APPROVED : DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	10/3/95 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
CHIEF, BUREAU OF ENGINEERING	8/3/95 DATE
CHIEF, LAND DEVELOPMENT DIVISION	8/1/95 DATE
CHIEF, BUREAU OF HIGHWAYS	8-1-95 DATE

DENSITY CALCULATION

GROSS AREA OF TRACT: 55.09 AC.±.

LESS THE TOTAL AREA OF STEEP SLOPES 25% AND GREATER: 1.98 AC.±.

NET AREA OF TRACT: 53.11 AC.±

NUMBER OF RESIDENTIAL LOTS ALLOWED IN THE R-ED ZONE
• 2 UNITS PER NET ACRE: 106.

NUMBER OF RESIDENTIAL LOTS SHOWN: 103.

NUMBER OF BUILDABLE PARCELS SHOWN: 2. (PARCELS A & B)

OPEN SPACE REQUIREMENTS

PUBLIC OPEN SPACE REQUIRED
25% OF THE GROSS SITE ACREAGE = 13.77 AC.±.

PUBLIC OPEN SPACE PROVIDED = 15.45 AC.± - 0.82 Ac.± (AREAS LESS THAN 35' WIDE) = 14.63 Ac.±.

RECREATION OPEN SPACE REQUIRED
MINIMUM OF 250 Sq.Ft./UNIT = 0.60 AC.±.

RECREATION OPEN SPACE PROVIDED = 2.75 AC..

TO MEET THE TRADITIONAL NEIGHBORHOOD DESIGN (TND) REQUIREMENTS A MINIMUM OF 20% OF THE REQUIRED PUBLIC OPEN SPACE (13.75 ACRES) WILL BE DEVOTED TO FORMAL PARKS, SQUARES AND GREENS.

FORMAL OPEN SPACE REQUIRED = 2.75 AC..

FORMAL OPEN SPACE PROVIDED = 2.75 AC.

TOTAL OPEN SPACE PROVIDED (NOT INCLUDING AREAS WHICH ARE LESS THAN 35' WIDE) = 17.38 Ac.±.

NOTE: THE RECREATIONAL OPEN SPACE REQUIREMENT WILL BE MET WITH THE FORMAL OPEN SPACE PROVIDED.

PARKING REQUIREMENTS

PARKING REQUIRED • 2.0 SPACES/UNIT = 206 SPACES.

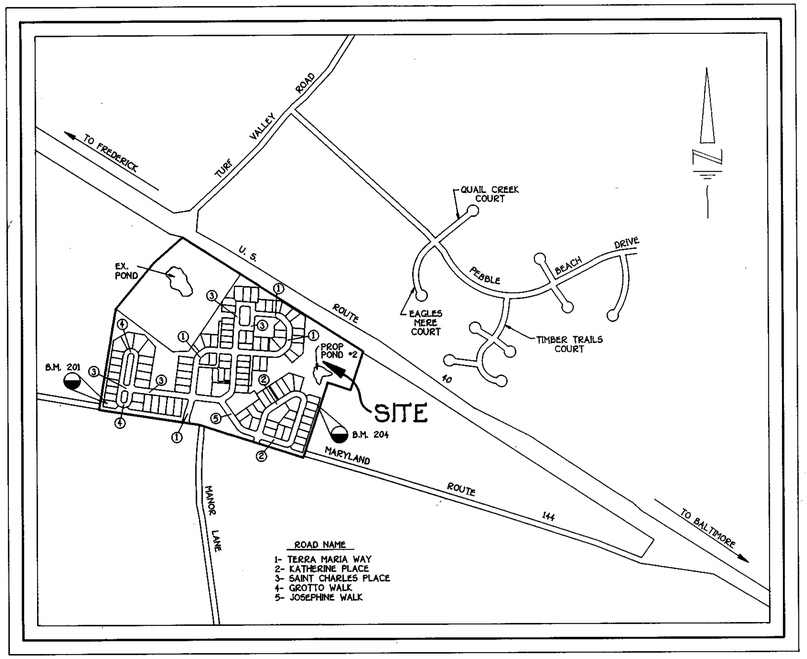
PARKING SUGGESTED • 2.2 SPACES/UNIT = 227 SPACES.
PER COUNTY COMMENTS.

PARKING PROVIDED (206 IN GARAGE, 29 PARALLEL PARKING • 8' x 22') = 235 SPACES.

FINAL ROAD CONSTRUCTION, GRADING AND STORM WATER MANAGEMENT PLANS FOR

SHEET INDEX

1. TITLE SHEET
2. MARYLAND ROUTE 144-TYPICAL ROAD SECTIONS
   MARYLAND ROUTE 144- PLAN & PROFILE
   TERRA MARIA WAY-PROFILE
3. MARYLAND ROUTE 144-PLAN & PROFILE
   KATHERINE PLACE-PLAN
   TERRA MARIA WAY-PLAN
   JOSEPHINE WALK-PLAN
   SAINT CHARLES PLACE-PLAN
4. GROTTO WALK-PLAN & PROFILE
   SAINT CHARLES PLACE-PLAN
5. JOSEPHINE WALK-PROFILE
   TERRA MARIA WAY-PLAN
   SAINT CHARLES PLACE-PLAN & PROFILE
6. JOSEPHINE WALK-PLAN
   TERRA MARIA WAY-PLAN & PROFILE
   SAINT CHARLES PLACE-PLAN & PROFILE
7. KATHERINE PLACE-PLAN & PROFILE
   JOSEPHINE WALK-PLAN
8. TERRA MARIA WAY-PLAN & PROFILE
9. STRUCTURE SCHEDULE, RIP-RAP OUTLET DETAIL & TYPICAL ROAD SECTIONS
10. STORM DRAIN PROFILES
11. STORM DRAIN PROFILES
12. STORM DRAIN PROFILES
13. POND #1-STORM WATER MANAGEMENT PROFILES & DETAILS
14. POND #2-STORM WATER MANAGEMENT PROFILES & DETAILS
15. POND #2 OUTFALL PROFILE: 5-9 DETAIL
16. GRADING PLANS
17. GRADING PLANS
18. GRADING PLANS
19. SEDIMENT CONTROL DETAIL SHEET
20. DRAINAGE AREA MAP
21. DRAINAGE AREA MAP
22. DRAINAGE AREA MAP
23. TRAFFIC CONTROL PLAN
24. CROSS SECTIONS-MD ROUTE 144
25. CROSS SECTIONS-MD ROUTE 144
26. CROSS SECTIONS-MD ROUTE 144
27. CROSS SECTIONS-MD ROUTE 144
28. LANDSCAPE PLANS
29. LANDSCAPE PLANS
30. LANDSCAPE PLANS



VICINITY MAP
SCALE: 1"= 600'

TERRA MARIA

LOTS 3-117, PARCELS A,B,C,D & E

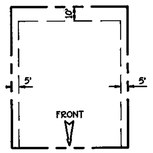
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

STREET LIGHTS

DWG No.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE	COMMENT
3,7	KATHERINE PLACE	0+37	28'L	250 WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A GALVANIZED STEEL POLE WITH A BREAKAWAY TRANS-FORMER BASE USING A 15' ARM	ARM WILL BE ANGLED AS SHOWN ON PLANS
3	JOSEPHINE WALK	1+50	15'L	100 WATT HPS VAPOR TRADITIONAIRE POST TOP FIXTURE MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
7	KATHERINE PLACE	3+23	15'R	100 WATT HPS VAPOR TRADITIONAIRE POST TOP FIXTURE MOUNTED AT 14' ON A BLACK FIBERGLASS POLE	
7	KATHERINE PLACE	6+46	15'L	"	
7	KATHERINE PLACE	10+85	17'L	"	
3,7	KATHERINE PLACE	13+22	16'L	"	
6	JOSEPHINE WALK	1+50	15'L	"	
8	TERRA MARIA WAY	3+99	15'R	"	
8	TERRA MARIA WAY	7+34	15'L	"	
3,5	* TERRA MARIA WAY	0+36	26'L	250 WATT HPS VAPOR PENDANT FIXTURE (CUTOFF) MOUNTED AT 30' ON A GALVANIZED STEEL POLE WITH A BREAKAWAY TRANSFORMER BASE USING A 15' ARM	ARM WILL BE ANGLED AS SHOWN ON PLANS
5	* TERRA MARIA WAY	6+00	15'L	100 WATT HPS VAPOR TRADITIONAIRE POST TOP FIXTURE MOUNTED AT 14' ON A BLACK FIBERGLASS POLE.	
6	SAINT CHARLES PLACE	13+21	16'R	"	
5	TERRA MARIA WAY	2+82	17'R	"	
6	SAINT CHARLES PLACE	8+27	15'R	"	
6	SAINT CHARLES PLACE	9+54	15'R	"	
6	SAINT CHARLES PLACE	15+25	14'R	"	
6	SAINT CHARLES PLACE	16+92	13'R	"	
6	SAINT CHARLES PLACE	18+62	16'R	"	
4	SAINT CHARLES PLACE	0+18	22'L	"	
4	SAINT CHARLES PLACE	1+15	17'L	"	PLACE STREET NAME SIGN ON LAMP POST
4	GROTTO WALK	3+43	13'R	"	
4	GROTTO WALK	8+55	13'R	"	

* DENOTES WEST OF SAINT CHARLES PLACE

NOTE: TREES SHALL BE PLANTED AT A MINIMUM OF 20' FROM ANY STREET LIGHT.



TYPICAL HOUSE SETBACKS (TND)
NOT TO SCALE

OPERATION AND MAINTENANCE SCHEDULE
OF PRIVATELY OWNED AND MAINTAINED
STORMWATER MANAGEMENT FACILITY
EXTENDED DETENTION POND
STORMWATER MANAGEMENT POND #1

ROUTINE MAINTENANCE

1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND, AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIP RAP OUTLET AREA SHALL BE REPAIRED AS SOON IT IS NOTICED.

NON-ROUTINE MAINTENANCE

1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY'S DEPARTMENT OF PUBLIC WORKS.

OWNER

PETER HOROWITZ AND
ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

GENERAL NOTES:

1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS APPROVED OTHERWISE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF CONSTRUCTION INSPECTION AT 313-1880 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
4. THIS PROJECT IS SUBJECT TO ZONING CASE ZB 925M AND PLANNING BOARD CASE No. 291.
5. PROJECT BACKGROUND:
   a) LOCATION: ON THE NORTH SIDE OF MD. RT. 144 AT THE INTERSECTION WITH MANOR LANE. TAX MAP 16, PARCEL 114.
   b) ZONING: R-ED UTILIZING THE TRADITIONAL NEIGHBORHOOD DESIGN (TND)
   c) ELECTION DISTRICT: SECOND
   d) TOTAL TRACT AREA: 55.09 AC.±
   e) No. OF PROPOSED LOTS: 116
   f) No. OF PROPOSED PARCELS: 5
   g) No. OF BUILDABLE LOTS: 103
   h) No. OF OPEN SPACE LOTS: 12
   i) No. OF CLUB/RECREATION LOTS: 1
   j) PREVIOUSLY APPROVED PLAN: SKETCH PLAN S94-02, PRELIMINARY PLAN P94-22.
6. TOPOGRAPHIC SURVEY WAS PREPARED BY PHOTO SCIENCE, INC. ON 1/19/92.
7. THIS PLAN IS BASED ON FIELD RUN MONUMENTED BOUNDARY PERFORMED ON OR ABOUT 1/13/92 BY FISHER, COLLINS & CARTER, INC. AND IS SHOWN ON A 1' CONTOUR INTERVAL.
8. A.P.F.O. TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC., APPROVED ON 11/12/93.
9. WETLANDS ANALYSIS PREPARED BY M.A. DIRCKS, APPROVED ON 11/12/93.
10. NOISE STUDY PREPARED BY WILSON T. BALLARD AND CO., APPROVED ON 11/12/93.
11. THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.
12. PUBLIC WATER AND PUBLIC SEWER TO BE UTILIZED EXCEPT THAT EXISTING LOT No. 2 TO BE SERVED WITH PRIVATE SEPTIC AND WELL.
13. ALL APPROVALS TO ALLOW DEVIATION FROM STANDARDS WERE APPROVED AT P.B. CASE No. 291.
14. THE FOLLOWING LOTS ARE LESS THAN 6,000 Sq.Ft. IN NET AREA AND WILL UTILIZE THE 'O' LOT LINE OPTION: LOTS 4, 5, 6, 9, 10, 11, 12, 13, 21, 27, 39-43, 47, 48, 90, 91, 92, 93, 94, 95, 97 AND 105. THE FINAL DESIGN AND LOT CONFIGURATION SHALL BE PROVIDED AT THE FINAL PLAT STAGE.
15. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
16. THIS PLAN IS BASED ON THE FOLLOWING CONTROL POINTS:
    B.M. 201
    REBAR AND CAP SET FLUSH WITH GROUND CENTERLINE STATION 0+64
    MD. ROUTE 144 (FREDERICK ROAD) 75' LEFT OF CENTERLINE.
    B.M. 204
    REBAR AND CAP SET FLUSH WITH GROUND CENTERLINE STATION 17+67
    MD. ROUTE 144 (FREDERICK ROAD) 422' LEFT OF CENTERLINE.
17. LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III, ROADS AND BRIDGES.
18. NO FLOODPLAIN STUDY IS REQUIRED SINCE THE DRAINAGE AREA IS LESS THAN 30 ACRES.
19. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLAND OR STREAM BUFFERS, UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY, MARYLAND.
20. B.R.L. DENOTES BUILDING RESTRICTION LINE.
21. ⁂ DENOTES WETLAND AREAS.
22. ~~ DENOTES EXISTING CENTERLINE OF STREAM.
23. ▨ DENOTES FOREST CONSERVATION EASEMENT. NO GRADING OR REMOVAL OF NATURAL COVER WILL BE PERMITTED WITHIN THE LIMITS OF THE CONSERVATION EASEMENT EXCEPT DISTURBANCE FOR THE CONSTRUCTION OF A FENCE BY THE PROPERTY OWNER.
24. REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE TO BE PROVIDED AT THE JUNCTION OF PIPE/FLAG STEM AND THE ROAD R/W AND NOT ONTO THE FLAG/PIPE STEM DRIVEWAY.
25. THIS PROJECT IS IN CONFORMANCE WITH ADA CRITERIA.
26. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
    A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
    B) SURFACE - SIX INCHES (6") OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING;
    C) GEOMETRY - MAXIMUM 15% GRADE, MINIMUM 10% GRADE CHANGE AND MINIMUM OF 45' TURNING RADIUS;
    D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H-25 LOADING);
    E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
    F) STRUCTURE CLEARANCES - MINIMUM 12 FEET;
    G) MAINTENANCE - SUFFICIENT TO ALL WEATHER USE.
27. IN THE PREVIOUS SKETCH PLAN, A TOTAL OF 32.6 AC± WERE DISTURBED. NOW, AT THE FINAL STAGE, WE ARE DISTURBING AN AREA OF 29.63 ACs.

OPERATION AND MAINTENANCE SCHEDULE
OF HOME OWNERS ASSOCIATION OWNED AND MAINTAINED
STORMWATER MANAGEMENT FACILITY
EXTENDED DETENTION POND
STORM WATER MANAGEMENT POND #2

HOME OWNERS ASSOCIATION'S MAINTENANCE RESPONSIBILITIES:

1. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND, AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
2. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
3. WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, SEDIMENT SHOULD BE REMOVED FROM THE POND. APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS IS REQUIRED.

STATE OF MARYLAND · CHARLES J. CROVO, SR. · No. 13204 · REGISTERED PROFESSIONAL ENGINEER

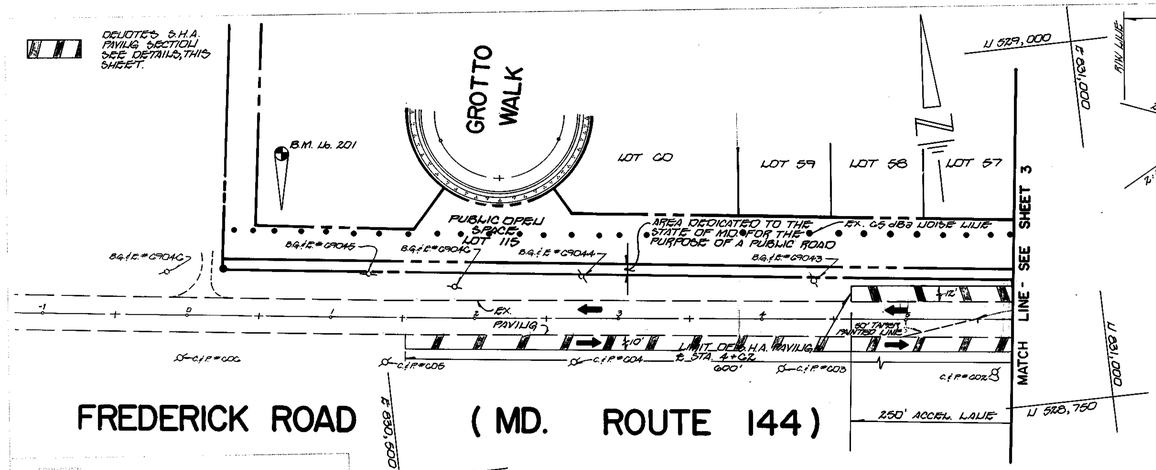
CHARLES J. CROVO, SR. — DATE 10/3/95

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
1921 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

1768

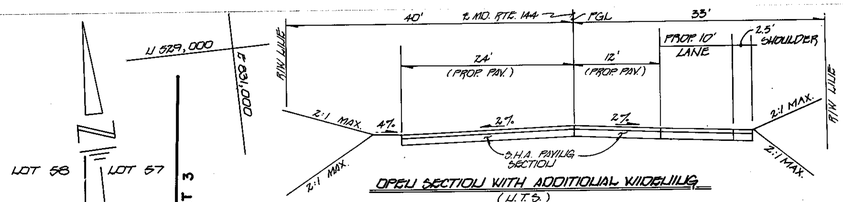
AS BUILT F95-99 600262DI.DWG

DENOTES S.H.A. PAVING SECTION SEE DETAILS THIS SHEET.



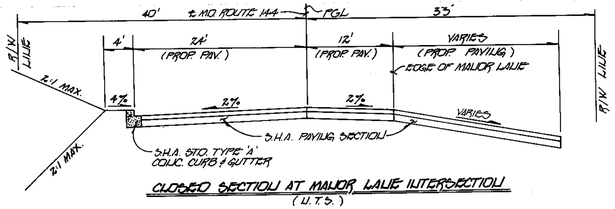
FREDERICK ROAD (MD. ROUTE 144)

PLAN
SCALE: 1" = 50'



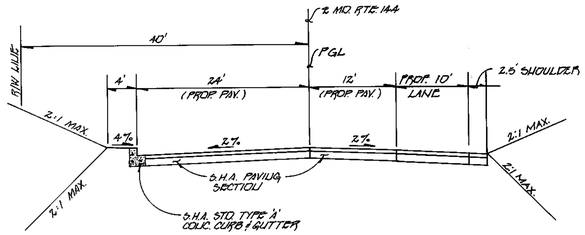
OPEN SECTION WITH ADDITIONAL WIDENING (U.T.S.)

LIMITS OF WORK : 9+87 TO 10+62
DESIGN SPEED : 50 M.P.H.
ROAD CLASSIFICATION : MINOR ARTERIAL



CLOSED SECTION AT MAJOR LANE INTERSECTION (U.T.S.)

LIMITS OF WORK : 8+00 TO 9+79
DESIGN SPEED : 50 M.P.H.
ROAD CLASSIFICATION : MINOR ARTERIAL

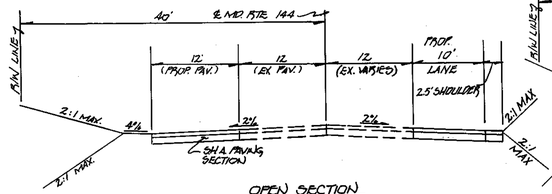


CLOSED SECTION WITH ADDITIONAL WIDENING (U.T.S.)

LIMITS OF WORK : G+65 TO 8+00, 9+79 TO 9+87
DESIGN SPEED : 50 M.P.H.
ROAD CLASSIFICATION : MINOR ARTERIAL

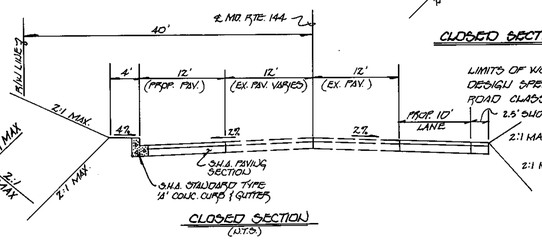
NOTE :

S.H.A. SECTION SHALL BE 3" (NOMINAL) BITUMINOUS CONC. SURFACE (TWO 1½" COURSES), 4" (NOMINAL) BIT. CONC. BASE, AND EITHER ONE OF THE FOLLOWING : 6" BASE COURSE USING GRADED AGGREGATE BASE; 6A BASE OF A 7" BASE COURSE USING BALL-RUN GRAVEL BASE, 8BG BASE.



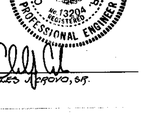
OPEN SECTION (N.T.S.)

LIMITS OF WORK : 4+62 to 5+87, 10+62 to 11+93, 16+02 to 17+77.50
DESIGN SPEED : 50 M.P.H.
ROAD CLASSIFICATION : MINOR ARTERIAL



CLOSED SECTION (N.T.S.)

LIMITS OF WORK : 5+87 to 6+65, 11+93 to 16+02
DESIGN SPEED : 50 M.P.H.
ROAD CLASSIFICATION : MINOR ARTERIAL



CHARLES J. GROVO, P.E. — 1/23/95 DATE

TERRA MARIA

TAX MAP : 10 PARCEL : 114
2ND ELECT. DISTRICT HOWARD CO., MD.

MD. ROUTE 144
TYPICAL ROAD SECTIONS

MD. ROUTE 144 — PLAN & PROFILE
TERRA MARIA WAY — PROFILE

OWNER	DEVELOPER
PETER HOROWITZ AND ELIZABETH HOROWITZ, c/o LAND DESIGN & DEVELOPMENT, INC. 10900 FREDERICK ROAD ELLICOTT CITY, MD. 21042	JOHN HORNBUCKLE TERRA MARIA L.L.C., INC. 10300 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044
	TERRA MARIA L.L.C. INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10300 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

SCALE AS SHOWN / DATE JAN. 12, 1995 / SHEET 2 OF 30
DES. B.J.K. / DRN. J.C.L. / CK'D. C.J.C.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9171 BALTO. NAT. PIKE, SUITE 100, ELLICOTT CITY, MARYLAND 21042

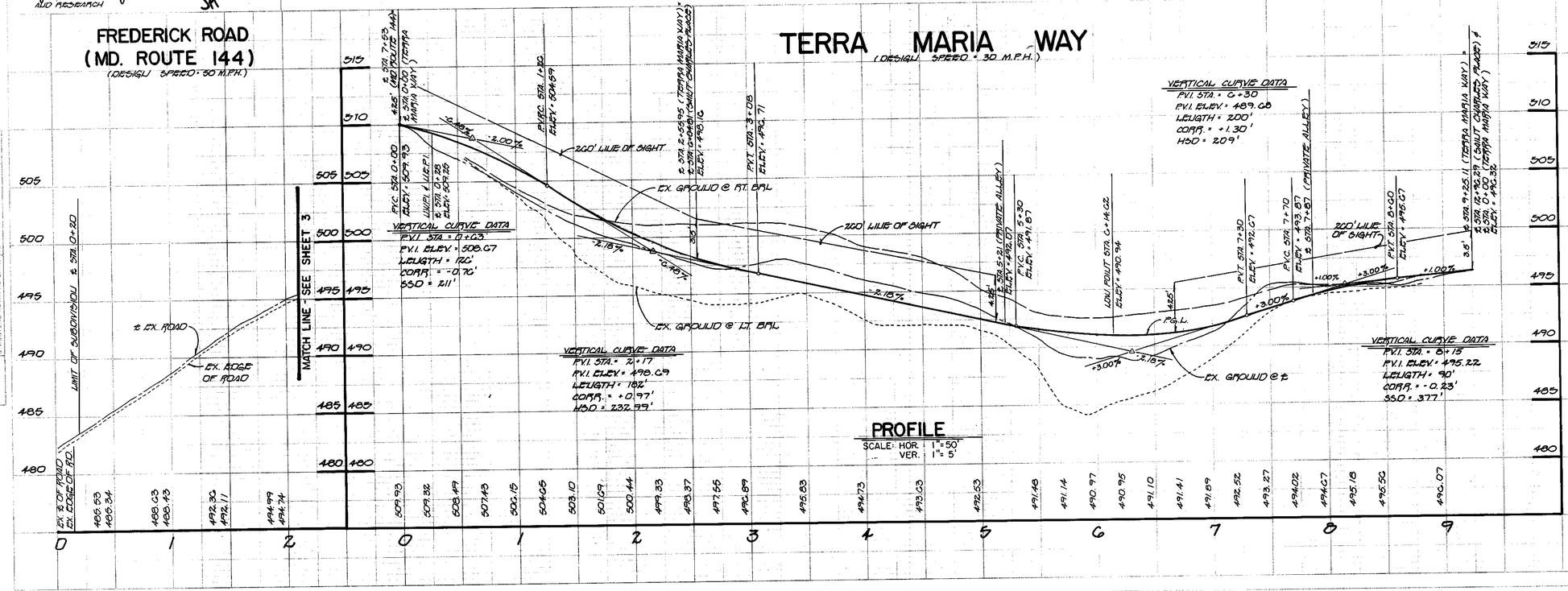
SURVEYED
PLOTTED
GRADES CHECKED
BASE REVISED
NOTE BOOK
NO.
PLAN

DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 8/1/95 DATE

CHIEF, BUREAU OF ENGINEERING — 8-1-95 DATE

DEPARTMENT OF PUBLIC WORKS
DIRECTOR — 8/3/95 DATE

DEPARTMENT OF PLANNING AND ZONING
DIRECTOR OF PLANNING AND LAND DEVELOPMENT LIAISON AND RESEARCH — 10/31/95 DATE



PROFILE
SCALE: HOR. : 1" = 50'
VER. : 1" = 5'

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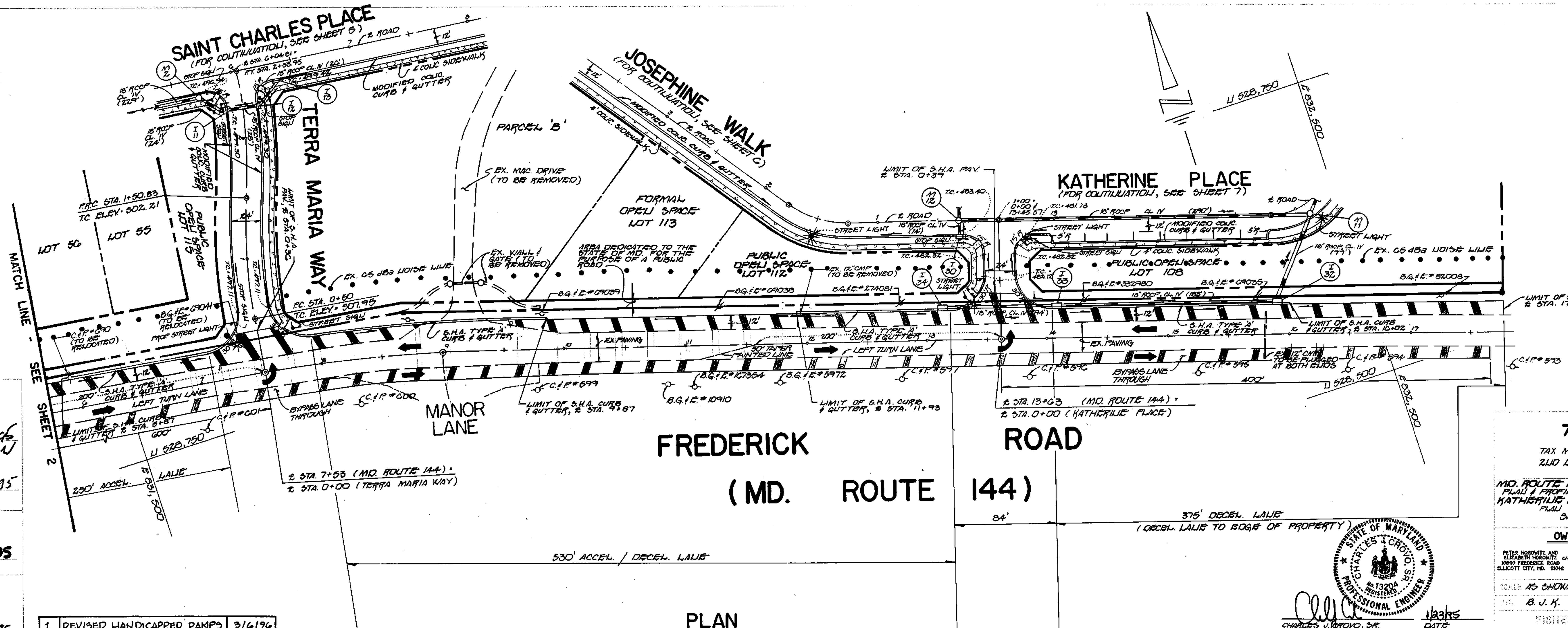
DENOTES S.H.A. PAVING SECTION SEE DETAILS, SHEET 2

DENOTES 20' TRANSITION FROM MODIFIED CONC. CURB & GUTTER TO STD. 7" CONC. CURB & GUTTER



PLAN
SCALE: 1"=50'

PROFILE
SCALE: HOR.: 1"=50'
VER.: 1"=5'

PLAN	SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED	BY	DATE
NOTE BOOK NO.			

