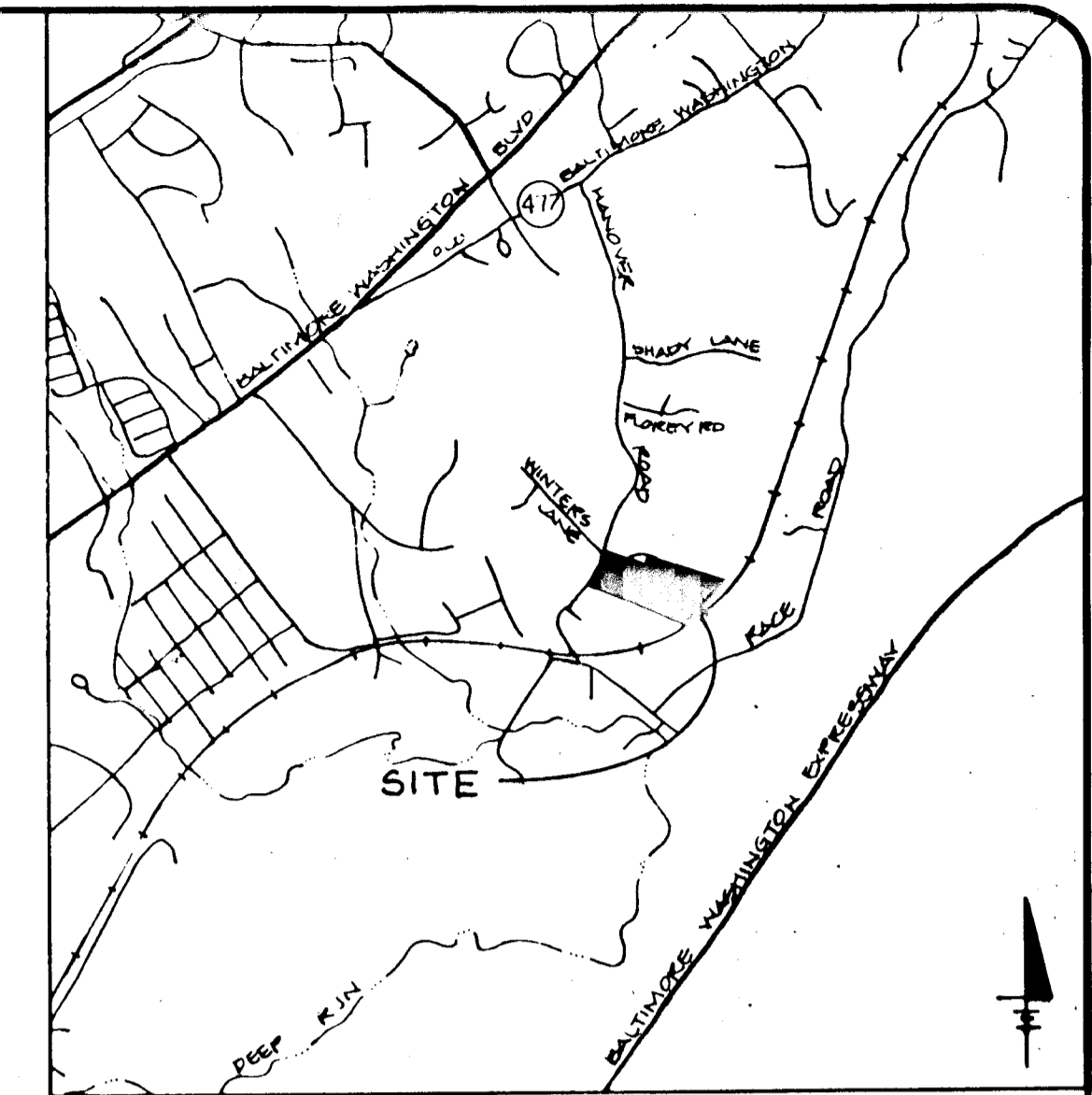
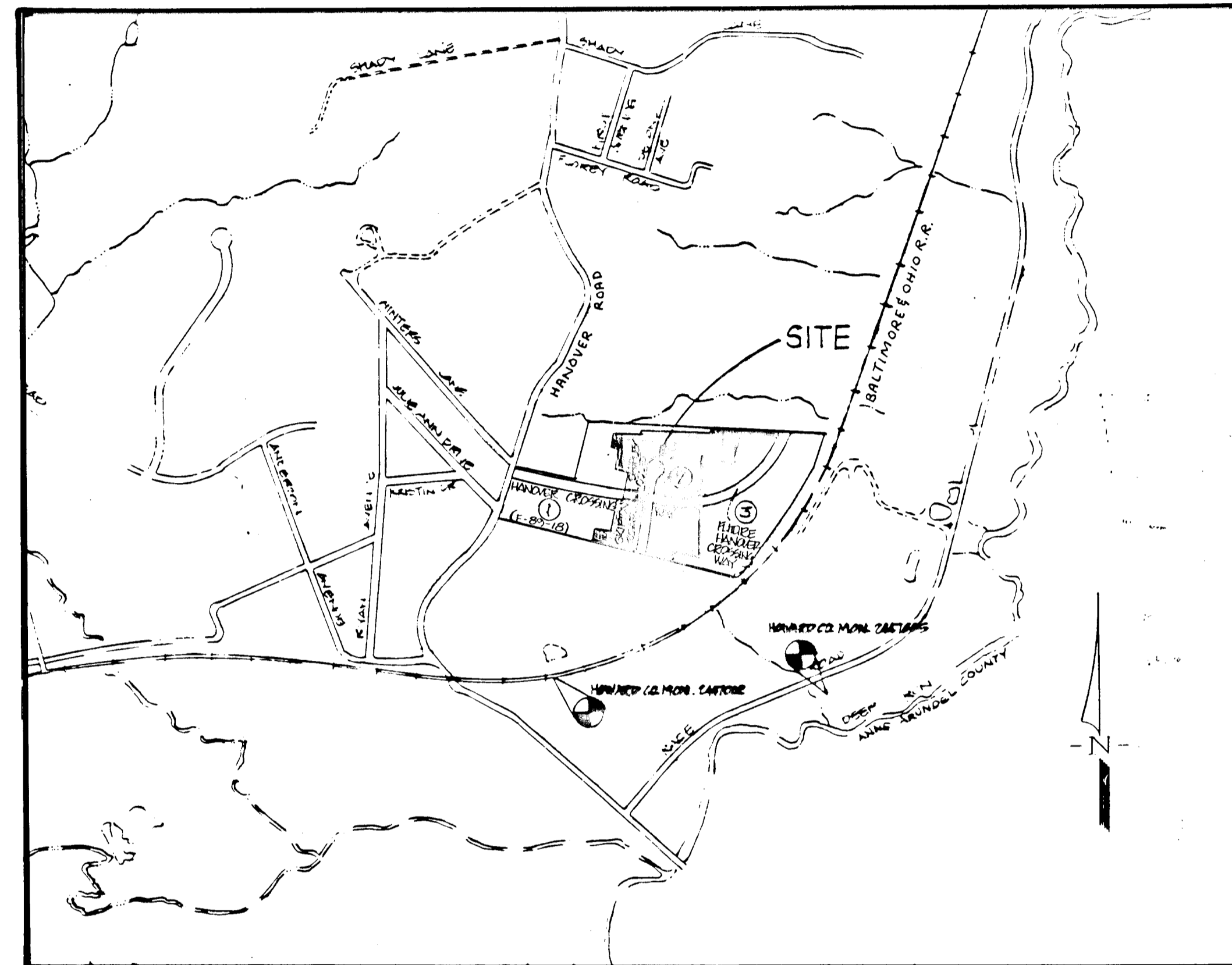


INDEX OF SHEETS

| | |
|--|---|
| Title Sheet | 1 |
| Plan and Profile - Hanover Crossing Way | 2 |
| Plan and Profile - Skipton Drive | 3 |
| Plan and Profile - Shipley Court | 3 |
| Road Construction Details | 4 |
| Grading, Storm Drains, and Sediment Control | 5 |
| Sediment and Erosion Control Details | 6 |
| Storm Drain Profiles, Details, Comps, and Structure Schedule | 7 |



VICINITY MAP
SCALE 1"=2000'



LOCATION MAP
SCALE 1"=600'

**HANOVER CROSSING
SECTION TWO
ROAD CONSTRUCTION DRAWINGS
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND**

10. STREET TREES TO BE PROVIDED AS REQUIRED BY SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
11. THIS PROPERTY IS LOCATED IN THE AIRPORT NOISE ZONE AND WAS APPROVED FOR SUBDIVISION PURSUANT TO COMAR ARTICLE TRANSPORTATION, SECT. 5-822 AS EVIDENCED BY AIRPORT ZONING PERMIT APPLICATION NO. DOCKET 229. FUTURE RESIDENTIAL CONSTRUCTION WILL REQUIRE APPROVAL FROM THE BOARD OF AIRPORT ZONING APPEALS PRIOR TO ISSUE ATTACHED, NOVEMBER 14, 2000.
12. CONTRACTOR TO PROVIDE STREET LAMP AS SHOWN: TYPE "B"; 175 WATT MERCURY VAPOR LAMP MOUNTED ON 14" HIGH FIBERGLASS BRONZE POLE.
13. WETLAND DELINEATION WAS PERFORMED BY: MCCARTHEY & ASSOCIATES, INC., SEPT., 2001.
14. FIELD SURVEY OF WETLANDS FLAGGING WAS PERFORMED BY THE DEVELOPER AND SUPPLIED TO THE ENGINEER.
15. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH CURRENT HOWARD COUNTY DESIGN MANUAL, VOLUME II.
16. PREVIOUS FILE NUMBERS: S-88-04, P-88-55, WP-90-09, F-91-04
17. PROVIDE HANDICAP RAMP IN ACCORDANCE WITH ADA REQUIREMENTS

GENERAL NOTES

1. All work shall be done in accordance with Howard County Standards, Specifications and Details for Construction.
2. All utility companies must be notified in advance of any construction.
3. Storm drainage trenches within road rights-of-way shall be backfilled and compacted in accordance with Howard County Road Code.
4. Any damage to public rights-of-way or paving will be corrected at the contractor's expense.
5. Contractor to notify the Howard County Inspection and Survey Division at least three days before starting work shown on these drawings (Telephone: (301) 792-7272)
6. All traffic control devices shall be installed in accordance with the Manual of Uniform Traffic Control Devices, 1984 Revised Edition.
7. Location of existing utilities shall be verified by the contractor prior to starting any work shown on these drawings. Any damage to existing utilities will be corrected at the contractor's expense.
8. STORMWATER MANAGEMENT FOR THIS PROJECT WAS APPROVED 01/16/01 AS PLAN NO. F-89-18, AND TITLED "HANOVER CROSSING - SECTION ONE, LOTS 1-17," AS PREPARED BY: ENA CONSULTANTS & ASSOC., INC.
9. WP-90-09 APPROVED 12/21/89 FOR PLAN # F88-55 WAIVER SECTION 16.118 B ALLOWING 6 mos. EXTENSION TO PREPARE PRELIMINARY PLAN.
WP-90-37 APPROVED 12/21/89 FOR PLAN # F88-16 (SECT. 3) WAIVER SECTION 16.118 B ALLOWING 6 mos. EXTENSION TO PREPARE PRELIMINARY PLAN.
WP-91-05 APPROVED 10/26/90 FOR PLAN # F88-16 (SECT. 3) WAIVER SECTION 16.120 A 3 ALLOWING 6 mos. EXTENSION OF AN APPROVED PRELIMINARY PLAN.

BENCHMARKS

- HOWARD COUNTY MONUMENT #2447002 - ELEV. 89.819
CONCRETE MONUMENT NORTHEAST CORNER RAILROAD TRACKS AND HANOVER ROAD. 3" BELOW SURFACE.
- HOWARD COUNTY MONUMENT #2447005 - ELEV. 49.478
REBAR ON WEST SIDE RACE ROAD OPPOSITE P.T. OF CURVE IN ROAD, 9" OFF EDGE OF MACADAM. 2" BELOW SURFACE.



OWNER:
J.N.D.C. LIMITED PARTNERSHIP
SUITE 201
5570 STERRET PLACE
COLUMBIA, MD 21044
(301) 997-3815

DEVELOPER:
NEWBURN DEVELOPMENT CORP.
SUITE 201
5570 STERRET PLACE
COLUMBIA, MD 21044
(301) 997-3815

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

 M.K. CHIEF, LAND DEVELOPMENT DIVISION M.K. 3/16/03 DATE

 ALAN M. FERGUSON 3/5/03 DATE
 CHIEF, BUREAU OF HIGHWAYS

 WILLIAM B. RILEY 3-17-03 DATE
 CHIEF, BUREAU OF ENGINEERING
 APPROVED: DEPARTMENT OF PLANNING & ZONING

 LINNUA HOLMQUIST 3/16/03 DATE
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

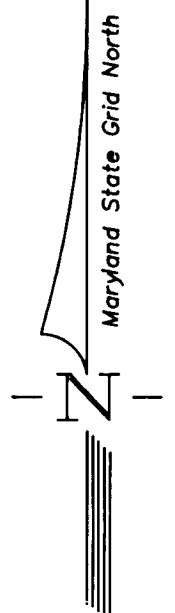
| | |
|----------|----------|
| DATE | JULY 90 |
| PROJECT | 9008300 |
| DESIGNER | DDD |
| REVISION | JLM/MAJ |
| SCALE | AS SHOWN |
| APPROVED | J.B.M. |

2. REVIEWED PER COUNTY COMMENTS DATED 1/29/03
 1. REVISED PER COUNTY COMMENTS 8/10/00
 C. FIRST SUBMISSION TO HOWARD COUNTY DEP. 7/16/00

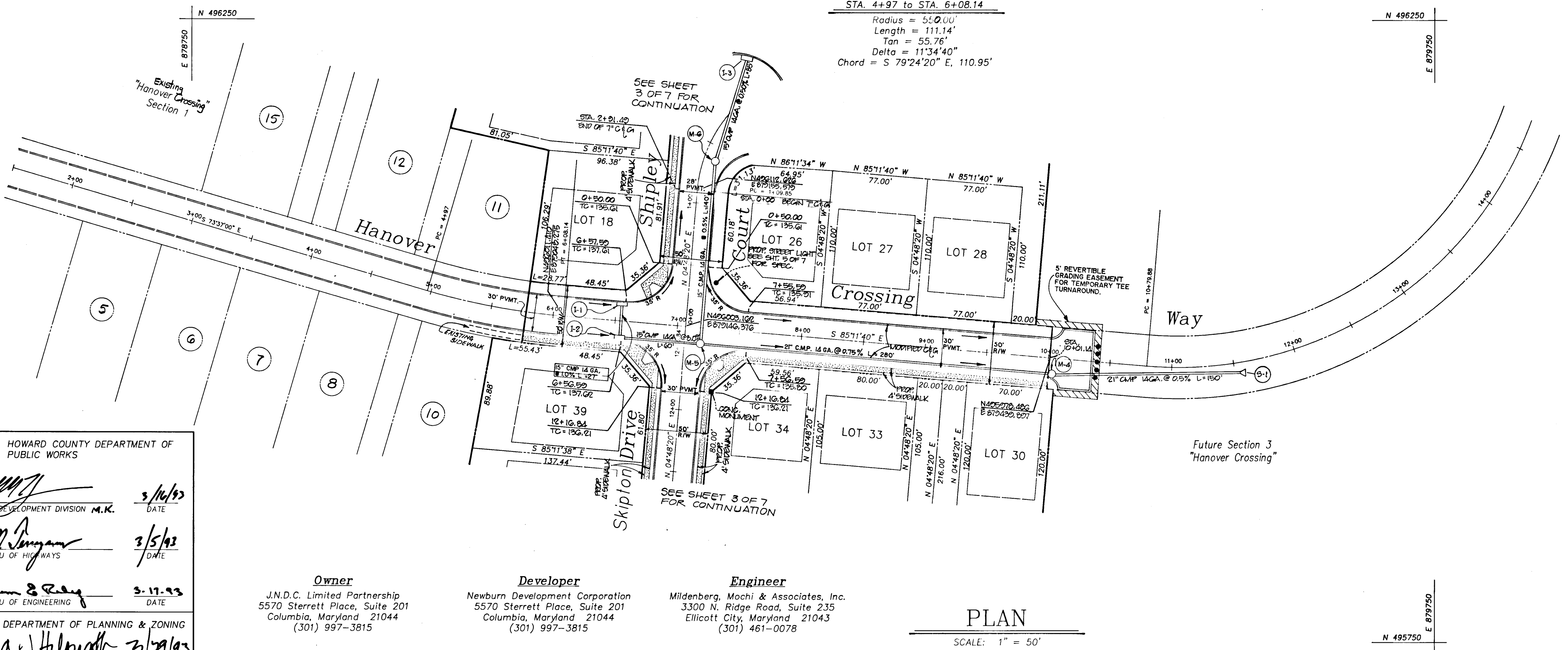
HANOVER CROSSING - SECTION TWO
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 38 PARCEL 266 L. 1519 F. 560
TITLE SHEET

MILDENBERG, OCHI & ASSOCIATES, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 North State Road, Suite 215, Ellicott City, Maryland 21043-3350
 (301) 461-0078 P.C. Mgmt. (301) 671-5198

1631



Curve Data
 STA. 4+97 to STA. 6+08.14
 Radius = 50.00'
 Length = 111.14'
 Tan = 55.76'
 Delta = 113°4'40"
 Chord = S 79°24'20" E, 110.95'



General Notes:

- All work shall be done in accordance with Howard County Standards, Specifications and Details for Construction.
- All utility companies must be notified in advance of any construction.
- Storm drainage trenches within road rights-of-way shall be backfilled and compacted in accordance with Howard County Road Code.
- Any damage to public rights-of-way or paving will be corrected at the contractor's expense.
- Contractor to notify the Howard County Inspection and Survey Division at least three days before starting work shown on these drawings (Telephone: (301) 792-7272).
- All traffic control devices shall be installed in accordance with the Manual of Uniform Traffic Control Devices, 1984 Revised Edition.
- Location of existing utilities shall be verified by the contractor prior to starting any work shown on these drawings. Any damage to existing utilities will be corrected at the contractor's expense.
- STORMWATER MANAGEMENT FOR THIS PROJECT WAS APPROVED 9/16/91 AS PLAN F-85-18, AND TITLED "HANOVER CROSSING - SECTION ONE, LOTS 1-17".

