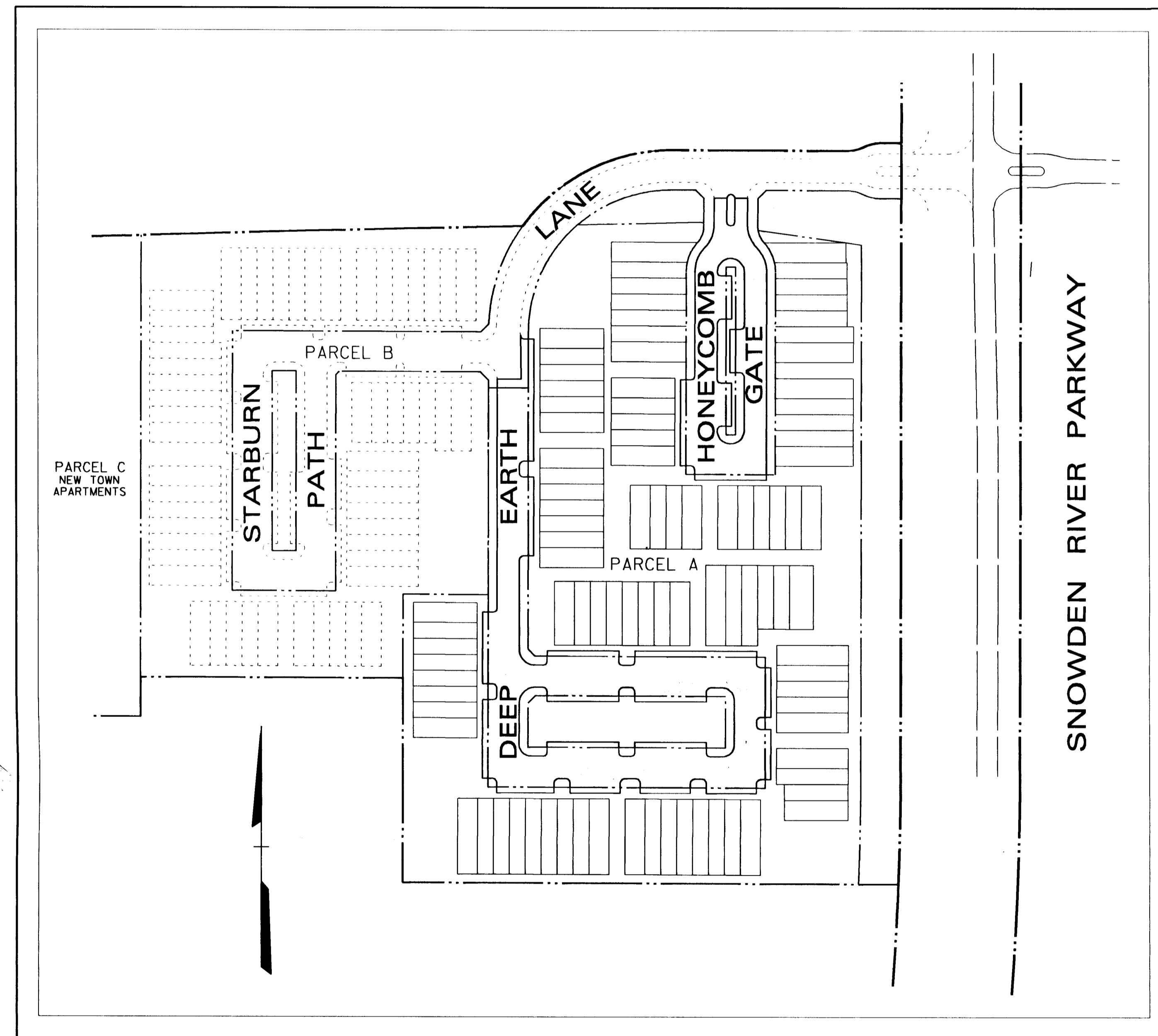
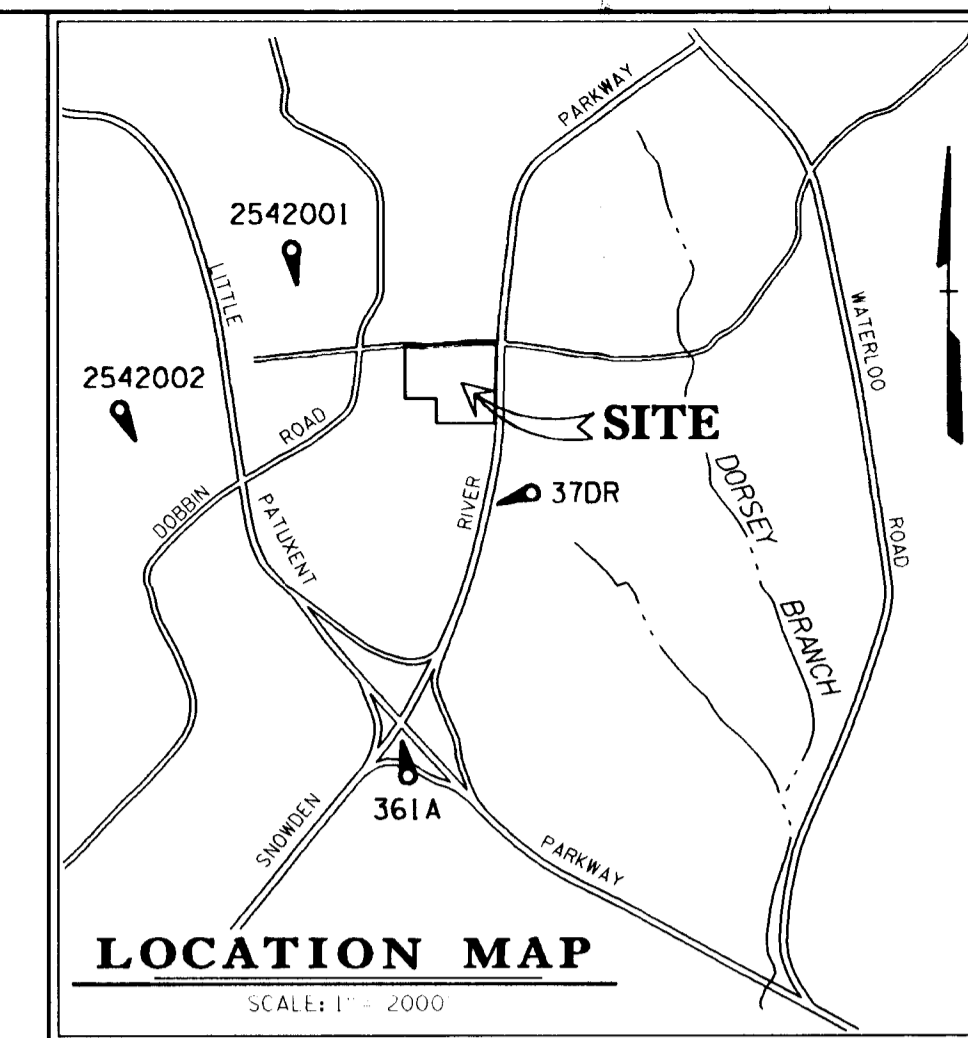


# VILLAGE OF LONGREACH

SECTION 4, AREA 3, PHASE 220

HOWARD COUNTY, MARYLAND



PLAN VIEW

SCALE: 1" = 100'

**BENCHMARK**

DESCRIPTION  
STATION 37DR (1/4" REBAR)  
N169881.1794, E416566.7155 (FOR HORIZONTAL CONTROL ONLY)  
STATION IS LOCATED 0.45 ± MILES NORTH OF RTE. 175  
AND 46 ± EAST OF THE EAST CURB OF SNOWDEN RIVER PARKWAY

**BENCHMARK**

DESCRIPTION  
STATION 361A (CONCRETE MONUMENT)  
N169205.9263, E416313.5119 (FOR HORIZONTAL CONTROL ONLY)  
STATION IS LOCATED AT THE SOUTHEAST CORNER OF THE  
INTERSECTION OF SNOWDEN RIVER PARKWAY AND RTE. 175  
3 ± FROM CURB AND 5.7 ± FROM GUARDRAIL END

**BENCHMARK**

DESCRIPTION  
STATION 2542001 (CONCRETE MONUMENT)  
ELEV. 426.971 (FOR VERTICAL CONTROL ONLY)  
STATION IS LOCATED ON BG&E TRANSMISSION  
LINES 1060' ± S.W. OF DOBBS ROAD

**BENCHMARK**

DESCRIPTION  
STATION 2542002 (CONCRETE MONUMENT)  
ELEV. 363.638 (FOR VERTICAL CONTROL ONLY)  
STATION IS LOCATED 1000' ± WEST OF RTE. 175  
ON TRANSMISSION LINE AT G. & E. TOWER 19-E  
NEAR HANOVERS RESTAURANT ENTRANCE

**INDEX OF DRAWINGS**

SHEET NO.	DESCRIPTION
1 OF 7	COVER SHEET
2 OF 7	ROAD CONSTRUCTION PLAN
3 OF 7	ROAD CONSTRUCTION PLAN
4 OF 7	ROAD CONSTRUCTION DETAILS & STORM DRAIN PROFILES
5 OF 7	STORM DRAIN PROFILES & DRAINAGE AREA MAP
6 OF 7	GRADING PLAN
7 OF 7	SEDIMENT & EROSION CONTROL PLAN

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF CONSTRUCTION INSPECTION AT (301) 792-7272 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- PROJECT BACKGROUND:  
LOCATION: SNOWDEN RIVER PARKWAY  
TAX MAP: 36  
PARCEL: PART OF PARCEL 50  
ZONING: NEW TOWN PER 8/2/85 COMPREHENSIVE ZONING  
ZB/BA REF: 918-M  
ELECTION DISTRICT: 6TH  
SECTION/AREA: SECTION 4, AREA 3, PHASE 220  
TOTAL TRACT AREA: 9.477 AC.  
NUMBER OF PROPOSED LOTS: 99  
COMPREHENSIVE SKETCH PLAN: SP-93-10
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- TOPOGRAPHY SHOWN HEREON IS TAKEN FROM AERIAL MAPS DATED 1963 PREPARED FOR HOWARD RESEARCH AND DEVELOPMENT BY MAPS, INC., AND AS UPDATED BY FIELD OBSERVATION PERFORMED IN 1992.
- HORIZONTAL DATUM: NAD 83, VERTICAL DATUM: NGVD 29
- LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III, ROADS AND BRIDGES.
- PUBLIC WATER AND SEWER SYSTEMS TO BE MADE AVAILABLE AND UTILIZED.
- THIS PROPERTY IS LOCATED WITHIN THE HOWARD COUNTY METROPOLITAN DISTRICT.
- TRAFFIC STUDY PREPARED BY WELLS AND ASSOCIATES OCTOBER 19, 1992 AND UPDATED APRIL 1, 1993.
- EXISTING UTILITIES LOCATED BY DMW.
- OLD MONTGOMERY ROAD WAS ABANDONED PER RESOLUTION NO. 5 DATED APRIL 1988.
- WP-93-43, APPROVED DECEMBER 8, 1992, TO WAIVE SECTION 16.116(C)(6) TO ALLOW GRADING AND REMOVAL OF VEGETATION IN WETLAND AND STREAM BUFFERS.
- PRIVATE MAINTENANCE WITHIN COUNTY RIGHT-OF-WAY SHALL INCLUDE ROUTINE MAINTENANCE SUCH AS LITTER REMOVAL, RESTRIPPING, ETC. THE COUNTY SHALL BE RESPONSIBLE FOR PAVEMENT RESURFACING AND STRUCTURAL (E.G. CURBS, DRAINS) REPAIR.

THE PURPOSE OF THIS PLAN IS TO PROVIDE CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF DEEP EARTH LANE FROM STATION 7+43.87 TO STATION 19+42.54 AND HONEYCOMB GATE.

FOR CONSTRUCTION DETAILS FOR THE REMAINDER OF DEEP EARTH LANE REFER TO F-93-130.

FOR CONSTRUCTION DETAILS FOR STARBURN PATH REFER TO F-93-132.

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS  
*Andrew M. Daneker* 9-21-93  
 CHIEF, BUREAU OF HIGHWAYS DATE

*Paul D. Johnson* 10/18/93  
 CHIEF, BUREAU OF ENGINEERING DATE

*Chris Summers* 10/19/93  
 CHIEF, LAND DEVELOPMENT DIVISION M.K. DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*Anna Jaramany* 10/26/93  
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH C.R.G. DATE

Date	No.	Revision Description

**LONGREACH**  
 SECTION 4, AREA 3, PHASE 220  
 OWNER / DEVELOPER  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

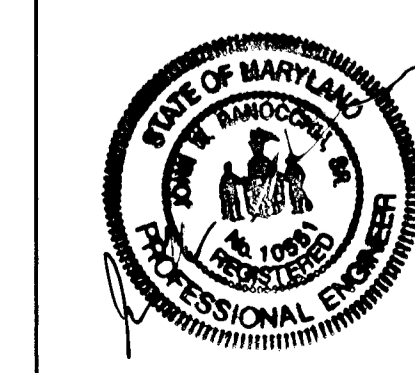
**DMW**  
**Daft · McCune · Walker, Inc.**  
 A Team of Land Planners, 200 East Pennsylvania Avenue  
 Landscape Architects, Towson, Maryland 21286  
 Engineers, Surveyors & Environmental Professionals 410 296 3333  
 Fax 296 4705

AREA LOTS A-1 THRU A-99  
 TAX MAP 36.37 PART OF PARCEL 50  
 6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE COVER SHEET

Des By	MAT	Scale	AS SHOWN	Proj. No.	89088D
Drn By	MAT	Date	4/12/93		
Chk By	JWR	Approved			1 OF 7