PROFILE	SURVEYED / PLOTTED / GRADES CHECKED / B.M.s NOTED / STRUCTURE NOTAT'NS CH'KD	BY	DATE
NOTE BOOK NO.			

APPROVED DEPARTMENT OF PUBLIC WORKS

[signature] 3/1/96
CHIEF, LAND DEVELOPMENT DIVISION — DATE

[signature] HS 8-1-95
CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED DEPARTMENT OF PUBLIC WORKS

[signature] 8/3/95
CHIEF, BUREAU OF ENGINEERING — DATE

APPROVED DEPARTMENT OF PLANNING AND ZONING

Gina Livermore JA 10/31/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE

NO	REVISIONS	DATE
1	REVISED HANDICAPPED RAMPS	3/6/96

TERRA MARIA

TAX MAP: 16 — PARCEL: 114
2ND ELECT. DISTRICT — HOWARD CO., MD.

MD. ROUTE 144 PLAN & PROFILE
KATHERINE PLACE PLAN
SAINT CHARLES PLACE PLAN
TERRA MARIA WAY PLAN
JOSEPHINE WALK PLAN

OWNER	DEVELOPER
PETER HOROWITZ AND ELIZABETH HOROWITZ, 10890 FREDERICK ROAD, ELLICOTT CITY, MD. 21042; JOHN HORNBURG, TERRA MARIA L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10805 HICKORY RIDGE ROAD, COLUMBIA, MARYLAND 21044	TERRA MARIA LLC, INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10805 HICKORY RIDGE ROAD, COLUMBIA, MARYLAND 21044

SCALE AS SHOWN	DATE JAN. 12, 1995	SHEET 3 OF 30
DES. B.J.K.	DRN. J.C.L.	CHK. C.J.C.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9171 BALTO. NAT. PIKE, SUITE 100, ELLICOTT CITY, MARYLAND 21042

STATE OF MARYLAND — CHARLES J. CROVO, SR. — No. 13204 REGISTERED PROFESSIONAL ENGINEER

[signature] 1/23/95
CHARLES J. CROVO, SR. — DATE

1768

AS BUILT

F 95-99

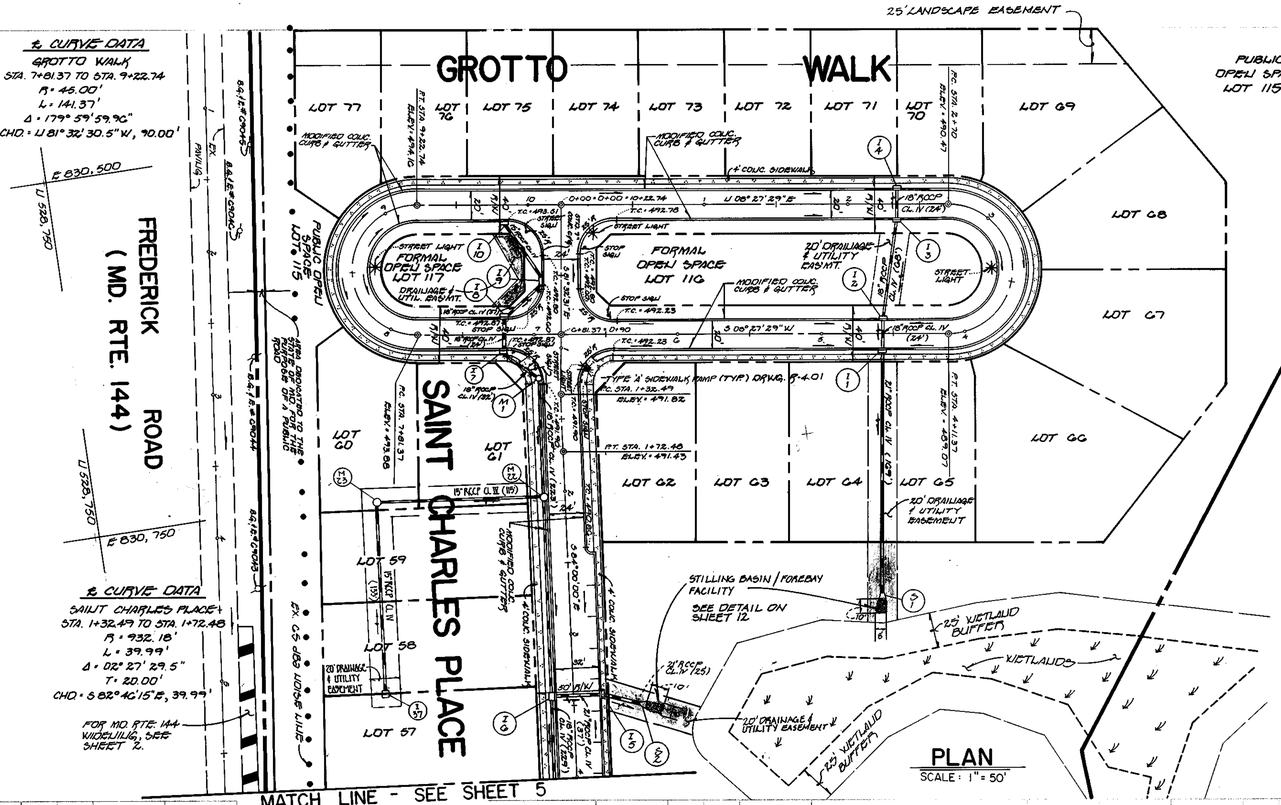
DEJOTES S.H.A. PAVING SECTION SEE DETAILS, SHEET 12.

DEJOTES 20' TRANSITION FROM MODIFIED CONC. CURB & GUTTER TO STD. 7" CONC. CURB & GUTTER

℄ CURVE DATA
GROTTO WALK
STA. 7+81.37 TO STA. 9+22.74
R = 45.00'
L = 141.37'
Δ = 179° 59' 59.9C"
CHD = N 81° 32' 30.5"W, 90.00'

℄ CURVE DATA
SAINT CHARLES PLACE
STA. 1+32.49 TO STA. 1+72.48
R = 932.18'
L = 39.99'
Δ = 02° 27' 29.5"
T = 20.00'
CHD = S 82° 46' 15" E, 39.99'

FOR MD. RTE. 144 WIDENING, SEE SHEET 12.



PLAN
SCALE: 1" = 50'

℄ CURVE DATA
GROTTO WALK
STA. 2+70 TO STA. 4+11.37
R = 45.00'
L = 141.37'
Δ = 179° 59' 59.9C"
CHD = S 81° 32' 30.5"E, 90.00'

NO.	REVISIONS	DATE
2	ADD MAN HOLE #22, #23 AND INLET #37	10-3-96
1	REVISED HANDICAPPED RAMPS	3/6/96

TERRA MARIA

TAX MAP : 10 PARCEL : 114
2ND ELECT. DISTRICT HOWARD CO., MD.

GROTTO WALK
PLAN & PROFILE
SAINT CHARLES PLACE
PLAN

OWNER	DEVELOPER
PETER, HONORATO, AND ELIZABETH HONORATO, 13909 FREDERICK ROAD ELLICOTT CITY, MD. 21042	JOHN HORNBURG TERRA MARIA, L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10605 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044	TERRA MARIA, L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10605 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

SCALE: AS SHOWN | DATE: JULY 12, 1995 | SHEET NO. 4 OF 30
DES. B.J.K. | DRN. J.C.L. | CHK. C.J.C.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9171 BALTO. NAT. PIKE, SUITE 100, ELLICOTT CITY, MD. 21042

STATE OF MARYLAND — CHARLES J. CROVO, JR. — 13206 — REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO, JR. 12/3/96 DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, BUREAU OF ENGINEERING — DATE 8/1/95

CHIEF, BUREAU OF HIGHWAYS — M.S. — DATE 8-1-95

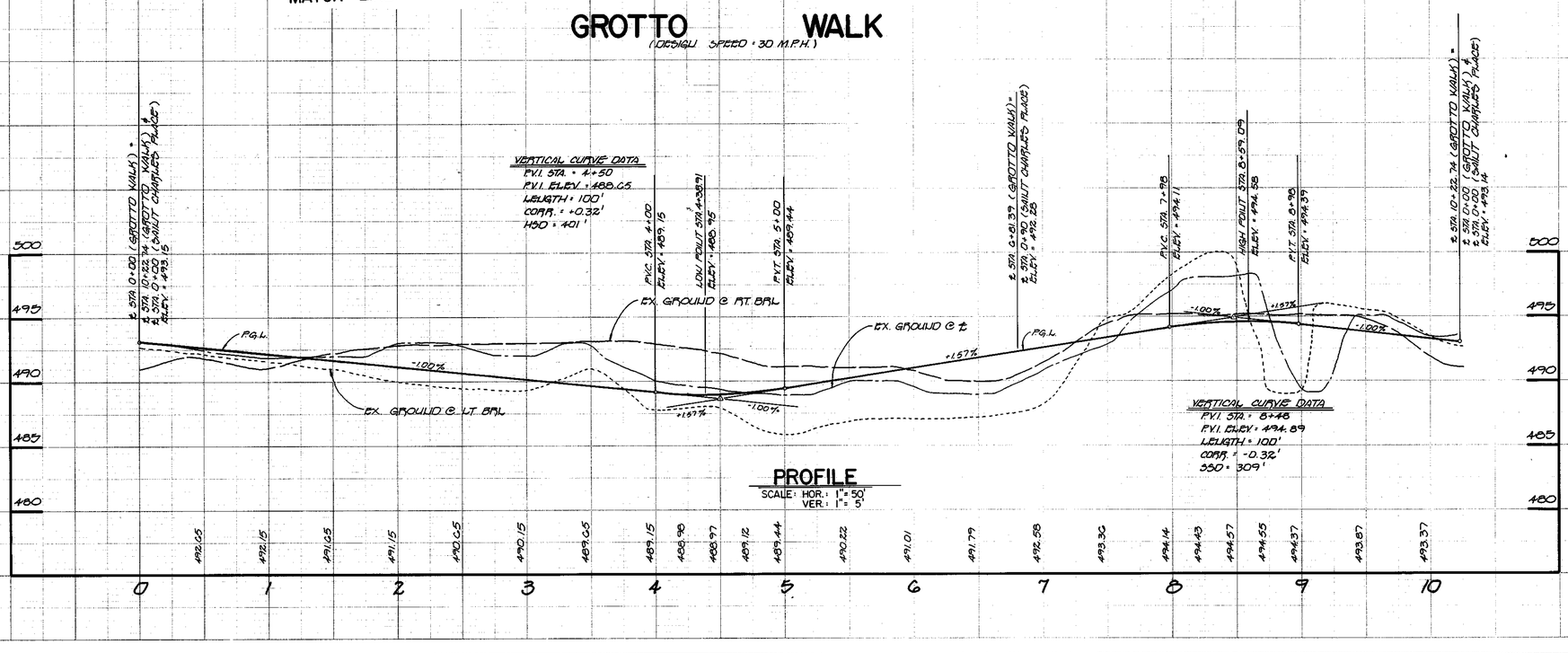
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 8/3/95

DEPARTMENT OF PLANNING AND ZONING

GINA IRWIN/ARY: LAND DEVELOPMENT AND RESEARCH — DATE 10/31/95

PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / NOTE BOOK / NO. / BY / DATE

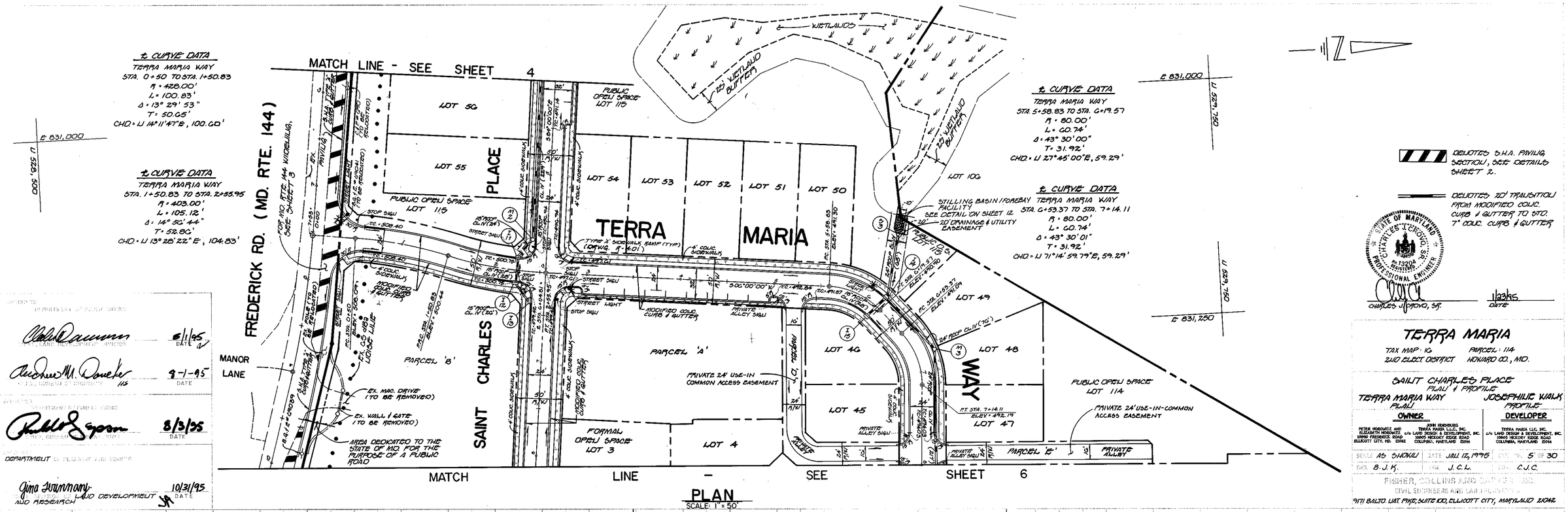
PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / R.S.H. NOTED / STRUCTURE NOTATIONS CHKD / NOTE BOOK / NO. / BY / DATE



PROFILE
SCALE: HOR: 1" = 50'
VER: 1" = 5'

1768

F 95-99



PLAN	SURVEYED			DATE
	PLOTTED			
	DESIGN CONSTANT CHECKED			
	ALIGNMENT CHECKED			
	ST. OF WAY CHECKED			
NOTE BOOK			BY	
NO.				

APPROVED: DEPARTMENT OF PUBLIC WORKS
DIRECTOR, BUREAU OF ENGINEERING DIVISION — 8/1/95 DATE
CHIEF, BUREAU OF ENGINEERING DIVISION — 9-1-95 DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING DIVISION — 8/3/95 DATE
DEPARTMENT OF PLANNING AND ZONING
AND RESEARCH — AND DEVELOPMENT — 10/31/95 DATE

STATE OF MARYLAND — CHARLES J. CROVO, SR. — No. 13295 — REGISTERED PROFESSIONAL ENGINEER
CHARLES J. CROVO, SR. — 1/23/95 DATE

TERRA MARIA

TAX MAP: 10 PARCEL: 114
2ND ELECT. DISTRICT HOWARD CO., MD.

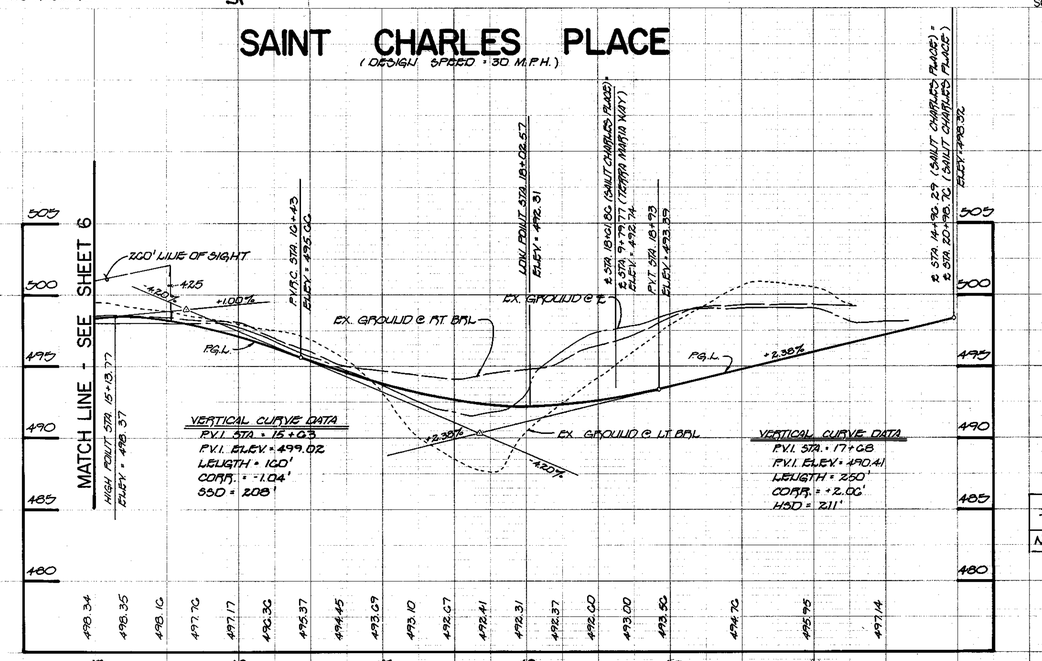
SAINT CHARLES PLACE
PLAN & PROFILE
TERRA MARIA WAY — PLAN
JOSEPHINE WALK — PROFILE

OWNER	DEVELOPER
PETER HOROWITZ AND ELIZABETH HOROWITZ 10990 FREDERICK ROAD ELLICOTT CITY, MD. 21042	JOHN HOWARD/ TERRA MARIA L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10300 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044	TERRA MARIA L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10300 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

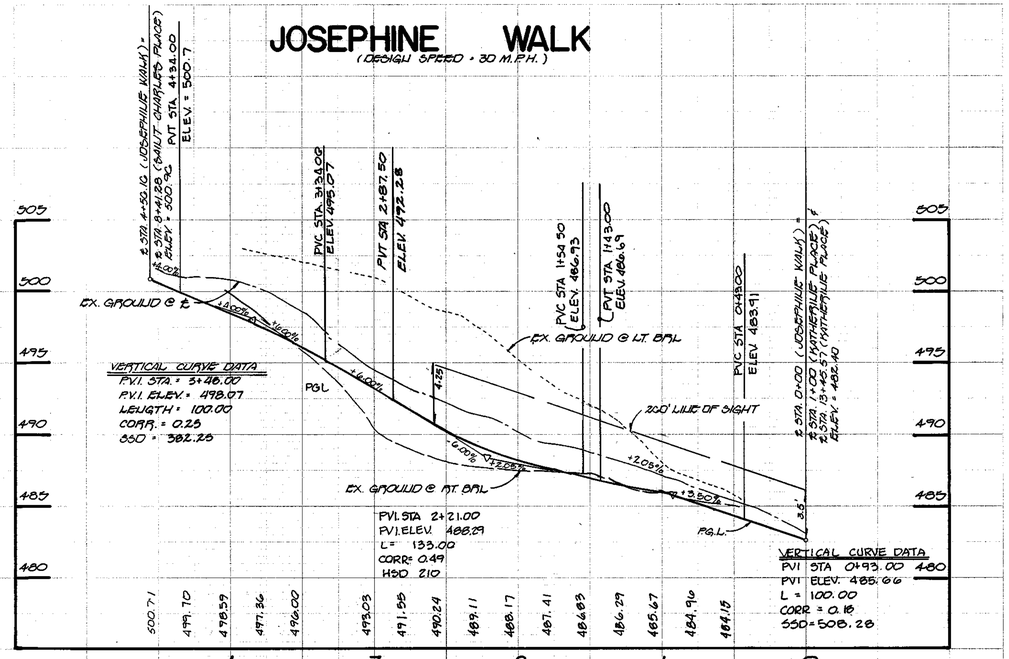
SCALE: AS SHOWN | DATE: JAN 12, 1995 | SHT. NO. 5 OF 30
DES. B.J.K. | DR. J.C.L. | CK. C.J.C.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND PLANNERS
9171 BALTO. NAT. PIKE, SUITE 100, ELLICOTT CITY, MARYLAND 21042

No.	REVISIONS	DATE
1	REVISED HANDICAPPED RAMPS ON ALL ROADS REVISED ROAD GRADIENT ON JOSEPHINE WALK	3/31/95



PROFILES
SCALE: HOR.: 1" = 50'
VER.: 1" = 5'



17768

AS BUILT F95-99

℄ CURVE DATA
JOSEPHINE WALK
STA. 1+24.83 TO STA. 1+76.50
R = 80.00'
L = 51.67'
Δ = 37°00'40.81"
T = 26.78'
CHD = LI S4°30'20" W, 50.78'

℄ CURVE DATA
SAINT CHARLES PLACE
STA. 8+41.28 TO STA. 8+71.30
R = 80.00'
L = 30.01'
Δ = 21°29'37.27"
T = 15.18'
CHD = LI S6°44'48.63"E, 29.84'

DENOTES S.H.A. PAVING SECTION, SEE DETAILS, SHEET 12.

DENOTES 2D' TRANSITION FROM MODIFIED COLLC. CURB & GUTTER TO STD. 7" COLC. CURB & GUTTER

MATCH LINE - SEE SHEET 7

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 8

FREDERICK ROAD MD. RTE. 144

JOSEPHINE WALK

SAINT CHARLES PLACE

TERRA MARIA WAY

FORMAL OPEN SPACE LOT 113

PARCEL 'B'

PUBLIC OPEN SPACE LOT 112

FUTURE PARKING LOT

FUTURE COMMUNITY CENTER

FUTURE TENNIS COURT

PUBLIC OPEN SPACE LOT 108

FORMAL OPEN SPACE LOT 3

FORMAL OPEN SPACE LOT 110

PUBLIC OPEN SPACE LOT 114

LOTS 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 38, 39, 40, 41, 42, 43, 44, 78, 79, 111

CONTRACTOR TO TRANSITION PAVING FROM STA. 16+16 (24' WIDE) TO STA. 15+05 (20' WIDE)

PRIVATE 24' USE-IN-COMMON EASEMENT

PRIVATE ALLEY

℄ CURVE DATA
SAINT CHARLES PLACE
STA. 9+17.29 TO STA. 9+91.29
R = 80.00'
L = 74.00'
Δ = 53°00'00"
T = 39.89'
CHD = LI 29°30'00"E, 71.39'

℄ CURVE DATA
SAINT CHARLES PLACE
STA. 16+58.29 TO STA. 17+21.13
R = 40.00'
L = 62.83'
Δ = 90°00'00"
T = 40.00'
CHD = LI 46°00'00"E, 56.57'

℄ CURVE DATA
SAINT CHARLES PLACE
STA. 19+50.96 TO STA. 20+13.79
R = 40.00'
L = 62.83'
Δ = 90°00'00"
T = 40.00'
CHD = S 46°00'00"W, 56.57'

℄ CURVE DATA
SAINT CHARLES PLACE
STA. 17+62.13 TO STA. 18+28.96
R = 40.00'
L = 62.83'
Δ = 90°00'00"
T = 40.00'
CHD = S 41°59'59.99"E, 56.57'

E 831,500

E 831,750

COLL. 'B' & 'C' LN

PLAN
SCALE: 1" = 50'

3	ADDED I-38 TO MH25 W/15"RCCP, ADDED MH 24 TO MH 23 W/18"RCCP AND ADDED I-36 TO MH 21 W/15"RCCP	10-3-96
2	ADDED FUTURE CLUB AND RECREATION AREA, AND ALSO ADDED 18"RCCP FOR MH3&14	3/6/96
1	REVISED HANDICAPPED RAMP	3/6/96
NO	REVISIONS	DATE

SURVEYED
DESIGNED
PLOTTED
GRADES CHECKED
B.M.'s NOTED
STRUCTURE NOTATNS CHKD
DATE

PLAN
NOTE BOOK
NO.

8/2/95 DATE

8-1-95 DATE

8/3/95 DATE

10/3/95 DATE

JA

TERRA MARIA

TAX MAP: 10 PARCEL: 114
2ND ELECT. DISTRICT HOWARD CO., MD.

SAINT CHARLES PLACE
PLAN & PROFILE
JOSEPHINE WALK PLAN
TERRA MARIA WAY PLAN

OWNER	DEVELOPER
PETER HONOHAN AND ELIZABETH HONOHATE, 10900 FREDERICK ROAD ELLICOTT CITY, MD. 21042	JOHN HONOHAN TERRA MARIA L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10300 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044	TERRA MARIA L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10300 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

SCALE: AS SHOWN | DATE: JAN. 12, 1995 | SHEET: 6 OF 30
DES. B.J.K. | DRN. J.C.L. | CK. C.J.C.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS & LAND SURVEYORS
9171 BALTO. NAT. PIKE, SUITE 100, ELLICOTT CITY, MARYLAND 21042

STATE OF MARYLAND
CHARLES J. CROVO, U.S.
No. 13204
REGISTERED
PROFESSIONAL ENGINEER

CHARLES J. CROVO, JR. 1/23/95 DATE

SAINT CHARLES PLACE

(DESIGN SPEED = 30 M.P.H.)

VERTICAL CURVE DATA
P.V.I. STA. = 2+25
P.V.I. ELEV. = 490.90
LEUGTH = 90'
CORR. = -0.11'
SSD = 710'

VERTICAL CURVE DATA
P.V.I. STA. = 4+10
P.V.I. ELEV. = 487.20
LEUGTH = 280'
CORR. = +2.70'
HSD = 2.00'

VERTICAL CURVE DATA
P.V.I. STA. = 6+80
P.V.I. ELEV. = 502.59
LEUGTH = 224'
CORR. = -1.68'
SSD = 211'

VERTICAL CURVE DATA
P.V.I. STA. = 13+00
P.V.I. ELEV. = 490.39
LEUGTH = 100'
CORR. = +0.25'
HSD = 1200'

200' LINE OF SIGHT

EX. GROUND @ RT. BAL

EX. GROUND @ ℄

EX. GROUND @ LT. BAL

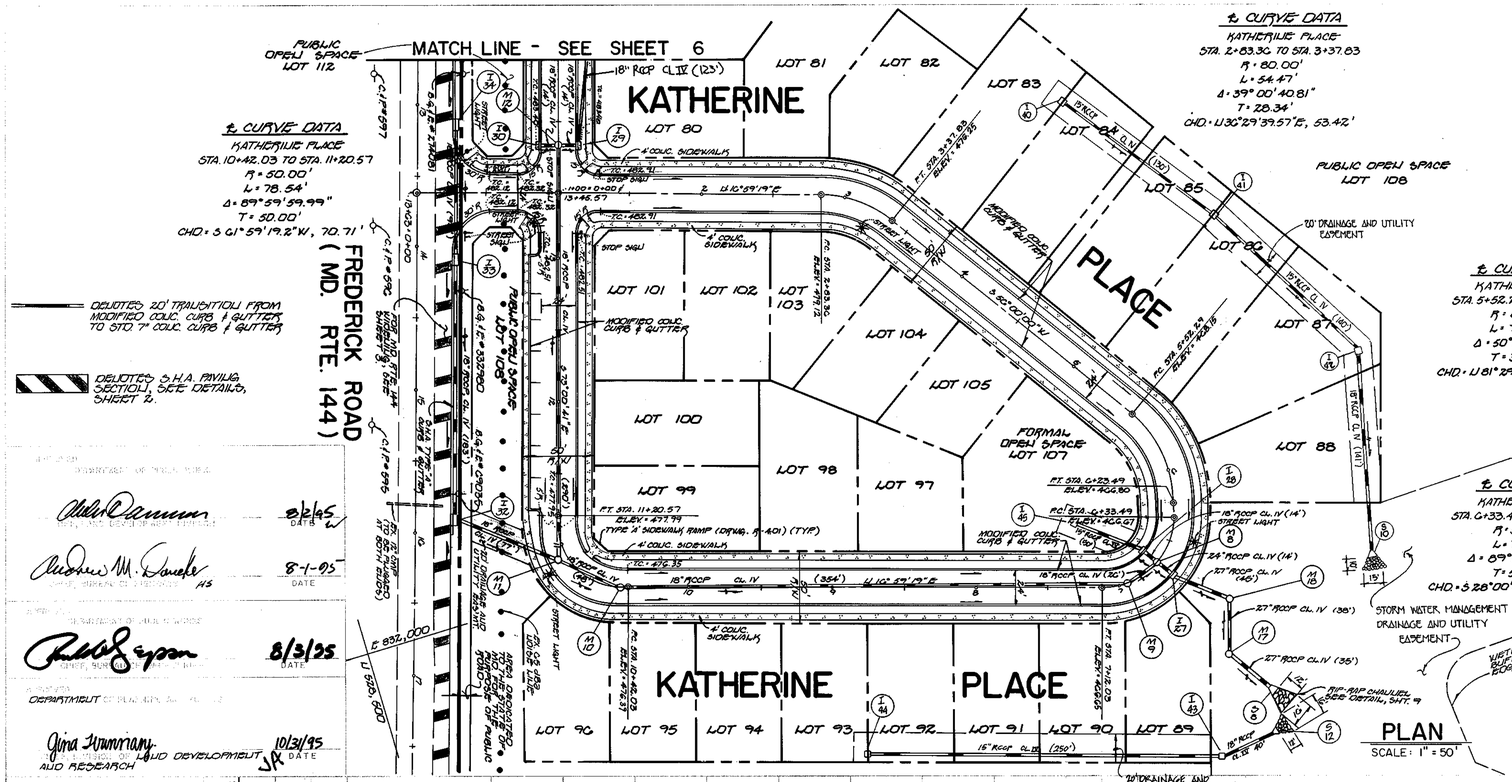
PROFILE
SCALE: HOR. : 1" = 50'
VER. : 1" = 5'

MATCH LINE - SEE SHEET 5

PROFILE
SURVEYED
DESIGNED
PLOTTED
GRADES CHECKED
B.M.'s NOTED
STRUCTURE NOTATNS CHKD
DATE
BY
NOTE BOOK
NO.

