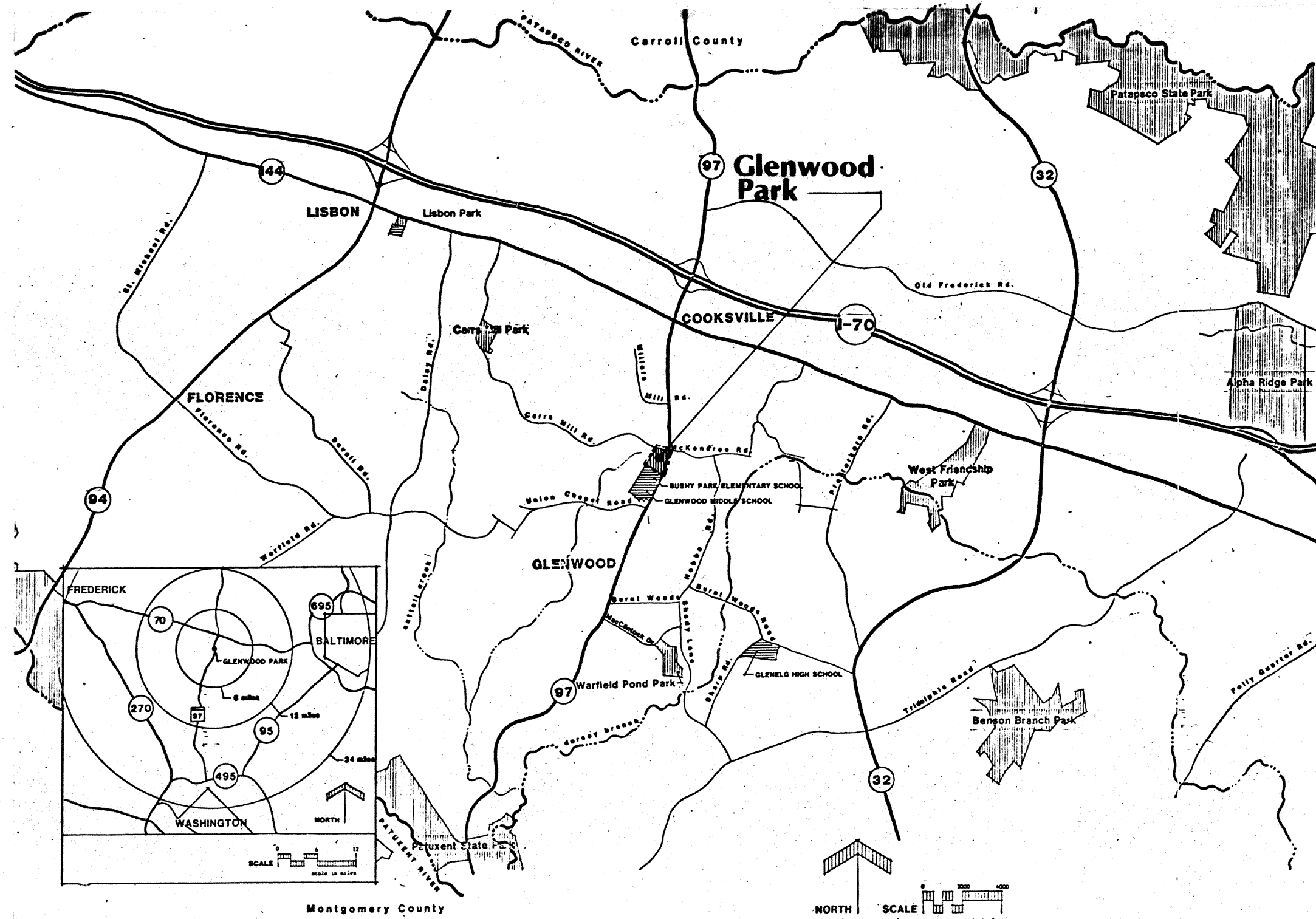


# HOWARD COUNTY MARYLAND DEPARTMENT OF PUBLIC WORKS FOR DEPARTMENT OF RECREATION AND PARKS

## GLENWOOD PARK 14675 CARRS MILL ROAD GLENWOOD, MD 21738



LOCATION MAP

VICINITY MAP

**CAPITAL PROJECT NO. N-3052AA**

### LIST OF DRAWINGS

- L-0 Cover Sheet
- L-1 Grading Plan
- L-2 Layout Plan
- L-3 Details
- L-4 Details
- L-5 Softball & Fencing Details & Profiles
- SD-1 Storm Drainage & SWM Plan
- SD-2 Storm Drainage & SWM Details
- SD-3 Storm Drainage & SWM Details & Profiles
- SD-4 Storm Water Management Pond Detail
- SD-5 Storm Drain Drainage Area Map
- SD-6 SWM Pond Drainage Area Map
- SC-1 Sediment Control Plan
- SC-2 Sediment Control Details & Notes
- SC-3 Sediment Control Details & Notes

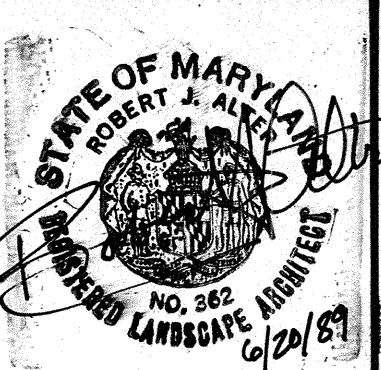
### SITE ANALYSIS DATA

TOTAL AREA OF SITE: 19.97 ACRES/872,065 S.F.  
 AREA TO BE PAVED: 1.11 ACRES/48,208 S.F.  
 AREA TO REMAIN OPEN SPACE: 18.86 ACRES/821,685 S.F.  
 PERCENTAGE OF AREA REMAINING OPEN SPACE: 94%  
 PRESENT ZONING: R-1  
 PARKING SPACES PROVIDED: 144 STANDARD SPACES  
 8 HANDICAPPED SPACES

APPROVED: HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS	Director _____ Date _____
APPROVED: HOWARD COUNTY BUREAU OF HIGHWAYS	Chief _____ Date _____
APPROVED: HOWARD COUNTY BUREAU OF UTILITIES	Chief _____ Date _____
APPROVED: HOWARD COUNTY BUREAU OF LICENSES, INSPECTIONS, AND PERMITS	Chief _____ Date _____
APPROVED: HOWARD COUNTY ROADS, BRIDGES, AND STORM DRAINS DIVISION	Chief _____ Date _____
APPROVED: HOWARD COUNTY GENERAL PROJECTS DIVISION	Chief _____ Date _____
APPROVED: HOWARD COUNTY BUREAU OF FACILITIES	Chief _____ Date _____

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL#
GLENWOOD PARK		PARCEL 15
PLAT# OR L/F	BLOCK#	ZONE
1186/329	10	R
TAX ZONE	AMP	ELEC. DIST.
14	4	6040
WATER CODE	SEWER CODE	
N/A	N/A	

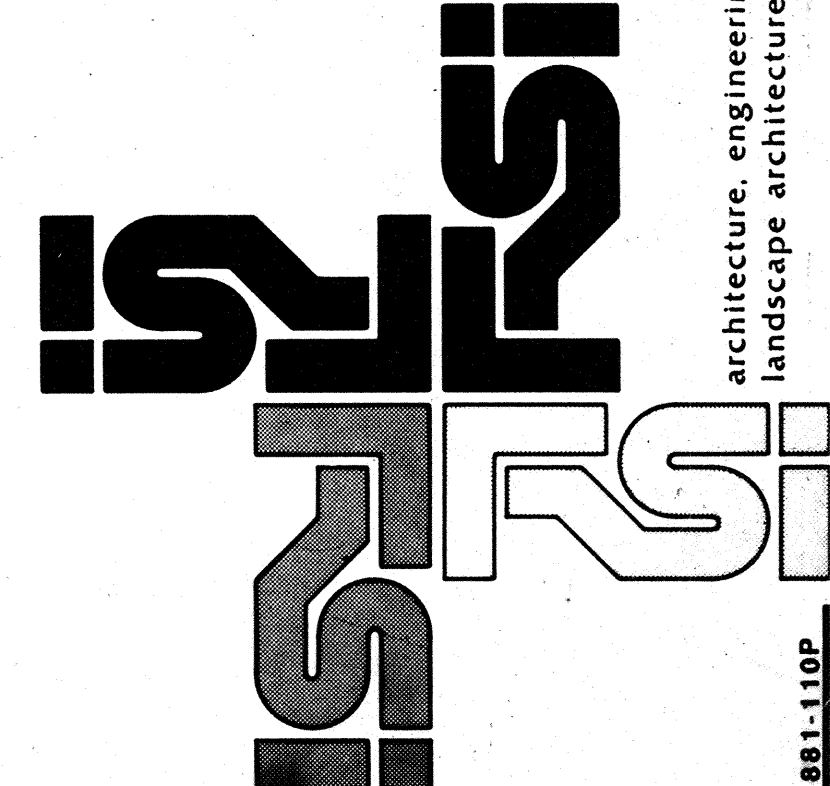


Drawn: EM/MA  
 Approved: JRF  
 Date: 4/19/92

Sheet Title: Cover Sheet  
 Project: Glenwood Park  
 14675 Carrs Mill Road Glenwood, MD 21730  
 Parcel 15, Ass. Map H, Section District 4  
 CAPITAL PROJECT NO. N-3052 AA

Owner: Howard County  
 Developer: Howard County Department of Recreation and Parks  
 3430 Court House Drive  
 Ellicott City, MD 21043  
 (301) 992-2480

FSI Design Group  
 Prospect Square, Suite 200  
 10903 Indian Head Highway  
 Fort Washington, MD 20744  
 (301) 292-0200  
 (301) 932-1900



Sheet No. L-0  
 DWG 1 OF 15  
 Project No. 881-110P

N-3052AA-001

1339

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INLET #5  
TOP EL. 587.91  
INV. IN 586.21  
INV. OUT 586.18

INLET #5  
TOP EL. 589.58  
INV. IN 588.88  
INV. OUT 586.33

NOTE:  
MAX. 2% SLOPE  
IN THIS LOCATION  
ONLY.

CONTRACTOR SHALL REPAIR ALL AREAS DAMAGED ON SCHEDULED PROPERTY DURING CONSTRUCTION OF THE STORM DRAIN SYSTEM CONNECTING TO EXISTING SCHEDULED INLETS INCLUDING REPLACEMENT OF TREES WITH THE SAME SPECIES AS TO BE AS THE REMOVAL OR DAMAGED TREES.

GOAL POSTS

INLET #4  
TOP EL. 596.15  
INV. IN 591.86  
INV. OUT 589.12

INLET #3  
TOP EL. 596.82  
INV. IN 591.86  
INV. OUT 590.39

INLET #2  
TOP EL. 598.48  
INV. IN 591.86  
INV. OUT 591.84

INLET #1  
TOP EL. 596.99  
INV. IN 592.52  
INV. OUT 592.28

CLIFTON L. CLEVINGER, IN  
PARCEL 59, MAP No.14  
LIBER 990 FOLIO 370

ZONE R

MARYLAND STATE QRD NORTH  
SCALE: 1"=50'

EXISTING  
60' RIGHT OF WAY  
THE BOARD OF COUNTY  
COMMISSIONERS OF  
HOWARD COUNTY  
LIBER 420 FOLIO 813

SWM POND  
(SEE SD-DWGS.)

SOFTBALL FIELD

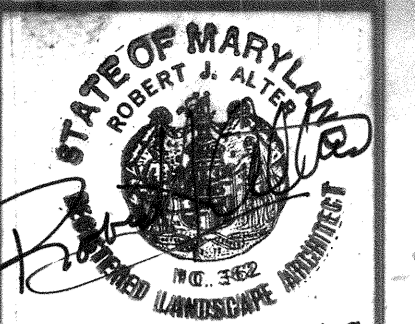
SOCCER/FOOTBALL FIELD 2

SOCCER/FOOTBALL FIELD 1

APPROVED: HOWARD COUNTY  
HEALTH DEPARTMENT  
for private water and private sewerage systems  
*James M. Boyd* mper/str 6/23/89  
County Health Officer Date

APPROVED: HOWARD COUNTY  
OFFICE OF PLANNING & ZONING  
*Ulfki* 6.27.89  
Director Date  
*Mark J. Taylor* 6/27/89  
Chief, Division of Community  
Planning and Land Development Date

APPROVED: HOWARD COUNTY  
DEPARTMENT OF PUBLIC WORKS  
for private water and private sewerage,  
storm drainage systems and public roads  
*James P. ...* 6/22/89  
Director Date  
*William E. ...* 6-22-89  
Chief, Bureau of Engineering Date



Revisions

NO.	DATE	DESCRIPTION
1	6/23/89	ISSUED FOR PERMITS
2	6/27/89	ISSUED FOR PERMITS
3	6/27/89	ISSUED FOR PERMITS
4	6/27/89	ISSUED FOR PERMITS
5	6/27/89	ISSUED FOR PERMITS
6	6/27/89	ISSUED FOR PERMITS
7	6/27/89	ISSUED FOR PERMITS
8	6/27/89	ISSUED FOR PERMITS
9	6/27/89	ISSUED FOR PERMITS
10	6/27/89	ISSUED FOR PERMITS

Owner: **Howard County**  
Developer: **Howard County Department of Recreation and Parks**  
3430 Carroll House Drive  
Ellicott City, MD 21043

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 GARRS MILL ROAD

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL #			
GLENWOOD PARK		PARCEL 15			
PLAT/BOOK	BLOCK	ZONE	TAX/ZONE/IMP	ELEC. DIST.	CENSUS TRACT
1186/323	10	R	14	4	6040
WATER CODE	SEWER CODE				
N/A	N/A				

Legend

	EXISTING SPOT ELEVATIONS
	PROPOSED SPOT ELEVATIONS
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMIT OF GRADING
	EXTENT OF SPILL GUTTER
	CHAIN LINK FENCING
	TOP OF CURB
	BOTTOM OF CURB
	HIGH POINT
	LOW POINT
	GRID TREE LOCATIONS
	EXISTING TREES

GENERAL NOTES:

- SEE SD-DWGS. FOR ALL STORM DRAINAGE INFORMATION INCLU. LOCATION OF RIP-RAP.
- ALL SLOPES MAX. 3:1 EXCEPT AS NOTED ON PLAN.
- ALL SWALES 2% MINIMUM AS SHOWN ON PLAN.
- ALL DISTURBED AREAS NOT COVERED BY PAVING, SODDING, OR INFILL MIX. SHALL BE PERMANENTLY SEEDED IN ACCORDANCE WITH SPECIFICATIONS.
- SODDING OF SOCCER FIELDS SHALL EXTEND 10' BEYOND EDGE OF FIELDS.
- PROVIDE 4" TOPSOIL OVER ENTIRE SITE IN ACCORDANCE WITH SPECIFICATIONS.

SEE NOTE ON LAYOUT PLAN ABOUT PROPOSED WIDENING OF THIS RIGHT-OF-WAY



FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD 20744  
(301) 292-0200  
(301) 932-1900

architecture, engineering,  
landscape architecture, land planning, surveying  
a division of FESCO Systems Incorporated

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CLIFTON L. CLEVINGER, III  
 PARCEL 59, MAP No.14  
 LIBER 990 FOLIO 370  
 ZONE R

MARYLAND STATE GRID NORTH  
 SCALE: 1" = 50'

**Legend**

- LAYOUT CONTROL MONUMENT
- LAYOUT CORNER FOR NEW ELEMENT
- DETAIL REFERENCE
- STORM DRAINAGE STRUCTURE # (SEE SD-DWGS.)
- INLET
- BUILDING RESTRICTION LINE
- PAVEMENT ARROW (18" x 9")

APPROVED: HOWARD COUNTY NO SANITARY HEALTH DEPARTMENT FACILITIES PROPOSED for private water and private sewerage systems

*James M. Byrd* 6/23/89  
 County Health Officer Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

*Unlt* 6.27.19  
 Director Date

*Frankie S. McLaughlin* 6/22/89  
 Chief, Division of Community Planning and Land Development Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS for private water and private sewerage, storm drainage systems and public roads

*James M. Byrd* 6/23/89  
 Director Date

*James M. Byrd* 6/23/89  
 Chief, Bureau of Engineering Date

STATE OF MARYLAND  
 ROBERT J. BAKER, JR.  
 COMMISSIONER OF GENERAL LANDS AND SURVEY

NO. 362  
 RECORDED LANDSCAPE MONUMENT 6/24/89

Revisions: 1. DATE: 6/22/89 BY: [Signature]  
 2. DATE: 6/22/89 BY: [Signature]  
 3. DATE: 6/22/89 BY: [Signature]

Drawn: S.C. AS  
 Approved: S.C. AS

Layout Plan.  
 Glenwood Park  
 14675 Carrs Mill Road Glenwood, MD 21730  
 Parcel 15, In. Map 14, Section District 4  
 CAPITAL PROJECT NO. N-3052 AA

**ADDRESS CHART**

LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

**SUBDIVISION NAME**  
 GLENWOOD PARK

PLAT/BLK/LF	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
1186/329	10	R	14	4	6040

**WATER CODE** N/A      **SEWER CODE** N/A

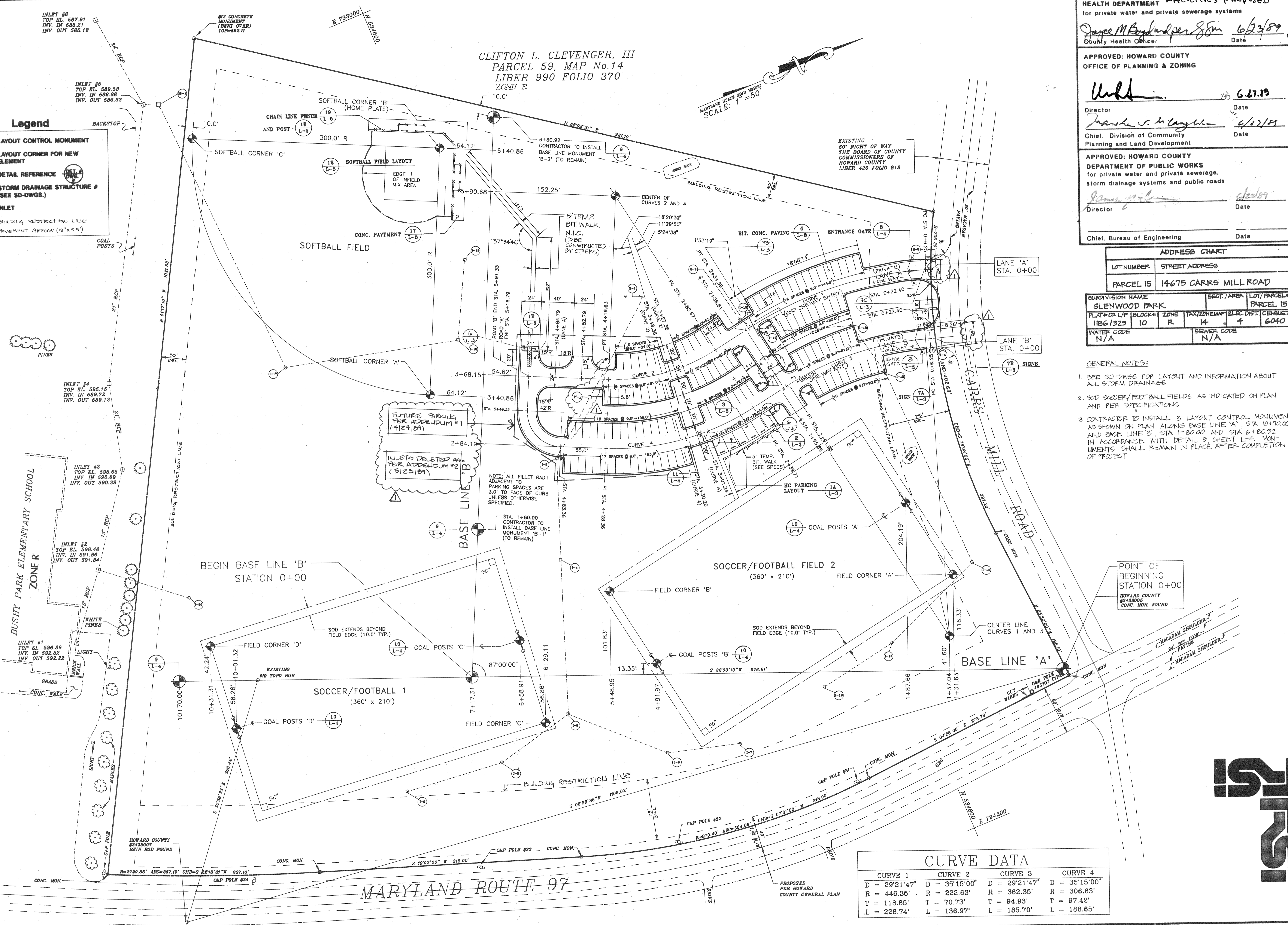
- GENERAL NOTES:**
- SEE SD-DWGS FOR LAYOUT AND INFORMATION ABOUT ALL STORM DRAINAGE
  - SOD SOCCER/FOOTBALL FIELDS AS INDICATED ON PLAN AND PER SPECIFICATIONS
  - CONTRACTOR TO INSTALL 3 LAYOUT CONTROL MONUMENTS AS SHOWN ON PLAN ALONG BASE LINE 'A' STA 10+70.00; AND BASE LINE 'B' STA 1+80.00 AND STA 6+80.92 IN ACCORDANCE WITH DETAIL 9 SHEET L-4. MONUMENTS SHALL REMAIN IN PLACE AFTER COMPLETION OF PROJECT.

Owner: Howard County  
 Developer: Howard County Department of Recreation and Parks  
 3430 Court House Drive  
 Elkridge City, MD 21043  
 (301)992-2480

FSI Design Group  
 Prospect Square, Suite 200  
 10903 Indian Head Highway  
 Fort Washington, MD 20744  
 (301)292-0200  
 (301)932-1900



architecture, engineering, landscape architecture, land planning, surveying  
 a division of Fesco Systems Incorporated  
 Project No. 881-1187  
 Sheet No. L-2  
 DWG. 3 OF 15



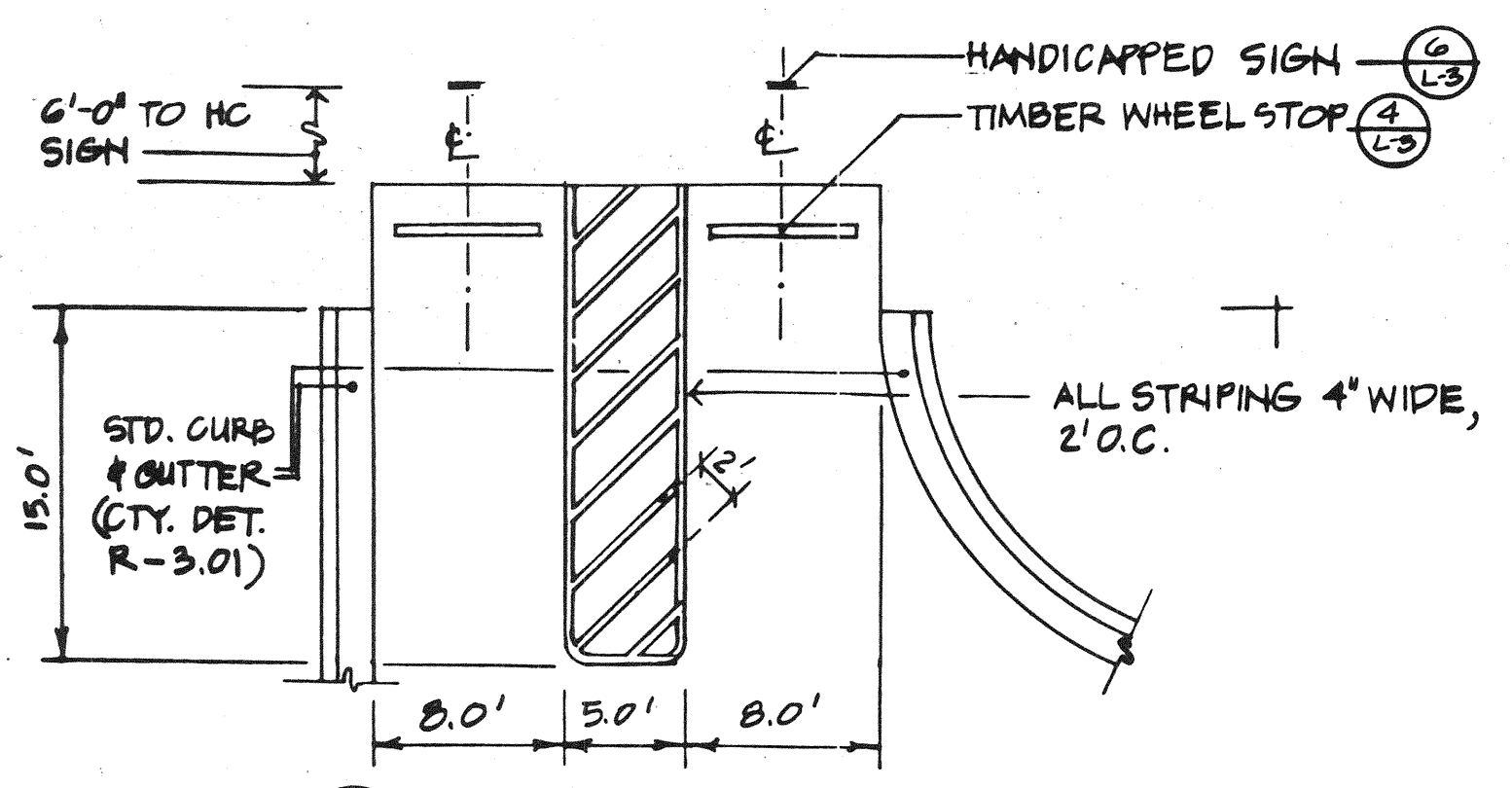
**CURVE DATA**

CURVE 1	CURVE 2	CURVE 3	CURVE 4
D = 29'21.47'	D = 35'15.00'	D = 29'21.47'	D = 35'15.00'
R = 446.35'	R = 222.63'	R = 362.35'	R = 306.63'
T = 118.85'	T = 70.73'	T = 94.93'	T = 97.42'
L = 228.74'	L = 136.97'	L = 185.70'	L = 188.65'