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 3/16/93
 NOT CHIEF, LAND DEVELOPMENT DIVISION M.R. DATE
 [Signature] 3/5/93
 CHIEF, BUREAU OF HIGHWAYS DATE
 [Signature] 3-17-93
 CHIEF, BUREAU OF ENGINEERING DATE
 APPROVED: DEPARTMENT OF PLANNING & ZONING
 [Signature] 3/21/93
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

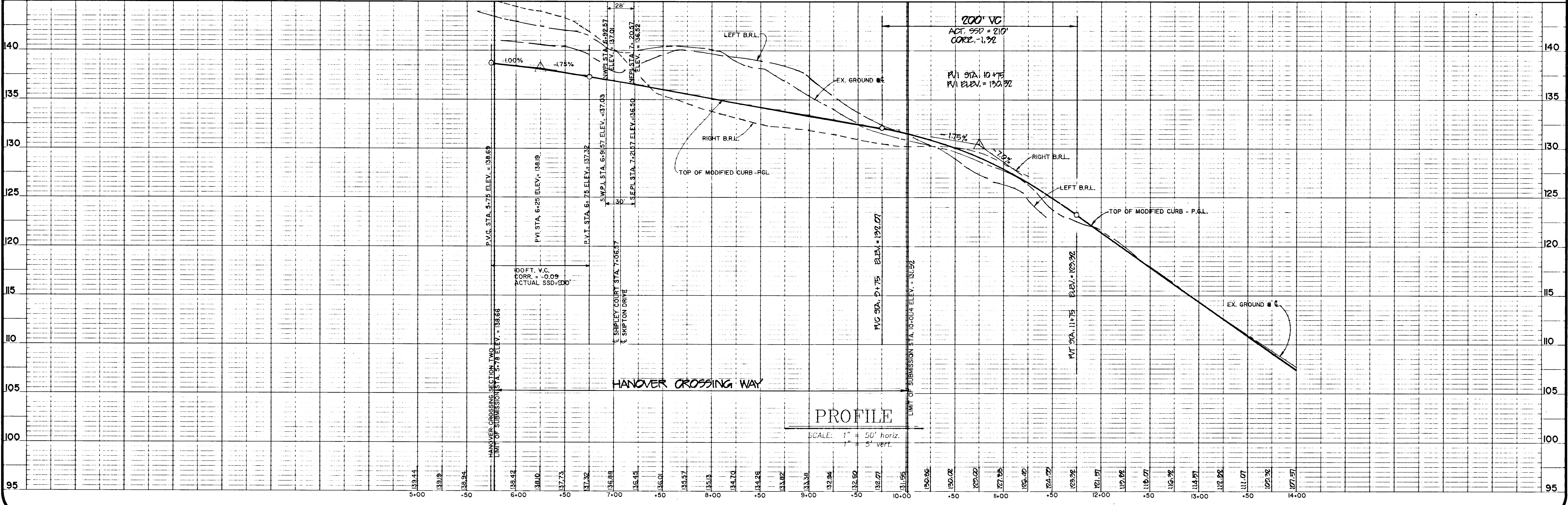
Owner
 J.N.D.C. Limited Partnership
 5570 Sterrett Place, Suite 201
 Columbia, Maryland 21044
 (301) 997-3815

Developer
 Newburn Development Corporation
 5570 Sterrett Place, Suite 201
 Columbia, Maryland 21044
 (301) 997-3815

Engineer
 Mildenberg, Mochi & Associates, Inc.
 3300 N. Ridge Road, Suite 235
 Ellicott City, Maryland 21043
 (301) 461-0078

PLAN

SCALE: 1" = 50'



PROFILE

SCALE: 1" = 50' horiz.
 1" = 5' vert.

1631

Section 2
 LOTS 18-41

HANOVER CROSSING

Tax Map 38 Parcel 266

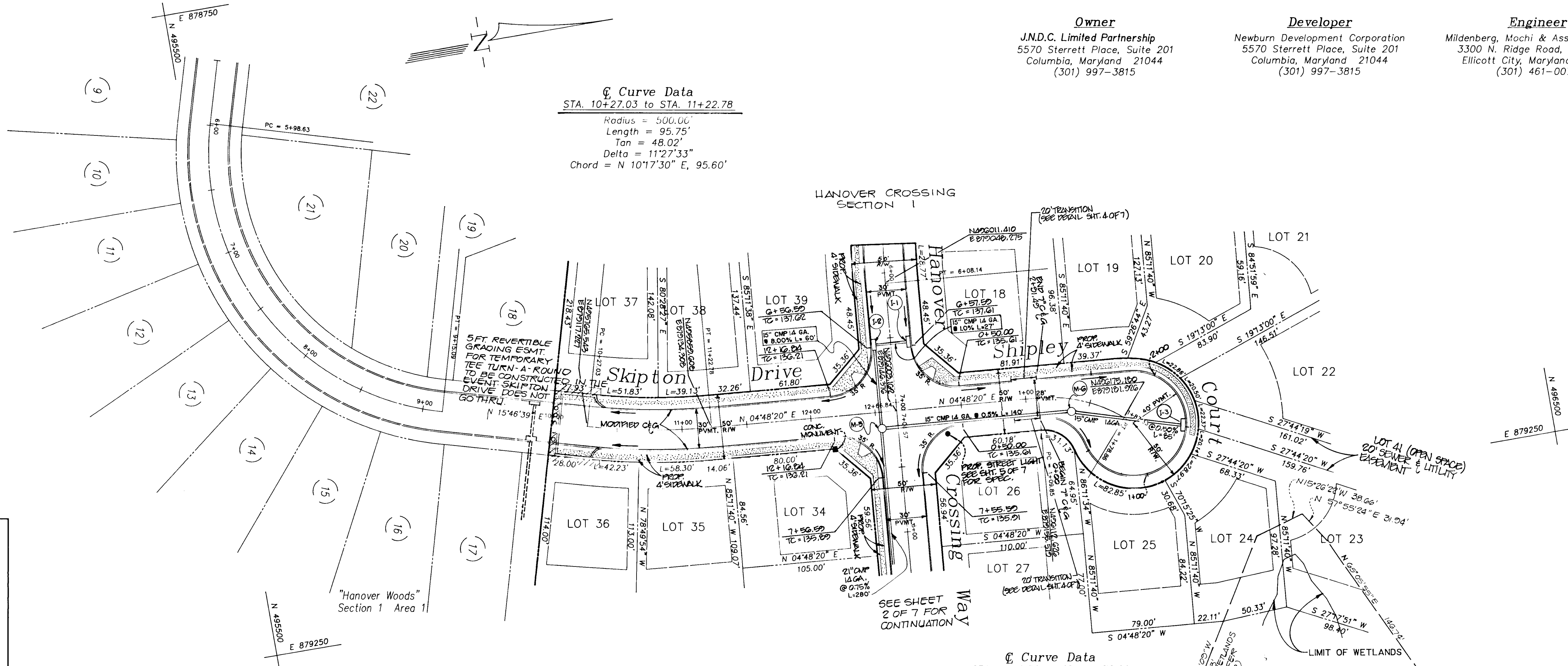
Howard County, Maryland

HANOVER CROSSING WAY - PLAN & PROFILE

MILDENBERG, MOCHI & ASSOCIATES, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (301) 461-0078 D.C. Metro: (301) 921-3788

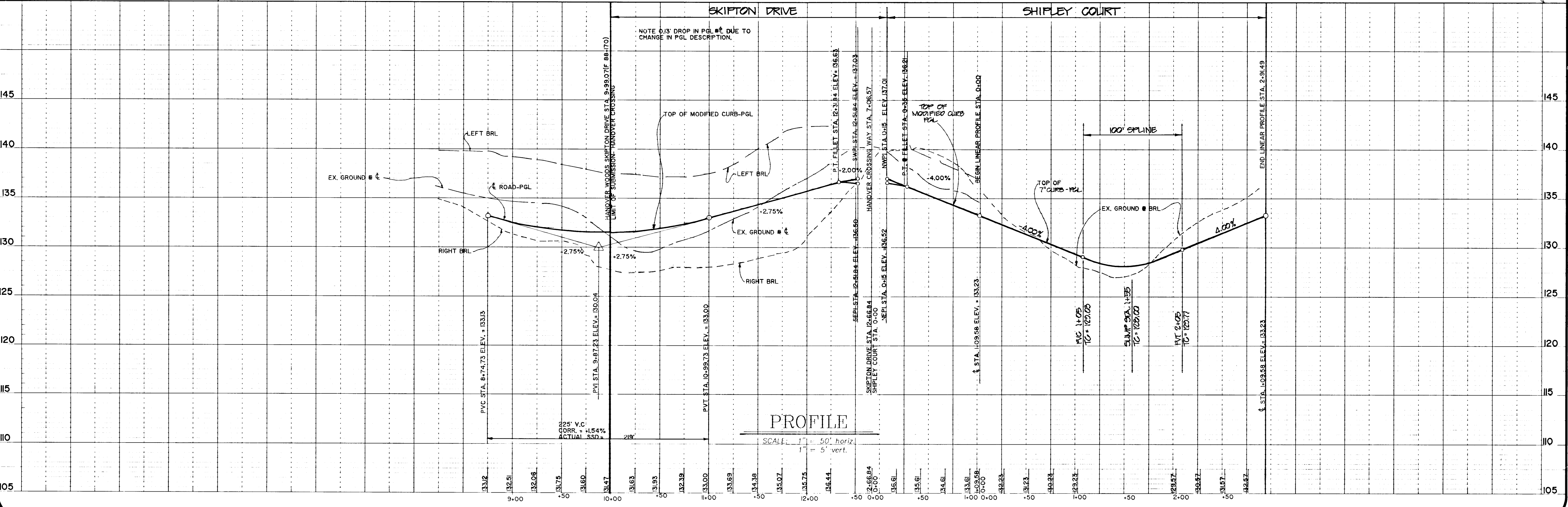
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|--------------|----------|-------------|-----------|
| Project | 90013.00 | date | July, '90 |
| Illustration | JLM/MAJ | engineering | JLM/MAJ |
| scale | 1" = 50' | approval | JLM |

| | | | |
|--------------|----------|-------------|---------|
| Project | 90013.00 | date | 7/6/90 |
| Illustration | JLM/MAJ | engineering | JLM/MAJ |
| scale | 1" = 50' | approval | JLM |



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 7/14/93 DATE
 CHIEF, LAND DEVELOPMENT DIVISION
 [Signature] 3/5/93 DATE
 CHIEF, BUREAU OF HIGHWAYS
 [Signature] 3-17-93 DATE
 CHIEF, BUREAU OF ENGINEERING
 APPROVED: DEPARTMENT OF PLANNING & ZONING
 [Signature] 3/29/93 DATE
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

PLAN
 SCALE: 1" = 50'



PROFILE
 SCALE: 1" = 50' horiz.
 1" = 5' vert.

Owner
 J.N.D.C. Limited Partnership
 5570 Sterrett Place, Suite 201
 Columbia, Maryland 21044
 (301) 997-3815

Developer
 Newburn Development Corporation
 5570 Sterrett Place, Suite 201
 Columbia, Maryland 21044
 (301) 997-3815

Engineer
 Mildenberg, Mochi & Associates, Inc.
 3300 N. Ridge Road, Suite 235
 Ellicott City, Maryland 21043
 (301) 461-0078

| | | | |
|--------------|----------|-------------|----------|
| Project | 90013.00 | date | July '90 |
| Illustration | JLM/MAJ | engineering | JLM/MAJ |
| scale | 1" = 50' | approval | JBM |

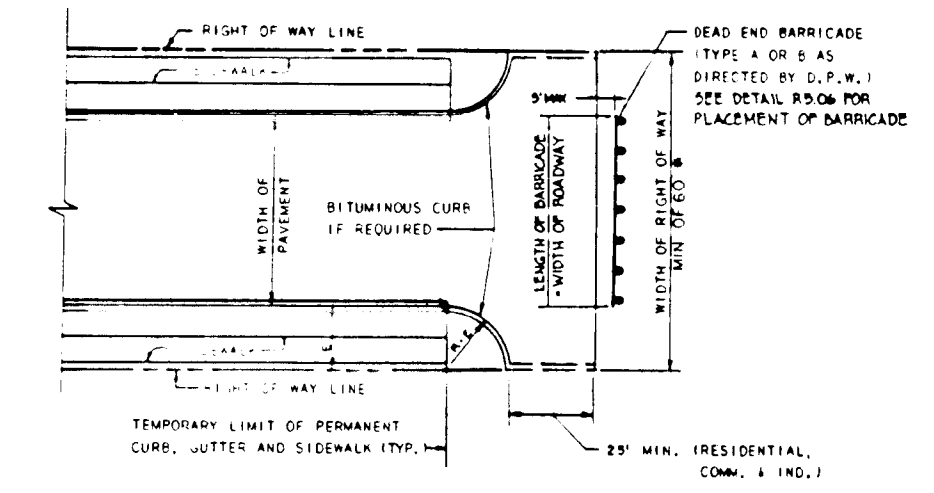
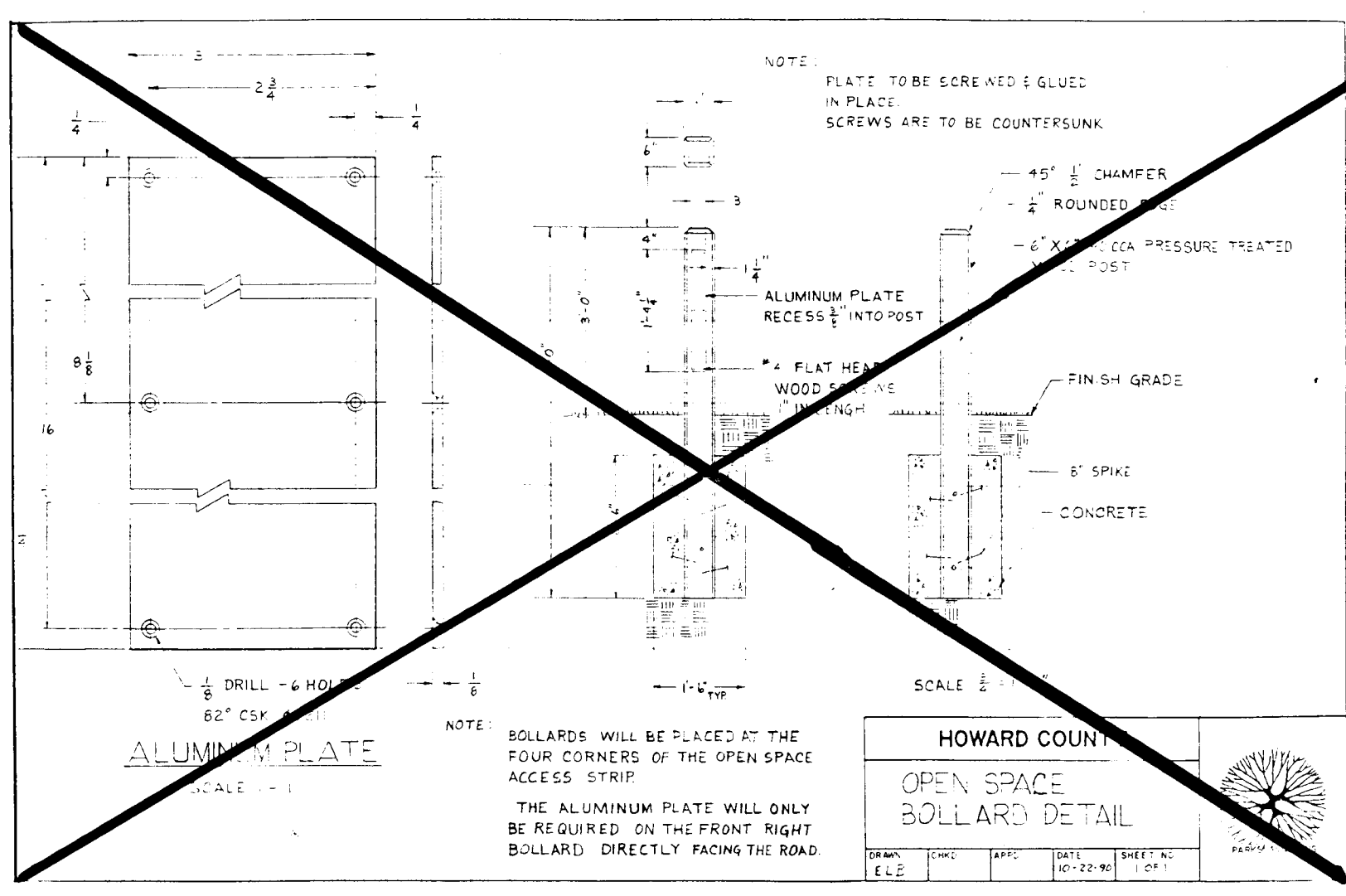
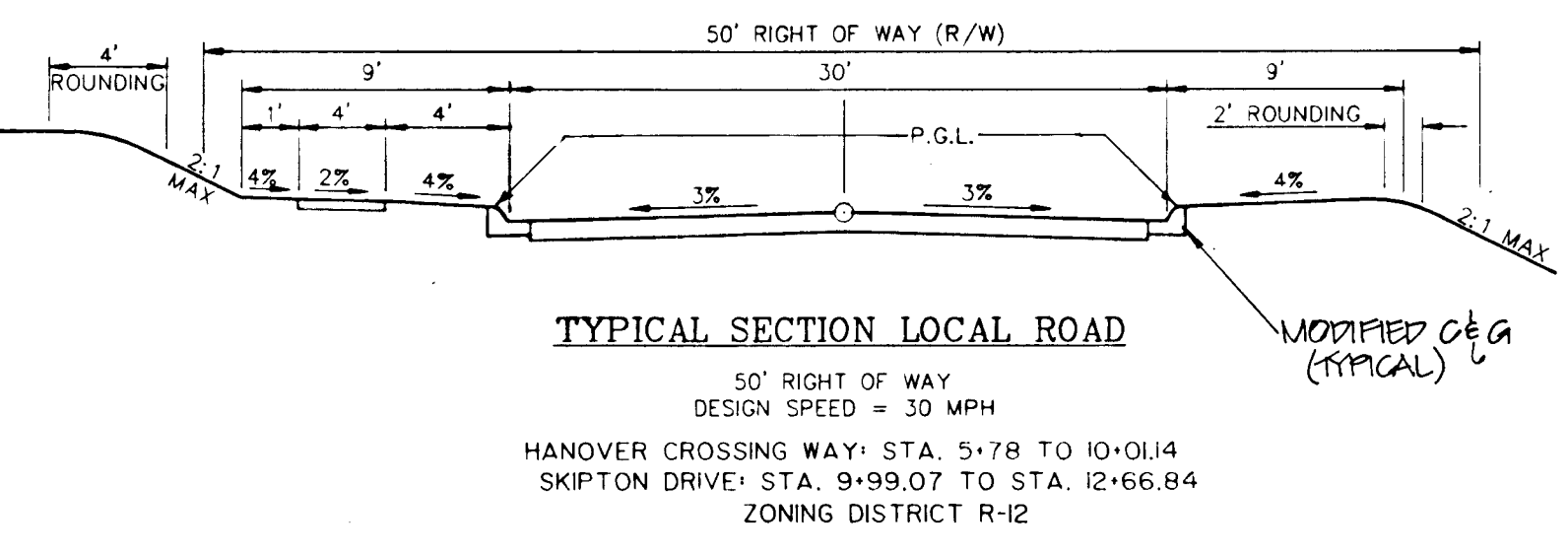
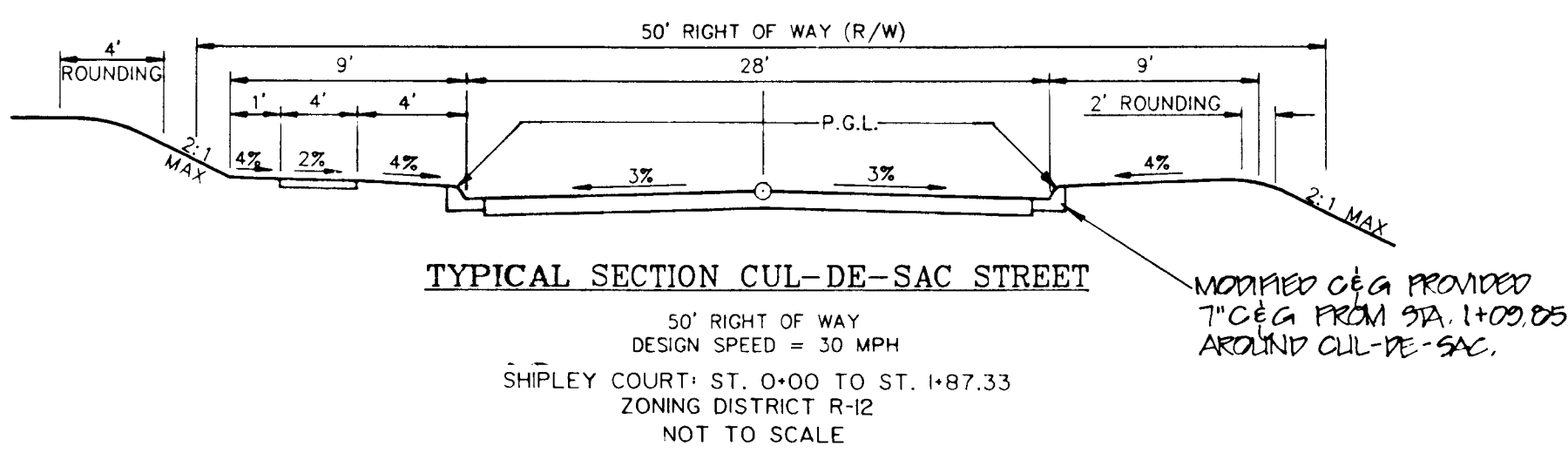
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|-------------|--|-----------|----------|
| no. | 1 | date | 7/7/93 |
| description | First submission to Howard County DPZ | revisions | |
| no. | 2 | date | 9/10/93 |
| description | REMOVED PER COUNTY COMMENTS PARCEL 11/28 | revisions | |
| no. | 3 | date | 10/14/93 |
| description | REUSED FOR COUNTY COMMENTS | revisions | |