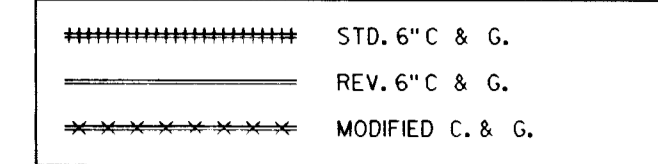
8-26-93  
Date



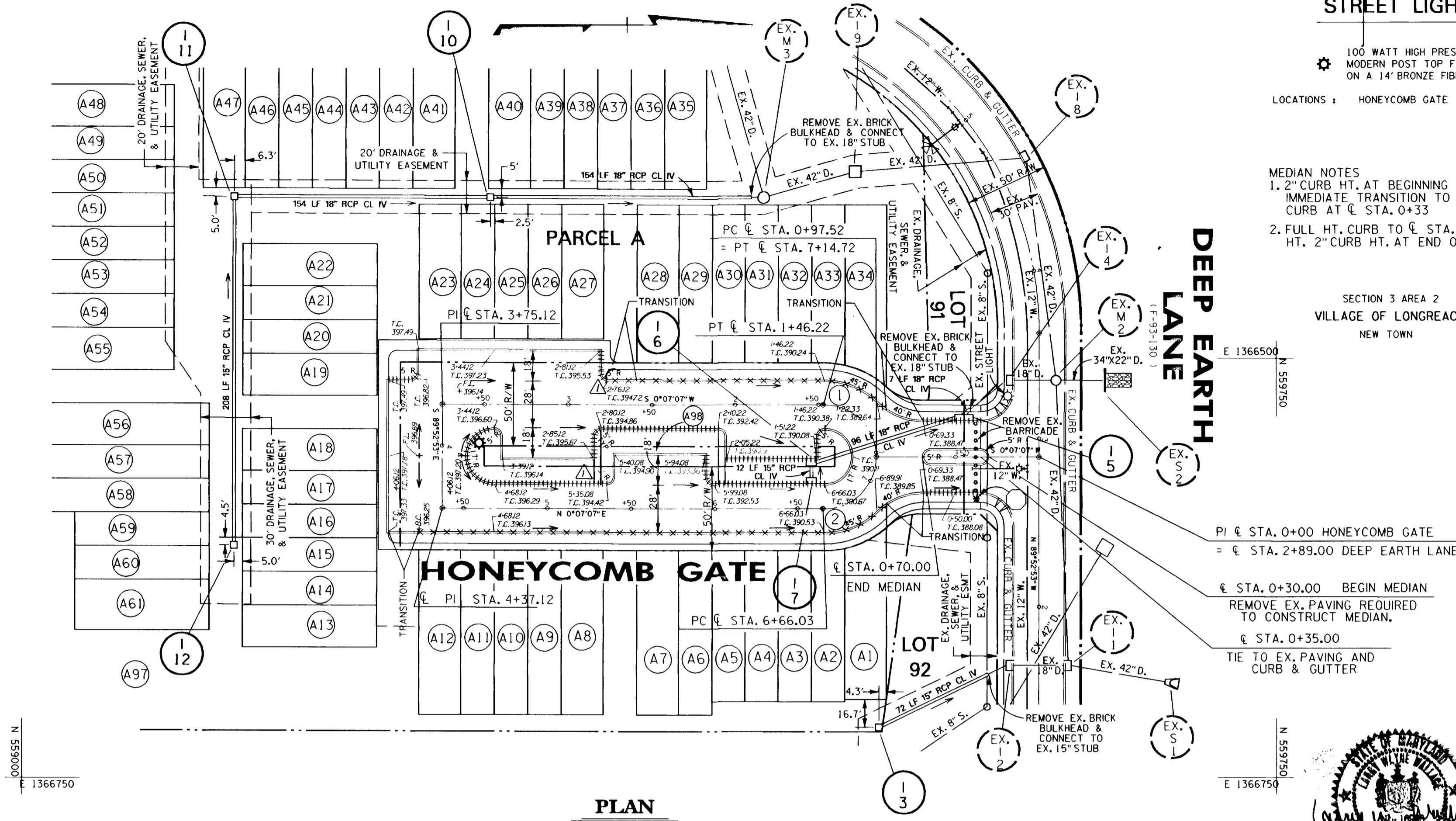
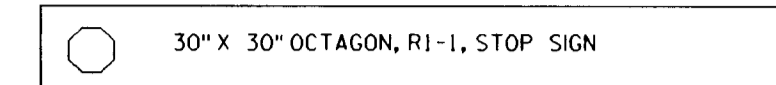
Professional Engr. No. 10551

100

**CURB & GUTTER LEGEND**



**STREET SIGN LEGEND**



**STREET LIGHT LEGEND**

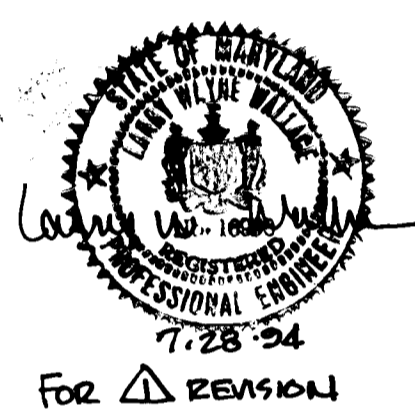
100 WATT HIGH PRESSURE SODIUM VAPOR  
 MODERN POST TOP FIXTURE (BRONZE) MOUNTED  
 ON A 14" BRONZE FIBERGLASS POLE.  
 LOCATIONS: HONEYCOMB GATE @ STA. 3+98 22.3' LEFT

**MEDIAN NOTES**  
 1. 2" CURB HT. AT BEGINNING OF MEDIAN (€ STA. 0+30).  
 IMMEDIATE TRANSITION TO FULL HT. CURB. BEGIN FULL HT.  
 CURB AT € STA. 0+33  
 2. FULL HT. CURB TO € STA. 0+67. TRANSITION TO 2" CURB  
 HT. 2" CURB HT. AT END OF MEDIAN (€ STA. 0+70)

SECTION 3 AREA 2  
 VILLAGE OF LONGREACH  
 NEW TOWN

**① € CURVE DATA**  
 Δ = 90°00'00"  
 R = 31.00'  
 L = 48.70'  
 T = 31.00'  
 CHD. = S 45°07'07" W 43.84'

**② € CURVE DATA**  
 Δ = 90°00'00"  
 R = 31.00'  
 L = 48.70'  
 T = 31.00'  
 CHD. = N 44°52'53" W 43.84'



8-24-93  
 Date  
 Professional Engr., No. 10551

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS  
*Andrew M. Daniels*  
 CHIEF, BUREAU OF HIGHWAYS 9-21-93 DATE

*Paul D. Simpson*  
 CHIEF, BUREAU OF ENGINEERING 10/18/93 DATE

*Paul D. Simpson*  
 CHIEF, LAND DEVELOPMENT DIVISION M.K. 10/18/93 DATE

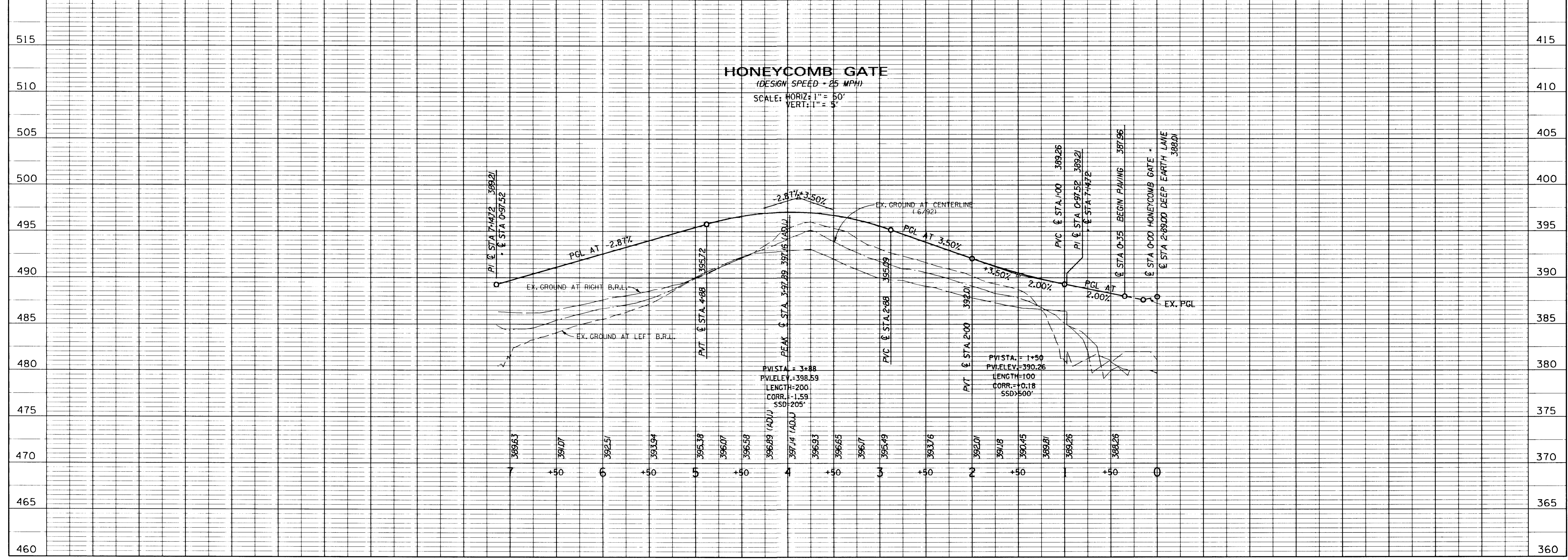
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*Anna Strummon*  
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH 10/28/93 DATE

Date	No.	Revision Description
		ADD SIDEWALK

**LONGREACH**  
 SECTION 4, AREA 3, PHASE 220  
 OWNER / DEVELOPER  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMV**  
**Daft · McCune · Walker, Inc.**  
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 410-296-3333  
 Fax 296-4705

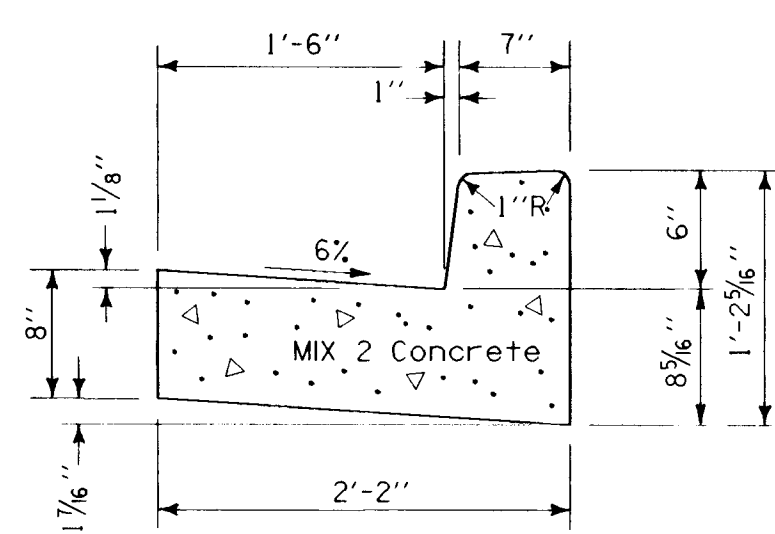
AREA	LOTS A-1 THRU A-99		
	TAX MAP 36.37	PART OF PARCEL 50	
	6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND		
TITLE	ROAD CONSTRUCTION PLANS HONEYCOMB GATE STA. 0+35 TO 7+14.72		
Des By	FCB	Scale	AS SHOWN
Drn By	JCS	Date	4/12/93
Proj. No.	890880		
2 OF 7			



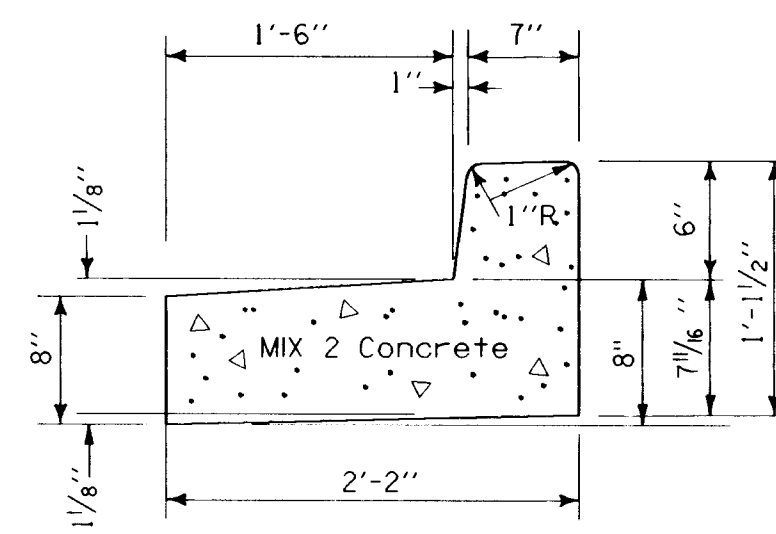
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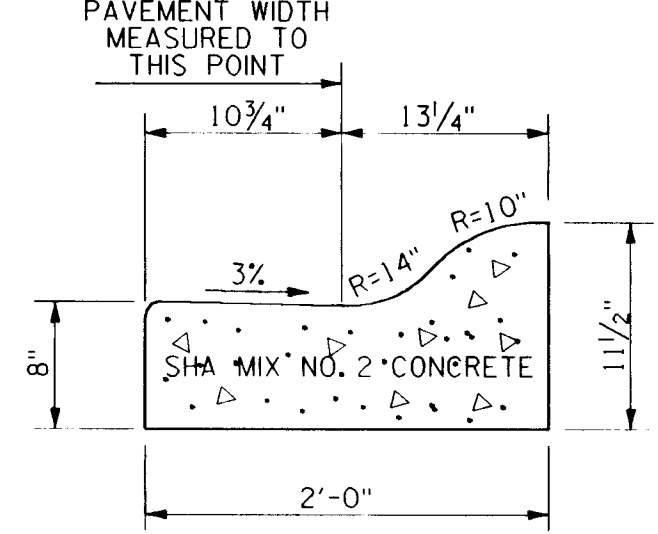




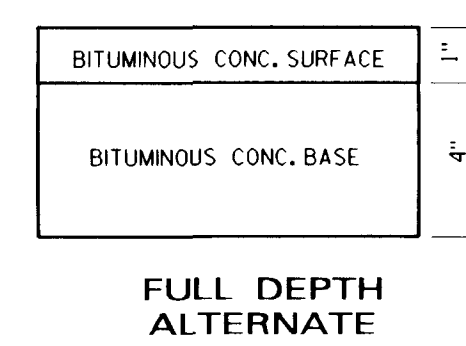
STANDARD 6" COMBINATION CURB & GUTTER  
NO SCALE



