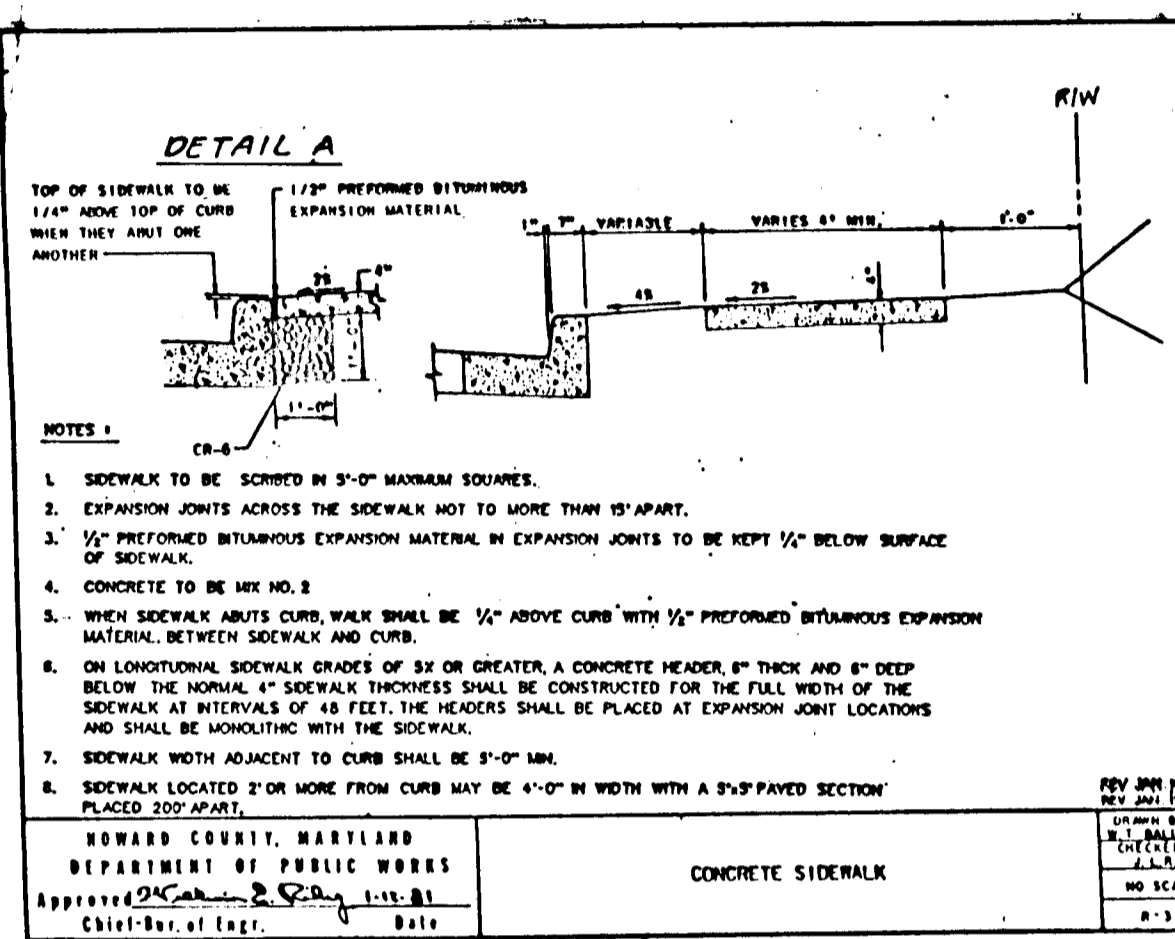
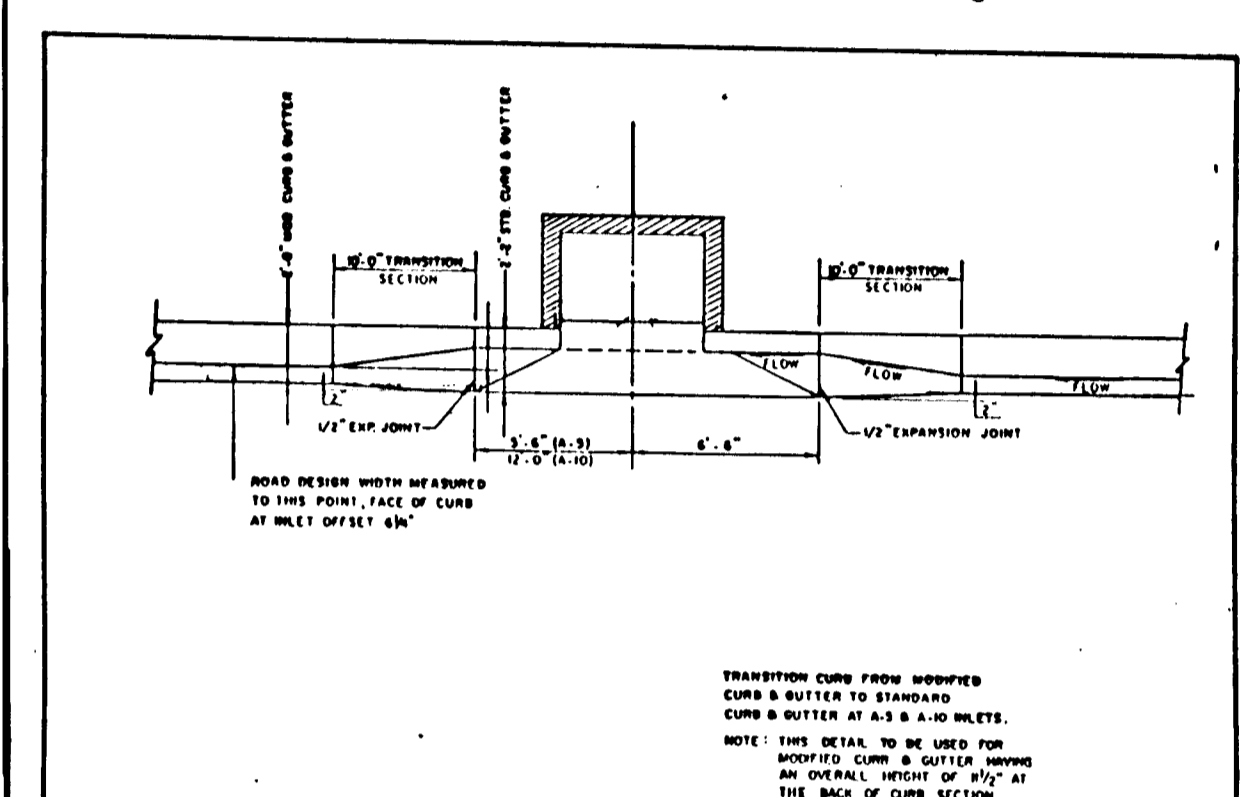


PROFILE  
SUBMITTED: \_\_\_\_\_  
NOTED: \_\_\_\_\_  
DATE: \_\_\_\_\_

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	CONCRETE CURB ALTERNATIVES
P-1	Private Driveway APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE
P-2	RESIDENTIAL ZONES LOCAL CONC. DRIVEWAYS AND PRIVATE ROADS SERVING RESIDENTIAL TRAVELERS	1 1/2" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4" BIT. CONC. BASE
P-3	RESIDENTIAL ZONES TRUNKING AND COLLECTIONS LOCAL CONC. DRIVEWAYS AND PRIVATE ROADS SERVING RESIDENTIAL TRAVELERS	1 1/2" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4" BIT. CONC. BASE
P-4	COMMERCIAL ZONES TRUCKING AND COLLECTIONS	1 1/2" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4" BIT. CONC. BASE



**\*PAVING NOTE:**  
Miscellaneous soil subgrades require the use of either of the aggregate base pavement sections as shown on the Pavement Section Tables. Either the full depth bituminous concrete section or the aggregate base pavement sections can be used for all other subgrade soils.



ROAD NAME	STA TO STA	CLASS	R/W	DES SFD	PRV SECT	ZONE	A	B	C	D
Waterloo Road	0+50 to 104+60.23	Minor Arterial	60'	45 MPH	**	RAA-B	48"	4'	4'	4'
Goldfinch Court	0+50 to 6+17	Col-de-sac	50'	30 MPH	P-2	RAA-B	36"	4'	4'	7'
Goldfinch Court	6+17 to 91+04.9	Private	30'	25 MPH	P-1	RAA-B	24"	4'	4'	3'

**DETAIL OF PRIVATE ROAD TURNAROUND**  
Not To Scale

**STREET LIGHTING NOTES:**

- All street lights shall be placed within the Country Right-of-Way.
- All street lights shall be located 2 feet minimum to 4 feet maximum behind the curb. No trees shall be located within 20 feet of any street light. No fire hydrants shall be located within 5 feet of any street light.

**DEVELOPER'S CERTIFICATE**

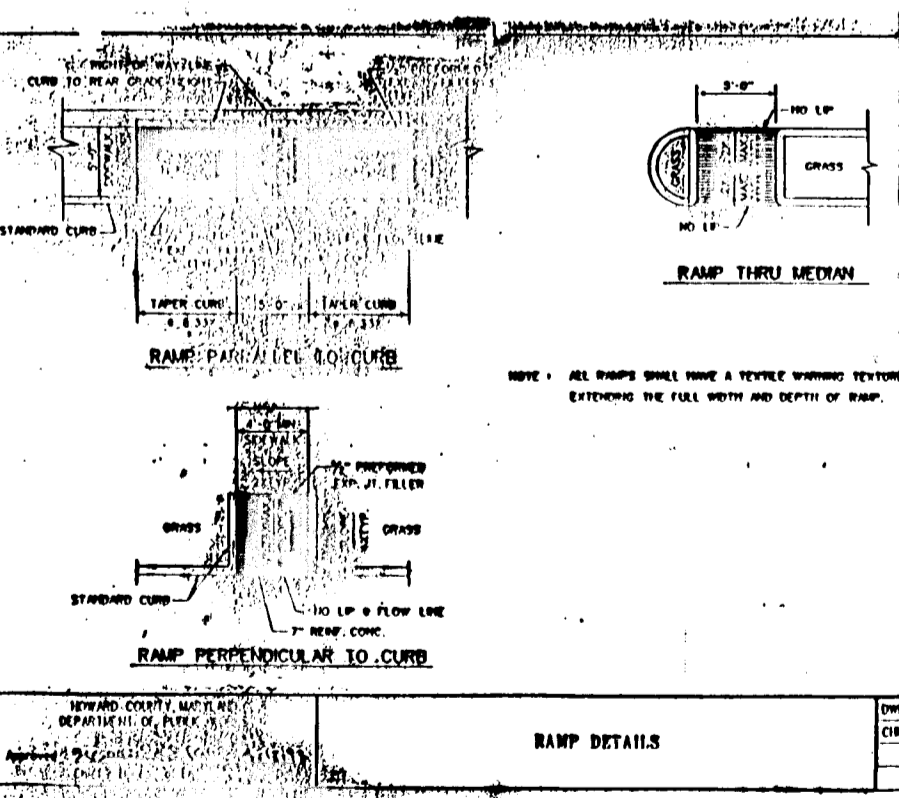
"I certify that all development and/or construction will be done according to these plans and that any responsible personnel involved in the construction project will have a Certificate of Appearance as a Department of the Environment Approved Training Program for the control of sediment and erosion before beginning the project. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*Signature of Developer* *Date*

**ENGINEER'S CERTIFICATE**

"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 requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

*Signature of Engineer* *Date*



Centerline Station	Offset	Top Elevation	Top Width
0+70	35' right	446.0	Toe berm
0+70	60' right	452.0	4'
0+90	128' right	453.2	8'
1+80	128' right	453.2	8'
2+00	125' right	452.0	4'
2+53	122' right	450.0	4'
2+88	120' right	448.0	4'
3+08	118' right	446.0	6'
3+38	120' right	436.0	Toe berm

**OWNERS**

Parcel 2: WILLIAM F GRAY  
5661 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410) 465-8483

Parcel 3: BERNARD FISHER  
5671 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410)

Parcel 55A: EDWARD I GRAY, SR  
5665 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410)

**DEVELOPER'S CERTIFICATE**

"I 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 Appearance as a Department of the Environment Approved Training Program for the control of sediment and erosion before beginning the project. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*Signature of Developer* *Date*

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*Signature of Engineer* *Date*

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

*Signature of Engineer* *Date*

APPROVED: Department of Planning and Zoning

*Signature of Engineer* *Date*

APPROVED: Department of Planning and Zoning

*Signature of Engineer* *Date*

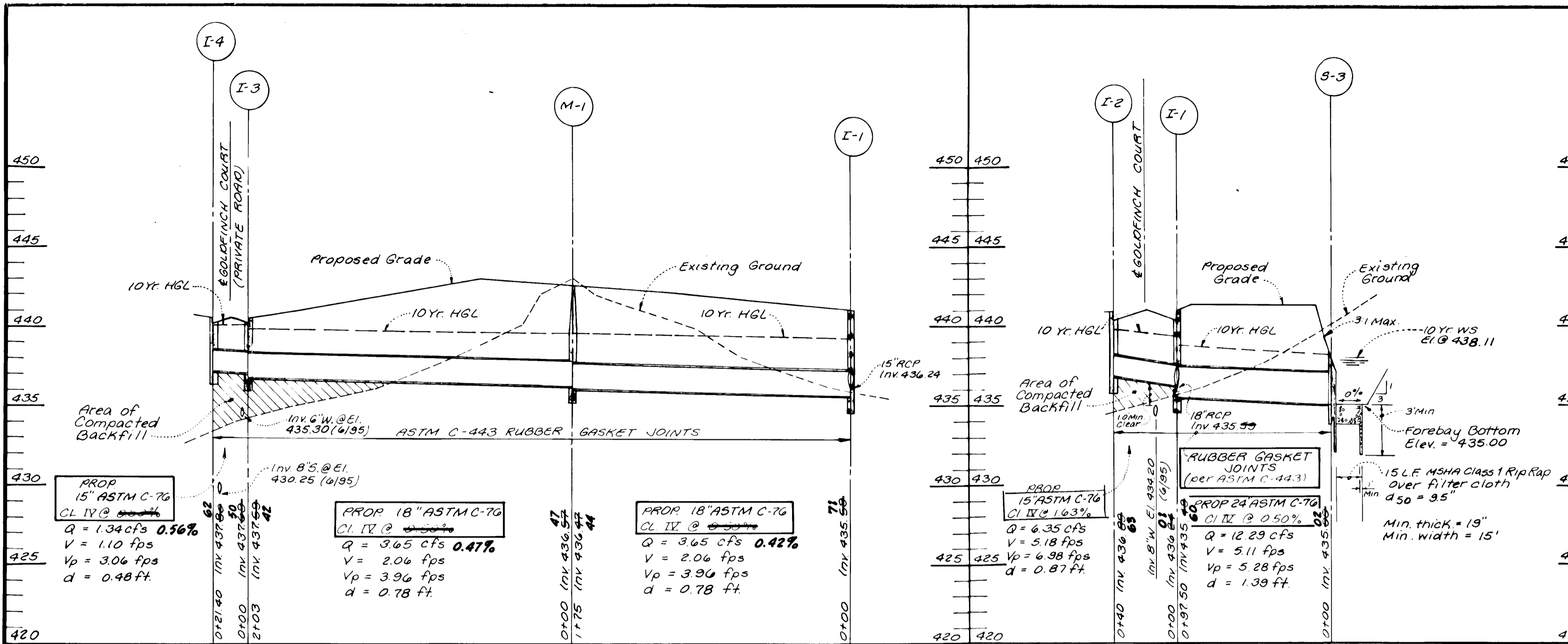
**LDE, INC.**  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

**ROAD DETAILS**  
MONTGOMERY TOWNSHIP  
LOTS 1 THRU 52

Tax Map # 97 P10 Parcel 2, Parcel 3 & 55A  
1st Election District  
Howard County, Maryland  
Previous Submittals: 894-04, WP94-10, SP94-04