Section 2
HANOVER CROSSING
 Parcel 266
 Election District No. 1
 SKIPTON DRIVE & SHIPLEY COURT - PLANS & PROFILES
 Howard County, Maryland

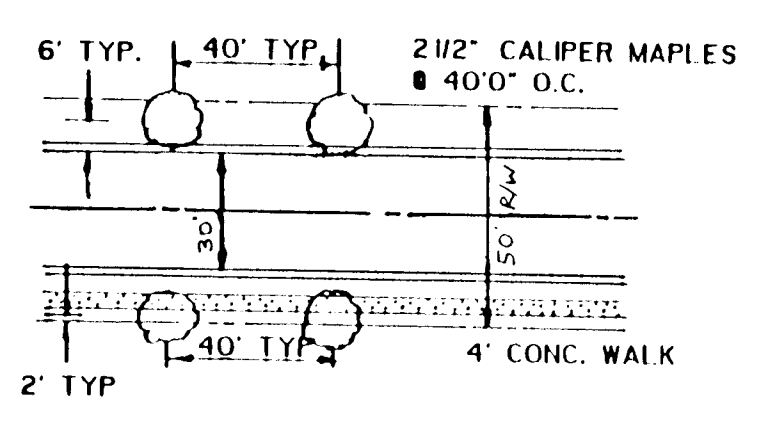
MILDENBERG, MOCHI & ASSOCIATES, INC.
 ENGINEERS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (301) 461-0078 D.C. Metro: (301) 921-5786

1631

1631

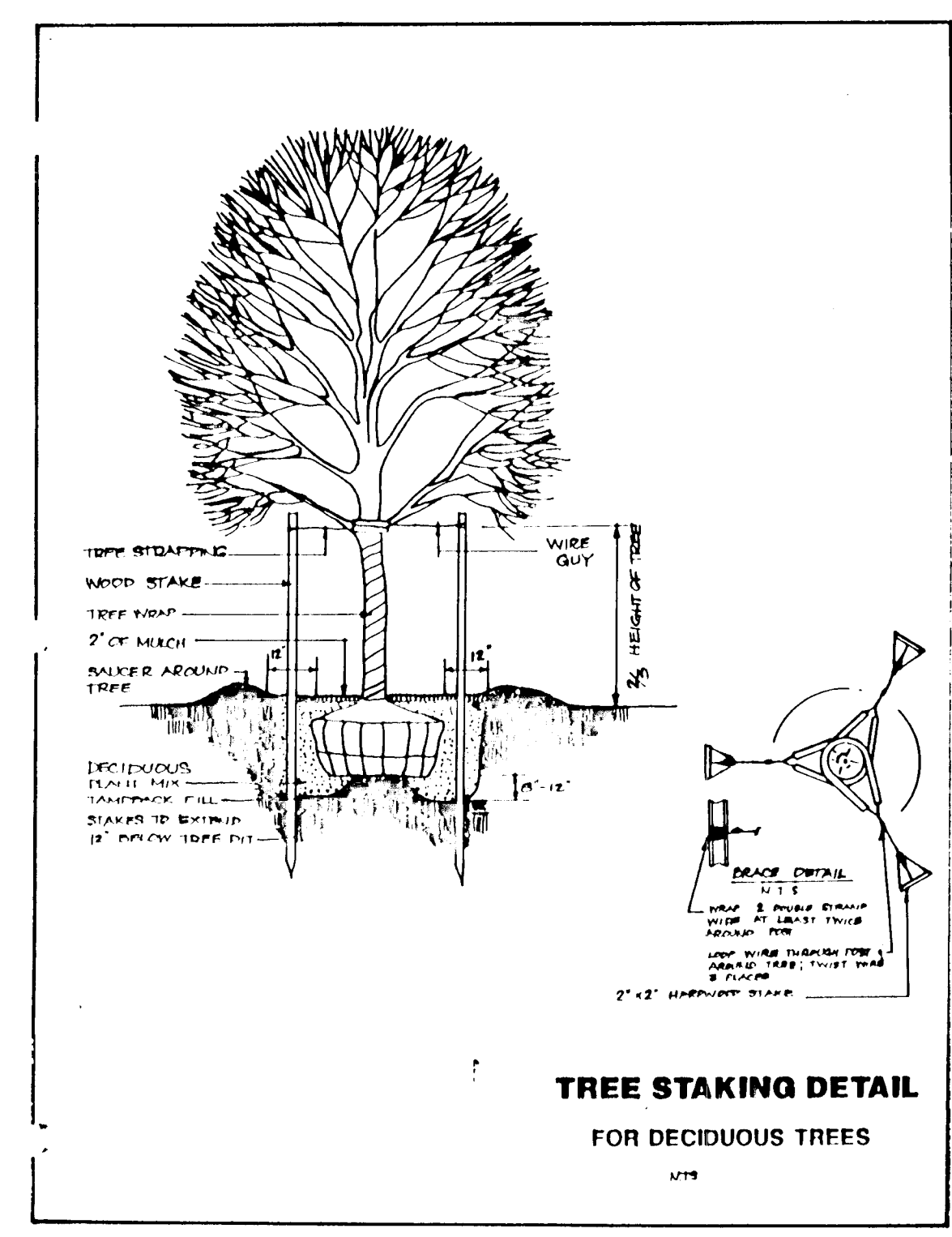


- NOTES:
- A TEE TURN-AROUND SHALL BE USED IN LIEU OF A CUL-DE-SAC ONLY IF THE STREET IS TO BE EXTENDED IN THE FUTURE.
 - BITUMINOUS CURB SHALL EXTEND AROUND THE TEE TURN-AROUND IF AND AS REQUIRED TO CONTROL CURB DRAINAGE FROM THE ROADWAY SECTION.
 - REFER TO STANDARD R-13.0 FOR TYPICAL ROADWAY PROFILE OF TEMPORARY LIMIT OF PAVING.
 - FOR LOCAL ROADS, PROVIDE 5' REVERSIBLE EASEMENT EACH END OF THE TEE.
 - PROVIDE EASEMENTS AS REQUIRED FOR PLACEMENT OF BARRICADE AND ANY NECESSARY GRADING (SEE DETAIL R5.06).

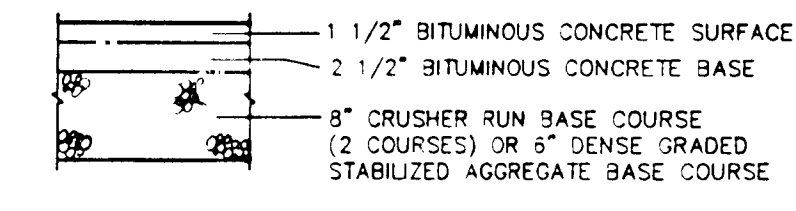
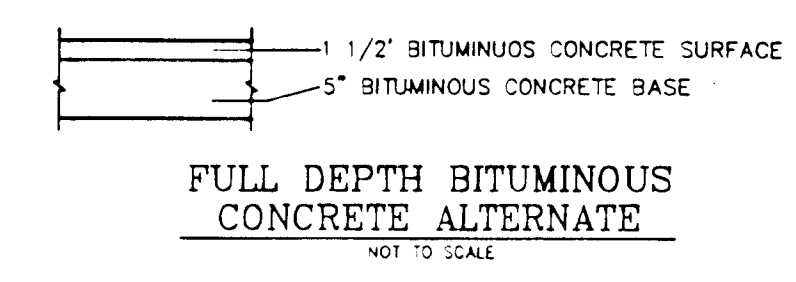
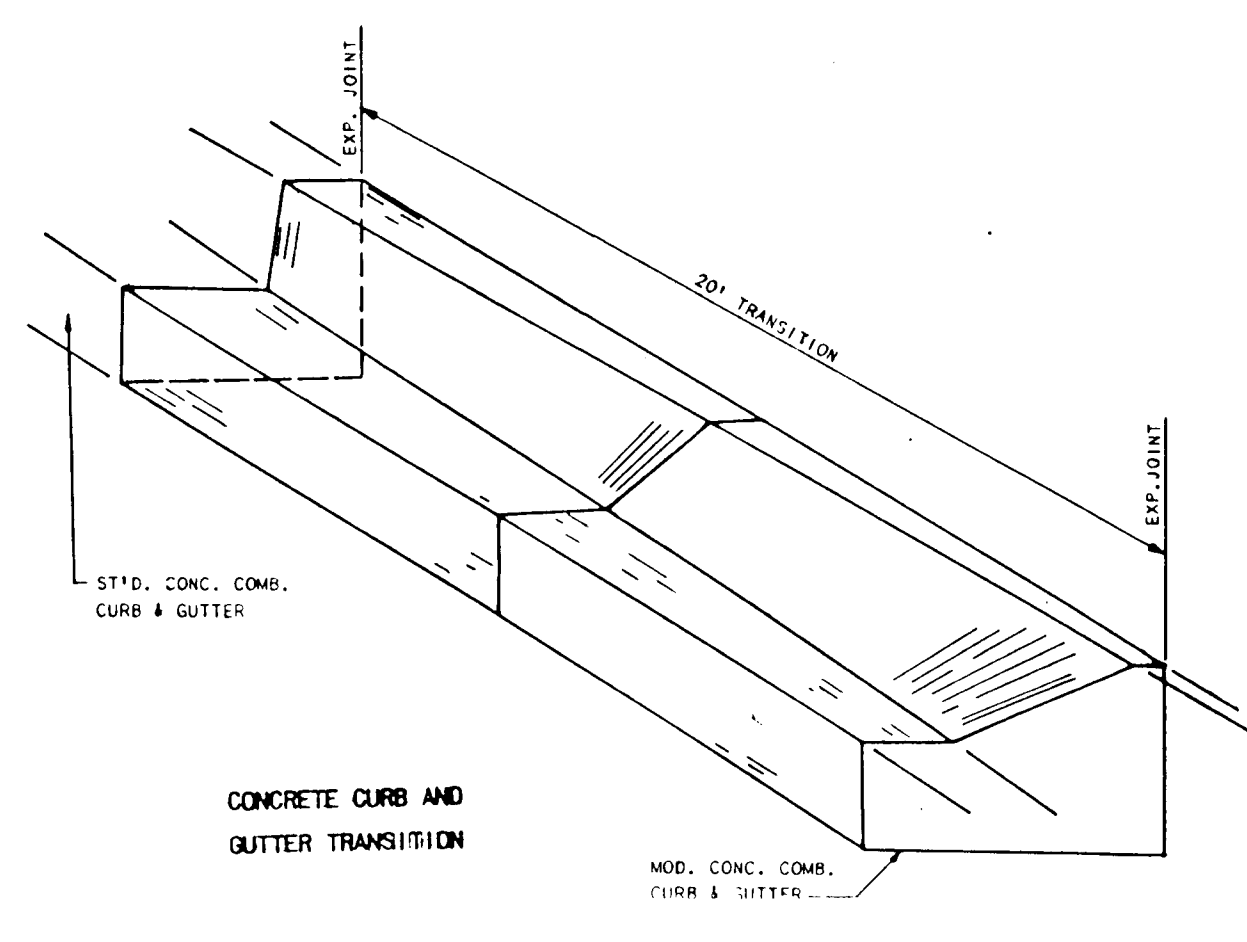


NOTE: TREES SHALL BE PLANTED 2' FROM SIDEWALK NEAR PROPOSED R/W WHERE THERE IS SIDEWALK. WHERE THERE ARE NO SIDEWALKS, TREES SHALL BE PLANTED 6' BEHIND THE CURB.