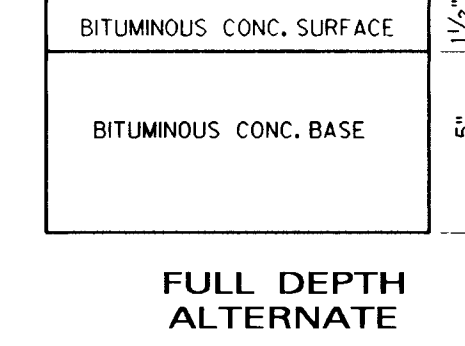
REVERSE 6" COMBINATION CURB & GUTTER  
NO SCALE



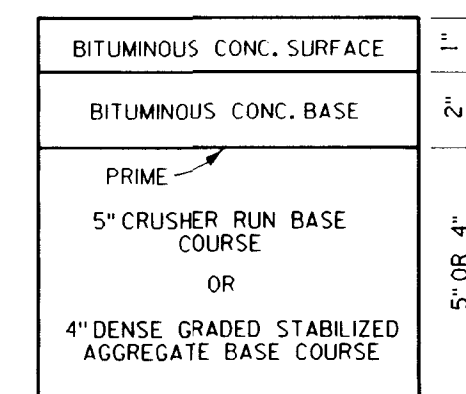
MODIFIED COMBINATION CURB & GUTTER  
NO SCALE



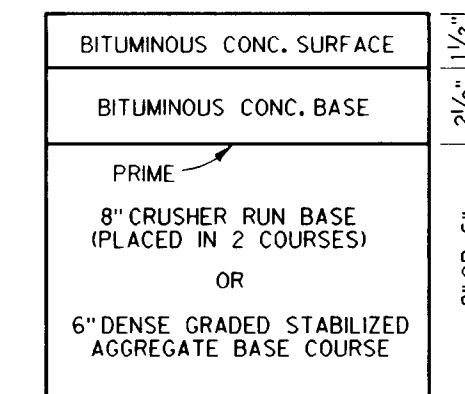
FULL DEPTH ALTERNATE



FULL DEPTH ALTERNATE



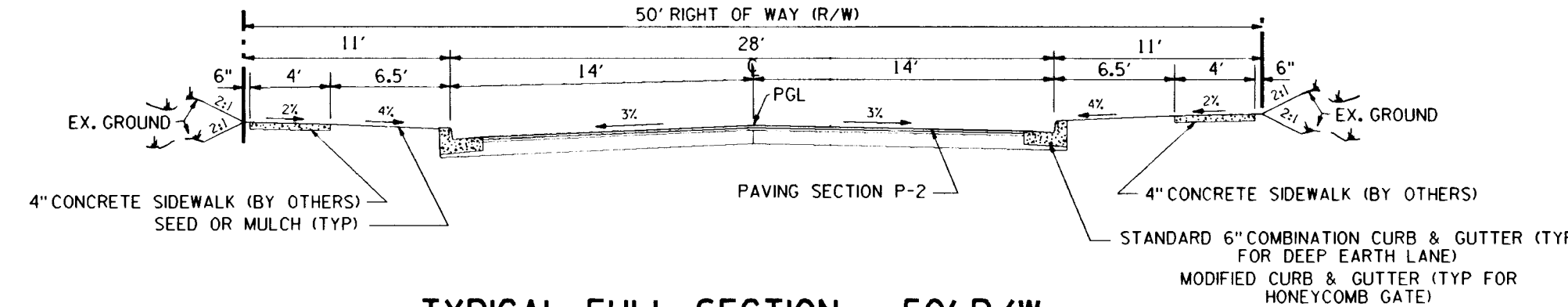
GRANULAR BASE ALTERNATE



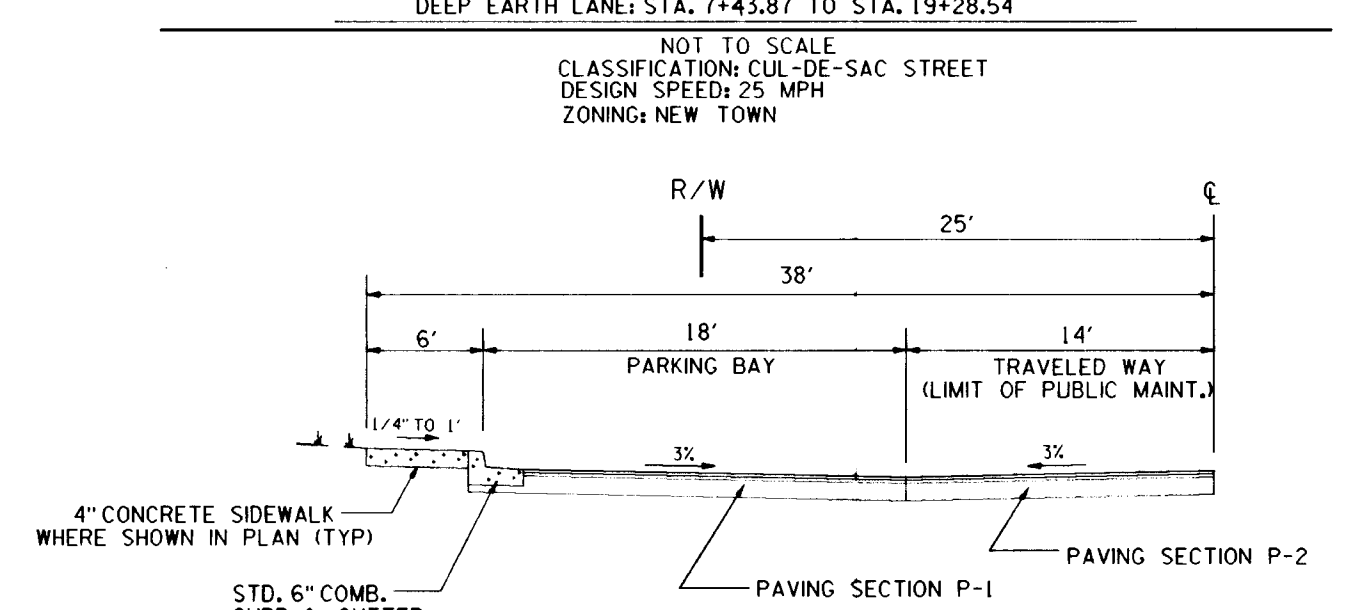
GRANULAR BASE ALTERNATE

PAVING SECTION P-1 (FOR PARKING AREAS)  
NO SCALE

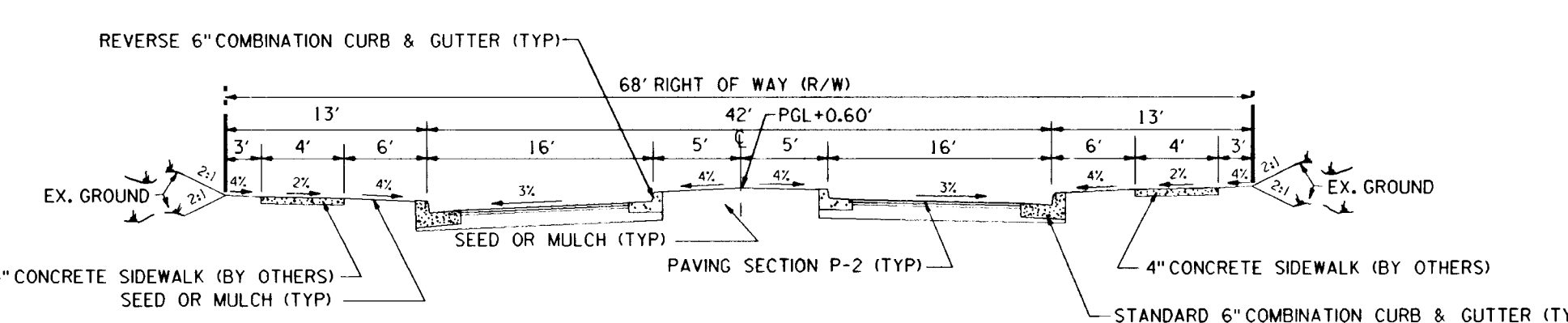
PAVING SECTION P-2 (FOR PUBLIC ROADS)  
NO SCALE



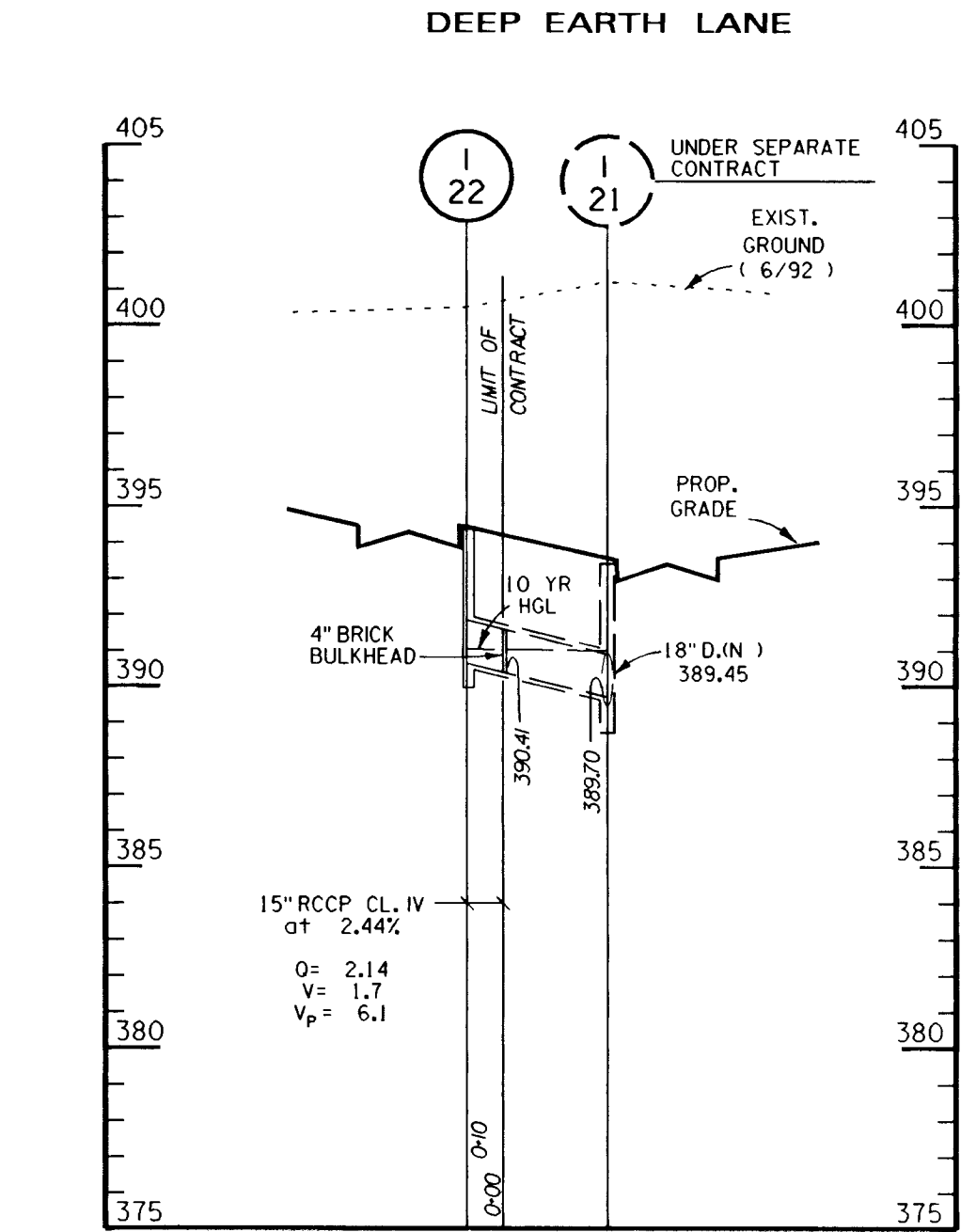
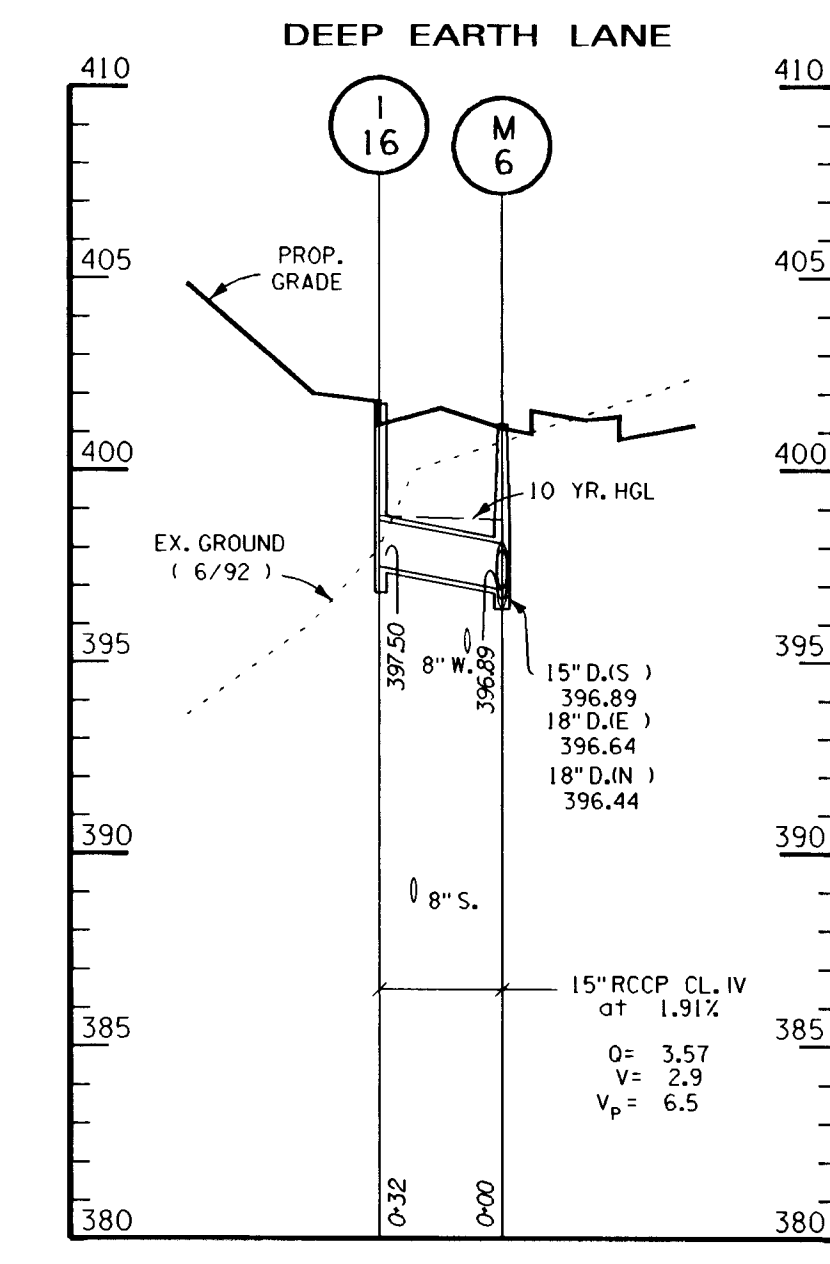
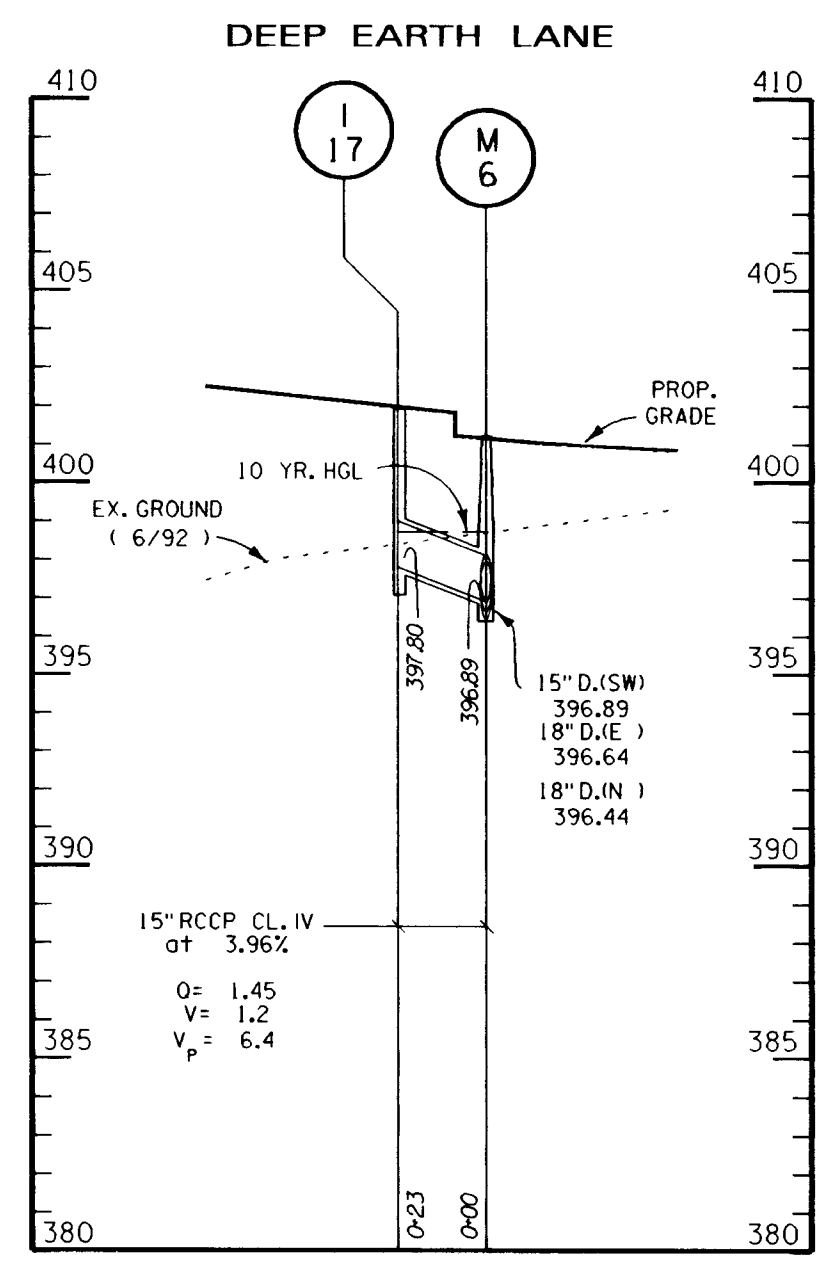
TYPICAL FULL SECTION - 50' R/W