**DEVELOPER**  
NORTHERN TRADING CO.  
3300 N. Ridge Road Suite 112  
Ellicott City, MD 21043 Phone: (410) 465-2020

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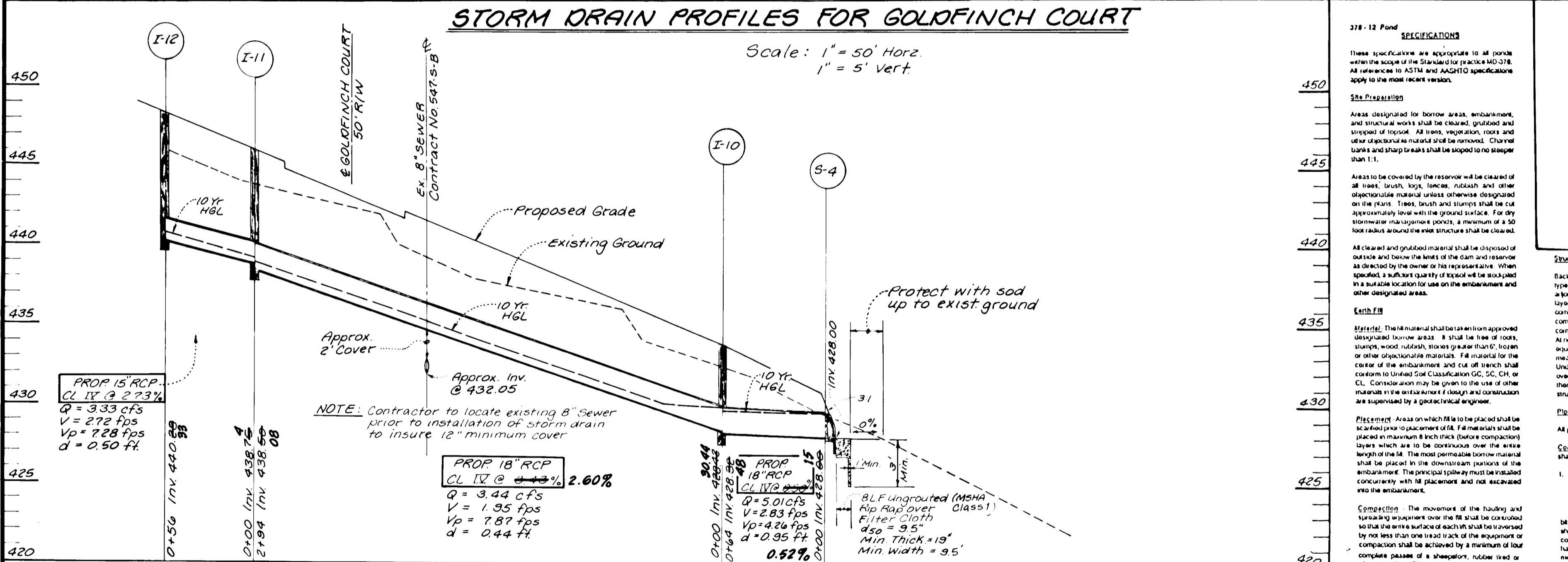
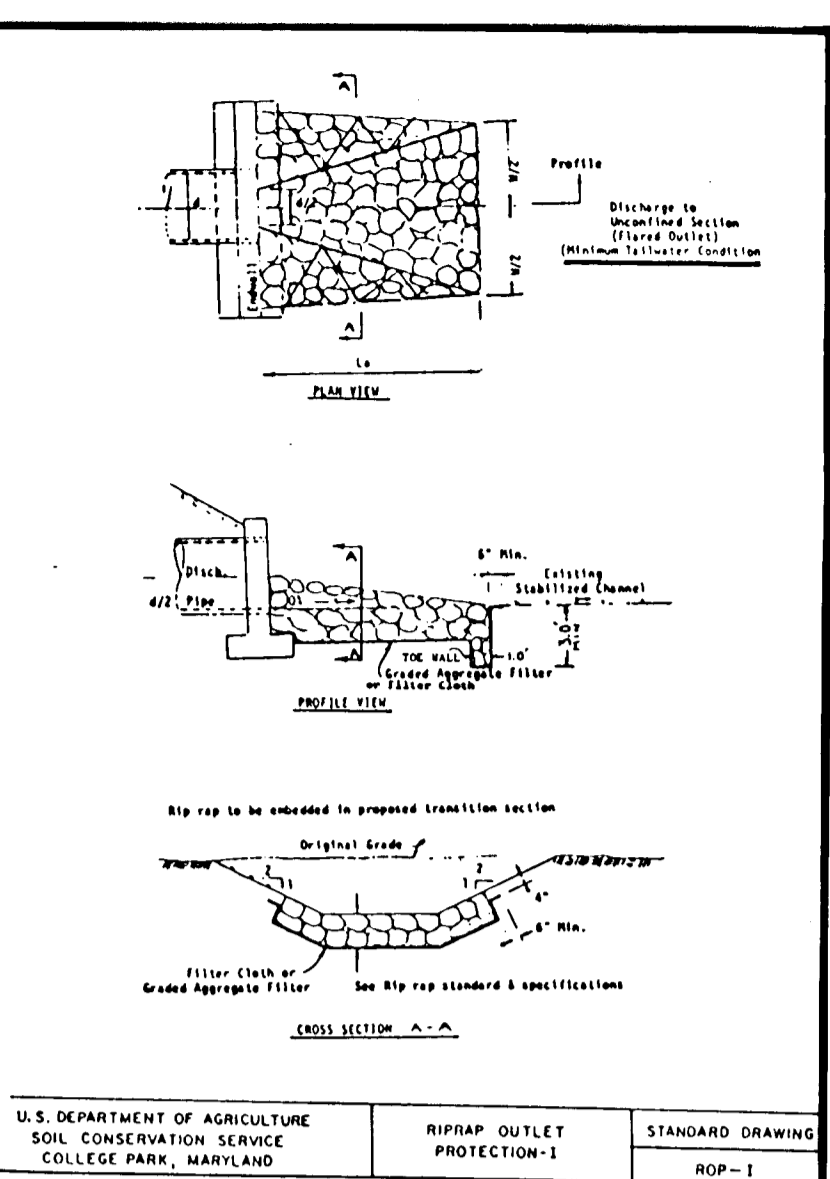


### STRUCTURE SCHEDULE

Howard County, Maryland

NUMBER	TYPE	INV. IN	INV. OUT	UPPER	LOWER	DETAIL	LOCATION
I-1	A-5	435.6071	435.4960	444.00	40.98	SD 4.40	4+34.53 SUMP, 18' LT. Goldfinch Court
I-2	A-5	437.6070	437.6069	444.00	40.81	SD 4.40	4+34.53 SUMP, 18' RT. Goldfinch Court
I-3	Type 'S'	437.6070	437.6069	440.00	40.64	SD 4.22	8+10.30 SUMP, 12' LT. Private Road
I-4	Type 'S'	437.6070	437.6069	440.00	40.70	SD 4.22	8+10.30 SUMP, 12' RT. Private Road
S-1	Type 'A' Headwall	430.6033	430.6033	Top @ 435.00		SD 5.11	N 564253.568 E 1368100.018
S-2	SWM Riser	431.6027	431.6027	Top @ 437.00	39.70	SD 5.11	N 564293.288 E 1368022.614
S-3	Type 'A' Headwall	435.6002	435.6002	Top @ 438.50		SD 5.11	N 564383.082 E 1367994.561
MH-1	Std. Manhole	436.6447	436.6447	Top @ 442.46	72	G 5.11	6+10.05, 21.5' LT. Goldfinch Court

\* Refer to Details on Sheet 7 of 10.



### BORING LOG

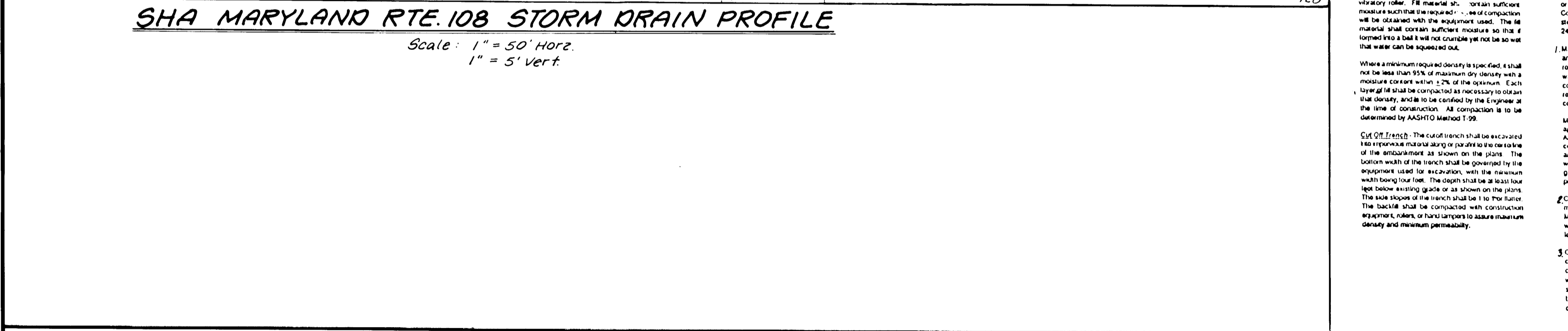
EARTH LABORATORIES, INC.

BORING NO.	DEPTH (ft)	SOIL DESCRIPTION	REMARKS
E-1	0.0 - 1.0	Topsoil with organic matter (SM)	Groundwater at 3.5 feet
	1.0 - 2.0	Black silty clay with sand (CL)	After 24 hours, water level recorded at 2.2 feet
	2.0 - 3.0	Black silty clay with sand (CL)	
E-2	0.0 - 1.0	Topsoil with organic matter (SM)	Groundwater at 3.5 feet
	1.0 - 2.0	Black silty clay with sand (CL)	After 24 hours, water level recorded at 2.2 feet
	2.0 - 3.0	Black silty clay with sand (CL)	

### BORING LOG

EARTH LABORATORIES, INC.

BORING NO.	DEPTH (ft)	SOIL DESCRIPTION	REMARKS
E-3	0.0 - 1.0	Topsoil with organic matter (SM)	Groundwater at 3.5 feet
	1.0 - 2.0	Black silty clay with sand (CL)	After 24 hours, water level recorded at 2.2 feet
	2.0 - 3.0	Black silty clay with sand (CL)	
E-4	0.0 - 1.0	Topsoil with organic matter (SM)	Groundwater at 3.5 feet
	1.0 - 2.0	Black silty clay with sand (CL)	After 24 hours, water level recorded at 2.2 feet
	2.0 - 3.0	Black silty clay with sand (CL)	



### SPECIFICATIONS

These specifications are applicable to all ponds and structures to be constructed in accordance with the Maryland State Highway Administration Standard Specifications for Construction of Structures and Materials, Section 811.2.

#### Structure Details

All pipes shall be circular in cross section.

**Materials:** All materials shall conform to the requirements of the Maryland State Highway Administration Standard Specifications for Construction and Materials, Section 811.2.

**Backfill:** All backfill shall be compacted to a minimum of 95% relative compaction.

**Construction:** All structures shall be constructed in accordance with the Maryland State Highway Administration Standard Specifications for Construction and Materials, Section 811.2.

### BORING LOG

EARTH LABORATORIES, INC.

BORING NO.	DEPTH (ft)	SOIL DESCRIPTION	REMARKS
E-5	0.0 - 1.0	Topsoil with organic matter (SM)	Groundwater at 3.5 feet
	1.0 - 2.0	Black silty clay with sand (CL)	After 24 hours, water level recorded at 2.2 feet
	2.0 - 3.0	Black silty clay with sand (CL)	
E-6	0.0 - 1.0	Topsoil with organic matter (SM)	Groundwater at 3.5 feet
	1.0 - 2.0	Black silty clay with sand (CL)	After 24 hours, water level recorded at 2.2 feet
	2.0 - 3.0	Black silty clay with sand (CL)	

#### DEVELOPER'S CERTIFICATE

"I 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 will provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: *[Signature]* Date: 3/29/95

#### ENGINEER'S CERTIFICATE

"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 must provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion."

Signature of Engineer: *[Signature]* Date: 11/2/95

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for Small Pond Construction, Soil Erosion and Sediment Control.

Signature: *[Signature]* Date: 11/14/95

APPROVED: Department of Public Works for Storm Drainage Structures and Roads.

Signature: *[Signature]* Date: 11/22/95

APPROVED: Department of Planning and Zoning.

Signature: *[Signature]* Date: 11/22/95

**LDE, INC.**

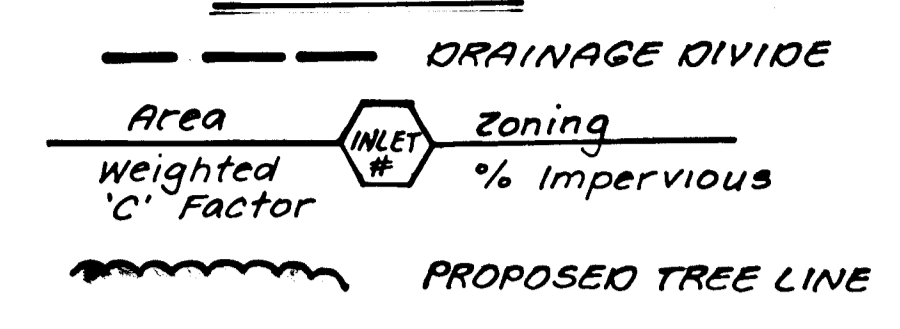
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
 (410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

Designed: ERS	STORM DRAIN PROFILES / STRUCTURE SCHEDULE	Scale: 7/8" Shown
Drawn: KBW	<b>MONTGOMERY TOWNSHIP</b>	Sheet 5 of 10
Checked: BOB	LOTS 1 THRU 52	LOE-0606 95-023
Date: June 1995	Tax Map # 37 P/O Parcel 2, Parcel 3 & 554	File No.

DEVELOPER: NORTHERN TRADING CO. 3300 N. Ridge Road Suite 112 E. 100th Cir. MD 20733 Phone 410-465-2020

17772

**LEGEND**



**MATCH LINE**  
SEE THIS SHEET



1772

**DEVELOPER'S CERTIFICATE**

"I 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 will provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature: *Chris* Date: 3/29/95

**ENGINEER'S CERTIFICATE**

"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 requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion."

Signature of Engineer: *Bruce D. Burton* Date: 11/2/95



These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Patricia Crude *Patricia Crude* 11/14/95  
Natural Resources Conservation Service

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Signature: *Robert W. Zichon* Date: 11/11/95  
Howard Soil Conservation District

APPROVED: Department of Public Works for Storm Drainage Systems and Roads.

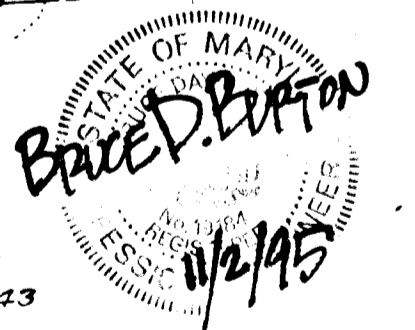
Signature: *Robert W. Zichon* Date: 11-21-95  
Chief, Bureau of Highways