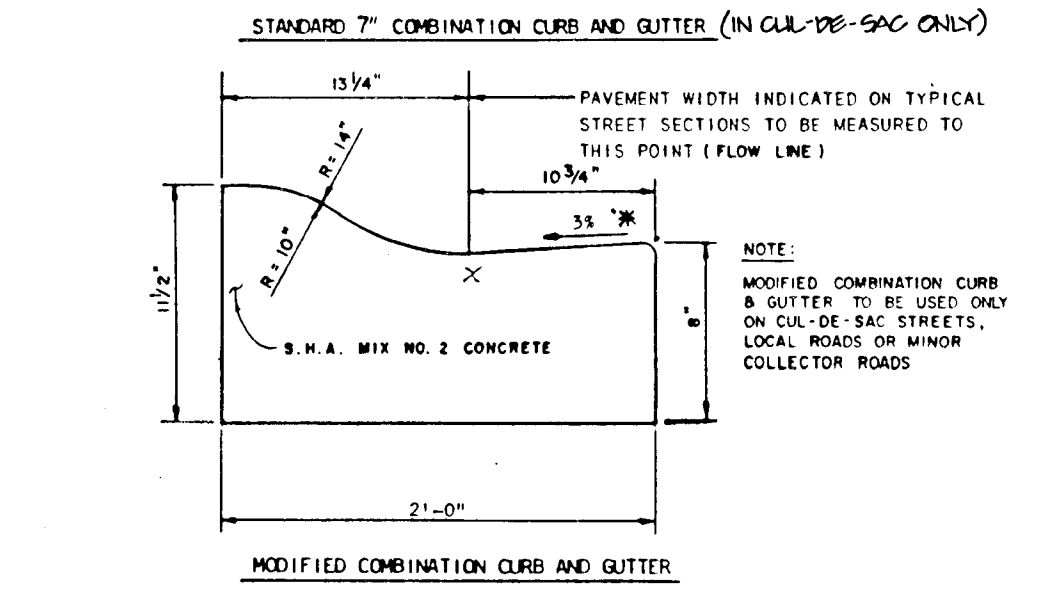
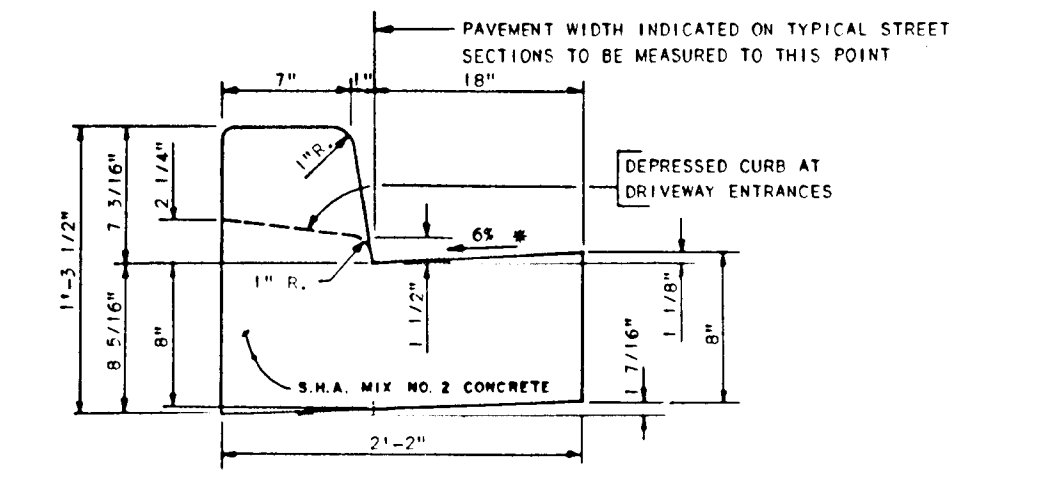
TREE PLANTING DETAIL
NOT TO SCALE



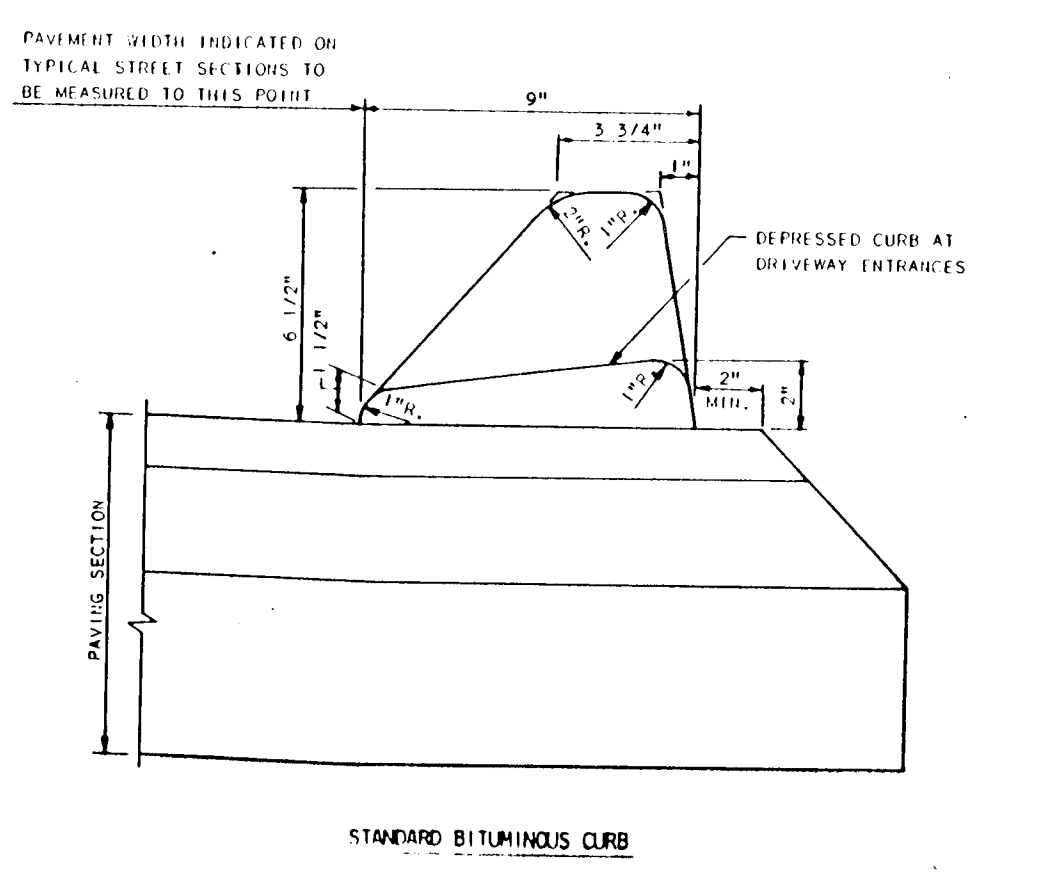
TREE STAKING DETAIL
FOR DECIDUOUS TREES
J19



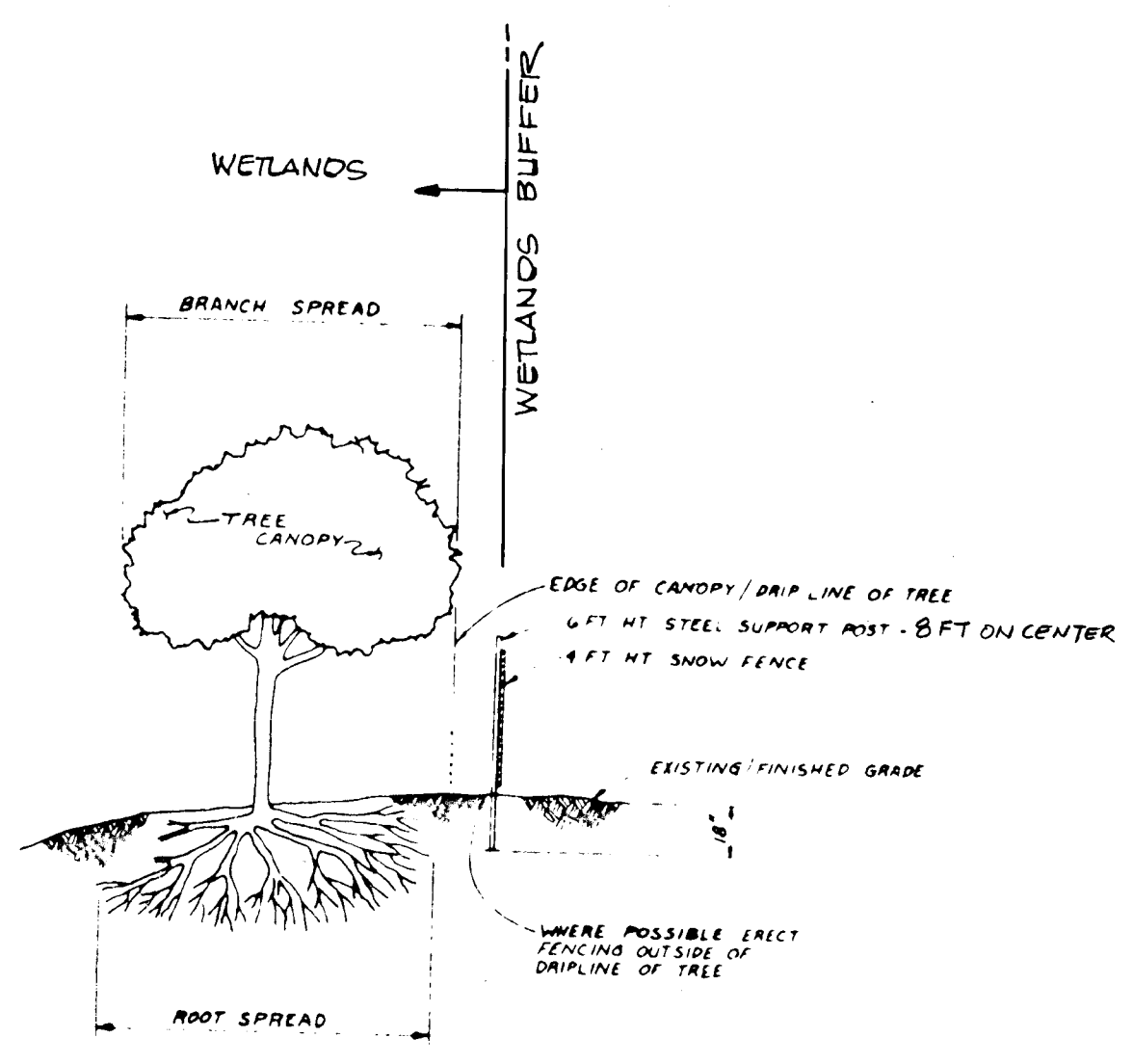
PAVING SECTION P-2
NOT TO SCALE



GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB AND GUTTER.



| LANDSCAPE TABULATION | | | | |
|----------------------|----------|-------------------------|-----------|---------|
| SYMBOL | QUANTITY | SPECIES NAME | SIZE | REMARKS |
| | 43 | ACER RUBRUM (RED MAPLE) | 2 1/2\"/> | |



CONSTRUCTION FENCE DETAIL



OWNER:
J.N.D.C. LIMITED PARTNERSHIP
SUITE 201
5570 STERRET PLACE
COLUMBIA, MD 21044
(301) 997-3815

DEVELOPER:
NEWBURN DEVELOPMENT CORP.
SUITE 201
5570 STERRET PLACE
COLUMBIA, MD 21044
(301) 997-3815

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 3/16/93
CHIEF, LAND DEVELOPMENT DIVISION M.K. DATE
[Signature] 3/5/93
CHIEF, BUREAU OF HIGHWAYS DATE
[Signature] 3-17-93
CHIEF, BUREAU OF ENGINEERING DATE
APPROVED: DEPARTMENT OF PLANNING & ZONING
[Signature] 3/27/93
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

HANOVER CROSSING - SECTION TWO
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP 38 PARCEL 266 L.1519 F. 560

LOTS 18-41

ILDENBERG, LOCHI & ASSOCIATES, INC.
PLANNERS
3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
(301) 461-0073 D.C. Metro (301) 827-5788

DATE: JULY 90
PROJECT: 90033.00
DRAWING: 18-41-02
DESIGNER: D.D.D.
CHECKER: D.D.D.
SCALE: AS SHOWN
APPROVAL: J.B.M.

2 REVISED PER COUNTY COMMENTS DATED 11/92
1 REVISED PER COUNTY COMMENTS DATED 10/18/93
0 FIRST SUBMISSION TO HOWARD COUNTY DEPT. OF PUBLIC WORKS
DATE: 7/8/93
SCALE: AS SHOWN
APPROVAL: J.B.M.

1631

**EXISTING TRAP NO. 1
RIP-RAP OUTLET 9'-VI**

| | |
|---------------------|-------------|
| DRAINAGE AREA (MAX) | 4.0 AC. |
| VOLUME REQ'D | 7,220 C.F. |
| BOTTOM DIM. | 40' x 20' |
| BOTTOM ELEV. | 118' |
| CREST ELEV. | 122' |
| STORAGE DEPTH | 4' |
| SIDE SLOPES | 1.5 |
| STORAGE PROVIDED | 17,152 C.F. |
| CLEAN OUT ELEV. | 102' |

NOTE: EXISTING SIDEWALK MANAGEMENT/SEDIMENT BASIN SHALL BE USED FOR EROSION/SEDIMENT CONTROL FOR THIS PROJECT, APPROVED UNDER F-00-10 ROAD DRAWINGS.



SEDIMENT BASIN DATA *

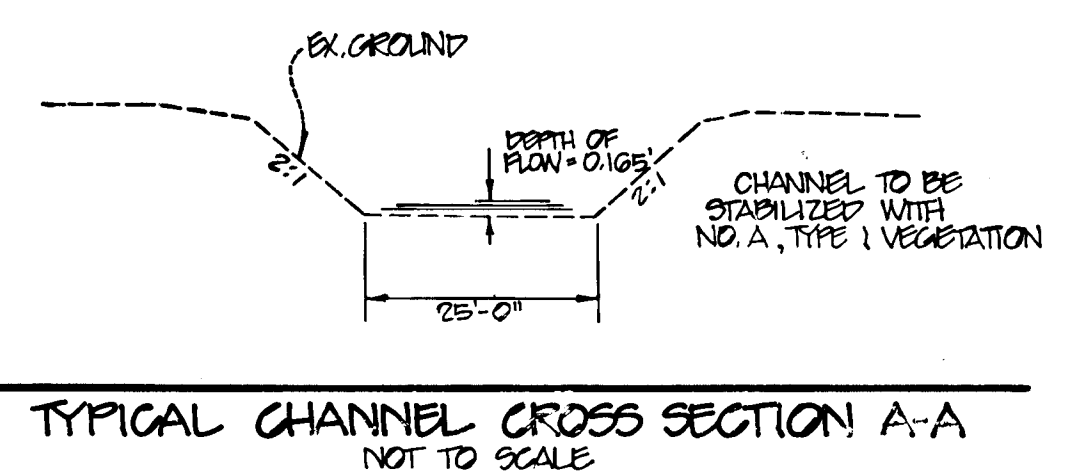
| | |
|-----------------|---------------|
| DRAINAGE AREA | = 10.0 AC. |
| VOLUME REQ'D. | = 18,000 C.F. |
| VOLUME PROVIDED | = 44,431 C.F. |
| CLEANOUT ELEV. | = 83.0' |

* DATA WAS OBTAINED FROM APPROVED SWM COMPUTATIONS UNDER F-89-18, PREPARED BY ENGINEERING CONSULTANTS AND ASSOC. (REVISED 11/15/89).

LEGEND

- EARTH DIKE
- DRAINAGE TO STORM DRAIN INLETS
- LIMIT OF DISTURBANCE
- SILT FENCE
- DRAINAGE DIVIDE
- STREET LAMP - TYPE "B" 175 WATT MERCURY VAPOR LAMP MOUNTED ON A 14" HIGH FIBERGLASS BRONZE POLE
- PROPOSED GRADES FOR SECTION ONE
- STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
- EXISTING SILT FENCE

- NOTE:**
1. THE WETLAND/STREAMBANK INDICATED ON THIS PLAN DOES NOT AFFECT THE INITIAL CONSTRUCTION OF A RESIDENTIAL UNIT ON A LOT. IT DOES PROHIBIT SUBSEQUENT CLEARING, GRADING OR CONSTRUCTION IN THE BUFFER AREA. MAINTENANCE OF RESIDENCES, LANDSCAPING AND UTILITIES IS PERMITTED.
 2. CONSTRUCTION OF LOTS 20 AND 21 SHALL BE DELAYED UNTIL TRAP #1 IS REMOVED. TRAP #1 AND ASSOCIATED DIKES SHALL NOT BE REMOVED PRIOR TO STABILIZATION OF SECTION I AND II.



REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

James M. Zelen 2/24/93
U.S. SOIL CONSERVATION SERVICE DATE

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

Scott W. Stilling 2/24/93
U.S. SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Mark J. 3/16/93
CHIEF, LAND DEVELOPMENT DIVISION DATE

Alan M. Tennant 3/3/93
CHIEF, BUREAU OF HIGHWAYS DATE

Robert B. Reay 3-17-93
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Shirley Johnson 3/22/93
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

ENGINEER'S CERTIFICATE

I hereby certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John M. DeLala 7/6/92
DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this project will have a certificate of attendance at a Department of ENVIRONMENT approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

J.N.D.C. Limited Partnership
By: *James L. Newman, Pres.* 6-24-90
Signature of Developer Date