TYPICAL HALF SECTION PARKING ADJACENT TO PUBLIC ROADS



TYPICAL PAVING SECTION ENTRANCE TO HONEYCOMB GATE



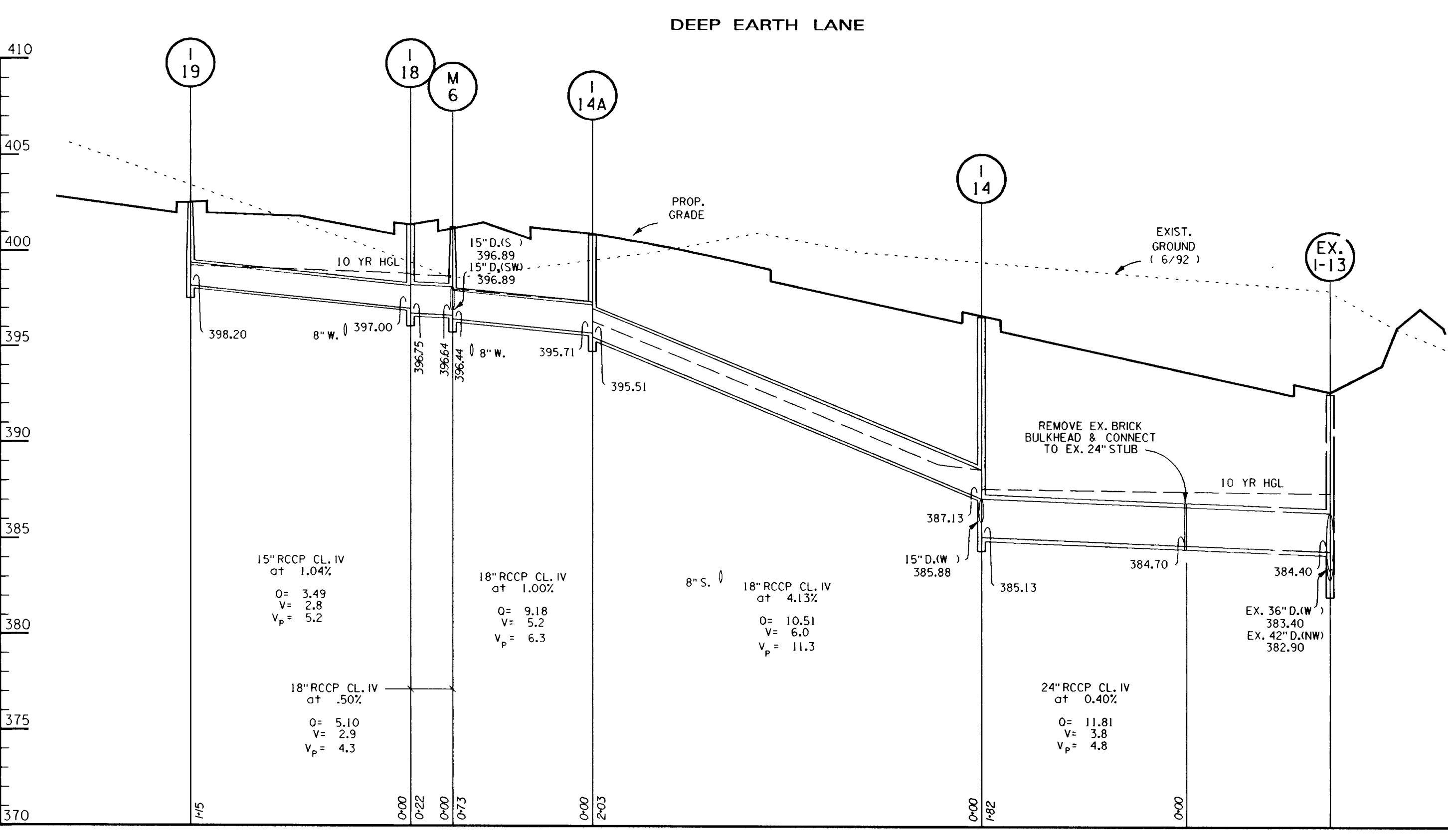
INLET SCHEDULE

NO.	TYPE	INV. OUT	TOP ELEV. +	DETAIL NO.	LOCATION + *
14	A-5	385.13	396.50	HO CO SD 4.01	CL STA 8+56.5 14.0' L
14A	A-5	395.51	400.77	HO CO SD 4.01	CL STA 10+60 14.0' L
16	A-5	397.50	401.63	HO CO SD 4.01	CL STA 11+36.5 14.0' R
17	A-5	397.80	401.82	HO CO SD 4.01	CL STA 11+55.5 14.0' L
18	A-5	396.75	401.27	HO CO SD 4.01	CL STA 19+03.5 14.0' L
19	A-5	398.20	402.42	HO CO SD 4.01	CL STA 17+93.5 14.0' R
22	A-10	390.65	394.29	HO CO SD 4.02	CL STA 7+56 14.0' R

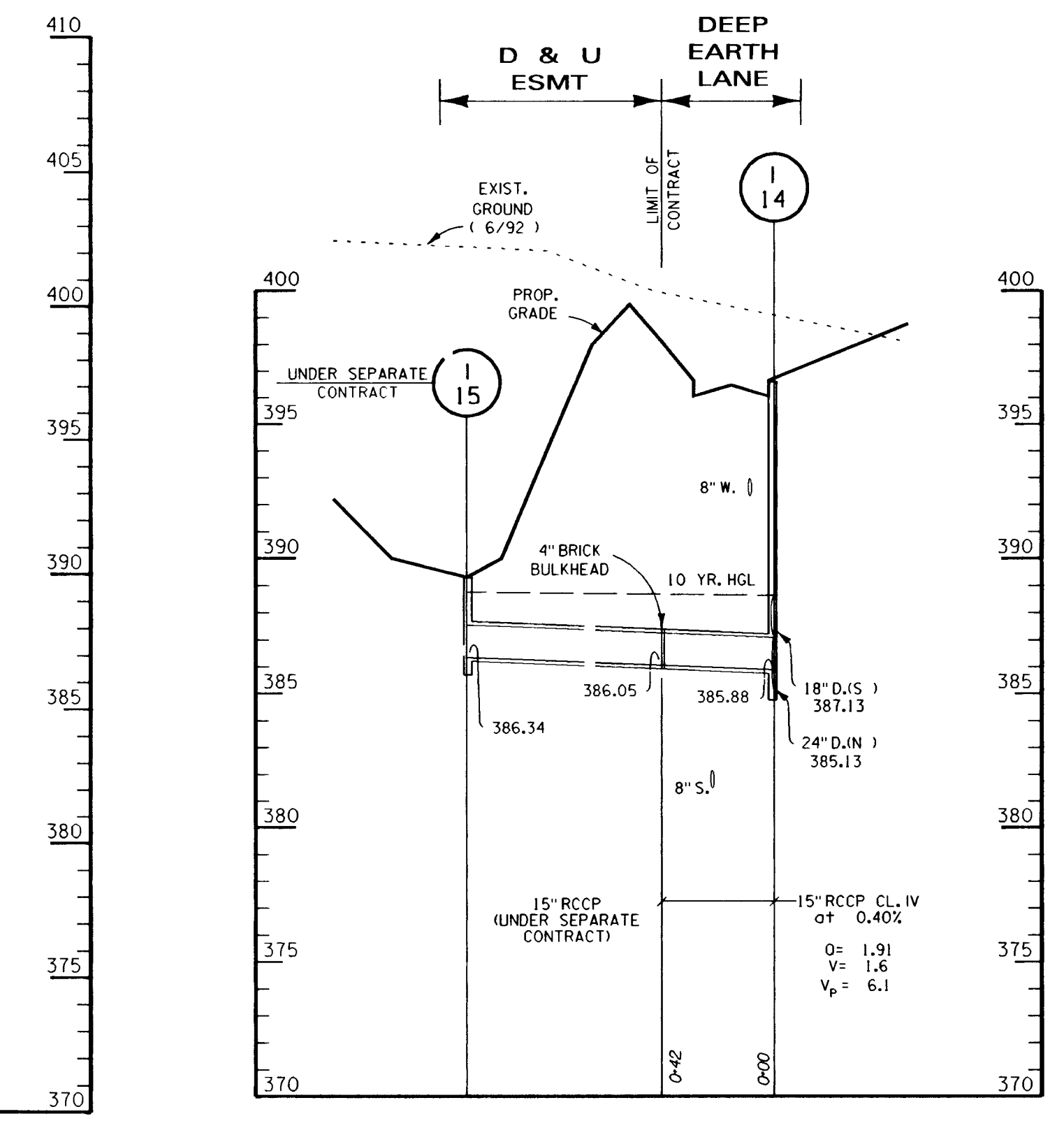
+ TOP ELEV. IS TOP OF CURB FOR A-5 & A-10 INLETS  
\* \* LOCATION OF INLET IS FACE OF CURB FOR 'A' INLETS

MANHOLE SCHEDULE

NO.	TYPE	INV. OUT	TOP ELEV.	DETAIL NO.	CL STA
6	4.0' SHALLOW MH	396.44	401.11	HO CO G 5.05	CL STA 11+33 16.3' L



STORM DRAIN PROFILES  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS  
*Richard M. Daniels* 9-21-93  
 CHIEF, BUREAU OF HIGHWAYS DATE

*Paul D. Spon* 10/16/93  
 CHIEF, BUREAU OF ENGINEERING DATE

*Chad Cameron* 10/16/93  
 CHIEF, LAND DEVELOPMENT DEPT. P.L.K. DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*Anna Trimmings* 10/26/93  
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