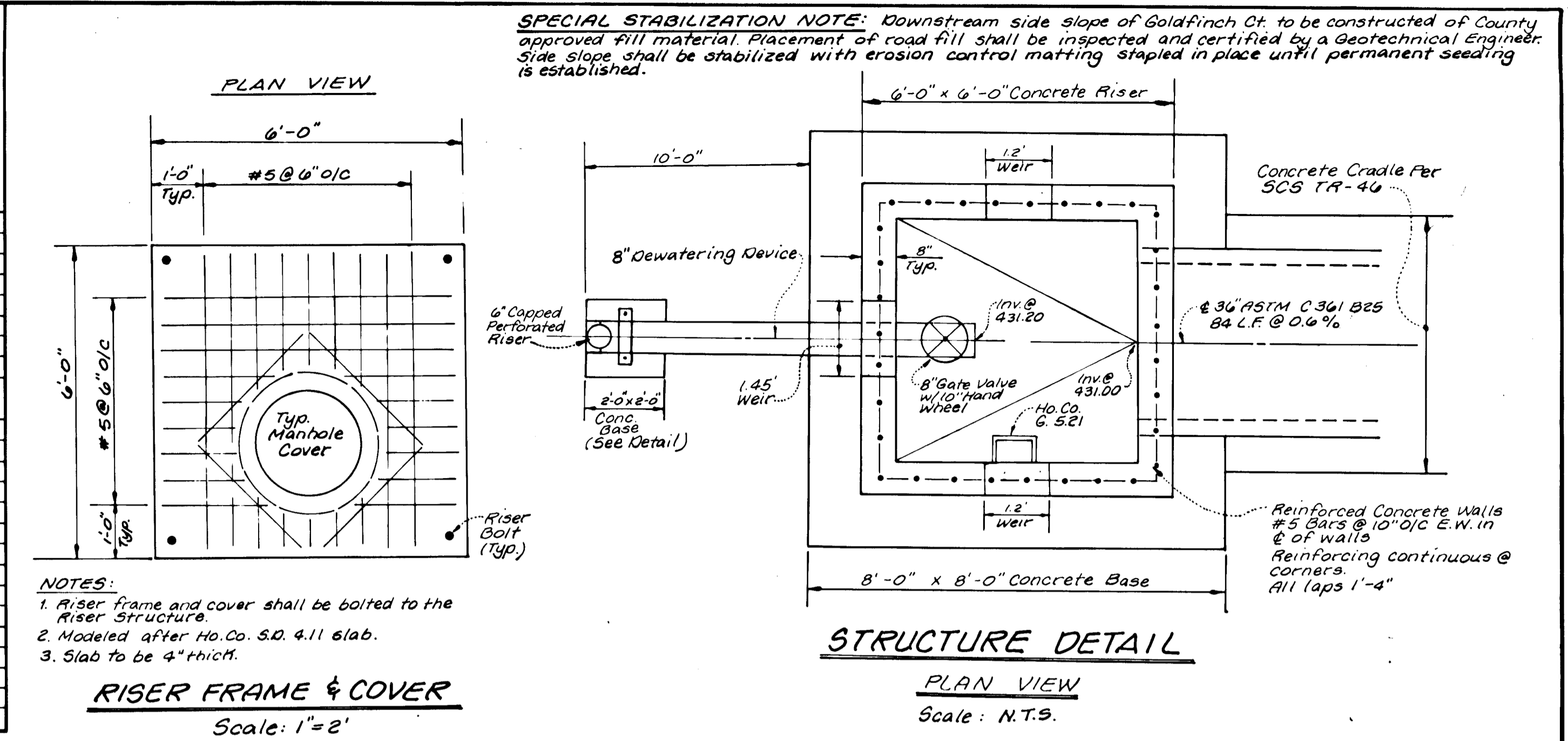
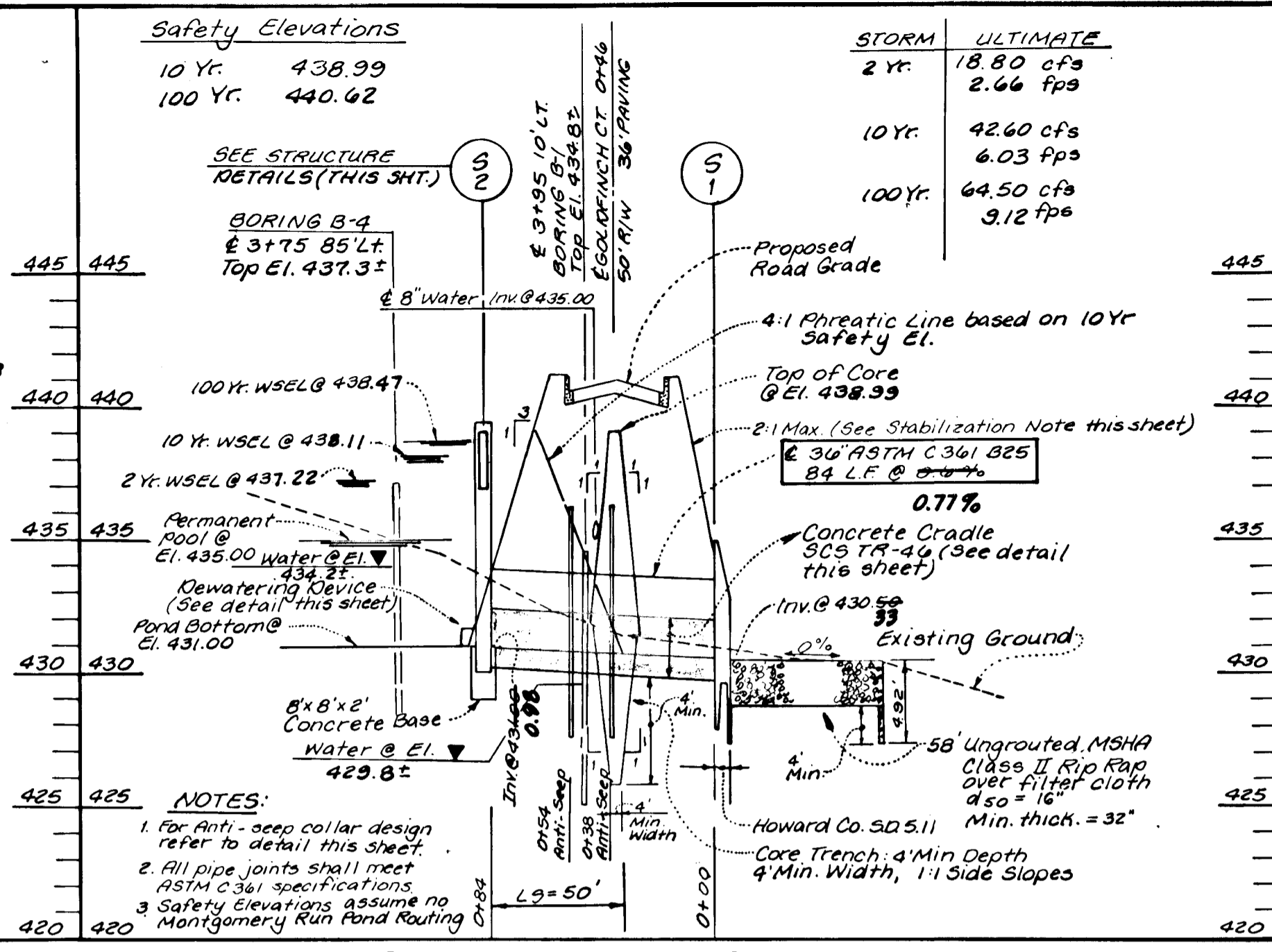
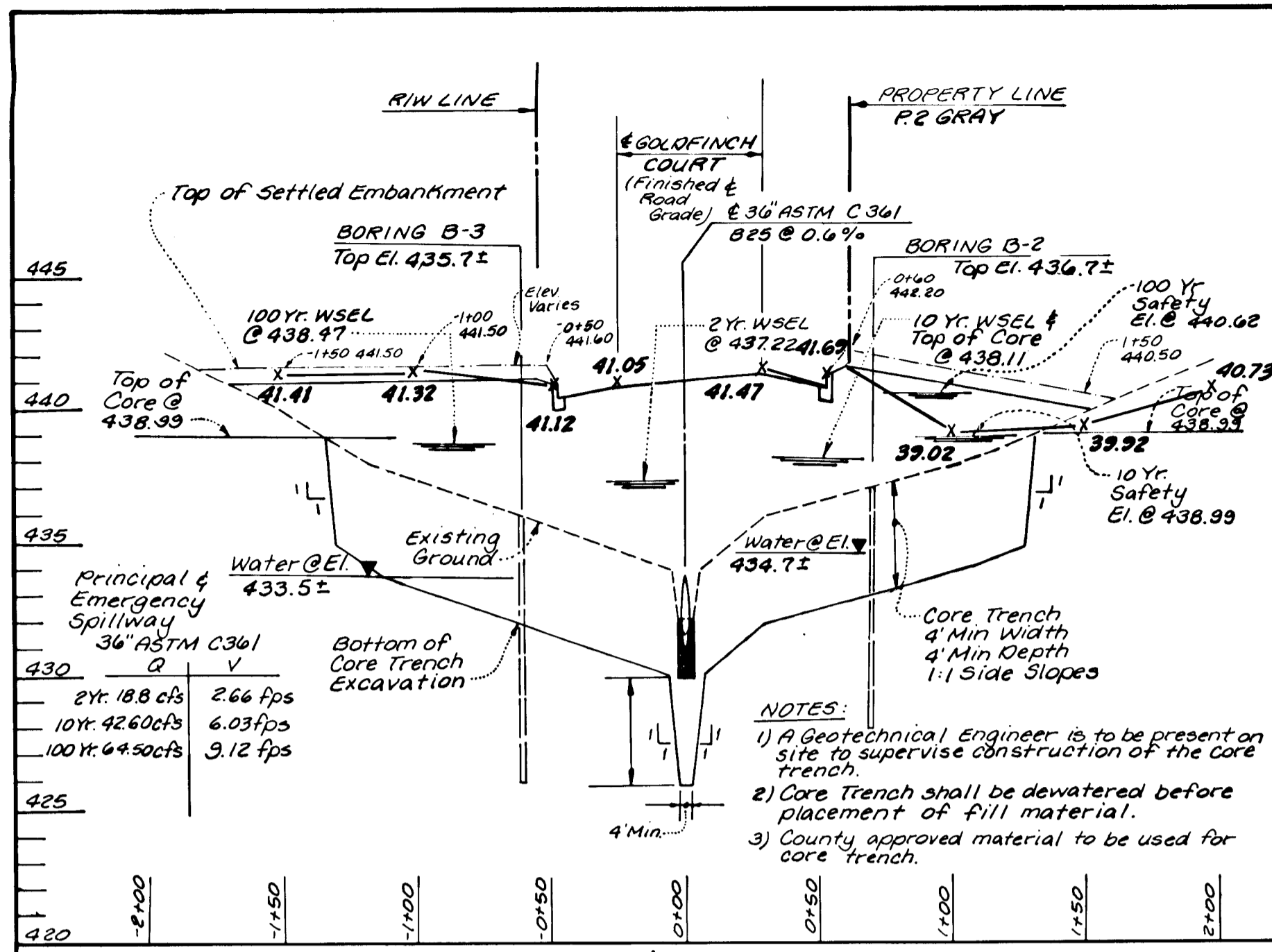
APPROVED: Department of Planning and Zoning.

Signature: *Jim Summanna* Date: 11/22/95  
Chief, Division of Land Development and Research

**LDE, INC.**  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

Designed E.D.S.	<b>DRAINAGE AREA MAP</b>	Scale 1" = 50'
Drawn ABW	<b>MONTGOMERY TOWNSHIP</b>	Sheet 6 of 10
Checked BOB	LOTS THRU 52	LOE Job No.
Date June, 1995	Tax Map # 37 P10 Parcel 2, Parcel 3 & 554 1st Election District Howard County, Maryland Previous Submittals: 594-04, W994-10, 5994-04	Title No.
	<b>NORTHERN TRADING CO.</b> 3300 N Ridge Road Suite 112 Ellicott City, MD 21043 Phone: (410) 465-2020	