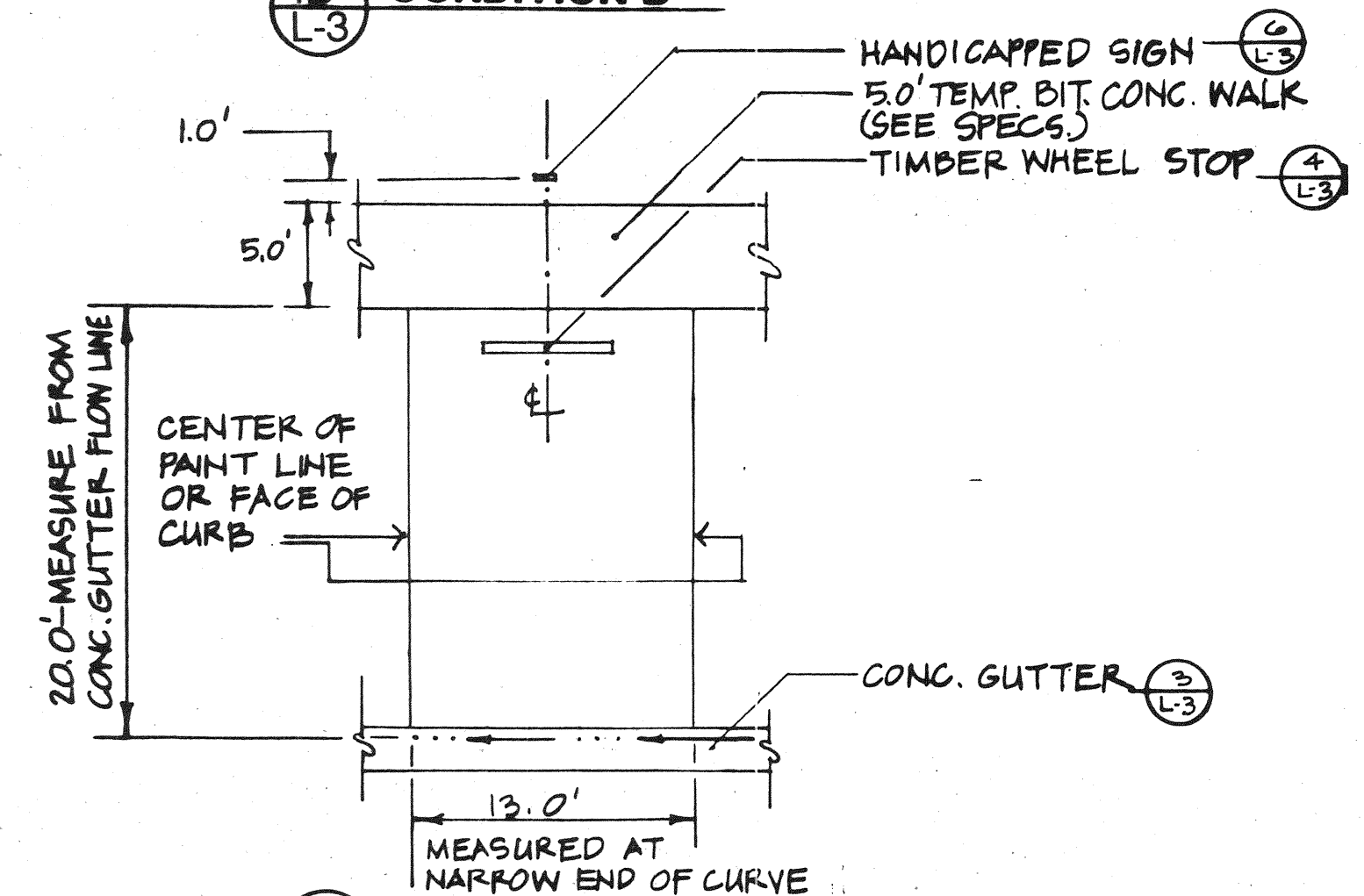
1339

N-3052AA-003

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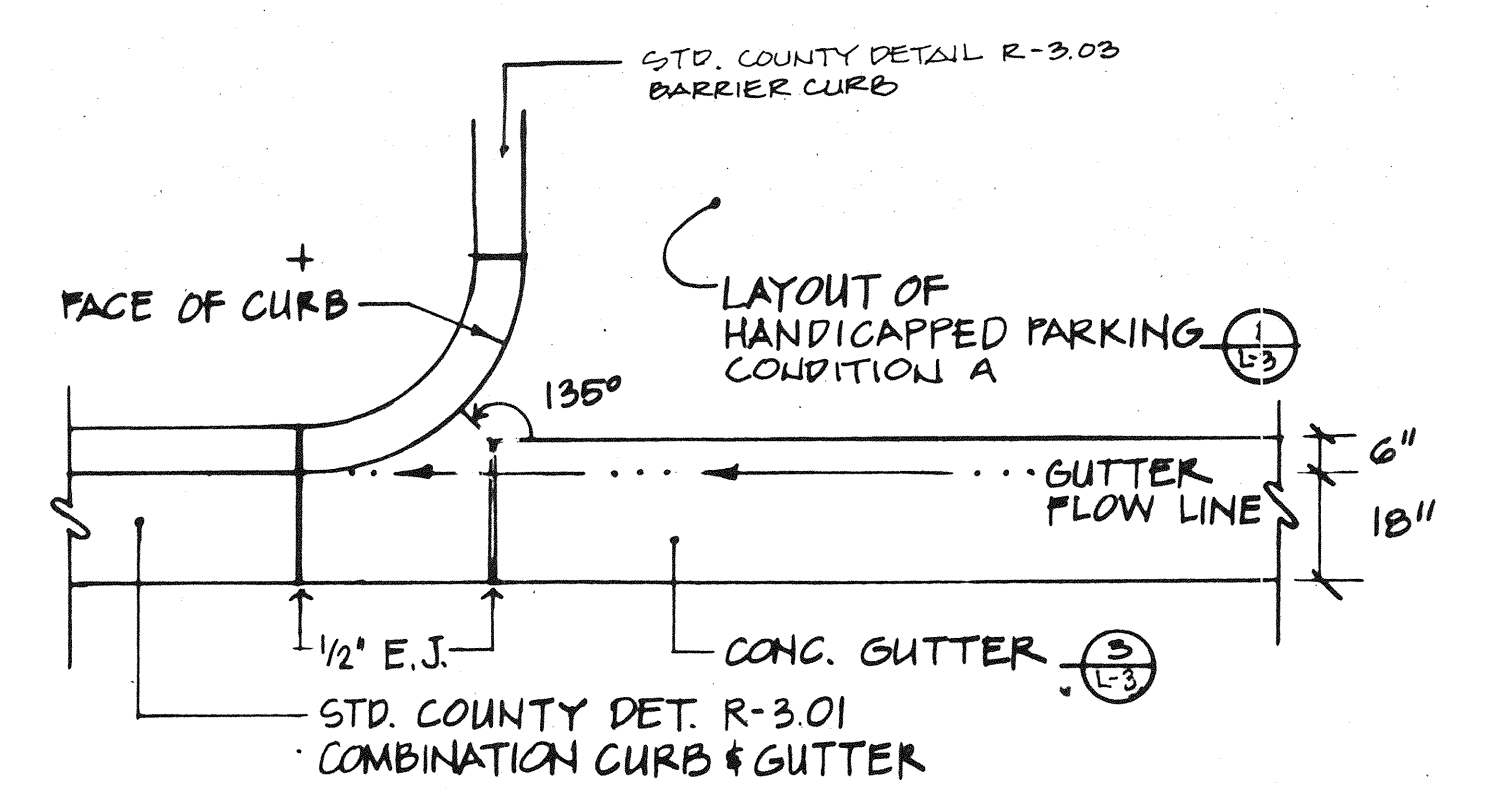


**1B** CONDITION B  
L-3

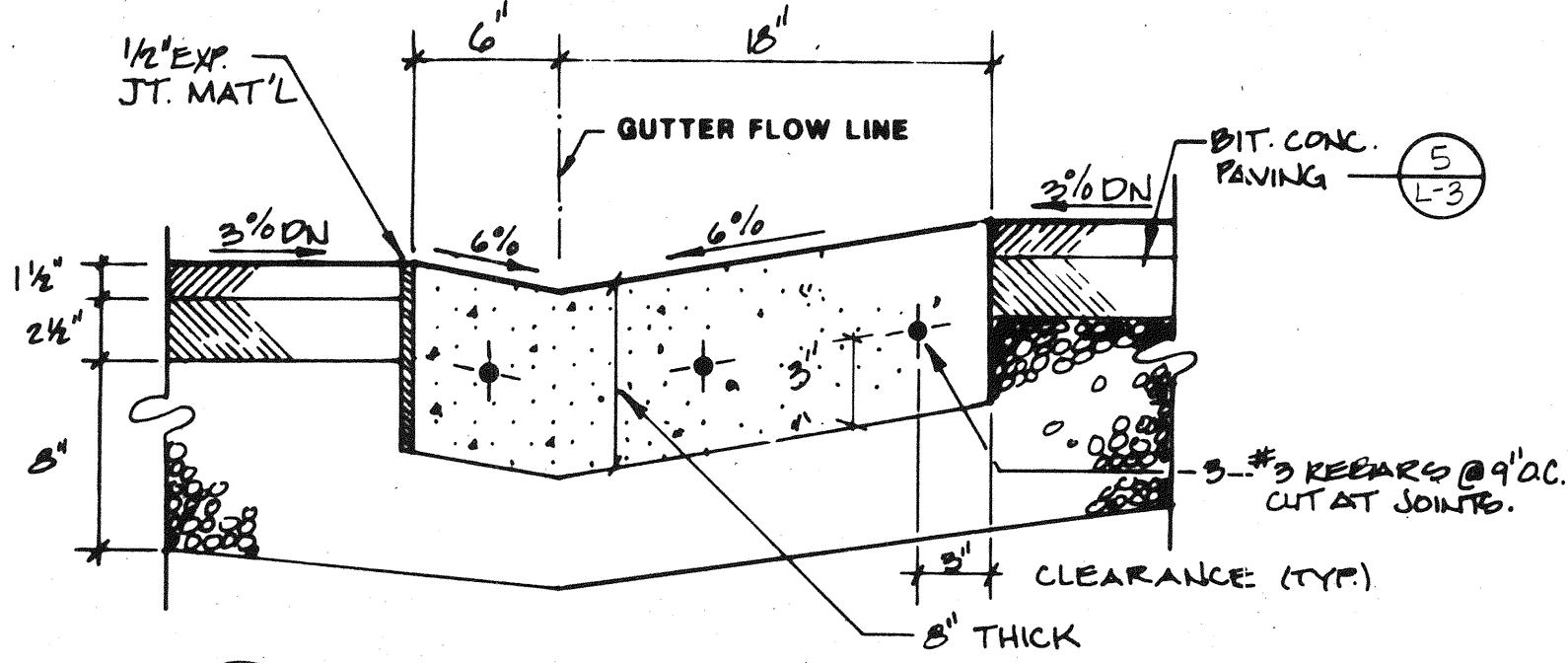


**1A** CONDITION A  
L-3

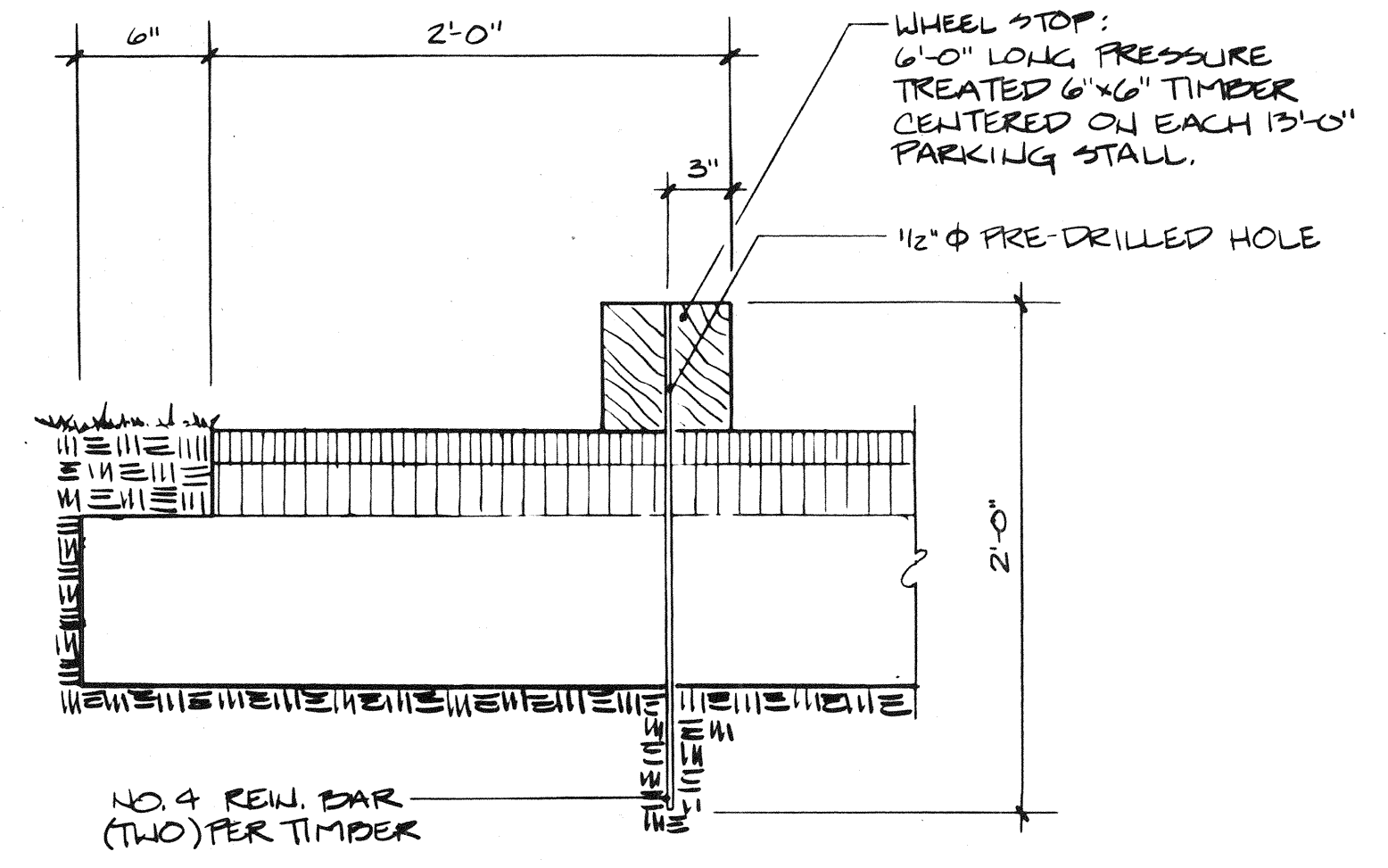
**1** LAYOUT OF HANDICAPPED PARKING  
L-3 PLANS 1/8"=1'-0"



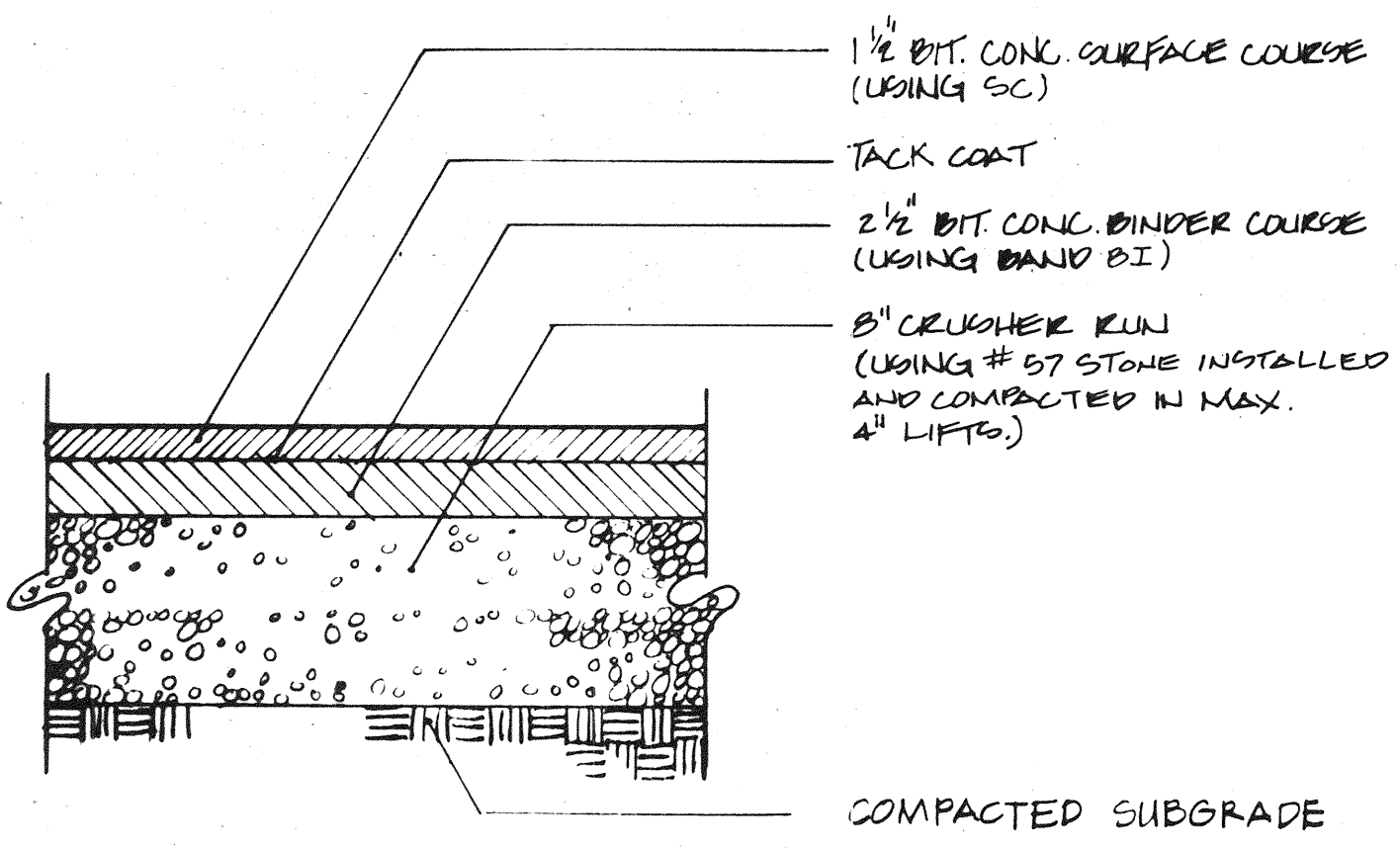
**2** CONCRETE GUTTER/C&G INTERFACE DETAIL  
L-3 PLAN 3/8"=1'-0"



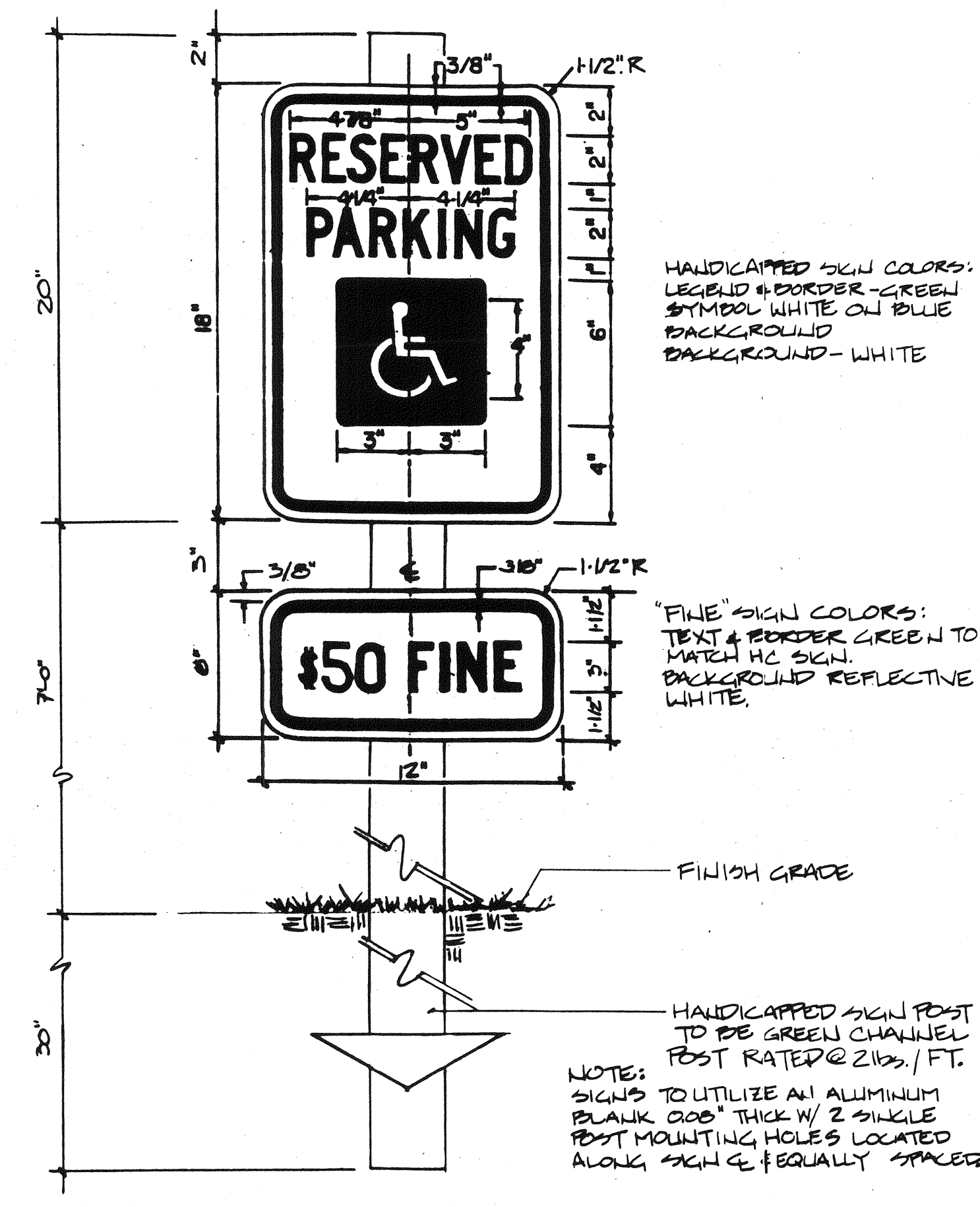
**3** CONCRETE GUTTER  
L-3 SECTION 1-1/2"=1'-0"



**4** TIMBER WHEEL STOP  
L-3 SECTION SCALE 1-1/2"=1'-0"



**5** BITUMINOUS CONCRETE PAVING  
L-3 SECTION 1-1/2"=1'-0"

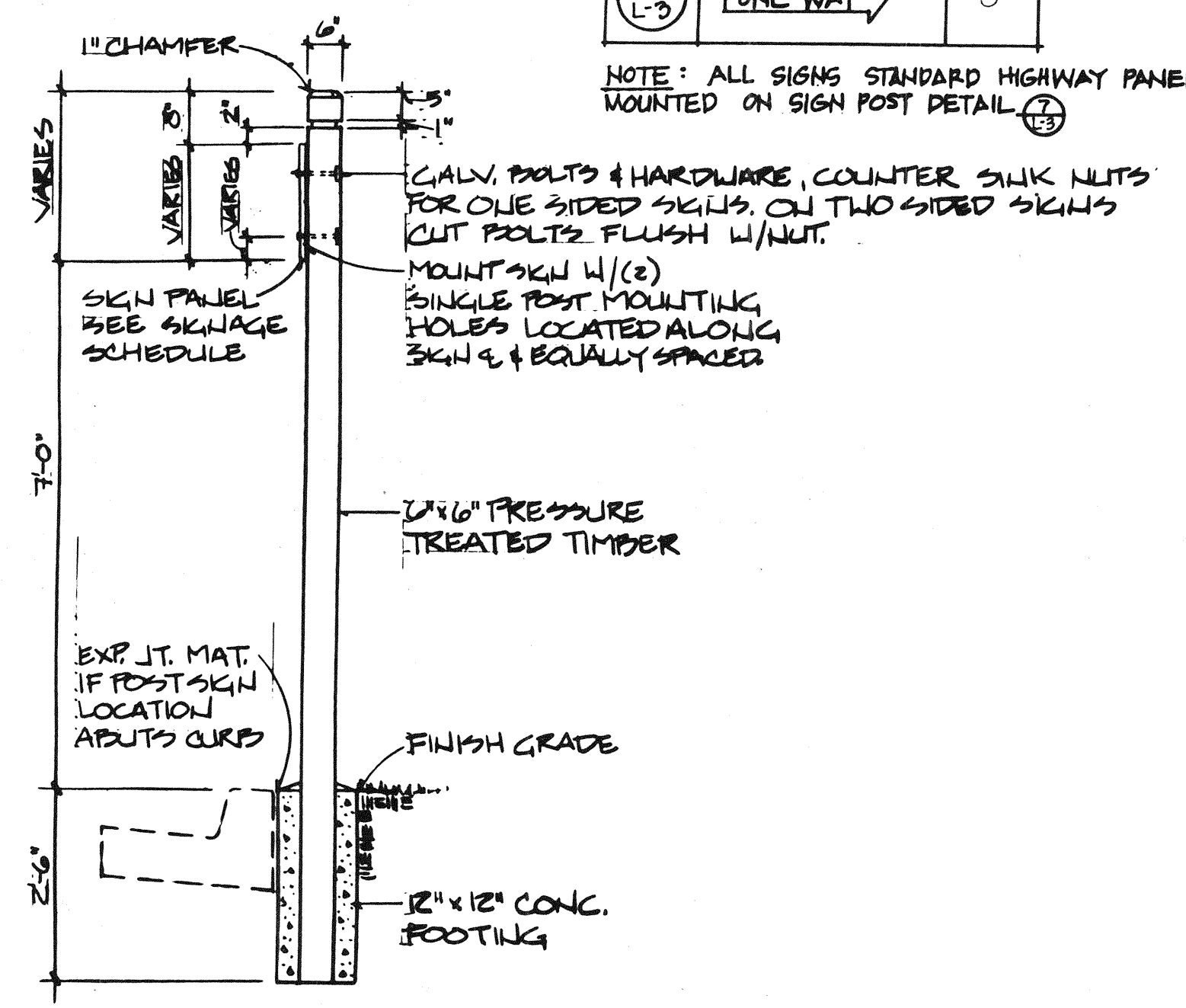


**6** HANDICAPPED PARKING SIGN  
L-3 ELEVATION NO SCALE

**TRAFFIC SIGNAGE SCHEDULE**

KEY	SIGN MESSAGE	QTY.
7A L-3	STOP	2
7B L-3	DO NOT ENTER	4
7C L-3	ONE WAY	1
7D L-3	ONE WAY	0

NOTE: ALL SIGNS STANDARD HIGHWAY PANELS MOUNTED ON SIGN POST DETAIL 7



**7** TRAFFIC SIGN POST  
L-3 SECTION 1/2"=1'-0"

APPROVED: HOWARD COUNTY NO SANITARY FACILITIES PROPOSED  
 HEALTH DEPARTMENT  
 for private water and private sewerage systems  
 Joseph M. Boardman per [Signature] 6/23/89  
 County Health Officer Date

APPROVED: HOWARD COUNTY  
 OFFICE OF PLANNING & ZONING  
 [Signature] 6.27.89  
 Director Date  
 [Signature] 6/27/89  
 Chief, Division of Community Planning and Land Development Date

APPROVED: HOWARD COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 for private water and private sewerage, storm drainage systems and public roads  
 [Signature] 6/22/89  
 Director Date  
 [Signature] 6/22/89  
 Chief, Bureau of Engineering Date

**ADDRESS CHART**

LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRO MILL ROAD

**DIVISION NAME**

DIVISION NAME	BLOCK/ANNA	LOT/PARCEL#
GLENWOOD PARK		PARCEL 15

**PLAT/LOT/LP (BLOCK) ZONE TAX/ASSESSMENT DIST. CENSUS**

PLAT/LOT/LP (BLOCK)	ZONE	TAX/ASSESSMENT DIST.	CENSUS
1866/529	10 R	14	4 6040

**WATER CODE** N/A      **SEWER CODE** N/A

STATE OF MARYLAND  
 DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES  
 LANDSCAPE ARCHITECT  
 [Signature] 6/19/89

Revisions:  
 [Table with 2 columns: No., Description]  
 Drawn: M.M.E.M.S.R. S.H.R.  
 Date: 6/19/89

Owner: Howard County  
 Developer: Howard County Department of Recreation and Parks  
 3430 Court House Drive  
 Ellicott City, MD 21043  
 (301)992-2480

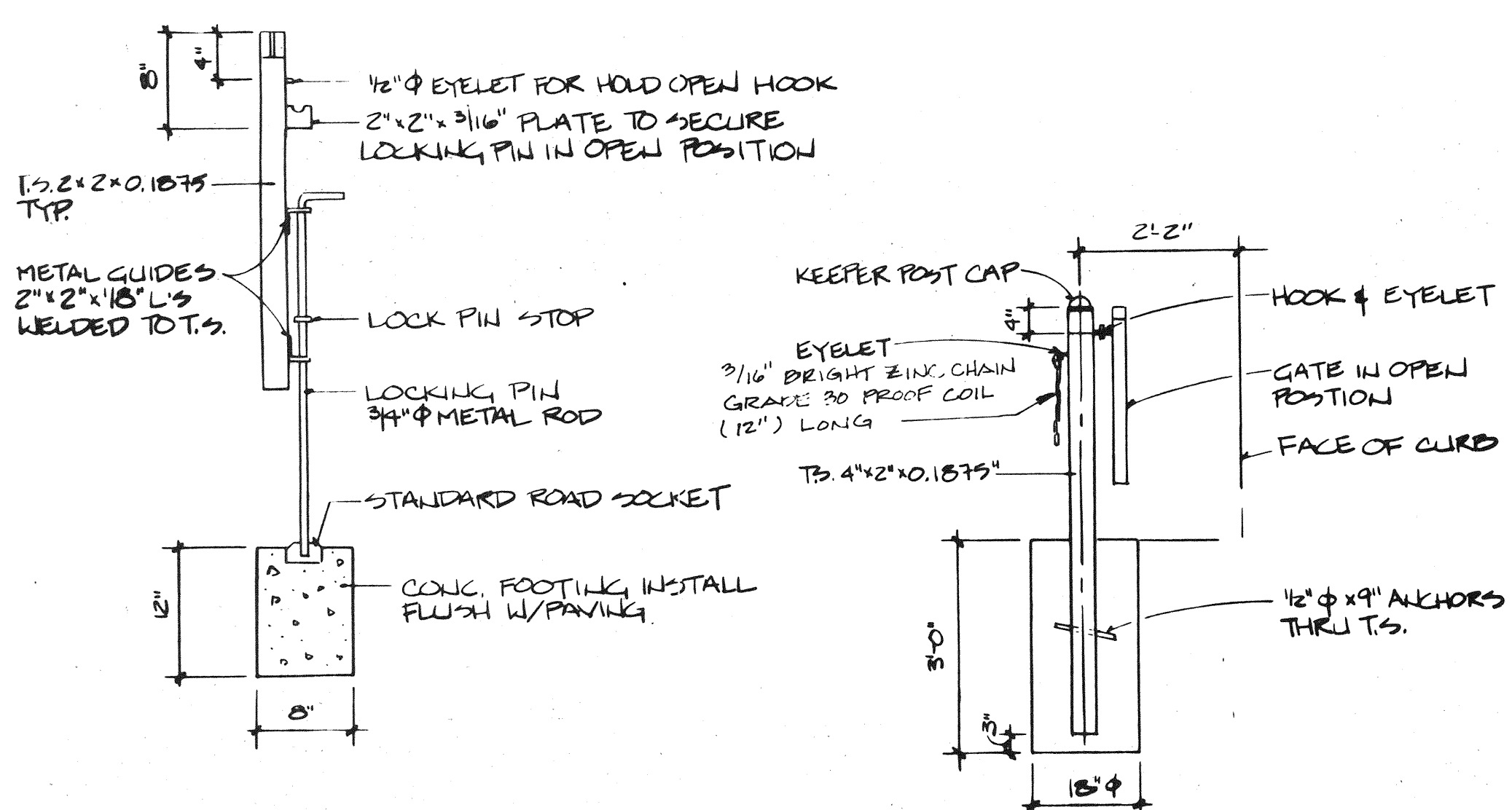
FSI Design Group  
 Prospect Square, Suite 200  
 10903 Indian Head Highway  
 Fort Washington, MD, 20744  
 (301)292-0200  
 (301)932-1900

architecture, engineering,  
 landscape architecture, land planning, surveying  
 a division of Fedco Systems Incorporated