Date	No.	Revision Description

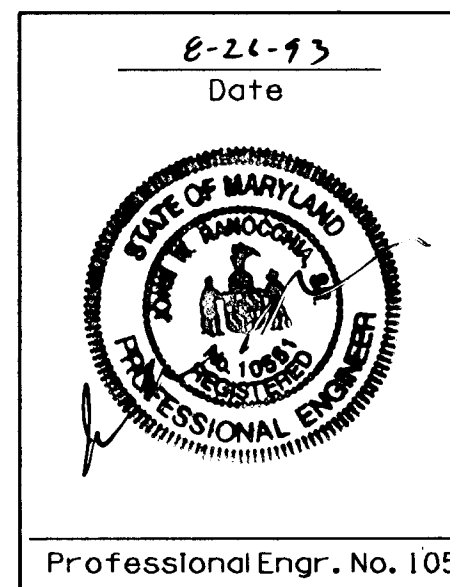
**LONGREACH**  
 SECTION 4, AREA 3, PHASE 220  
 OWNER / DEVELOPER  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**Daft McCune Walker, Inc.**  
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 410 296 3333  
 410 296 4705

AREA  
 TAX MAP A-31 THRU A-99  
 PART OF PARCEL 50  
 6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE  
**ROAD CONSTRUCTION DETAILS & STORM DRAIN PROFILES**

Des By JCS Scale AS SHOWN Proj. No. 890880  
 Drn By DBS Date 4/12/93  
 Chk By JWR Approved 4 OF 7





**LEGEND**

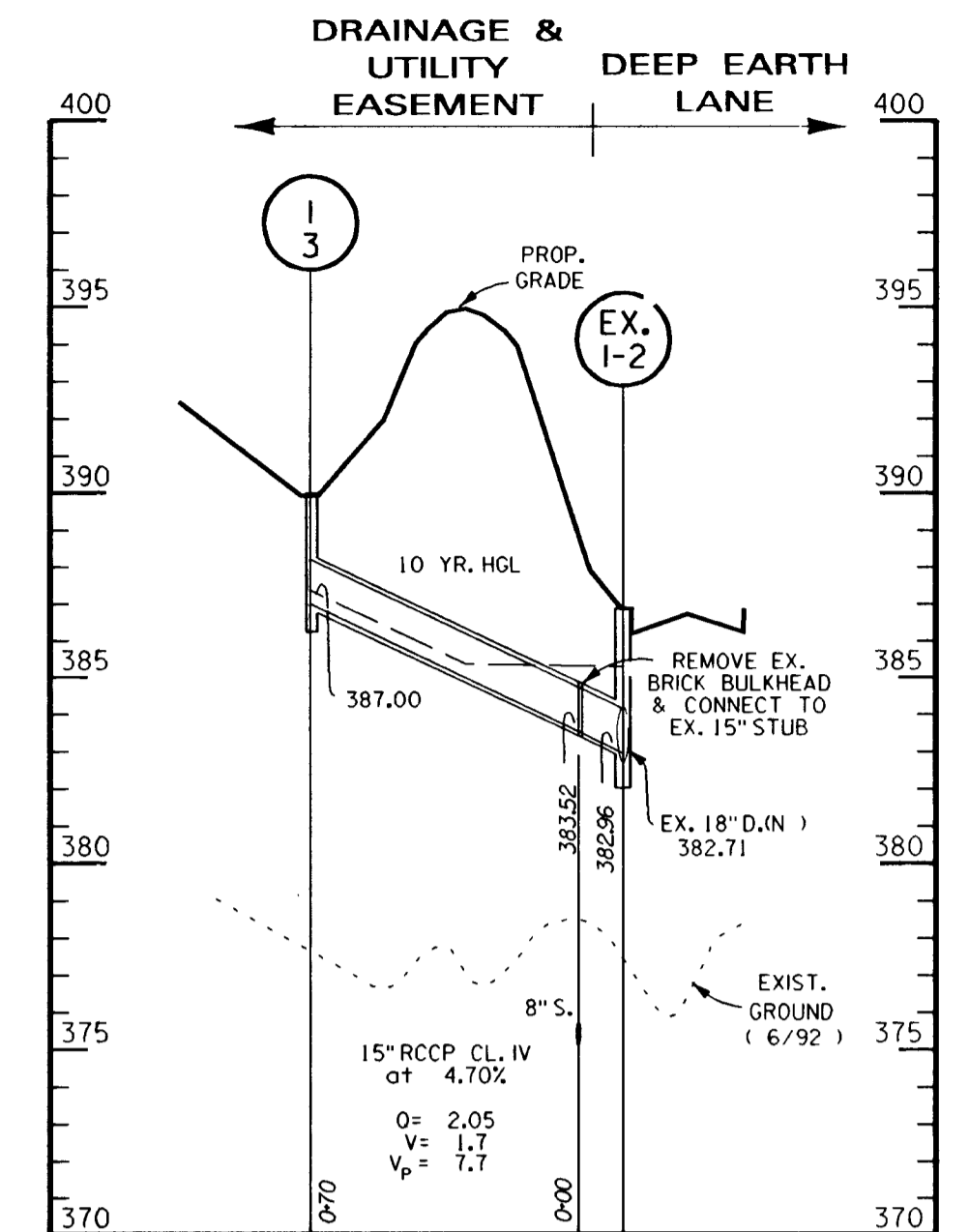
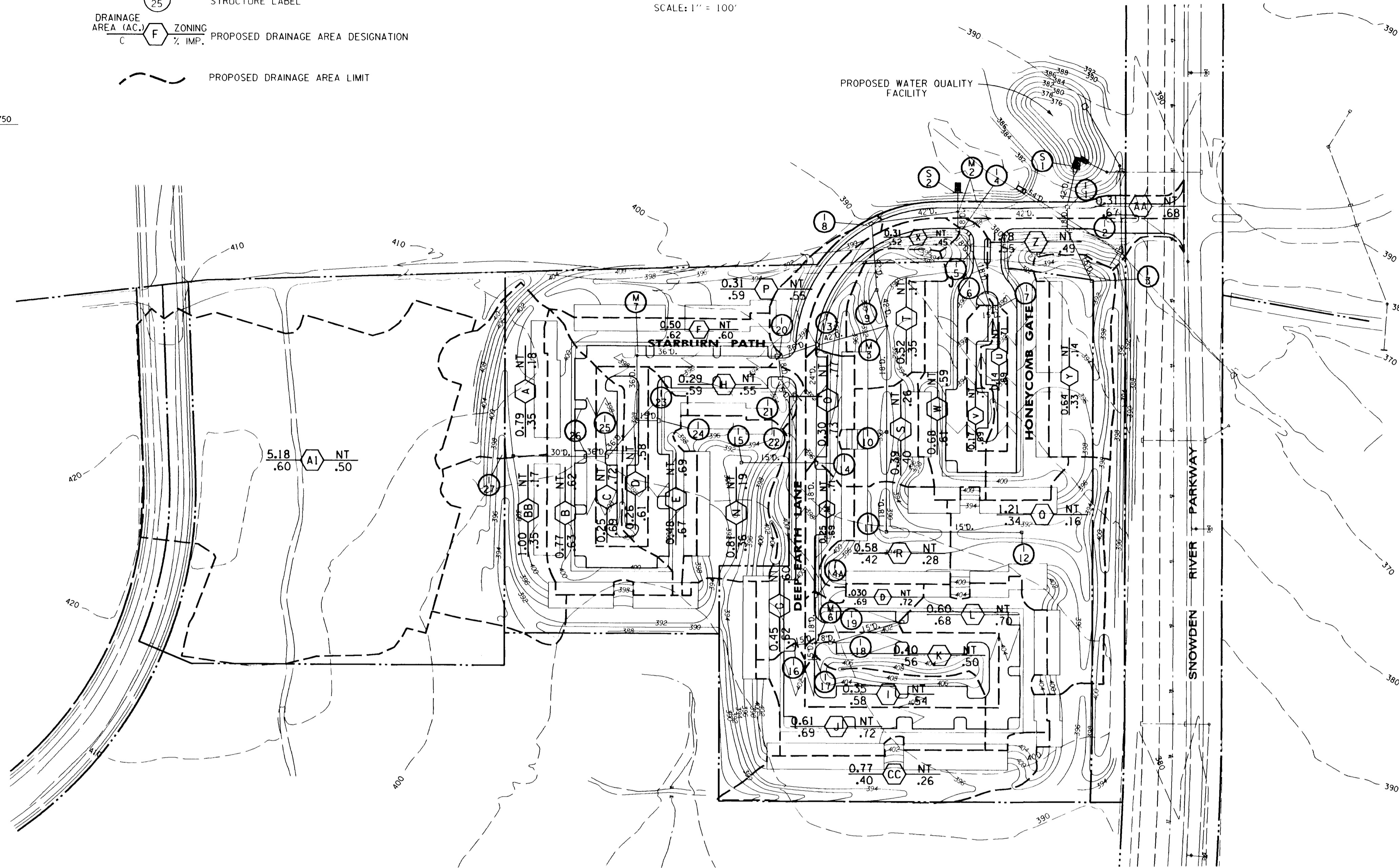
- MH 25 STRUCTURE LABEL
- DRAINAGE AREA (AC.) ZONING PROPOSED DRAINAGE AREA DESIGNATION
- C F % IMP.
- PROPOSED DRAINAGE AREA LIMIT

**DRAINAGE AREA MAP**

SCALE: 1" = 100'

PROPOSED WATER QUALITY FACILITY

E 1385000  
N 559750



**STORM DRAIN PROFILES**  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'

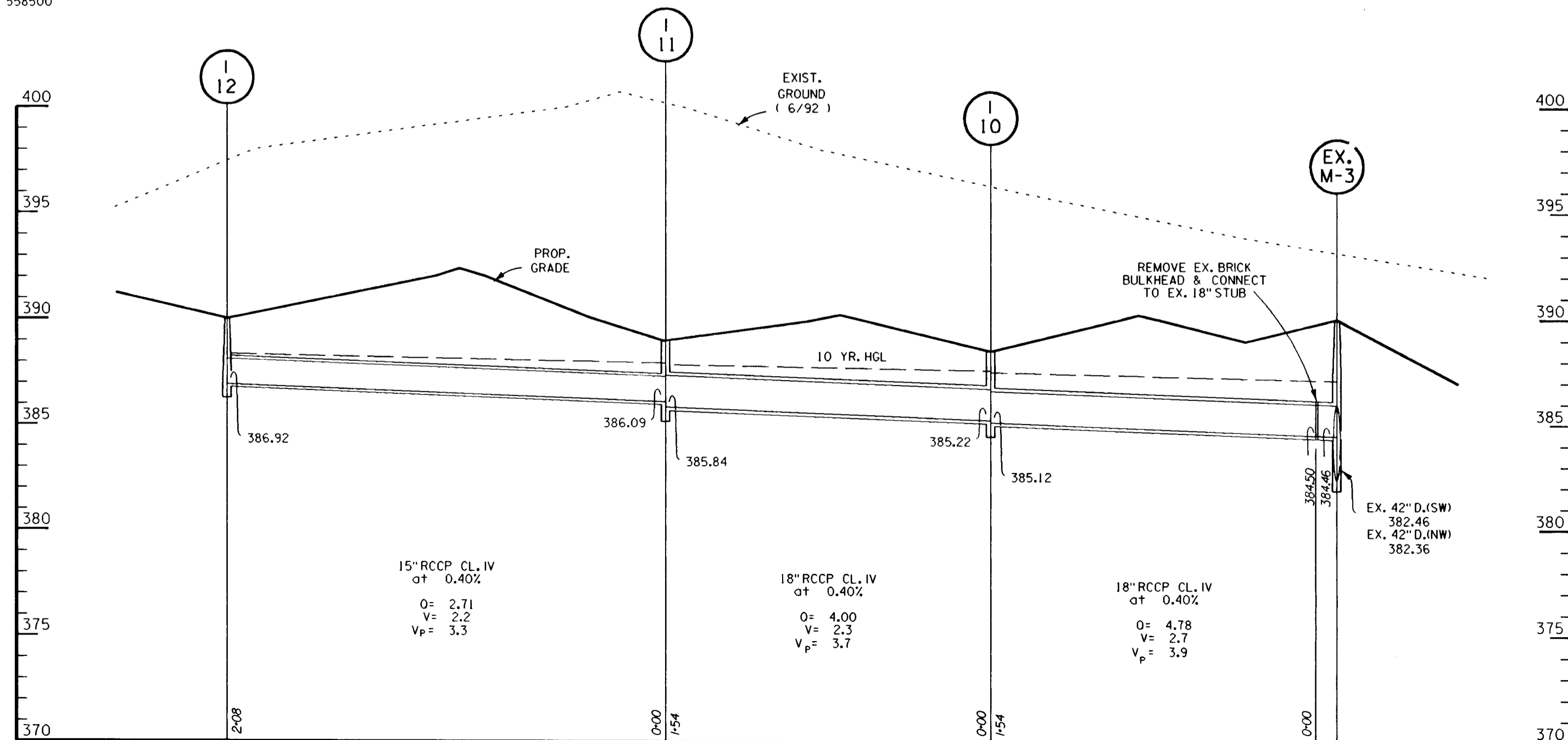
**INLET SCHEDULE**

NO.	TYPE	INV. OUT	TOP ELEV. *	DETAIL NO.	LOCATION **
3	'S'	387.00	390.00	HO CO SD 4.22	SEE PLAN
5	A-10	383.59	388.02	HO CO SD 4.02	CL STA 0+45 21.0' R
6	A-5	386.00	389.98	HO CO SD 4.01	CL STA 1+54.22 32.0' L
7	A-5	387.00	390.88	HO CO SD 4.01	CL STA 6+58 14.0' L
10	'S'	385.12	388.50	HO CO SD 4.22	SEE PLAN
11	'S'	385.84	389.00	HO CO SD 4.22	SEE PLAN
12	'S'	386.92	390.00	HO CO SD 4.22	SEE PLAN

\* TOP ELEV. IS TOP OF CURB FOR A-5 & A-10 INLETS AND TOP OF GRATE FOR 'S' INLETS.  
\*\* LOCATION OF INLET IS FACE OF CURB FOR 'A' INLETS AND CENTER OF INLET FOR 'S' INLETS.