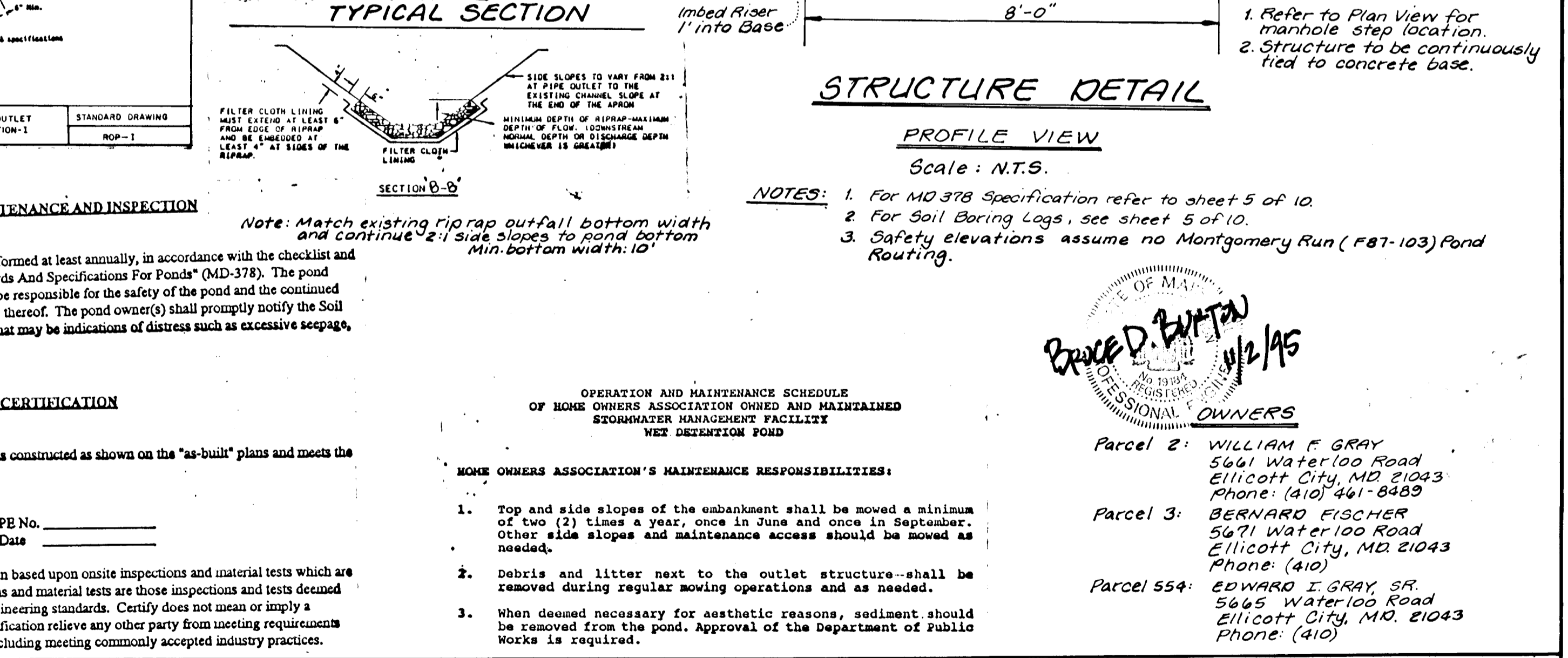
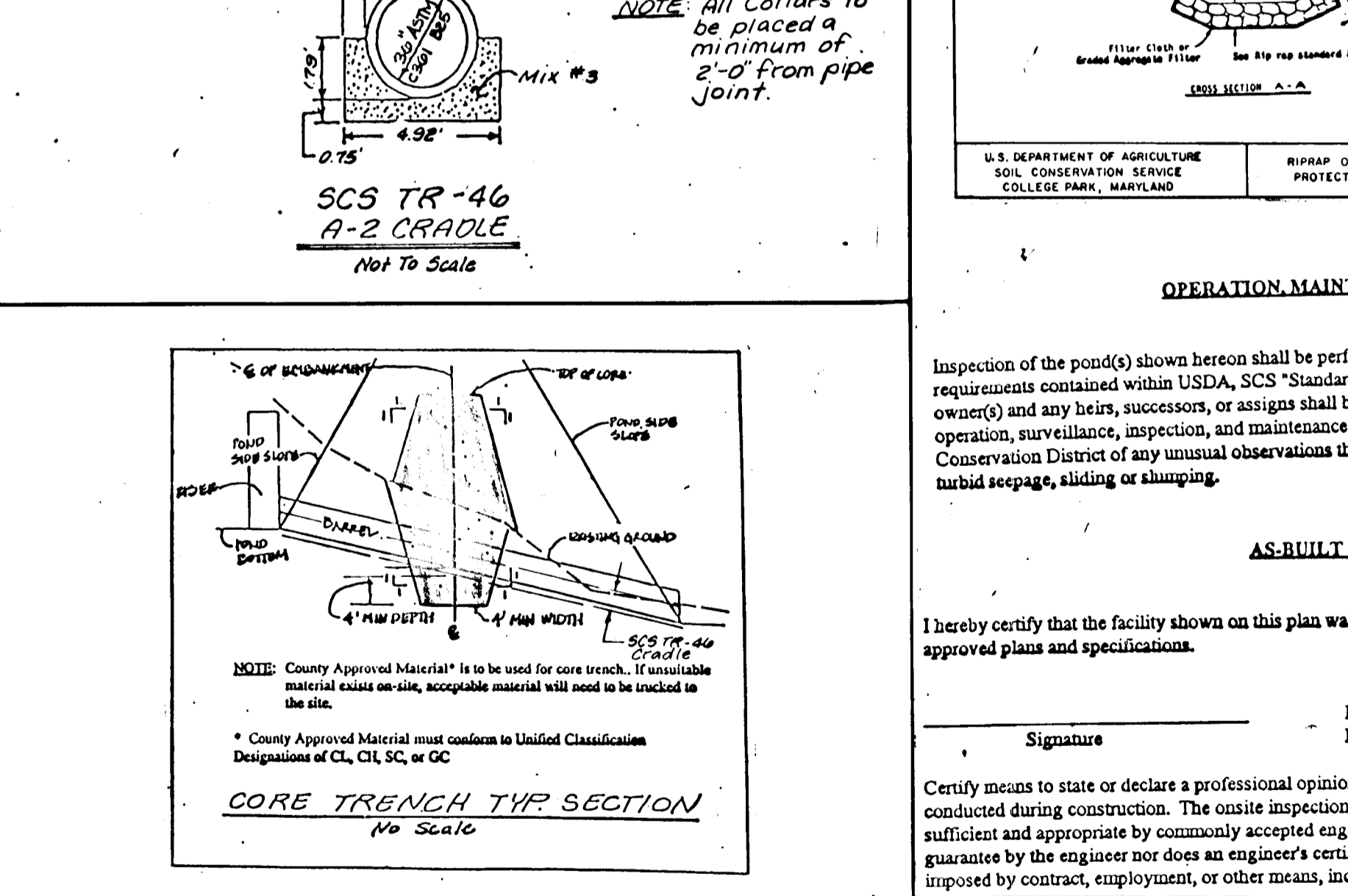
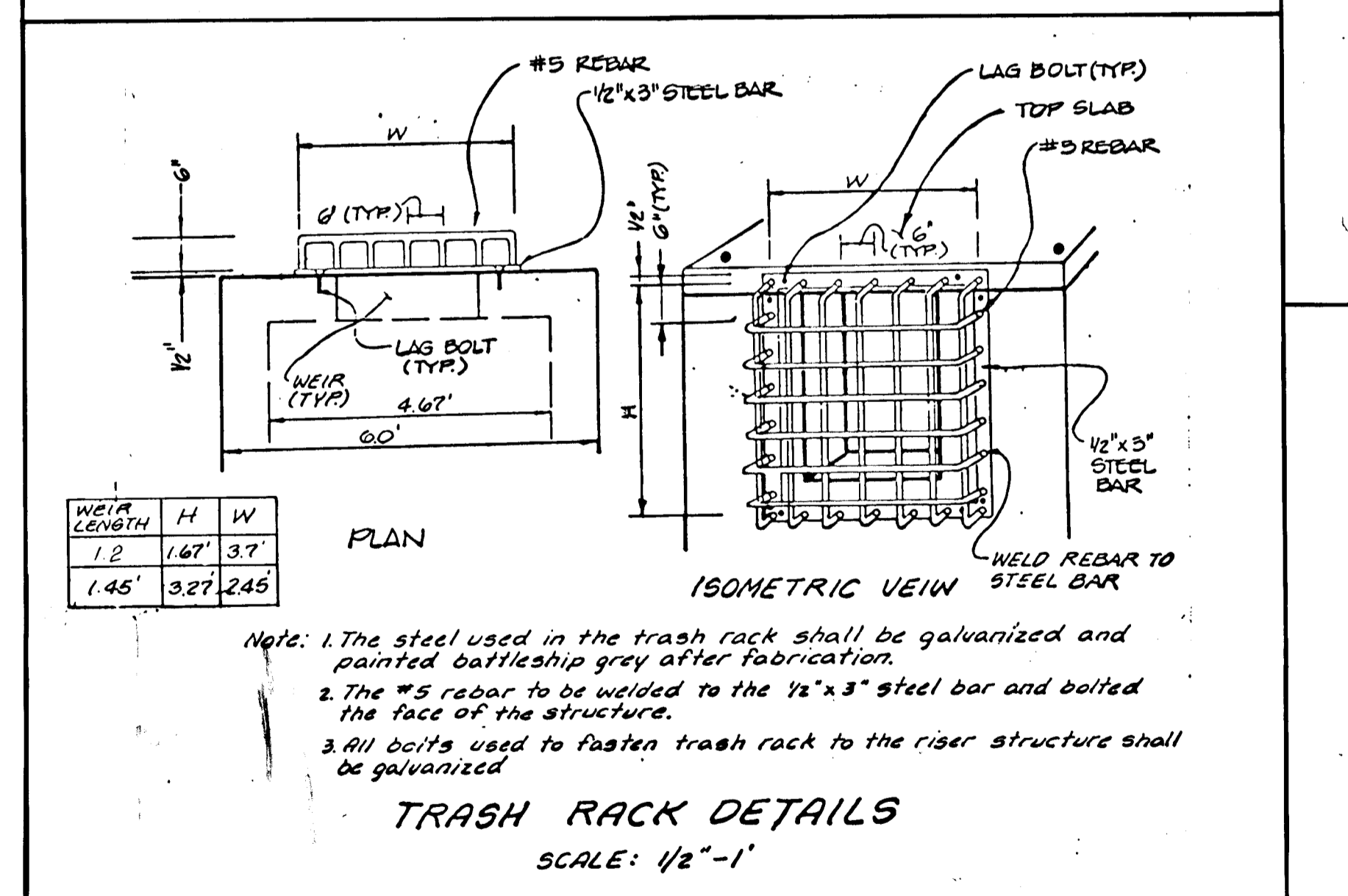
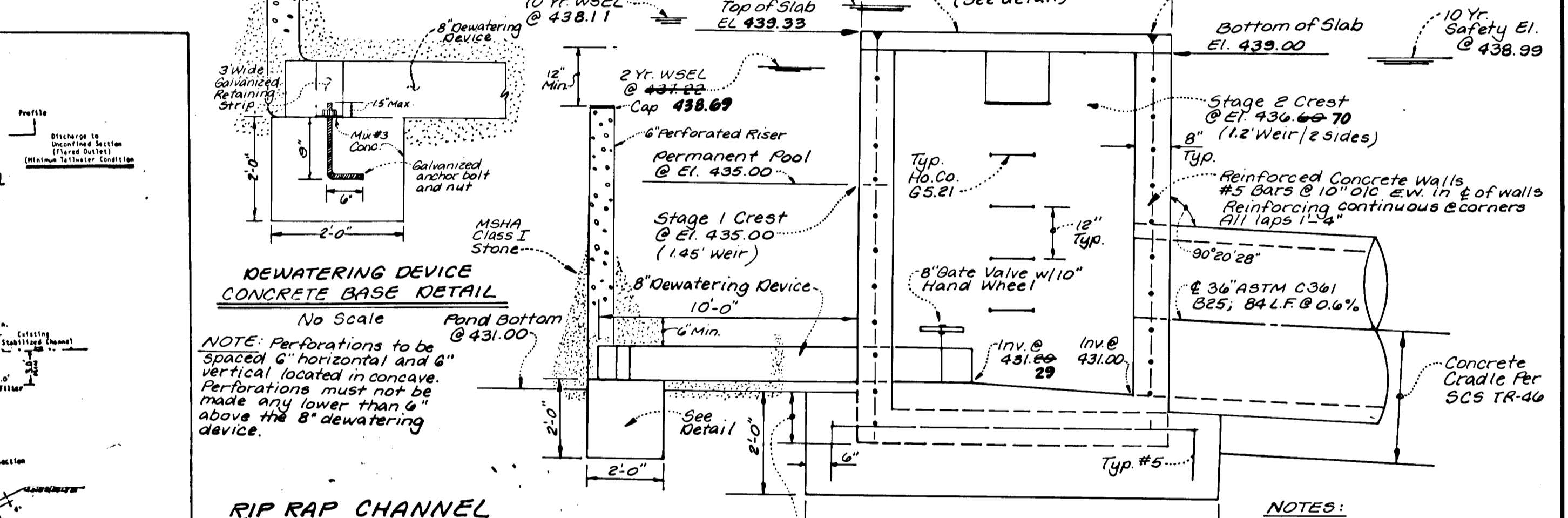
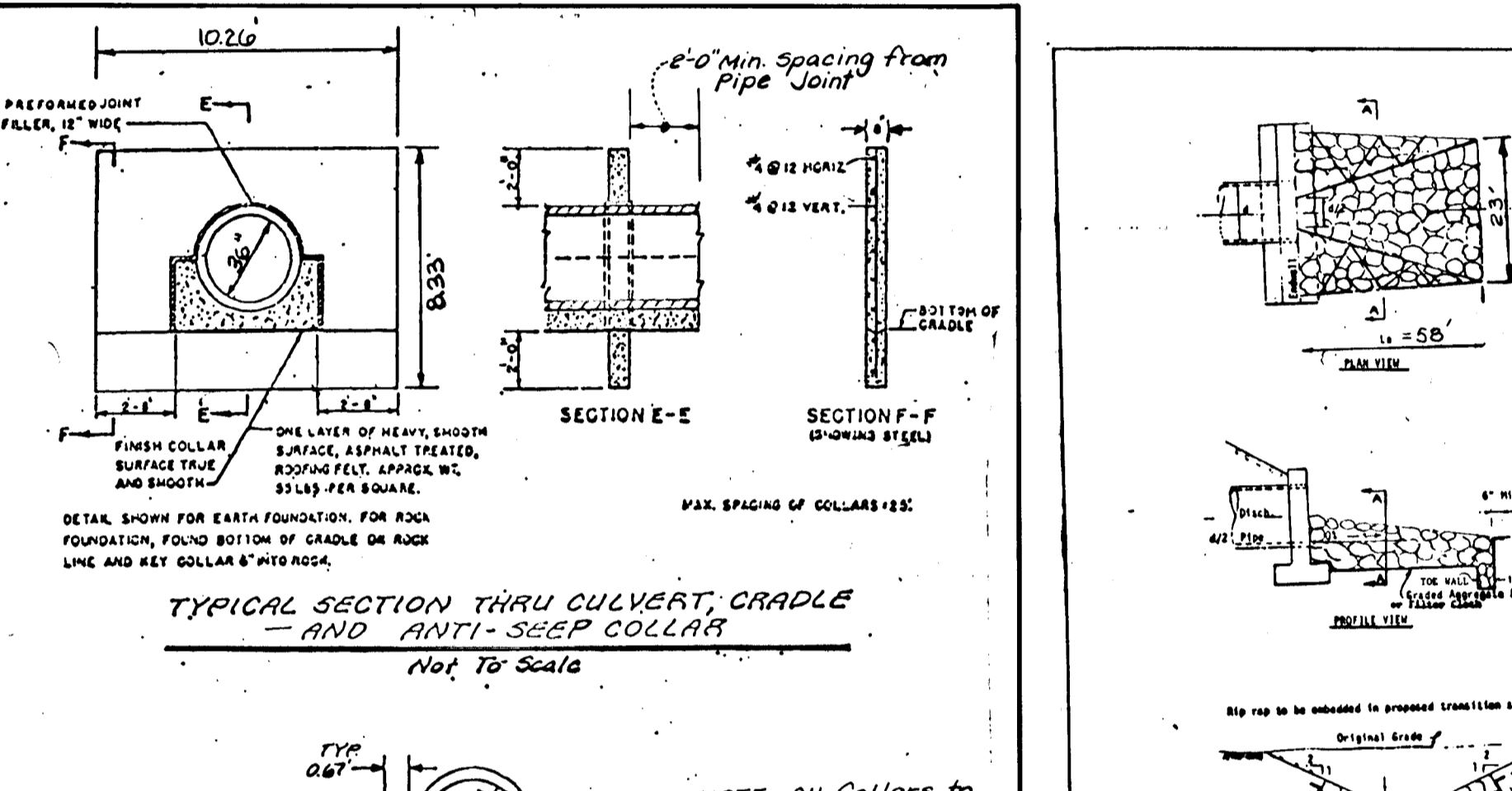
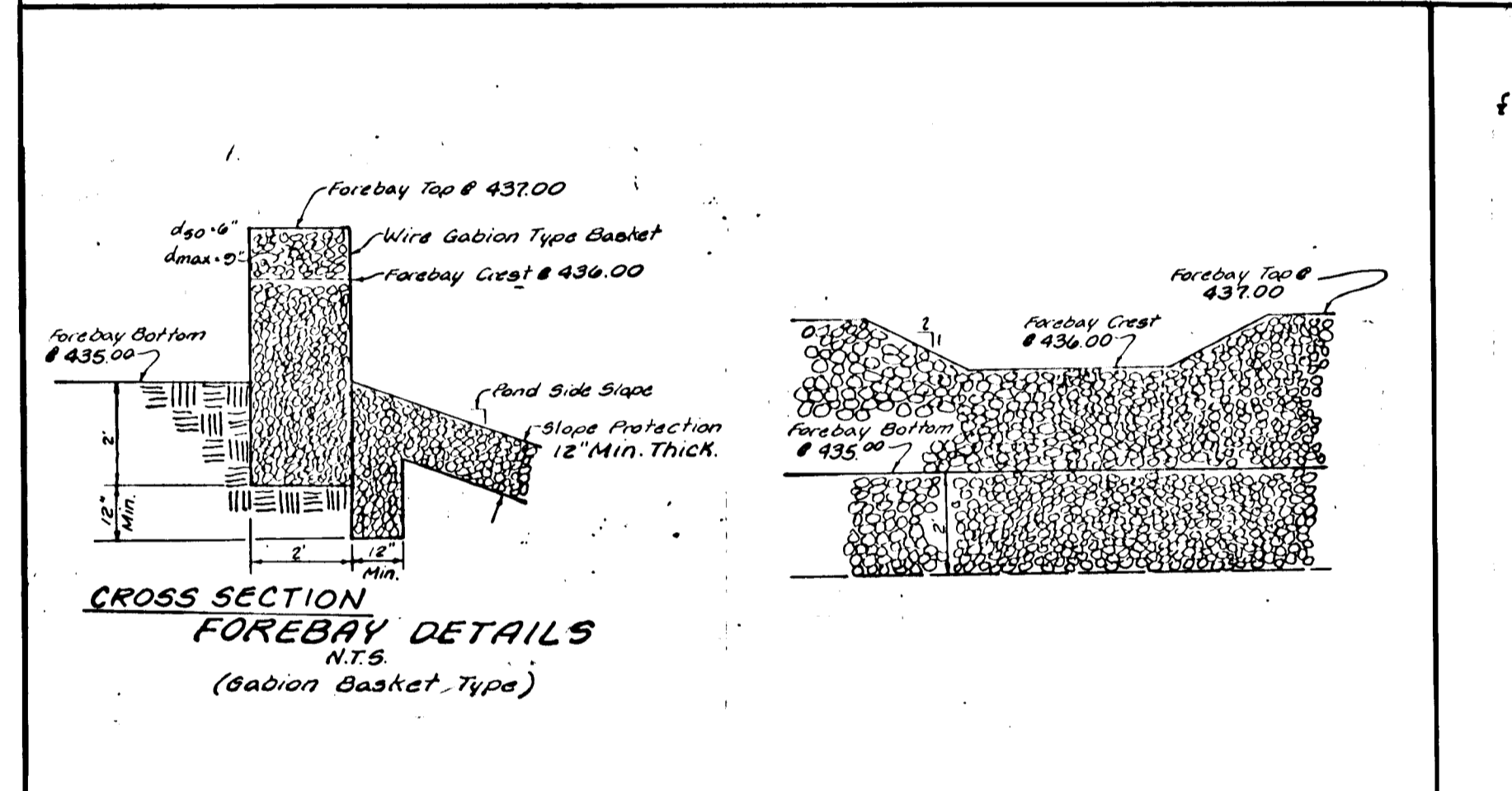




**PROFILE ALONG EMBANKMENT**  
Scale: 1" = 50' Horiz.  
1" = 5' Vert.

**PROFILE ALONG BARREL**  
Scale: 1" = 50' Horiz.  
1" = 5' Vert.

**STRUCTURE DETAIL**  
Scale: N.T.S.



**DEVELOPER'S CERTIFICATE**  
I 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 will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer: *[Signature]* Date: 7/20/95

**ENGINEER'S CERTIFICATE**  
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 requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Engineer: *[Signature]* Date: 11/6/95

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

*[Signature]* 11/14/95  
Natural Resources Conservation Service

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

*[Signature]* 11/17/95  
Howard Soil Conservation District

APPROVED: Department of Public Works for Storm Drainage Systems and Roads

*[Signature]* 11/21/95  
Chief, Bureau of Highways

APPROVED: Department of Planning and Zoning

*[Signature]* 11/22/95  
Chief, Department of Engineering

**LDE, INC.**  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

Designed E.O.S.	STORMWATER MANAGEMENT PROFILES AND DETAILS	Scale As Shown
Drawn K.B.W.	<b>MONTGOMERY TOWNSHIP</b>	Sheet 7 of 10
Checked B.A.A.	Tax Map # 37 P10 Parcel 2, Parcel 3 & 554	LDE Job No. 95-023
Date June 1995	1st Election District Howard County, Maryland	File No.

DEVELOPER: **NORTHERN TRADING CO.**  
3300 N. Ridge Suite 112  
Ellicott City, MD 2104 Phone: (410) 445-2020

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- CONSTRUCTION SEQUENCE**
1. Obtain grading permit
  2. Install stabilized construction entrance at existing driveway entrance. Contractor to leave existing driveway culvert in place.
  3. Install tree protection fence at edge of wooded areas, skyline of existing specimen trees and/or limit of disturbance. No disturbance shall be permitted within areas shown as not to be disturbed.
  4. Install clean water diversion along north property line.
  5. Install silt fence at limit of disturbance. Excavate sediment traps and install earth dikes at project perimeter.
  6. Clear and grub site. Stockpile topsoil in area of proposed noise and landscape berm.
  7. Construct water main crossing at stream crossing. Install silt fence at downstream end of water main crossing.
  8. Install temporary culvert diversion pipe, sanding diversion and diverting basin.
  9. Construct proposed culvert and stormwater management structure and basin.
  10. Install utilities and storm drains.
  11. Grade site to finished elevations.
  12. After lots 31-51 have been constructed to pad elevation and stabilized, install secondary earth dike along southern limit of lots 31-51 directing water to forchay area behind lot 51 and constructed storm drain system for clean water diversion.
  13. After permission has been given by sediment control inspector, reduce size of traps #2, #3 and #4 to permit completion of compacted pads for lots 12-30.
  14. Repair diversion dikes damaged by utility installation and stabilize with permanent seeding mixture and straw mulch.
  15. Sediment shall be removed from the sediment traps when the cleared elevation has been reached.
  16. The contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown herein after each rainfall and on a daily basis. The sediment traps shall be dewatered by pumping. The accumulated sediment from the traps shall be placed up-grade from the traps in such a manner as not to interfere with construction operations or cause erosion down-grade from the traps.
  17. Remove sediment from roadways and dress stabilized construction entrance as required.

- Phase One**  
15 Days
1. Install gravel base course and install concrete curb and gutter. Apply prime coat to gravel base course and lay bituminous paving course.
  2. Fine grade site and stabilize with permanent seeding mixture and straw mulch. Install driveway aprons and sidewalks.
  3. After all appropriate areas from the sediment traps have been stabilized and permission has been given by the sediment control inspector, backfill sediment traps, bring remaining lots to finished pad elevation, finish construction of noise landscape berm. Construct wood retaining wall.
  4. Stabilize disturbed areas with permanent seeding mixture and straw mulch.
  5. After permission has been given by sediment control inspector, remove all fence and stabilize disturbed areas with permanent seeding mixture and straw mulch.