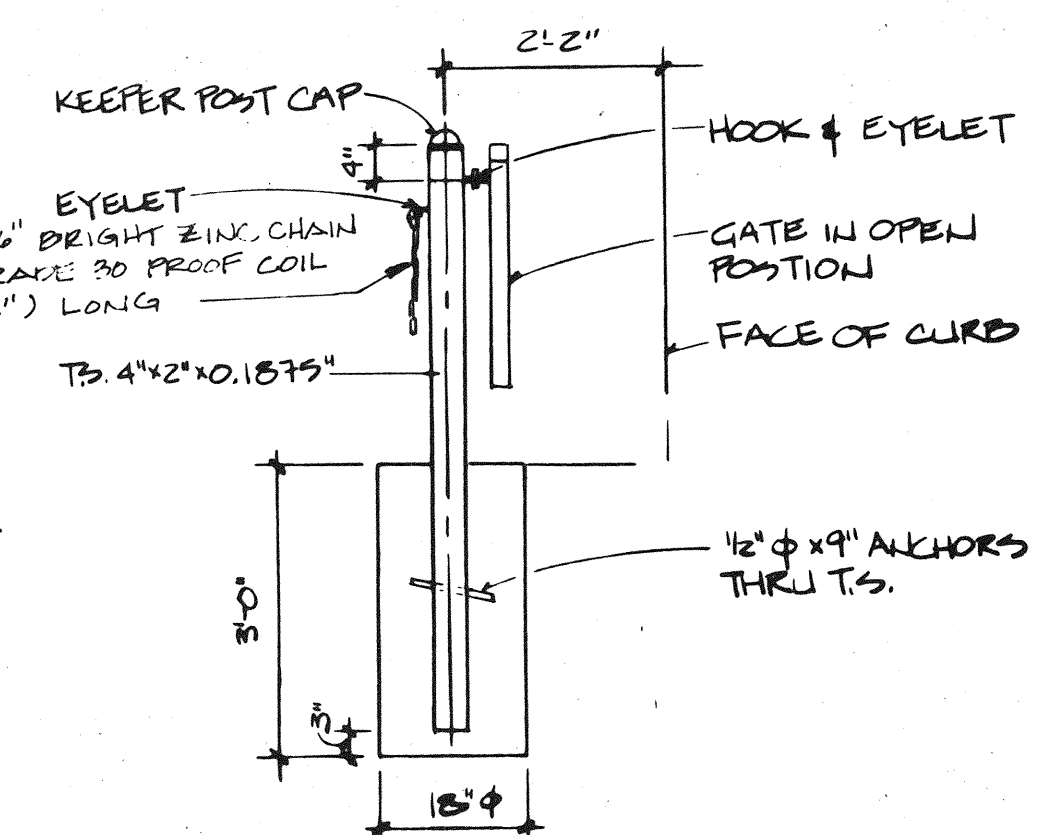
**FSI**

Sheet No. L-3  
 Project No. N-3052AA-004  
 DWG 4 OF 15

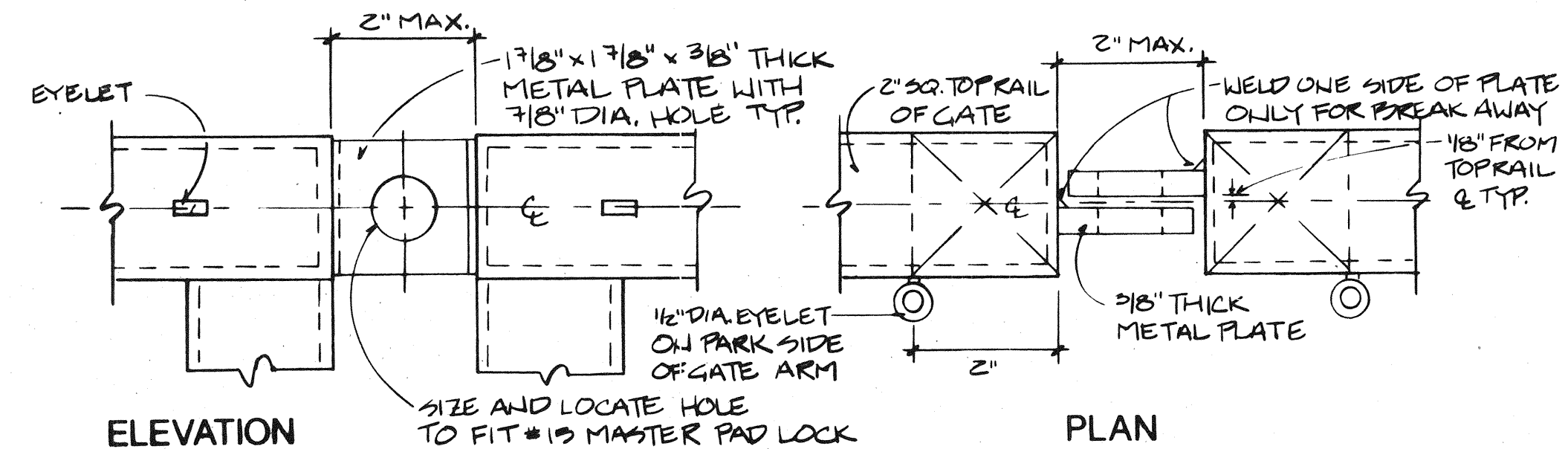
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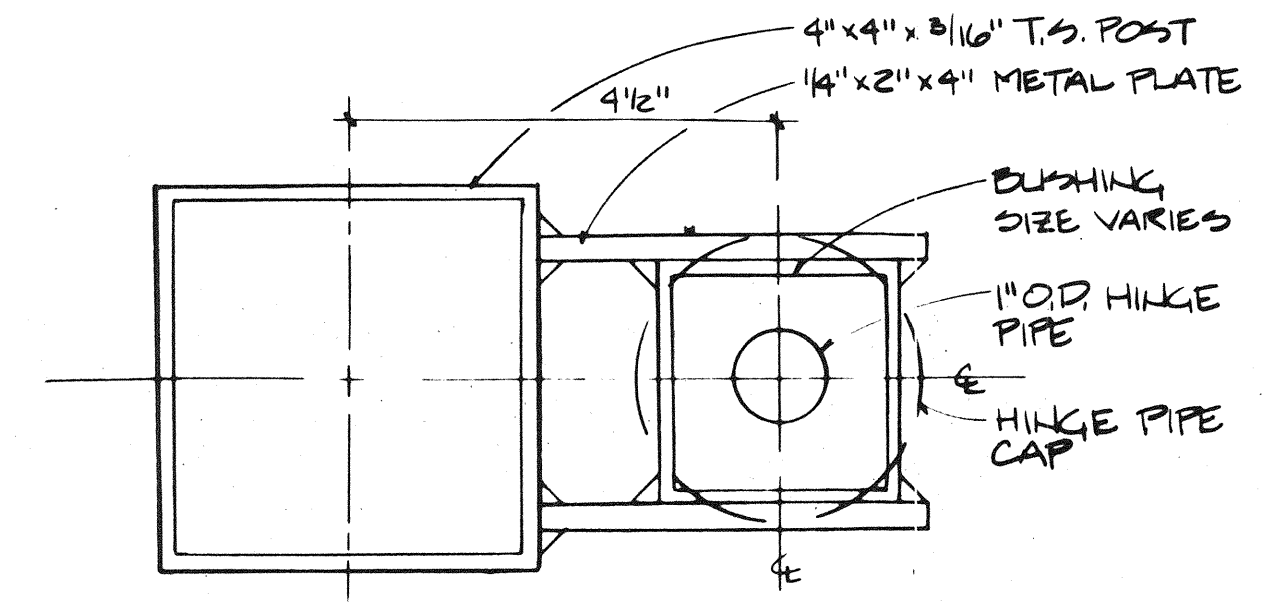
8A GATE ANCHOR / LOCKING PIN SECTION NOT TO SCALE



8B KEEPER BAR DETAIL SECTION NOT TO SCALE

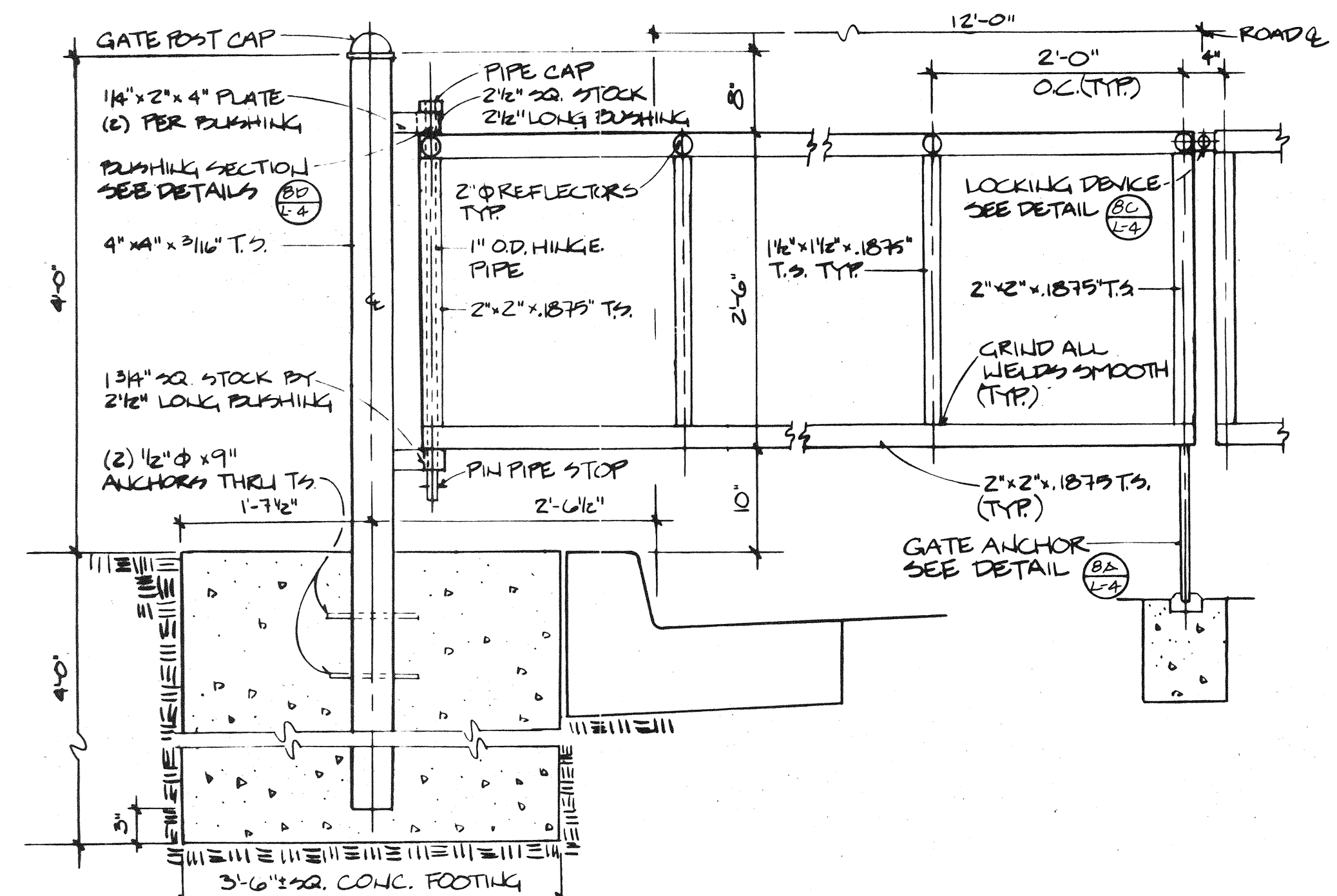


8C ENTRY GATE LOCKING DEVICE SECTION NOT TO SCALE

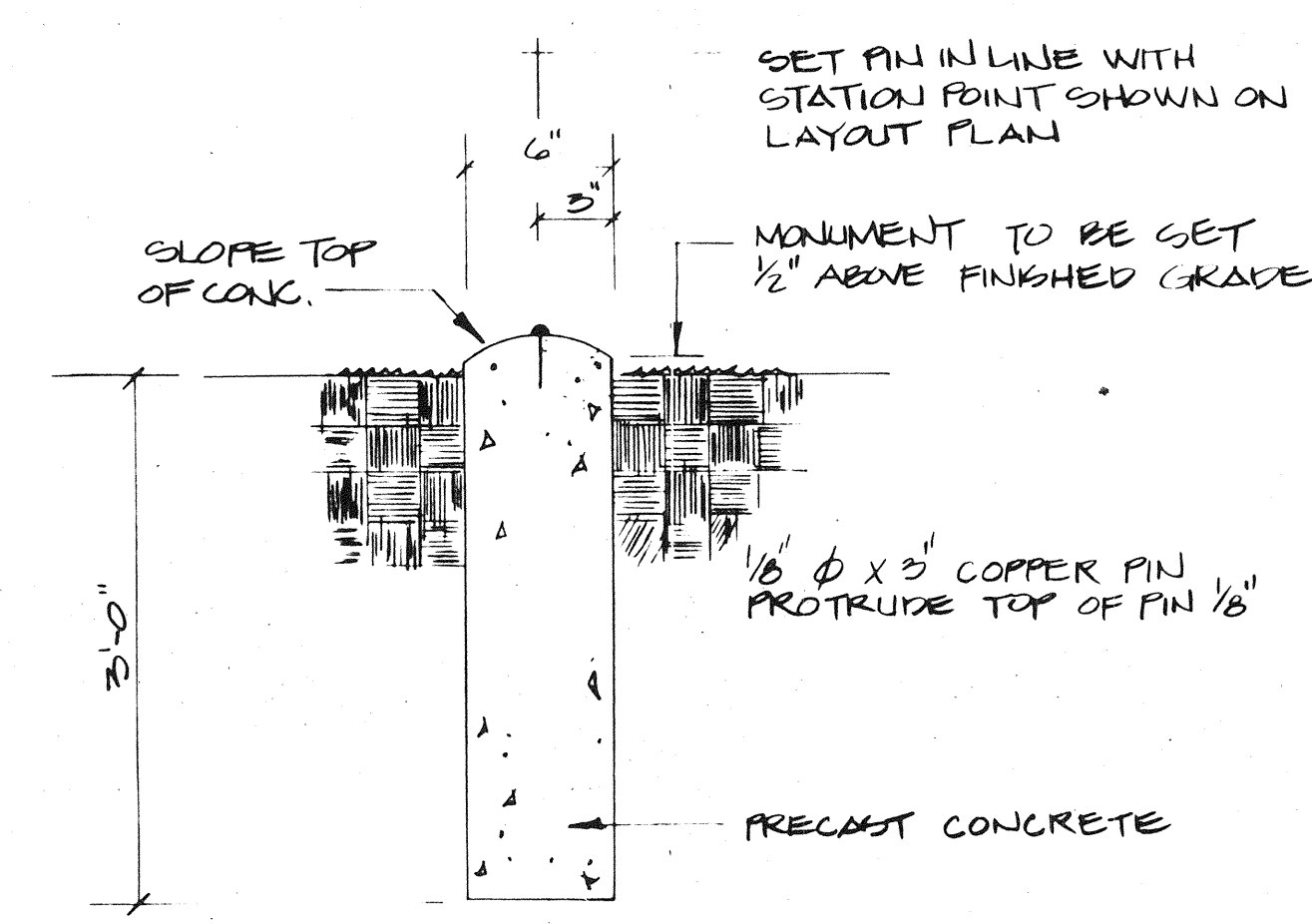


8D BUSHING DETAIL SECTION NOT TO SCALE

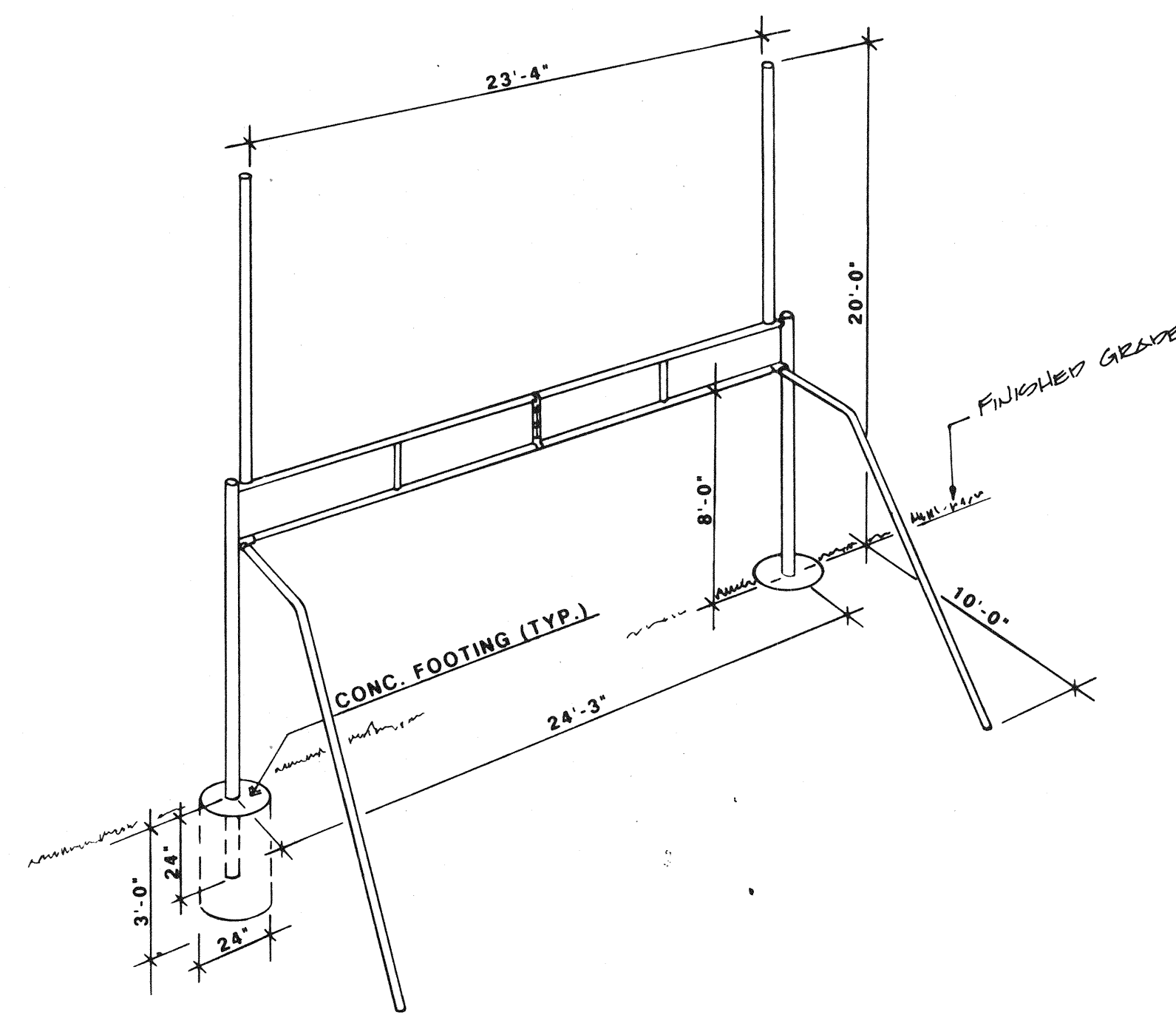
ENTRY GATE NOTES:  
1) GATES SHALL SWING TOWARDS PARK.  
2) LEFT & RIGHT SIDE OF GATE ARE SYMMETRICAL.  
3) GRIND ALL WELDS SMOOTH.  
4) ALL METAL PARTS TO BE PRIMED PRIOR TO PAINTING.  
5) PAINT ENTIRE GATE GLOSS BLACK.  
6) INSTALL WHITE REFLECTOR DISK (2' O.C.) ACROSS TOP RAIL AT VERTICALS ON BOTH SIDES OF GATE.  
7) GREASE HINGE PIN & ALL BUSHINGS FOR FITTINGS WITH LITHIUM GREASE.  
8) EACH BUSHING SHALL HAVE (2) LOCKING CAP SCREWS FOR ADJUSTMENTS.



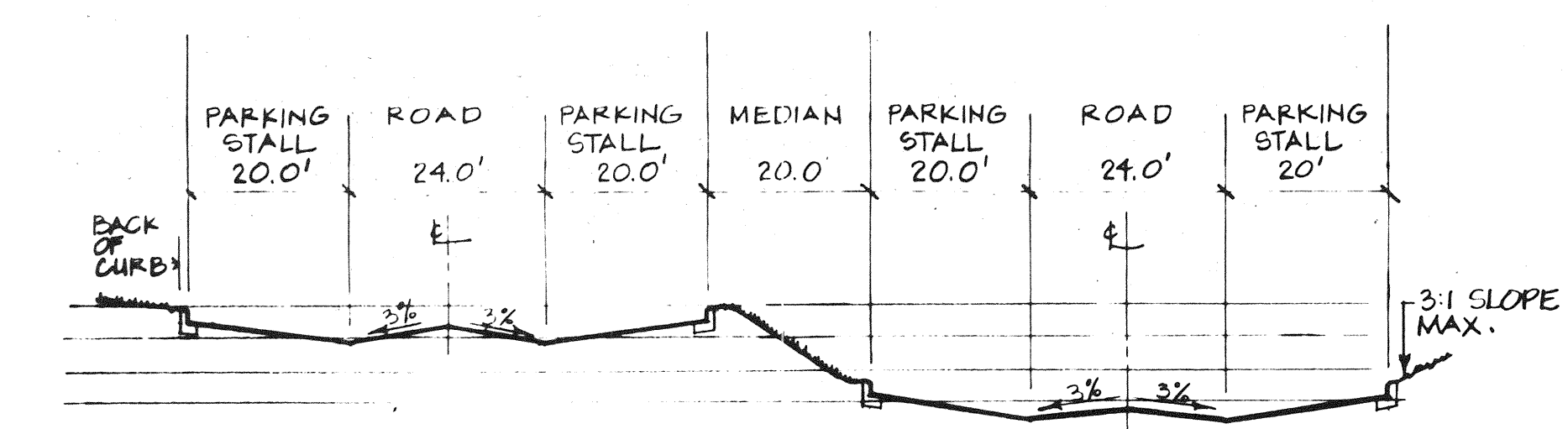
8 ENTRANCE GATE SECTION NOT TO SCALE



9 BASELINE CONTROL MONUMENT SECTION NO SCALE



10 COMBINATION SOCCER/FOOTBALL GOAL PERSPECTIVE NO SCALE



NOTES:  
1. PITCH CROWNS AS SHOWN EXCEPT AS OTHERWISE INDICATED ON GRADING PLAN  
2. ALL PARKING STALL DIMENSIONS ARE MEASURED FROM FACE OF CURB  
3. SLOPE ON PARKING STALL(S) VARIES - SEE GRADING PLAN

11 PARKING LOT - GRADING & LAYOUT CROSS-SECTION HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=5'

APPROVED: HOWARD COUNTY NO SANITARY FACILITIES RESPONDED for private water and private sewerage systems  
James M. Boyd and per 8/26 6/23/89  
County Health Officer Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
Ullrich 6.27.89  
Director Date  
Rash J. Ziegler 6/23/89  
Chief, Division of Community Planning and Land Development Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS for private water and private sewerage, storm drainage systems and public roads  
James M. Boyd 6/23/89  
Director Date  
John S. Kelly 6-23-89  
Chief, Bureau of Engineering Date

ADDRESS CHART  
LOT NUMBER STREET ADDRESS  
PARCEL 15 14075 CARRS MILL ROAD

SUBDIVISION NAME: GLENWOOD PARK  
PLAT/BLOCK# 1186/523 10  
WATER CODE N/A  
ZONING R  
TAX/ZONE/IMP/BLDG. DIST./CENSUS 14 4 6040  
SEWER CODE N/A

STATE OF MARYLAND  
REVISIONS  
Glenwood Park  
14675 Carrs Mill Road Glenwood, MD 21730  
Parcel 15, Tax Map 14, Section District 1  
CAPITAL PROJECT NO. N-3052 AA