OWNER:
J.N.D.C. LIMITED PARTNERSHIP
SUITE 201
5570 GIBBERT PLACE
COLUMBIA, MD 21044
(301) 997-3015

DEVELOPER:
NEWBURN DEVELOPMENT CORP.
SUITE 201
5570 GIBBERT PLACE
COLUMBIA, MD 21044
(301) 997-3015

LOT 18-41

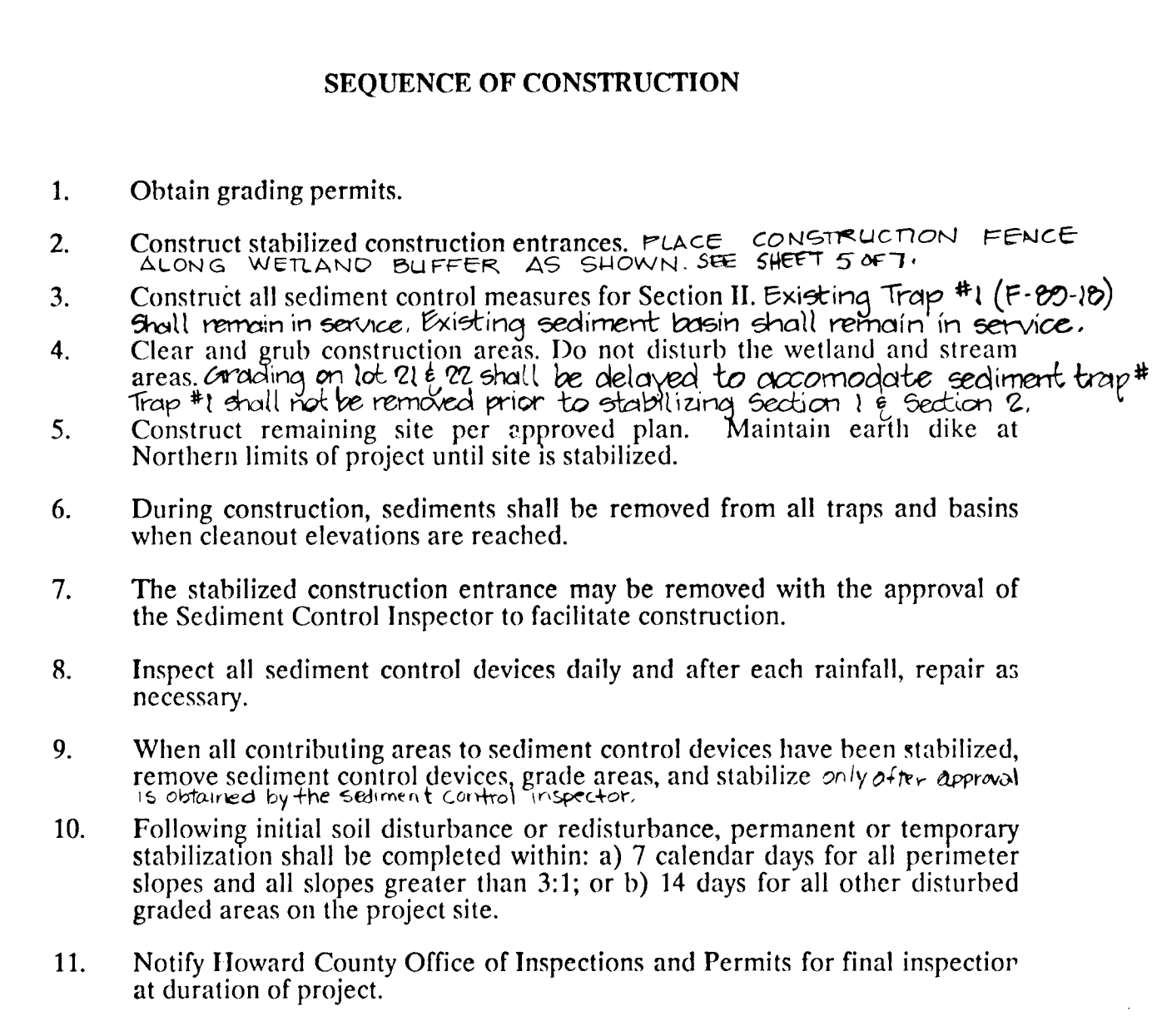
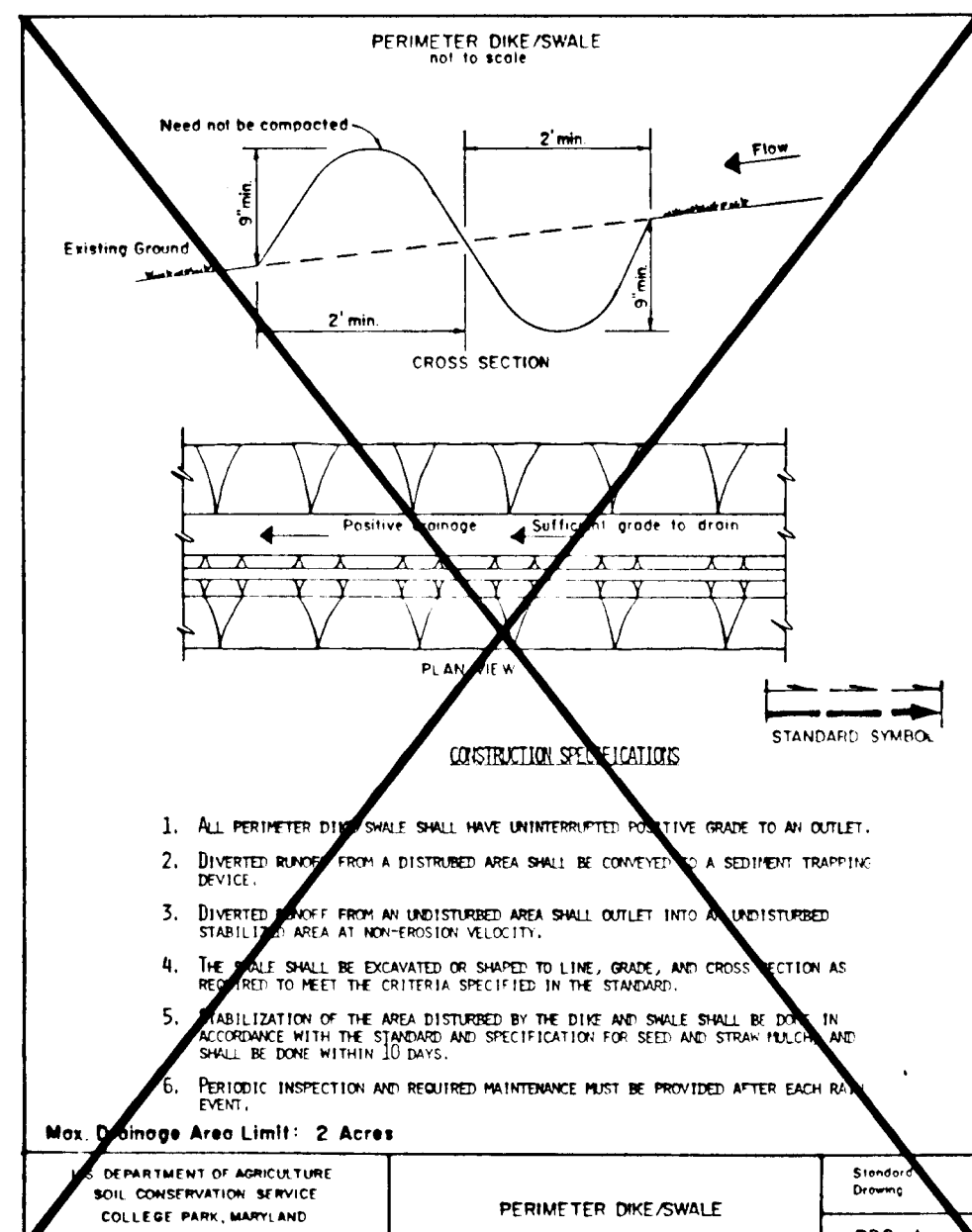
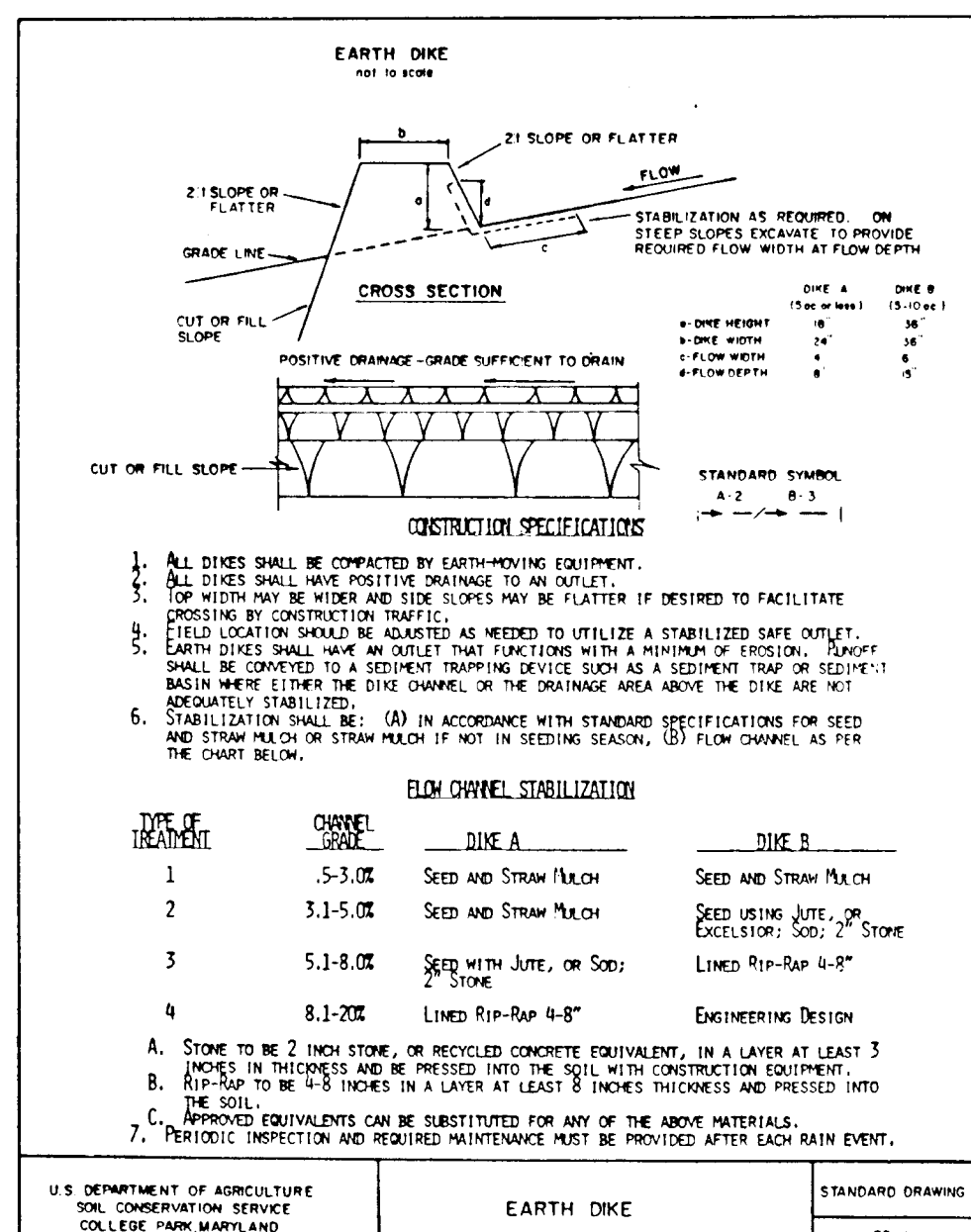
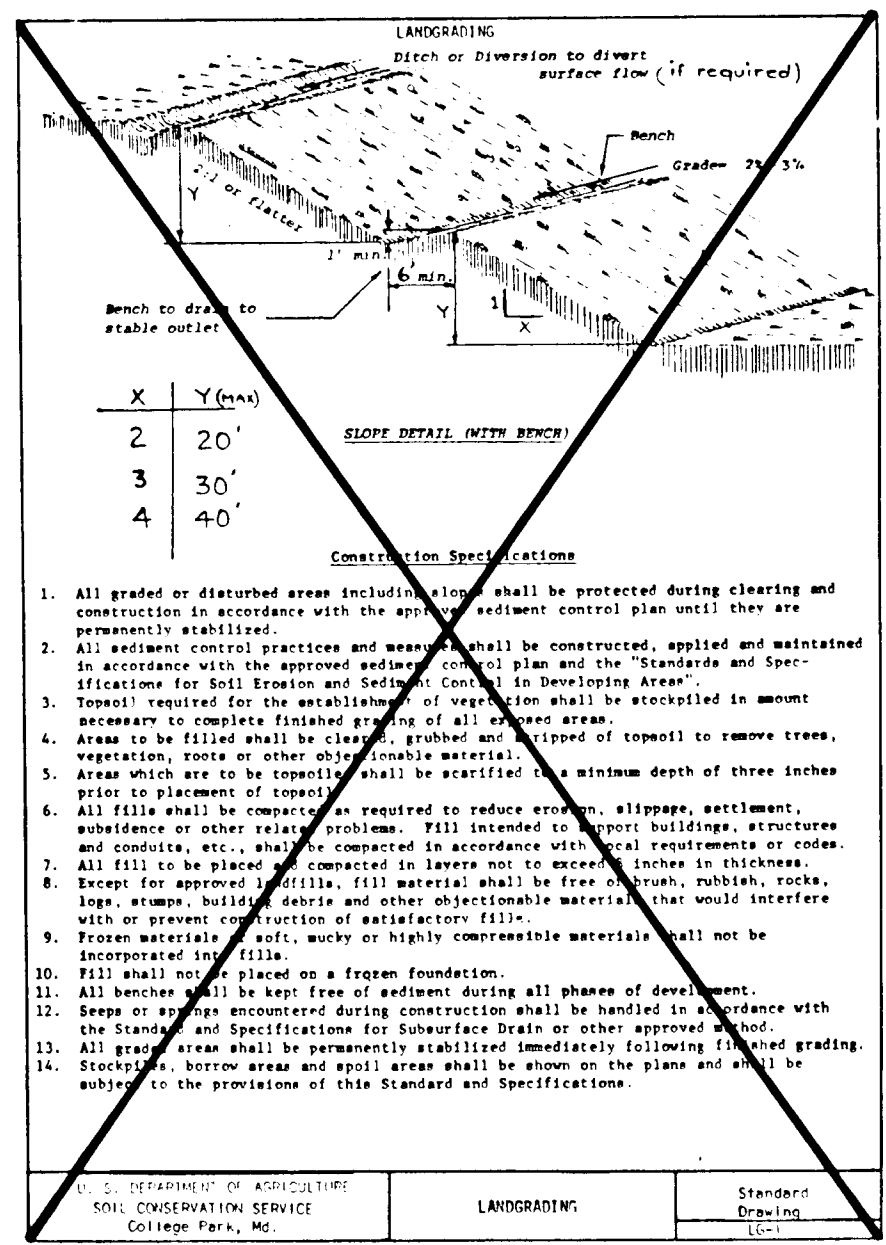
SECTION 2
HANOVER CROSSING
Tax Map 38 Parcel 266
Election District No. 1
GRADING & SEDIMENT CONTROL PLAN

HOWARD COUNTY, MARYLAND

| | | | |
|--------------|----------|---|----------|
| PROJECT NO. | 90013100 | DATE | July '90 |
| ENGINEERING | JLM/MAJ | DATE | 11/02 |
| ILLUSTRATION | JLM | DATE | 7/5/92 |
| SCALE | 1" = 50' | DATE | 10/6/92 |
| APPROVAL | JLM | DATE | 7/6/92 |
| REVISIONS | | DESCRIPTION | |
| 1 | | REMOVED PER COUNTY COMMENTS DATED 11/02 | |
| 2 | | REMOVED PER SCS COMMENTS 10/30/92 | |
| 3 | | REVISED PER COUNTY COMMENTS 10/6/92 | |
| 4 | | First submission to Howard County DP2 | |
| 5 | | F-00-10 ROAD DRAWINGS | |

JLDENBERG, BOCH & ASSOCIATES, INC.
REGISTERED PROFESSIONAL ENGINEERS
3300 North Ridge Road, Suite 235, Beltsville, Maryland 21043-3350
(301) 461-0078 Fax: (301) 621-5768