- Phase Three**  
60 Days
1. Type of Trap: Stone outlet
  2. D.A. to trap: 1.30 Ac. ±
  3. Storage required: 87 C.Y.
  4. Storage provided: 87 C.Y.
  5. Trap size (bottom): 22 x 48'
  6. Trap depth: 2.0'
  7. Side slopes: 1:1
  8. Weir width: 6.0'
  9. Weir elevation: 434.00
  10. Bottom elevation: 431.00
  11. Top elevation: 436.00

- DESIGN DATA SEDIMENT TRAP #1**
1. Type of Trap: Stone outlet
  2. D.A. to trap: 1.10 Ac. ±
  3. Storage required: 74 C.Y.
  4. Storage provided: 76 C.Y.
  5. Trap size (bottom): 8 x 100'
  6. Trap depth: 2.0'
  7. Side slopes: 1:1
  8. Weir width: 4.8'
  9. Weir elevation: 429.00
  10. Bottom elevation: 426.00
  11. Top elevation: 434.00

- DESIGN DATA SEDIMENT TRAP #2**
1. Type of Trap: Stone outlet
  2. D.A. to trap: 0.90 Ac. ±
  3. Storage required: 60 C.Y.
  4. Storage provided: 60 C.Y.
  5. Trap size (bottom): 12 x 68'
  6. Trap depth: 2.0'
  7. Side slopes: 1:1
  8. Weir width: 4.8'
  9. Weir elevation: 428.00
  10. Bottom elevation: 426.00
  11. Top elevation: 431.00

- DESIGN DATA SEDIMENT TRAP #3**
1. Type of Trap: Stone outlet
  2. D.A. to trap: 1.04 Ac. ±
  3. Storage required: 70 C.Y.
  4. Storage provided: 76 C.Y.
  5. Trap size (bottom): 8 x 100'
  6. Trap depth: 2.0'
  7. Side slopes: 1:1
  8. Weir width: 4.8'
  9. Weir elevation: 429.00
  10. Bottom elevation: 426.00
  11. Top elevation: 431.00

- DESIGN DATA SEDIMENT TRAP #4**
1. Type of Trap: Stone outlet
  2. D.A. to trap: 1.14 Ac. ±
  3. Storage required: 117 C.Y.
  4. Storage provided: 126 C.Y.
  5. Trap size (bottom): 12 x 78'
  6. Trap depth: 3.0'
  7. Side slopes: 1:1
  8. Weir width: 7.0'
  9. Weir elevation: 428.00
  10. Bottom elevation: 424.00
  11. Top elevation: 430.00

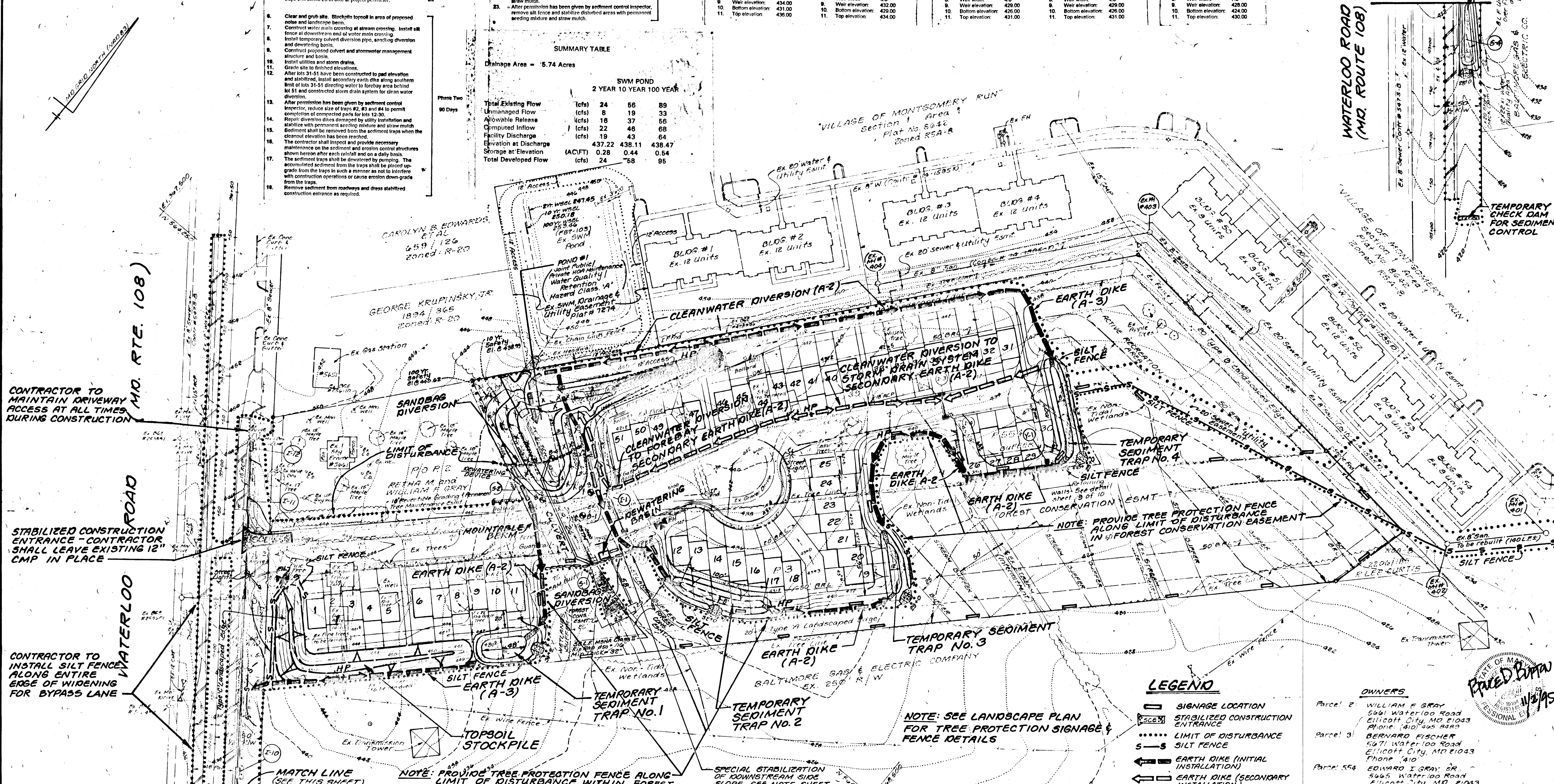
- DESIGN DATA SEDIMENT TRAP #5**
1. Type of Trap: Stone outlet
  2. D.A. to trap: 1.14 Ac. ±
  3. Storage required: 117 C.Y.
  4. Storage provided: 126 C.Y.
  5. Trap size (bottom): 12 x 78'
  6. Trap depth: 3.0'
  7. Side slopes: 1:1
  8. Weir width: 7.0'
  9. Weir elevation: 428.00
  10. Bottom elevation: 424.00
  11. Top elevation: 430.00

**SUMMARY TABLE**

Drainage Area = 5.74 Acres

**SWM POND**  
2 YEAR 10 YEAR 100 YEAR

Total Existing Flow (cfs)	24	56	89
Unmanaged Flow (cfs)	3	19	33
Allowable Release (cfs)	16	37	56
Computed Inflow (cfs)	22	46	68
Facility Discharge (cfs)	19	43	64
Elevation at Discharge (ACFT)	437.22	438.11	438.47
Storage at Elevation (ACFT)	0.28	0.44	0.54
Total Developed Flow (cfs)	24	58	95



CONTRACTOR TO MAINTAIN DRIVEWAY ACCESS AT ALL TIMES DURING CONSTRUCTION

STABILIZED CONSTRUCTION ENTRANCE - CONTRACTOR SHALL LEAVE EXISTING 12" CMP IN PLACE

CONTRACTOR TO INSTALL SILT FENCE ALONG ENTIRE EDGE OF WIDENING FOR BYPASS LANE

- LEGEND**
- SIGNAGE LOCATION
  - STABILIZED CONSTRUCTION ENTRANCE
  - LIMIT OF DISTURBANCE
  - SILT FENCE
  - EARTH DIKE (INITIAL INSTALLATION)
  - EARTH DIKE (SECONDARY INSTALLATION)
  - TPF - TREE PROTECTION FENCE (See Notes this sheet)

- OWNERS**
- Parcel 2: WILLIAM F. GRAY  
5661 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410) 445-8449
  - Parcel 3: BERNARD FISCHER  
5671 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410)
  - Parcel 554: EDWARD I. GRAY SR.  
5665 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410)

**DEVELOPER'S CERTIFICATE**

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Signature of Developer: *CMD* 3/21/95

**ENGINEER'S CERTIFICATE**

"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 requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion."

Signature of Engineer: *Bruce D. Burton* 1/2/95

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Signature: *Patricia Enright* 1/14/95

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Signature: *Robert W. Ziem* 1/14/95

APPROVED: Department of Public Works for Storm Drainage Systems and Roads

Signature: *Robert W. Ziem* 1/14/95

APPROVED: Department of Planning and Zoning

Signature: *Oliver J. J. J. J.* 1/12/95

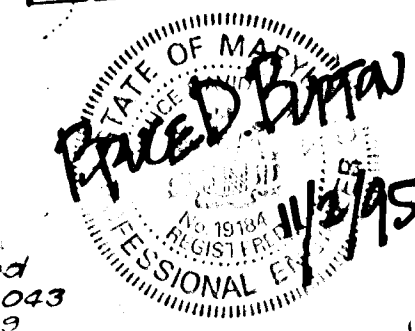
APPROVED: Chief Development and Research

Signature: *Oliver J. J. J. J.* 1/27/95

**LDE, INC.**  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

Designed: BDB	<b>GRADING AND SEDIMENT CONTROL PLAN</b>	Scale: 1" = 50'
Drawn: KBW	<b>MONTGOMERY TOWNSHIP</b>	Sheet: 8 of 10
Checked: BDB	LOTS 1 THRU 52	LDE Job No: 95-023
Date: June 1995	Tax Map # 37 P/O Parcel 2, Parcel 3 & 554 1st Election District Howard County, Maryland Previous Submittals: 594-04, W994-10, SP94-04	File No:

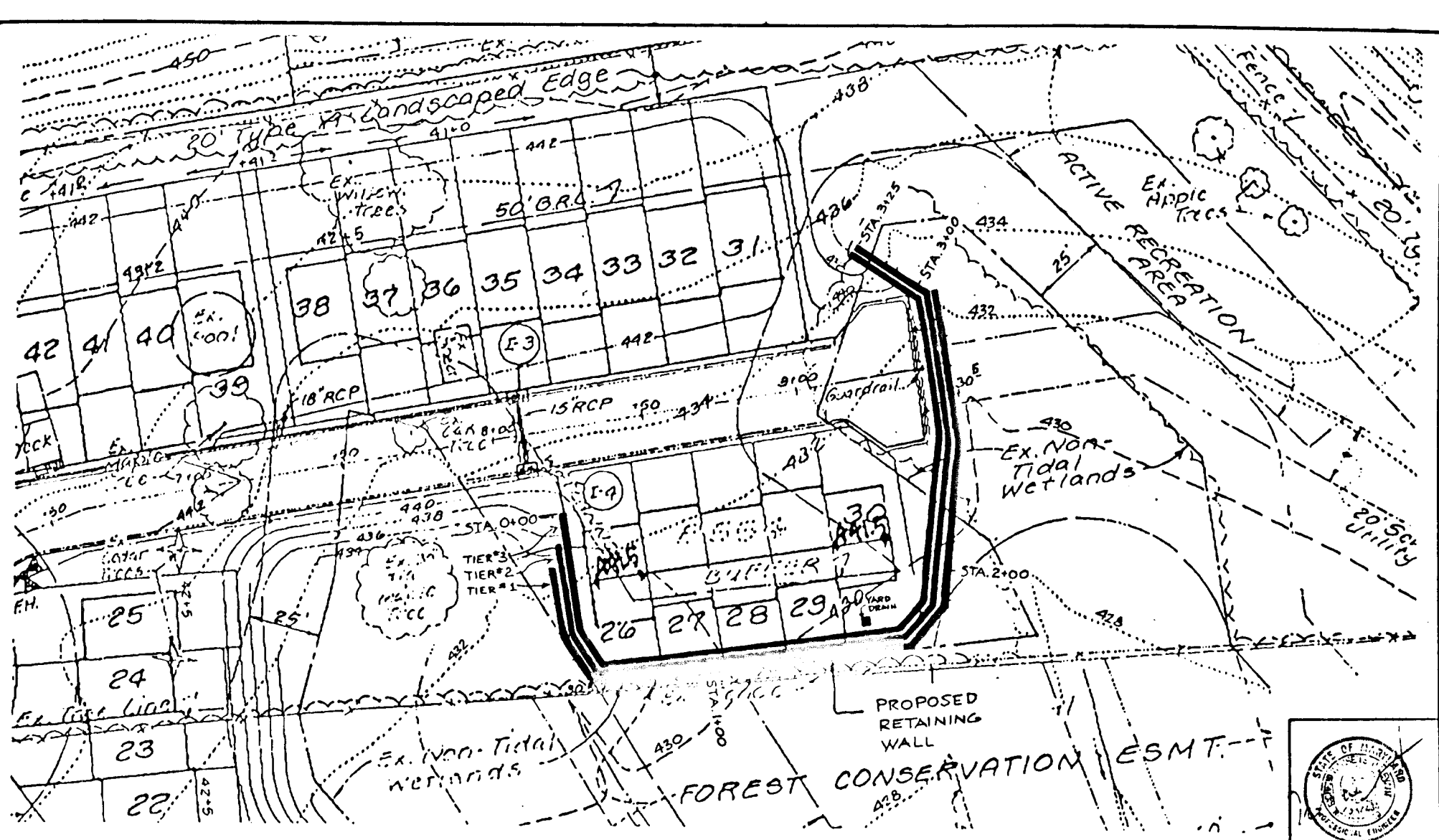
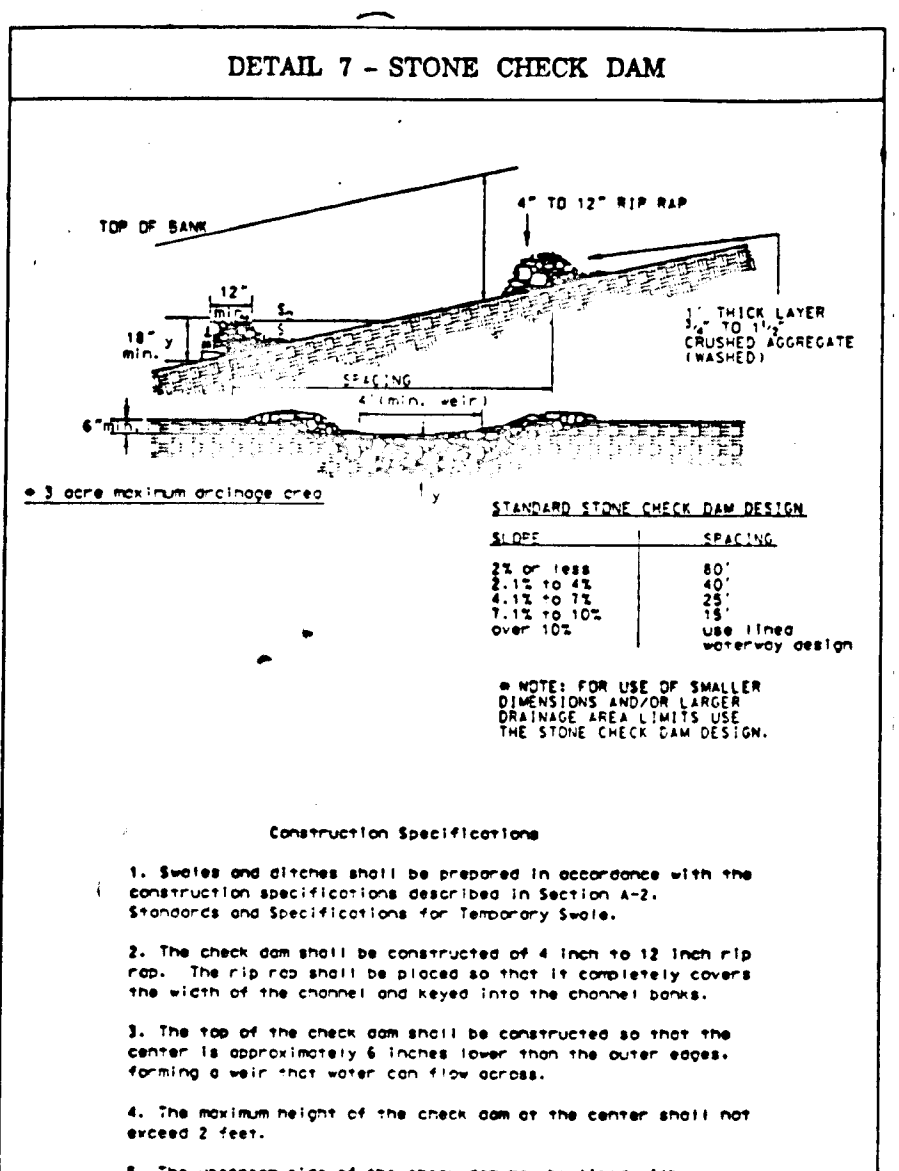
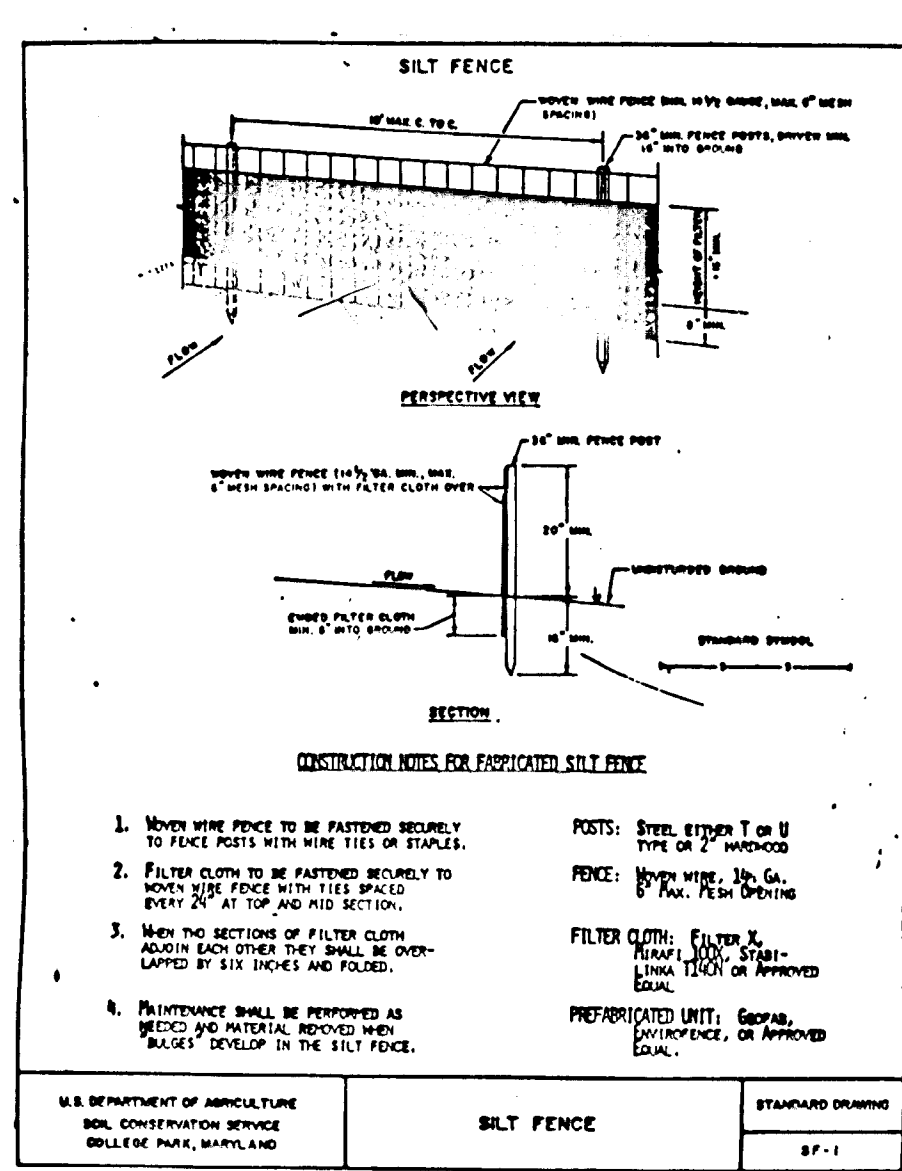
NORTHERN TRADING CO.  
3300 N Ridge Road Suite 112  
Ellicott City, MD 21043 Phone: (410) 465-2020