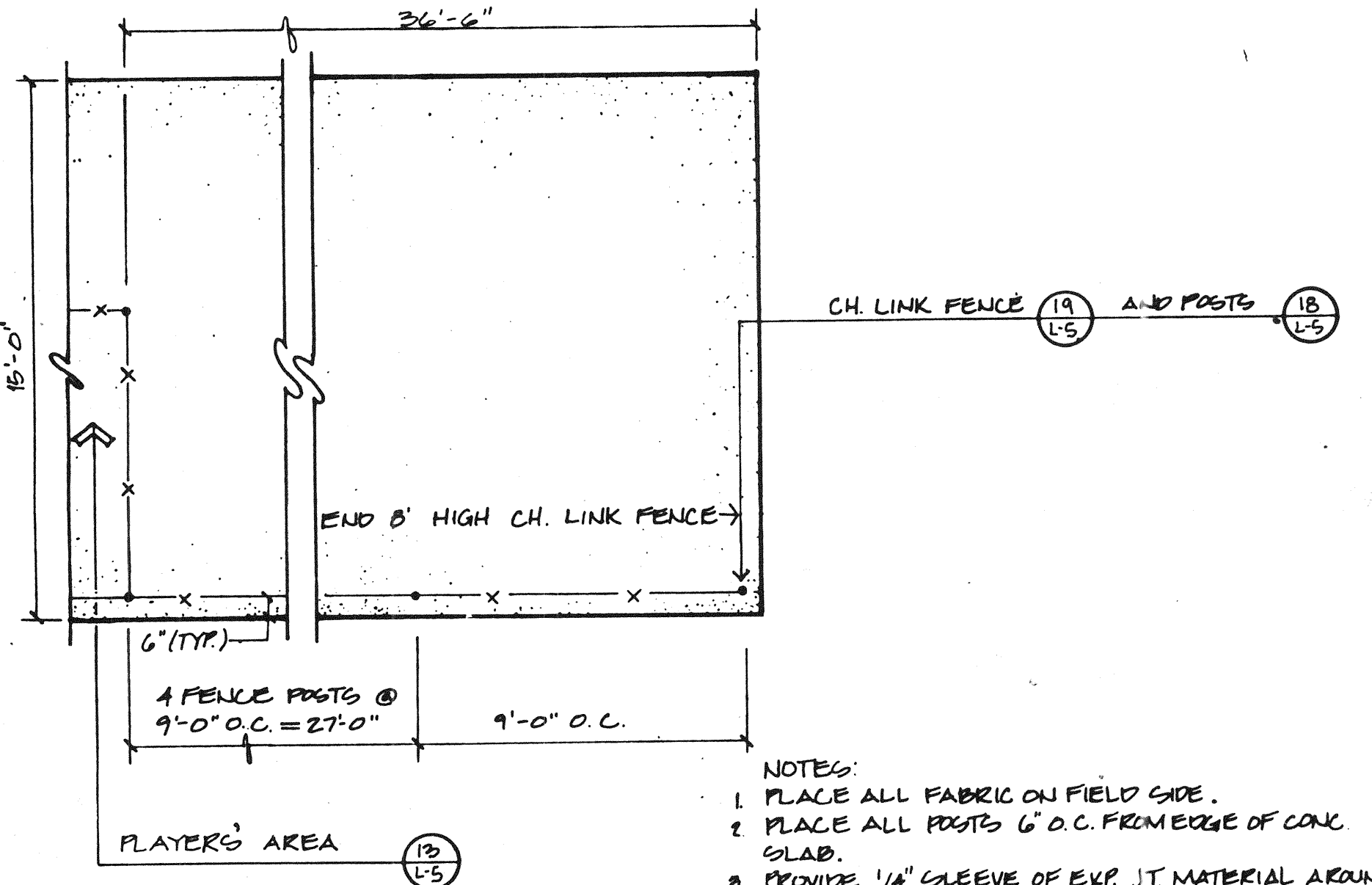
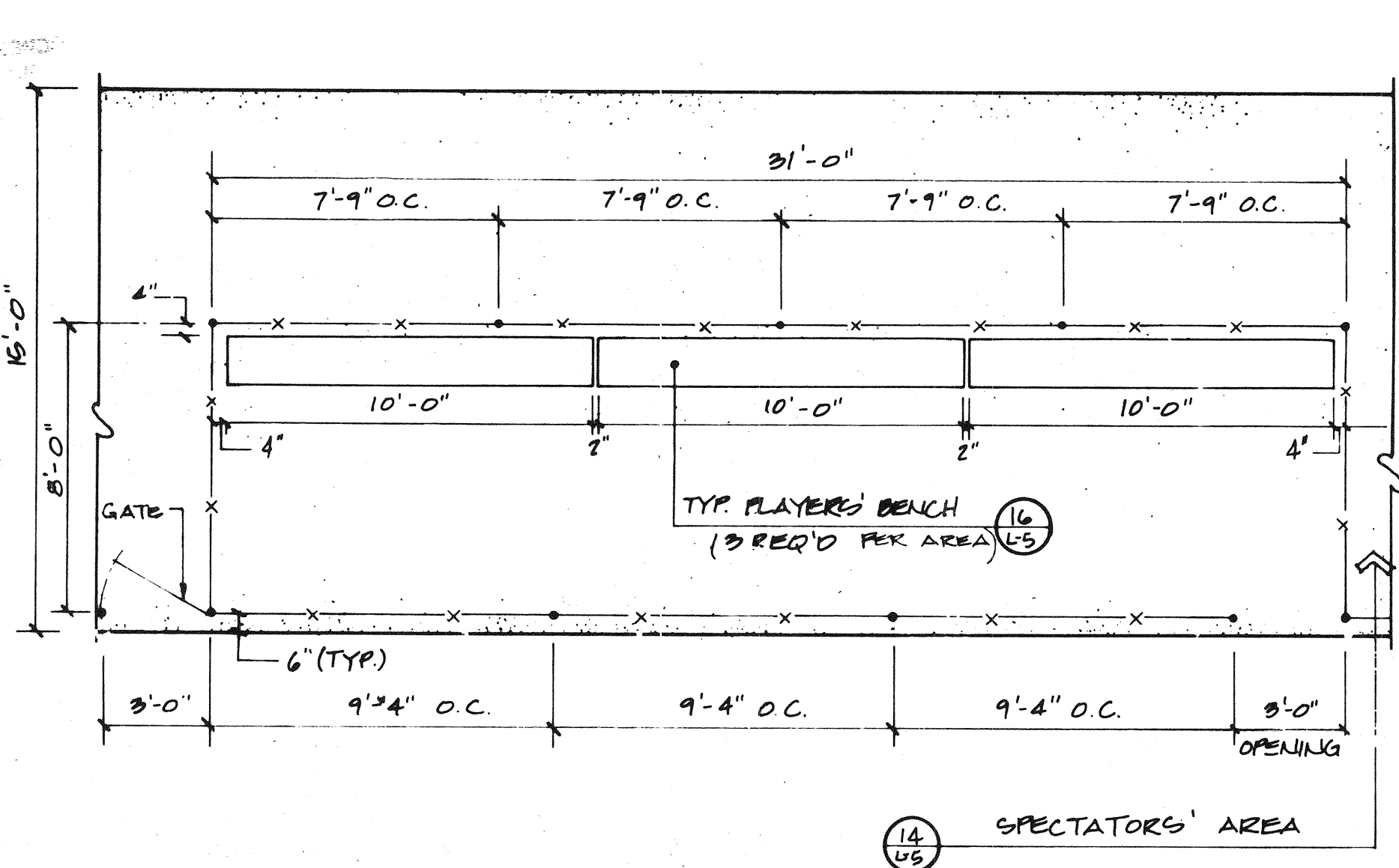
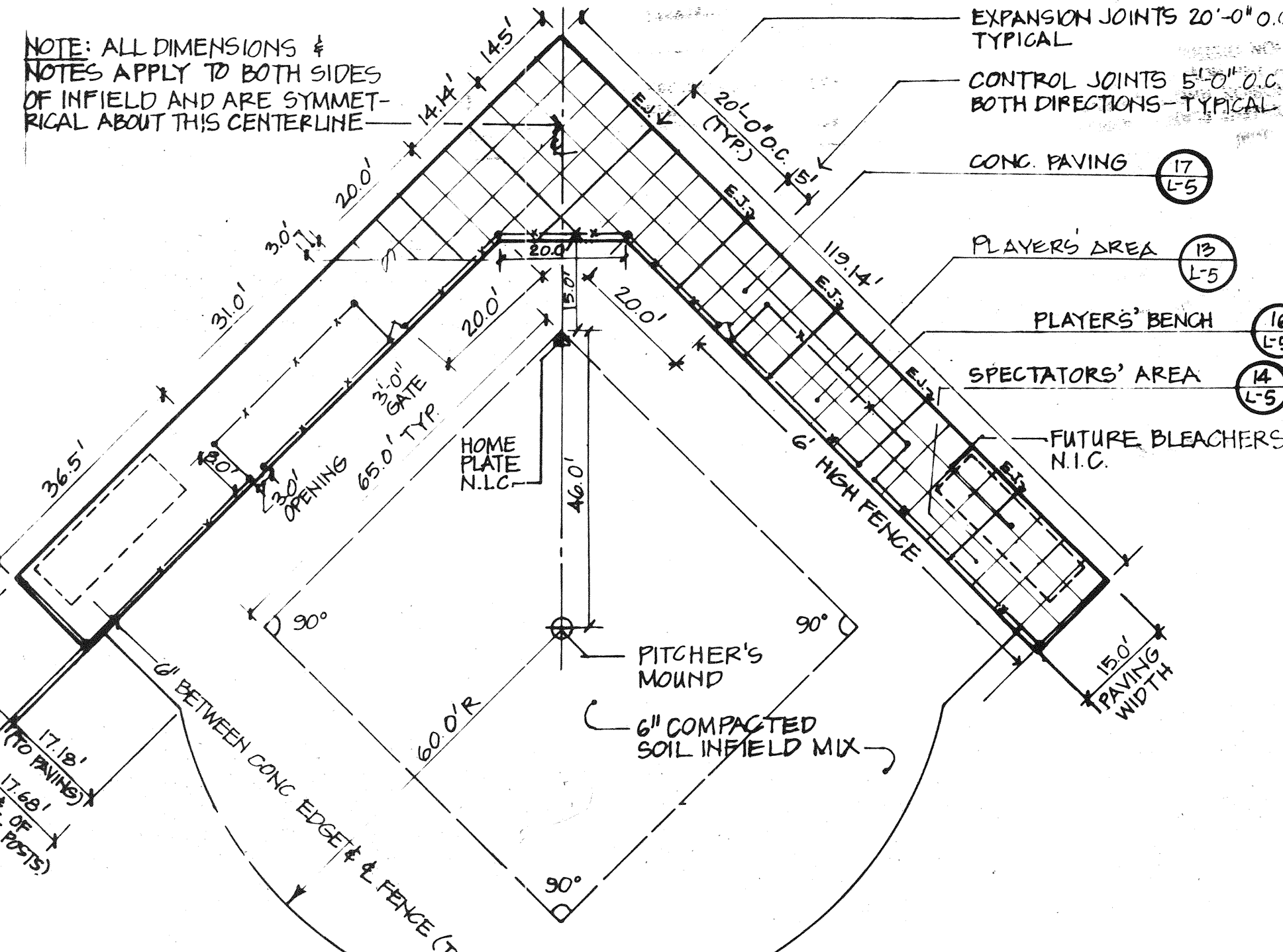
Details  
Owner: Howard County  
Developer: Howard County Department of Recreation and Parks  
3430 Court House Drive  
Ellicott City, MD 21043  
(301)992-2480

FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD, 20744  
(301)292-0200  
(301)932-1900  
architecture, engineering,  
landscape architecture, land planning, surveying  
a division of Fedco Systems Incorporated

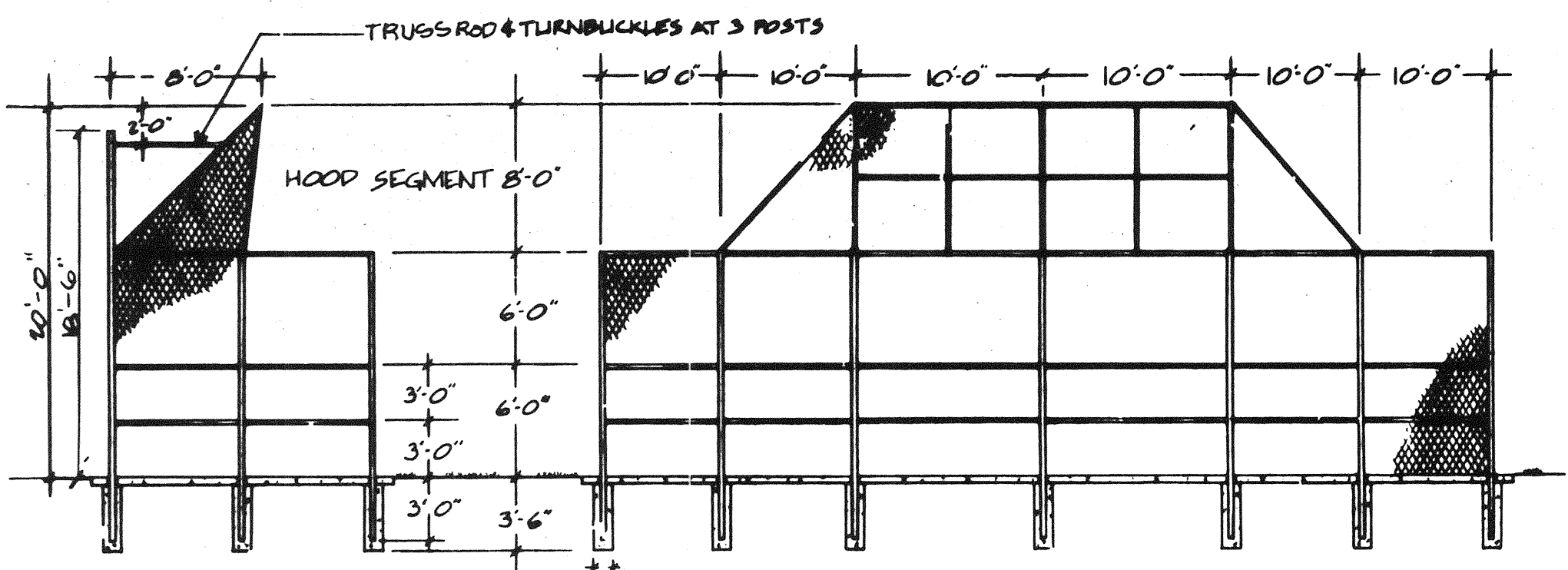
Sheet No. L-4  
DWG 5 OF 15  
Project No. 88-110P  
N-3052AA-005

1339

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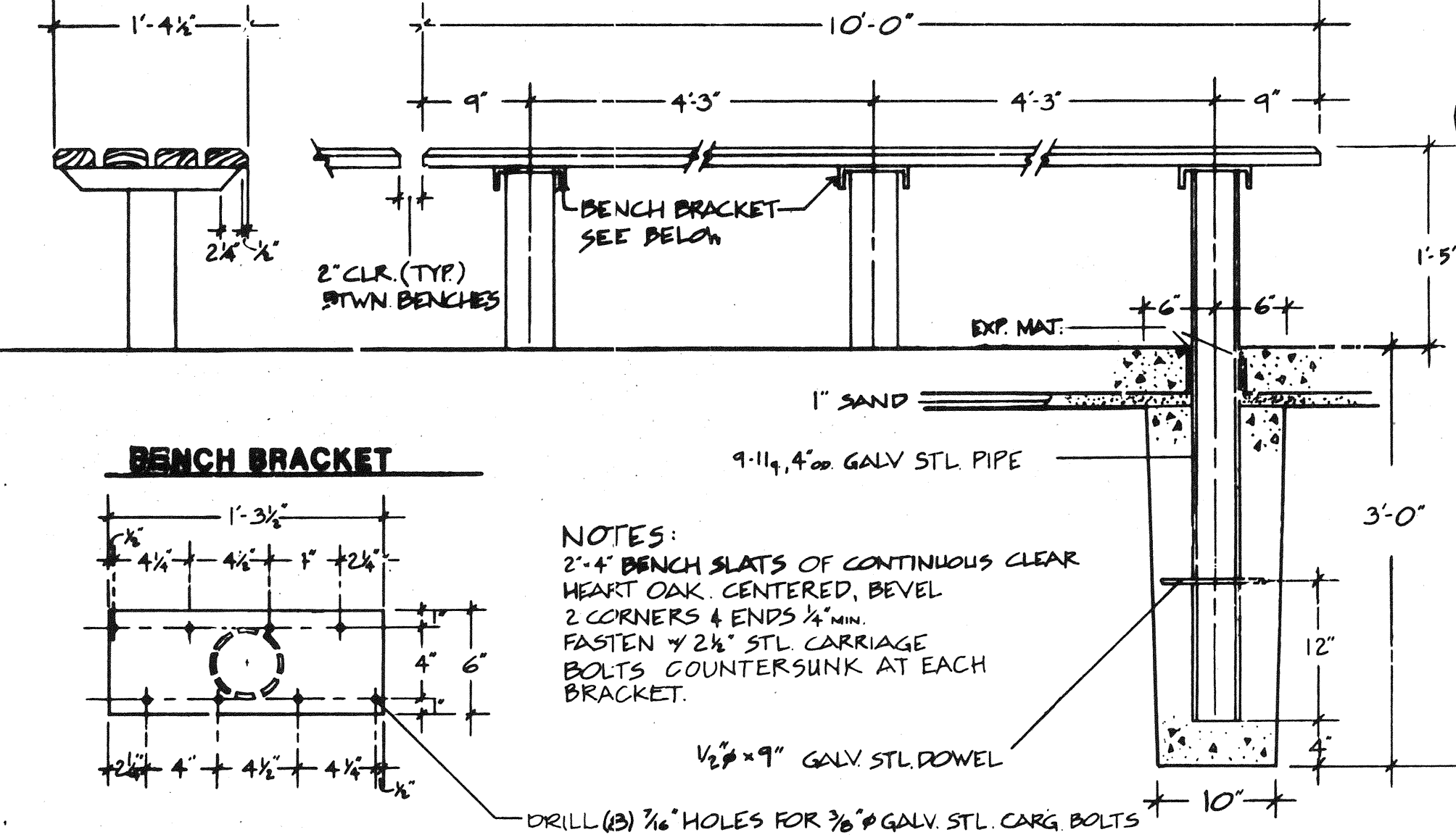


NOTES:  
1. PLACE ALL FABRIC ON FIELD SIDE.  
2. PLACE ALL POSTS 6" O.C. FROM EDGE OF CONC. SLAB.  
3. PROVIDE 1/4" SLEEVE OF EXP. JT. MATERIAL AROUND EACH POST WHERE IT PASSES THROUGH CONCRETE. EXPANSION JT. MATERIAL SHOULD EXTEND ABOVE CONC. LEVEL AND BE TRIMMED FLUSH AFTER CONC. INSTALLATION.  
4. FOR EXPANSION & CONTROL JT. PATTERN, SEE DET. (12) L-5.



NOTES:  
• PIPE DIMENSIONS VARY - HOOD SEGMENT 2" O.D. ALL BACKSTOP 4" O.D. VERTICAL POSTS, 2" O.D. HORIZONTAL RAILS.  
• SECURE HOOD TO VERTICAL POSTS w/ TRUSS RODS & TURNBUCKLES.  
• PROVIDE 1/4" SLEEVE OF EXP. MATL AROUND EACH POST AS IT PASSES THROUGH SLAB.

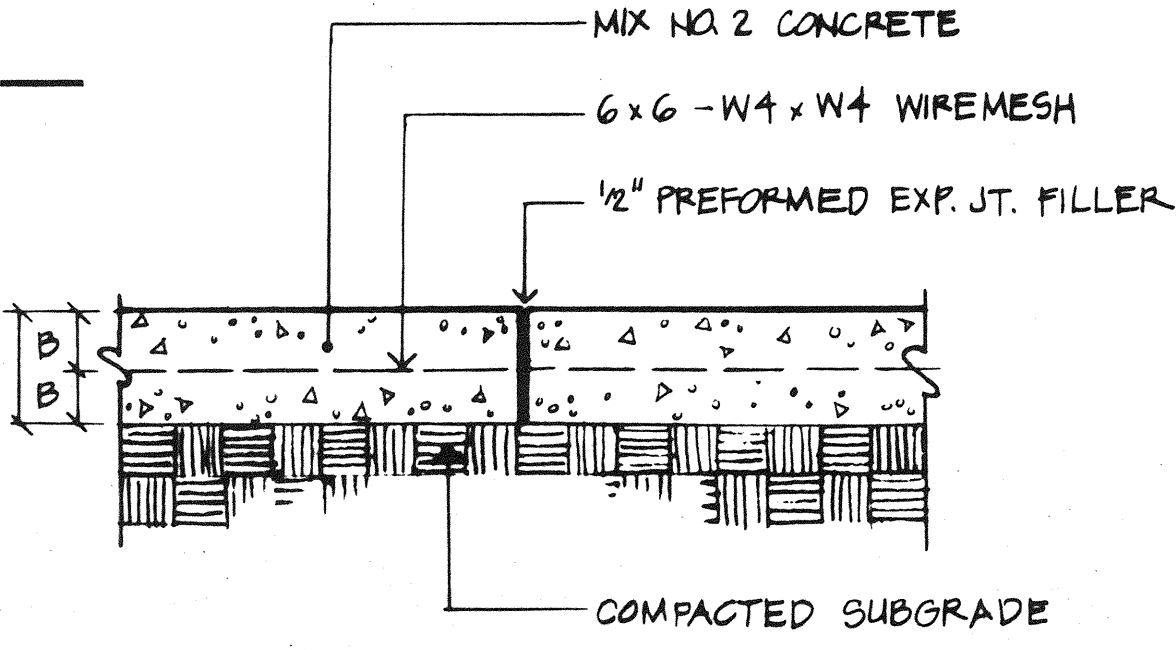
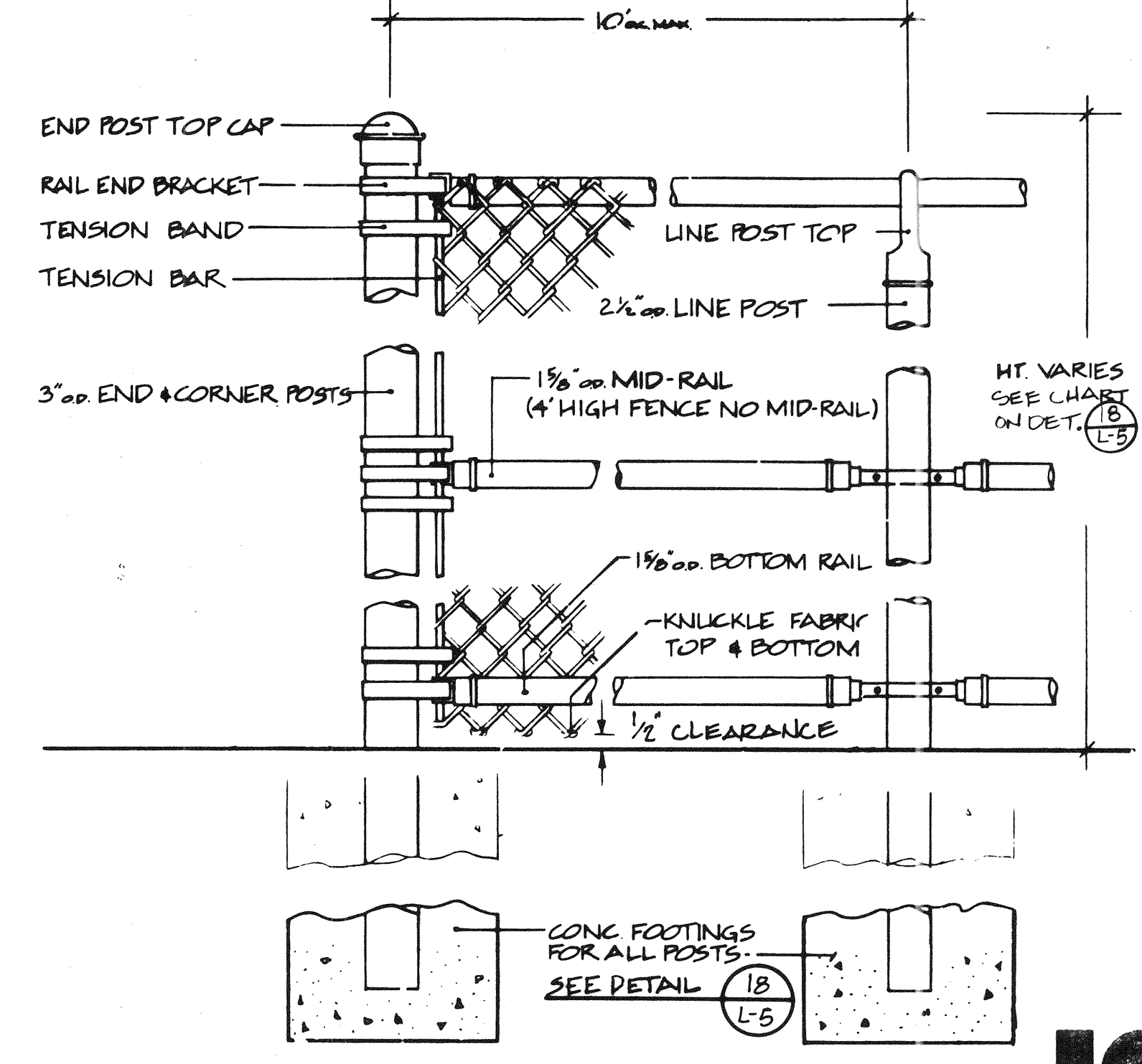
• SEE CHAIN LINK FENCE DETAIL. (19) L-5  
• VINYL COATED FABRIC ON FIELD SIDE.



NOTES:  
• 2" x 4" BENCH SLATS OF CONTINUOUS CLEAR HEART OAK, CENTERED, BEVEL 2 CORNERS & ENDS 1/4" MIN.  
• FASTEN w/ 2" x 4" STL CARRIAGE BOLTS COUNTERSUNK AT EACH BRACKET.  
• DRILL (2) 3/16" HOLES FOR 3/8" GALV STL CARG BOLTS

FENCE POST LOCATIONS	H	h	d	TOP RAIL	BOT. RAIL	MID RAIL
PLAYERS' & SPECTATORS' AREAS	6'-0"	9"	12"	YES	YES	YES
SOFTBALL - BACKSTOP (SIDES)	18'-6"	9'-6"	16"	YES	YES	YES
SOFTBALL-BACKSTOP (CENTER SEGMENT)	12'-0"	3'-6"	12"	YES	YES	YES

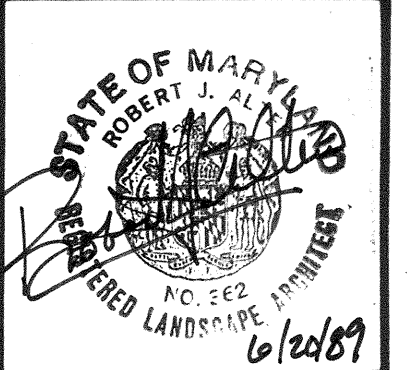
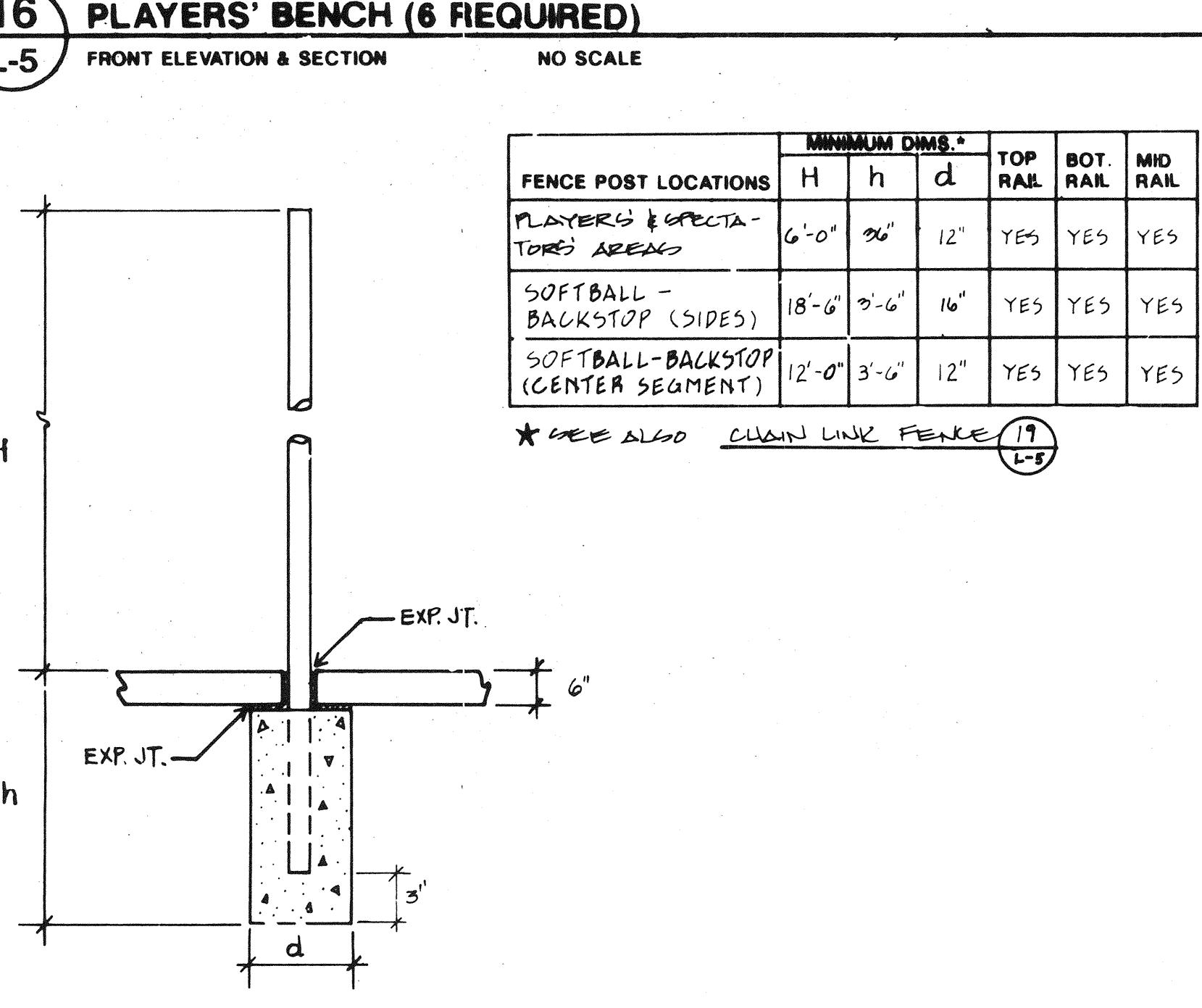
\* SEE ALSO CHAIN LINK FENCE (19) L-5



DEPTH OF PAVEMENT:  
SOFTBALL BACKSTOP AREA

A	B
5'	2 1/2"

NOTE:  
SEE SCORING LAYOUT FOR SOFTBALL BACKSTOP AREA ON DET. (12) L-5



Sheet Title: **Softball & Fencing Details**

Owner: **Howard County Department of Recreation and Parks**  
3430 Court House Drive  
Ellicott City, MD 21043  
(301) 992-2480

Developer: **Glenwood Park**  
14675 Carrs Mill Road Glenwood, MD 21730  
Parcel 15, Ass. Map 14, Section District 4  
CAPITAL PROJECT NO. N-3052 AA

Revisions:  
Date: 6/19/89  
Approved: E.M.S.R.A.T.  
Drawn: S.H.K.

FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD, 20744  
(301) 292-0200  
(301) 932-1900

architecture, engineering,  
landscape architecture, land planning, surveying  
a division of Fedco Systems Incorporated

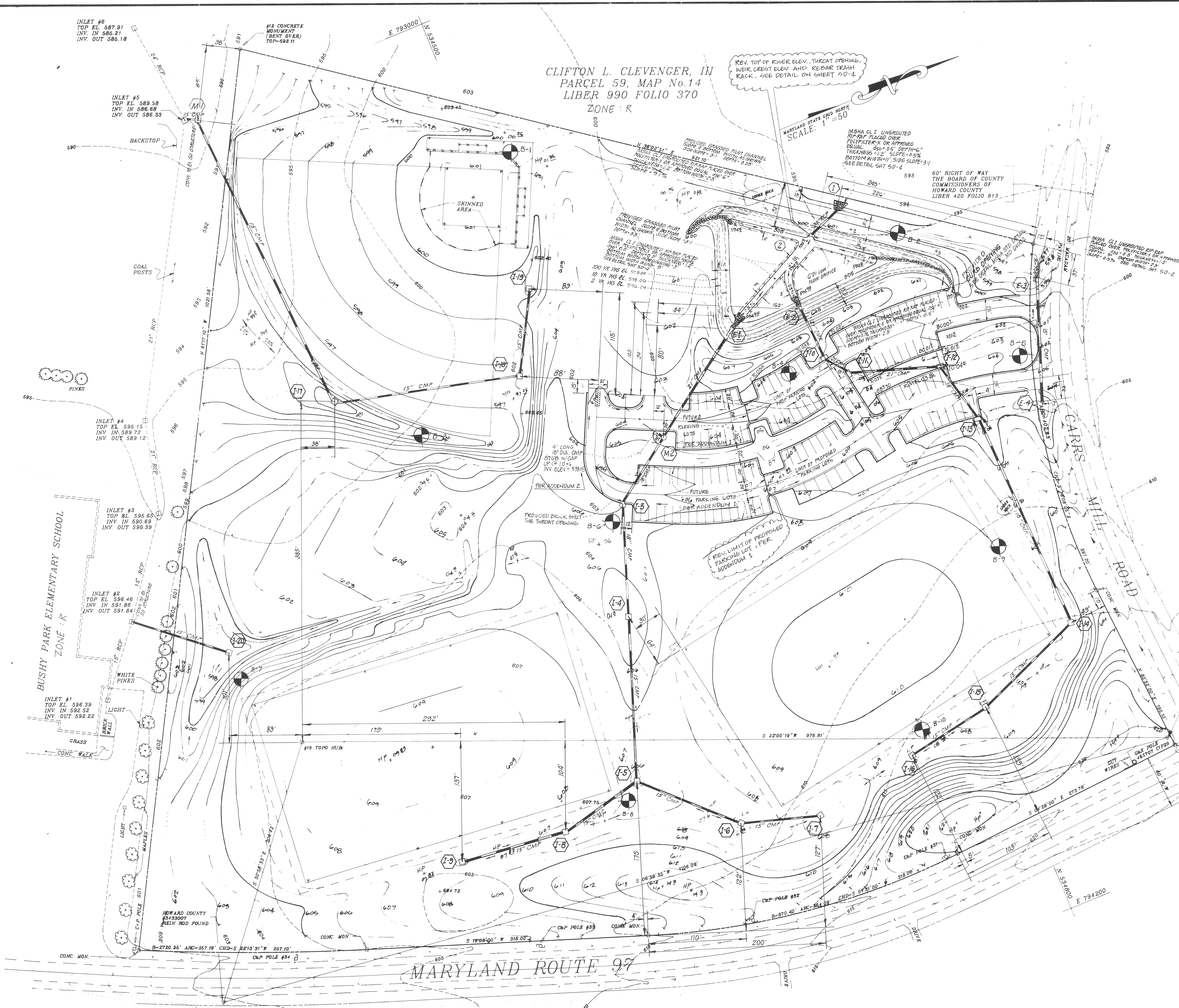


Sheet No. **L-5**  
DWG. 6 OF 15

N-3052AA-006

1339

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CLIFTON L. CLEVENGER, IN  
PARCEL 59, MAP No.14  
LIBER 990 FOLIO 370  
ZONE : R

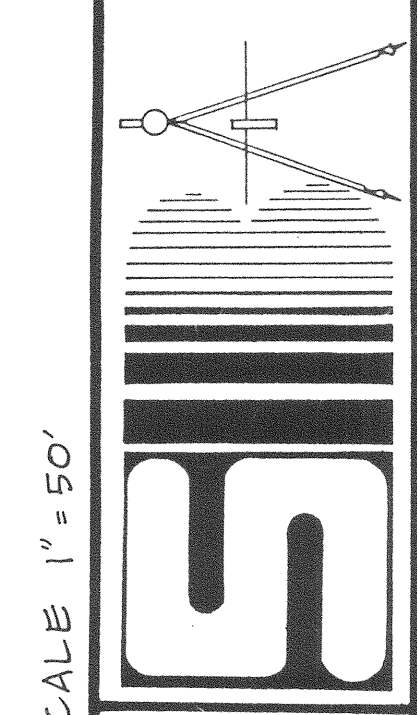
REV. TOP OF RISER ELEV., THROAT OPENING,  
WEIR CREST ELEV. AND REDBAR TRASH  
RACK, SEE DETAIL ON SHEET 50-4

APPROVED: HOWARD COUNTY NO SANITARY  
HEALTH DEPARTMENT  
for private water and private sewerage systems  
*Joyce M. Boyd* per *8/8/89* 6/23/89  
County Health Officer Date

APPROVED: HOWARD COUNTY  
OFFICE OF PLANNING & ZONING  
*W. H. ...* 6/27/89  
Director Date  
*W. H. ...* 6/27/89  
Chief, Division of Community  
Planning and Land Development Date

APPROVED: HOWARD COUNTY  
DEPARTMENT OF PUBLIC WORKS  
for private water and private sewerage,  
storm drainage systems and public roads  
*Joyce M. Boyd* 6/22/89  
Director Date  
*W. H. ...* 6/22/89  
Chief, Bureau of Engineering Date

ADDRESS CHART			
LOT NUMBER	STREET ADDRESS		
PARCEL 15	14675 CARRS MILL ROAD		
SUBDIVISION NAME		SECT./AREA	LOT/PARCEL#
GLENWOOD PARK			PARCEL 15
PLAT# OR L/P	BLOCK#	ZONE	TAX, ZONE, MAP ELEC. DIST. CENSUS
1186/1329	10	R	14 4 6040
WATER CODE		SEWER CODE	
N/A		N/A	



SHAFER BATT & ASSOC., INC.  
ENGINEERS-LAND PLANNERS-SURVEYORS  
622 HUNGERFORD DRIVE SUITE 20  
ROCKVILLE, MARYLAND 20850  
(301) 340-7702

Owner:  
Howard County  
Developer:  
Howard County  
Department of Recreation  
and Parks

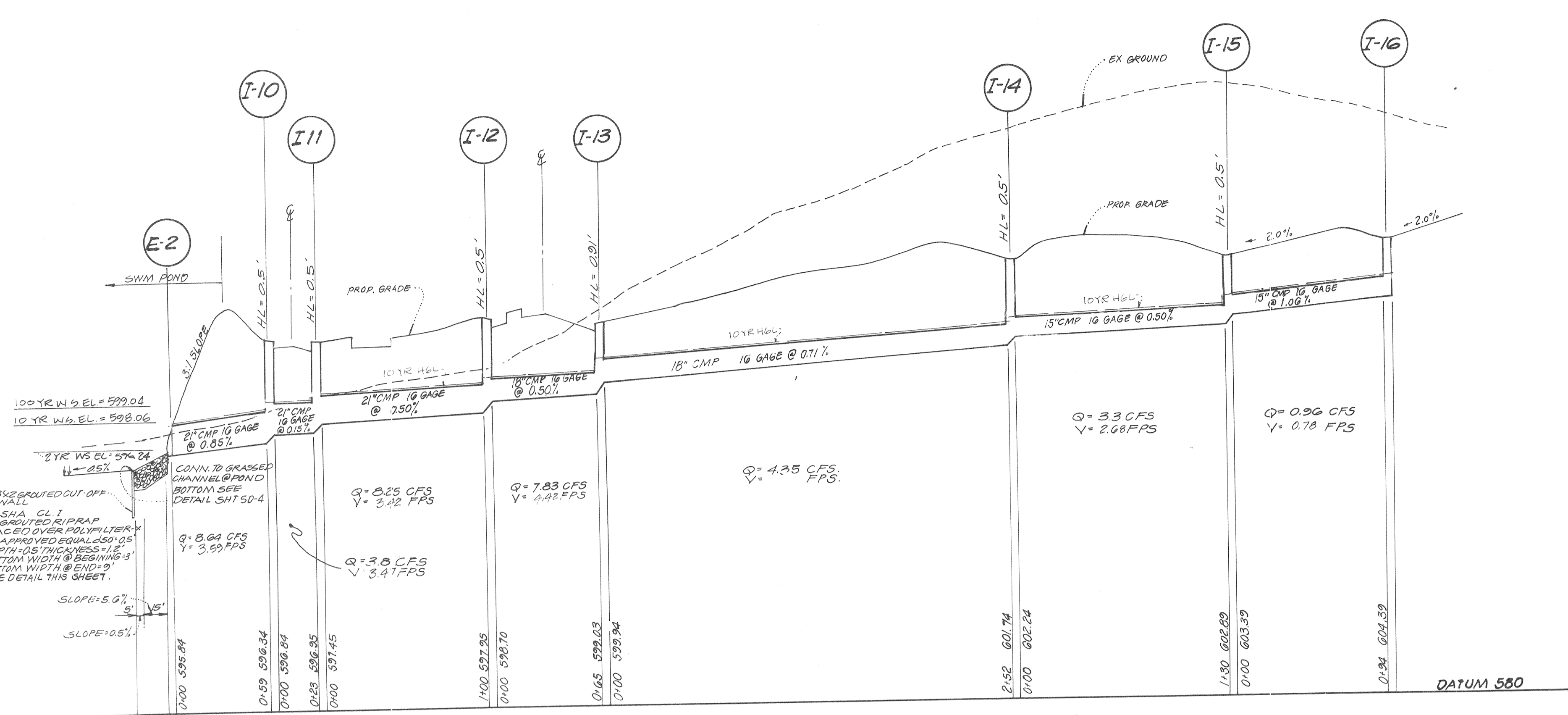
FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD. 20744  
(301) 292-0200  
(301) 932-1900



Sheet No. SD-1  
Drawing 7 of 15  
Project No. N-30529A-007

Storm Drainage & SWM Plan  
Glenwood Park  
14675 Carrs Mill Road Glenwood, MD 21730  
FOLIO 370, MAP NO. 14, LIBER 990  
CAPITAL PROJECT NO. H-3052 A A  
Date Approved: 4/19/89

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PROFILE SCALE  
HORIZ = 1"=50'  
VERT = 1"=5'

STRUCTURE SCHEDULE					
NO.	TYPE	TOP EL.	INV	INV OUT	REMARKS
E-1	STD. END SECTION (21"ACP)	--	--	595.85	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-5.61
E-2	STD. END SECTION (21"ACP)	--	--	595.85	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-5.61
E-3	STD. END SECTION (15"ACP)	--	--	596.60	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-5.61
E-4	STD. END SECTION (15"ACP)	--	--	602.60	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-5.61
M-2	STD. PRECAST MANHOLE	603.48	597.80	597.05	HO. CO. STD. SPECS. & DETAILS VOL. IV G-5.11
I-3	A-5	605.14	598.74	598.24	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-4	YARD INLET	604.90	600.22	599.47	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-5	YARD INLET	605.80	601.62	601.12	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-6	YARD INLET	606.80	602.74	602.24	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-7	YARD INLET	607.50	--	603.70	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-8	YARD INLET	606.30	602.59	602.09	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-9	YARD INLET	606.90	--	603.25	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-10	A-5	602.40	596.84	596.34	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.01
I-11	A-5	602.16	597.45	596.95	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.01
I-12	A-10	603.36	598.30	597.99	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.02
I-13	A-10	603.04	599.90	599.15	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.02
I-14	TYPE 'B' INLET	607.00	602.24	601.74	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.22
I-15	YARD INLET	607.10	603.39	602.89	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-16	YARD INLET	608.10	--	604.39	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-17	YARD INLET	592.50	589.39	588.89	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-18	YARD INLET	594.80	593.15	593.65	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-19	YARD INLET	598.00	--	594.20	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.14
I-20	TYPE 'S' INLET	597.30	--	593.50	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-4.22
M-1	SHALLOW PRECAST MANHOLE	589.60	587.13	586.63	HO. CO. STD. SPECS. & DETAILS VOL. IV G-5.12
1	TYPE 'C' ENWALL (18"RCCP)	--	594.15	--	HO. CO. STD. SPECS. & DETAILS VOL. IV SD-5.22
2	MODIFIED A-5 INLET	595.58	594.45	594.35	SEE SHEET SD-4 FOR SPECIAL DETAIL

PIPE SUMMARY		
SIZE	TYPE	LENGTH
15"	CORRUGATED METAL PIPE, 16 GAGE, 1/2"X2 2/3 CORRUGATION	1,732'
18"	CORRUGATED METAL PIPE, 16 GAGE, 1/2"X2 2/3 CORRUGATION	526'
21"	CORRUGATED METAL PIPE, 16 GAGE, 1/2"X2 2/3 CORRUGATION	325'
TOTAL		2583'

APPROVED: HOWARD COUNTY NO. SANITARY FACILITIES PROPOSED  
HEALTH DEPARTMENT  
County Health Officer: *Joyce M. Boyd* Date: 6/23/89

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
Director: *Frank J. Langille* Date: 6/27/89  
Chief, Division of Community Planning and Land Development

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Director: *James P. ...* Date: 6/23/89  
Chief, Bureau of Engineering

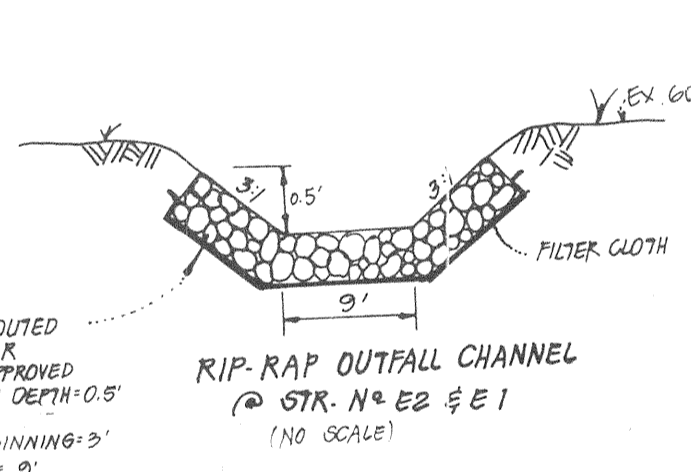
ADDRESS CHART  
LOT NUMBER: PARCEL 15  
STREET ADDRESS: 14675 CARRS MILL ROAD

SUBDIVISION NAME: GLENWOOD PARK  
SECT./AREA: 14  
LOT/PARCEL: PARCEL 15  
PLAT# OR L/F: 1186/329  
BLOCK# ZONE: 10 F.  
TAX/ZONING MAP: 14  
ELEC. DIST.: 4  
CENSUS TRACT: 6040  
WATER CODE: N/A  
SEWER CODE: N/A

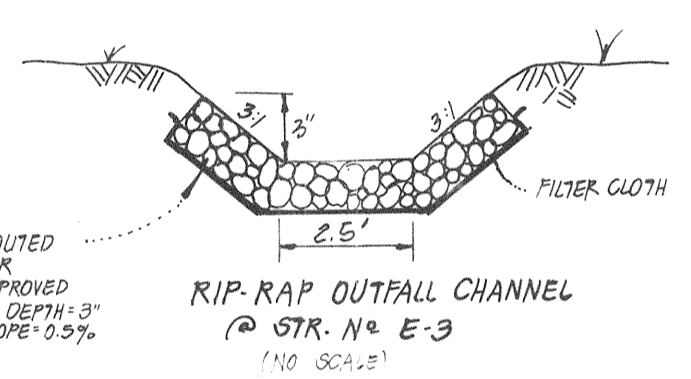
Storm Drainage & SWM Details & Profiles

Glenwood Park  
14675 Carrs Mill Road  
Parcel 15  
Election District No. 4  
Capital Project No. N-1072-A

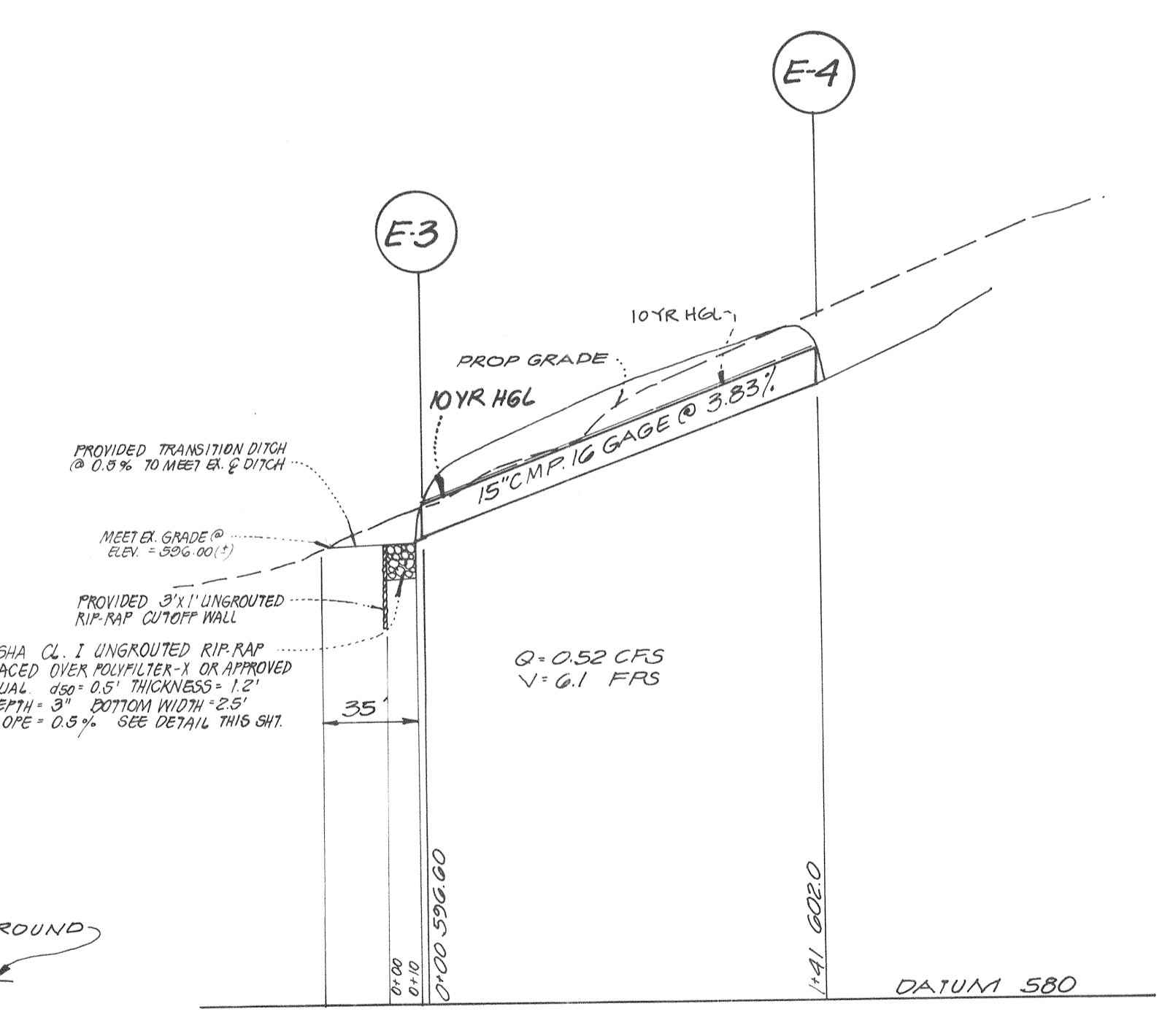
Owner: Howard County  
Developer: Howard County Department of Recreation and Parks  
3410 Court House Drive  
Ellicott City, MD 21043



RIP-RAP OUTFALL CHANNEL  
@ STR. N° E2 & E1  
(NO SCALE)



RIP-RAP OUTFALL CHANNEL  
@ STR. N° E-3  
(NO SCALE)



PROFILE SCALE  
HORIZ = 1"=50'  
VERT = 1"=5'

SHAFFER BATT & ASSOC., INC.  
ENGINEERS-LAND PLANNERS-SURVEYORS  
622 HUNGERFORD DRIVE SUITE 20  
ROCKVILLE, MARYLAND 20850  
(301) 340-7702

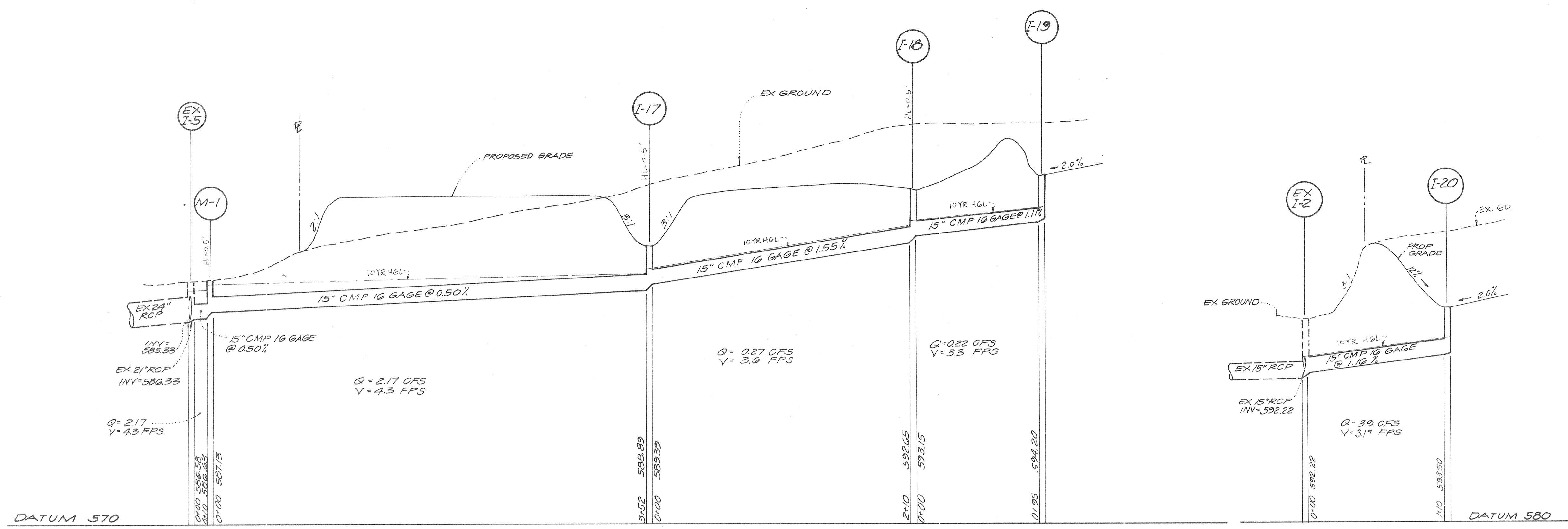
FSI  
FSI  
FSI

FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD. 20744  
(301) 292-0200  
(301) 932-1900

architecture, engineering,  
landscape architecture, land planning, surveying,  
a division of Fedco Systems Incorporated

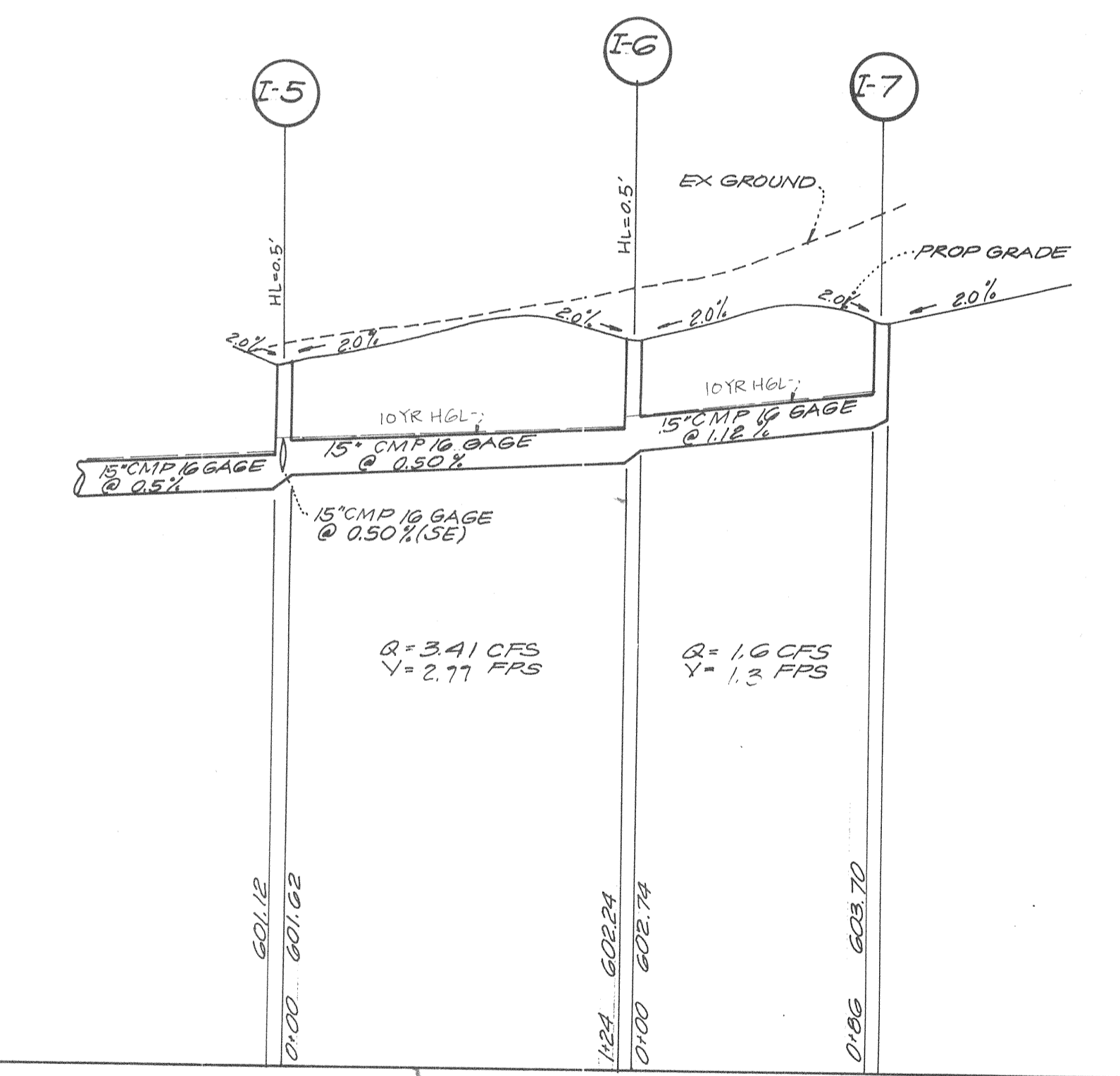
Sheet No. SD-2  
Drawing 8 of 15  
Project No. 881-110P





PROFILE SCALE  
HORIZ 1"=50'  
VERT 1"=5'

PROFILE SCALE  
HORIZ 1"=50'  
VERT 1"=5'



PROFILE SCALE  
HORIZ 1"=50'  
VERT 1"=5'

APPROVED: HOWARD COUNTY NO SANITARY FACILITIES DEPOSED  
HEALTH DEPARTMENT  
for private water and private sewerage systems  
Joyce M. Boyd and per 8/89  
County Health Officer Date

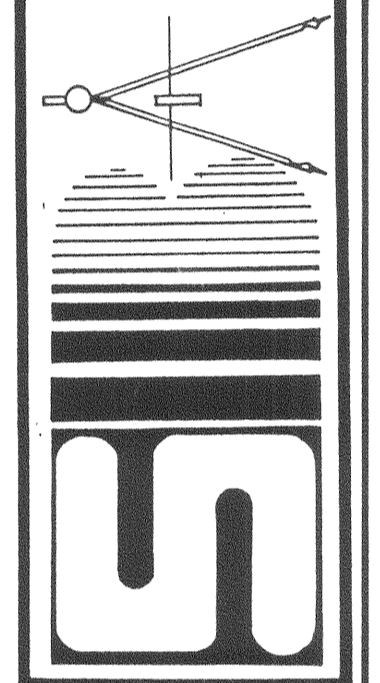
APPROVED: HOWARD COUNTY  
OFFICE OF PLANNING & ZONING  
Director  
Paul S. Z'wangle  
Chief, Division of Community Planning and Development  
Date 6-27-89

APPROVED: HOWARD COUNTY  
DEPARTMENT OF PUBLIC WORKS  
for private water and private sewerage storm drainage systems and public roads  
Director  
James G. ...  
Chief, Bureau of Engineering  
Date 6-22-89

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

SUBDIVISION NAME	SECT. AREA	LOT/ PARCEL #
GLENWOOD PARK		PARCEL 15
PLAT # OR L.P.	BLOCK #	ZONE
1186/329	10	R
TAX/ ZONE MAP	ELE. DIST.	CENSUS TR.
14	4	6040
WATER CODE	SEWER CODE	
N/A	N/A	

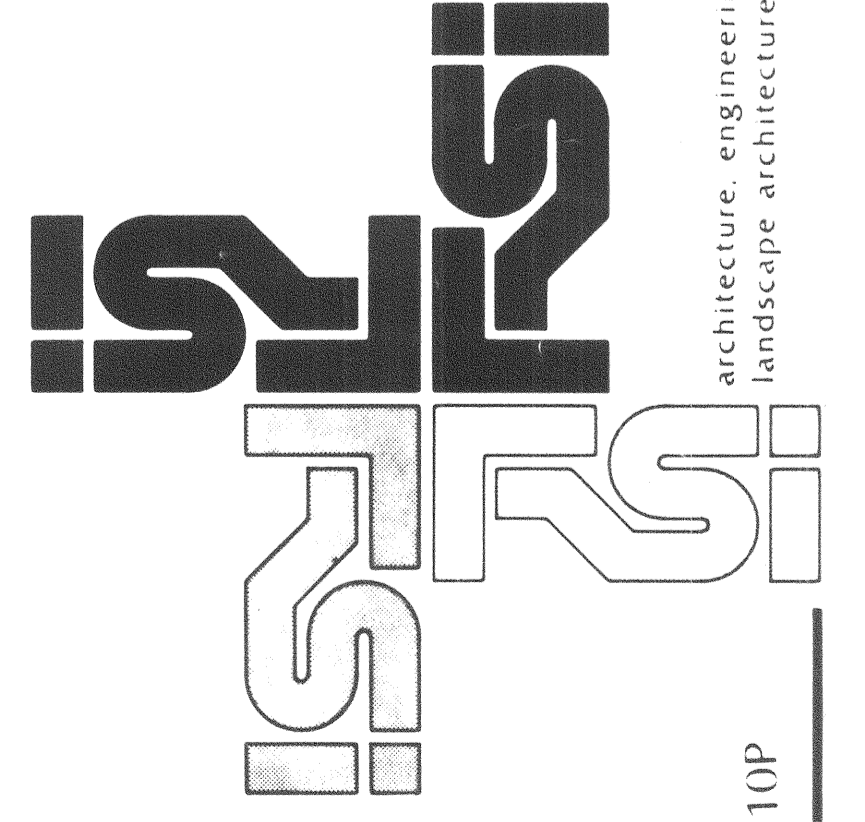


**SHAFFER BATT & ASSOC., INC.**  
ENGINEERS-LAND PLANNERS-SURVEYORS  
622 HUNGERFORD DRIVE SUITE 20  
ROCKVILLE, MARYLAND 20850  
(301) 340-7702

ESI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD 20744  
(301) 292-0200  
(301) 932-1900  
a division of Fedco Systems Incorporated

Howard County  
Department of Recreation  
and Parks  
3700 Court House Drive  
Ellicott City, MD 21041

Storm Drainage & SWM Details & Profiles  
Glenwood Park  
Parcel 15  
14675 CARRS MILL ROAD  
ELECTION DISTRICT NO. 4  
APRIL 1, 1988



Project No. SD-3  
Drawing 9 of 15

1339

N-3052AA-009

1. SITE PREPARATION

Areas designated for borrow areas, embankment, and structural work shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other obstructions shall be removed. Channel banks and shore breaks shall be shaped to no steeper than 1:1.