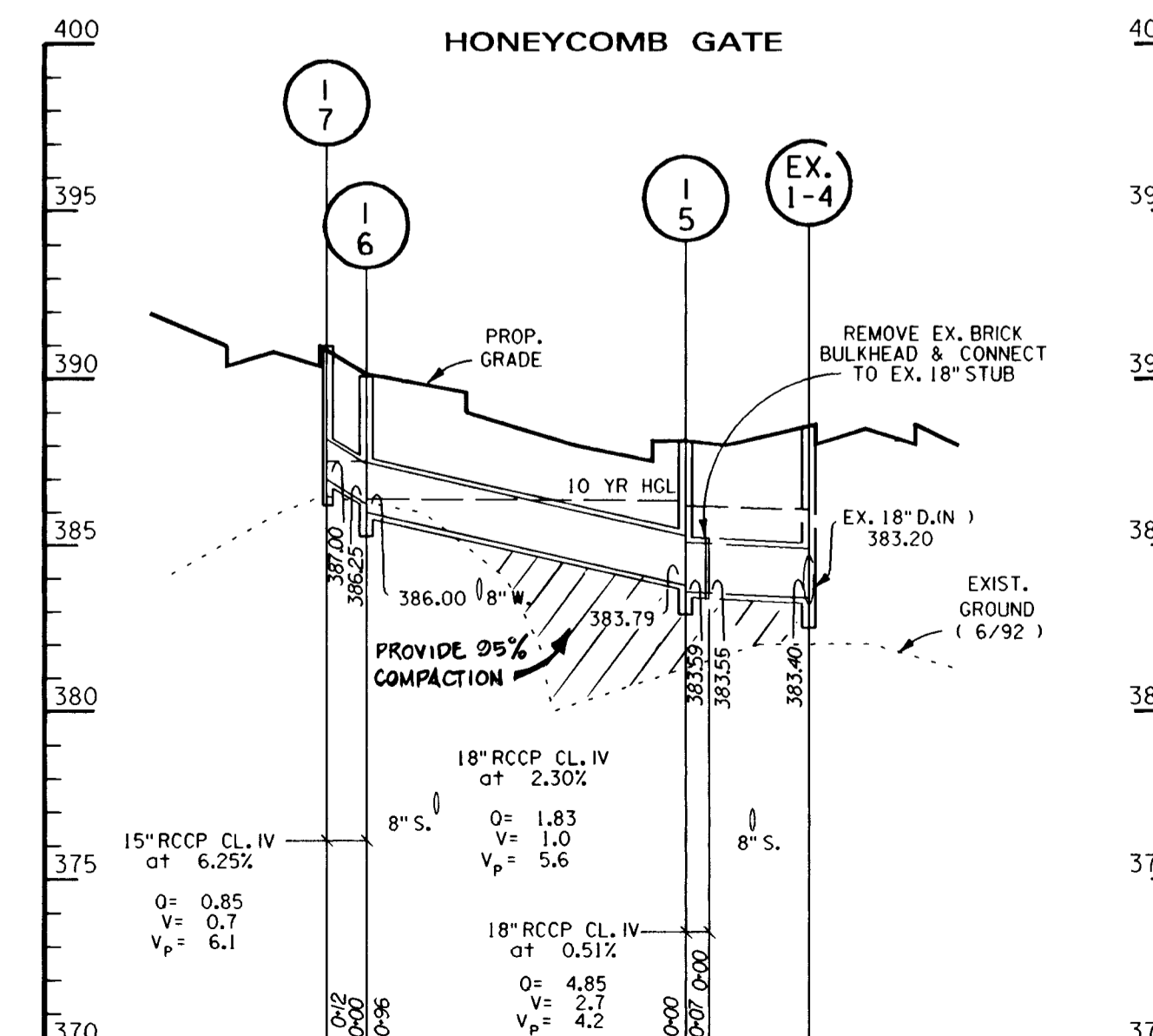
**DRAINAGE & UTILITY EASEMENT**

E 1385000  
N 558500



**STORM DRAIN PROFILES**  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'

E 1387250  
N 558500



APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

*Andrew M. Daveler* 9-21-93  
CHIEF, BUREAU OF HIGHWAYS DATE

*Paul D. Simpson* 10/18/93  
CHIEF, BUREAU OF ENGINEERING DATE

*Allen D. ...* 10/18/93  
CHIEF, LAND DEVELOPMENT DIVISION DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

*Jim Swannery* 10/26/93  
CHIEF, DIVISION OF LAND DEVELOPMENT, M.A. & RESEARCH DATE

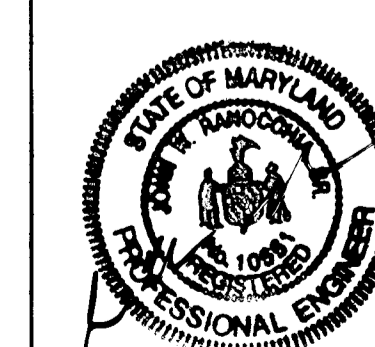
Date No. Revision Description

**LONGREACH**  
SECTION 4, AREA 3, PHASE 220  
OWNER / DEVELOPER

THE HOWARD RESEARCH & DEVELOPMENT CORP.  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

**Daft · McCune · Walker, Inc.**  
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
410 296 1333  
Fax 296 4705

0-26-93  
Date

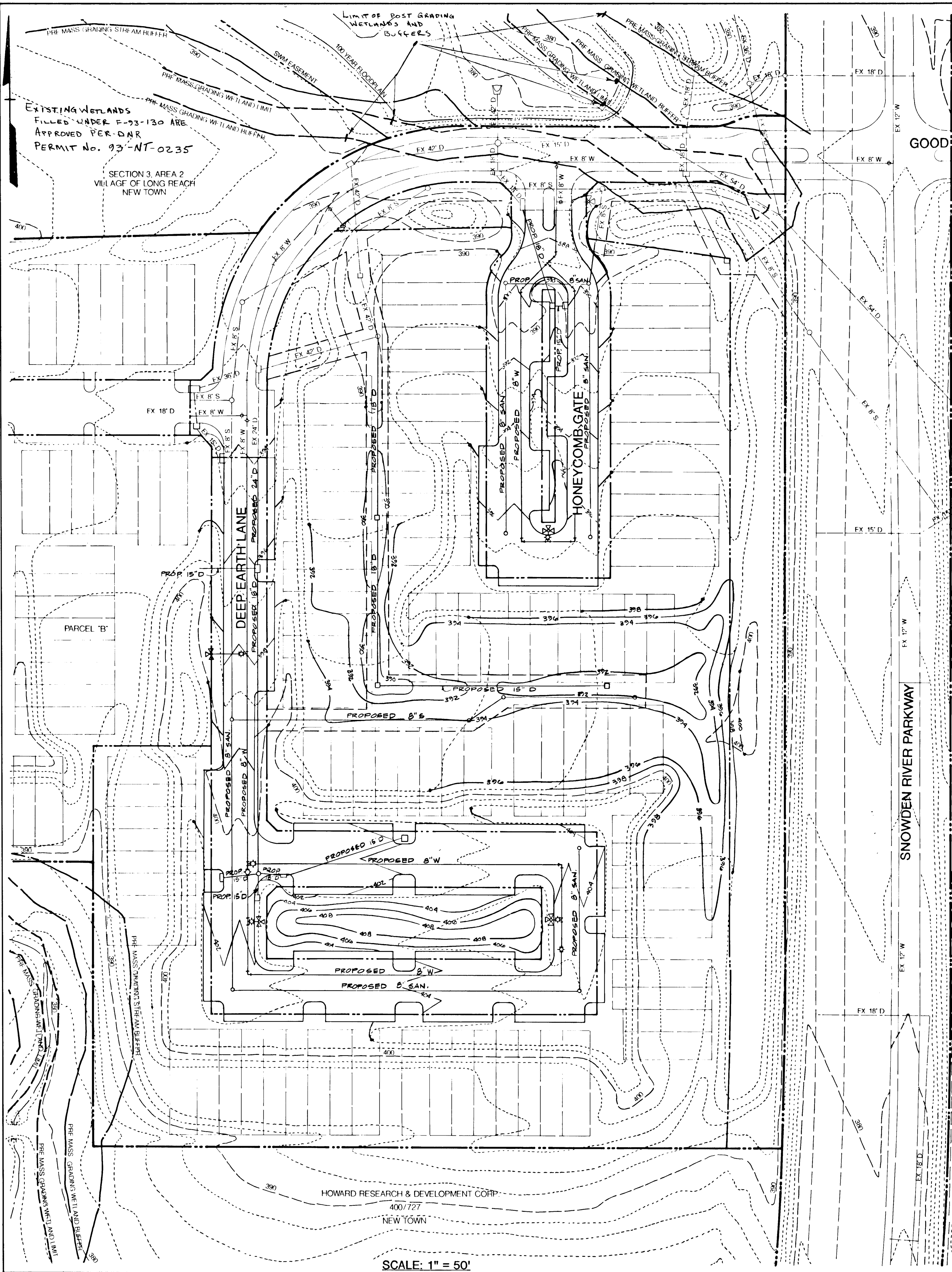


AREA LOTS A-1 THRU A-99  
TAX MAP 36.37 PART OF PARCEL 50  
6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE **STORM DRAIN PROFILES & DRAINAGE AREA MAP**

Des By FCB Scale 1" = 100' Proj. No. 890880  
Drn By JCS Date 4/12/93  
Chk By JWR Approved 5 OF 7





SECTION 3, AREA 2  
VILLAGE OF LONG REACH  
NEW TOWN

GOOD HUNTERS

RIDE

SOIL CONTROL  
SPECIFICATIONS

Temporary Methods:

- A. Mulches - See standards for critical area stabilization with mulches only. Chemical or wood cellulose fiber binders may be used instead of asphalt to bind mulch material.
  - B. Vegetative Cover - See standards for temporary vegetative cover.
  - C. Spray-on Adhesives - On mineral soils (not effective on silt soils). Keep traffic off these areas.
- | Water Dilution               | Type of Nozzle | Apply Gallons/Ac. |
|------------------------------|----------------|-------------------|
| Anionic asphalt emulsion 7:1 | Coarse Spray   | 1,200             |
| Latex emulsion 12 1/2:1      | Fine Spray     | 235               |
| Resin-in-water emulsion 4:1  | Fine Spray     | 300               |
- D. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
  - E. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed.
  - F. Barriers - Solid board fences, snow fences, burlap fences, crate walls. Walls of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.

Permanent Methods:

- A. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
- B. Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.
- C. Stone - Cover surface with crushed stone or coarse gravel.

Vegetative Stabilization with Sod

- 1. Class of turfgrass sod should be Maryland or Virginia State approved sod.
- 2. Sod should be mowed to a uniform soil thickness of 3/4 inch plus or minus 1/4 inch. At the time of cutting, mower blades should be adjusted to produce a uniform thickness throughout top growth and thatch.
- 3. Standard size sections of sod should be strong enough to support their own weight and retain their size and shape when subjected vertically with a firm grasp on the upper 10 percent of the section.
- 4. Individual pieces of sod should be spread to the supplier's width and length. Maximum allowable deviation from standard width and length shall be 5 percent. Broken sods and torn or uneven ends will not be acceptable.
- 5. Sod should be forwarded or transported when moisture content is excessively dry or wet. Sod should be stored in a shaded area and protected within a period of 36 hours. Sod not installed within this time period should be inspected and approved prior to its installation.

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

Seeding: - For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushels per acre of annual ryegrass (32 lbs/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gal per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not specified.

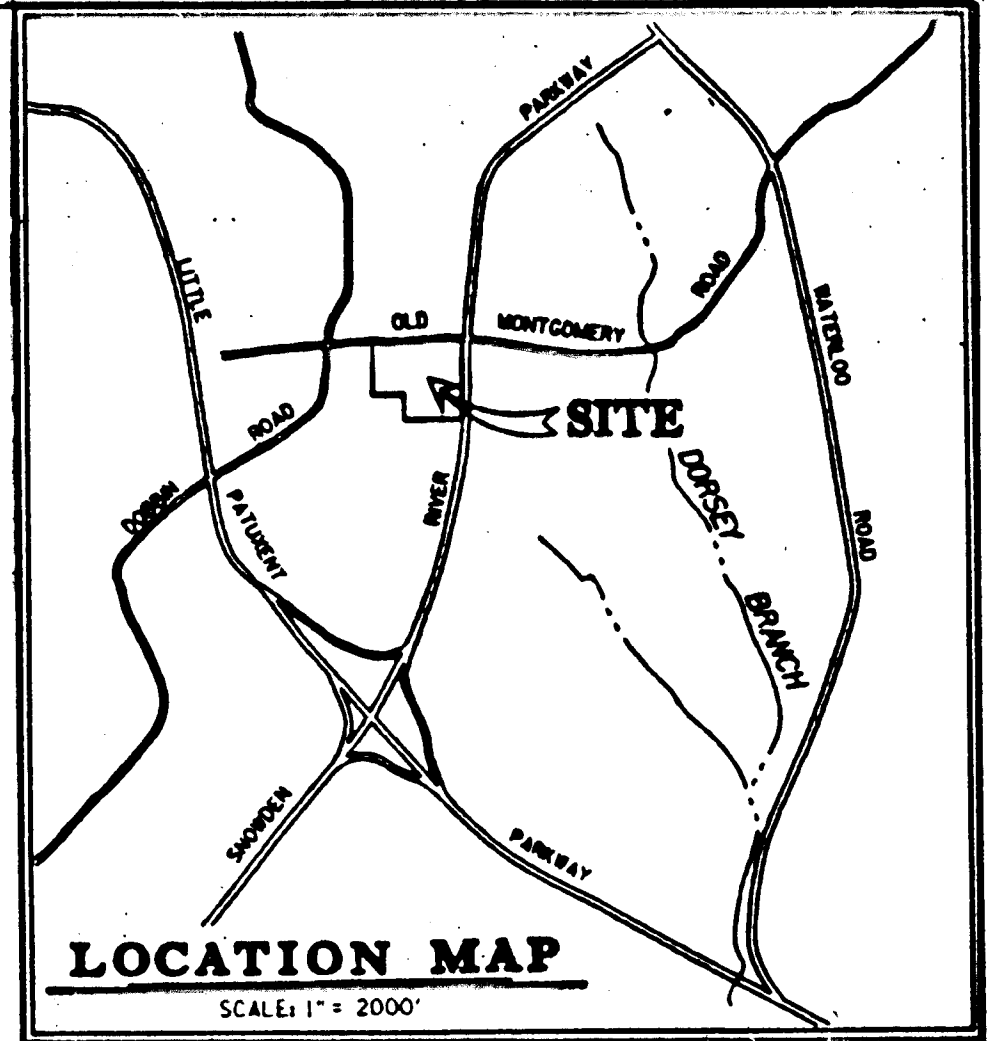
Howard Research & Development Corp.  
477/460  
NEW TOWN

Permanent Seeding Notes

- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Soil Amendments: - In lieu of soil test recommendations, use one of the following schedules:
  - 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
  - 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.
- Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) - 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) - Use sod. Option (3) - Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.
- Mulching - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.
- Maintenance - Inspect all seeding areas and make needed repairs, replacements and reseedings.