1768

F95-99



NO.	REVISIONS	DATE
4	REVISED ROAD GRADES AT KATHERINE PLACE AND ADDED S-15 TO I-44	2-2-98
3	ADDED I-40 TO I-11 "/15" RCCP, I-11 TO I-41"/15" RCCP AND I-41 TO S-10"/18" RCCP	10-3-96
2	ADDED 18" RCCP CL IV (123) AT I-29	3/6/96
1	REVISED HANDICAPPED RAMPS	3/6/96

PLAN: SURVEYED ... PLOTTED ... PROJECT CHECKED ... NOTE BOOK ... NO. ... BY ... DATE ... ALIGNMENT(S) CHECKED ... PT. OF VAY CHECKED ... STRUCTURE NOTATIONS CHKD

DEPARTMENT OF PUBLIC WORKS — 8/2/95 DATE

8-1-95 DATE

DEPARTMENT OF PUBLIC WORKS — 8/3/95 DATE

DEPARTMENT OF LAND DEVELOPMENT AND RESEARCH — 10/31/95 DATE

TERRA MARIA

TAX MAP : 10 PARCEL : 114
2ND ELECT DISTRICT HOWARD CO., MD.

KATHERINE PLACE
PLAN & PROFILE
JOSEPHINE WALK
PLAN

OWNER	DEVELOPER
PETER HOROWITZ AND ELIZABETH HOROWITZ, c/o TERRA MARIA L.L.C. INC. 10999 FREDERICK ROAD ELLICOTT CITY, MD. 21042	JOHN HOHNBERG TERRA MARIA L.L.C. INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10980 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

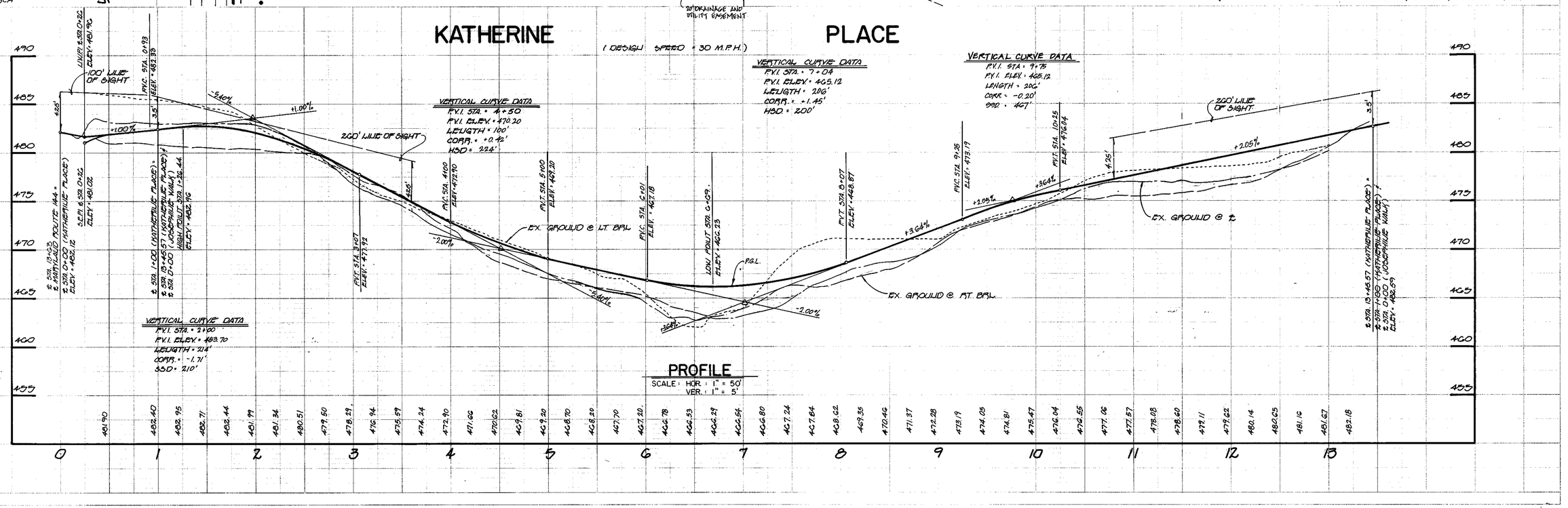
STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

CHARLES J. CROVO, JR. — 1/23/95 DATE

DES.	AS SHOWN	DATE	JAN. 12, 1996
DES.	B. J. K.	DRN.	J. C. L.
		CHK.	C. J. C.

SHEET 7 OF 30

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9171 BALTO. NAT. PIKE, SUITE 100, ELLICOTT CITY, MARYLAND 21043



PROFILE: SURVEYED ... PLOTTED ... PROJECT CHECKED ... NOTE BOOK ... NO. ... BY ... DATE ... STRUCTURE NOTATIONS CHKD

1768

F 95-99

REVISIONS		
NO.	DATE	DESCRIPTION
1	10-3-96	ADD MH 2C FROM 1-31 & 1-39 TO MH 2C & 15" RCCP

11Z

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
R/W OR EASEMENT
NOTE BOOK
NO.
BY
DATE

APPROVED
DEPARTMENT OF PLANNING & ZONING
8/2/95 DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
8-1-95 DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
8/3/95 DATE

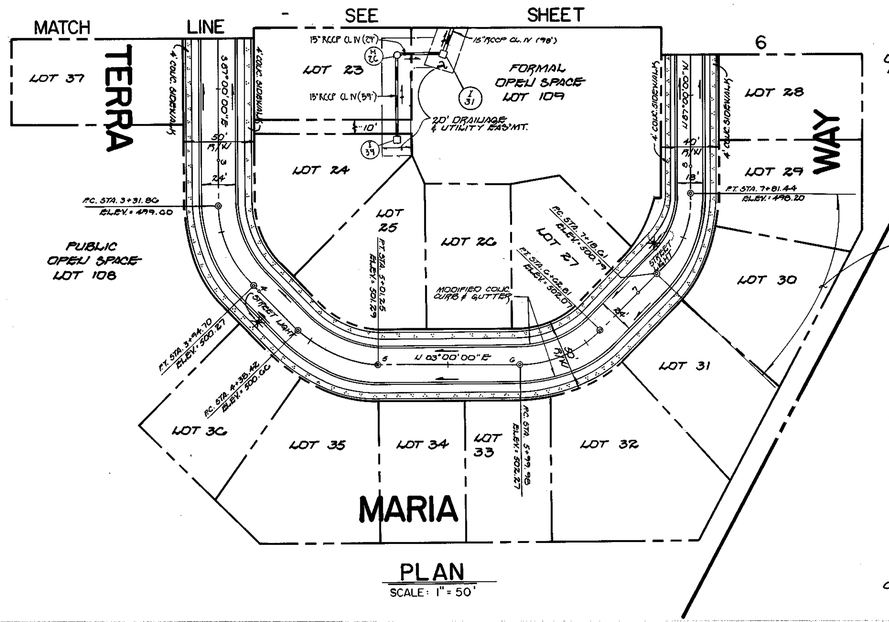
APPROVED
DEPARTMENT OF PLANNING & ZONING
AND RESEARCH
10/31/95 DATE

℄ CURVE DATA
TERRA MARIA WAY
STA. 3+31.86 TO STA. 3+94.70
R = 80.00'
L = 62.83'
Δ = 45° 00' 00"
T = 33.14'
CHD. = N 70°29'59.98"E, 61.23'

E 831,780
N 529,000

℄ CURVE DATA
TERRA MARIA WAY
STA. 4+38.42 TO STA. 5+01.25
R = 80.00'
L = 62.83'
Δ = 44°59'59.99"
T = 33.14'
CHD. = N 25°29'59.99"E, 61.23'

N 529,000
E 832,000



PLAN
SCALE: 1" = 50'

℄ CURVE DATA
TERRA MARIA WAY
STA. 7+18.01 TO STA. 7+81.44
R = 80.00'
L = 62.83'
Δ = 44°59'59.99"
T = 33.14'
CHD. = N 64°29'59.99"W, 61.23'

℄ CURVE DATA
TERRA MARIA WAY
STA. 5+99.98 TO STA. 6+62.81
R = 80.00'
L = 62.83'
Δ = 44°59'59.98"
T = 33.14'
CHD. = N 19°29'59.98"W, 61.23'

STATE OF MARYLAND
CHARLES L. CROYD
No. 13203
REGISTERED
PROFESSIONAL ENGINEER

CHARLES L. CROYD, SR. — 11/23/95 DATE

TERRA MARIA

TAX MAP: 10 — PARCEL: 114
2ND ELECT. DISTRICT — HOWARD CO., MD.

TERRA MARIA WAY
PLAN & PROFILE

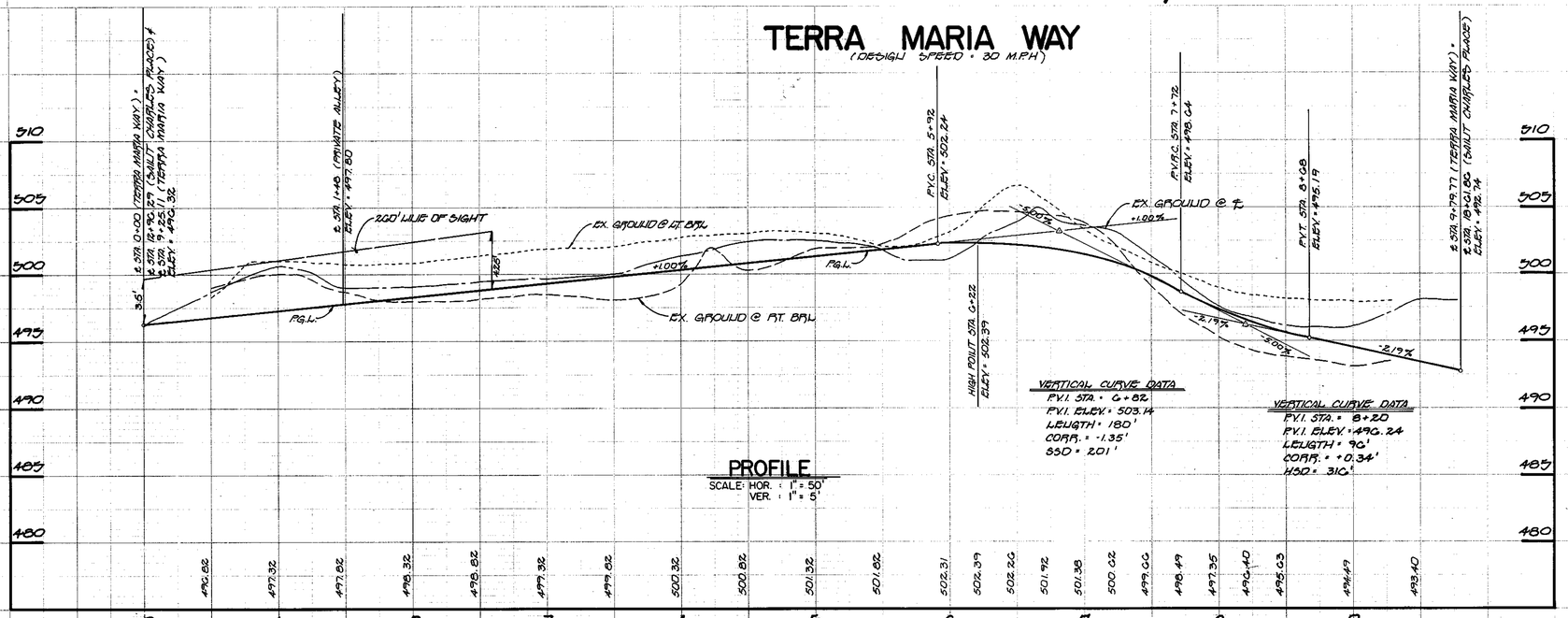
OWNER	DEVELOPER
PETER HOCHSTETLER AND BETH-ANN HOCHSTETLER 13950 FREDERICK ROAD ELLICOTT CITY, MD. 21042	JOHN HOFMEISTER TERRA MARIA ELLICOTT, INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10365 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044	TERRA MARIA LLC, INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10365 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

SCALE: AS SHOWN | DATE: JAN. 12, 1995 | SHEET NO. 8 OF 30
DES. B.J.K. | DRN. J.C.L. | CHK. C.J.C.

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9171 BALTO. NAT. PIKE, SUITE 100, ELLICOTT CITY, MARYLAND 21042

PROFILE
SURVEYED
PLOTTED
PROFILE CHECKED
R/W OR EASEMENT
NOTE BOOK
NO.
BY
DATE
STRUCTURE NOTATIONS CHKD

TERRA MARIA WAY
(DESIGN SPEED = 30 M.P.H.)



PROFILE
SCALE: HOR. = 1" = 50'
VER. = 1" = 5'

VERTICAL CURVE DATA
P.V.I. STA. = 6+82
P.V.I. ELEV. = 503.14
LENGTH = 180'
CORR. = -1.35'
SSD = 201'

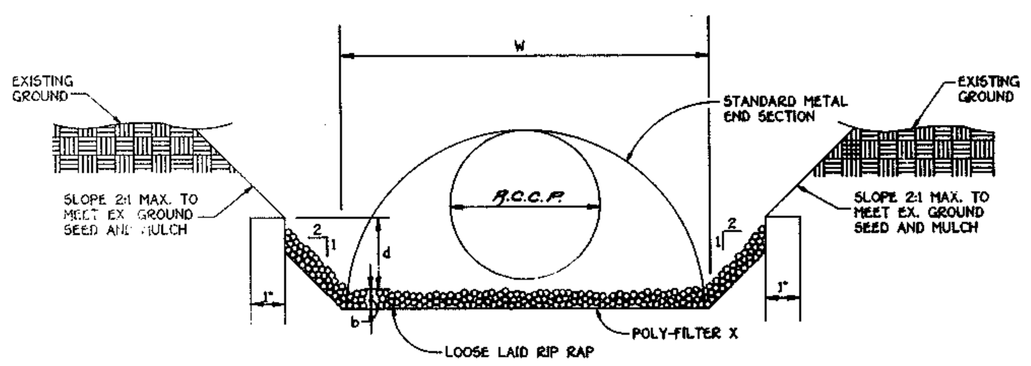
VERTICAL CURVE DATA
P.V.I. STA. = 8+20
P.V.I. ELEV. = 496.24
LENGTH = 90'
CORR. = +0.34'
HSD = 310'

1768

F95-99

STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS
I-1	489.53	485.07	484.82	GROTTO WALK	4+58	10.52' LEFT	A-5	S.D. 4.40
I-2	489.53	485.56	485.31	GROTTO WALK	4+58	10.52' RIGHT	A-5	S.D. 4.40
I-3	491.33	486.49	486.24	GROTTO WALK	2+34	10.52' RIGHT	A-5	S.D. 4.40
I-4	491.33	---	486.73	GROTTO WALK	2+34	10.52' RIGHT	A-5	S.D. 4.40
I-5	489.74	483.13	482.88 / 481.16	SAINT CHARLES PLACE	3+42	20.52' LEFT	A-5	S.D. 4.40
I-6	489.74	485.23 / 484.23	483.50	SAINT CHARLES PLACE	3+42	12.52' RIGHT	A-5	S.D. 4.40
I-7	492.92	488.21	487.96	GROTTO WALK	7+21.54	10' LEFT	A-5	S.D. 4.40
I-8	492.92	488.70	488.45	GROTTO WALK	7+21.54	10' RIGHT	A-5	S.D. 4.40
I-9	492.57	489.19	488.94	SAINT CHARLES PLACE	0+58.17	12' RIGHT	A-5	S.D. 4.40
I-10	493.64	---	489.74	GROTTO WALK	9+82.57	10' RIGHT	A-5	S.D. 4.40
I-11	499.38	494.71	494.46	TERRA MARIA WAY	2+25	12' LEFT	A-10	S.D. 4.41
I-12	499.38	495.24	494.99	TERRA MARIA WAY	2+25	12' RIGHT	A-10	S.D. 4.41
I-13	499.82	---	495.50	SAINT CHARLES PLACE	6+35	12' RIGHT	A-10	S.D. 4.41
I-14	491.41	485.72 / 479.70	479.45 / 477.07	TERRA MARIA WAY	6+14	12.52' LEFT	A-5	S.D. 4.40
I-15	491.41	---	486.00	TERRA MARIA WAY	6+14	12.52' RIGHT	A-5	S.D. 4.40
I-16	497.20	483.63	483.38	SAINT CHARLES PLACE	13+30	12' LEFT	A-5 W/DEFLECTORS	S.D. 4.40 & S.D. 4.83
I-17	497.20	490.19 / 484.16	483.91	SAINT CHARLES PLACE	13+30	12' RIGHT	A-5 W/DEFLECTORS	S.D. 4.40 & S.D. 4.83
I-18	497.09	490.69	490.44	TERRA MARIA WAY	0+32	12' LEFT	A-10	S.D. 4.41
I-19	497.09	491.22	490.97	TERRA MARIA WAY	0+32	12' RIGHT	A-10	S.D. 4.41
I-20	497.24	491.72	491.47	SAINT CHARLES PLACE	12+65	12' RIGHT	A-5	S.D. 4.40
I-21	497.24	---	492.00	SAINT CHARLES PLACE	12+65	12' LEFT	A-5 W/DEFLECTORS	S.D. 4.40 & S.D. 4.83
I-22	492.84	488.76	488.51	SAINT CHARLES PLACE	18+02	10.52' RIGHT	A-5	S.D. 4.40
I-23	492.84	---	489.00	SAINT CHARLES PLACE	18+02	10.52' LEFT	A-5	S.D. 4.40
I-24	493.58	---	490.15	TERRA MARIA WAY	9+41.60	9' RIGHT	A-5 W/DEFLECTORS	S.D. 4.40 & S.D. 4.83
I-25	493.58	489.93	489.68	TERRA MARIA WAY	9+41.60	9' LEFT	A-5 W/DEFLECTORS	S.D. 4.40 & S.D. 4.83
I-26	493.53	489.43 / 489.02	488.77	SAINT CHARLES PLACE	18+99.03	10' LEFT	A-5 W/DEFLECTORS	S.D. 4.40 & S.D. 4.83
I-27	466.19	459.78	459.53	KATHERINE PLACE	6+69	12.52' LEFT	A-10	S.D. 4.41
I-28	466.19	---	461.00	KATHERINE PLACE	6+69	12.52' RIGHT	A-10	S.D. 4.41
I-29	484.22	---	480.38	JOSEPHINE WALK	0+34	12' RIGHT	A-5 W/DEFLECTORS	S.D. 4.40 & S.D. 4.83
I-30	484.22	---	478.90	JOSEPHINE WALK	0+34	12' LEFT	A-5 W/DEFLECTORS	S.D. 4.01 & S.D. 4.83
I-31	497.75	---	493.50	------	---	N 529581.302 E 831758.301	D	S.D. 4.11
I-32	478.83	472.72	472.47	FREDERICK ROAD (MD. RTE. 144)	15+91	26' LEFT	COS 15	M.D.-374.61
I-33	481.20	476.63	476.38	FREDERICK ROAD (MD. RTE. 144)	14+14	26' LEFT	COG 15	M.D.-374.31
I-34	484.85	---	478.51	FREDERICK ROAD (MD. RTE. 144)	13+9	26' LEFT	COG 15	M.D.-374.31
M-1	492.36	487.71	487.46	SAINT CHARLES PLACE	1+21	15' RIGHT	STD. M.H.	G-5.01
M-2	496.90	492.50	492.25	JOSEPHINE WALK	5+71	15' RIGHT	STD. M.H.	G-5.01
M-3	491.98	480.71	480.46	TERRA MARIA WAY	6+92	20' LEFT	STD. M.H.	G-5.01
M-4	496.48	483.13	482.88	TERRA MARIA WAY	8+92	15' LEFT	STD. M.H.	G-5.01
M-5	497.90	486.29	486.04	SAINT CHARLES PLACE	15+16	17' LEFT	STD. M.H.	G-5.01
M-6	498.00	487.56 / 487.44	487.19	------	---	N 529714.536 E 831585.083	STD. M.H.	G-5.01
M-7	496.48	492.52	492.27	------	---	N 529593.486 E 831675.872	STD. M.H.	G-5.01
M-8	466.23	460.72 / 460.17	459.92	KATHERINE PLACE	6+69	℄ OF KATHERINE PL.	STD. M.H.	G-5.01
M-9	466.51	460.68	460.43	KATHERINE PLACE	6+95	℄ OF KATHERINE PL.	STD. M.H.	G-5.01
M-10	476.51	470.49	470.24	KATHERINE PLACE	10+48	℄ OF KATHERINE PL.	STD. M.H.	G-5.01
M-11	477.20	471.84	471.59	KATHERINE PLACE	10+92	7' LEFT	STD. M.H.	G-5.01
M-12	483.75	480.24 / 478.76	478.51	JOSEPHINE WALK	0+34	℄ OF JOSEPHINE WALK	STD. M.H.	G-5.01
M-13	487.30	482.11	481.86	JOSEPHINE WALK	1+66	℄ OF JOSEPHINE WALK	STD M.H.	G-501
M-14	492.10	483.53	483.28	JOSEPHINE WALK	2+84	℄ OF JOSEPHINE WALK	STD M.H.	G-501
M-17	463.50	458.45	456.44	------	---	N 529075.182 E 832176.107	STD. M.H.	G-5.01
M-18	463.50	459.08	458.83	------	---	N 529086.289 E 832129.765	STD. M.H.	G-5.01
M-19	456.80	452.16	451.91	------	---	N 529165.697 E 832504.717	STD. M.H.	G-5.01
M-20	461.00	454.07	453.82	------	---	N 529204.884 E 832599.250	STD. M.H.	G-5.01
S-1	480.55	478.80	478.51	------	---	N 529283.192 E 830870.384	CONC. END SECTION	S.D. 5.51
S-2	481.38	479.63	478.82	------	---	N 529105.637 E 830920.104	CONC. END SECTION	S.D. 5.51
S-3	480.80	478.48	478.39	------	---	N 529410.405 E 831152.050	CONC. END SECTION	S.D. 5.51
S-8	458.06	456.00	456.00	------	---	N 529094.250 E 832205.157	CONC. END SECTION	S.D. 5.51
S-9	454.78	451.78	451.74	------	---	N 529186.381 E 832187.362	CONC. END SECTION	S.D. 5.51
E-1	---	---	436.41	------	---	[illegible]	CONC. H/D WALL	SEE DETAIL SHEET 12



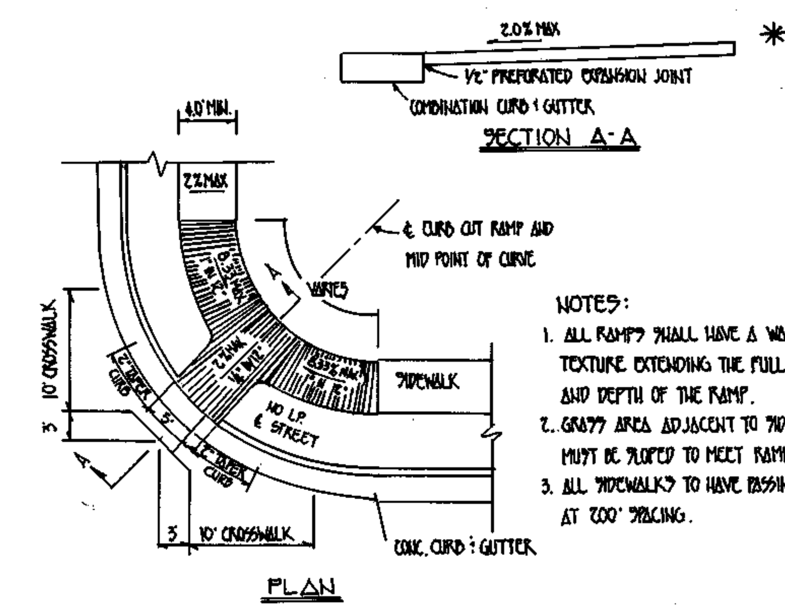
RIP RAP CHANNEL DETAIL
NO SCALE

RIP-RAP CHANNEL DESIGN DATA

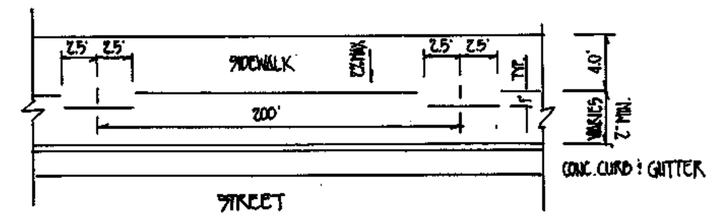
STRUCTURE	AREA	WETTED PERIMETER	R	$R^{2/3}$	S	$S^{1/2}$	B	D	N	V	Q	RIP-RAP SIZE D_{50}	D_{MAX}	BLANKET THICKNESS
S-8	10.745	11.403	0.9423	0.9610	0.005	0.0707	5.5'	1.32'	0.035	10.61 fps	31.25 cfs	9"	14"	20"

CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

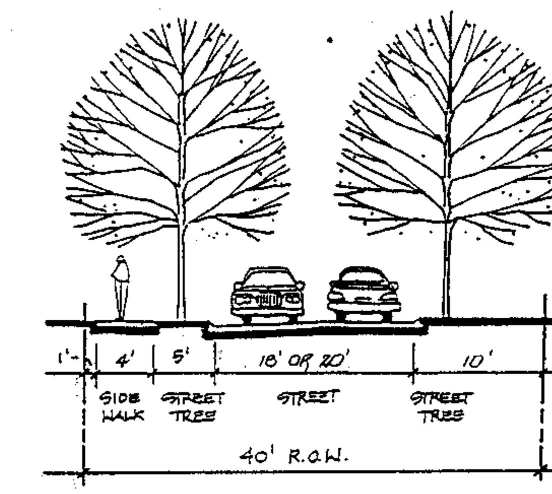
1. The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional shall hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
4. Stone for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogenous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.



NOTES:
1. ALL RAMPS SHALL HAVE A WARNING TEXTURE EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP.
2. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.
3. ALL SIDEWALKS TO HAVE PASSING AREA AT 200' SPACING.



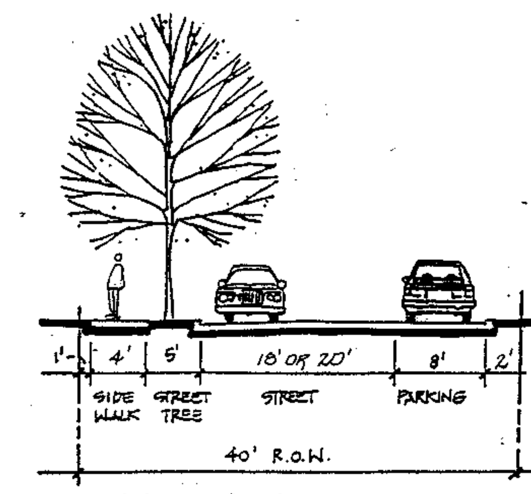
SIDEWALK WITH PASSING AREA



Typical Street Section
40' R.O.W.