2. CONCRETE

1. Materials - Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.

3. REINFORCED CONCRETE

1. Materials - Reinforcing steel shall be deformed bars of intermediate grade mild steel or roll steel conforming to ASTM Specification A-615.

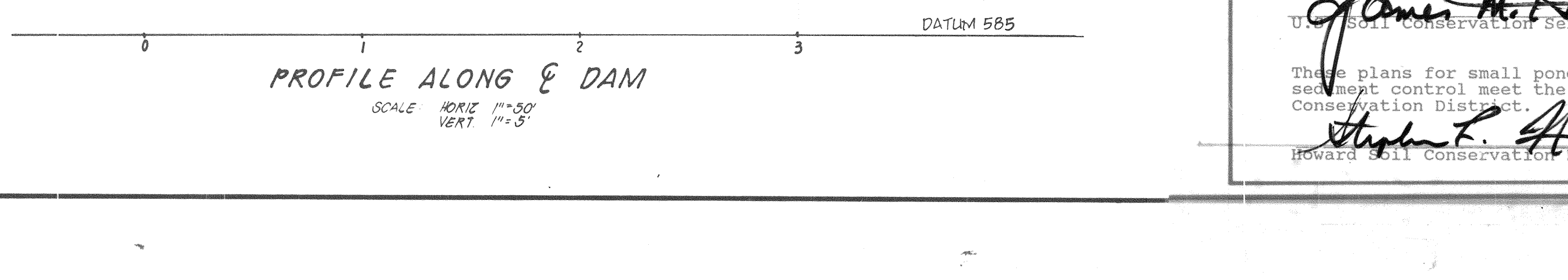
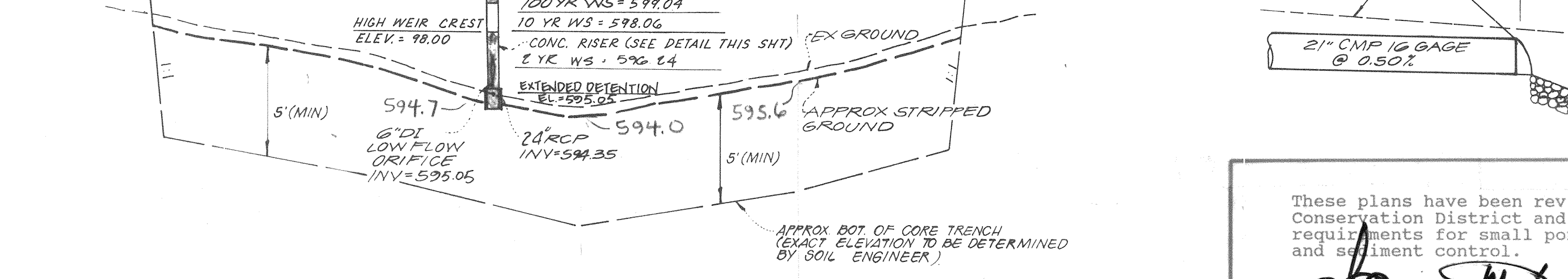
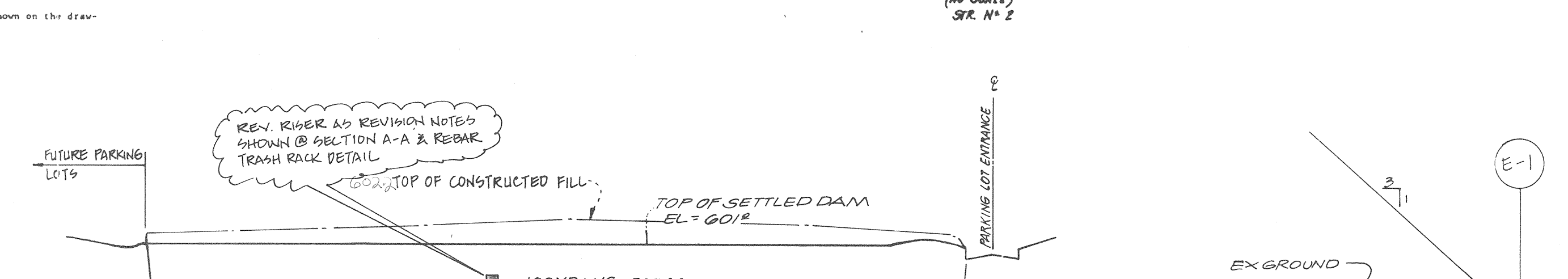
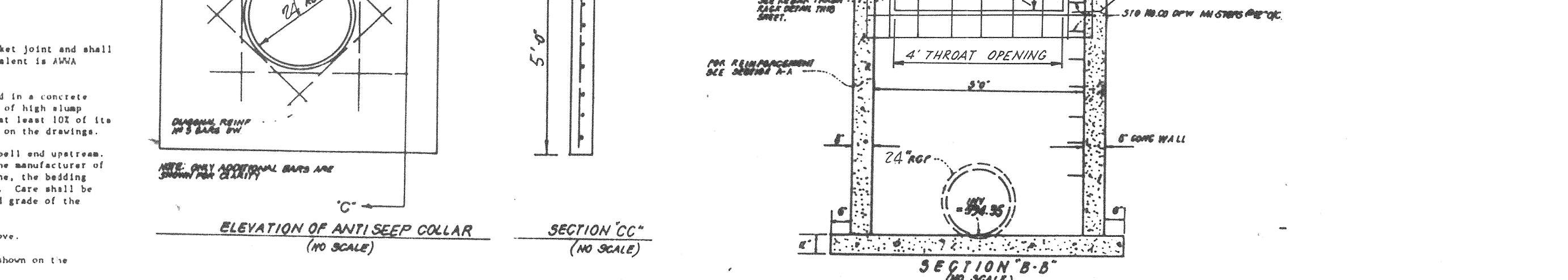
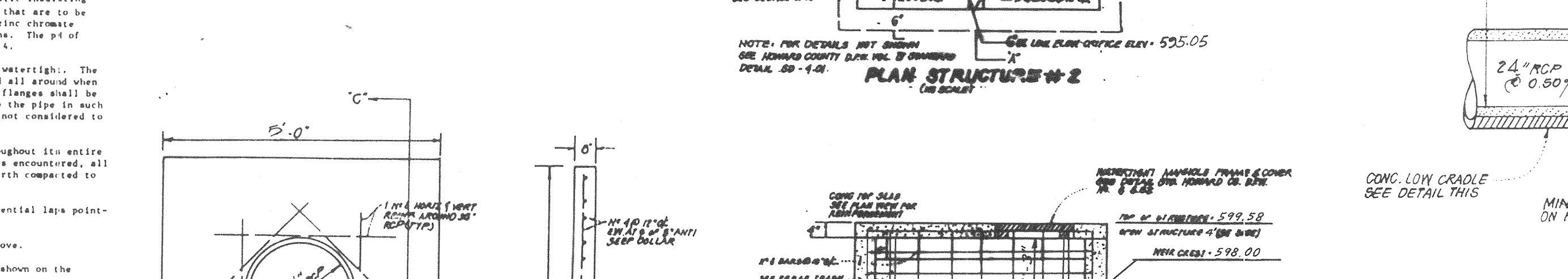
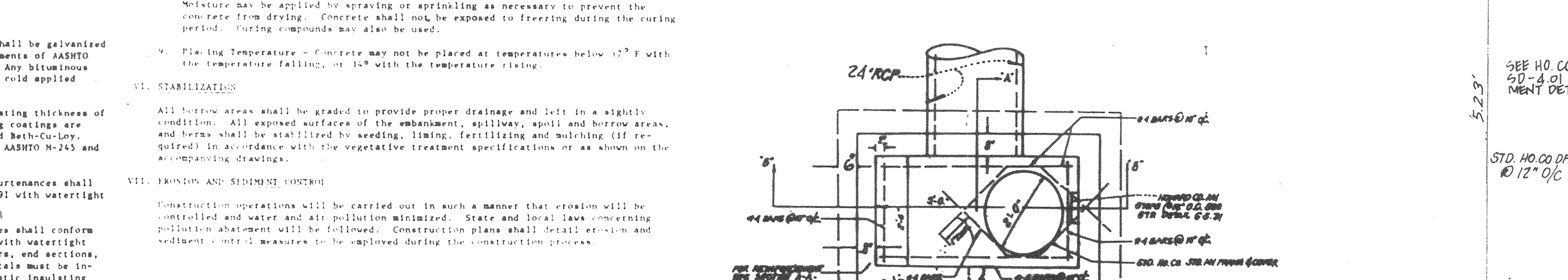
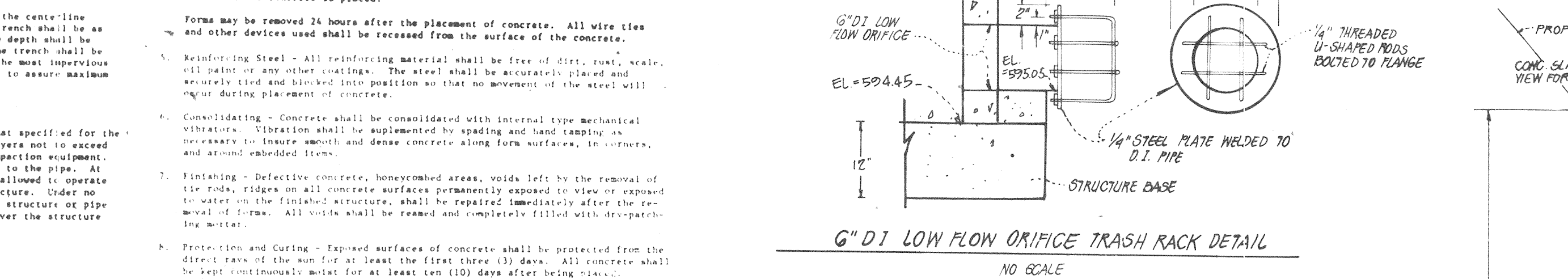
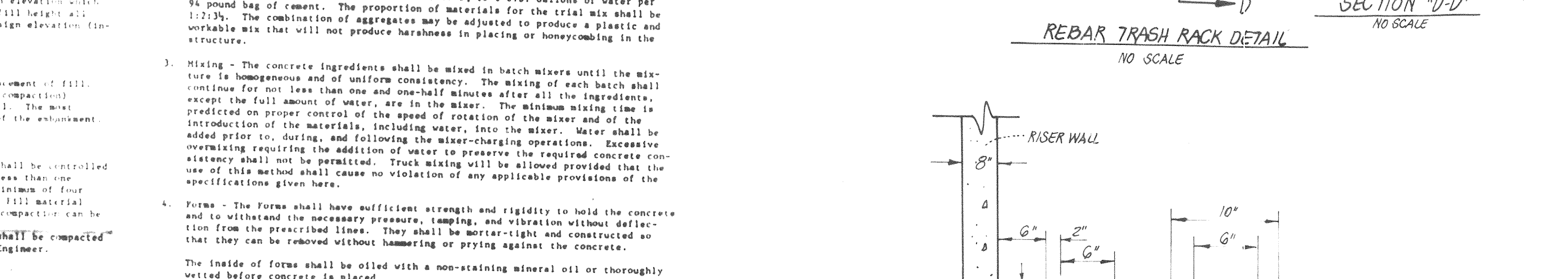
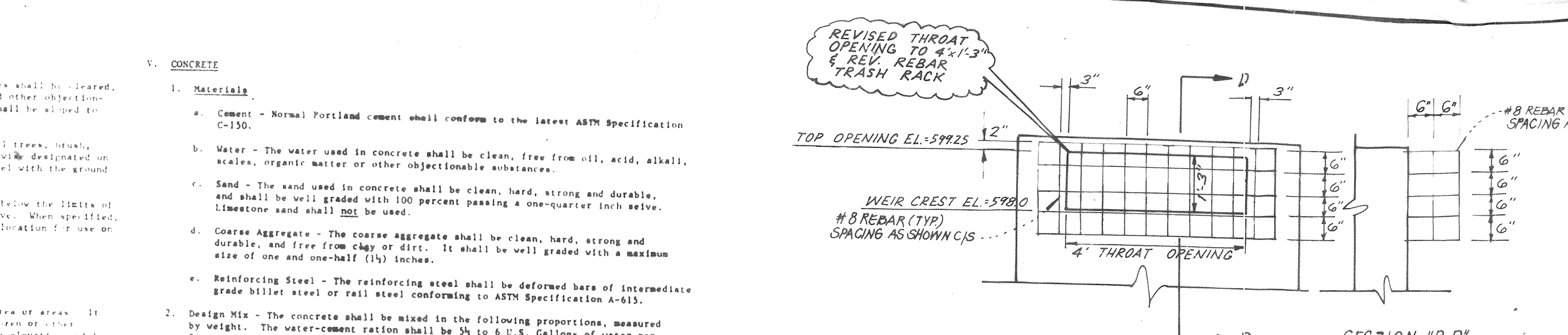
4. PIPE COMPLETION

A. Corrugated Metal Pipe - Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully ribbed.

B. Reinforced Concrete Pipe

1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361.

C. For pipes of other materials, specific specifications shall be shown on the drawings.



BORING LOG. Includes columns for Date, Location, Depth, and Description. Shows data for a boring log at the site.

ADDRESS CHART. Includes columns for Lot Number, Street Address, and Parcel ID. Shows address information for the site.

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT. Includes signatures and dates for approval of the health department.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING. Includes signatures and dates for approval of the planning and zoning department.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Includes signatures and dates for approval of the public works department.

APPROVED: HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. Includes signatures and dates for approval of the recreation and parks department.

APPROVED: HOWARD COUNTY DEPARTMENT OF ENGINEERING. Includes signatures and dates for approval of the engineering department.

APPROVED: HOWARD COUNTY DEPARTMENT OF LAND PLANNING, SURVEYING AND ARCHITECTURE. Includes signatures and dates for approval of the land planning, surveying and architecture department.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Includes signatures and dates for approval of the public works department.

APPROVED: HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. Includes signatures and dates for approval of the recreation and parks department.

SHAFER BATA & ASSOC., INC. ENGINEERS-LAND PLANNERS-SURVEYORS. 622 HUNGERFORD DRIVE SUITE 20 ROCKVILLE, MARYLAND 20850 (301) 340-7702

FSI Design Group. Prospect Square, Suite 200 10903 Indian Head Highway Fort Washington, MD 20744 (301) 292-0200 (301) 932-1900

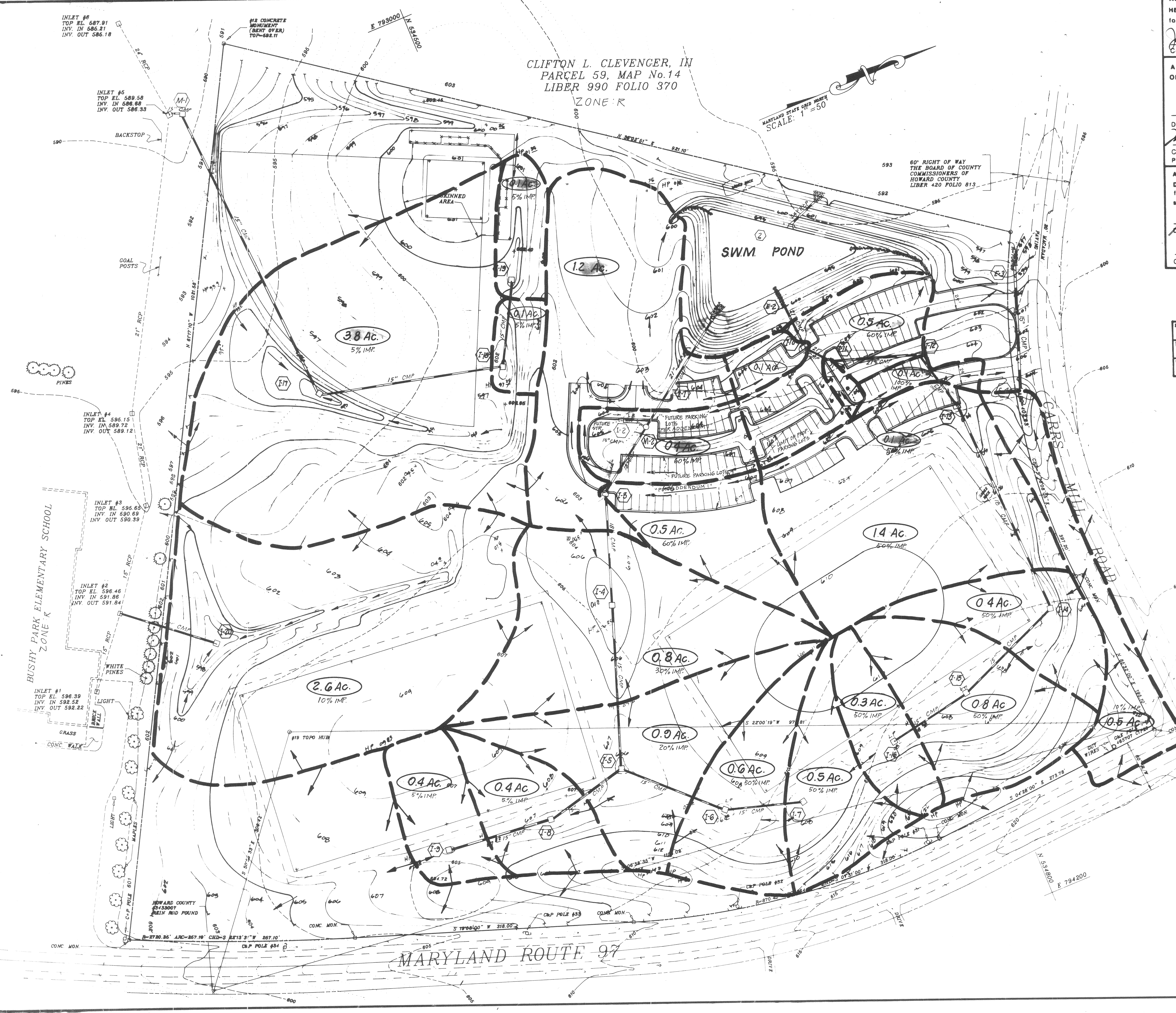
HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. 3430 Court House Drive Ellicott City, MD 21043

HOWARD COUNTY DEPARTMENT OF ENGINEERING. Includes contact information for the engineering department.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Includes contact information for the public works department.

HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. Includes contact information for the recreation and parks department.

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CLIFTON L. CLEVENGER, IN  
PARCEL 59, MAP No. 14  
LIBER 990 FOLIO 370  
ZONE R

MARYLAND STATE GRID NORTH  
SCALE: 1"=50'

60' RIGHT OF WAY  
THE BOARD OF COUNTY  
COMMISSIONERS OF  
HOWARD COUNTY  
LIBER 420 FOLIO 813

APPROVED: HOWARD COUNTY NO SANITARY  
HEALTH DEPARTMENT FACILITIES PROPOSED  
for private water and private sewerage systems  
*Joyce M. England per JSM* 6/23/89  
County Health Officer Date

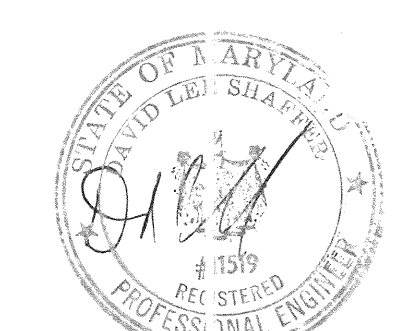
APPROVED: HOWARD COUNTY  
OFFICE OF PLANNING & ZONING  
*[Signature]* 6.21.89  
Director Date  
*Janice S. McLaughlin* 6/23/89  
Chief, Division of Community  
Planning and Land Development Date

APPROVED: HOWARD COUNTY  
DEPARTMENT OF PUBLIC WORKS  
for private water and private sewerage,  
storm drainage systems and public roads  
*[Signature]* 6/23/89  
Director Date  
*William R. Reddy* 6-22-89  
Chief, Bureau of Engineering Date

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

SUBDIVISION NAME	SECT./AREA	LOT/ PARCEL #
GLENWOOD PARK		PARCEL 15
PLAT/BLK/LP	BLOCK	ZONE
1186/522	10	R
TAX/ZONING	IMP.	BLK. DIST./CENSUS
14	4	6040
WATER CODE		SEWER CODE
N/A		N/A



SCALE 1"=50'

**SHAFFER BATT & ASSOC., INC.**  
ENGINEERS-LAND PLANNERS-SURVEYORS  
622 HUNGERFORD DRIVE SUITE 20  
ROCKVILLE, MARYLAND 20850  
(301) 340-7702

Storm Drain Drainage Area Map

Glenwood Park  
14675 Carrs Mill Road Glenwood, MD 21730  
ELECTION DISTRICT NO. 4  
CAPITAL PROJECT NO. N-3052 AA

Owner:  
**Howard County**  
Developer:  
**Howard County**  
**Department of Recreation**  
**and Parks**  
3430 Court House Drive  
Ellicott City, MD 21043

FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD 20744  
(301) 292-0200  
(301) 932-1900

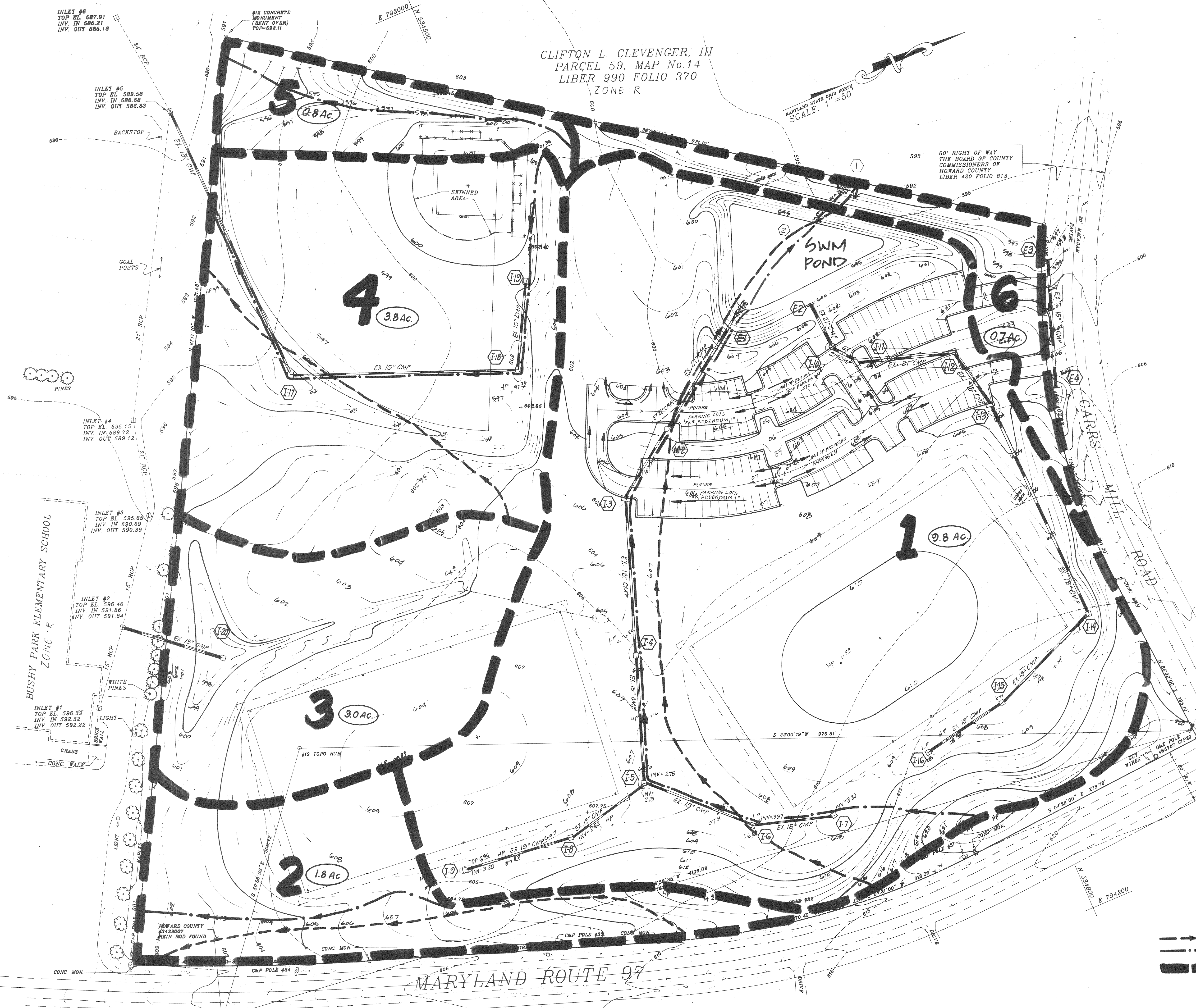
architecture, engineering,  
landscape architecture, land planning, surveying  
a division of Fedco Systems Incorporated

Sheet No. SD-5  
Drawing 11 of 15

1339

N-3052AA-017

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CLIFTON L. CLEVENGER, IN  
PARCEL 59, MAP No. 14  
LIBER 990 FOLIO 370  
ZONE R

MARYLAND STATE GRID NORTH  
SCALE: 1"=50'

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FACILITIES PROPOSED for private water and private sewerage systems  
*James M. Goodridge* 6/23/89  
County Health Officer Date

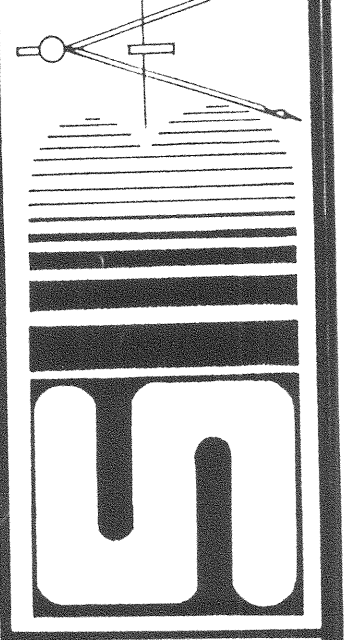
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*[Signature]* 6-27-89  
Director Date  
*Frank S. Langley* 6/27/89  
Chief, Division of Community Planning and Land Development Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS for private water and private sewerage, storm drainage systems and public roads  
*James G. Slu* 6/22/89  
Director Date  
*William J. Reilly* 6-22-89  
Chief, Bureau of Engineering Date

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL
SLENWOOD PARK		PARCEL 15
PLAT/BLK/LOT	ZONE	TAX/ZONE/BLK/LOT
1186/329 10 R	14	4 6040
WATER CODE	SEWER CODE	
N/A	N/A	



**SHAFFER BATT & ASSOC., INC.**  
ENGINEERS-LAND PLANNERS-SURVEYORS  
622 HUNGERFORD DRIVE SUITE 20  
ROCKVILLE, MARYLAND 20850  
(301) 340-7702

Owner:  
**Howard County**  
Developer:  
**Howard County Department of Recreation and Parks**  
3430 Court House Drive  
Ellicott City, MD 21043  
(301) 992-2480

FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD 20744  
(301) 292-0200  
(301) 932-1900