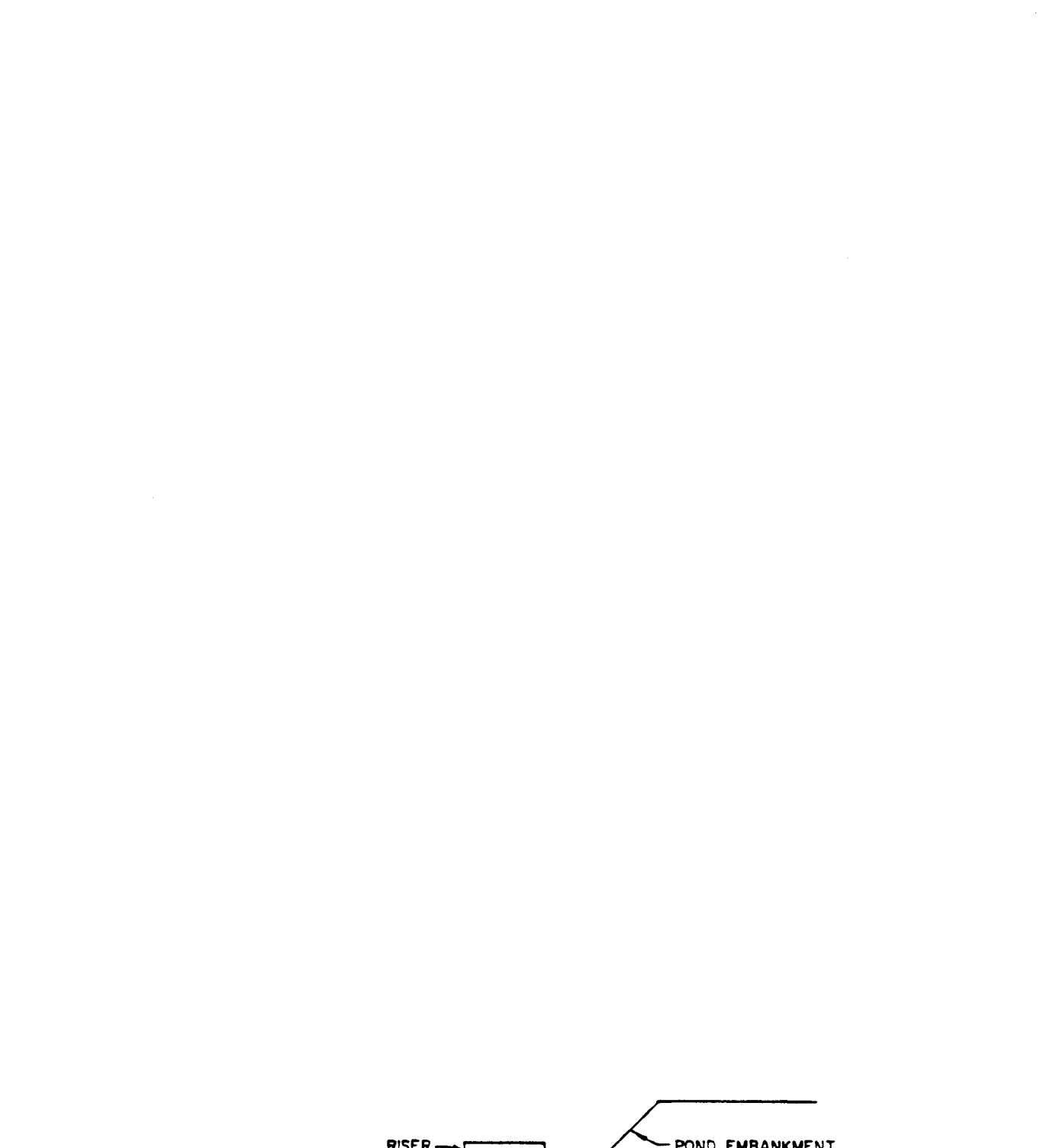
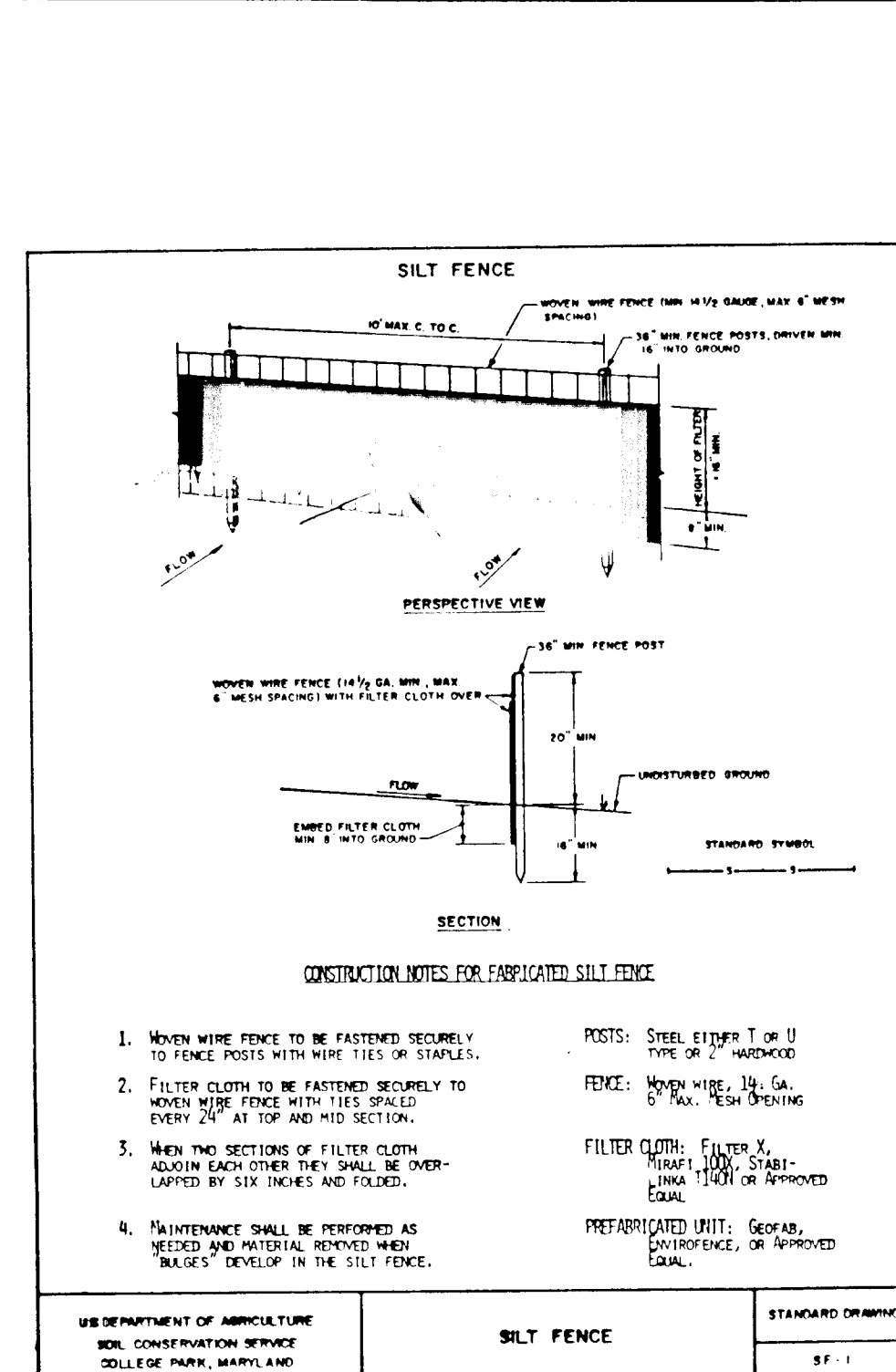
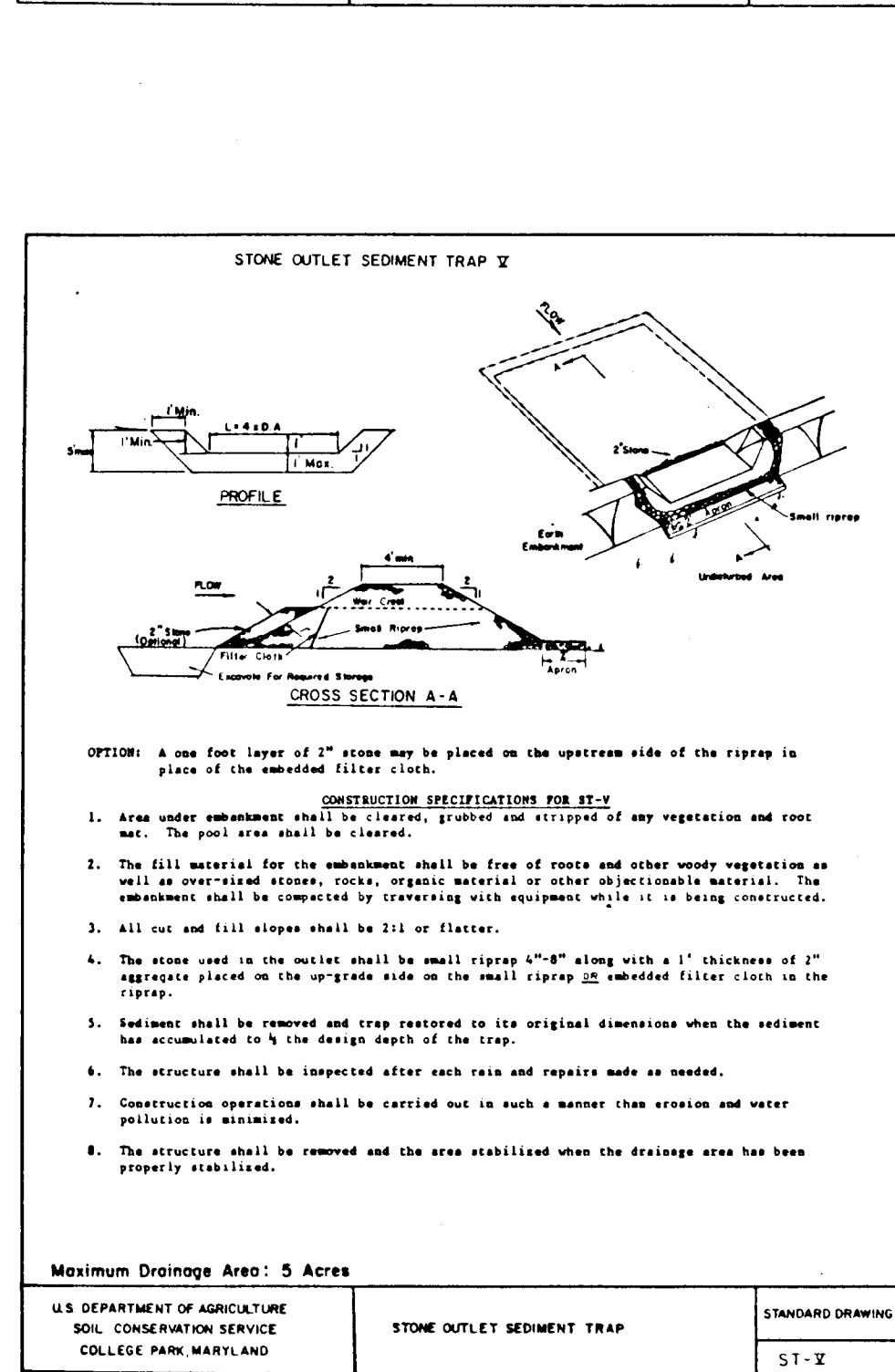
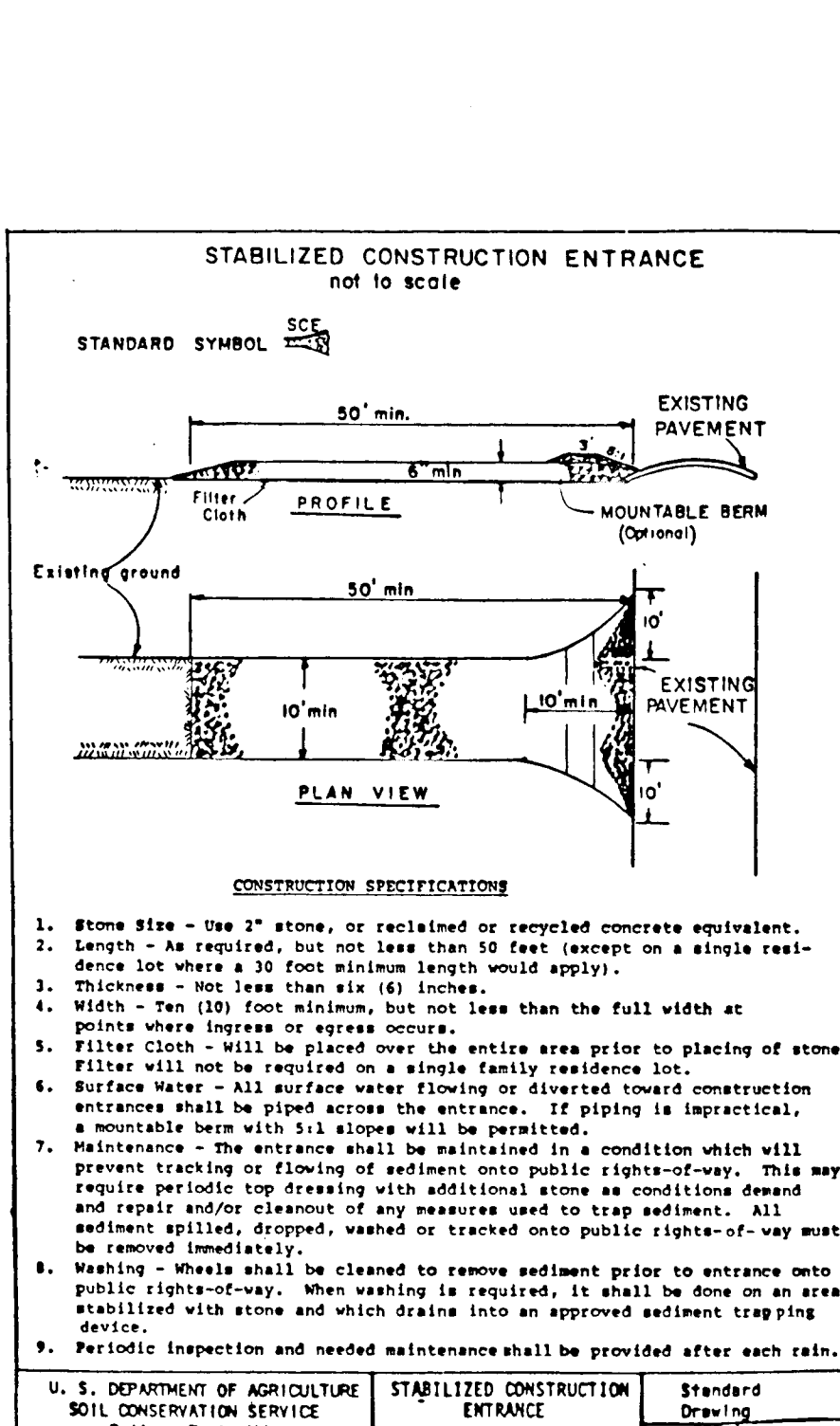
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F-91-04



SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, Licensing and Permits, Sediment Control Division prior to the start of any construction, (311-3650).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be continuous with the most current "NATIONAL STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, ditches, perimeter slopes, and all slopes greater than 3:1; b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shall be installed within the time period specified above their primary in accordance with Vol. 1, Chapter 12, of the HANOVER COUNTY DESIGN MANUAL, Storm Drainage.
- 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 (see Sec. 513, and Sec. 543), temporary seeding (Sec. 513) and mulching (Sec. 523). Temporary stabilization with which slope can only be as low as recommended seeding rates do not allow for proper germination and establishment of vegetation.
- 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 Analysis:
 - Total Area of Site: 7.0 Acres
 - Area Disturbed: 2.0 Acres
 - Area to be seeded or mulched: 0.5 Acres
 - Area to be vegetatively stabilized: 0.5 Acres
 - Total Soil: 6000 Cu. Yds.
 - Total Fill: 6000 Cu. Yds.
 - Offsite waste/hollow area location: MUST HAVE AN APPROVED SEDIMENT CONTROL PLAN.
- Any sediment control practices which are disturbed by grading 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 2 acres, approval of the inspection agency shall be requested upon completion of initial location of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading, other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- 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.

*** CUT & FILL OPERATIONS ARE FOR SEDIMENT CONTROL PURPOSES ONLY. CONTRACTORS TO REPAIR AND MAINTAIN EXISTING EROSION CONTROL DEVICES.**



TEMPORARY SEEDING NOTES

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

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. (If not previously loosened)

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf).

Seeding: For periods March 1 through April 30 and from August 15 through November 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sf) or for the period May 1 through August 14, seed with 3 lbs per acre of Weeping Lovegrass (0.07 lbs/1000 sf). For the period November 16 through February 28, 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 sf) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

Refer to the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for rate and methods not covered.

PERMANENT SEEDING NOTES

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

Seeded 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 on the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sf).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 through April 30 and August 1 through October 15, seed with 60 lbs per acre (1.4 lbs/1000 sf) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.05 lbs/1000 sf) of Weeping Lovegrass. During the period of October 16 through February 28, 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/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sf) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