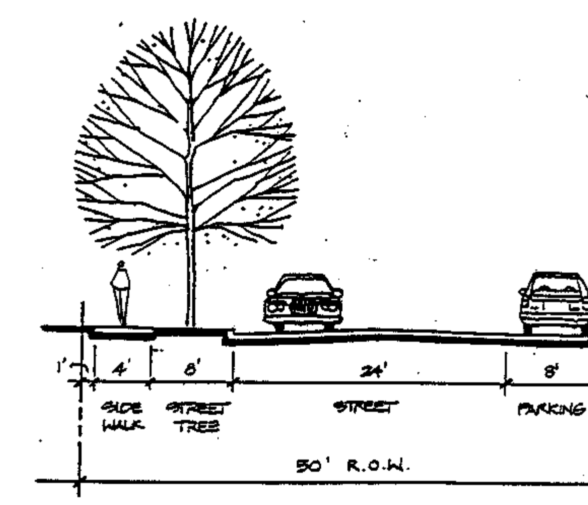
STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
ST. CHARLES PLACE	20'	15+05 to 15+31	30 M.P.H.
* TERRA MARIA WAY	18'	7+81.44 to 9+79.77	30 M.P.H.
ST. CHARLES PLACE	20'	16+41 to 20+98.76	30 M.P.H.

* EAST OF ST. CHARLES PLACE



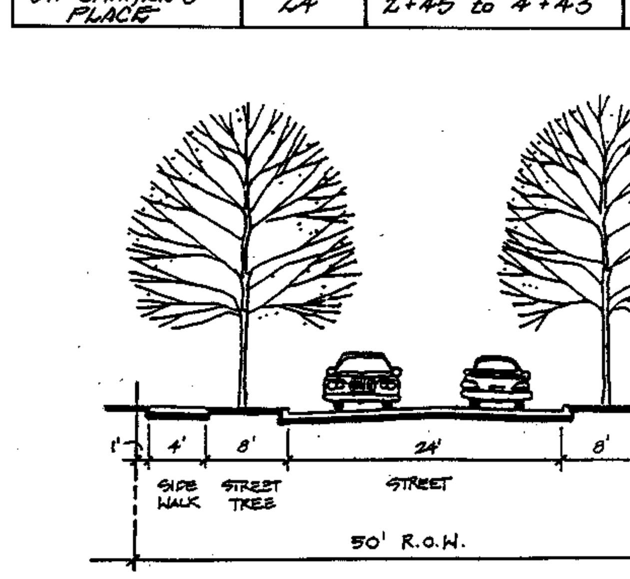
Typical Street Section
40' R.O.W. with Off-Street Parking

STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
GROTTO WALK	20'	0+00 to 10+22.74	30 M.P.H.
ST. CHARLES PLACE	20'	15+31 to 16+41	30 M.P.H.



Typical Street Section
50' R.O.W. with Off-Street Parking

STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
KATHERINE PLACE	24'	11+26 to 13+02	30 M.P.H.
TERRA MARIA WAY	24'	2+97 to 4+95	30 M.P.H.
ST. CHARLES PLACE	24'	2+45 to 4+43	30 M.P.H.



Typical Street Section
50' R.O.W.

STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
KATHERINE PLACE	24'	0+00 to 11+26	30 M.P.H.
JOSEPHINE WALK	24'	0+00 to 4+56.16	30 M.P.H.
* TERRA MARIA WAY	24'	0+00 to 2+97	30 M.P.H.
** TERRA MARIA WAY	24'	4+95 to 9+25.11	30 M.P.H.
ST. CHARLES PLACE	24'	0+00 to 2+45	30 M.P.H.
ST. CHARLES PLACE	24'	4+43 to 14+14	30 M.P.H.
*** TERRA MARIA WAY	24'	0+00 to 7+18.61	30 M.P.H.
KATHERINE PLACE	24'	13+02 to 13+45.57	30 M.P.H.

* STA. 0+00 @ MD. ROUTE 144
** WEST OF ST. CHARLES PLACE
*** STA. 0+00 @ ST. CHARLES PLACE

NOTE: P.G.L. IS ℄ ROAD

TYPICAL STREET SECTIONS
(NO SCALE)

STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS
I - 36	497.12	——	492.79	SAINT CHARLES PLACE	3+77	N 529492.025 E 831622.489	'D' INLET	S.D. 4.11
I - 37	492.33	——	488.25	SAINT CHARLES PLACE	3+36	N 528931.780 E 830888.154	'D' INLET	S.D. 4.11
I - 38	497.99	——	493.91	——	——	N 529336.162 E 831621.350	'D' INLET	S.D. 4.11
I - 39	500.33	——	494.88	——	——	N 529526.258 E 831815.545	'D' INLET	S.D. 4.11
I - 40	475.47	——	470.89	——	——	N 529077.548 E 831771.151	'D' INLET	S.D. 4.11
I - 41	470.13	465.55	465.30	——	——	N 529154.388 E 831876.129	'D' INLET	S.D. 4.11
I - 42	466.33	462.05	460.23	——	——	N 529221.734 E 831998.867	'D' INLET	S.D. 4.11
S - 10	457.66	456.06	456.00	——	——	N 529189.149 E 832136.050	CONC. END SECTION	S.D. 5.51
S - 12	457.66	456.06	456.00			N 529093 E 832236	CONC. END SEC.	S.D. 5.51
M - 21	497.40	492.0 / 484.88	484.63	SAINT CHARLES PLACE	3+77	N 529496.159 E 831543.597	STD. MH	G 5.01
M - 22	491.17	486.63 / 486.63	486.38	SAINT CHARLES PLACE	2+03	N 529059.976 E 830767.887	STD. MH	G 5.01
M - 23	494.45	487.59	487.34	SAINT CHARLES PLACE	2+03	N 528945.608 E 830755.866	STD. MH	G 5.01
M - 24	497.65	492.66	492.41	——	——	N 529395.089 E 831662.471	STD. MH	G 5.01
M - 25	498.60	493.53	493.28	——	——	N 529384.173 E 831659.278	STD. MH	G 5.01
M - 26	498.50	494.29	494.04	——	——	N 529529.346 E 831756.626	STD. MH	G 5.01
I- 43	464.33	——	461.75			N 529051 E 832242	'D' INLET	S.D. 4.11
I- 44	466.83	——	462.0			N 528814 E 832168	'D' INLET	S.D. 4.11
I- 45	461.33	457.0	456.5			N 528998 E 832053	'D' INLET	S.D. 4.11

APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH JA — DATE 10/31/95

NO.	REVISIONS	DATE
2	ADDED I43-I45 & S12 TO STRUCTURE SCHEDULE, CHANGED TOP ELEVATION OF I27, I28 & M-8 - M-11.	3/2/98
1	ADDED SIDEWALK DETAIL AND ADDED NEW M.H. TO STRUCTURE SCHEDULE	3/6/96

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

OWNER

PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

STRUCTURE SCHEDULE, RIP-RAP OUTLET DETAIL & TYPICAL ROAD SECTIONS

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP : 16 PARCEL : 114
DATE: JANUARY 17, 1995
SHEET 9 OF 30

F95-99

1768

60026052.DWG

APPROVED

DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

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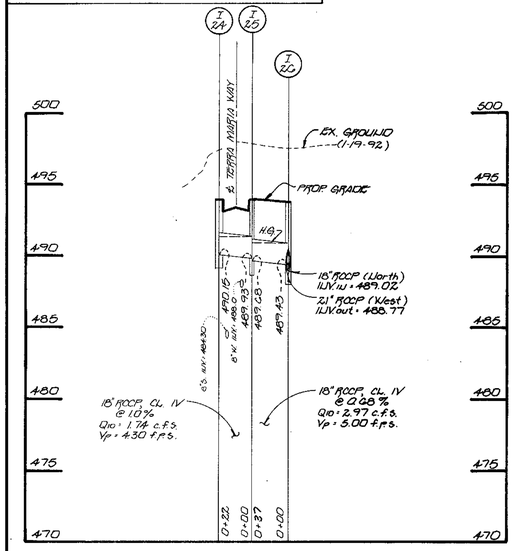
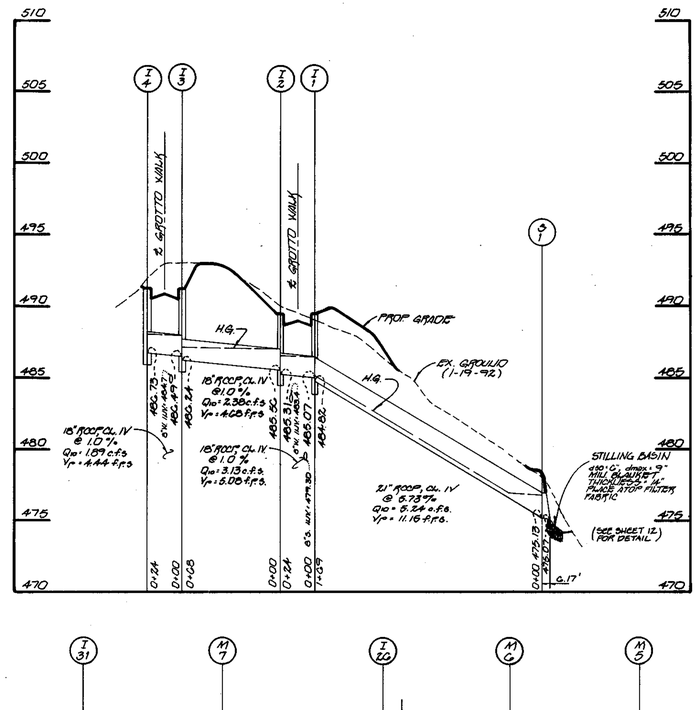
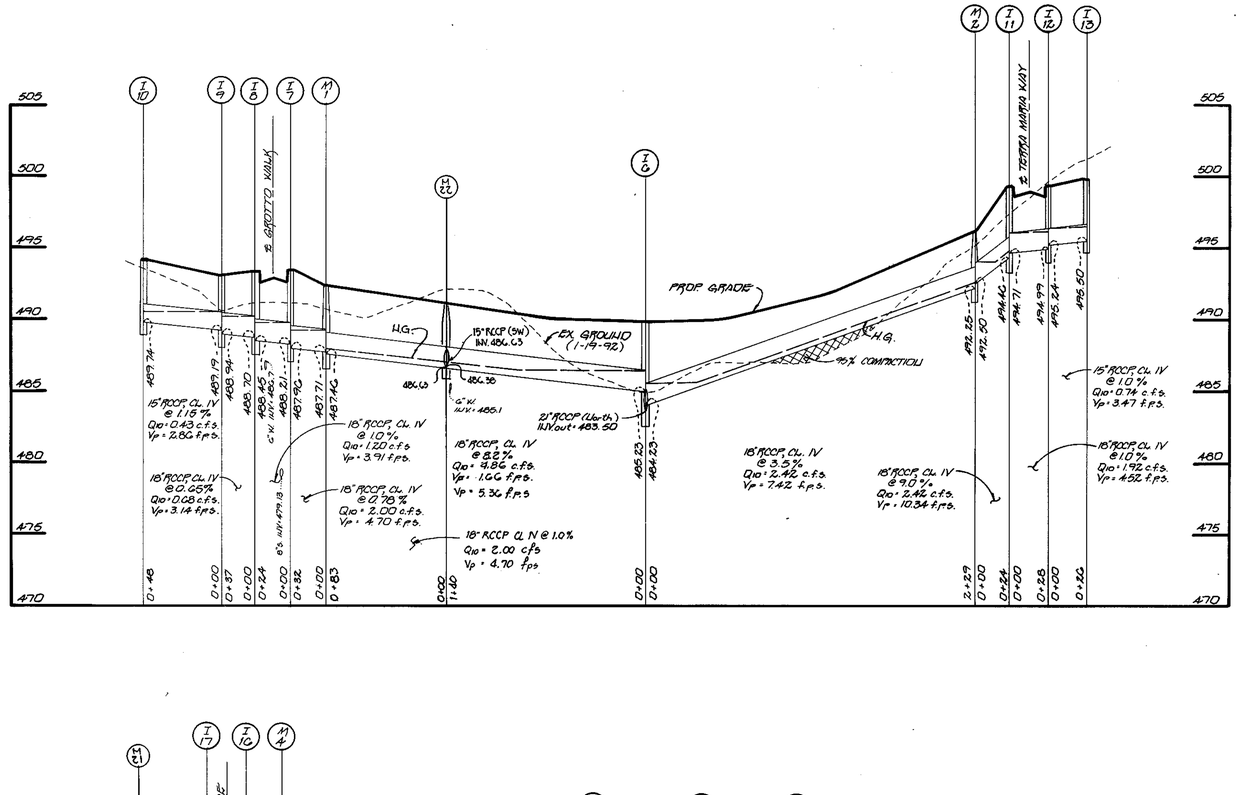
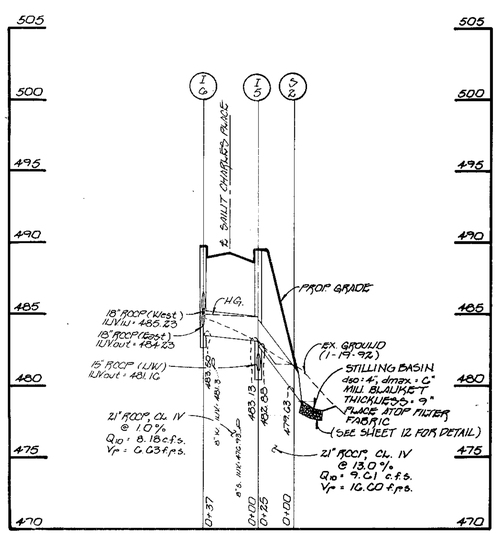
DEPARTMENT OF PLANNING AND ZONING

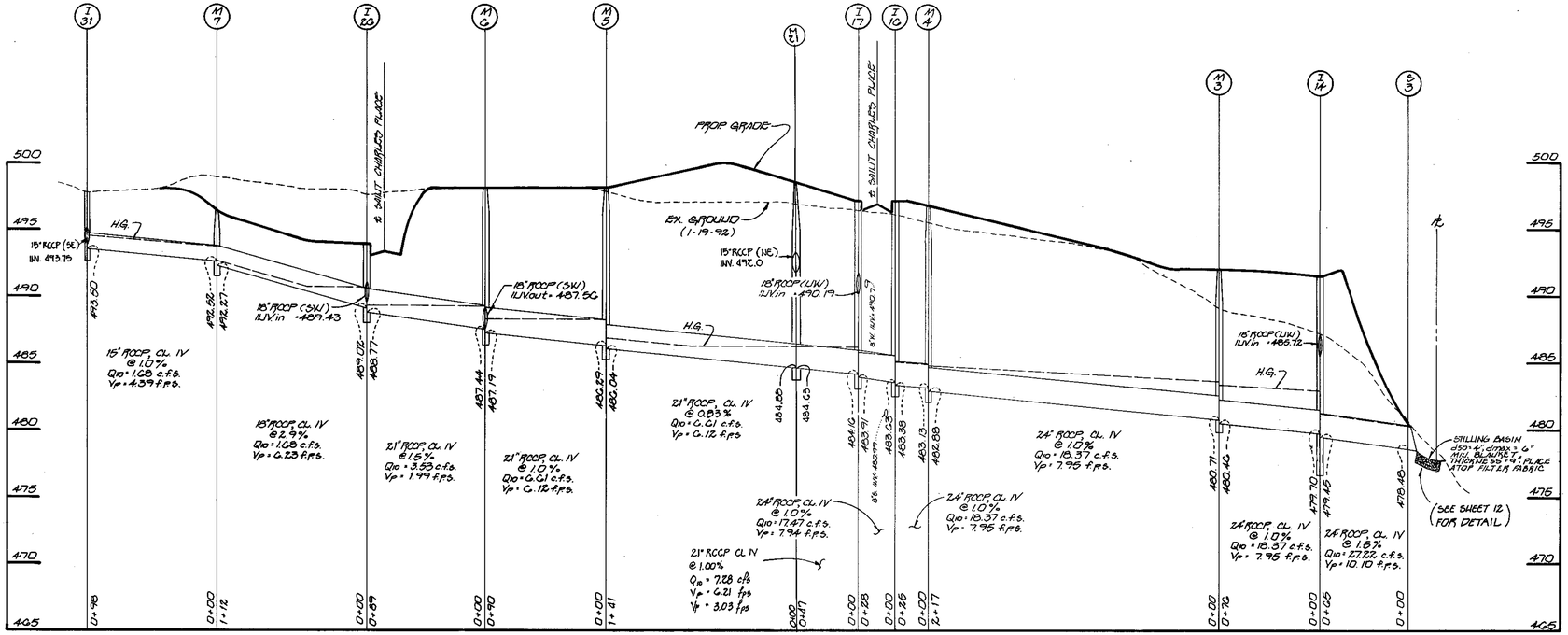
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95











PROFILES

SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'

NOTE:
1) Vp DENOTES PARTIAL FLOW VELOCITY
2) Vf DENOTES FULL FLOW VELOCITY
3) STORM DRAIN BEDDING TYPE CLASS 'C' TO BE USED.

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CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

OWNER

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ELLICOTT CITY, MD. 21042

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COLUMBIA, MARYLAND 21044

STATE OF MARYLAND — CHARLES T. CROVO — No. 15704 — PROFESSIONAL ENGINEER

STORM DRAIN PROFILES

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP : 16 PARCEL : 114
DATE: JANUARY 12, 1995
SHEET 10 OF 30

1768

F95-99

APPROVED

DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

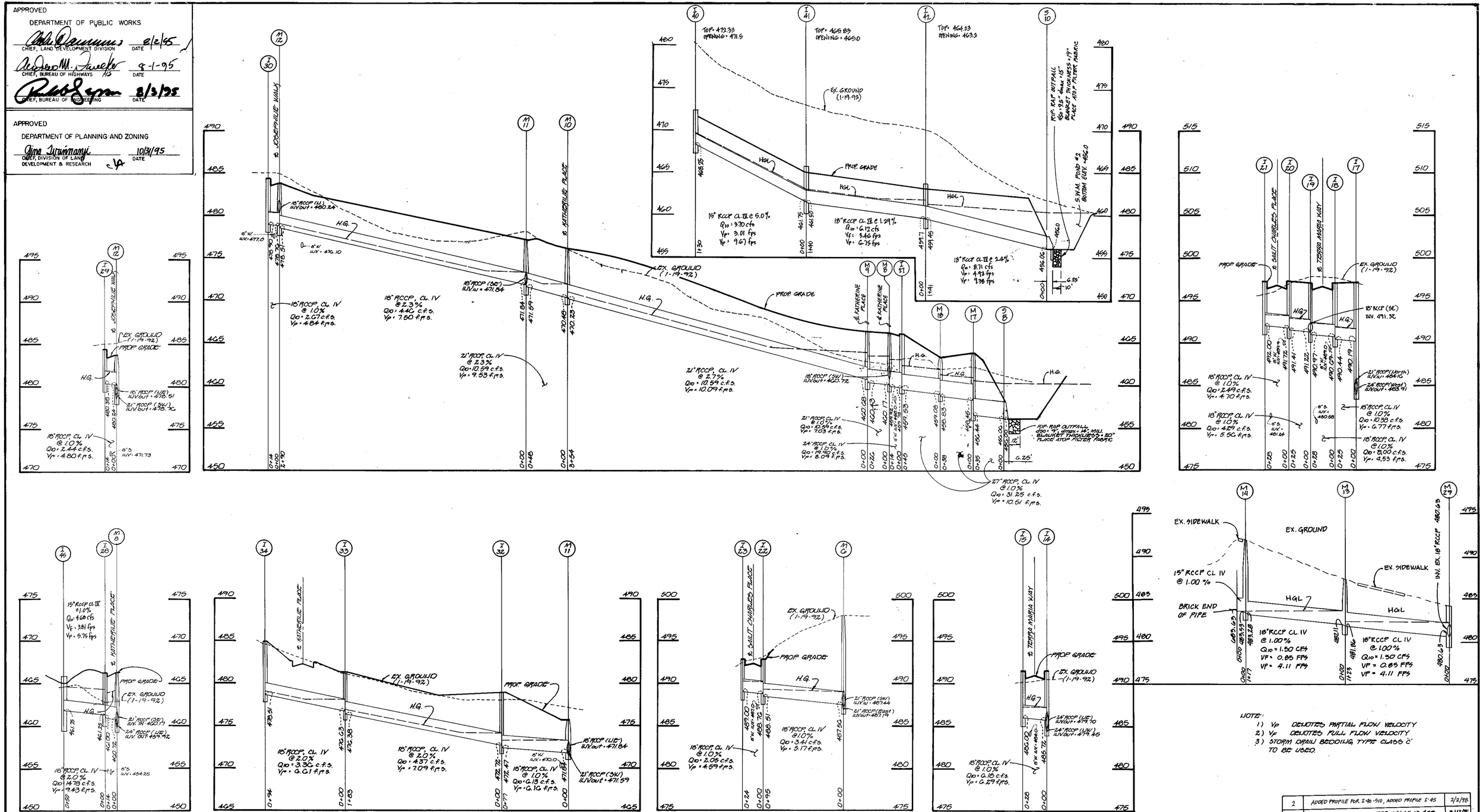
CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95



NOTE:
1) Vp DENOTES PARTIAL FLOW VELOCITY
2) Vf DENOTES FULL FLOW VELOCITY
3) STORM DRAIN BEDDING, TYPE CLASS 'C' TO BE USED.

NO.	REVISIONS	DATE
2	ADDED PROFILE FOR I-40-510, ADDED PROFILE I-45	2/2/98
1	ADDED PROFILES FOR MH 14, 13, & 29	9/12/96

PROFILES

SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'

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DEVELOPER

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COLUMBIA, MARYLAND 21044

STATE OF MARYLAND — CHARLES T. COLLINS — No. 3004 — PROFESSIONAL ENGINEER

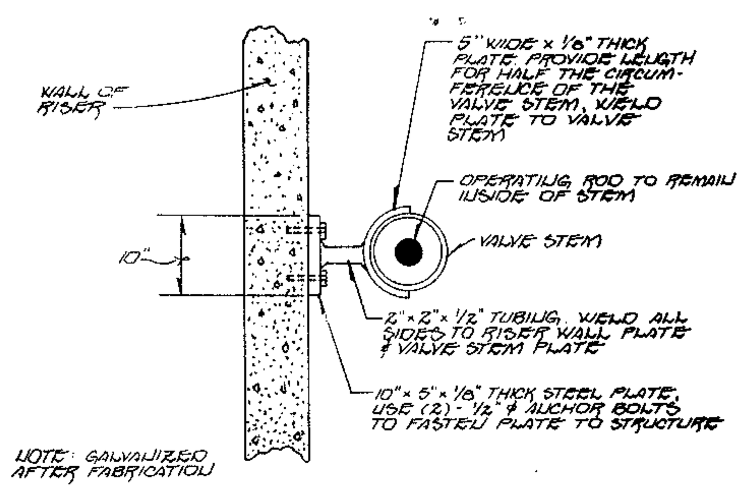
STORM DRAIN PROFILES

TERRA MARIA

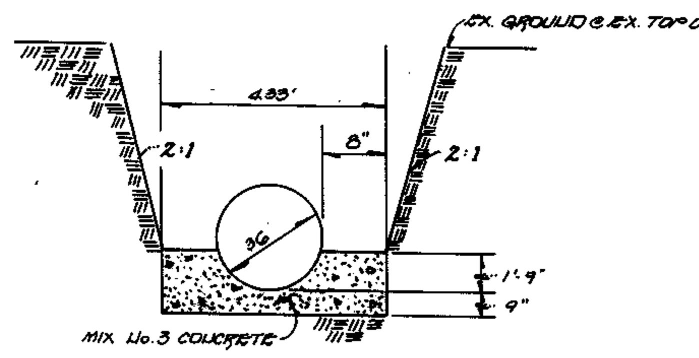
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL: 114
DATE: JANUARY 12, 1996
SHEET 11 OF 30

1768

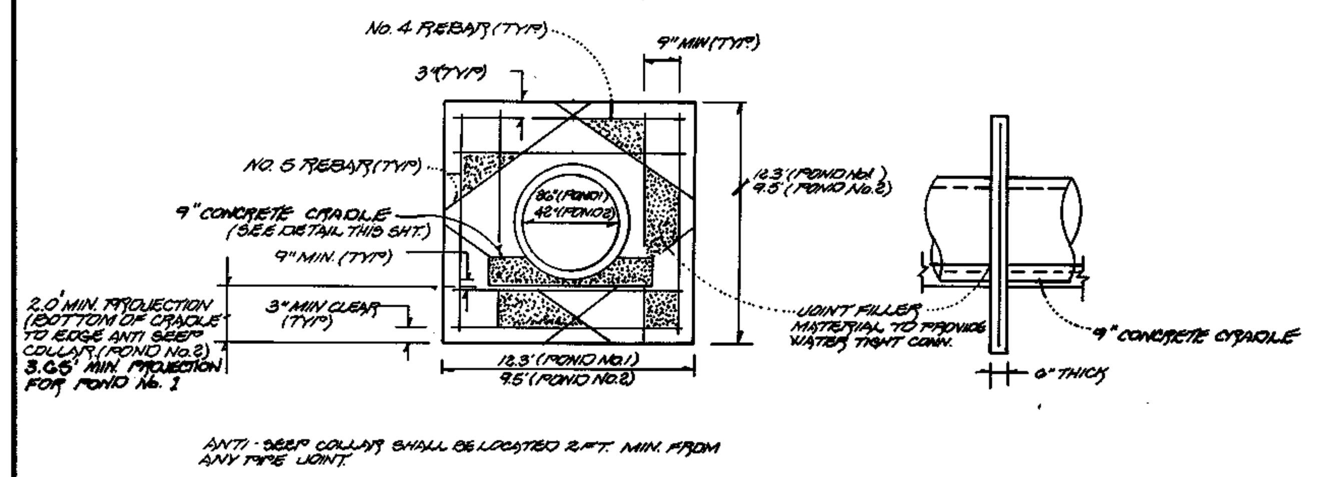
F95-99



VALVE STEM SUPPORT DETAIL
(NO SCALE)

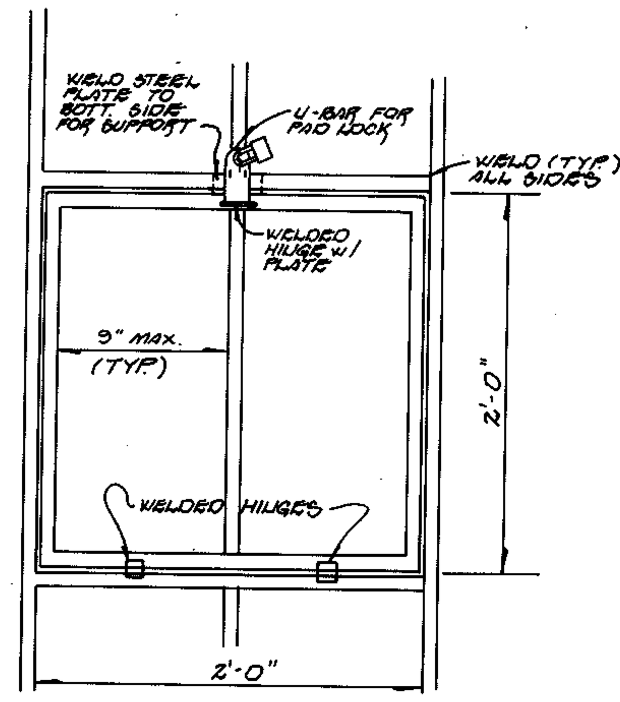


CONCRETE CRADLE DETAIL
(NO SCALE)

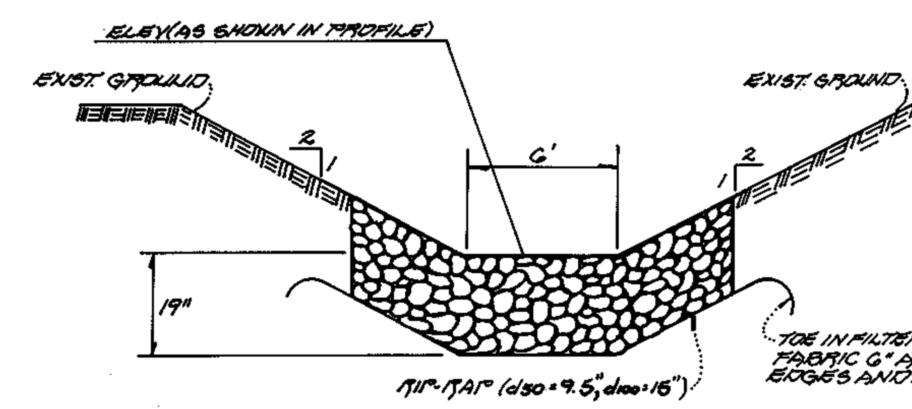


ANTI-SEEP COLLAR SHALL BE LOCATED 2 FT. MIN. FROM ANY PIPE JOINT.