**HOWARD SOIL CONSERVATION DISTRICT**  
STANDARD SYMBOL CONTROL NOTES

- 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. (800-3450).
- 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 "HURDLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" and revisions thereto.
- Following initial soil disturbance or disturbance, permanent or temporary stabilization shall be completed within a 7 calendar day for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1. 14 days for all other disturbed or graded areas on the project site.
- All sediment basins/ditches must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1993 HURDLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for permanent seeding (Sec. 51), and (Sec. 54), temporary seeding (Sec. 50) and mulch (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding does not allow for proper germination and establishment of grasses.
- 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.
- Site Area:  
Total Area of Site: 7.85 Acres  
Area Disturbed: 4.07 Acres  
Area to be roofed or paved: 2.29 Acres  
Total Area to be vegetatively stabilized: 2.78 Acres  
Total Fill: 2,000 Cu. Yds.  
Office/warehouse area location: *Refer to site plan with utility location.*  
Any sediment control practice which is disturbed by the activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 3 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, initial building or grading. Erosion and sediment controls may not be disturbed until this initial approval by the Inspection Agency is made.
- 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.



**SPECIFICATION GUIDELINES**  
KEYSTONE CONCRETE MODULAR RETAINING WALL

**SECTION 02275**

**1.01 DESCRIPTION**

**1.02 REFERENCE STANDARDS**

**1.03 MATERIALS**

**1.04 DELIVERY, STORAGE AND HANDLING**

**1.05 INSTALLATION**

**1.06 QUALITY ASSURANCE**

**1.07 ACCEPTANCE**

**2.01 EXECUTION**

**2.02 FOUNDATION PREPARATION**

**2.03 ERECTION**

**2.04 FINISHES**

**2.05 MAINTENANCE**

**HOWARD SOIL CONSERVATION DISTRICT**  
STANDARD SYMBOL CONTROL NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

**Soil Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:

- Option (1) -** Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harvest or disk down upper three inches of soil. At time of seeding, apply 40 lbs per acre 30-0-0 urea-form fertilizer (9 lbs/1000 sq. ft.).
- Option (2) -** Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (12 lbs/1000 sq. ft.) before seeding. Harvest or disk down upper three inches of soil.
- Option (3) -** Seed with 60 lbs per acre Kentucky 31 Tall Fescue and mulch with 3 tons/acre well anchored straw.

**Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal/acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 340 gal/acre (8 gal/1000 sq. ft.) for anchoring.

**Maintenance:** Inspect all seeding areas and make needed repairs, replacements and reseedings.

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

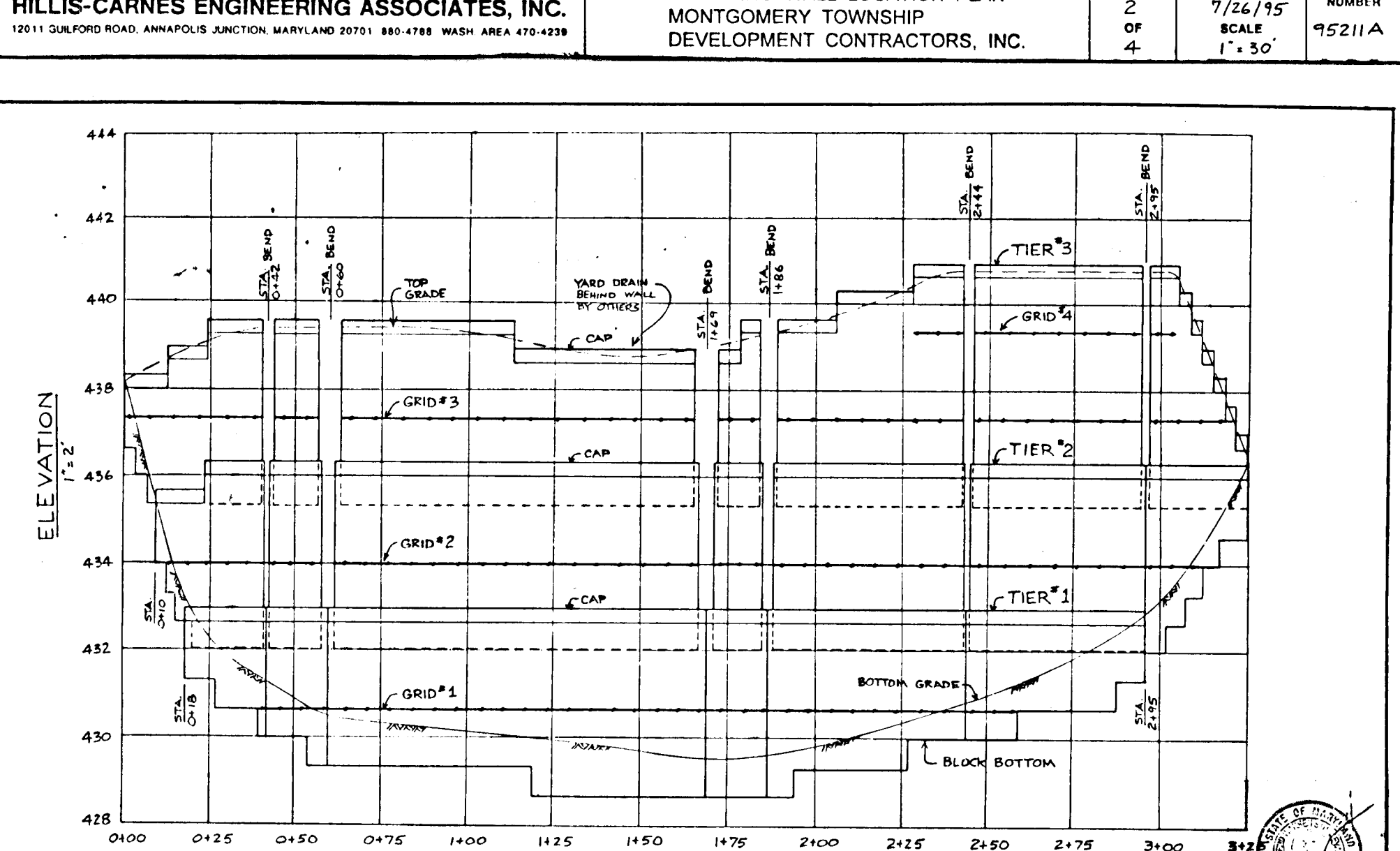
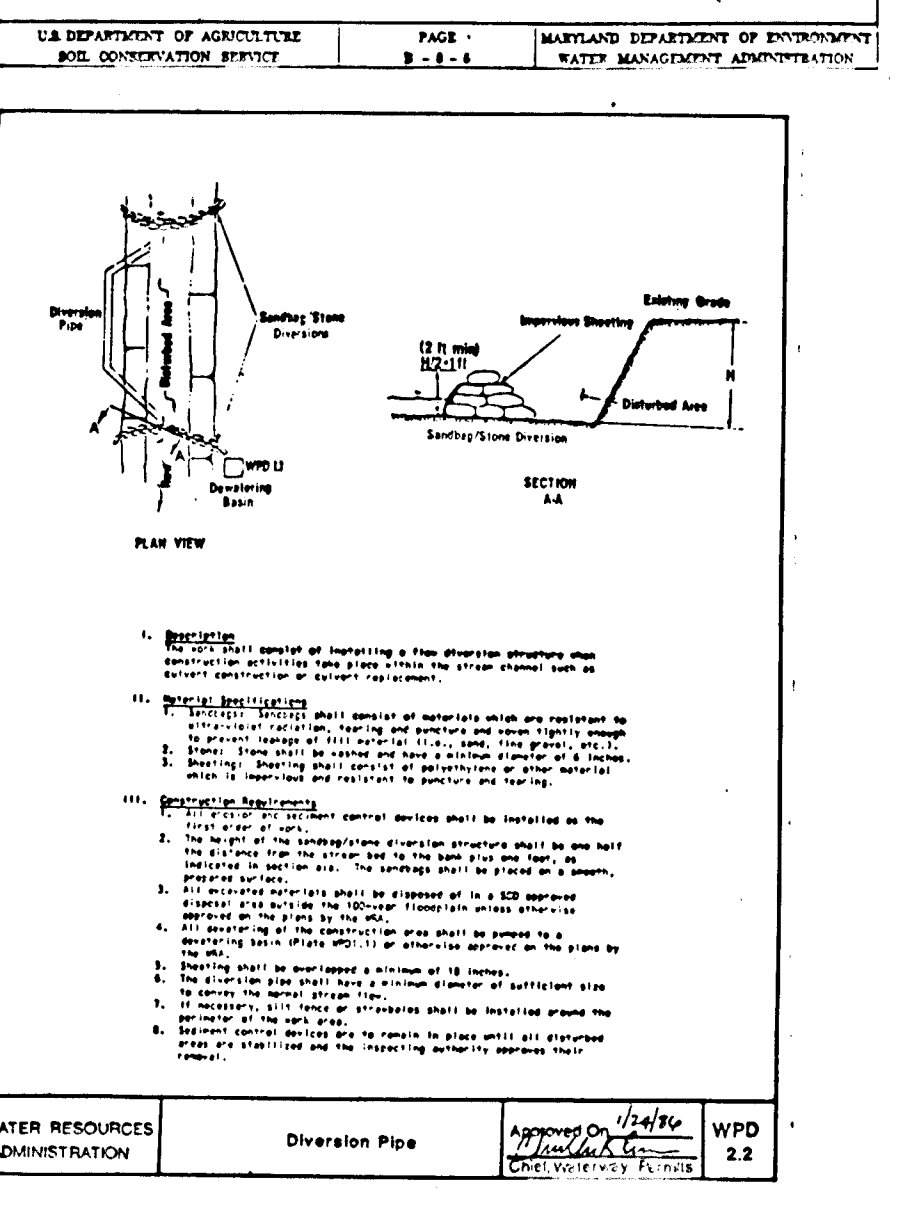
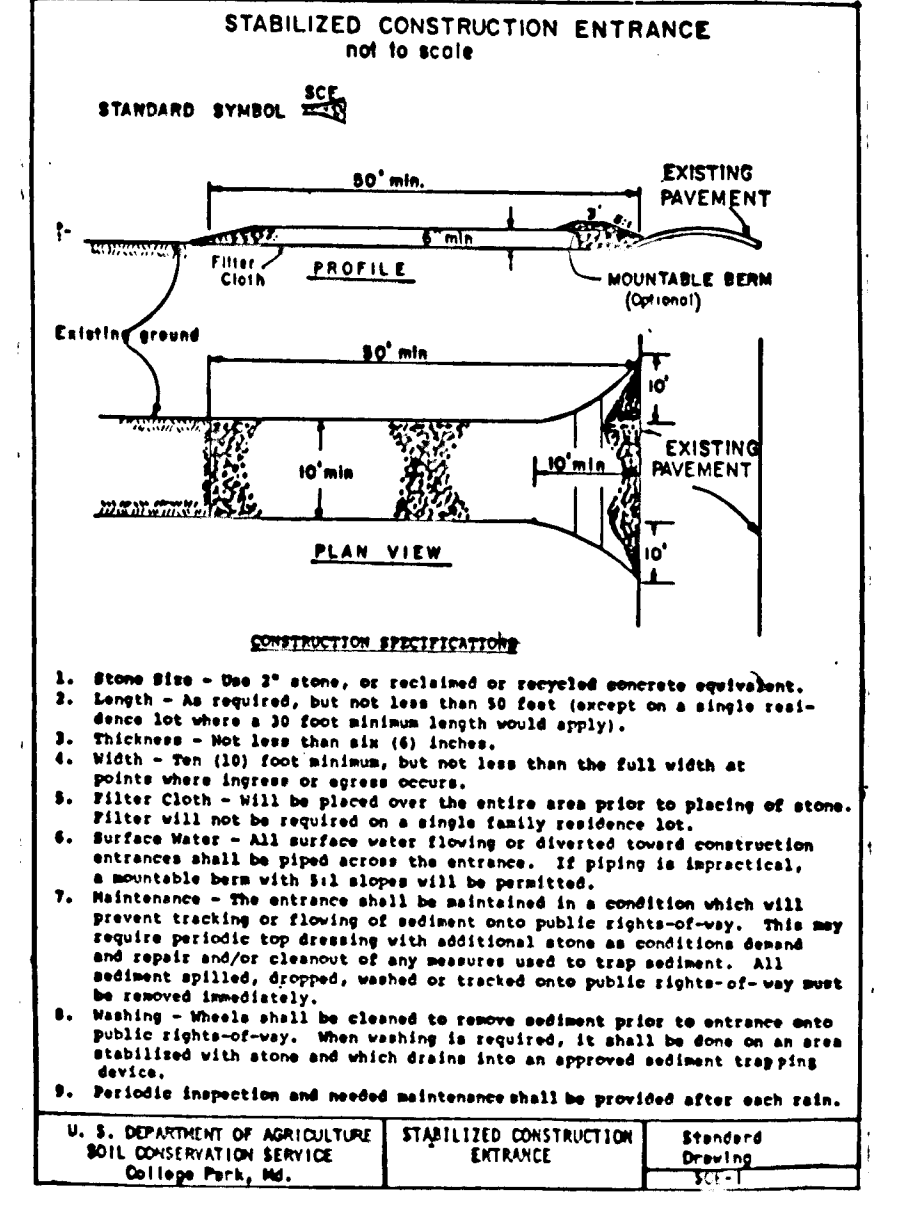
**Soil Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.).

**Seeding:** For periods March 1 thru April 30 and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs per acre Kentucky 31 Tall Fescue per acre and 1 lb per acre (.05 lbs/1000 sq. ft.) of urea-form fertilizer. During the period of October 16 thru February 28, provide site by Option 1 or 2 above. Option (1) - Seed with 60 lbs per acre Kentucky 31 Tall Fescue and mulch with 3 tons/acre well anchored straw.

**Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal/acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 340 gal/acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1993 HURDLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional notes and methods not covered.