PRE DEV. TIME OF CONCENTRATION PATH  
POST DEV. TIME OF CONCENTRATION PATH  
DRAINAGE DIVIDE

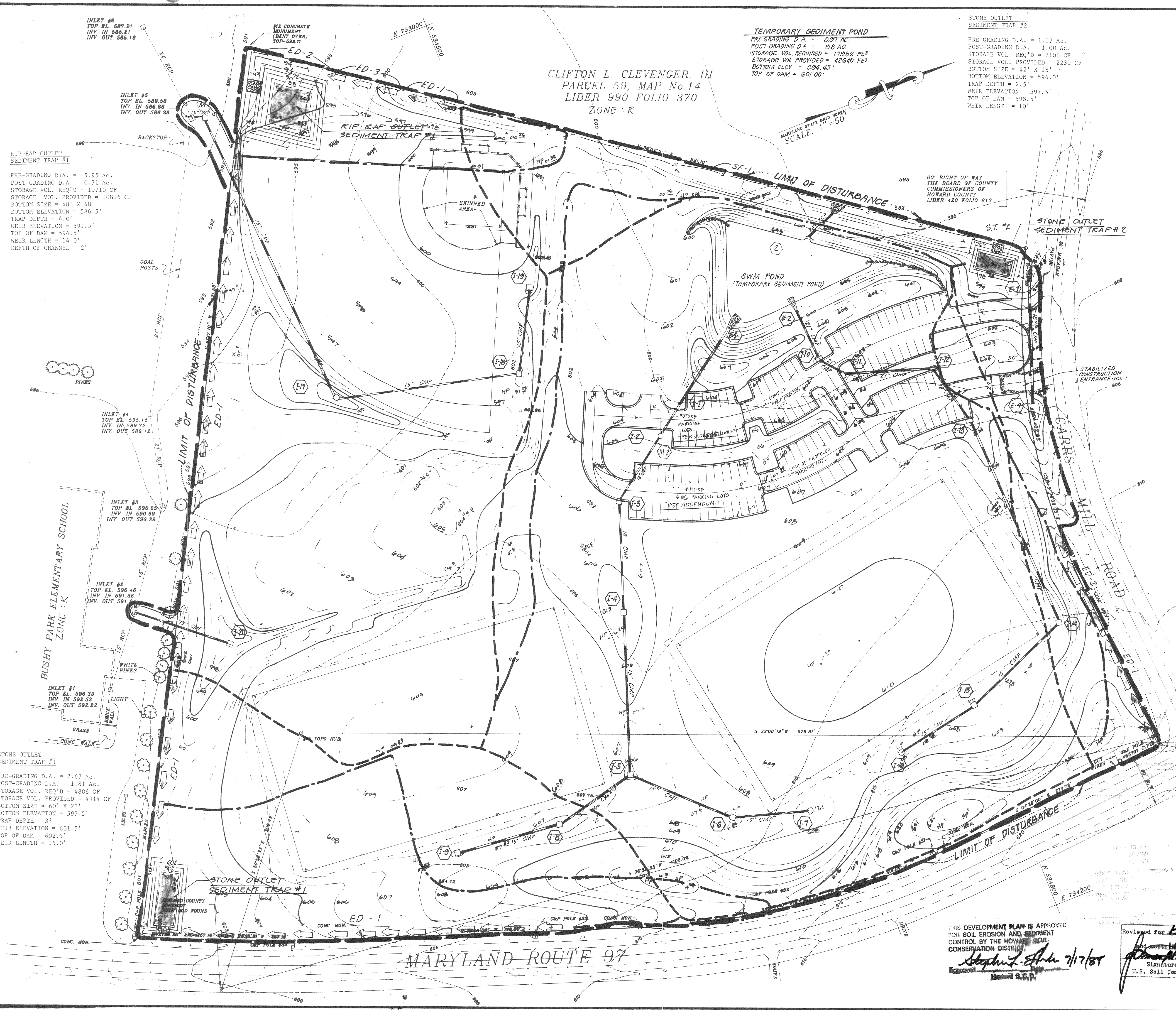


Sheet No. **SD-6**  
Drawing 12 of 15

1339

N-3052AA-012

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**CLIFTON L. CLEVENGER, IN  
 PARCEL 59, MAP No. 14  
 LIBER 990 FOLIO 370  
 ZONE : R**

**TEMPORARY SEDIMENT POND**  
 PRE-GRADING D.A. = 3.97 AC.  
 POST GRADING D.A. = 2.8 AC.  
 STORAGE VOL. REQUIRED = 17286 F<sup>3</sup>  
 STORAGE VOL. PROVIDED = 42640 F<sup>3</sup>  
 BOTTOM ELEV. = 594.45'  
 TOP OF DAM = 601.00'

**STONE OUTLET  
 SEDIMENT TRAP #2**  
 PRE-GRADING D.A. = 1.17 AC.  
 POST-GRADING D.A. = 1.00 AC.  
 STORAGE VOL. REQ'D = 2106 CF  
 STORAGE VOL. PROVIDED = 2280 CF  
 BOTTOM SIZE = 42' X 18'  
 BOTTOM ELEVATION = 594.0'  
 TRAP DEPTH = 2.5'  
 WEIR ELEVATION = 597.5'  
 TOP OF DAM = 598.5'  
 WEIR LENGTH = 10'

**RIP-RAP OUTLET  
 SEDIMENT TRAP #1**  
 PRE-GRADING D.A. = 5.95 Ac.  
 POST-GRADING D.A. = 0.71 Ac.  
 STORAGE VOL. REQ'D = 10710 CF  
 STORAGE VOL. PROVIDED = 10816 CF  
 BOTTOM SIZE = 48' X 48'  
 BOTTOM ELEVATION = 586.5'  
 TRAP DEPTH = 4.0'  
 WEIR ELEVATION = 591.5'  
 TOP OF DAM = 594.5'  
 WEIR LENGTH = 14.0'  
 DEPTH OF CHANNEL = 2'

**INLET #4**  
 TOP EL. 596.15  
 INV. IN 589.72  
 INV. OUT 589.12

**INLET #3**  
 TOP EL. 596.62  
 INV. IN 589.69  
 INV. OUT 589.39

**INLET #2**  
 TOP EL. 596.46  
 INV. IN 591.88  
 INV. OUT 591.88

**INLET #1**  
 TOP EL. 596.39  
 INV. IN 592.52  
 INV. OUT 592.22

**STONE OUTLET  
 SEDIMENT TRAP #1**  
 PRE-GRADING D.A. = 2.67 Ac.  
 POST-GRADING D.A. = 1.91 Ac.  
 STORAGE VOL. REQ'D = 4805 CF  
 STORAGE VOL. PROVIDED = 4914 CF  
 BOTTOM SIZE = 60' X 23'  
 BOTTOM ELEVATION = 597.5'  
 TRAP DEPTH = 3'  
 WEIR ELEVATION = 601.5'  
 TOP OF DAM = 602.5'  
 WEIR LENGTH = 16.0'

APPROVED: HOWARD COUNTY NO SANITARY  
 HEALTH DEPARTMENT FACILITIES PROPOSED  
 for private water and private sewerage systems  
*James M. England per 8/28* 6/23/89  
 County Health Officer Date

APPROVED: HOWARD COUNTY  
 OFFICE OF PLANNING & ZONING  
*[Signature]* 6.27.89  
 Director Date  
*Janice S. J. Langh...* 6/21/89  
 Chief, Division of Community  
 Planning and Land Development Date

APPROVED: HOWARD COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 for private water and private sewerage,  
 storm drainage systems and public roads  
*James J. Slu...* 6/22/89  
 Director Date  
*William S. Reddy* 6-22-89  
 Chief, Bureau of Engineering Date

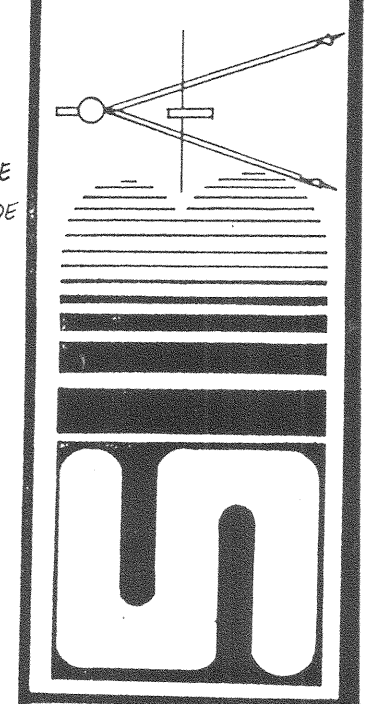
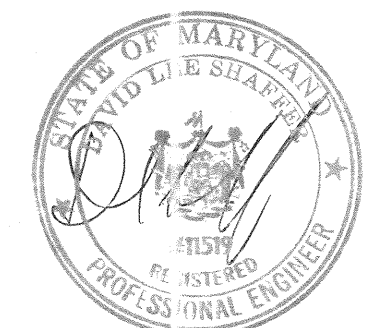
**ADDRESS CHART**

LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL #
GLENWOOD PARK		PARCEL 15
PLAT/BLK/LF/BLOCK	ZONE	TAX ZONE/UM/PLC. DIST. CENSUS
1186/329	10 R	4 6040
WATER CODE	SEWER CODE	
N/A	N/A	

- LEGEND**
- PRE-GRADING DRAINAGE DIVIDE
  - - - POST-GRADING DRAINAGE DIVIDE
  - EARTH DIKE
  - S SIL' FENCE
  - - - LIMIT OF DISTURBANCE



**SHAFFER BATTA & ASSOC., INC.**  
 ENGINEERS-LAND PLANNERS-SURVEYORS  
 622 HUNGERFORD DRIVE SUITE 20  
 ROCKVILLE, MARYLAND 20850  
 (301) 340-7702

Owner:  
**Howard County**  
 Developer:  
**Howard County**  
**Department of Recreation**  
**and Parks**  
 3430 Court House Drive  
 ELICOTT CITY, MD 21043  
 (301) 992-2480

FSI Design Group  
 Prospect Square, Suite 200  
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 (301) 292-0200  
 (301) 932-1900  
 architecture, engineering,  
 landscape architecture, land  
 planning, surveying  
 a division of Fedco Systems Incorporated

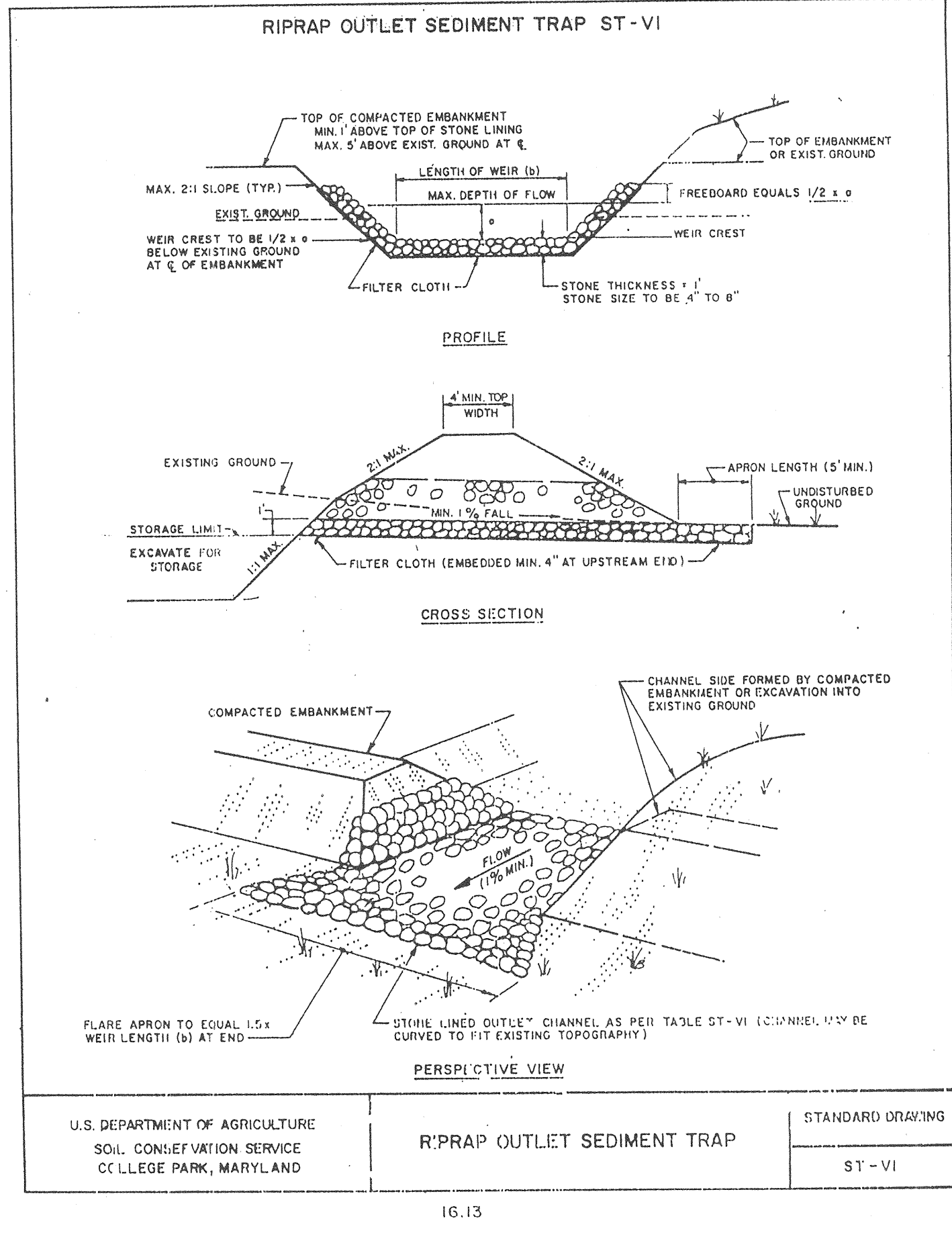
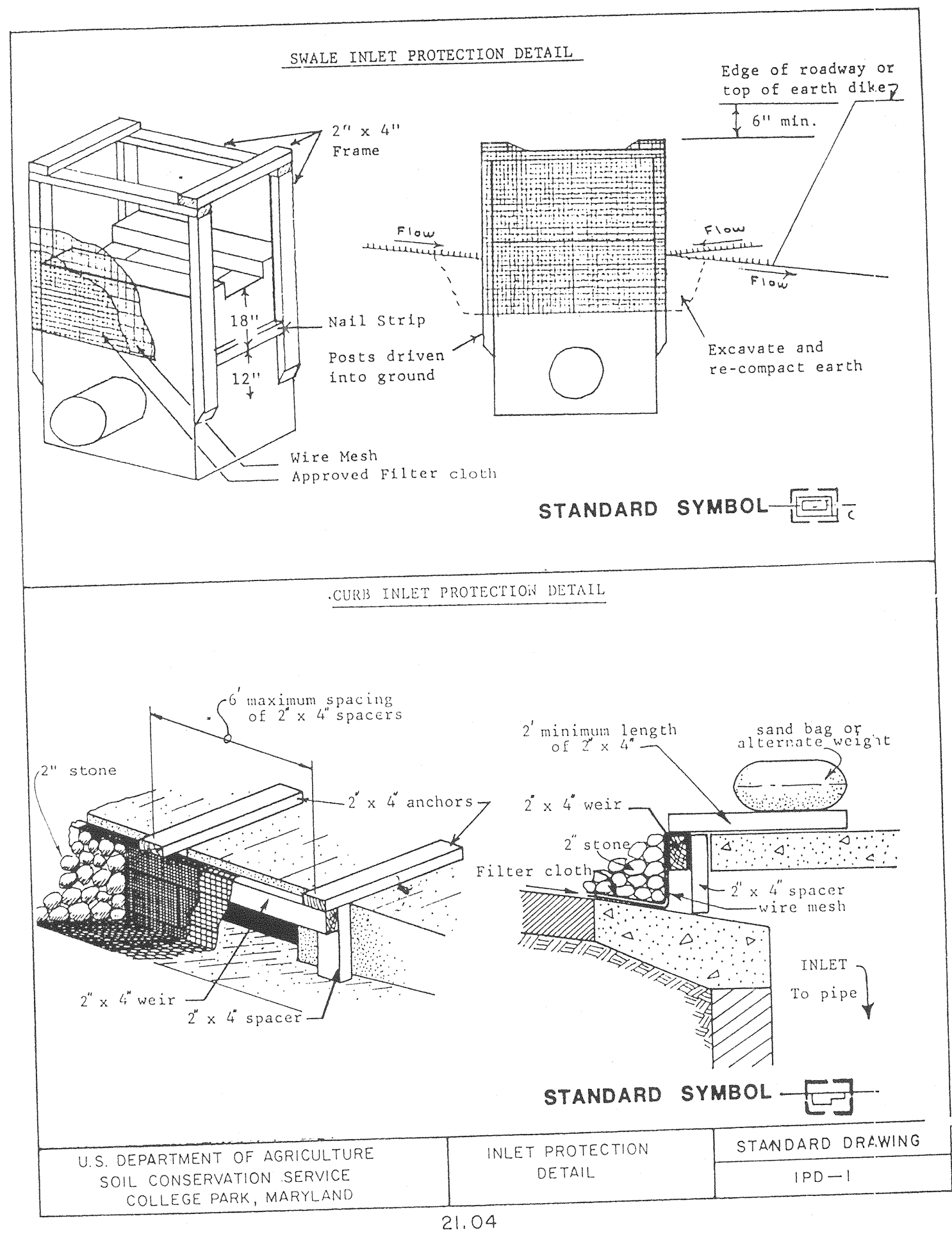
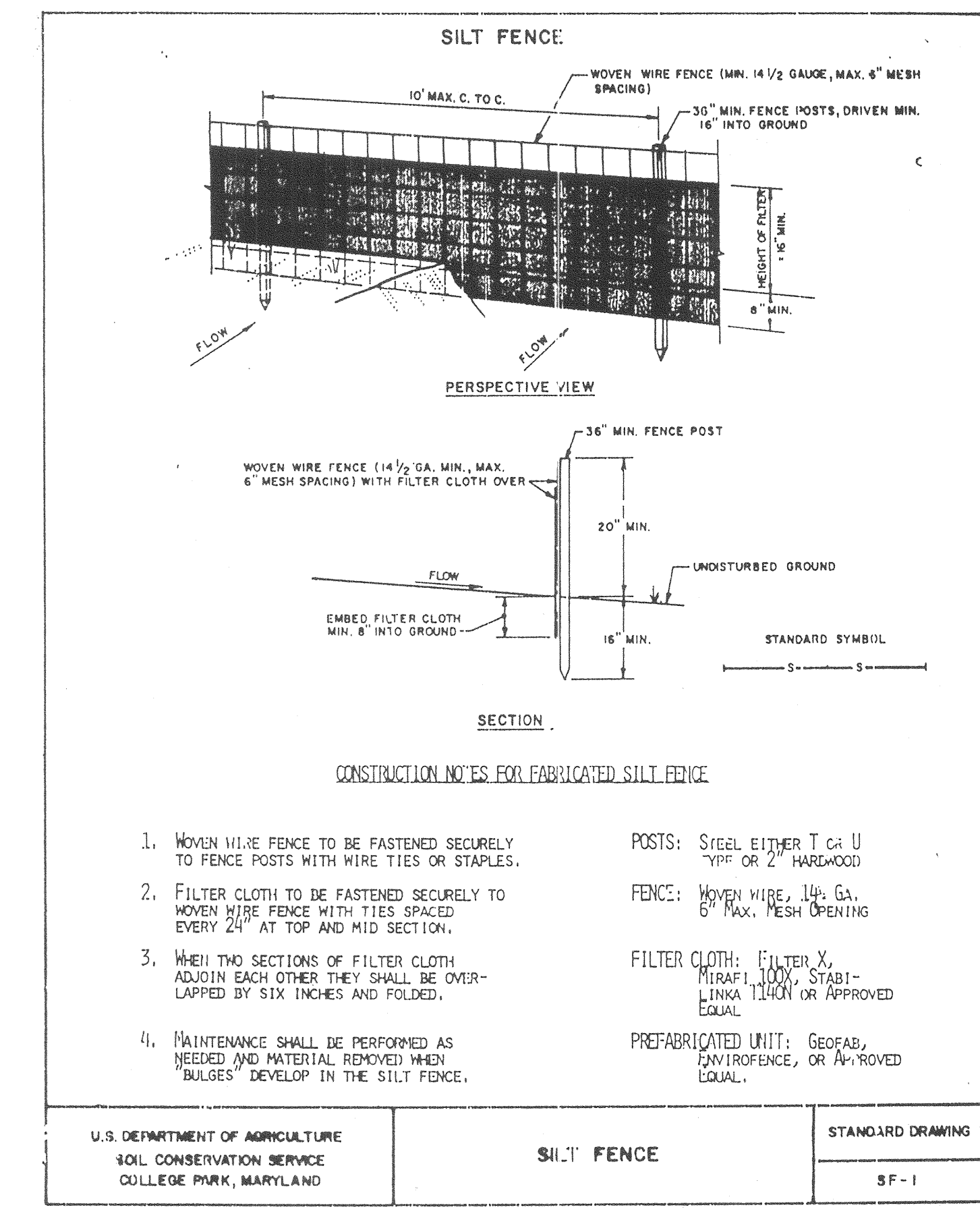
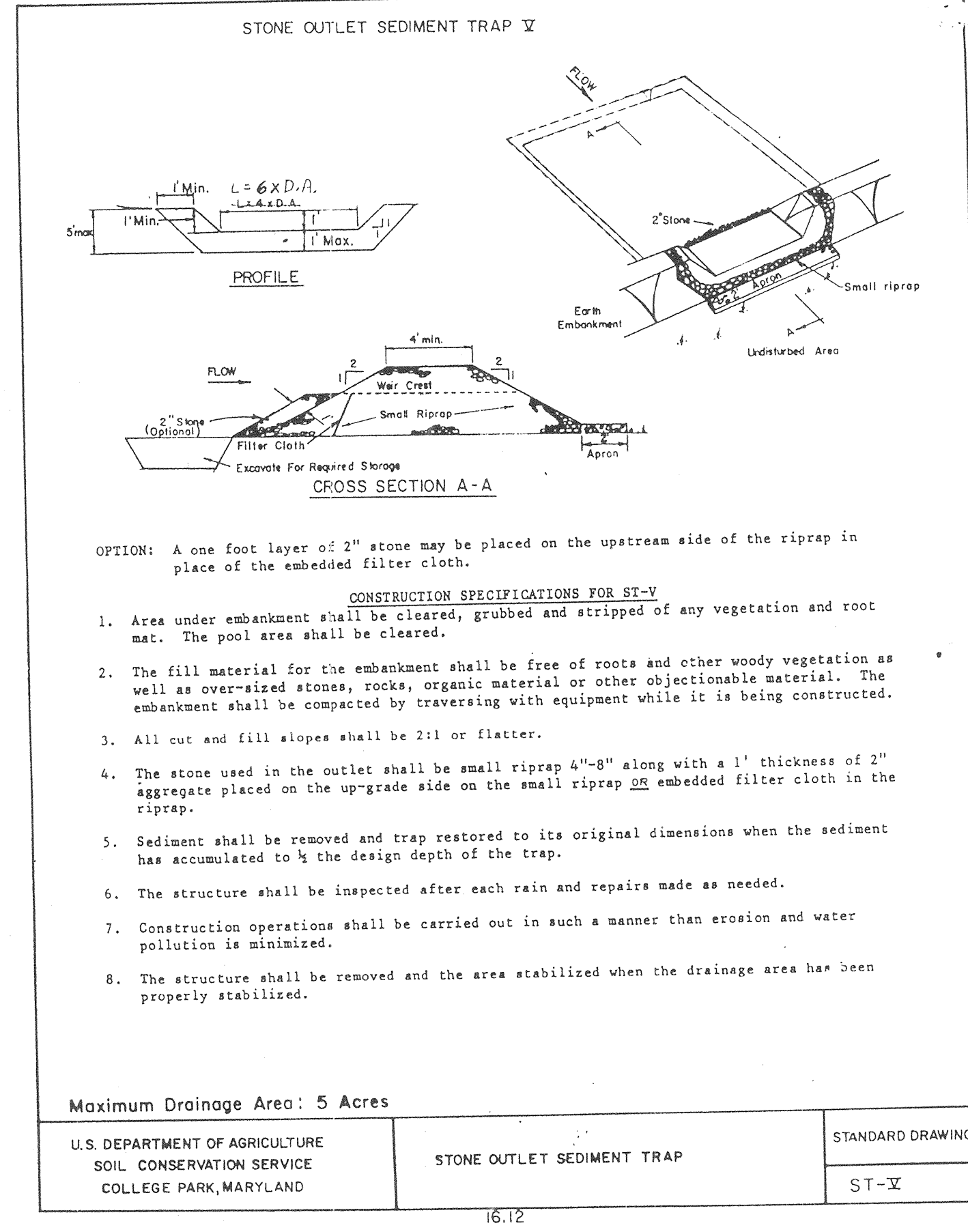
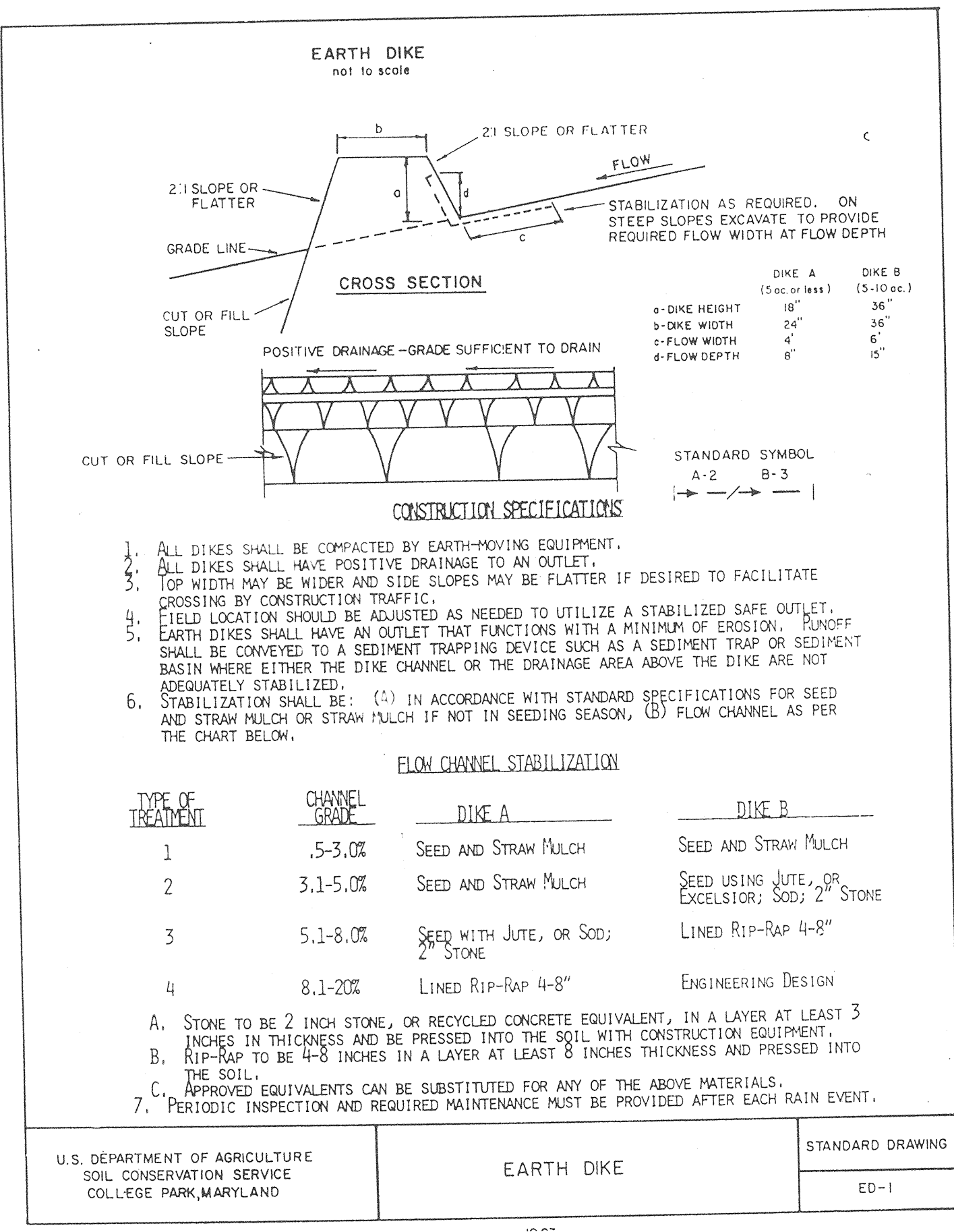
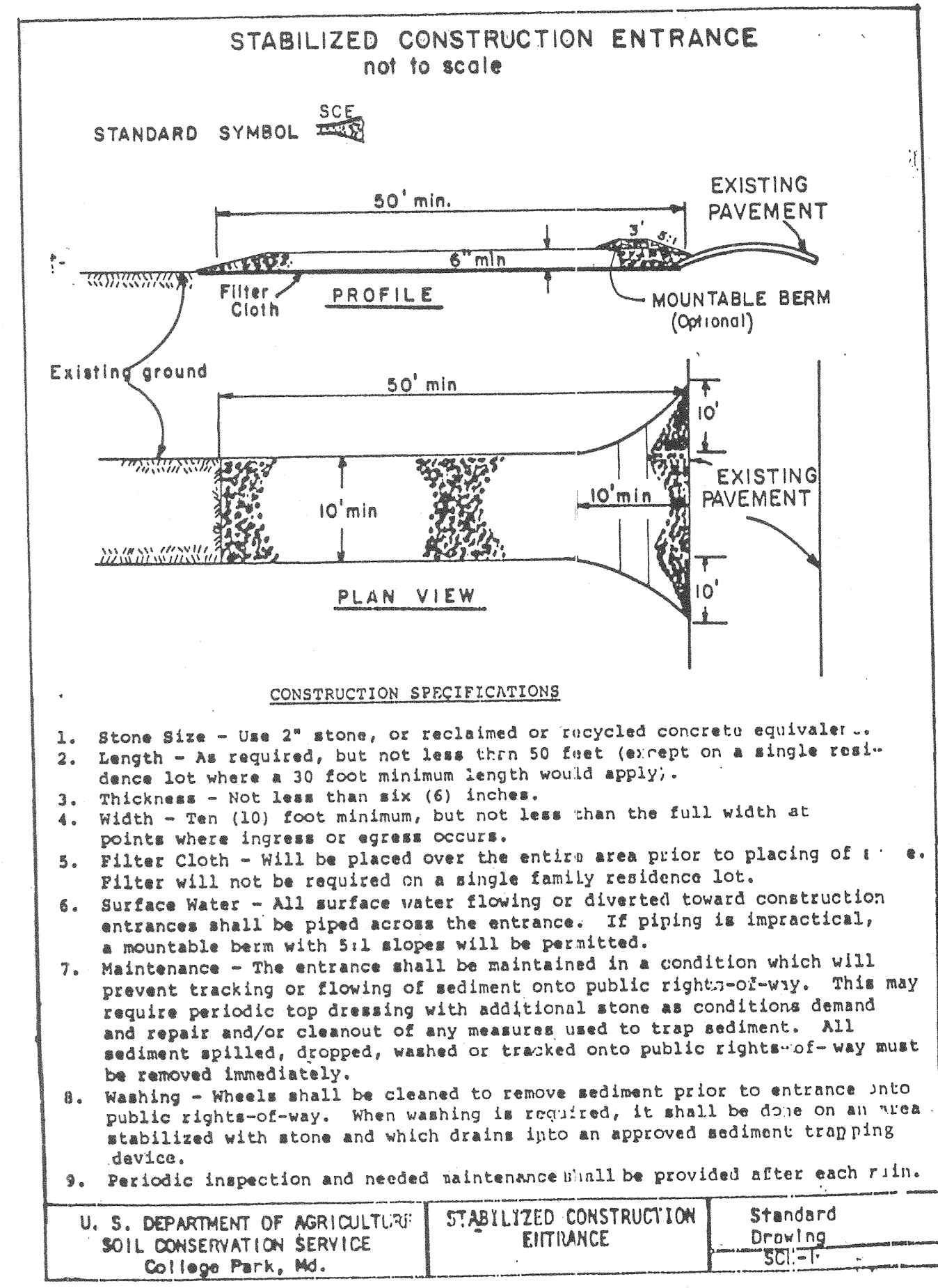
THIS DEVELOPMENT PLAN IS APPROVED  
 FOR SOIL EROSION AND SEDIMENT  
 CONTROL BY THE HOWARD COUNTY  
 CONSERVATION DISTRICT  
*Stephen L. Allen* 7/17/87  
 Approved Howard C.C.D.