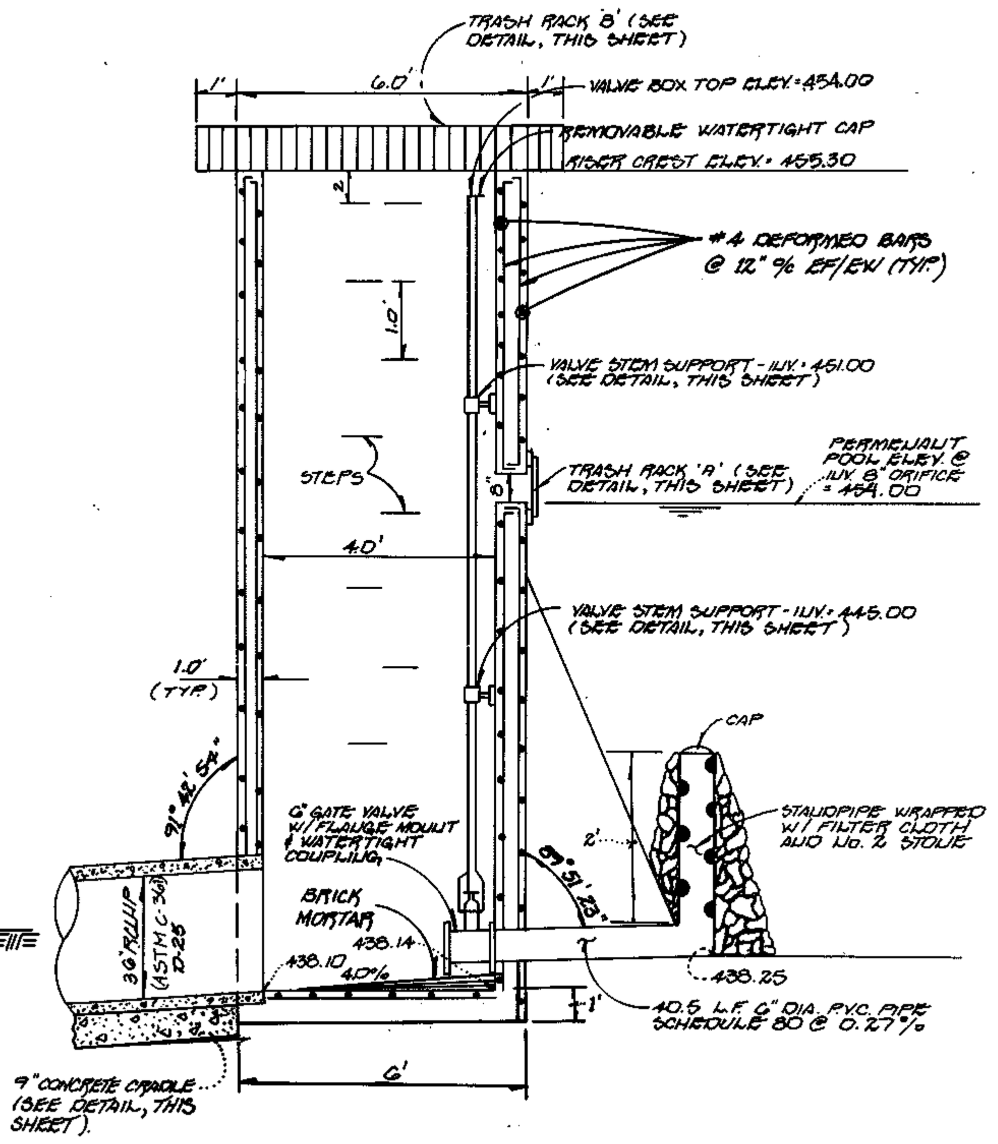
ANTI-SEEP COLLAR DETAIL
NOT TO SCALE



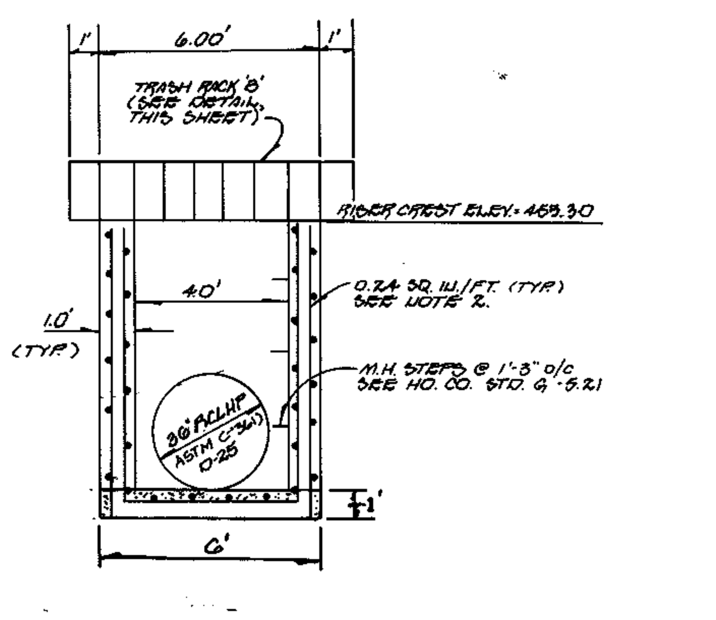
OPENING DETAIL
(NO SCALE)



MSHA. CL.1 RIP-RAP CHANNEL DETAIL
NOT TO SCALE



SECTION 'A-A'
(NO SCALE)



SECTION 'B-B'
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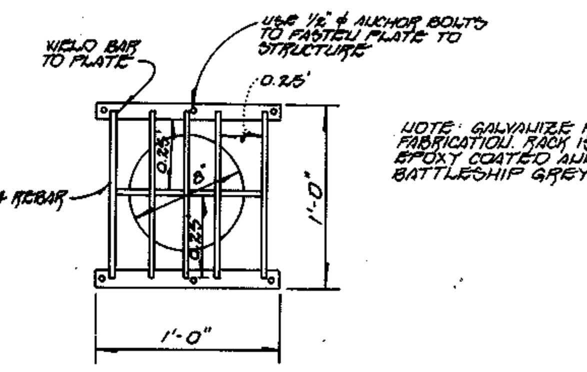
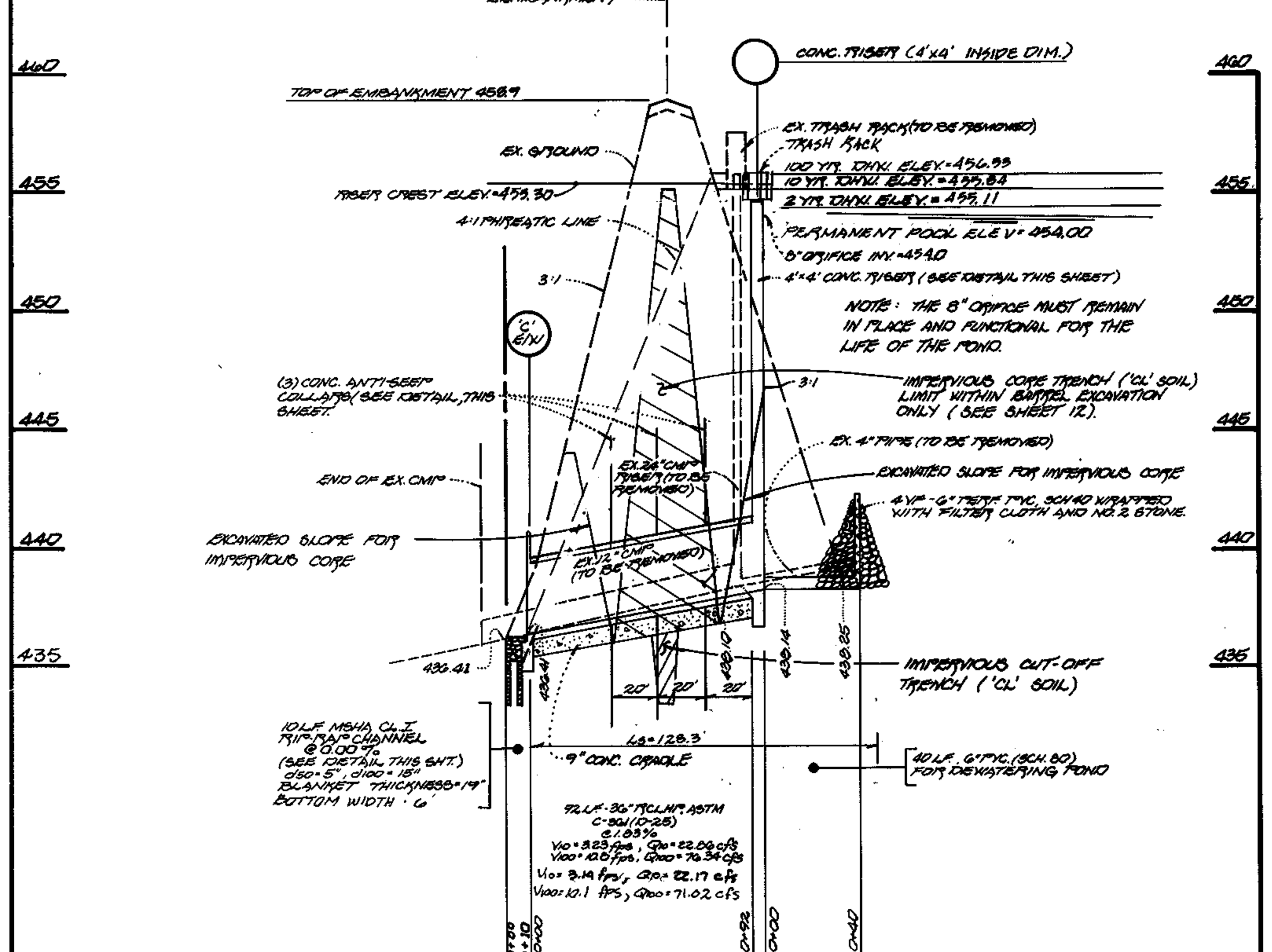
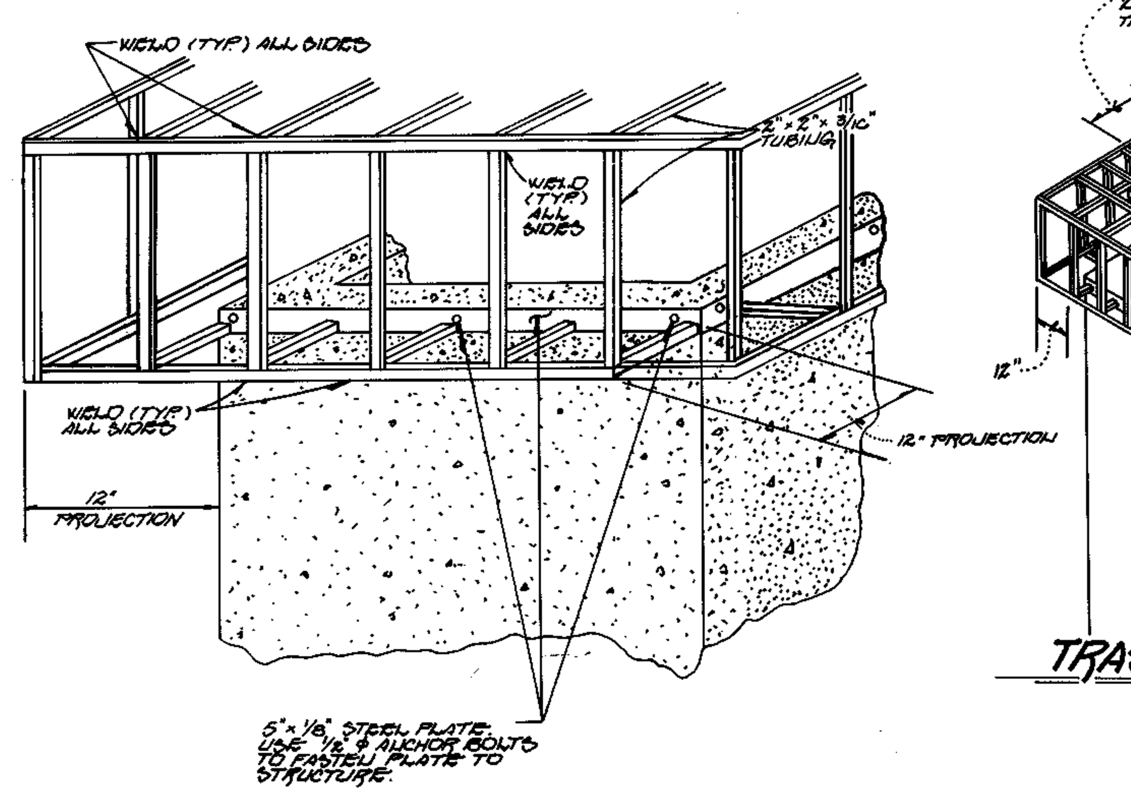


TRASH RACK 'A'
(NO SCALE)



POND No.1 - PRINCIPAL SPILLWAY PROFILE
SCALE: 1" = 50' HOR. 1" = 5' VER.

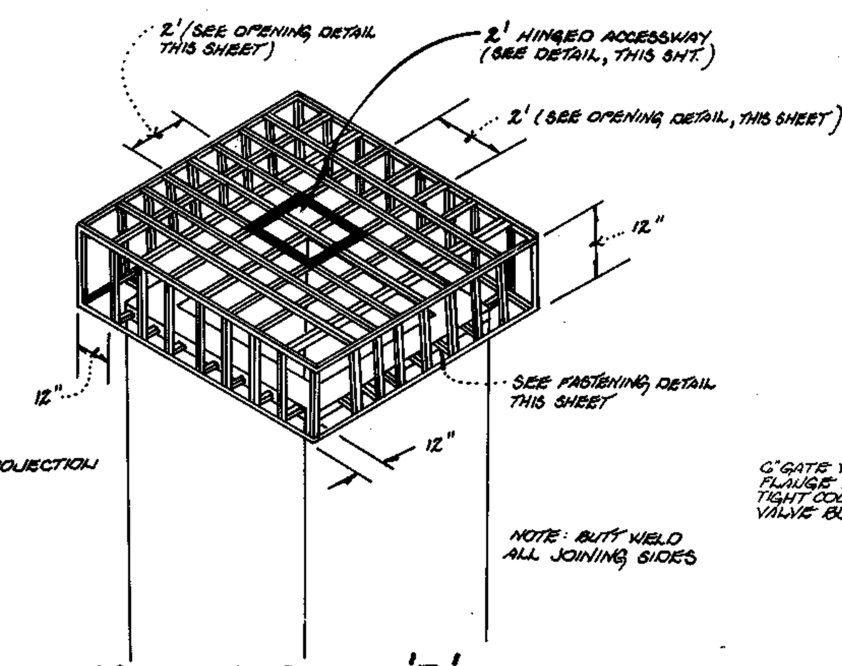
(PRIVATE POND)



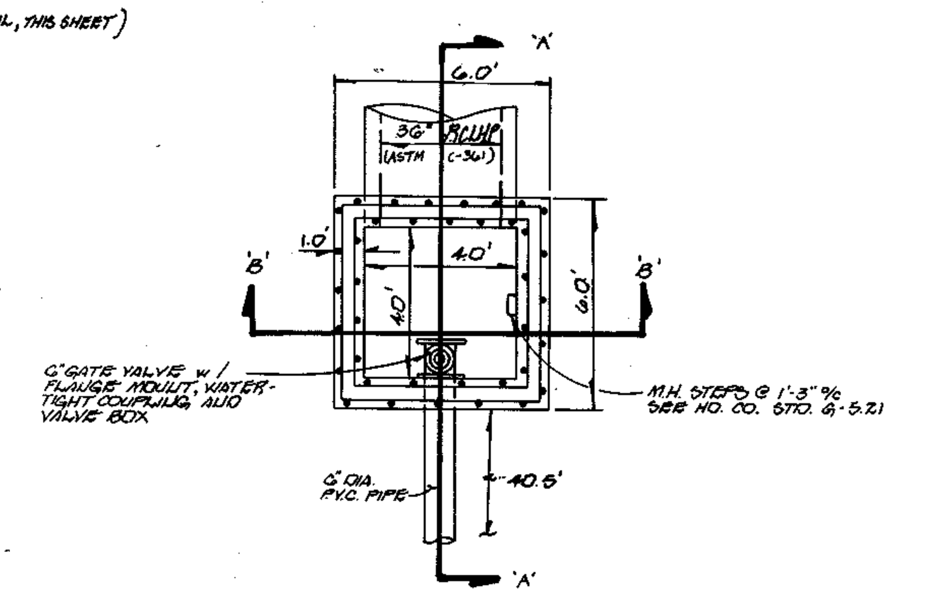
FASTENING DETAIL
(NO SCALE)

NOTE: CONTRACTOR SHALL:

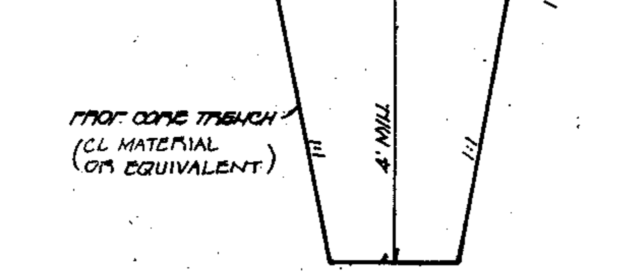
1) FIELD MEASURE THE STRUCTURE DIMENSIONS FOR EXACT FITTING OF TRASH RACK.
2) GALVANIZE ENTIRE TRASH RACK AND PAINT BATTLESHIP GREY AFTER FABRICATION.
3) ALL NUTS AND BOLTS SHALL BE GALVANIZED.



TRASH RACK 'B'
(NO SCALE)



RISER DETAIL
(NO SCALE)



CORE TRENCH DETAIL
NOT TO SCALE

STORM WATER MANAGEMENT POND CERTIFICATION AND APPROVAL

DEVELOPER'S CERTIFICATE

"I HEREBY 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".

SIGNATURE OF DEVELOPER — DATE 1/23/95

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION".

SIGNATURE OF ENGINEER — DATE 1/23/95

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

USDA - NATURAL RESOURCES CONSERVATION SERVICE — Date 10/12/95

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 10/12/95

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE 10/3/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 9/2/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

POND CONSTRUCTION CERTIFICATION

I CERTIFY THAT UPON COMPLETION OF CONSTRUCTION I WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE (O&M) OF THE SMALL POND. O&M WILL BE PERFORMED BY ME IN ACCORDANCE WITH THE SPECIFICATIONS ON THIS PLAN. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS OF THE POND BY SITE AND LOCAL AGENCIES.

SIGNATURE OF DEVELOPER — DATE 1/23/95

OPERATION AND MAINTENANCE SPECIFICATIONS

I HEREBY CERTIFY THAT I WILL OPERATE AND MAINTAIN THE COMPLETED POND IN ACCORDANCE WITH THE FOLLOWING:

1. PERIODIC INSPECTIONS OF THE FACILITY WILL BE MADE TO IDENTIFY POTENTIAL PROBLEMS THAT MAY AFFECT ITS SAFETY. THESE INSPECTIONS WILL BE MADE AFTER PERIODS OF HEAVY RAINFALL AND AT LEAST TWICE ANNUALLY. INSPECTION REPORTS SHALL BE KEPT UNTIL THE NEXT SUBSEQUENT INSPECTION. INSPECTIONS ITEMS TO BE LOOKED AT INCLUDE
   a) SPILLWAY AND OUTLET WORKS;
   b) RIP-RAP;
   c) VEGETATIVE COVER;
   d) CRACKS IN THE FILL;
   e) SLOPE FAILURES; AND
   f) SEEPAGE AND OTHER SIGNS OF DISTRESS.
2. PROBLEMS IDENTIFIED DURING INSPECTIONS WILL BE PROMPTLY CORRECTED. MAJOR PROBLEMS WILL BE BROUGHT TO THE ATTENTION OF THE SOIL CONSERVATION DISTRICT AND THE DAM SAFETY DIVISION OF THE MARYLAND WATER RESOURCES ADMINISTRATION. AS A VERY MINIMUM, GRASSY VEGETATION WILL BE MAINTAINED IN A DENSE AND HEALTHY STATE, AND WOODY VEGETATION WILL NOT BE PERMITTED TO GROW ON THE EMBANKMENT.

NOTES
1. CONCRETE SHALL CONFORM TO THE MARYLAND D.O.T. S.H.A. STANDARD SPEC'S FOR CONSTRUCTION AND MATERIALS, 1982 MIX NO. 6, EXCEPT THAT TY.III CEMENT AND A.S.T.M. C 33 NO. 8 COARSE AGG. SHALL BE USED.
2. WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A-185, LAP SPLICES SHALL BE A MIN. OF 1½ TRANSVERSE WIRE SPACES. WIRE CAGES SHALL BE TACK WELDED TO PRODUCE A RIGID UNIT.
3. ALL PIPES CONNECTING TO RISER SHALL HAVE WATER-TIGHT CONNECTIONS.
4. RISER SHALL BE CONSTRUCTED IN ONE PIECE.

OWNER

PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA LLC. INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

NO.	REVISIONS	DATE
1	CHANGED ELEV. ADDED TRASH RACK AND Q. INFORMATION	3/13/96

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042

STATE OF MARYLAND — CHARLES A. CROVO, SR. — PROFESSIONAL ENGINEER

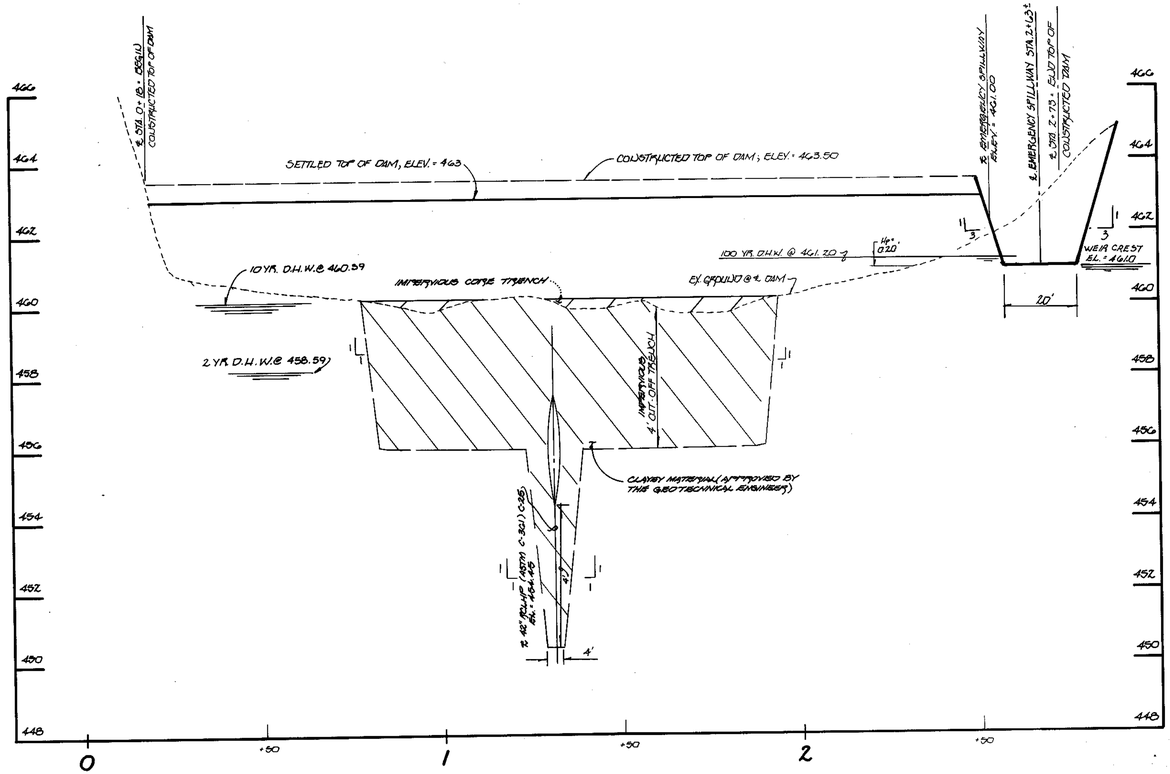
POND No. 1
STORM WATER MANAGEMENT
DETAILS & PROFILES

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP 16 — PARCEL 114
DATE: JANUARY 12, 1995
SHEET 13 OF 30

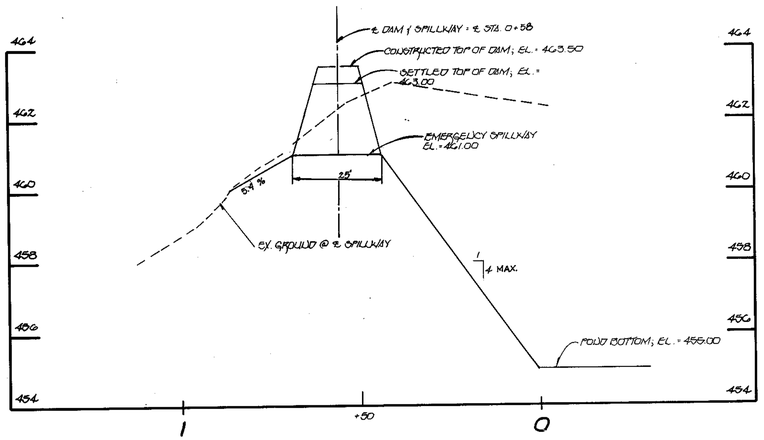
1768

F95-99



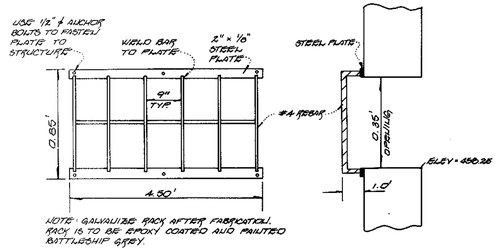
S.W.M. POND #2 - TOP OF DAM PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'



S.W.M. POND #2 - EMERGENCY SPILLWAY PROFILE

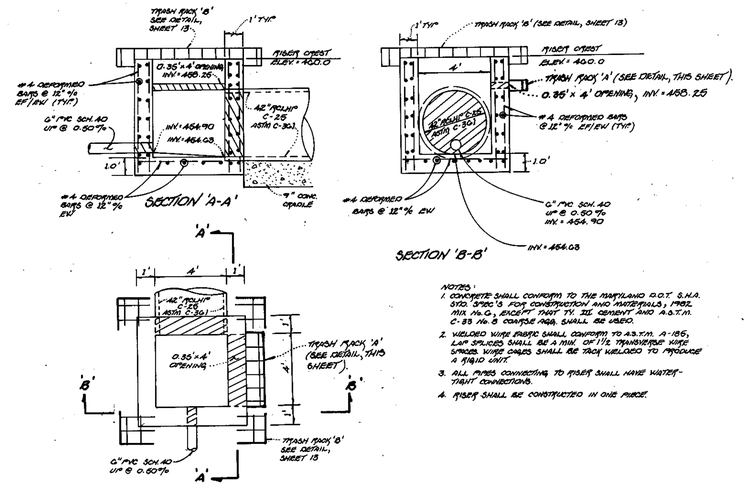
SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'



NOTE: GALVANIZE RACK AFTER FABRICATION. RACK IS TO BE EPOXY COATED AND PAINTED BATTLESHIP GREY.

TRASH RACK 'A'

(NO SCALE)



S.W.M. POND No. 2 - RISER DETAIL

SCALE: 1" = 4'

STORM WATER MANAGEMENT POND CERTIFICATION AND APPROVAL

DEVELOPER'S CERTIFICATE

"I HEREBY 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".

SIGNATURE OF DEVELOPER — DATE 1/23/95

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION".

SIGNATURE OF ENGINEER — DATE 1/23/95

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

USDA - NATURAL RESOURCES CONSERVATION SERVICE — DATE 10/12/95

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 10/19/95

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — JA — DATE 10/31/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 8/2/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 8/2/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — HS — DATE 8-1-95

POND CONSTRUCTION CERTIFICATION

I CERTIFY THAT UPON COMPLETION OF CONSTRUCTION I WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE (O&M) OF THE SMALL POND. O&M WILL BE PERFORMED BY ME IN ACCORDANCE WITH THE SPECIFICATIONS ON THIS PLAN. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS OF THE POND BY HSCD AND LOCAL AGENCIES.

SIGNATURE OF DEVELOPER — DATE 1/23/95

POND NO. 2
STORM WATER MANAGEMENT DETAILS & PROFILES

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL: 114
DATE: JANUARY 12, 1995
SHEET 14 OF 30

OWNER

PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

STATE OF MARYLAND — CHARLES TERRENCE BLIND — PROFESSIONAL ENGINEER

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
1972 BALTIMORE NATIONAL PIKE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
(301) 461-2855

1768

F 95-99

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — 1/23/95 DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".

SIGNATURE OF DEVELOPER — 1/23/95 DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
USDA-NATURAL RESOURCES CONSERVATION SERVICE — 10/12/95 DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED: HOWARD SOIL CONSERVATION DIST. — 10/12/95 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — 10/3/95 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — 8/3/95 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — 8-1-95 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 8/2/95 DATE

NOTE: THE EXISTING S.W.M. AND W.Q. POND No. 1 SHALL BE DEWATERED AND DREDGED TO THE BOTTOM ELEVATIONS SET ON PROFILE, SHEET 13 of 30.