**OWNER'S**

Parcel 2: WILLIAM F GRAY  
5661 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410) 481-8489

Parcel 3: BERNARD FISCHER  
5671 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410)

Parcel 554: EDWARD J. GRAY, SR.  
5665 Waterloo Road  
Ellicott City, MD 21043  
Phone: (410)

**DEVELOPER'S CERTIFICATE**

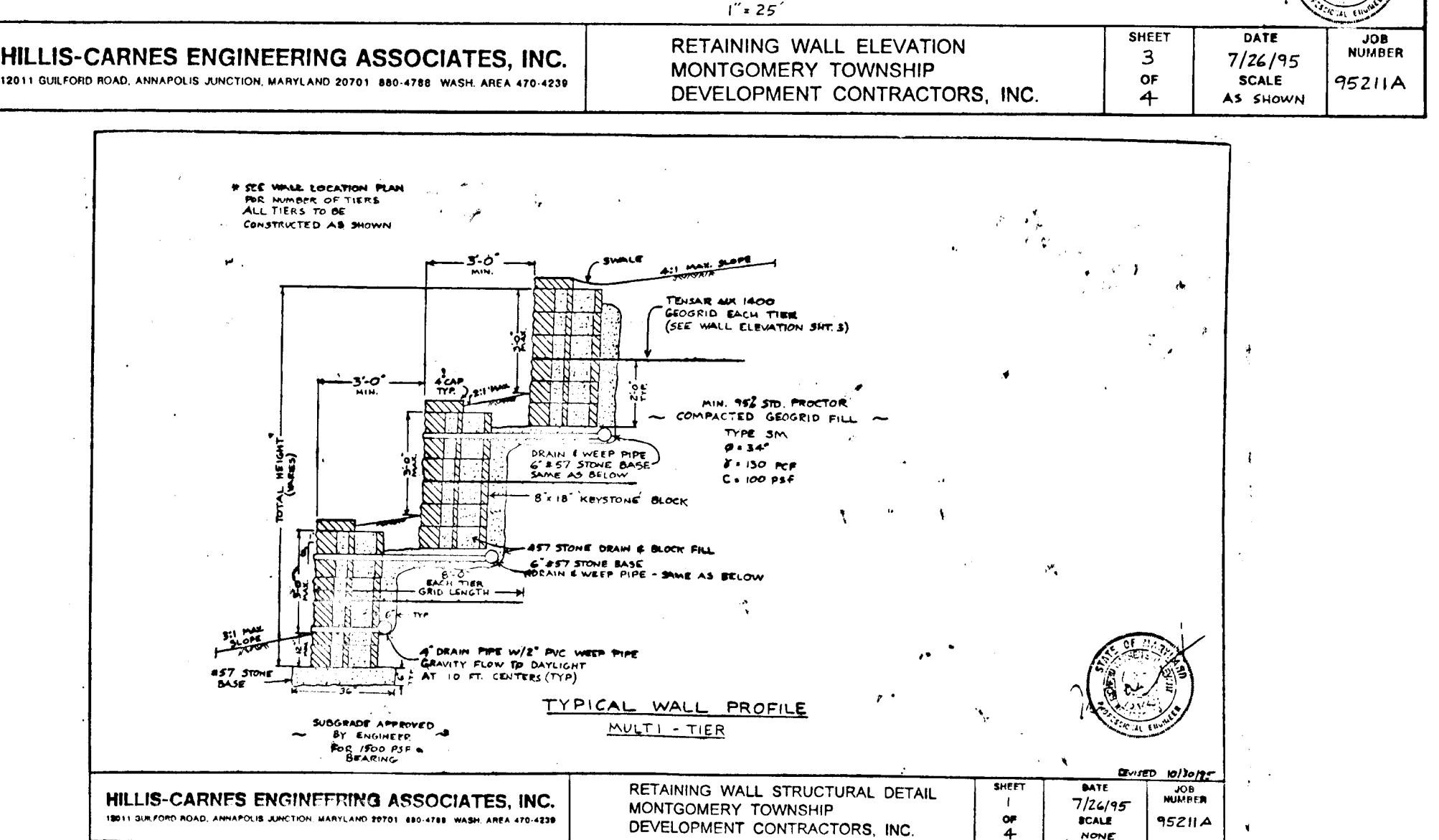
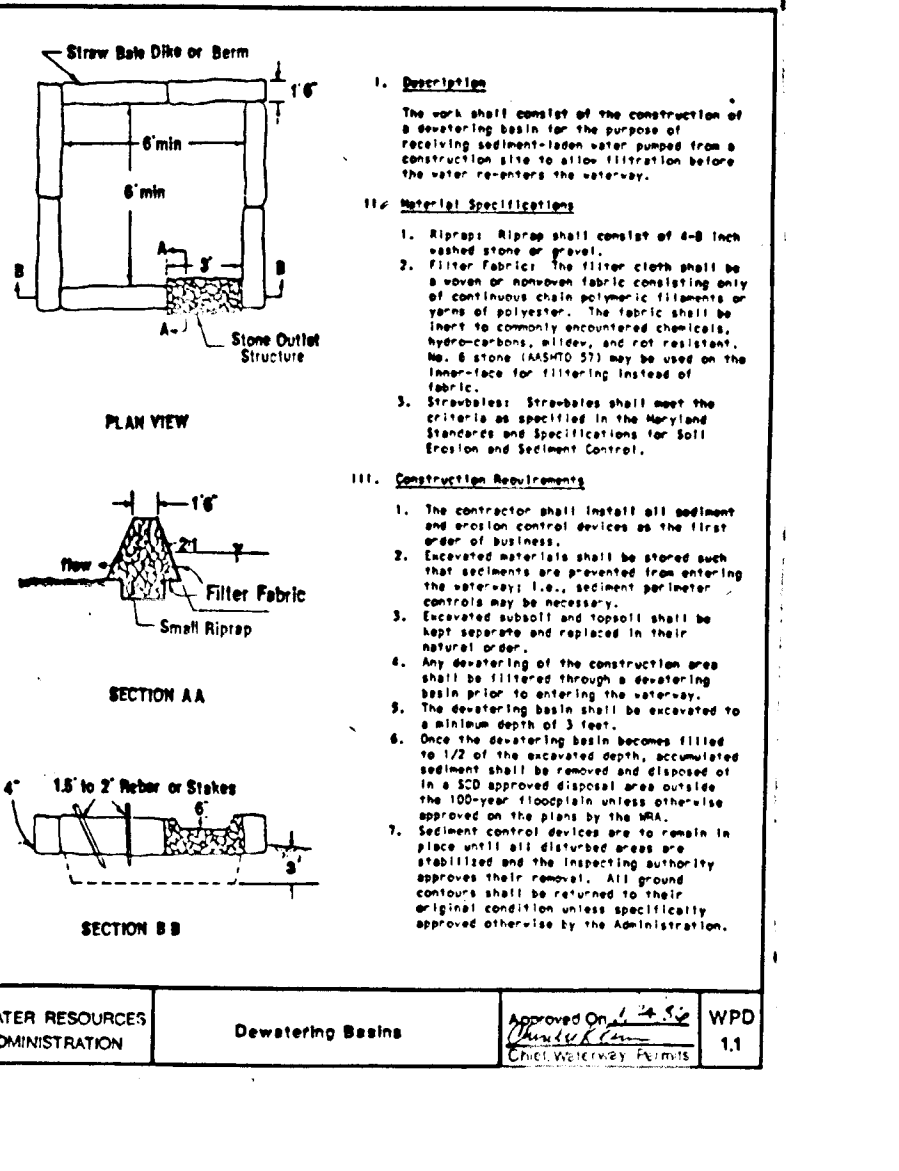
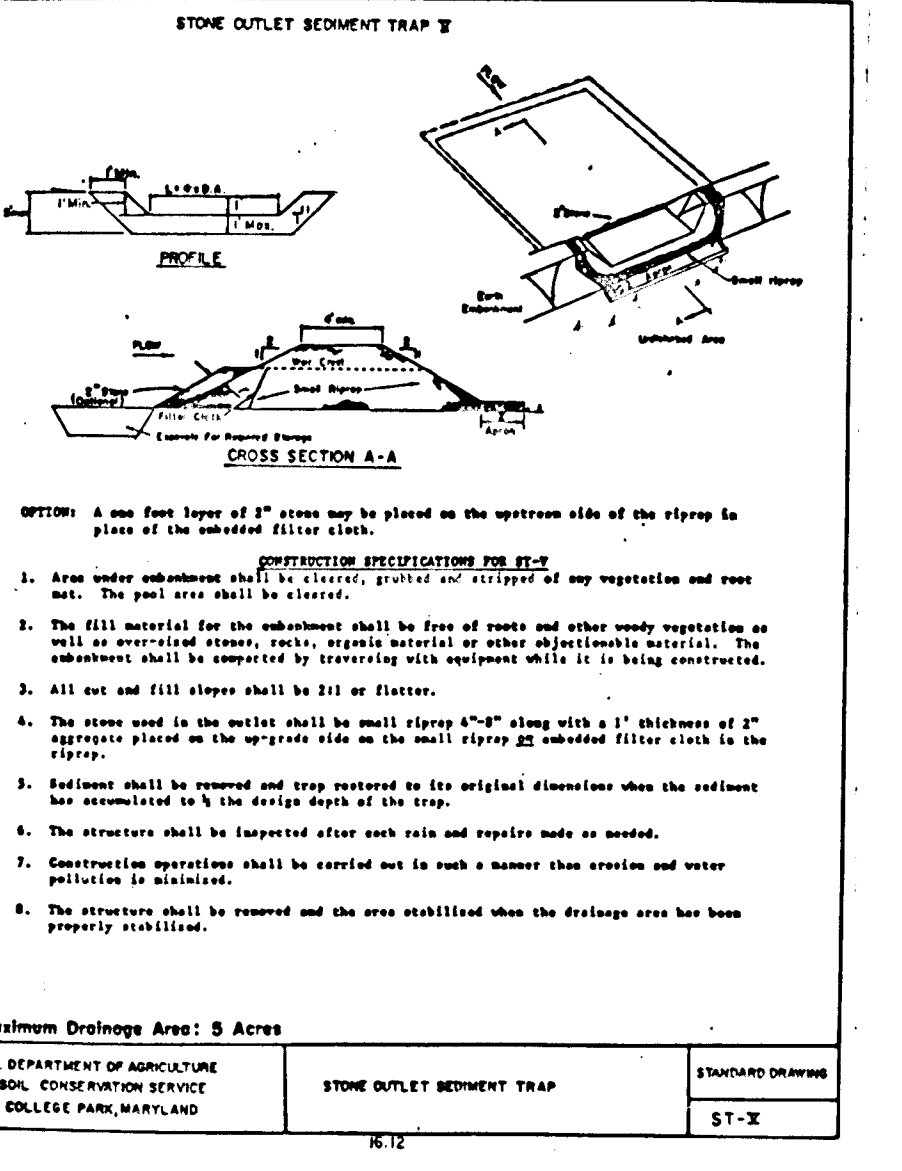
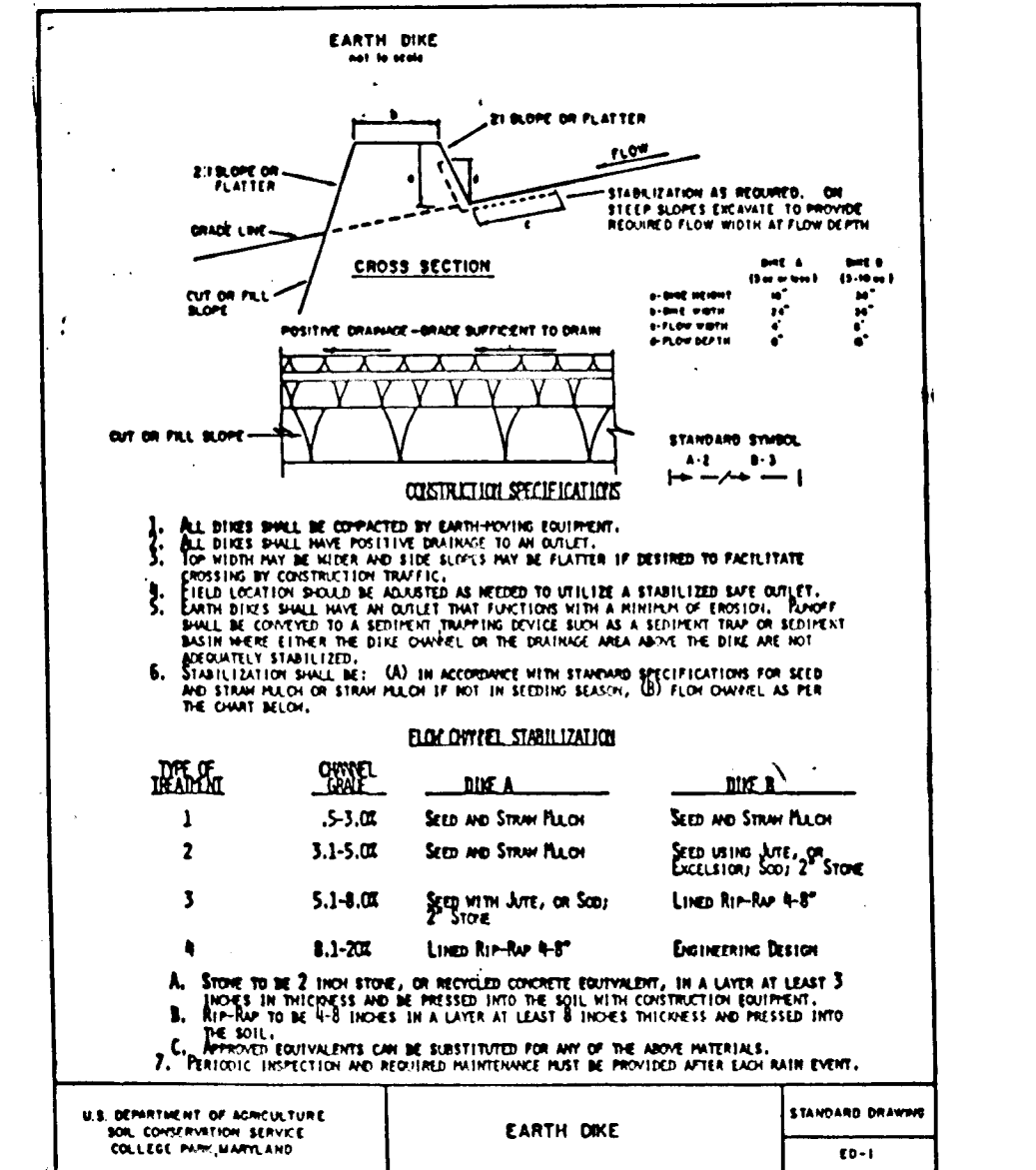
"I certify that all development and/or construction work has been done according to these plans, and that any responsible persons involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with an on-site plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

**ENGINEER'S CERTIFICATE**

"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 requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an on-site plan of the pond within 30 days of completion."

**APPROVED:** Department of Public Works for Storm Drainage Systems and Roads

**APPROVED:** Department of Planning and Zoning



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**APPROVED:** Department of Public Works for Storm Drainage Systems and Roads

**APPROVED:** Department of Planning and Zoning

**LDE, INC.**  
8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

**DESIGNED:** E.O.B. **GRAVING AND SEDIMENT CONTROL DETAILS** Scale As Shown

**DRAWN:** K.B.W. **MONTGOMERY TOWNSHIP** Sheet 9 of 10

**CHECKED:** B.D.B. **Tax Map #37** P10 Parcel 2, Parcel 3 & 554  
**1st Election District** LDE Job No. 95-023

**DATE:** June, 1995 **DEVELOPER:** NORTHERN TRADING CO.  
3300 N. Ridge Road Suite 112  
Ellicott City, MD 21043 Phone: (410) 465-2020

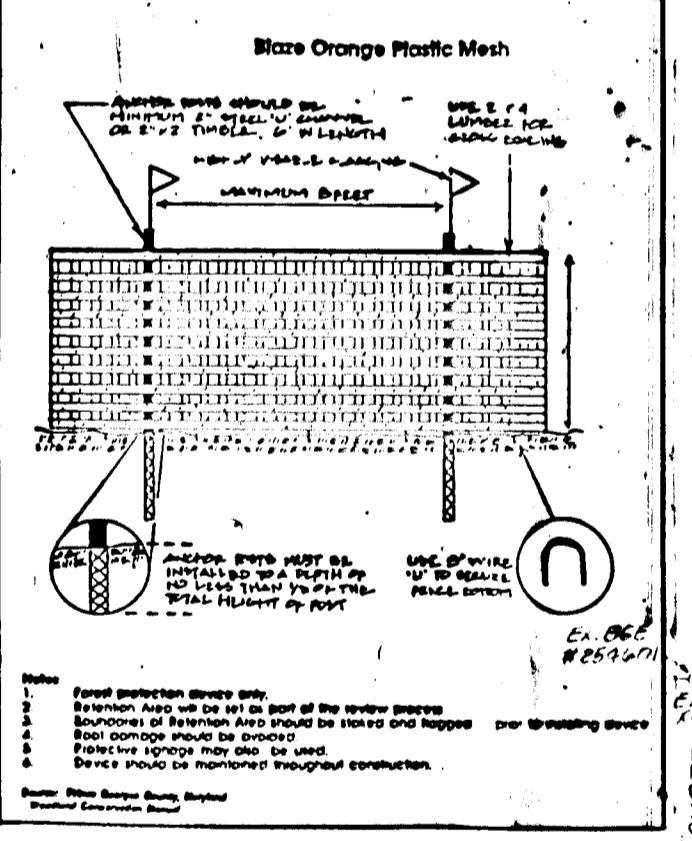
**APPROVED:** Department of Planning and Zoning

**PLANTING NOTES:**

1. Notify 'Miss Utility', 72 HRS prior to the installation of plant material.
2. Plant installation must conform to minimum standards cited in the latest edition of 'Landscape Specification Guidelines' by the Landscape Contractors Assoc.
3. Plants to be located in the field by the owner or owner's representative. Notify owner 72 HRS. in advance of planting.
4. A Certification of Landscape Installation is required as per the No. Co. Landscape Ordinance.
5. Contact Landscape Architect regarding the substitution of plant material. The number, size and location of plants shall not be changed. Substitutions must be included in the recommended plant list.
6. Street tree locations have been shown wherever possible. Drive aprons of proposed units do not allow the typical 1 tree = 40 feet.
7. STREET TREE NOTES:
  - A. Biologic root inhibitor barrier or containment shall be installed for trees planted closer than 3 feet to sidewalk.
  - B. Trees shall be placed 30 feet (min) from all signs and intersections when planting occurs between sidewalk & curb.
  - C. Street Trees may not be planted within 5 feet of a drain inlet, 5 feet of an open space access strip, 10 feet of a driveway or 20 feet of a street light.