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

ENGINEER'S CERTIFICATE

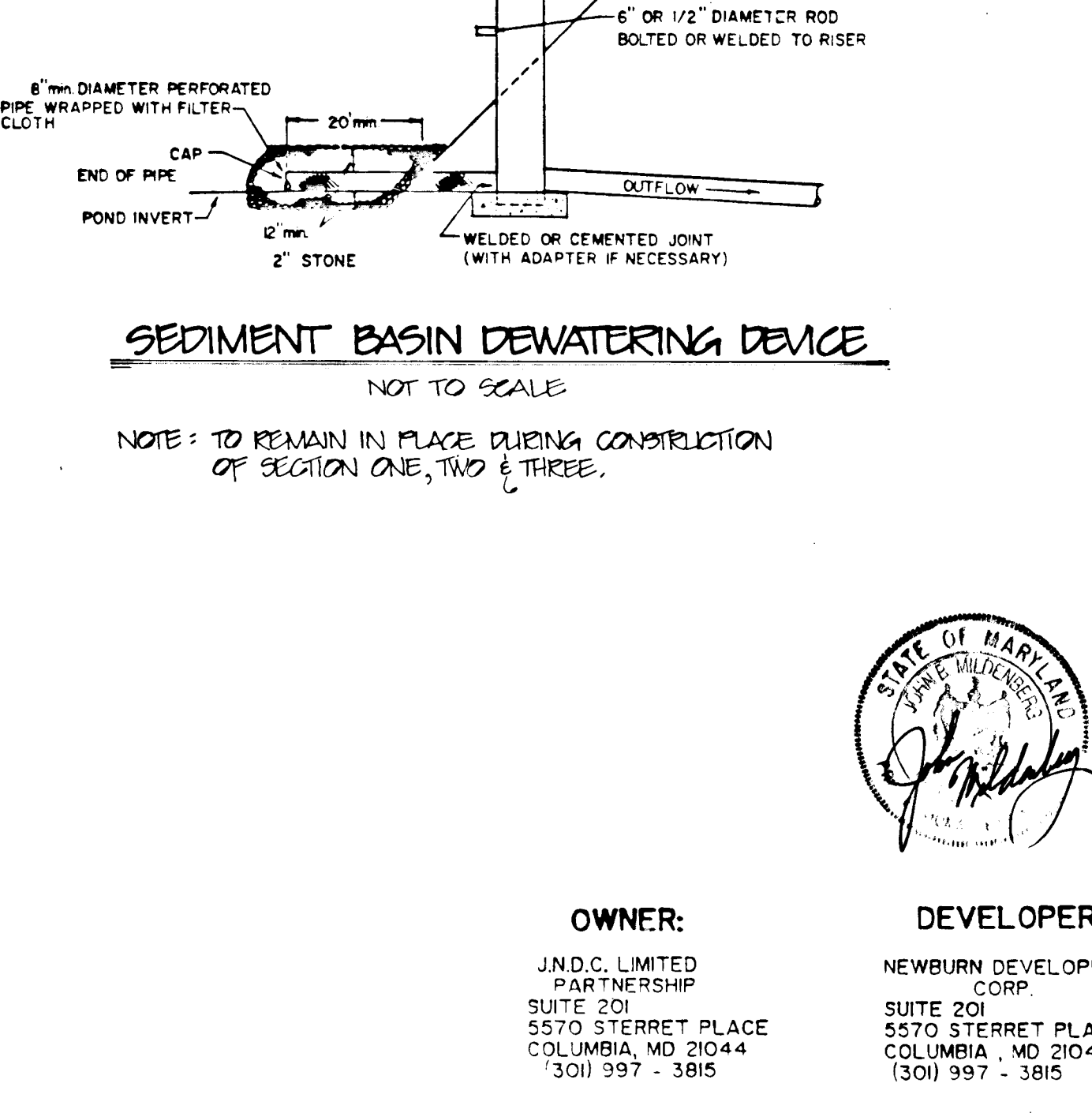
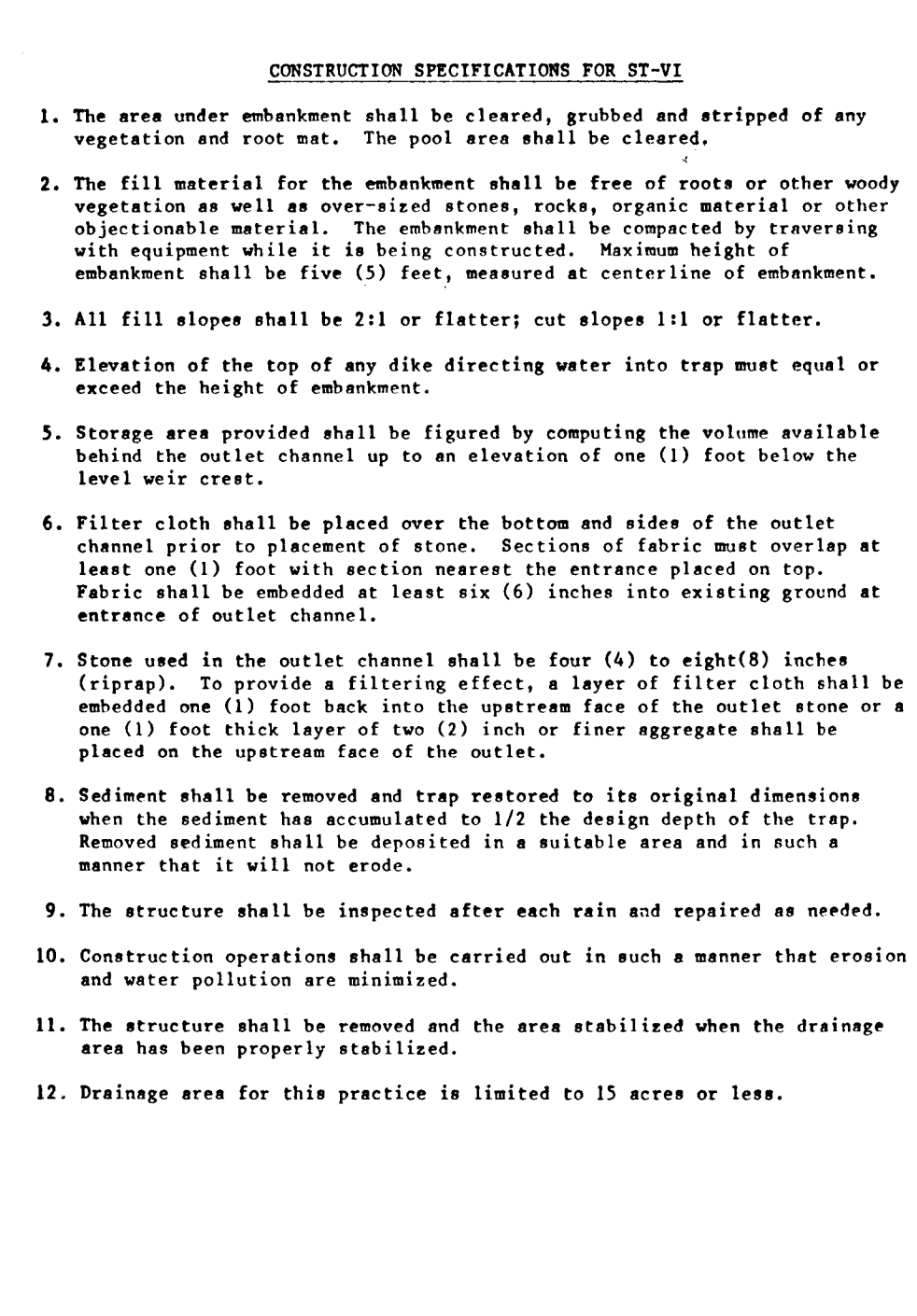
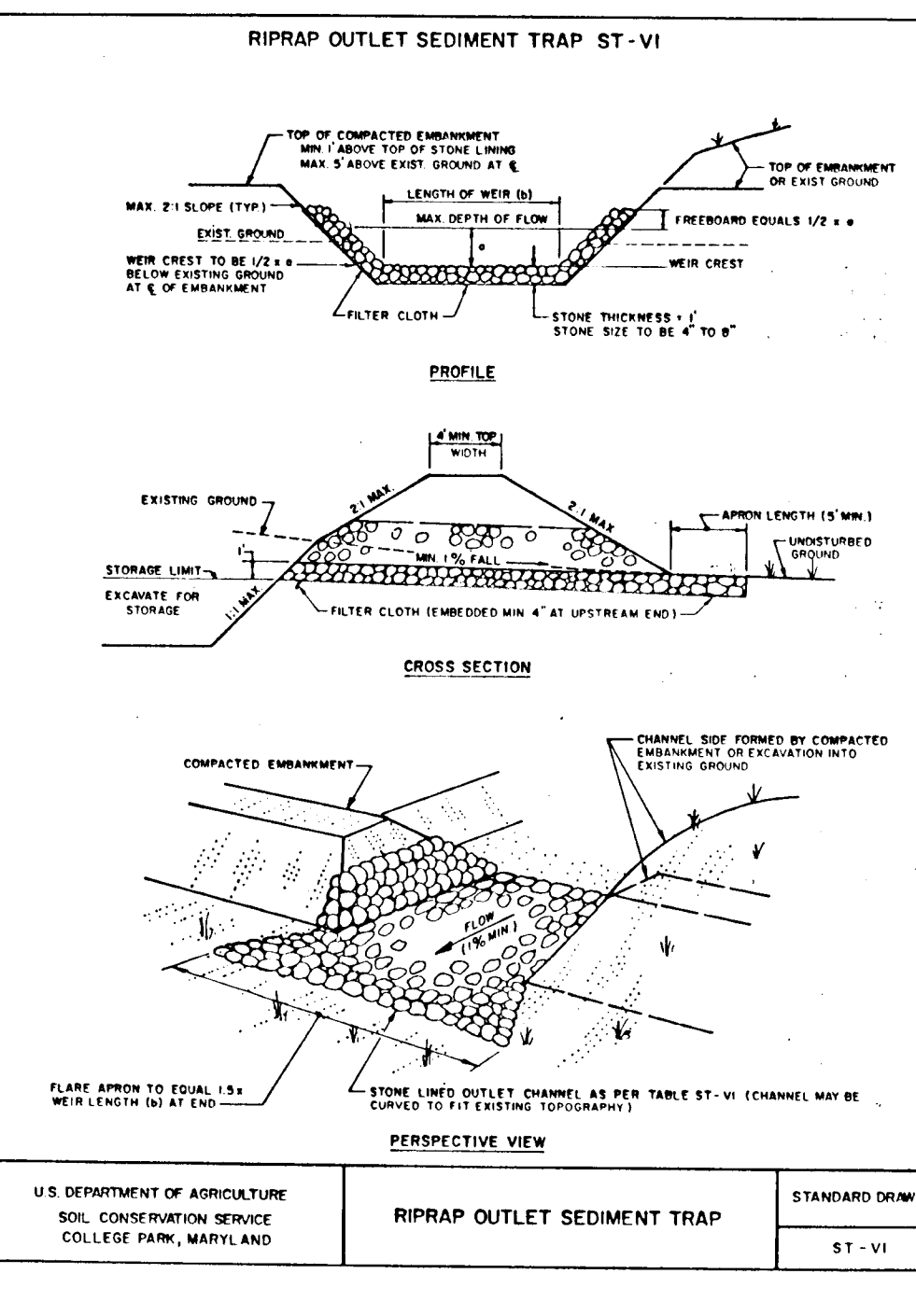
I hereby certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John Hildenberg FEB 17 1993
DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this project will have a certificate of attendance of a Department of Planning and Zoning approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

ANDC Limited Partnership
by Newburn Development Corp. General Partner
John L. Newburn, Pres. 6-29-90
Signature of Developer DATE



REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MFTS TECHNICAL REQUIREMENTS.

James M. Hildenberg 2/22/93
DATE

John L. Newburn 2/22/93
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

John Hildenberg 2/14/93
DATE

John M. Pagan 3/3/93
DATE

William B. Pagan 3-17-93
DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

William B. Pagan 3/29/93
DATE

OWNER: J.N.D. LIMITED PARTNERSHIP
SUITE 201
5570 STERRET PLACE
COLUMBIA, MD 21044
301 997 - 3815

DEVELOPER: NEWBURN DEVELOPMENT CORP.
SUITE 201
5570 STERRET PLACE
COLUMBIA, MD 21044
301 997 - 3815

HANOVER CROSSING - SECTION TWO
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP 38 PARCEL 266 L.1519 F. 560

SEDIMENT AND EROSION CONTROL DETAILS

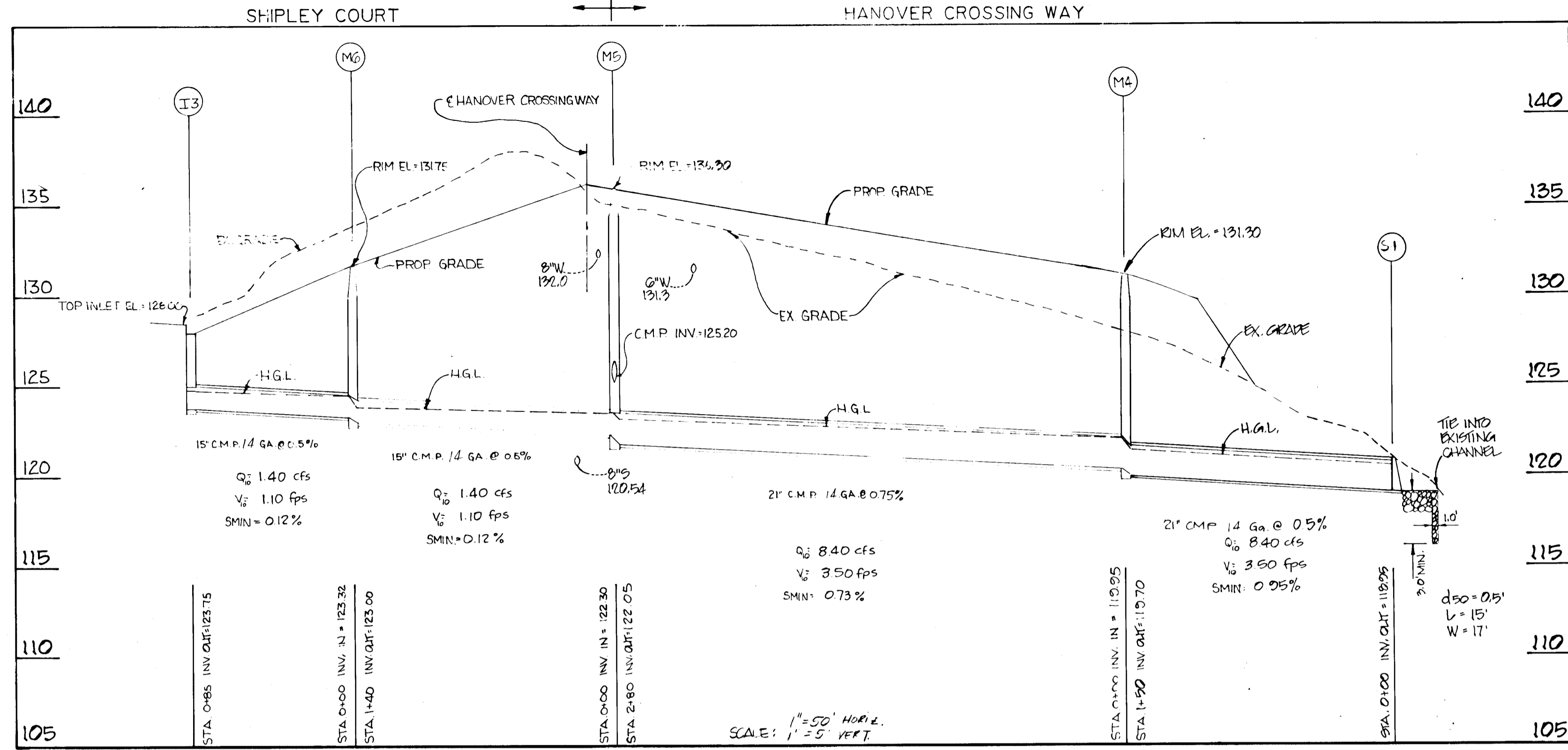
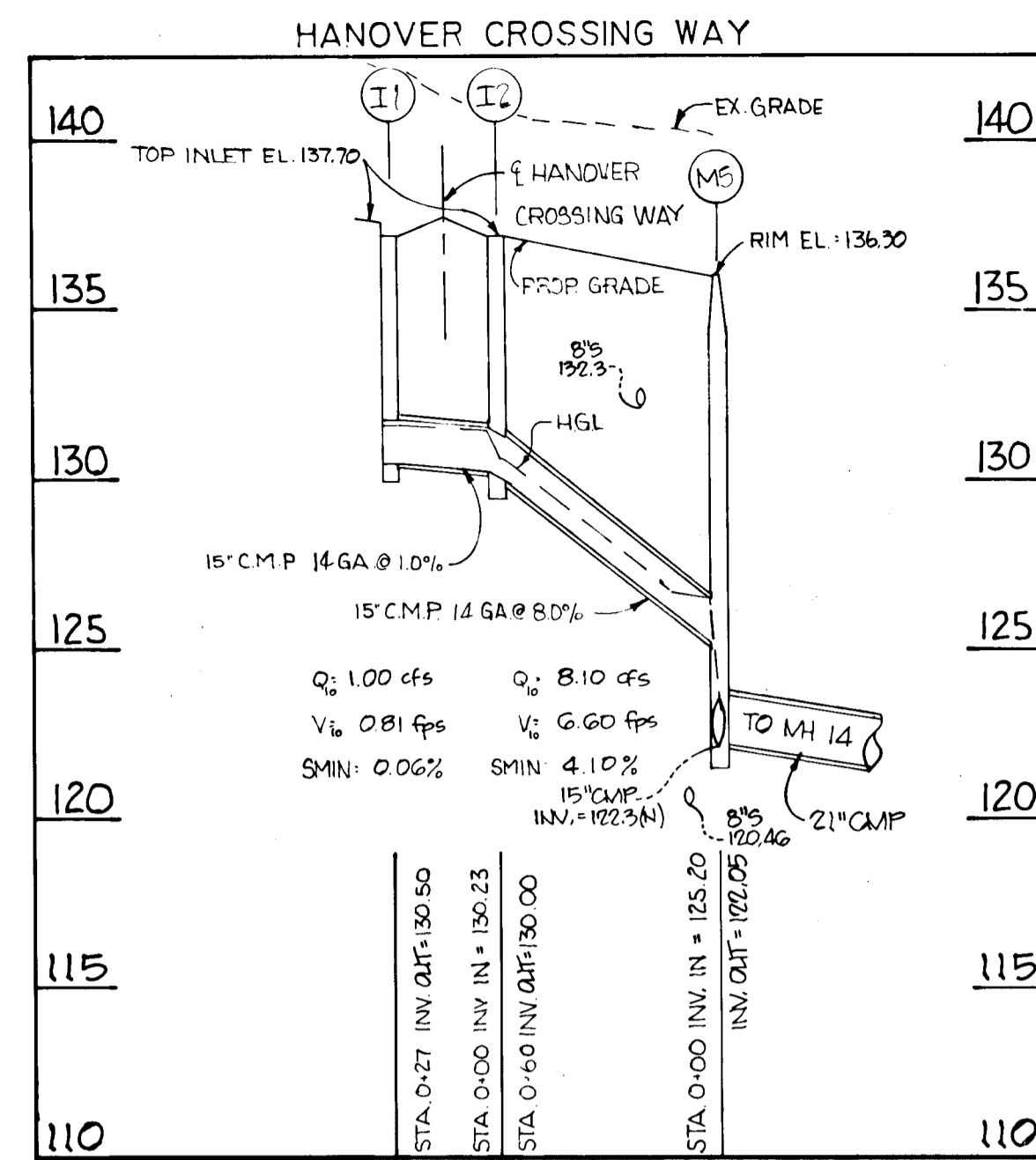
DATE: JULY 90
PROJECT: 90003.00
DRAWN BY: JLM/MAJ
CHECKED BY: D.D.D.
SCALE: AS SHOWN
JOB NO.: J.B.M.