SYMBOL	SOIL DESCRIPTION
ChA	CHESTER SILT LOAM, 0-3% SLOPES
ChB2	CHESTER SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
ChC2	CHESTER SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
Cs	COMUS SILT LOAM
GlA	GLENELG LOAM, 0-3% SLOPES
GlB2	GLENELG LOAM, 3-8% SLOPES, MODERATELY ERODED
GlC2	GLENELG LOAM, 8-15% SLOPES, MODERATELY ERODED
GnA	GLENVILLE SILT LOAM, 0-3% SLOPES
MgB2	MANOR GRAVELLY LOAM, 3-8% SLOPES, MODERATELY ERODED
MgC2	MANOR GRAVELLY LOAM, 8-15% SLOPES, MODERATELY ERODED
MlD2	MANOR LOAM, 15-25% SLOPES, MODERATELY ERODED
MlE	MANOR LOAM, 25-45% SLOPES

RIPRAP OUTLET SEDIMENT TRAP NO. 1

DRAINAGE = 1.397 AC. ±
STORAGE REQUIRED = 2514 c.f.
STORAGE PROVIDED = 3520 c.f.
WEIR LENGTH = 4.5'
CLEANOUT ELEV. = 485.75
TOP OF EMBANKMENT = 487.0

HAZARD CLASS: TYPE 'A'
S.W.M. TYPE: RETENTION
WATER QUALITY: RETENTION

S.W.M. POND No. 1

DRAINAGE AREA TO FACILITY: 0.03941 SQ. MILES

STORM	2 YEAR	10 YEAR	100 YEAR
ALLOWABLE RELEASE RATE	2.6 c.f.s.	23.8 c.f.s.	92.0 c.f.s.
COMPUTED INFLOW TO FACILITY	28.9 c.f.s.	70.5 c.f.s.	121.9 c.f.s.
DISCHARGE FROM FACILITY	1.8 c.f.s.	18.2 c.f.s.	60.3 c.f.s.
STORAGE ELEVATION	451.54	452.72	453.82
STORAGE VOLUME	1.08 Ac./Ft.	2.20 Ac./Ft.	3.28 Ac./Ft.

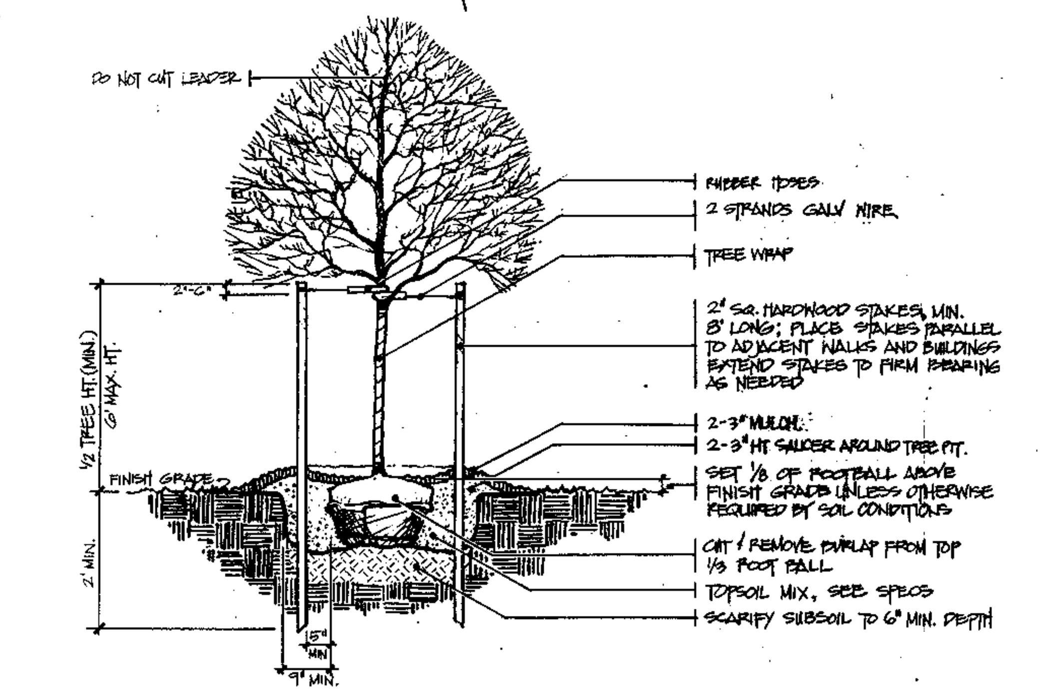
NOTE:
ALL REMOVAL OF WOODY VEGETATION FROM THE UPSTREAM AND DOWNSTREAM SIDE OF THE EMBANKMENT WILL BE DONE IN ACCORDANCE WITH THE SOIL CONSERVATION SERVICE TECHNICAL NOTE No. 705 FOR REMOVING TREES FROM DAMS DATED APRIL 1, 1981.

PLAN
SCALE: 1" = 50'

NOTE: THE DISTURBED AREAS WITHIN THE FOREST CONSERVATION EASEMENTS ARE RE-FORESTATION AREAS

PLANT LIST

Qty	Key	Botanical/Common Name	Size	Remarks	
Shade Trees					
74	M	Acer rubrum 'Red Sunset' Red Sunset Maple	13-15' ht. 2 1/2-3" cal.	B&B	Full
7	A	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	13-15' ht. 2 1/2-3" cal.	B&B	Full
92	P	Quercus phellos Willow Oak	12-14' ht. 2 1/2-3" cal.	B&B	Full
71	R	Quercus rubra Red Oak	13-15' ht. 2 1/2-3" cal.	B&B	Full
41	L	Tilia cordata 'Greenspire' Greenspire Linden	13-15' ht. 2 1/2-3" cal.	B&B	Full



DECIDUOUS TREE PLANTING (UP TO 3" CALIPER)

GENERAL PLANTING NOTES

1. All plant material shall conform to the sizes given in the plant list and shall be nursery grown in accordance with the "American Standard for Nursery Stock", latest edition.
2. All planting shall be in accordance with standard American Association of Nurserymen procedures and specifications.
3. Contractor and Owner's Representative shall verify the correct location of all underground utilities in the field prior to installation of any plant materials.
4. Deciduous tree staking is optional based on plants exposure to high winds or if steep slopes are present. (Movement is necessary to strengthen the trunk of the planted tree).
5. Plant material location to be flagged in the field and approved by the Landscape Architect or Owner's Representative prior to planting.
6. All plant beds and planting areas to be mulched to a depth of 3" unless otherwise indicated.
7. All disturbed lawn areas shall be fine graded and seeded.
8. All plant beds shall be contained with a spaded edge unless noted otherwise.
9. Obtain approval from Landscape Architect or Owner's Representative before making any substitutions or changes.
10. Quantities shown on plant list are for the Contractor's convenience only and are not guaranteed to be accurate. In the event of a discrepancy between quantities shown on the plan and quantities shown on the plant list, the quantities on the plan shall apply.

SCHEDULE FOR RETROFITTING STORMWATER MANAGEMENT POND NO. 1

1) EXISTING STORMWATER MANAGEMENT IS TO BE PUMPED DRY FOR WORK TO PROCEED.
2) DAM IS TO BE EXCAVATED AT THIS TIME.
3) REMOVE EXISTING RISER, BARREL AND SPILLWAY.
4) CONSTRUCT NEW RISER, BARREL, SPILLWAY AND ANTI-SEEP COLLARS.
5) BACK FILL POND WITH PROPER MATERIAL AND APPROPRIATE COMPACTION (SHALL BE IN ACCORDANCE WITH MD. 378 SPECIFICATIONS)
6) EXCAVATE TOP OF POND TO NEW ELEVATION (456.0)
7) ALL DISTURBED AREA WILL BE SEEDED AND MULCH APPLIED FOR AREA'S NEEDED.

LEGEND
—X— TREE PROTECTION
[ ] DENOTES INLET PROTECTION

NO.	REVISIONS	DATE
1	CHANGED ELEV. ON 2YR., 10YR., AND 100YR. D.H.W	3/13/96

STATE OF MARYLAND — CHARLES J. CROVO, SR. — No. 13294 — PROFESSIONAL ENGINEER

OWNER
PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER
TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

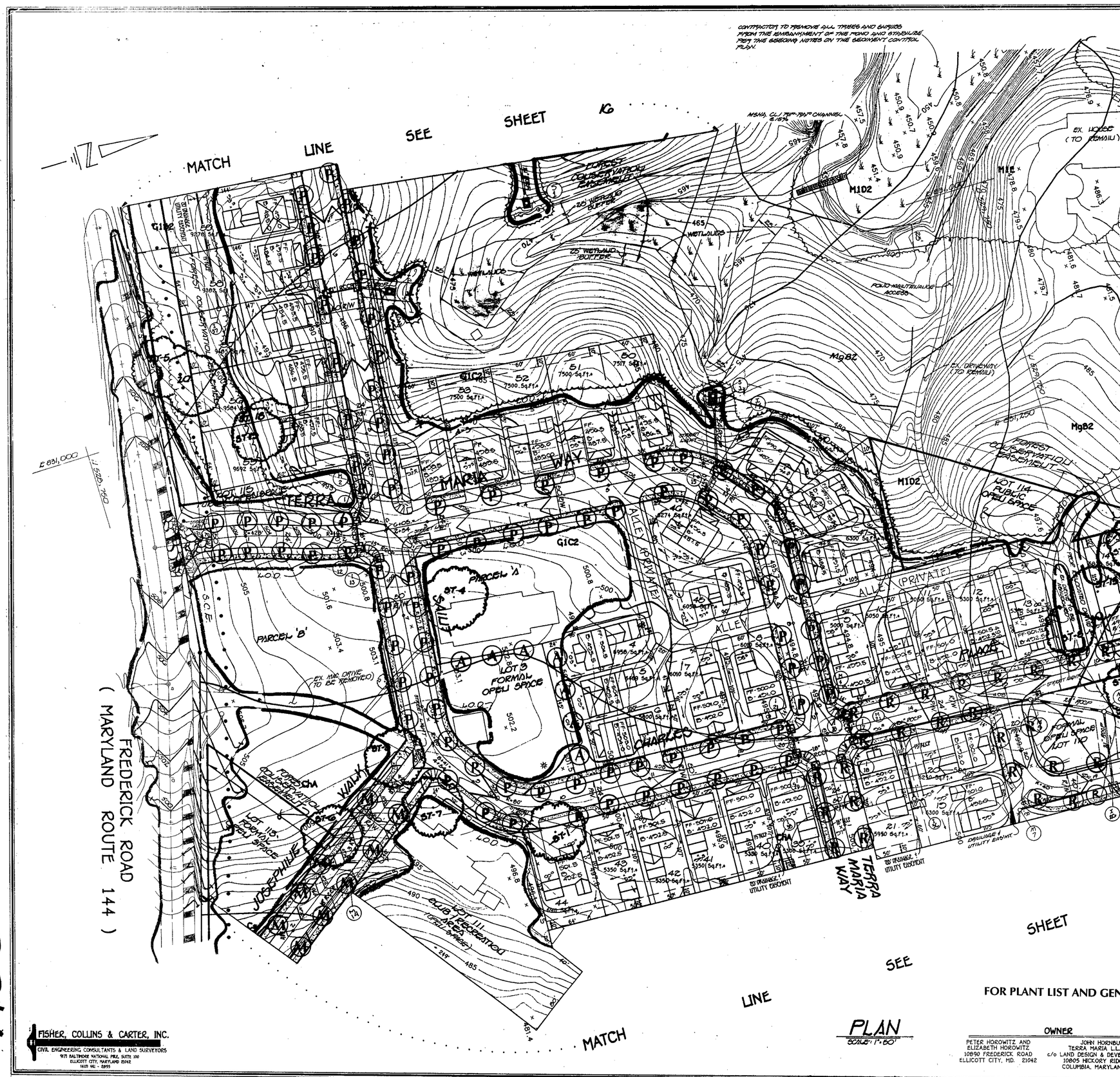
STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL: 114
DATE: JANUARY 12, 1995
SHEET 16 OF 30

F95-99

1768



NOTE: THE DISTURBED AREAS WITHIN THE FOREST CONSERVATION EASEMENTS ARE RE-FORESTATION AREAS

LEGEND

TREE PROTECTION AT L.O.D

DENOTES INLET PROTECTION

FOR PLANT LIST AND GENERAL NOTES SEE SHEET 16

PLAN
SCALE: 1"=50'

NO.	REVISIONS	DATE
2	ADDED M21, I-36, I-37 AND I-38	10-3-96
1	CHANGED GRADING ON JOSEPHINE WALK AND ADDED 18" RCCP FOR MH 14	3/13/96

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP : 16 PARCEL : 114
DATE: JANUARY 12, 1995
SHEET 17 OF 30

OWNER

PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

STATE OF MARYLAND
CHARLES T. CROWD, JR.
REGISTERED PROFESSIONAL ENGINEER

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461-2855

1768

F95-99

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DATE 1/23/95

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".

SIGNATURE OF DEVELOPER — DATE 1/23/95

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA - NATURAL RESOURCES CONSERVATION SERVICE — DATE 10/12/95

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

APPROVED: HOWARD SOIL CONSERVATION DIST. — DATE 10/12/95

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE 10/31/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

NOTE: THE DISTURBED AREAS WITHIN THE FOREST CONSERVATION EASEMENTS ARE RE-FORESTATION AREAS

SEE SHEET 17 FOR MATCH LINE

FREDERICK ROAD (MARYLAND ROUTE 144)

ROUTE 1 U.S.

FOREST CONSERVATION EASEMENT

ALLEY (PRIVATE)

KATHERINE PLACE

FORMAL OPEN SPACE LOT 107

OPEN SPACE LOT 108

TERRA MARIA PLACE

SEDIMENT CONTROL FACILITY No. 3 FOREBAY

DRAINAGE AREA = 17.68 Ac.±
VOLUME REQUIRED = 1,303 Cu. Yds.
VOLUME PROVIDED = 3,744 Cu. Yds.
CLEAN-OUT ELEV. = 456.67
∴ THIS FACILITY (S.W.M. POND No. 2) WILL FUNCTION AS A TEMP. SEDIMENT CONTROL FACILITY

STORAGE REQ'D. = 2,701 C.F.
STORAGE PROVIDED = 2,900 C.F.
BOTT. ELEV. = 456.00
SIDE SLOPES = 2:1
TOP CREST ELEV. = 459.25
STORAGE DEPTH = 1.5'

LOT Y
PROPERTY OF
CHARLES F. COOK
AND
LAUREL E. COOK

2 YEAR O.H.W. ELEV. 456.59
10 YEAR O.H.W. ELEV. 460.39
100 YEAR O.H.W. ELEV. 461.20

FOR PLANT LIST AND GENERAL NOTES SEE SHEET 16

LEGEND

AREA NOT TO BE GRADED DURING INITAL CONSTRUCTION. BERM WILL BE PLACED UPON CONVERSION OF PERMANENT S.W.M. FACILITY.

TREE PROTECTION AT L.O.D.

[ ] DENOTES INLET PROTECTION

PLAN

SCALE: 1" = 50'

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DATE 1/3/95

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".

SIGNATURE OF DEVELOPER — DATE 1/3/95

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS — DATE 10/12/95
USDA-NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED: HOWARD SOIL CONSERVATION DIST. — DATE 10/12/95

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH — DATE 10/31/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

PUBLIC STORM WATER MANAGEMENT POND No. 2

S.W.M. TYPE : DETENTION
WATER QUALITY : EXTENDED DETENTION
HAZARD CLASS : TYPE 'A'
DRAINAGE AREA : 17.68 Ac.±

	2 YEAR	10 YEAR	100 YEAR
ALLOWABLE RELEASE	6.8 C.F.S.	24.2 C.F.S.	OUTFLOW AMOUNT
INFLOW TO FACILITY	23.6 C.F.S.	95.4 C.F.S.	193.7 C.F.S.
ACTUAL RELEASE	8.1 C.F.S.	23.3 C.F.S.	84.8 C.F.S.
ELEV. @ DISCHARGE	456.59	460.39	461.20
STORAGE ELEV.	0.78 Ac./Ft.	1.50 Ac./Ft.	1.91 Ac./Ft.

POND INVERT ELEV. = 455.00
INVERT OF 3.5" DIA. LOW FLOW = 455.00
CREST ELEV. OF 4' x 0.35 RISER OPENING = 458.25
RISER CREST ELEV. = 460.00
EMERGENCY SPILLWAY CREST ELEV. = 461.00
CONSTRUCTED TOP OF DAM ELEV. = 463.50

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP : 16 PARCEL : 114
DATE: JANUARY 12, 1995
SHEET 16 OF 30

F95-99

1768

NO	REVISIONS	DATE
2	ADDED 18"RCCP & 18"RCCP FOR S46-51½ & S45	2/3/96
1	ADDED 18"RCCP FOR MH 13	8/18/95

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

OWNER

PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

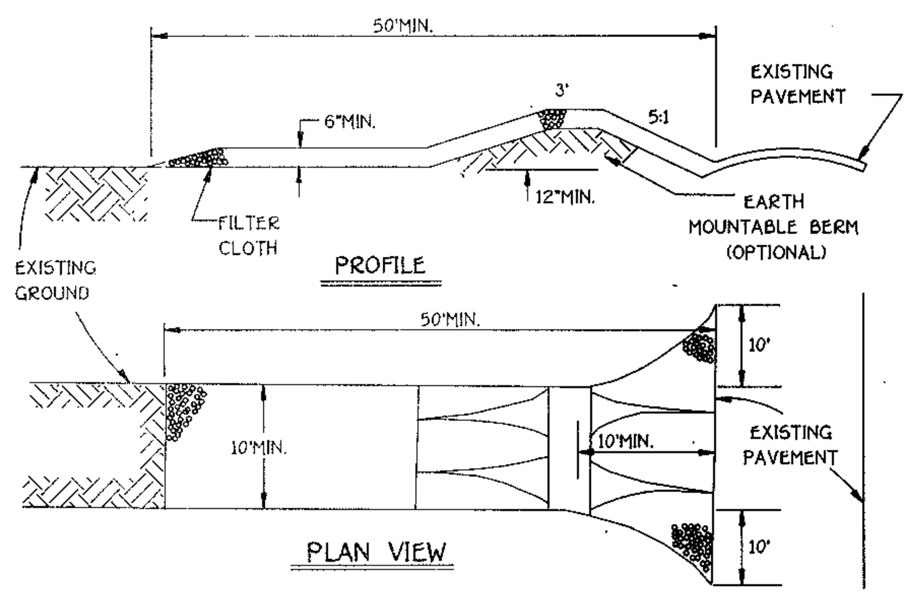
TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (992-2437).
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL GREATER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7) SITE ANALYSIS:

TOTAL AREA OF SITE	55.09	ACRES
AREA DISTURBED	29.63	ACRES
AREA TO BE ROOFED OR PAVED	12.83	ACRES
AREA TO BE VEGETATIVELY STABILIZED	16.80	ACRES
TOTAL CUT	35,000	CU.YDS.
TOTAL FILL	35,000	CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	------	CU.YDS.

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THE SIX (6) INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND /OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

SEEDBED PREPARATION:
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

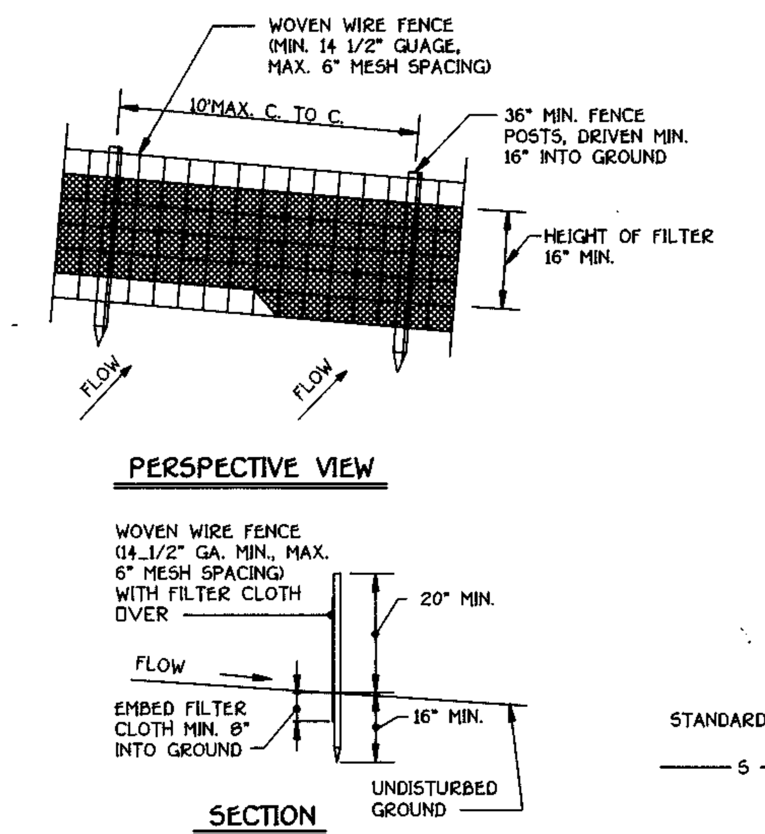
SOIL AMENDMENTS:
APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/ 1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC. INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 38-0-0 UREAFORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./ 1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

SEEDING:
FOR THE PRERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROJECT SITE BY: OPTION (1) - TWO 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 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDED.

MULCHING:
APPLY 1 1/2 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES 8 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

MAINTENANCE:
INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS/ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.



STANDARD SYMBOL

—— S —— S ——

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OF STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

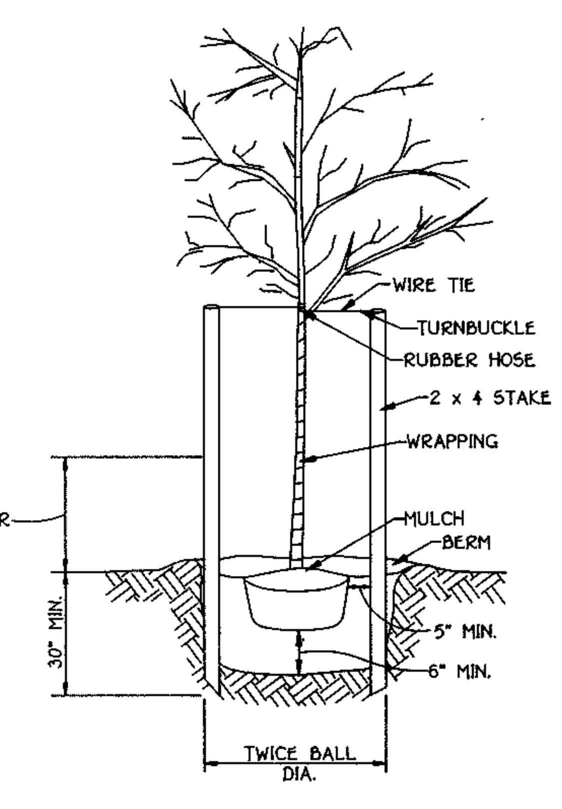
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14. GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T14 ON OR APPROVED EQUAL

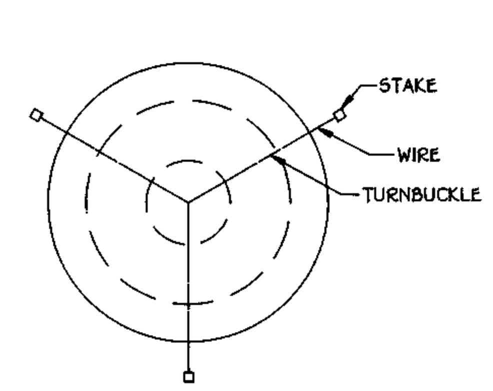
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE
NOT TO SCALE

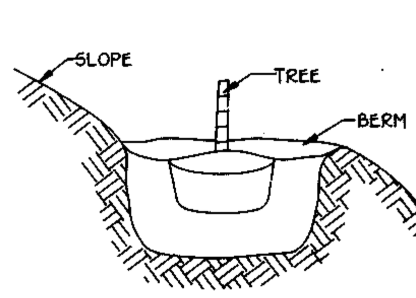


NOTE: REMOVE BURLAP FROM TOP 1/3 OF BALL

TREE PLANTING
NOT TO SCALE



STAKING DETAIL
NOT TO SCALE



GRADING FOR PLANTING ON SLOPES
NOT TO SCALE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

TEMPORARY SEEDING NOTES

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

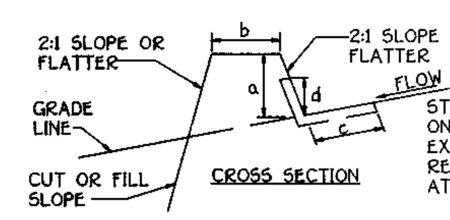
SEEDBED PREPARATION:
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS:
APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.)

SEEDING:
FOR THE PRERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1 1/2 BUSHEL PER ANNUAL RYE (3.2 LBS./1,000 SQ.FT.)FOR THE PERIOD MAY 1 THRU AUGUST 14. SEED WITH 3 LBS/ACRE OF WEEPING LOVEGRASS (.07 LBS/1000SQ.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./1,000 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./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

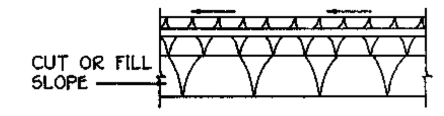
REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



STABILIZATION AS REQUIRED. ON STEEP SLOPES EXCAVATE TO PROVIDE REQUIRED FLOW WIDTH AT FLOW DEPTH

	DIKE A (5 ac. or less)	DIKE B (5-10 ac.)
a-DIKE HEIGHT	18"	36"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	8"	15"

POSITIVE DRAINAGE-GRADE SUFFICIENT TO DRAIN



STANDARD SYMBOL
A-2 B-3

CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

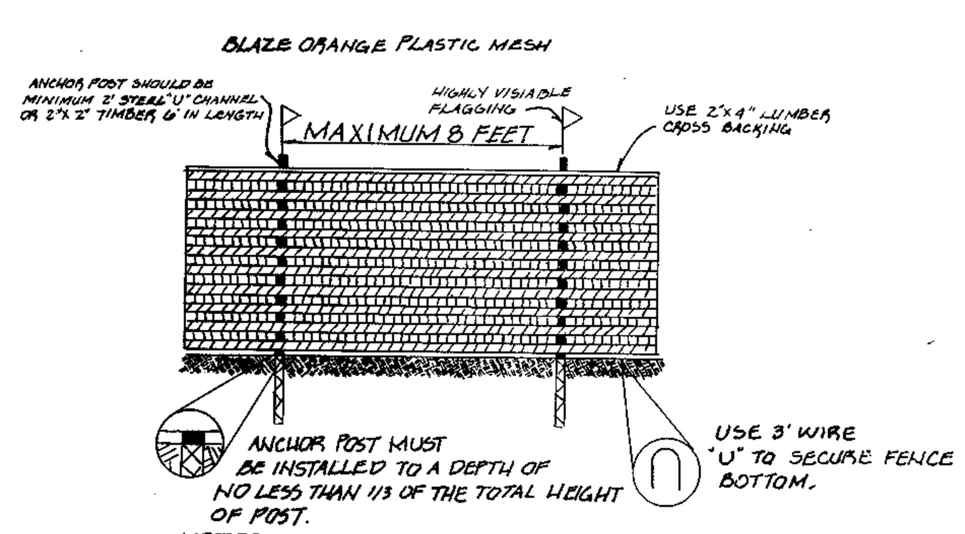
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4"-8"
4	8.1-20%	LINED RIP-RAP 4"-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE
NOT TO SCALE



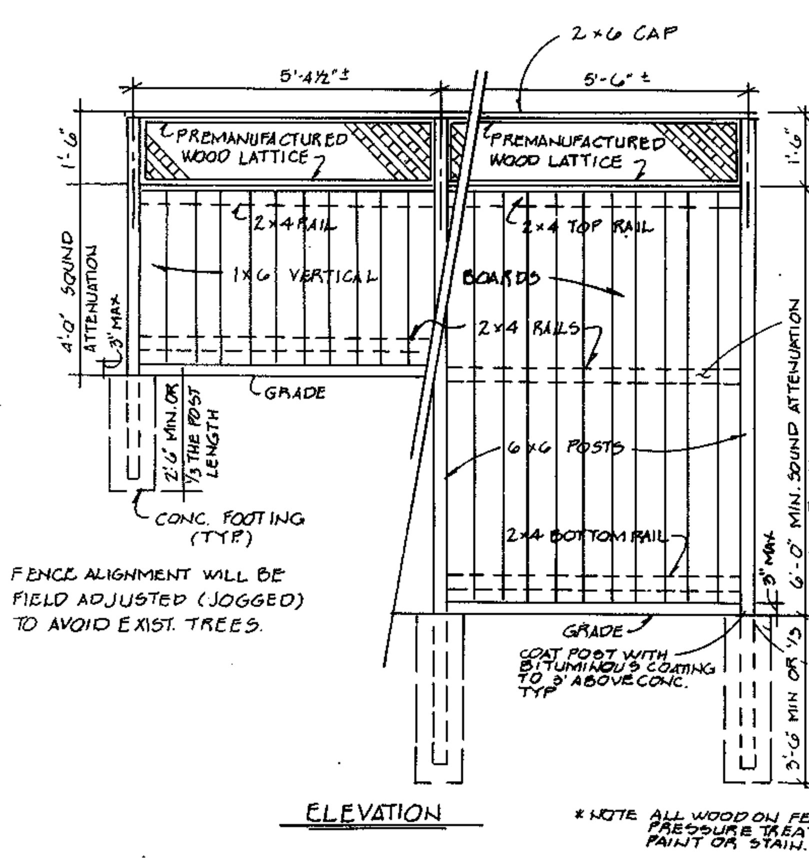
NOTES:
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DETAIL
NOT TO SCALE