**B. "NORTHEASTERN U.S." WILDFLOWER MIX**

Botanical Name	Common Name
Achillea millefolium	Yarrow
Asclepias tuberosa	Butterfly-weed
Asperula tomentosa	New England Aster
Centaurea cyanus	Bachelor Button
Oenothera biennis	Wildflower
Chrysanthemum leucanthemum	Os-Eyed Daisy
Coreopsis lanceolata	Lance-leaved Coreopsis
Digitaria purpurea	Forget-me-not
Schinus molle	Purple Coneflower
Callirhoe coccinea	Callirhoe
Gypsophila paniculata	Baby's Breath
Heperis matronalis	Dame's Rocket
Liatris spicata	Sp. Blue Gayfeather
Linaria vulgaris	Butter & Egg
Linum catharticum	Scarlet Flax
Lythrum salicaria	Poppy Lovestife
Oenothera biennis	Evening Primrose
Papaver rhoeas	Corn Poppy
Rudbeckia hirta	Black-eyed Susan
Silene acaulis	Catchfly



**NOTE: SEE SHEET 8 OF 10 FOR TREE PROTECTION FENCE LOCATIONS**

24 EUONYMUS  
45 MISCANTHUS

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	(1) C	(2) A (3) B
Linear Feet of Roadway Frontage/Perimeter	134 L.F.	1226 L.F. 1093 L.F.
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	No	Yes 94 L.F. No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	Berm Yes 134 L.F. No	Berm No
Number of Plants Required	(1:40) 3	(1:60) 5 1093 L.F.
Shade Trees	(1:20) 7	0
Evergreen Trees	0	(1:40) 27
Number of Plants Provided	5	22
Shade Trees	70	27
Other Trees (2:1 substitution)	145	—

Comments: Substitutions (1) to Shrubs + 10 = 7 Evergreens  
(2) 145 Shrubs + 10 = 14.5 Shade

Note: Complex projects may require expansion of the schedule to accommodate multiple land uses on-site or on adjacent properties.

**SCHEDULE B PARKING LOT INTERNAL LANDSCAPING**

Number of Parking Spaces	0
Number of Trees Required	0
Number of Trees Provided	0
Shade Trees	0
Other Trees (2:1 substitution)	0

**SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING**

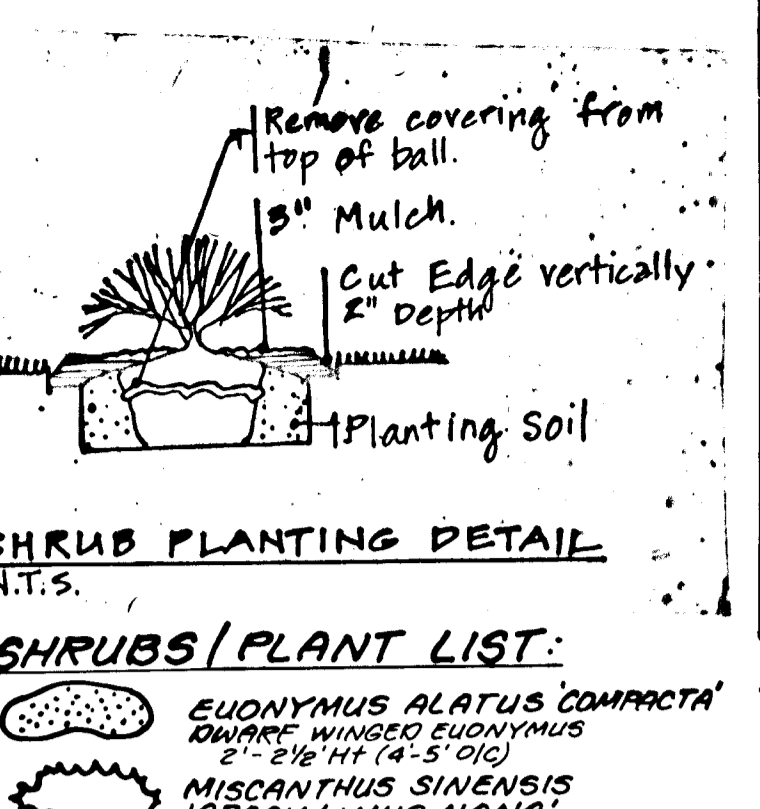
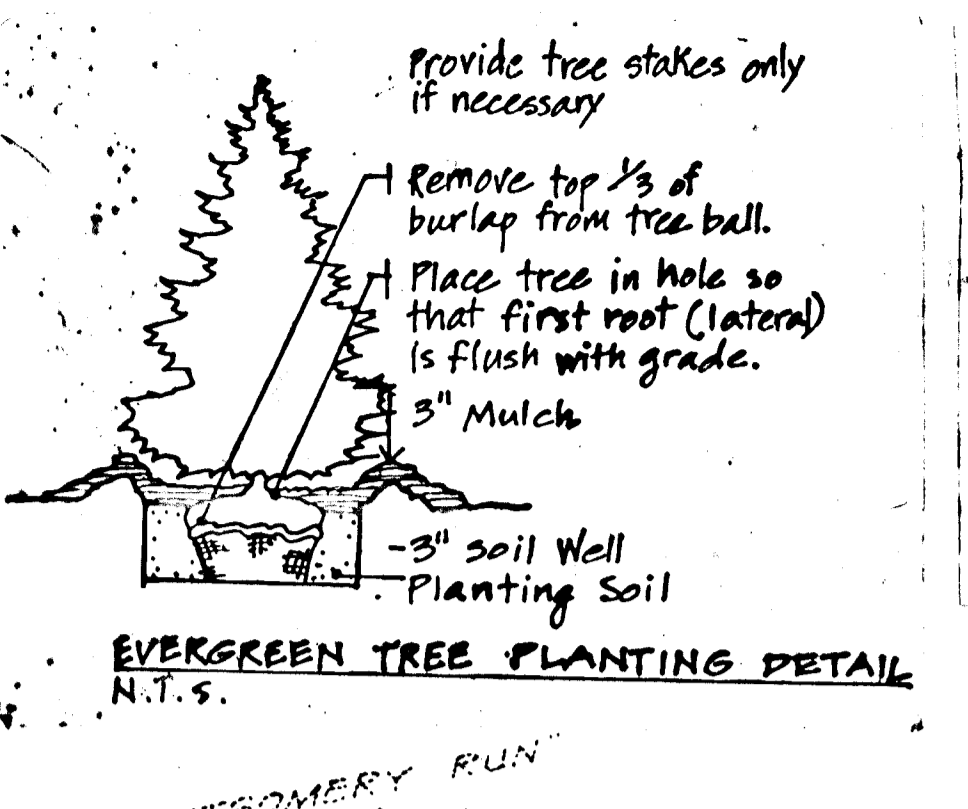
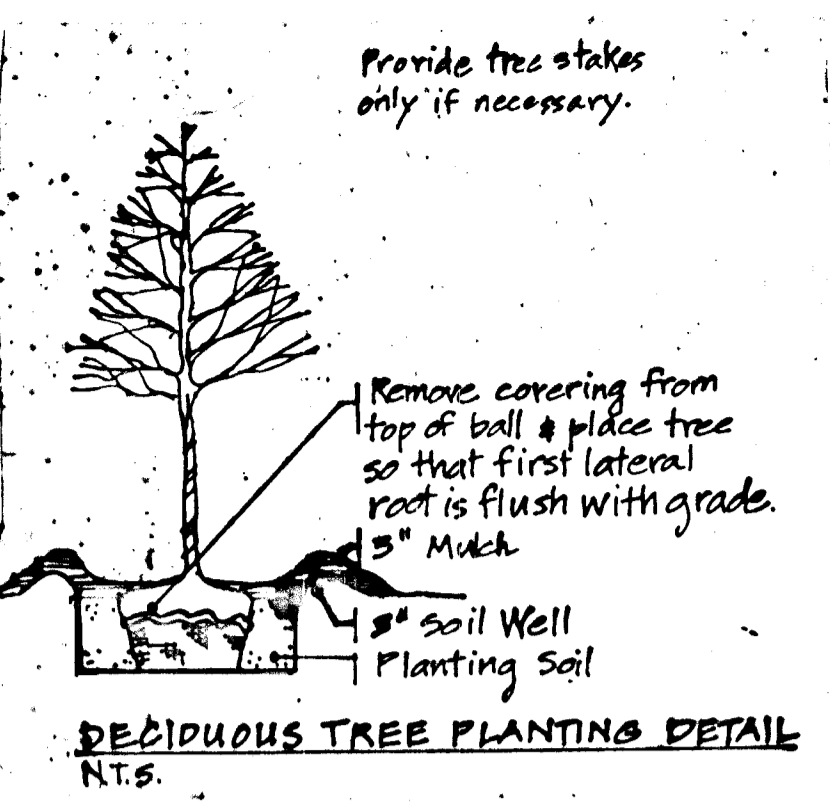
Number of Dwelling Units	51
Number of Trees Required (0.5:1:1.3 DU APTS)	51
Number of Trees Provided	51 (Min) *
Shade Trees	—
Other Trees (2:1 substitution)	—

\* TO BE PROVIDED BY BUILDER @ S.O.P.

**SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING**

Linear Feet of Perimeter	785 L.F.
Number of Trees Required	16
Shade Trees 1:50	10
Evergreen Trees 1:40	6
Credit for Existing Vegetation (No, Yes and %)	No
Credit for Other Landscaping (No, Yes and %)	Yes 155 L.F.
Number of Trees Provided	28 + 10.5 Sub = 38.5
Shade Trees	8
Evergreen Trees #1	25
Other Trees (2:1 substitution)	10

Substitutions: 5 Evergreens + 2 = 2 1/2 Shade  
10 Shrubs + 10 = 1 Shade  
155 L.F. Wood Fence = 3 Shade  
4 Evergreen



**PLANT LIST**

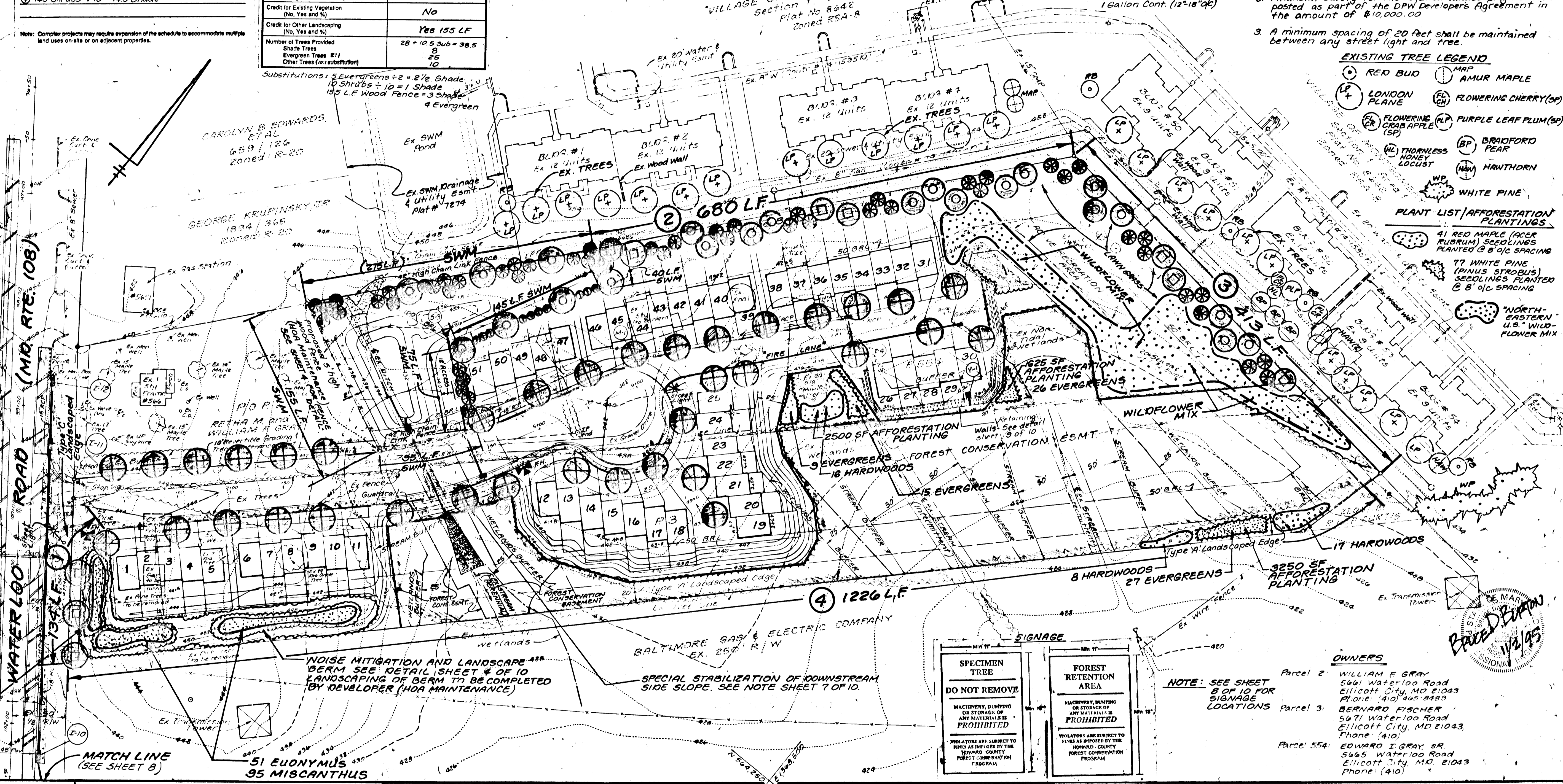
INCLUDES: STREET TREES, SWM & PERIMETER LANDSCAPE

NO.	KEY	QTY.	PLANT NAMES	SIZE	COND.	REMARKS
1	(1)	36	Pyrus calleryana 'Redspire'	2 1/2 cal.	B & B	40' o/c or as shown
2	(2)	29	Acer Rubrum 'October Glory', Red Maple, October Glory	2 1/2 - 3" cal.	B & B	40' o/c or as shown
3	(3)	58	Cupressus oxycedrus 'Leylandi', Leyland Cypress	5' - 6" Ht.	B & B	12' - 15' o/c
4	(4)	10	Prunus laurocerasus 'Skipp's', Skip Cherry	2 1/2 - 3" Ht.	B & B	4' - 5' o/c
5	(5)	10	Platanus 'Aceri-Folia', Bloodgood - Bloodgood London Plane	2 1/2 - 3" cal.	B & B	40' o/c or as shown

- 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 Developers Agreement in the amount of \$10,000.00.
  3. A minimum spacing of 20 feet shall be maintained between any street light and tree.

**EXISTING TREE LEGEND**

(1)	RED BUD	(11)	MAPLE
(2)	LONDON PLANE	(12)	AMUR MAPLE
(3)	FLOWERING CRAB APPLE	(13)	FLOWERING CHERRY (SP)
(4)	THORNLESS LOCUST	(14)	PURPLE LEAF PLUM (SP)
(5)	WHITE PINE	(15)	BRAFORD PEAR
(6)		(16)	HANTHORN
(7)		(17)	WHITE PINE
(8)		(18)	RED MAPLE (ACER RUBRUM) SEEDLINGS PLANTED @ 8' o/c SPACING
(9)		(19)	WHITE PINE (PINUS STROBUS) SEEDLINGS PLANTED @ 8' o/c SPACING
(10)		(20)	"NORTHEASTERN U.S." WILDFLOWER MIX



**DEVELOPER'S CERTIFICATE**

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Signature of Developer: *CATs* 3/24/95

**ENGINEER'S CERTIFICATE**

"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 requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

Signature of Engineer: *Bruce D. Burton* 11/2/95

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for Small Pond Construction, Soil Erosion and Sediment Control.

Signature: *Patricia G. ...* 4/14/95

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Signature: *Robert W. ...* 4/14/95

APPROVED: Department of Public Works for Storm Drainage Systems and Roads

Signature: *Quinn ...* 11/22/95

APPROVED: Department of Planning and Zoning

Signature: *Quinn ...* 11/22/95

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8835 Columbia 100 Parkway, Unit N, Columbia, MD 21045  
(410) 715-1070 • (301) 596-3424 • (410) 715-0681 (fax)

Designed: BOB	LANDSCAPE PLAN	Scale: 1" = 50'
Drawn: BOB	MONTGOMERY TOWNSHIP	Sheet: 10 of 10
Checked: BOB	LOTS 1 THRU 52	LDE Job No: 95-023
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