REVISIONS:
1. REVISED PER COUNTY COMMENTS DATED 11/22/92
2. REVISED PER COUNTY COMMENTS 10/30/92
3. REVISED PER COUNTY COMMENTS 8/30/92
4. FIRST SUBMISSION TO HOWARD COUNTY DEP. OF PLANNING & ZONING

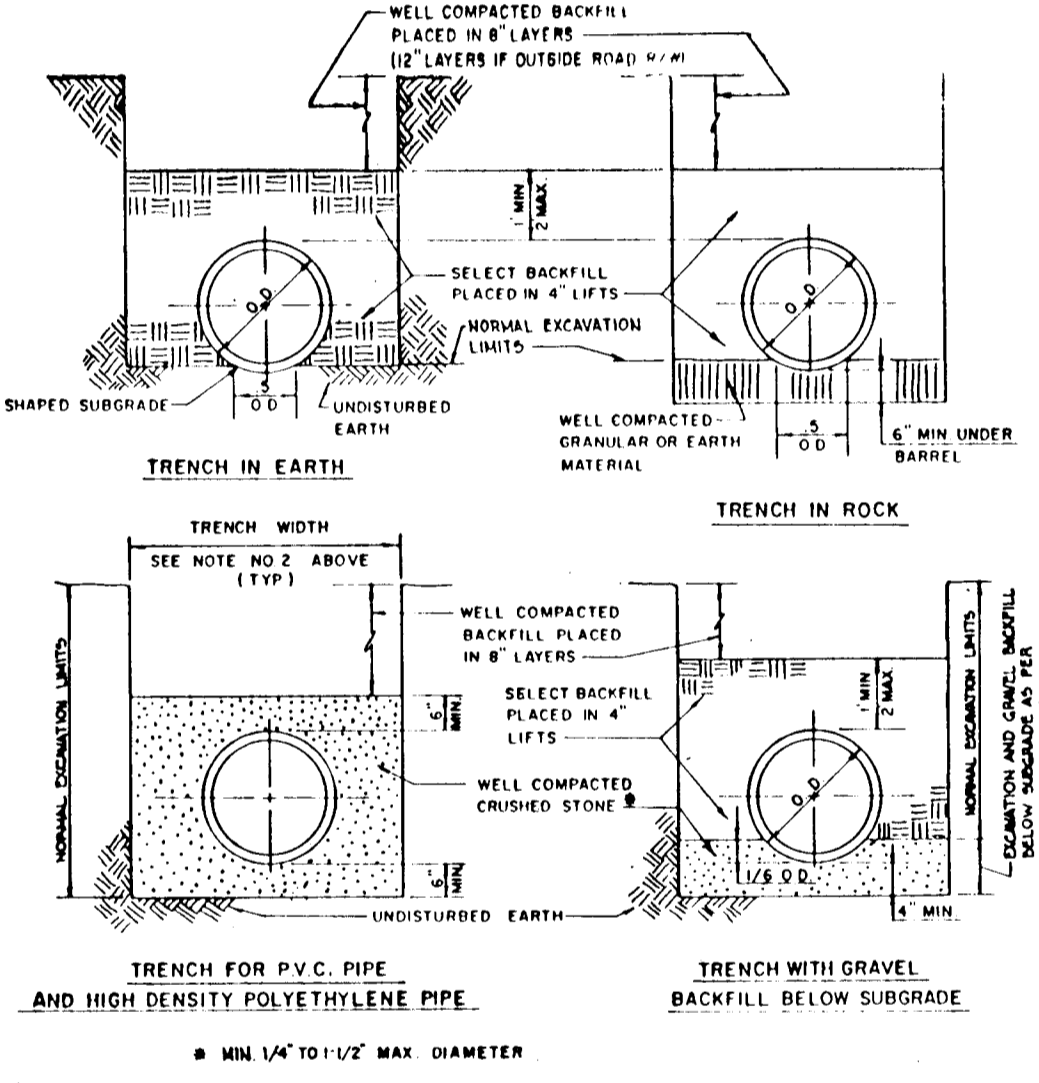
LOTS 18-41

STATE OF MARYLAND
DEPARTMENT OF PLANNING & ZONING
300 North Wolfe Road, Suite 225, Ellicott City, Maryland 21043-3350
PHONE: (301) 461-8078

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F-91-04



NOTES:
 1. WITHIN ROAD RIGHT OF WAY TRENCHING ACTIVITY SHALL BE 95% AS DETERMINED BY A SH-10 T-180-A
 2. FOR PAY VOUCHERS SEE DETAIL G-1-1



STRUCTURE SCHEDULE

| No. | Size | Inv/In | Size | Inv/Out | Top Elev | Location | Description |
|-----|------|--------|------|---------|----------|--------------------------------------|------------------|
| 1 | 21" | 110.70 | 21" | 131.30 | 110.70 | Sta. 10+03 Hanover X-ing Way R-12' | Standard Manhole |
| 2 | 21" | 122.05 | 21" | 136.30 | 122.05 | Sta. 07+18 Hanover X-ing Way R-13' | Standard Manhole |
| 3 | 15" | 123.32 | 15" | 131.75 | 123.32 | Sta. 01+37 Shipley Court R-10' | Standard Manhole |
| 4 | 15" | 130.23 | 15" | 137.70 | 130.23 | Sta. 0+54 Hanover X-ing Way L-15' PG | WR Inlet |
| 5 | 15" | 130.50 | 15" | 137.70 | 130.50 | Sta. 0+54 Hanover X-ing Way L-15' PG | WR Inlet |
| 6 | 15" | 123.75 | 15" | 128.00 | 123.75 | 40' off center Shipley Court cut-off | WR Inlet |
| 7 | 21" | 110.95 | N/A | N/A | 110.95 | End Section | End Section |

* TOP ELEV. = TOP OF CURB AT CENTER LINE OF INLET

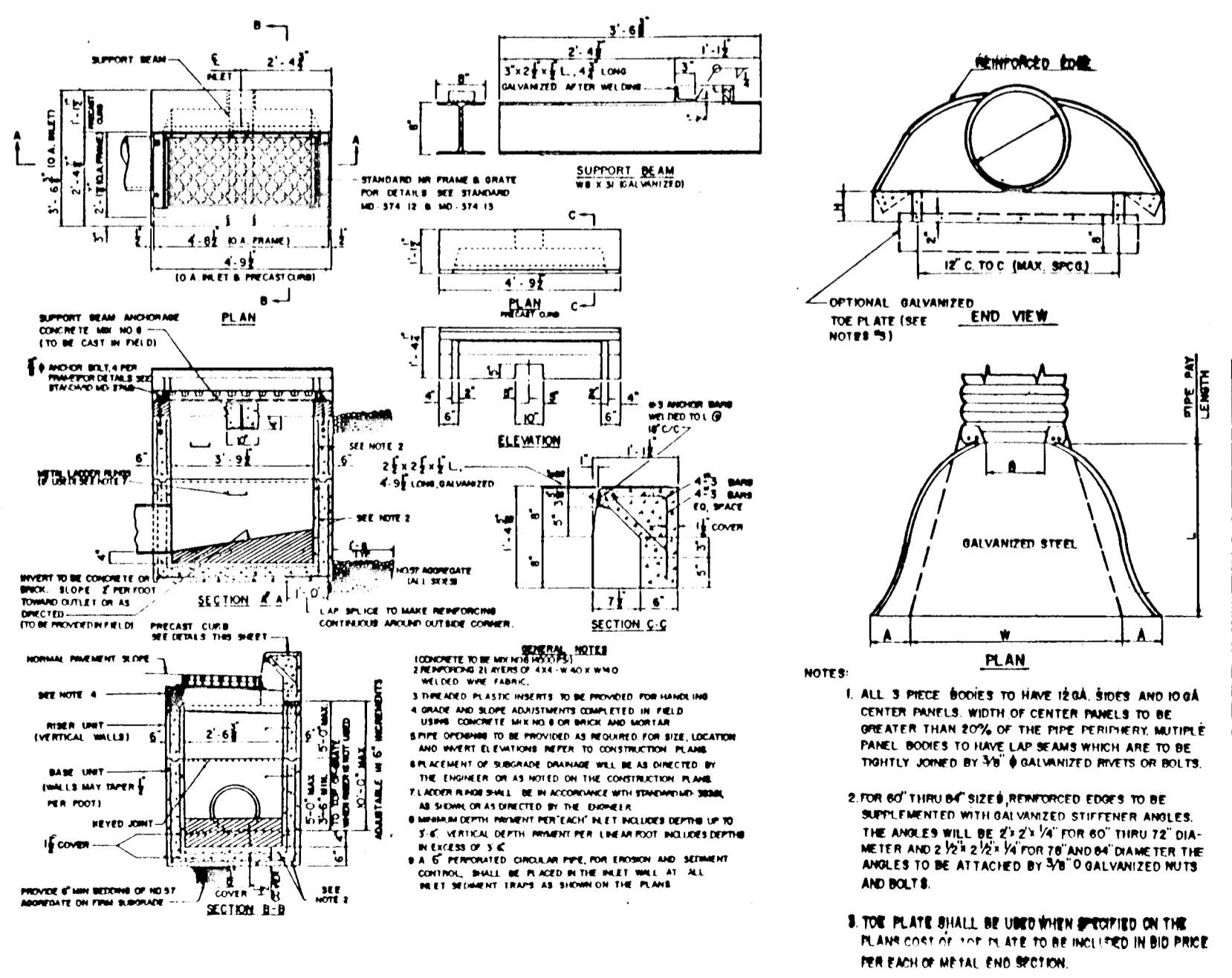
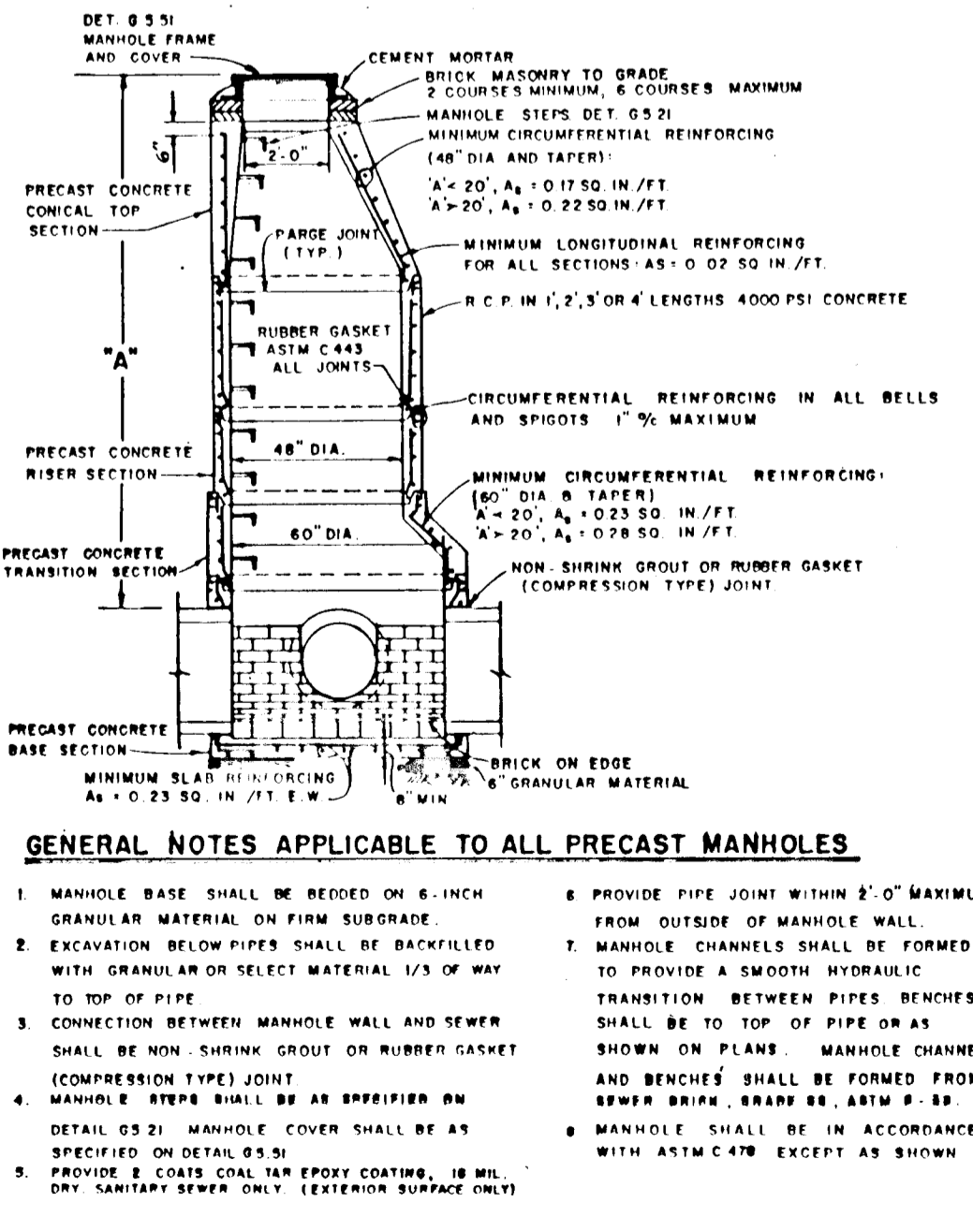
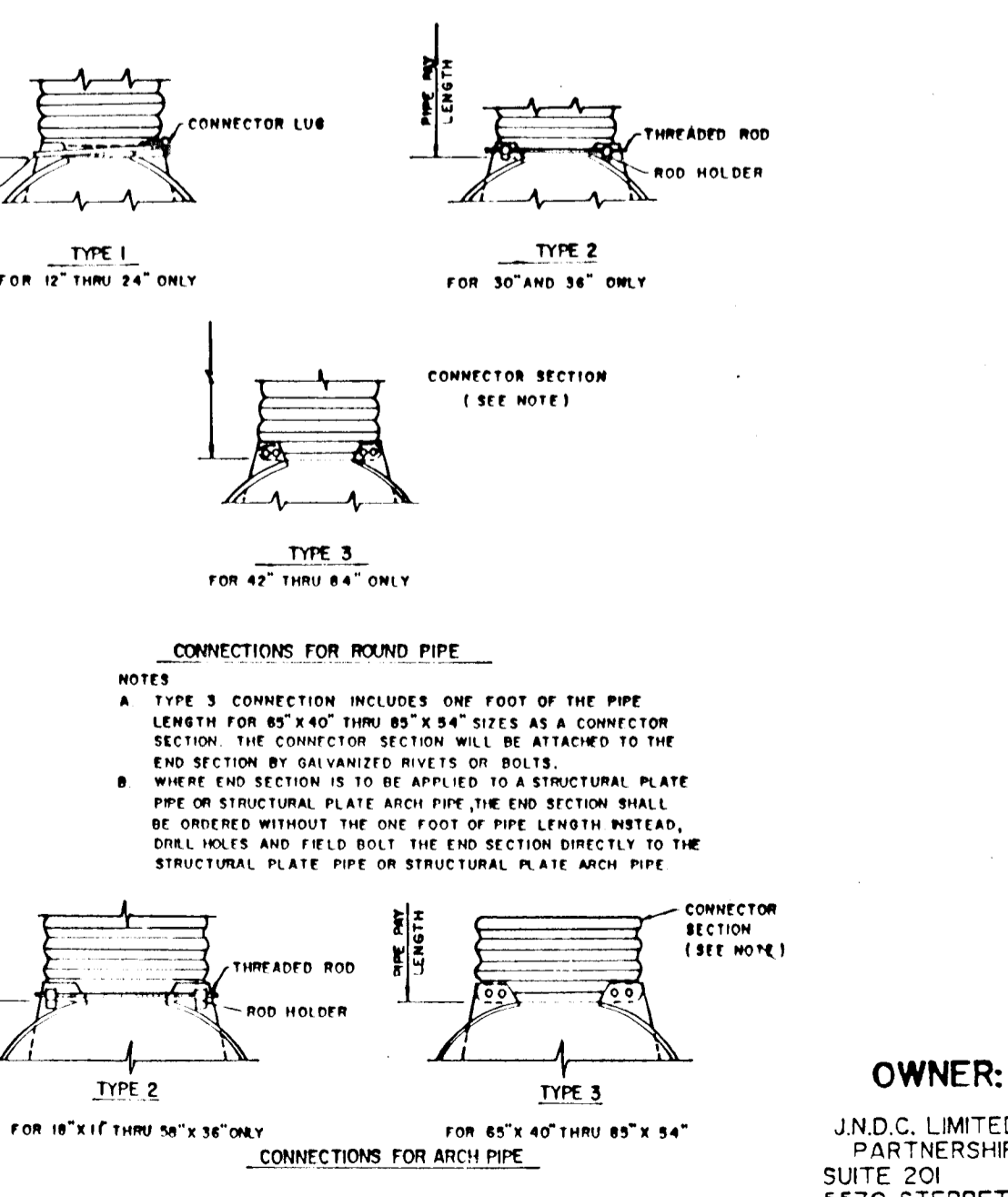


TABLE OF DIMENSIONS

| PIPE DIAM | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 12" | 16 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 15" | 18 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 18" | 20 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 21" | 22 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 24" | 24 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 30" | 30 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 36" | 36 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 42" | 42 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 48" | 48 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 54" | 54 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 60" | 60 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 66" | 66 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 72" | 72 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 78" | 78 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| 84" | 84 | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |



GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES

- MANHOLE BASE SHALL BE REEDED ON 6-INCH GRANULAR MATERIAL ON FIRM SUBGRADE.
- EXCAVATION BELOW PIPES SHALL BE BACKFILLED WITH GRANULAR OR SELECT MATERIAL 1/2" OF WAY TO TOP OF PIPE.
- CONNECTION BETWEEN MANHOLE WALL AND SEWER SHALL BE NON-SHRINK GROUT OR RUBBER GASKET (COMPRESSION TYPE) JOINT.
- MANHOLE STEPS SHALL BE AS SPECIFIED IN DETAIL 0521. MANHOLE COVER SHALL BE AS SPECIFIED ON DETAIL 0521.
- PROVIDE 2 COATS OF EPOXY COATING, 1/8" MIN. DRY FILM THICKNESS ONLY (EXTERIOR SURFACE ONLY).
- PROVIDE PIPE JOINT WITHIN 2'-0" MAXIMUM FROM OUTSIDE OF MANHOLE WALL.
- MANHOLE CHANNELS SHALL BE FORMED TO PROVIDE A SMOOTH HYDRAULIC TRANSITION BETWEEN PIPES BENCHES SHALL BE TO TOP OF PIPE OR AS SHOWN ON PLANS.
- MANHOLE CHANNELS AND BENCHES SHALL BE FORMED FROM SMOOTH BRICK, GRADE BR. ASTM A-89.
- MANHOLE SHALL BE IN ACCORDANCE WITH ASTM C478 EXCEPT AS SHOWN.

PRE-CAST WR INLET

METAL END SECTION

CIRCULAR METAL PIPE

STANDARD CONNECTIONS

METAL END SECTIONS

CONNECTIONS FOR ARCH PIPE



OWNER: J.N.D.C. LIMITED PARTNERSHIP, SUITE 201, 5570 STERRET PLACE, COLUMBIA, MD 21044, (301) 997-3815

DEVELOPER: NEWBURN DEVELOPMENT CORP., SUITE 201, 5570 STERRET PLACE, COLUMBIA, MD 21044, (301) 997-3815

APPROVED: DEPARTMENT OF PLANNING & ZONING, CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

LOTS 18-41

HANOVER CROSSING - SECTION TWO

1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 38 PARCEL 266 L.1519 F. 560

STORM DRAIN PROFILES

DATE: JULY 90
 PROJECT: 9003.DD
 DRAWING: D.D.D.
 NAME: JLM/MAJ
 APPROVAL: J.B.M.

2. EXEMPT PER COUNTY COMPLETION PER 11/92
 3. FIRST SUBMISSION TO HOWARD COUNTY DPZ
 4. DATE OF SUBMISSION: 7/16/90

DATE: 3/14/93
 DATE: 3/5/93
 DATE: 3-17-93

3000 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (301) 461-0078 D.C. Metro (301) 621-5168

WILDENBERG
UCHI & ASSOCIATES, INC.
 ENGINEERS • SURVEYORS • PLANNERS

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