- 1) A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction, (313-1850).
- 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- 3) Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within 4) 7 calendar days for all perimeter sediment control structures, dikes, embankments and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainages.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (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 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	20.0 Acres ±
Area to be seeded or paved	1.0 Acres ±
Area to be vegetatively stabilized	3.4 Acres ±
Total Cut	4.475 Cu. Yds. ±
Total Fill	4.475 Cu. Yds. ±
Offsite waste/borrow area location	N/A
- 8) Any sediment control practices which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 10) On all sites with disturbed areas in process 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 grading or sediment control approvals may not be authorized until this initial approval by the Inspection agency is made.
- 11) Trenches for the construction of utilities is limited to three pipe lengths or that which can be back filled and stabilized within one working day, whichever is shorter.



BY THE DEVELOPER:  
I, *Ernest I. Sheppell*, certify that all development and/or construction will be done according to these plans, and that all responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Ernest I. Sheppell* 8-26-93  
DATE

BY THE ENGINEER:  
I, *Ernest I. Sheppell*, certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
*Ernest I. Sheppell* 8-26-93  
SIGNATURE OF ENGINEER 10580 DATE  
*Ernest I. Sheppell*

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.  
*John R. Robertson* 9/3/93  
SIGNATURE OF THE H. S. WATKINS SERVICE 7/3/93  
DATE  
*John R. Robertson*  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS  
*Andrew M. Ducker* 9-21-93  
CHIEF, BUREAU OF HIGHWAYS DATE  
*James H. Spang* 10/10/93  
CHIEF, BUREAU OF ENGINEERING DATE  
*Charles Dammann* 10/16/93  
CHIEF, LAND DEVELOPMENT DIVISION M.K. DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*Gina Jurnan* 10/26/93  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
RESEARCH

Date	No.	Revision Description

**LONGREACH**  
SECTION 4, AREA 3, PHASE 220  
OWNER / DEVELOPER

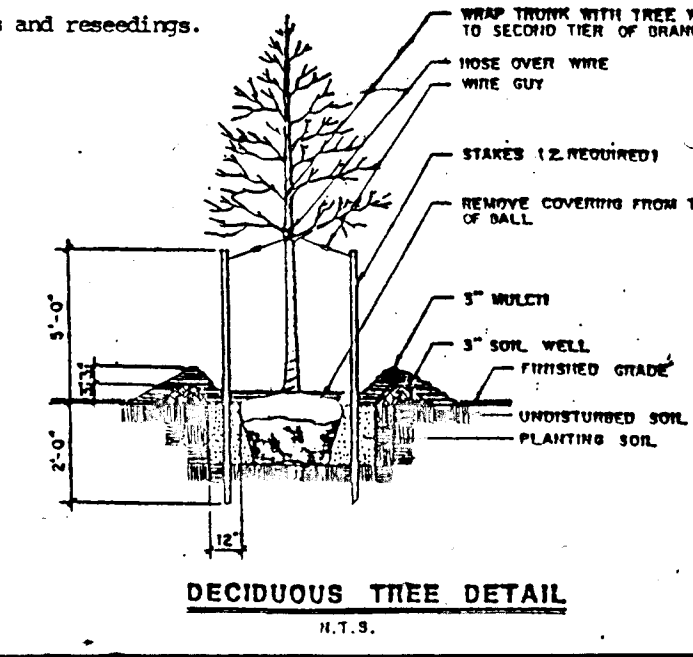
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

**DMW**  
**Daft · McCune · Walker, Inc.**  
200 E. 10th Street, Annapolis, Maryland 21403  
410.296.1331  
Fax 296.4705

AREA: LOTS A-1 THRU A-99  
TAX MAP 36.37 PART OF PARCEL 80  
6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE: **GRADING PLAN**

Des By	CRW	Scale	AS SHOWN	Proj. No.	89088D
Drn By	CRW	Date	4/1/93		
Chk By	JWR	Approved			6 OF 7



8-26-93  
Date

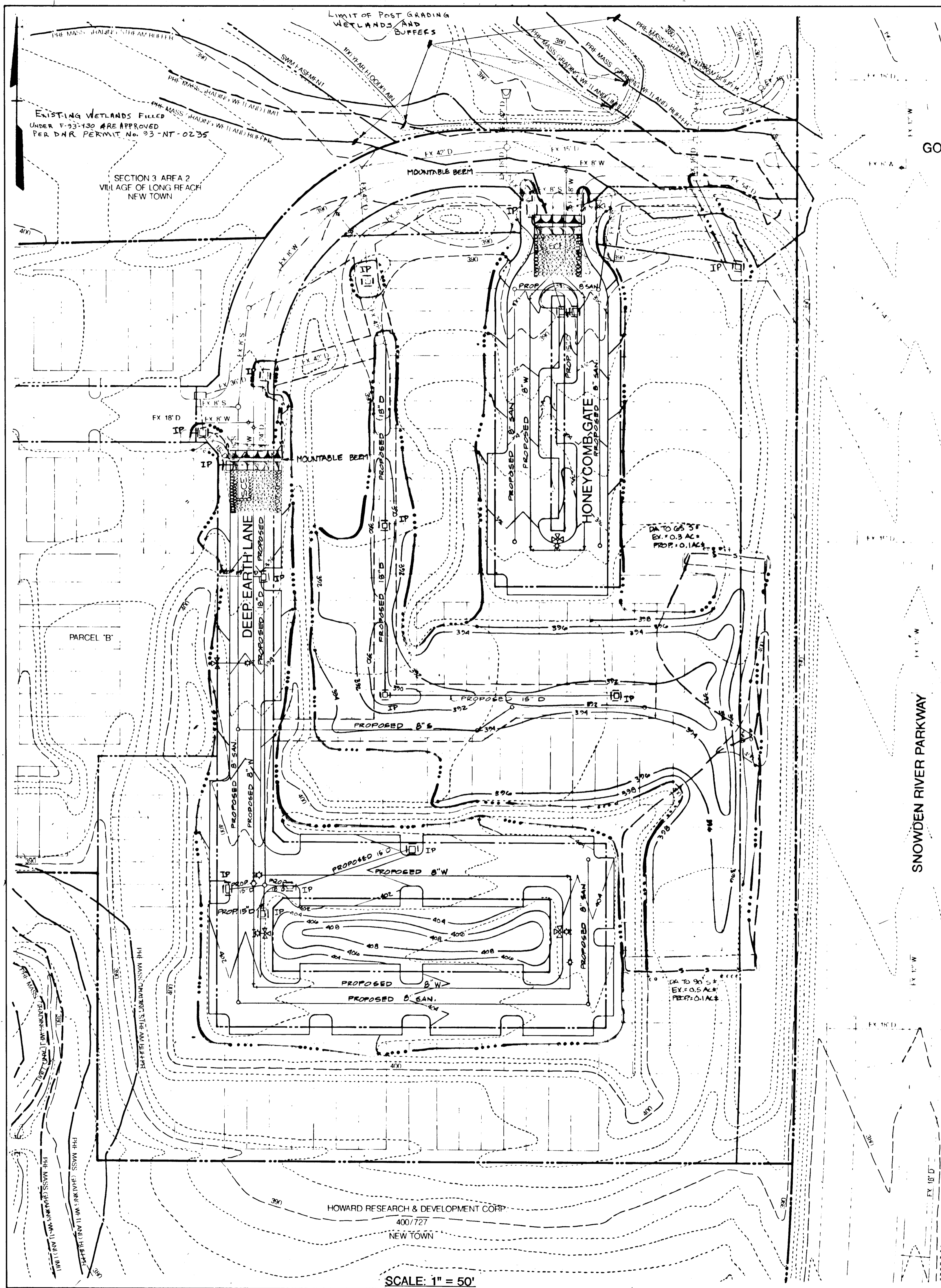
*Ernest I. Sheppell*  
Professional Engr. No. 16580

100

SCALE: 1" = 50'

F-93-121





SECTION 4 AREA 2  
VILLAGE OF LONG REACH  
NEW TOWN

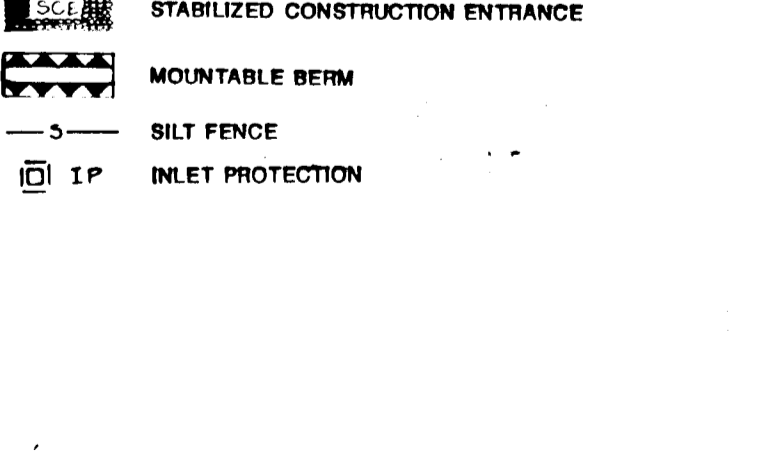
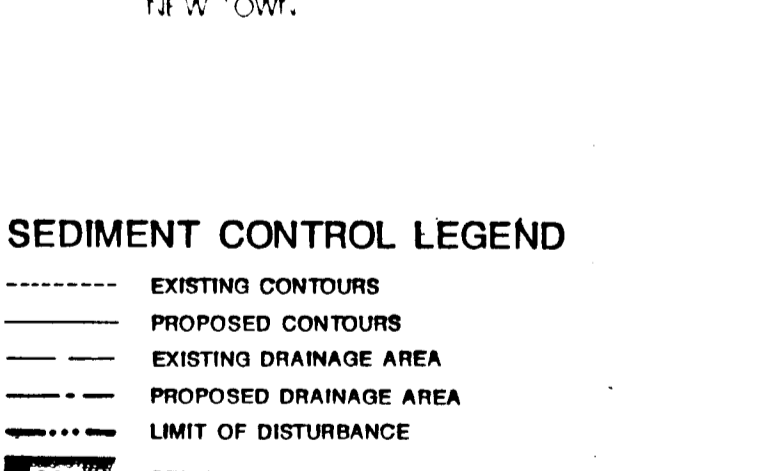
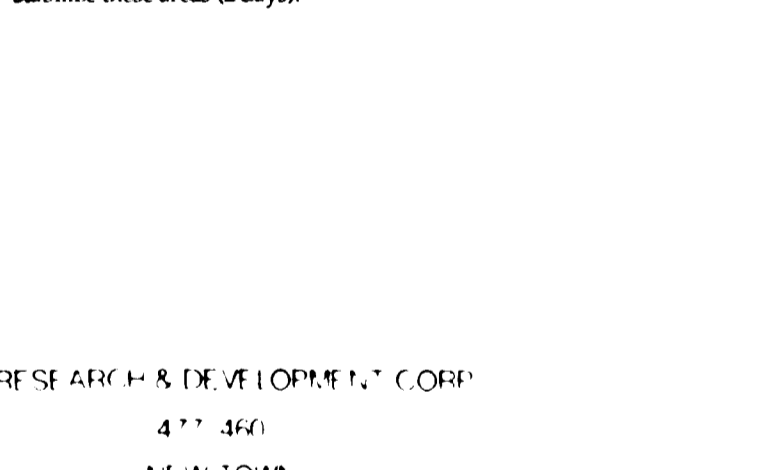
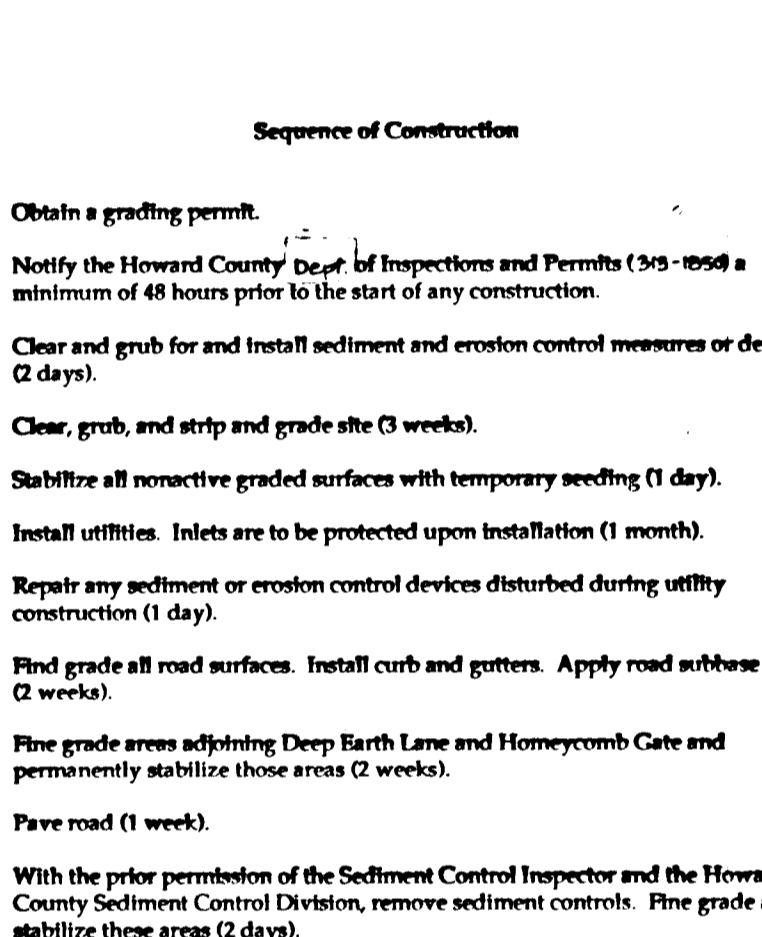
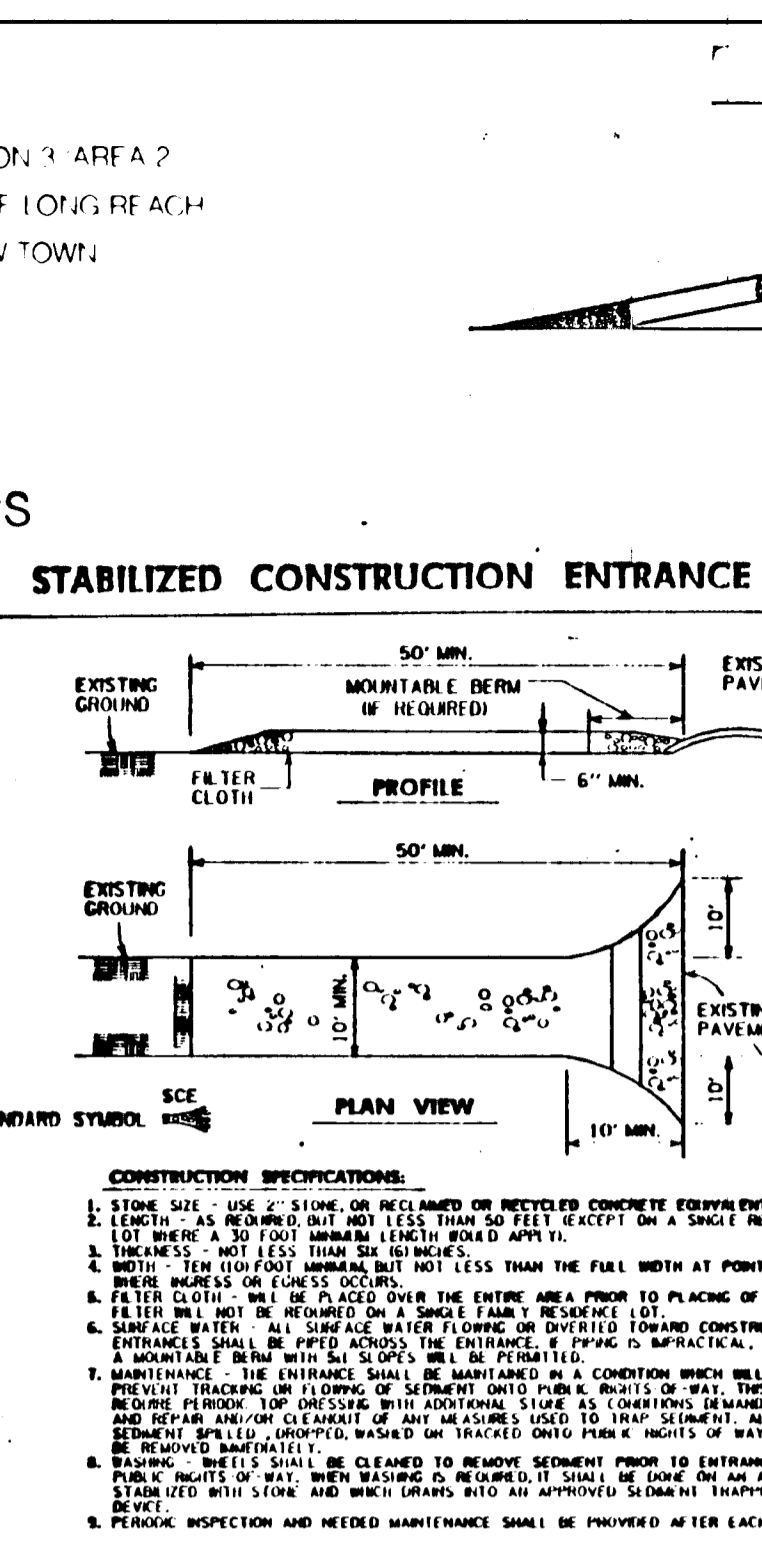
GOOD HUNTERS RIDE