OWNER		DEVELOPER
PETER HOROWITZ AND ELIZABETH HOROWITZ 10890 FREDERICK ROAD ELLICOTT CITY, MD. 21042	JOHN HORNBURG TERRA MARIA L.L.C., INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10805 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044	TERRA MARIA LLC, INC. c/o LAND DESIGN & DEVELOPMENT, INC. 10805 HICKORY RIDGE ROAD COLUMBIA, MARYLAND 21044

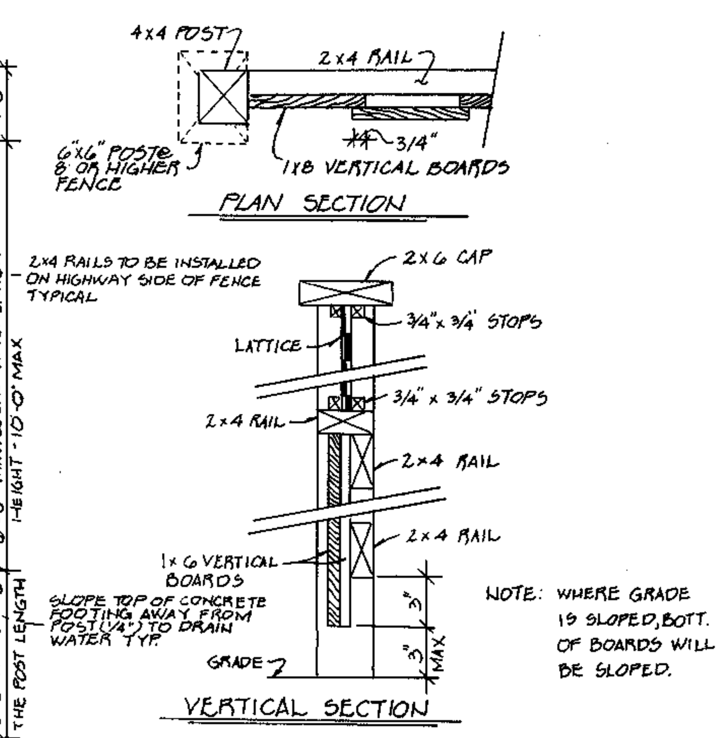
SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION 24 HOURS BEFORE STARTING WORK AT (410) 313-1850.
3. INSTALL TREE PROTECTION FENCE ON ENTIRE SITE.
4. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE, EARTH DIKES, TRAPS, AND STORMWATER MANAGEMENT POND NO. 1 AND 2. AS SHOWN ON THE PLANS.
5. CLEAR AND GRUB SITE TO LIMITS OF DISTURBANCE
6. GRADE SITE AND ROADS TO SUBGRADE
7. CONSTRUCT STORM DRAINS AS SHOWN ON PLANS AND INSTALL INLET PROTECTION.
8. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS.
9. REMOVE SEDIMENT FROM SEDIMENT CONTROL TRAP. THE STORMWATER MANAGEMENT POND ONCE THE CLEANOUT ELEVATION HAVE BEEN REACHED AND DRESS STONE CONSTRUCTION ENTRANCES AS REQUIRED.
10. CONSTRUCT ALL UTILITIES (SEWER MAINS, WATER MAINS).
11. INSTALL CURB AND GUTTER AND SUB-BASE ON ROADS.
12. REMOVE STONE CONSTRUCTION ENTRANCE. CLEAN BASE COURSE. APPLY TACK COAT AND LAY SURFACE COURSE.
13. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN a) 7 CALENDAR DAYS FOR PERIMETER SEDIMENT CONTROL STRUCTURES, SLOPES GREATER THAN 3:1; b) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
14. COMPLETE STABILIZATION OF ALL DISTURBED AREAS SHALL BE DONE PRIOR TO REMOVAL OF ALL SEDIMENT CONTROLS.
15. FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. OPEN UP THE PREVIOUSLY BLOCKED OFF STORM DRAIN SYSTEM FROM I-14 TO S-3, I-5 TO S-2 AND FROM M-16 TO S-1.
16. REMOVE ANY SEDIMENT ACCUMULATED IN S.W.M. POND NO. 2, RESHAPE THE POND. AS NECESSARY.
17. REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE DISTURBED AREAS WITH PERMANENT SEEDING, UPON APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR.
18. NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS FOR FINAL INSPECTION AT DURATION OF THE PROJECT.



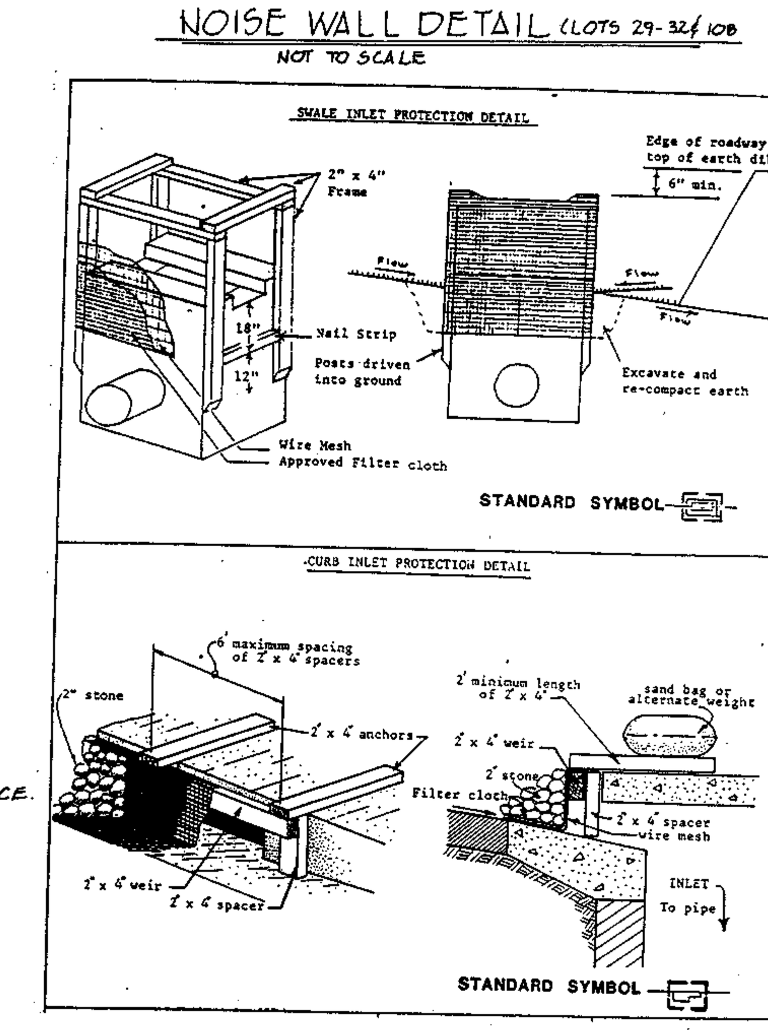
NOTE: FENCE ALIGNMENT WILL BE FIELD ADJUSTED (JOGGED) TO AVOID EXIST. TREES.

* NOTE ALL WOOD ON FENCE TO BE PRESSURE TREATED. NO PAINT OR STAIN.



NOTE: WHERE GRADE IS SLOPED, BOTT. OF BOARDS WILL BE SLOPED.

NOISE WALL DETAIL (LOTS 29-32 & 108)
NOT TO SCALE



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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — 1/23/95 DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — 1/23/95 DATE

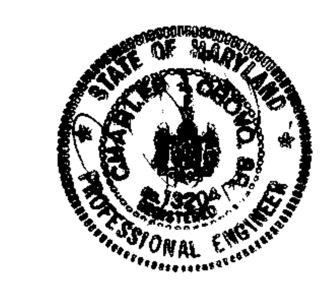
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
USDA - NATURAL RESOURCES CONSERVATION SERVICE — 10/12/95 DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED:
HOWARD SOIL CONSERVATION DIST. — 10/12/95 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH JA — 10/31/95 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — 8/3/95 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — 8/2/95 DATE
CHIEF, BUREAU OF HIGHWAYS HS — 8-1-95 DATE



SEDIMENT CONTROL NOTES AND DETAILS

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL: 114
DATE: JANUARY 12, 1995
SHEET 19 OF 30
SCALE: AS SHOWN

1768

60026DS.DWG

F95-99

SYMBOL	SOIL DESCRIPTION
ChA	CHESTER SILT LOAM, 0-3% SLOPES
ChB2	CHESTER SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
ChC2	CHESTER SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
Co	COMUS SILT LOAM
GlA	GLENELG LOAM, 0-3% SLOPES
GlB2	GLENELG LOAM, 3-8% SLOPES, MODERATELY ERODED
GlC2	GLENELG LOAM, 8-15% SLOPES, MODERATELY ERODED
GnA	GLENVILLE SILT LOAM, 0-3% SLOPES
MgB2	MANOR GRAVELLY LOAM, 3-8% SLOPES, MODERATELY ERODED
MgC2	MANOR GRAVELLY LOAM, 8-15% SLOPES, MODERATELY ERODED
MlD2	MANOR LOAM, 15-25% SLOPES, MODERATELY ERODED
MlE	MANOR LOAM, 25-45% SLOPES

APPROVED

DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95

PROPERTY OF WILLIAM P & RUTH E. POE L. 3089 F. 83

PROPERTY OF CHARLES BAILEY LINE

SEE SHEET 21

MATCH

FREDERICK ROAD (MARYLAND ROUTE 144)

CHARLES PLACE

U.S. ROUTE

LOT C PLAT 10801

N 529,760 E 851,000

NOTE: ZONING WITHIN THE SUB AREAS FOR ALL STORM DRAINS ON THE PROJECT IS R-ED

PLAN

DRAINAGE AREA TABULATIONS

AREA No.	AREA Ac.	INLET No.	'C'
A	2.16	I-27	0.80
B	1.20	I-28	0.78
C	0.27	I-32	0.71
D	0.17	I-33	0.71
E	0.39	I-29	0.74
F	1.19	I-30	0.36
G	0.64	I-34	0.63
H	0.32	I-13	0.38
I	0.53	I-12	0.36
J	0.12	I-11	0.66
K	2.06	I-6	0.89
L	0.31	I-7	0.45
M	0.12	I-8	0.50
N	0.10	I-10	0.50
O	0.04	I-9	0.75
P	0.50	I-4	0.70
Q	0.18	I-3	0.50
R	0.45	I-2	0.31
S	0.59	I-1	0.66
T	0.34	I-5	0.68
U	0.77	I-14	0.71
V	2.06	I-19	0.50
W	0.82	I-21	0.52
X	0.44	I-20	0.68
Y	0.23	I-16	0.70
Z	0.50	I-23	0.66
AA	0.48	I-22	0.46
BB	0.47	I-26	0.66
CC	0.91	I-31	0.35
DD	0.31	I-25	0.61
EE	0.35	I-24	0.74
FF	0.72	I-18	0.71
GG	0.66	I-19	0.77
HH	0.22	I-17	0.64

AREA No.	AREA Ac.	INLET No.	'C'
II	0.25	I-36	0.48
JJ	1.27	I-37	0.35
KK	0.27	I-38	0.48
LL	0.50	I-39	0.42
MM	1.48	I-40	0.33
NN	1.09	I-41	0.34
OO	1.36	I-42	0.30
PP	0.92	I-43	0.67
QQ	0.42	I-44	0.71
RR	1.06	I-45	0.60

No.	DATE	DESCRIPTION
2	2-2-98	ADD NEW DRAINAGE AREAS FOR I-43 - I-45
1	10-3-96	ADD M1 22,23 AND REV. CHART
REVISION		

OWNER

PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C. INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

STATE OF MARYLAND — CHARLES T. CROMO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

DRAINAGE AREA MAP

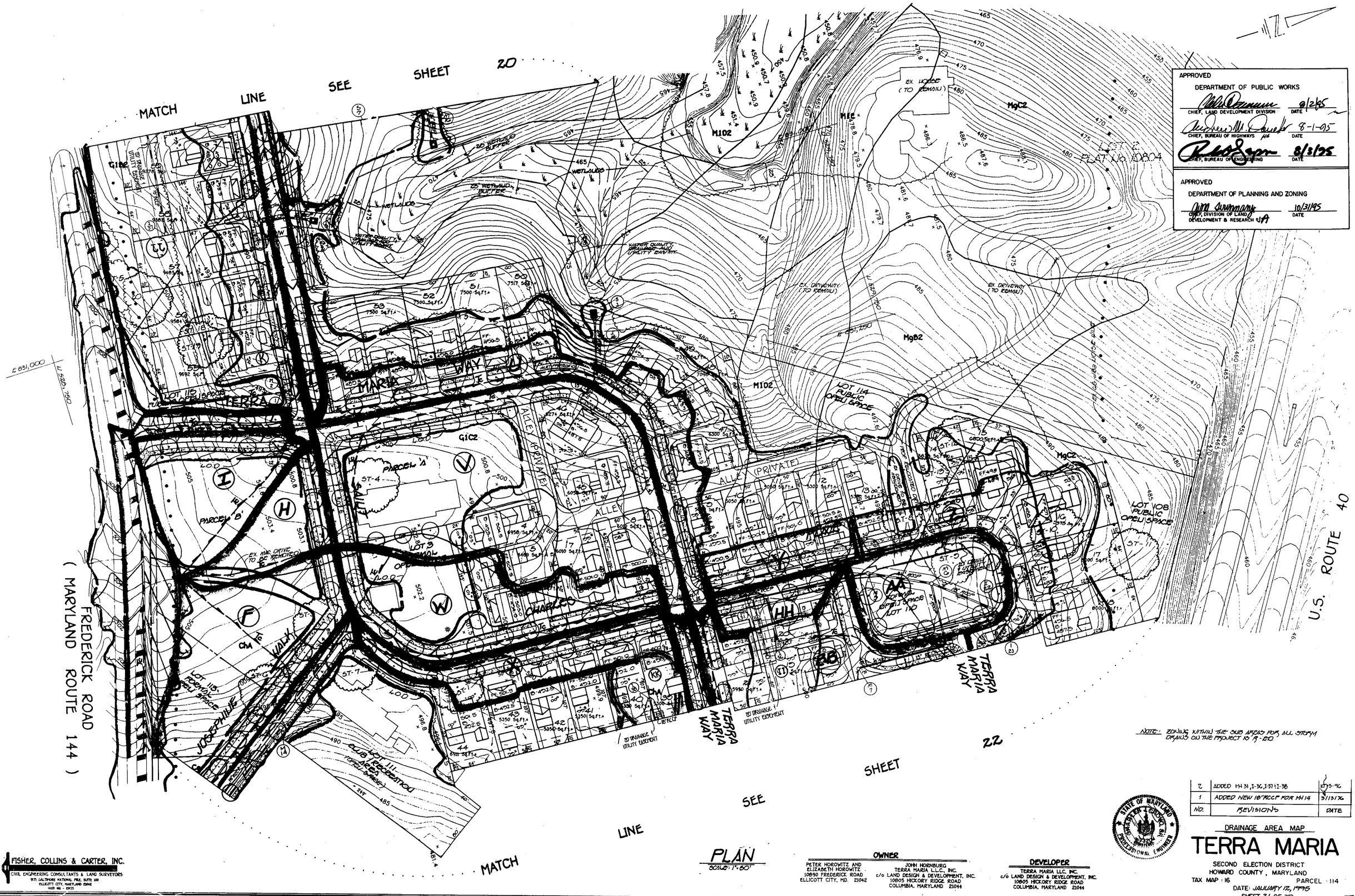
TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP 16 PARCEL 114
DATE JANUARY 12, 1995
SHEET 20 OF 30

F95-99

1798

FISHER, COLLINS & CARTER, INC.



APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/2/95
CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95
CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED
DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95

NOTE: ZONING WITHIN THE SUB AREAS FOR ALL STORM DRAINS ON THE PROJECT IS 'A-80'

NO.	REVISIONS	DATE
2	ADDED MH 31, I-36, I-37 & I-38	1995-96
1	ADDED NEW 18"RCCP FOR MH 14	3/13/96

DRAINAGE AREA MAP

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL: 114
DATE: JANUARY 12, 1995
SHEET 21 OF 30

F 95-99

PLAN
SCALE: 1"=80'

OWNER
PETER HOROWITZ AND ELIZABETH HOROWITZ
10990 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER
TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
917 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

1768

SEE SHEET 21 FOR MATCH LINE

FREDERICK ROAD
(MARYLAND ROUTE 144)

U.S. ROUTE 40

ALLEY (PRIVATE)

KATHERINE PLACE

KATHERINE COURT

KATHERINE AVENUE

MARIA PLACE

JOSEPHUS WALKER

FORMAL OPEN SPACE LOT 109

ACCESS TO PUBLIC OPEN SPACE

FORMAL OPEN SPACE LOT 108

S.W.M. DRAINAGE UTILITY EASEMENT

WETLANDS BUFFER

WETLANDS

20' DRAINAGE EASEMENT

15' LOCUST INTERCEPTOR WALL EASEMENT

PROPOSED 8" WATER & SEWER

EX. 8" WATER & SEWER (CONT. No. 80-3291-D)

EX. 8" WATER & SEWER (CONT. No. 80-3291-D)

EX. 8" WATER & SEWER

EX. 12" WATER & SEWER (CONT. No. 80-3291-D)

EX. 24" RCP

EX. 18" RCP

EX. 12" RCP

EX. 8" RCP

EX. 6" RCP

EX. 4" RCP

EX. 3" RCP

EX. 2" RCP

EX. 1" RCP

EX. 0.5" RCP

EX. 0.25" RCP

EX. 0.125" RCP

EX. 0.0625" RCP

EX. 0.03125" RCP

EX. 0.015625" RCP

EX. 0.0078125" RCP

EX. 0.00390625" RCP

EX. 0.001953125" RCP

EX. 0.0009765625" RCP

EX. 0.00048828125" RCP

EX. 0.000244140625" RCP

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EX. 0.0000000000000000000000000000000000000000000000843375835458441857947885924101602554321289184679809345884175281561738474749458834748437844999095330091331899587720958542776362032839895738238728907957658513134765625000000000000000000000000000000000" RCP

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EX. 0.0000000000000000000000000000000000000000000000205902303578721156725558086938867811113595992353478844210003730850033627624378563192077252197044758323079077797783683732510261923802670

APPROVED

DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

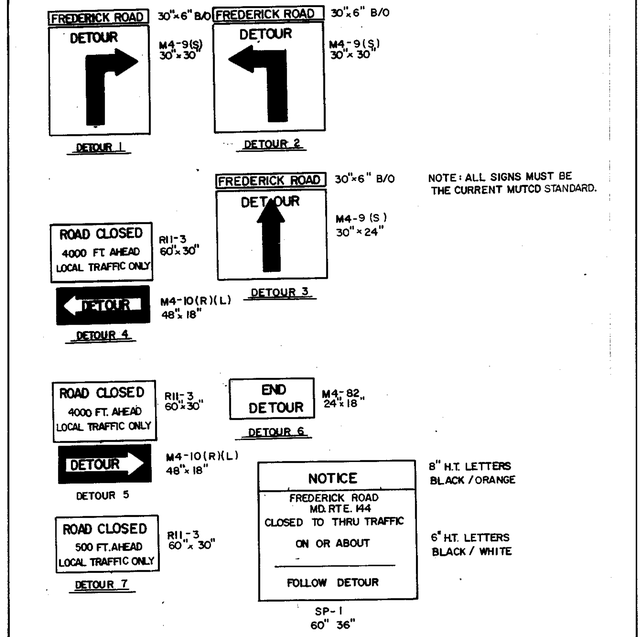
DEPARTMENT OF PLANNING AND ZONING

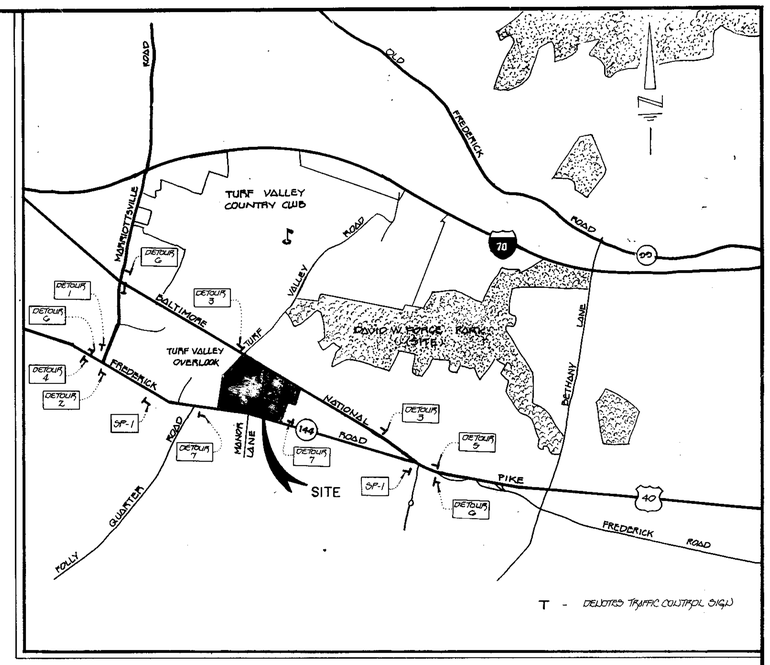
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95

GENERAL NOTES

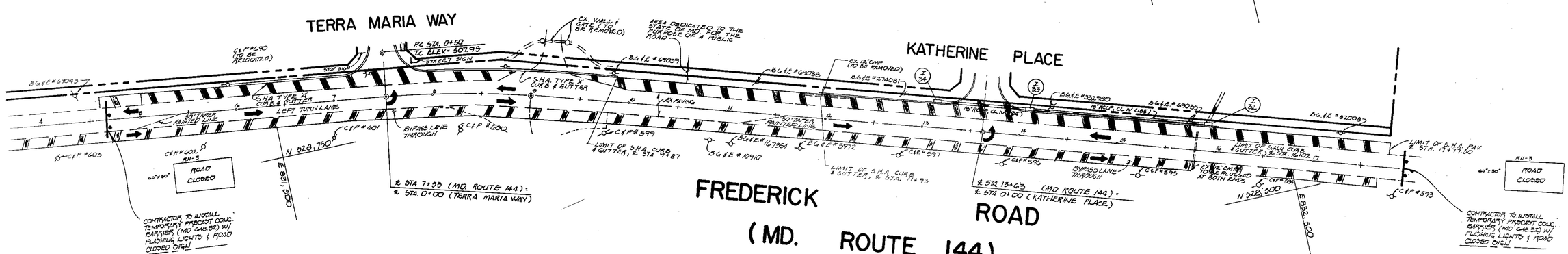
1. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENT INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
2. THIS AREA DESIGNATES AN EXISTING PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS PER RECORD PLAT NO. 4565.
3. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
4. THE PURPOSE OF THIS PLAT IS TO REVISE THE EXISTING PRIVATE SEWERAGE EASEMENT RECORDED IN PLAT NO. 4565 TO THE LOCATION SHOWN HEREON.
5. OWNER & DEVELOPER:

WILDER HOMES
3243 SONIA TRAIL
ELLICOTT CITY, MARYLAND 21043





SIGN LOCATION PLAN
SCALE: 1" = 2000'



PLAN
SCALE: 1" = 50'

NOTE: FOR MD ROUTE 144 PROFILE, SEE SHEET 3.

TRAFFIC CONTROL PLAN
NOTES & DETAILS

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL: 114
DATE: JANUARY 12, 1995
SHEET 23 OF 30

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

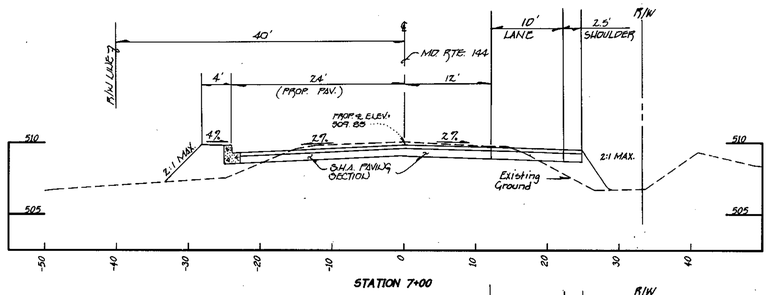
OWNER
PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

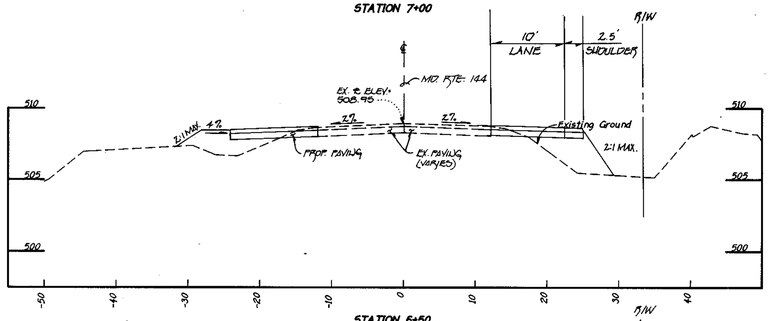
DEVELOPER
TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

1768

F95-99



STATION 7+00



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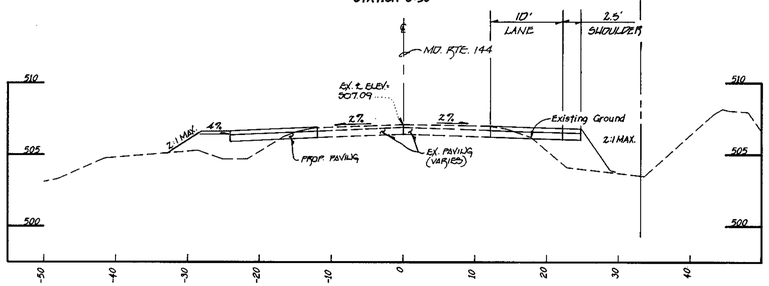

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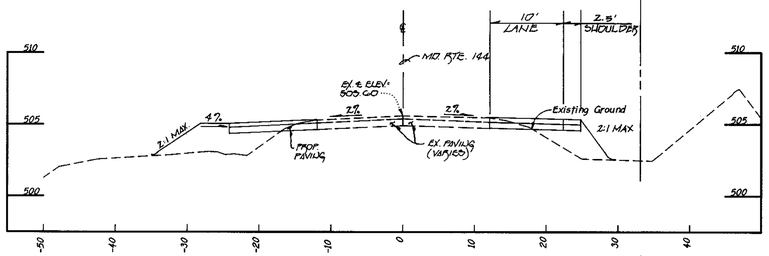

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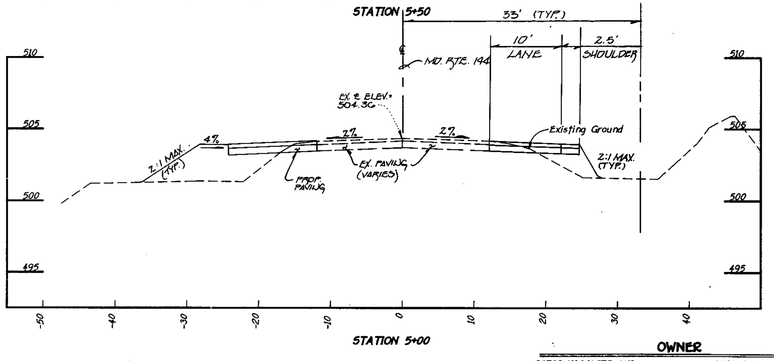