Reviewed for HOWARD COUNTY, D.D.  
 Name: *[Signature]*  
 Date: 7/17/87  
 Signature: *[Signature]*  
 U.S. Soil Conservation Service



1339

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Reviewed for H. HOWARD S.C.D.  
Name  
(and meets Technical Requirements)  
Date 7/17/87  
Signature  
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Approved: Howard S.C.D. Date 7/17/87

APPROVED: HOWARD COUNTY NO SANITARY FACILITIES PROPOSED  
HEALTH DEPARTMENT  
for private water and private sewerage systems  
George M. Boyd per John 6/23/89  
County Health Officer Date

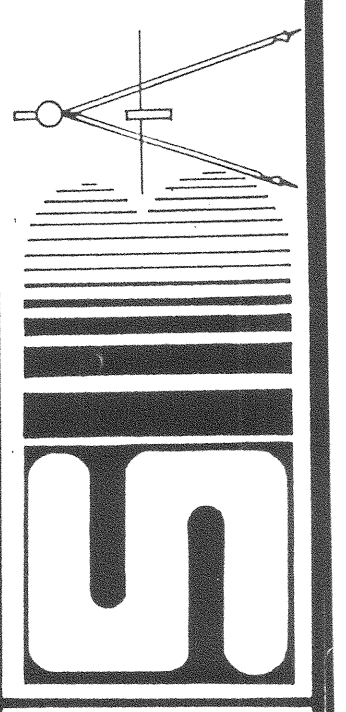
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
[Signature] 6.27.89  
Director Date  
James S. DeLong 6/27/89  
Chief, Division of Community Planning and Land Development Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS for private water and private sewerage, storm drainage systems and public roads  
James S. DeLong 6/22/89  
Director Date  
James S. DeLong 6.22.89  
Chief, Bureau of Engineering Date

ADDRESS CHART

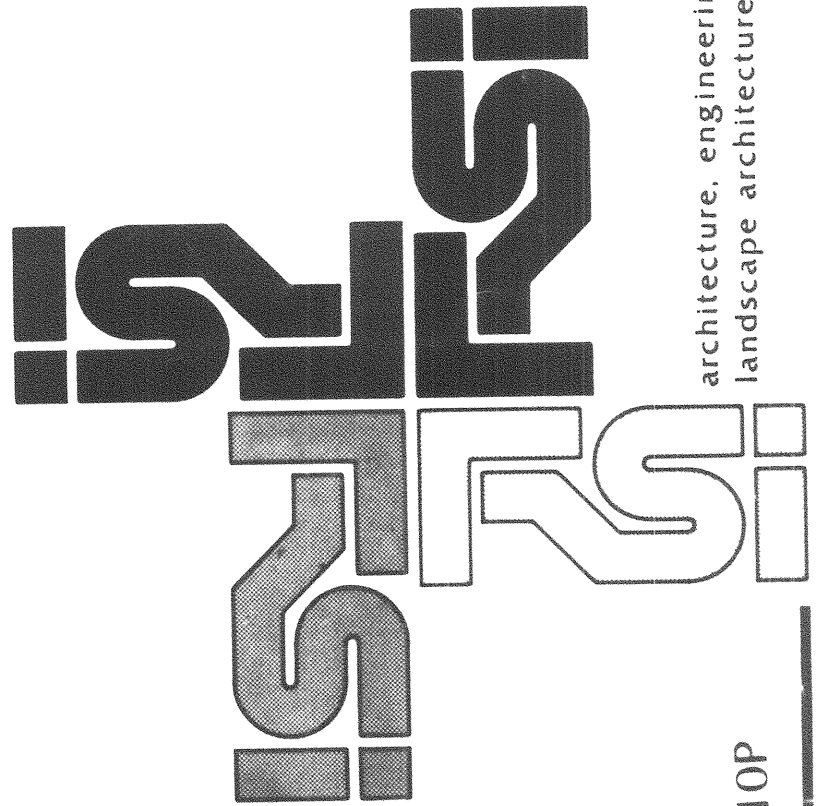
LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL#
GLENWOOD PARK		PARCEL 15
PLAT# OR L.P.	BLOCK#	ZONE
1186/329	10	R
TAX#	MAP#	ELEC. DIST.
14	4	CENSUS TR.
		6040
WATER CODE	SEWER CODE	
N/A	N/A	



**SHAFFER BATT & ASSOC., INC.**  
ENGINEERS-LAND PLANNERS-SURVEYORS  
622 HUNGERFORD DRIVE SUITE 20  
ROCKVILLE, MARYLAND 20850  
(301) 340-7702

Owner: **Howard County**  
Developer: **Howard County Department of Recreation and Parks**  
FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD 20744  
(301) 292-0200  
(301) 932-1900



architecture, engineering, landscape architecture, land planning, surveying, a division of Fedco Systems Incorporated  
Project No. **SC-2**  
Drawing 14 of 15  
881-110P

Sediment Control Details & Notes

Revisions: [Table with 3 columns: No., Description, Date]  
 Date: 4-10-1989  
 Drawn: [Name]  
 Approved: [Name]  
 Glenwood Park  
 14675 Carrs Mill Road, Glenwood, MD 21110  
 FEDERAL PROJECT NO. 4  
 CAPITAL PROJECT NO. N-1072 AA

**PERMANENT SEEDING NOTES**

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

**Seedbed 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:

- 1) **Preferred** -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 500 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
- 2) **Acceptable** -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft) before seeding. Harrow or disk into upper three inches of soil.

**Seeding** -- For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru 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 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

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

**TEMPORARY SEEDING NOTES**

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

**Seedbed 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).

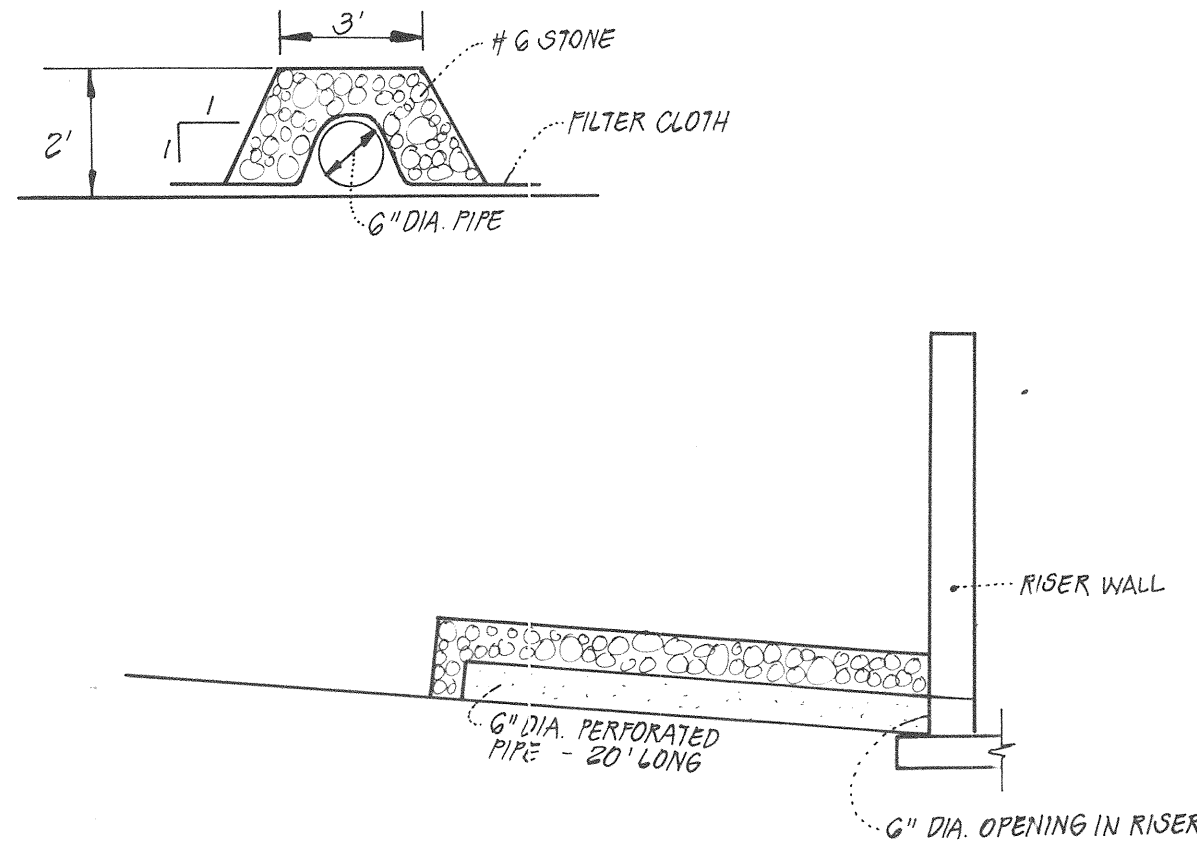
**Seeding:** -- For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, 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 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

**Sequence of Construction**

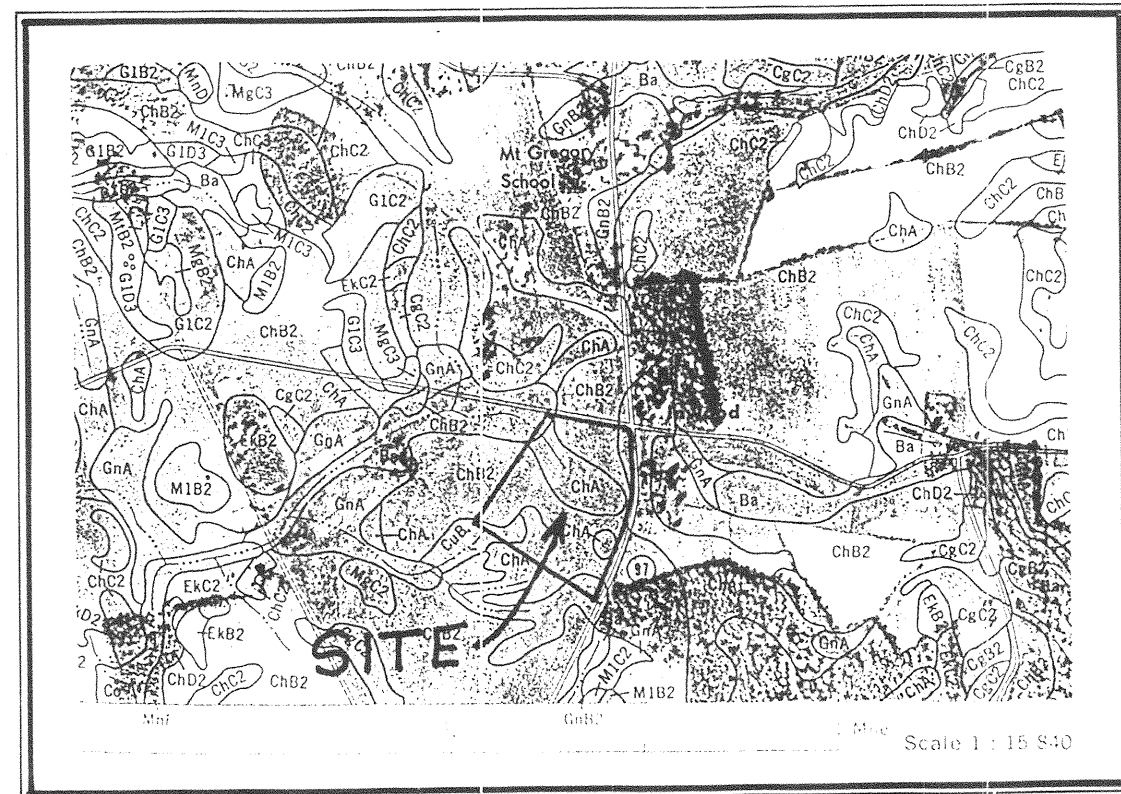
- |  |            |
|--|------------|
| 1. Obtain grading permit.  | 1-2 days   |
| 2. Install construction entrance, all silt fence, berms. Install SWM pond which to be used as sediment control trap. Install dewatering device as shown on this sheet. | 1-14 days  |
| 3. Begin to rough grade site.  | 14-44 days |
| 4. Bring all ball fields to grade and spread 4" of topsoil.  | 34-44 days |
| 5. Install sod on soccer fields.   | 44-47 days |
| 6. Water ballfield twice weekly or as directed by the County Inspector.  |            |
| 7. Install storm drainage and inlet protection   | 47-77 days |
| 8. Complete rough grading and paving.  | 77-84 days |
| 9. Stabilize site.   | 84-86 days |
| 10. Cleanout and restoration of SWM pond. Remove all the rest of sediment control measures with the inspector's approval.  | 86-90 days |



**DEWATERING DEVICE DETAIL**  
NO SCALE

13. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
14. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY HOWARD COUNTY DEPT. OF PUBLIC WORKS SEDIMENT CONTROL INSPECTOR.

THESE QUANTITIES ARE PROVIDED FOR HOWARD SCD INFORMATION ONLY. THE CONTRACTOR SHALL NOT RELY ON THIS QUANTITY AND SHALL NOT BE RELEASED FROM THE TERMS OF THE CONTRACT DOCUMENT.



**SOILS MAP NO 7**  
Ch A CHESTER SILT LOAM TYPE B  
Ch B2 CHESTER SILT LOAM TYPE B  
Cu B CHESTER SILT LOAM TYPE B

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH 1983 MD STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND THE REQUIREMENTS OF THE HOWARD COUNTY S.C.D.

6-22-89 DATE  
DAVID L. SHAFER REGISTERED PROFESSIONAL ENGINEER MARYLAND # 11519

**SOIL CONSERVATION NOTES**

1. OBTAIN GRADING PERMIT
2. THE COUNTY BUREAU OF LICENSE INSPECTIONS, AND PERMITS SHALL BE GIVEN 48 HRS. NOTICE PRIOR TO ANY GRADING OPERATION.
3. ALL SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS, UNLESS OTHERWISE NOTED, SHALL BE INSTALLED IN ACCORDANCE WITH NOTE #8.
4. ALL SLOPES SHALL BE MAX. 3:1, EXCEPT WHERE INDICATED.
5. FOLLOWING THE STABILIZATION OF ALL AREAS UPGRADE, SEDIMENT CONTROL MEASURES MAY BE REMOVED AND GRADED TO THE FINAL GRADES SHOWN AND STABILIZED IMMEDIATELY.
6. IN THE CASE OF EXCESS MATERIAL, EXCESS SHALL BE STOCKPILED ON SITE WITH A MAX 3:1 SLOPE IN AN AREA CLEARED FOR THIS PURPOSE. STABILIZE IN ACCORDANCE WITH NOTE #8.
7. SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED UNTIL APPROVAL IS OBTAINED.
8. PERMANENT STABILIZATION  
APPLY: 2000 LBS PER AC. OF PULVERIZED LIMESTONE  
700 LBS PER AC. OF 0.20.0 SUPER PHOSPHATE  
1000 LBS PER AC. OF 10.10.10 FERTILIZER  
SEED 85 LBS PER AC. OF KENTUCKY 31 TALL FESCUE & 25 LBS PER AC. OF ANNUAL RYE GRASS.  
NOTE SEED BETWEEN MAR. 1 - MAY 1 OR AUG. 1 - OCT 1 ONLY  
MULCH 2 TONS PER AC. OF UNWEATHERED SHEAT STRAW. TIE DOWN MULCH WITH 80 GAL. PER AC. OF LIQUID ASPHALT.
9. EXPOSED AREAS LEFT FOR 45 DAYS SHALL BE STABILIZED WITH VEGETATION OR MULCH. SEE NOTE #12.
10. SITE ANALYSIS  
A. TOTAL AREA OF SITE: 19.97  
B. AREA TO BE DISTURBED: 19.97  
C. LOCATION: INTERSECTION OF RTE 197 AND CORRS MILL RD. SOUTHWEST QUADRANT  
D. EXIST SITE CONDITIONS: FARMLAND  
E. AREA PRESENTLY DISTURBED: 0 AC.  
F. AREA TO BE VEGETATED: 18.71 AC.  
G. TOTAL CUT: 22,700 CU.YDS.  
H. TOTAL FILL REQ.: 44,800 CU.YDS.  
I. STORM WATER MANAGEMENT: ONSITE 2 & 10 YR. CONTROLS  
J. TOTAL IMPERVIOUS AREA: 1.4 AC.
11. THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL REQUIRED EASEMENTS, RIGHTS, AND/OR RIGHTS OF WAYS PURSUANT TO THE DISCHARGE FROM THE SEDIMENT AND EROSION CONTROL PRACTICES, STORM WATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORM DRAINS ONTO OR ACROSS, AND GRADING OR OTHER WORK TO BE PERFORMED ON OR DOWNSTREAM PROPERTIES AFFECTED IN THIS PLAN.
12. ALL AREAS SHALL BE PERMANENTLY STABILIZED WHEN SITE DEVELOPMENT WORK, GRADING AND OR OTHER RELATED CONSTRUCTION RELATED ACTIVITIES CEASE TO BE CONTINUOUS OR ON GOING FOR PERIODS EXCEEDING 45 DAYS. THESE DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS. THE INPLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.

Following initial solid disturbance or redisturbance, permanent or temporary stabilization shall be completed within:  
1. Seven calendar days for all perimeter sediment control structures or swales, ditches, perimeter slopes and all slopes greater than 3:1  
2. Fourteen days for all other disturbed area or graded area on the project site.

**DEVELOPER'S CERTIFICATION**

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources 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."

Howard County Department of Recreation and Parks Date

**ENGINEER'S CERTIFICATION**

"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."

David L. Shafer, P.E. Date  
Md. # 11519

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.

U. Soil Conservation Service Date 7/17/89

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District  
Howard Soil Conservation District Date 7/17/89

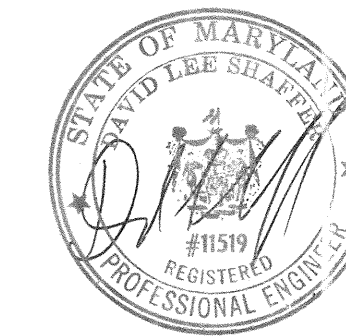
APPROVED: HOWARD COUNTY No SANITARY FACILITIES PROPOSED  
HEALTH DEPARTMENT for private water and private sewerage systems  
James M. Boyd per 888 6/23/89  
County Health Officer Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
Director Date 6-27-89  
Paul J. Taylor 6/27/89  
Chief, Division of Community Planning and Land Development Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS for private water and private sewerage, storm drainage systems and public roads  
James M. Boyd 6/22/89  
Director Date  
James E. Rowe 6-22-89  
Chief, Bureau of Engineering Date

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
PARCEL 15	14675 CARRS MILL ROAD

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL#
GLENWOOD PARK		PARCEL 15
PLAT/BLK/BLOCK#	ZONE	TAX/ZONE/IMP/BLK. DIST./CENSUS/BLK.
1186/329	10 R	14 4 6040
WATER CODE	SEWER CODE	
N/A	N/A	

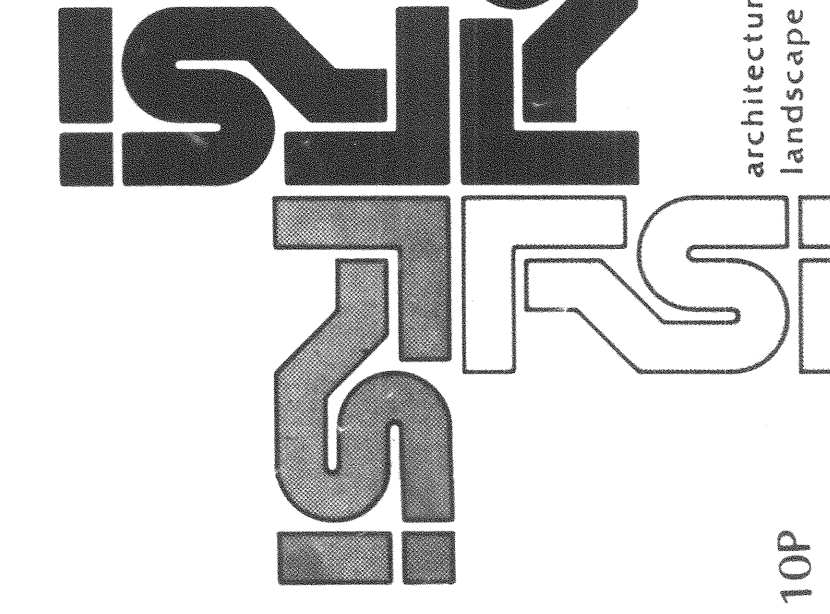


SHAFFER BATA & ASSOC., INC.  
ENGINEERS-LAND PLANNERS-SURVEYORS  
622 HUNGERFORD DRIVE SUITE 20  
ROCKVILLE, MARYLAND 20850  
(301) 340-7702

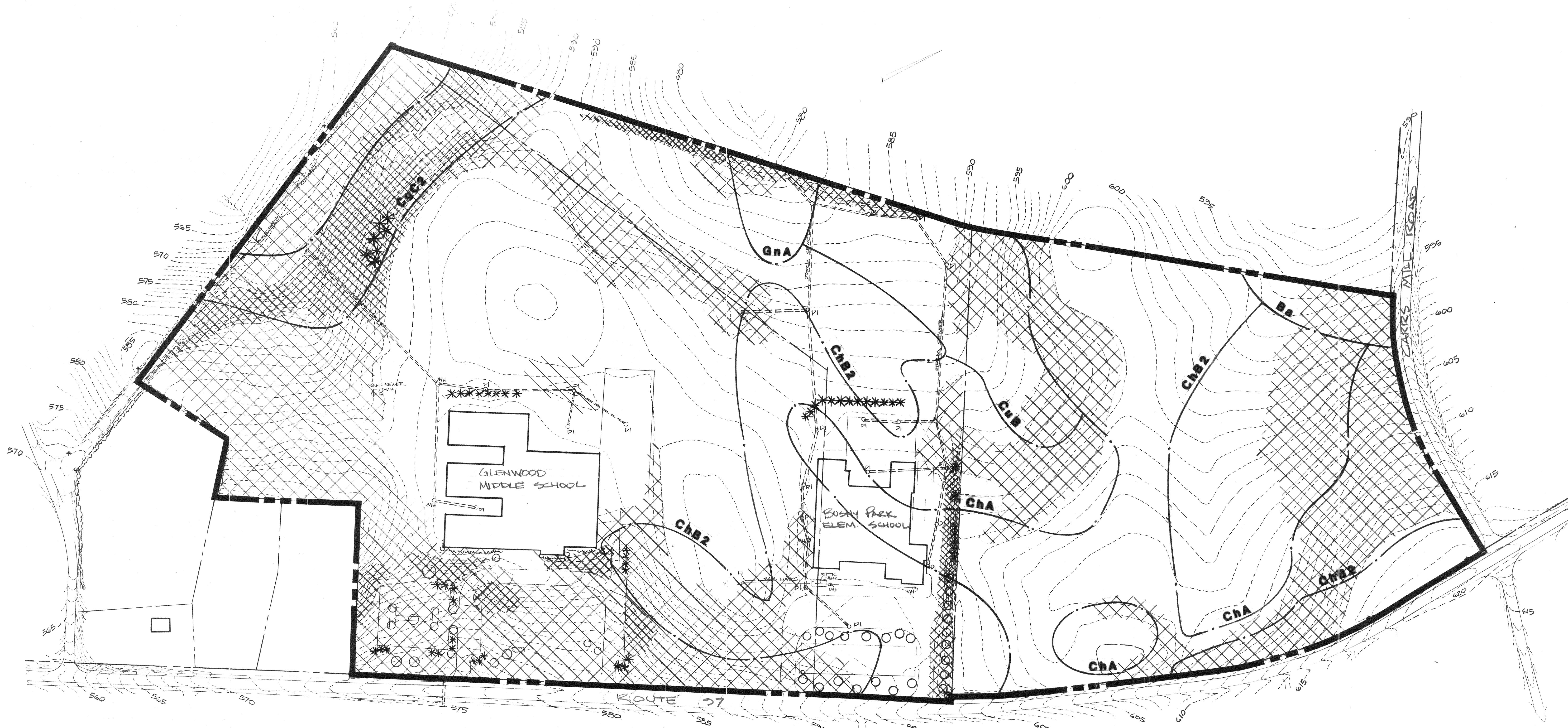
FSI Design Group  
Prospect Square, Suite 200  
10903 Indian Head Highway  
Fort Washington, MD. 20744  
(301) 292-0200  
(301) 932-1900

Sediment Control Details & Notes  
Glenwood Park  
14675 Carrs Mill Road, Glenwood, MD 21710  
14675 Carrs Mill Road, District No. 14  
ELECTION DISTRICT NO. 4  
CAPITAL PROJECT NO. N-1057-A  
Date Approved 4-19-1989  
Drawn  
Checked  
Reviewed

Howard County  
Department of Recreation and Parks  
3410 Court House Drive  
Ellicott City, MD 21043  
(301) 992-2480



Sheet No. SC-3  
Drawing 15 of 15  
Project No. 88-1-110P

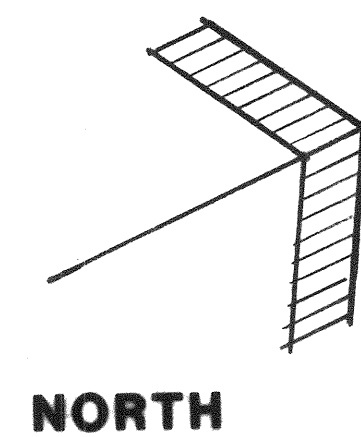


**SLOPE**

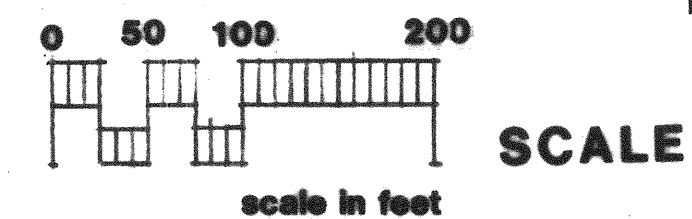
	0-3%
	3-8%
	8-15%
	15-25%

**SOILS**

Ba	Baile silt loam
ChA	Chester silt loam 0-3%
ChB2	Chester silt loam 3-8%
CgC2	Chester gravelly silt loam 8-15%
CuB	Comus silt loam 3-8%
GnA	Glenville silt loam 0-3%



**SLOPE, SOILS**



**GLENWOOD PARK**

1339