SNOWDEN RIVER PARKWAY

HOWARD RESEARCH & DEVELOPMENT CORP.  
477 360  
NEW TOWN

HOWARD RESEARCH & DEVELOPMENT CORP.  
400/727  
NEW TOWN

SCALE: 1" = 50'



CONSTRUCTION SPECIFICATIONS

1. MATERIALS

A. WOODEN FRAME IS TO BE CONSTRUCTED OF 2" X 4" CONSTRUCTION GRADE LAMBERS.

B. WIRE MESH MUST BE OF SUPERIOR QUALITY TO SUPPORT FILTER FABRIC AND STONE FOR CURB INLETS.

C. FILTER CLOTH MUST BE OF A TYPE RESISTANT TO SINKING WITH SEVERE WEAR AND TEAR.

D. STONE IS TO BE 2" IN SIZE AND CLEAN, SPLIT FACES SHOULD BE TO THE TOP.

2. CONSTRUCTION

A. SWALE DITCH ONE OR TWO INCH PROTECTION.

B. EXCAVATE COMPLETELY REMOVING TO A DEPTH OF 18" BELOW FINISH ELEVATION.

C. DRIVE 2" X 4" POST 1' INTO GROUND AT FOUR CORNERS OF 18" NOTCH AREA BETWEEN POSTS ON ENDS OF INLET.

D. TOP OF FRAME (WHICH MUST BE 6" BELOW EDGE OF ROADWAY ADJACENT TO INLET).

E. SET CURB INLET PROTECTION FRAME AND ANCHORS ADJACENT TO INLET.

F. STRETCH FILTER CLOTH TIGHTLY OVER WIRE MESH. THE CLOTH MUST EXTEND FROM TOP OF FRAME TO 18" BELOW FINISH ELEVATION. SECURE TO FRAME WITH 18" GALVANIZED STEEL RINGS AT POSTS.

G. BACKFILL AROUND INLET IN COMPACTED 6" LAYERS UNTIL LAYER OF EARTH IS EVEN WITH NOTCH TOP OF FRAME AND ANCHORS.

H. IF INLET IS NOT IN A LOW POINT, CONSTRUCT A COMPACTED EARTH ONE INCH DITCH ONE INCH TO THE TOP OF FRAME AND ANCHORS.

I. THIS STRUCTURE MUST BE INSPECTED FREQUENTLY AND THE FILTER FABRIC REPLACED WHEN CLOGGED.

3. CURB INLET PROTECTION

A. ATTACH A CONTINUOUS PIECE OF WIRE MESH 120" MINIMUM WIDTH BY THROAT LENGTH PLUS 4" TO THE 2" X 4" WIRE BRACING THROAT LENGTH PLUS 2" AS SHOWN ON THE STANDARD DRAWING.

B. PLACE A PIECE OF FILTER CLOTH OVER THE WIRE MESH AS SHOWN ON THE STANDARD DRAWING.

C. SECURE THE WIRE MESH AND FILTER CLOTH TO THE 2" X 4" WIRE.

D. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND ANCHORS (MINIMUM 2" LENGTHS OF 2" X 4" TO THE TOP OF THE WIRE AT SPACER LOCATIONS). THESE 2" X 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE USED BY FACE BY SHOWN ON ALTERNATE HEIGHT.

E. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1" BEYOND BOTH ENDS OF THE THROAT OPENING.

F. FROM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE CURBLET AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET, PLACE CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC BY SUCH METHOD AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE FABRIC BY ANY MEANS.

G. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED.

H. ASSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OR ASPHALT ONE INCH TO THE TOP OF FRAME AND ANCHORS.

SEDIMENT CONTROL LEGEND

EXISTING CONTOURS

PROPOSED CONTOURS

EXISTING DRAINAGE AREA

PROPOSED DRAINAGE AREA

LIMIT OF DISTURBANCE

STABILIZED CONSTRUCTION ENTRANCE

MOUNTABLE BERM

SILT FENCE

INLET PROTECTION

UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL PRACTICES

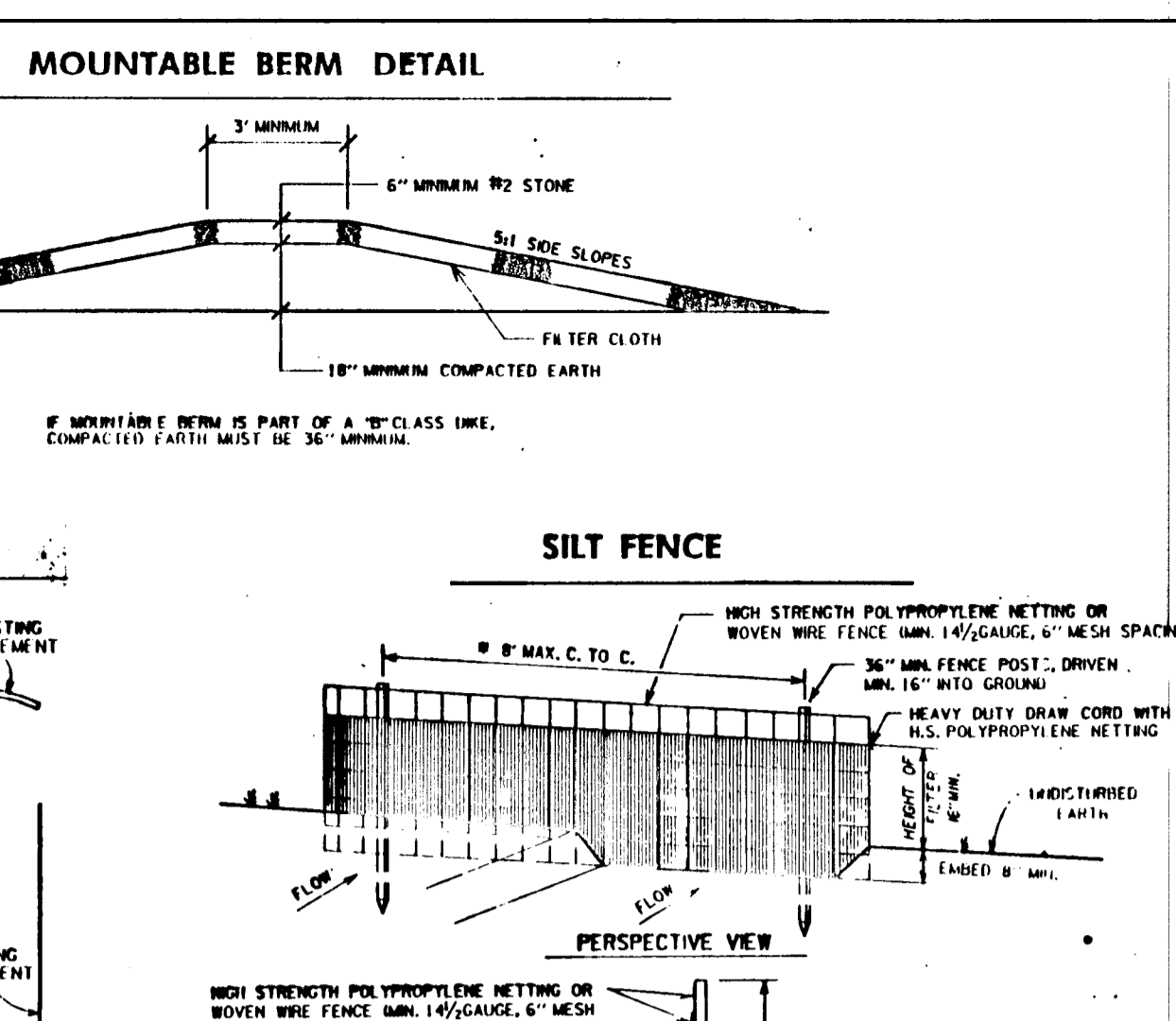
1. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON UPSTREAM SIDE OF TRENCH.

2. IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND IMMEDIATELY STABILIZED (MULCHED, SEED, AND/OR SOILED MECHANICAL STABILIZATION) AT THE END OF EACH WORK DAY.

3. SILT FENCE SHALL BE PLACED IMMEDIATELY DOWN STREAM OF ANY DISTURBED AREA INTENDED TO REMAIN UNDISTURBED LONGER THAN ONE (1) WORKING DAY. SILT FENCE AS PER 2003 STABILIZED CONSTRUCTION.

4. THE CONTRACTOR SHALL DISTURB AND OPEN TRENCH THE MINIMUM PRACTICAL AREA REQUIRED TO ACCOMPLISH THE WORK DESIGNATED FOR EACH DAY.

5. ALL SEDIMENT AND EROSION CONTROL PRACTICES AND VEGETATIVE STABILIZATION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.



BY THE DEVELOPER:

I, *Emmett Sheppard*, DO-26-93  
SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

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

*Emmett Sheppard* DO-26-93  
SIGNATURE OF ENGINEER DATE

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

*J. H. Wainfield* 9/3/93  
JES, SOIL CONSERVATION DISTRICT DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John R. Robinson* 9/3/93  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED HOWARD COUNTY DEPT OF PUBLIC WORKS

*Andrew M. Daniels* 9-21-93  
CHIEF BUREAU OF HIGHWAYS DATE

*Paul M. Simpson* 10/18/93  
CHIEF BUREAU OF ENGINEERING DATE

*Chris D. Davern* 10/18/93  
CHIEF LAND DEVELOPMENT DIVISION M.K. DATE

APPROVED HOWARD COUNTY DEPT OF PLANNING AND ZONING

*Ann L. Jaramany* 10/26/93  
CHIEF DIVISION OF LAND DEVELOPMENT DATE

LONGREACH  
SECTION 4, AREA 3, PHASE 220  
OWNER / DEVELOPER

THE HOWARD RESEARCH & DEVELOPMENT CORP.  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

**DMW**  
Daft · McCune · Walker, Inc.

AREA A LOTS A-1 THRU A-99  
TAX MAP 36.37 PART OF PARCEL 50  
6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE  
SEDIMENT & EROSION CONTROL PLAN

Des By CRW Scale AS SHOWN Proj. No. 890880  
Dn By CRW Date 4/1/93  
Chk By EIS Approved 7 OF 7

8-26-93  
Professional Engr. No. 16580

100

LIMIT OF DISTURBANCE: 239,909 S.F. ± OR 5.51 AC ±

8-26-93  
Professional Engr. No. 16580

8-26-93  
Professional Engr. No. 16580

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Professional Engr. No. 16580

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