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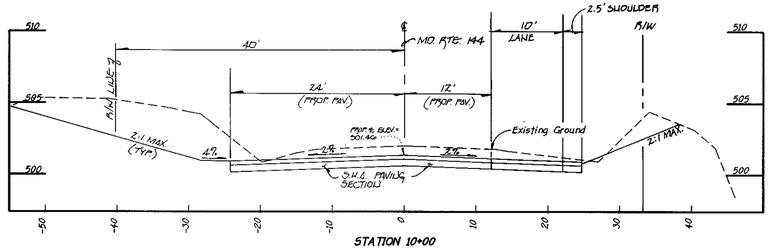
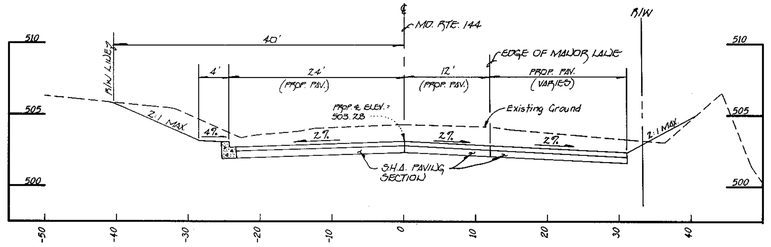
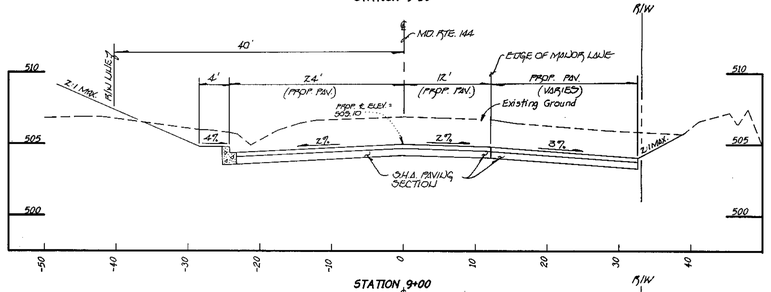


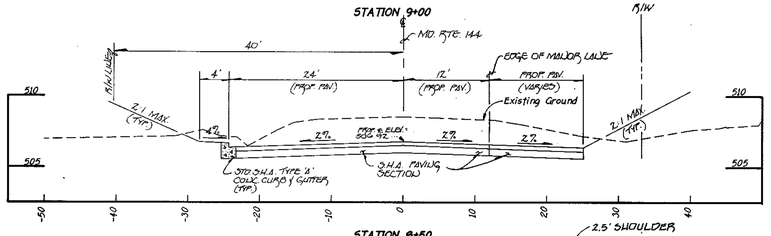
STATION 10+00



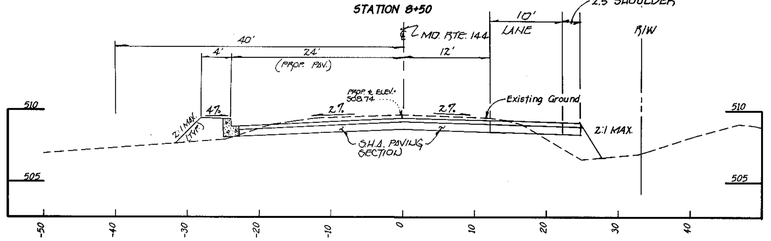
STATION 9+50



STATION 9+00



STATION 8+50



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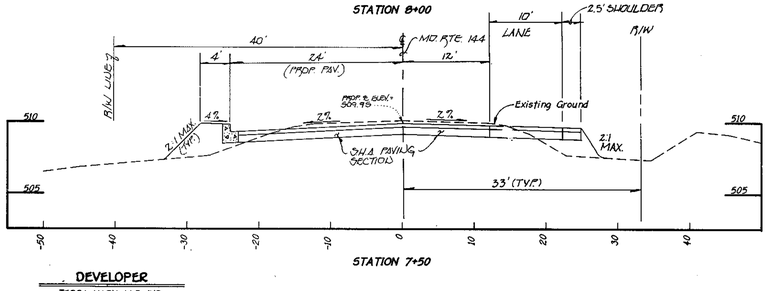

STATION 7+50

APPROVED

DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95

OWNER

PETER HOROWITZ AND
ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA LLC, INC.
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FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

1768

FILE - 6002882.DWG

STATE OF MARYLAND — CHRISTOPHER J. SPAHN — 13304 — REGISTERED PROFESSIONAL ENGINEER

CROSS SECTIONS MARYLAND ROUTE 144

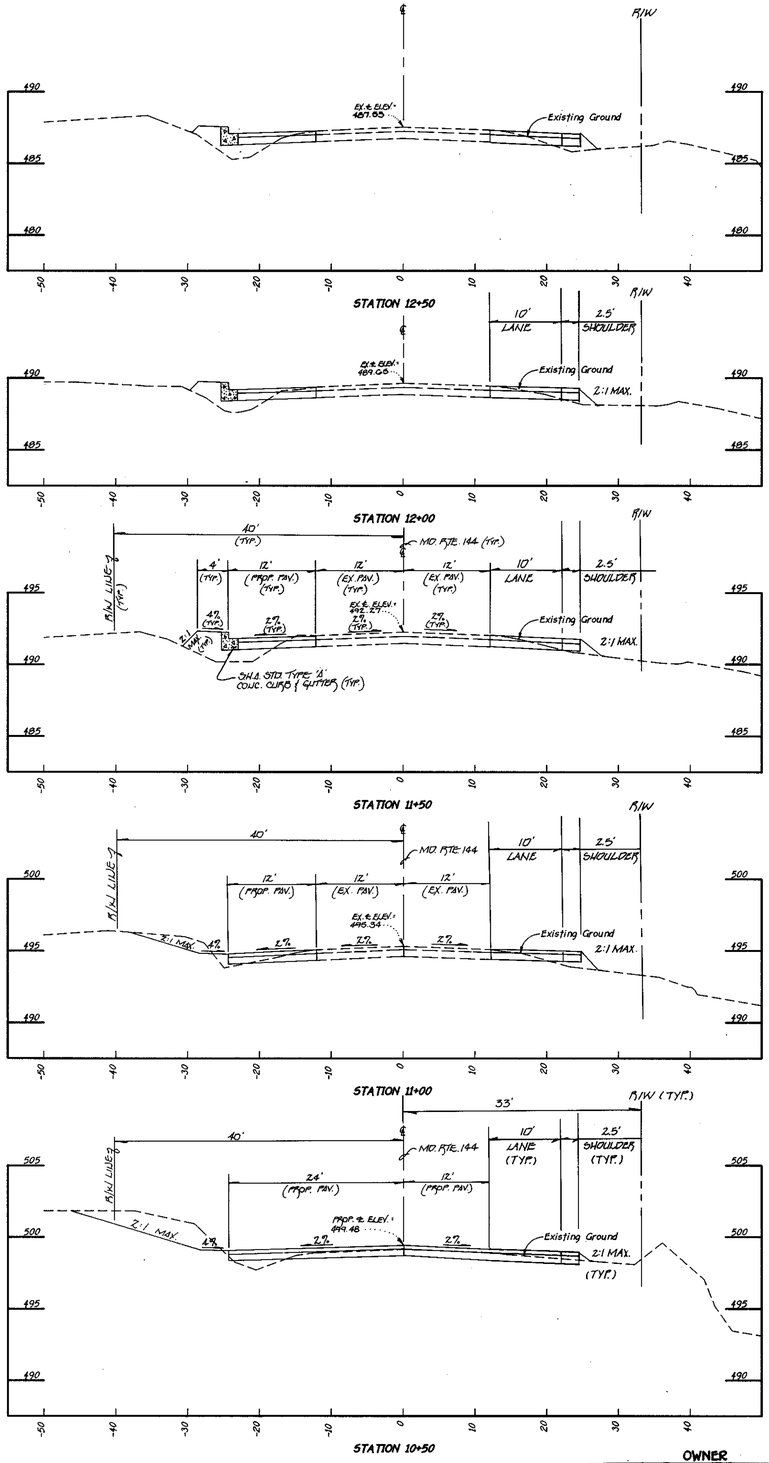
TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: JANUARY 12, 1995

SCALE : HORIZONTAL : 1"=10'
VERTICAL : 1"=5'

SHEET 26 of 30

F95-99



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DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95

STATE OF MARYLAND — CHARLES E. FISHER — No. 13201 — REGISTERED PROFESSIONAL ENGINEER

OWNER

PETER HOROWITZ AND
ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

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ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

CROSS SECTIONS MARYLAND ROUTE 144

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: JANUARY 12, 1995

SCALE: HORIZONTAL : 1"=10'
VERTICAL : 1"=5'

SHEET 26 of 30

17668

FILE: 600265JDWG

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DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

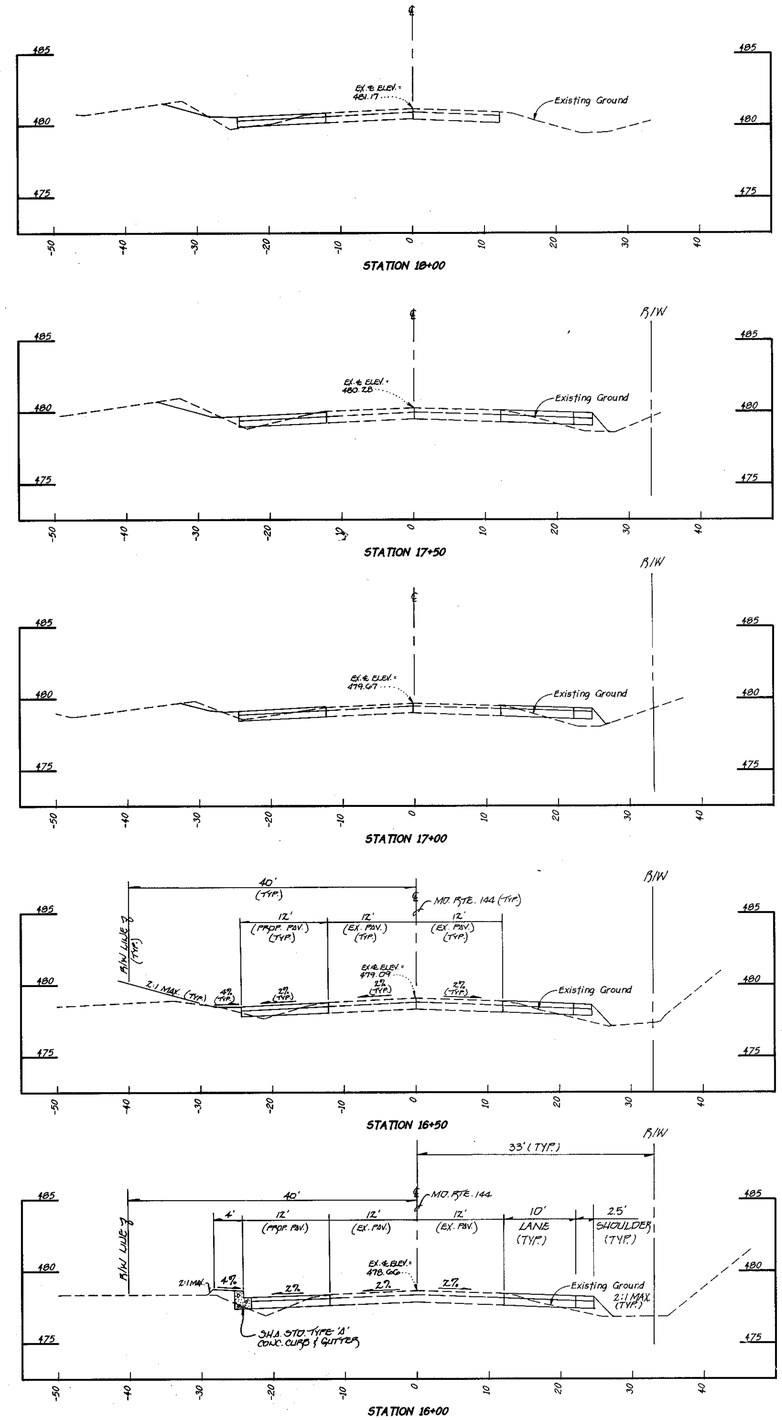
CHIEF, BUREAU OF HIGHWAYS HS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH JA — DATE 10/3/95



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ELLICOTT CITY, MARYLAND 21042
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COLUMBIA, MARYLAND 21044

CROSS SECTIONS MARYLAND ROUTE 144

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: JANUARY 12, 1995

SCALE : HORIZONTAL : 1"=10'
VERTICAL : 1"=5'

SHEET 27 of 30

1768

FILE : 6002854.DWG

F95-99

APPROVED

DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95

SCHEDULE D
STORMWATER MANAGEMENT AREA #2 LANDSCAPING

LINEAR FEET OF PERIMETER	705 LF
NUMBER OF TREES REQUIRED SHADE TREES @ 1/50 LF EVERGREEN TREES @ 1/40 LF	705 LF / 50 = 15 SHADE TREES 705 LF / 40 = 19 EVERGREEN TREES
CREDIT FOR EXISTING VEGETATION (NO, YES AND X)	YES, 225 LF (35%) OF EXISTING FOREST
CREDIT FOR OTHER LANDSCAPING (NO, YES, AND X)	YES, 145 LF (16%) OF PERIMETER PLANTING TYPE A BUFFER = 2 SHADE TREES.
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	705 LF - 225 LF = 500 LF 500 LF / 50 = 10 SHADE TREES - 2 = 8 TOTAL 500 LF / 40 = 13 EVERGREEN TREES

SCHEDULE D
STORMWATER MANAGEMENT AREA #1 LANDSCAPING

LINEAR FEET OF PERIMETER	1185 LF
NUMBER OF TREES REQUIRED SHADE TREES @ 1/50 LF EVERGREEN TREES @ 1/40 LF	1185 LF / 50 = 24 SHADE TREES 1185 LF / 40 = 30 EVERGREEN TREES
CREDIT FOR EXISTING VEGETATION (NO, YES AND X)	YES, 1185 OF EXISTING FOREST. SEE NOTE BELOW
CREDIT FOR OTHER LANDSCAPING (NO, YES, AND X)	
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	N/A

We are requesting a 100% credit toward the landscape buffer requirement for SWM pond #1 due to the fact that the pond is replacing an existing pond and will not change significantly in character. In addition, the pond is surrounded on 3 sides by existing forest to remain and on the 4th side is set back 100' from the property line and is at an elevation 10' above the property line.

SYMBOL	SOIL DESCRIPTION
ChA	CHESTER SILT LOAM, 0-3% SLOPES
ChB2	CHESTER SILT LOAM, 3-8% SLOPED, MODERATELY ERODED
ChC2	CHESTER SILT LOAM, 8-15% SLOPED, MODERATELY ERODED
Co	COMUS SILT LOAM
GlA	GLENELG LOAM, 0-3% SLOPES
GlB2	GLENELG LOAM, 3-8% SLOPED, MODERATELY ERODED
GlC2	GLENELG LOAM, 8-15% SLOPED, MODERATELY ERODED
GnA	GLENVILLE SILT LOAM, 0-3% SLOPES
MgB2	MANOR GRAVELLY LOAM, 3-8% SLOPED, MODERATELY ERODED
MgC2	MANOR GRAVELLY LOAM, 8-15% SLOPED, MODERATELY ERODED
MlD2	MANOR LOAM, 15-25% SLOPES, MODERATELY ERODED
MlE	MANOR LOAM, 25-45% SLOPES

PERIMETER

NOTE: PLANTS ON THIS PERIMETER SHALL ONLY BE INSTALLED IF DRIVEWAY IS CONSTRUCTED.

PERIMETER

LANDSCAPE EASEMENT

PROPERTY OF WILLIAM P. & RUTH E. FOE L. 3089 F. 83

SWM LANDSCAPE PERIMETER

PRIVATE SWM POND #1

(FOR POND LAYOUT SEE SHEET 16 OF 30)

EX. HOUSE (TO REMAIN)

EX. WOOD BRIDGE TO BE REMOVED

EX. CMP RISER

WETLANDS

LOT 116 FORMAL OPEN SPACE

LOT 117 FORMAL OPEN SPACE

LOT 118 FORMAL OPEN SPACE

LOT 2 PLAT No. 10804

CHARLES PLACE

SAINT CHARLES LINE

MATCH SHEET SEE SHEET 29

FREDERICK ROAD (MARYLAND ROUTE 144)

U.S. ROUTE 1

PERIMETER

PLAN

SCALE: 1"=50'

SEE SHEET 29 FOR PLANT LIST AND GENERAL NOTES

FOR STREET TREE PLANTING SEE SHEETS 16, 17 & 18

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS											
LANDSCAPE TYPE	B	N/A	B	N/A	B	D	D	D	D	D	D	D
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	PERIMETER 2 a. 388.0 LF	PERIMETER 2 b. 182.0 LF	PERIMETER 2 c. 106.0 LF	PERIMETER 2 d. 238.0 LF	PERIMETER 2 e. 396.9 LF	PERIMETER 2 f. 88.0 LF	PERIMETER 2 g. 338.1 LF	PERIMETER 2 h. 153.0 LF	PERIMETER 2 i. 156.5 LF	PERIMETER 2 j. 99.0 LF	PERIMETER 2 k. 1397.0 LF	PERIMETER 3 1397.0 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	338 LF.	153 LF.	NO	99 LF.	1397 LF.	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	8/D SIDE/REAR TO SFD 388.0 / 50 = 8 388.0 / 40 = 4	8/D FRONT TO ROAD NO REQUIREMENT NEEDED	8/D SIDE/REAR TO ROAD 106.0 / 50 = 2 106.0 / 40 = 2	8/D FRONT TO ROAD NO REQUIREMENT NEEDED	NON-RESIDENTIAL TO ROAD 396.9 / 50 = 7 396.9 / 40 = 9	N/A	8/D SIDE/REAR TO ROAD 338.1 / 50 = 6 338.1 / 40 = 8	8/D SIDE/REAR TO ROAD 153.0 / 50 = 3 153.0 / 40 = 3	8/D SIDE/REAR TO SFD 156.5 / 50 = 3 156.5 / 40 = 3	8/D SIDE/REAR TO ROAD 99.0 / 50 = 1 99.0 / 40 = 1	8/D SIDE/REAR TO SFD 1397.0 / 50 = 6 1397.0 / 40 = 9	8/D SIDE/REAR TO SFD 1397.0 / 50 = 6 1397.0 / 40 = 9
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED	2 SHADE TREES 4 EVERGREEN TREES	N/A	2 SHADE TREES 2 EVERGREEN TREES	N/A	7 SHADE TREES 9 EVERGREEN TREES	N/A	N/A*	N/A*	3 SHADE TREES 3 EVERGREEN TREES	N/A*	4 SHADE TREES 5 EVERGREEN TREES	

COMMENTS:
* WE ARE REQUESTING A 100% CREDIT TOWARDS THE PERIMETER LANDSCAPE BUFFER REQUIREMENT, ONLY IN AREAS WHERE EXISTING FOREST IS BEING PRESERVED AND THE NUMBER OF TREES EXCEEDS THE PLANTING REQUIREMENT.

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES						
LANDSCAPE TYPE	A	N/A	A	A	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	PERIMETER 1 667.0 LF	PERIMETER 3 a. 30.0 LF	PERIMETER 3 b. 520.0 LF	PERIMETER 3 c. 600.0 LF	PERIMETER 4 823.0 LF	PERIMETER 6 360.0 LF	PERIMETER 7 200.0 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES*	YES* 320.0LF.	YES 500.0 LF	YES* SEE NOTE (2)	YES*	YES*
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES	S/D SIDE/REAR TO SFD 667.0 / 50 = 11	S/D SIDE/REAR TO SFD 30.0 / 50 = 0	S/D SIDE/REAR TO SFD 520 / 50 = 5	S/D SIDE/REAR TO SFD 500 / 50 = 5	S/D SIDE/REAR TO SFD 603.0 / 50 = 10	S/D SIDE/REAR TO SFD 360.0 / 50 = 4	S/D SIDE/REAR TO SFD 200.0 / 50 = 3
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED	11 SHADE TREES	N/A*	5 SHADE TREES SEE NOTE (1)	8 SHADE TREES SEE NOTE (1)	N/A*	N/A*	N/A*

COMMENTS:
* WE ARE REQUESTING A 100% CREDIT TOWARDS THE PERIMETER LANDSCAPE BUFFER REQUIREMENT, ONLY IN AREAS WHERE EXISTING FOREST IS BEING PRESERVED AND THE NUMBER OF TREES EXCEEDS THE PLANTING REQUIREMENT.

Note (1) Plants to be installed only if driveway is constructed.

Note (2) 603 L.F. credit requested for existing forest to remain. 220 L.F. credit requested based on the distance of the house from the property line.

TOTAL LANDSCAPE OBLIGATION	
RESIDENTIAL PERIMETER LANDSCAPED EDGE REQUIREMENT:	
NUMBER OF PLANTS REQUIRED: TREES EVERGREEN TREES	60 23
NUMBER OF PLANTS PROVIDED: SHADE TREES EVERGREEN TREES	43 25
COMMENTS: WE ARE REQUESTING A CREDIT (28% OF THE REQUIRED) FOR 17 SHADE TREES. THE BASIS FOR THIS REQUREST IS THAT EXISTING FOREST IS BEING PRESERVED ADJACENT TO SOME OF THE PERIMETERS (REFER TO SCHEDULE A).	
STORMWATER MANAGEMENT AREA LANDSCAPING:	
NUMBER OF PLANTS REQUIRED: SHADE TREES EVERGREEN TREES	43 53
NUMBER OF PLANTS PROVIDED: SHADE TREES EVERGREEN TREES	8 13
COMMENTS: We are requesting a credit for 35 shade trees and 40 evergreen trees. The basis for this request is that existing forest is being preserved adjacent to much of the perimeter and some plantings coincide with other screening requirements. See schedule D.	

STREET TREE REQUIREMENTS:	
NUMBER OF STREET TREES REQUIRED: TREES	295
NUMBER OF PLANTS PROVIDED: TREES	285

COMMENTS:
WE ARE REQUESTING A CREDIT (4% OF THE REQUIREMENT) FOR 10 STREET TREES NEEDED TO MEET THE REQUIRED 295 TREES. THIS CREDIT IS BASED ON EXISTING SPECIMENT TREES TO BE PRESERVED ADJACENT TO THE RIGHT-OF-WAYS ON JOSEPHINE WALK (TREE #ST-3, #ST-4 AND #ST-7), SAINT CHARLES PLACE (TREE #SWT-1 AND #ST-9), AND TERRA MARIA WAY (TREE #ST-21 AND #ST-23).
FINANCIAL SURETY FOR THE REQUIRED 57 LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE DEPARTMENT OF PUBLIC WORKS DEVELOPERS AGREEMENT IN THE AMOUNT OF $ 8,700.

LANDSCAPE PLAN

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL: 114
DATE: JANUARY 12, 1996
SHEET 28 OF 30

F 95-99

1768

LDR International

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

OWNER

PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
TERRA MARIA L.L.C., INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER

TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

STATE OF MARYLAND — 13904 — PROFESSIONAL ENGINEER

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APPROVED
DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/1/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/31/95

MATCH LINE SEE SHEET 28

SEE SHEET 30 MATCH LINE

PERIMETER

FREDERICK ROAD (MARYLAND ROUTE 144)

U.S. ROUTE 40

PLAN
SCALE: 1"=60'

PLANT LIST

Qty	Key	Botanical/Common Name	Size		Remarks
Shade Trees					
18	A	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	13-15' ht. 2 1/2-3" cal.	B&B	Full
13	F	Fraxinus americana 'Autumn Purple' Autumn Purple Ash (Seedless)	13-15' ht. 2 1/2-3" cal.	B&B	Full
20	Q	Quercus rubrua Red Oak	13-15' ht. 2 1/2-3" cal.	B&B	Full
Evergreen Trees					
36	S	Pinus strobus Eastern White Pine (natural)	6-8' ht.	B&B	Full

FOR STREET TREE PLANTING SEE SHEETS 16, 17 & 18

GENERAL PLANTING NOTES

1. All plant material shall conform to the sizes given in the plant list and shall be nursery grown in accordance with the "American Standard for Nursery Stock" latest edition.
2. All planting shall be in accordance with standard American Association of Nurserymen procedures and specifications.
3. Contractor and Owner's Representative shall verify the correct location of all underground utilities in the field prior to installation of any plant materials.
4. Deciduous tree staking is optional based on plants exposure to high winds or if steep slopes are present. (Movement is necessary to strengthen the trunk of the planted tree).
5. Plant material location to be flagged in the field and approved by the Landscape Architect or Owner's Representative prior to planting.
6. All plant beds and planting areas to be mulched to a depth of 3" unless otherwise indicated.
7. All disturbed lawn areas shall be fine graded and seeded.
8. All plant beds shall be contained with a spaded edge unless noted otherwise.
9. Obtain approval from Landscape Architect or Owner's Representative before making any substitutions or changes.
10. Quantities shown on plant list are for the Contractor's convenience only and are not guaranteed to be accurate. In the event of a discrepancy between quantities shown on the plan and quantities shown on the plant list, the quantities on the plan shall apply.

EXISTING TREE TO BE REMOVED

OWNER
PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

JOHN HORNBURG
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10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

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COLUMBIA, MARYLAND 21044

LDR International

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
10711 BALTIMORE NATIONAL PIKE, SUITE 200
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

NO.	REVISIONS	DATE
1	ADDED 18"RCCP FOR MH 14	3/14/96

LANDSCAPE PLAN

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP : 16 PARCEL : 114
DATE: JANUARY 12, 1995
SHEET 29 OF 30

F95-99

1768

APPROVED

DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/2/95

CHIEF, BUREAU OF HIGHWAYS — DATE 8-1-95

CHIEF, BUREAU OF ENGINEERING — DATE 8/3/95

APPROVED

DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH — DATE 10/3/95

SEE SHEET 29 FOR PLANT LIST AND GENERAL NOTES

FOR STREET TREE PLANTING SEE SHEETS 16, 17 & 18

MATCH LINE SEE SHEET 29

ALLEY (PRIVATE) 16'

FREDERICK ROAD (MARYLAND ROUTE 99)

U.S. ROUTE 40

220 L.F. TYPE B PLANTING

20' STREET TREE PLANTING EASEMENT

EXISTING TREE TO BE REMOVED

EXISTING TREES TO BE RETAINED

FORMAL OPEN SPACE LOT 107

FORMAL OPEN SPACE LOT 108

FORMAL OPEN SPACE LOT 109

SWM POND #2

FOREBAY

STORAGE INDICATOR: 2,721 C.F.
STORAGE PROVIDED: 2,800 C.F.
BOTT ELEV.: 466.00
SIDE SLOPES: 2:1
WEIR CREST ELEV.: 466.25
STORAGE DEPTH: 1.5

PERIMETER 1

PERIMETER 2

PERIMETER 3

PERIMETER 4

PERIMETER 5

PERIMETER 6

100 YR. FLOODPLAIN ELEV. 468.3

50' WETLAND BUFFER

25' WETLAND BUFFER

75' STREAM BUFFER

WETLANDS

TO LF OF EXISTING FOREST TO REMAIN

TO LF OF ADDITIONAL FOREST TO BE PLANTED

CONT. No. 20-3291-D

Key to Significant & Other Large Trees

	Tree #	Species	Size (Inches DBH)
■ ✱	ST-1	Acer saccharum	34
✱	ST-2	Acer platanoides	31
■ ✱	ST-3	Tilia heterophylla	35
✱	ST-4	Quercus alba	41
✱	ST-5	Quercus alba	32
■ ✱	ST-6	Pinus strobus	33
■ ✱	ST-7	Tilia heterophylla	35
✱	ST-8	Picea pungens	34
■ ✱	ST-9	Tsuga canadensis	35
	ST-10	Quercus borealis	47
✱	ST-11	Platanus occidentalis	32
✱	ST-12	Tsuga canadensis	46
✱	ST-13	Pinus strobus	32
	ST-14	Acer saccharum	37
✱	ST-15	Juglans nigra	34
✱	ST-16	Fraxinus americana	38
✱	ST-17	Acer saccharum	50
✱	ST-18	Quercus alba	16
✱	ST-19	Quercus alba	20
✱	ST-20	Quercus alba	30
■ ✱	ST-21	Ulmus americana	34
✱	ST-22	Fraxinus americana	68
■ ✱	ST-23	Platanus occidentalis	32
	ST-24	Fraxinus pensylvanica	39
✱	ST-25	Platanus occidentalis	44

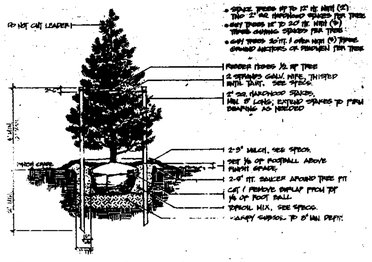
✱ = TREES TO BE SAVED

■ = TREES TO BE CREDITED AS STREET TREES

PUBLIC STORM WATER MANAGEMENT POND No. 2

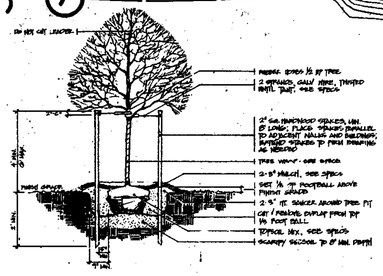
S.W.M. TYPE : DETENTION
WATER QUALITY : EXTENDED DETENTION
HAZARD CLASS : TYPE 'a'
DRAINAGE AREA : 17.68 Ac. ±

NO.	REVISIONS	DATE
1	ADDED 18" RCCP FOR MH 13	3/13/96



Evergreen Tree

NOT TO SCALE



Deciduous Shade Tree

NOT TO SCALE

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PLAN

SCALE: 1" = 50'

LANDSCAPE PLAN

TERRA MARIA

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP: 16 PARCEL 114
DATE: JANUARY 8, 1995
SHEET 30 OF 30

1768

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