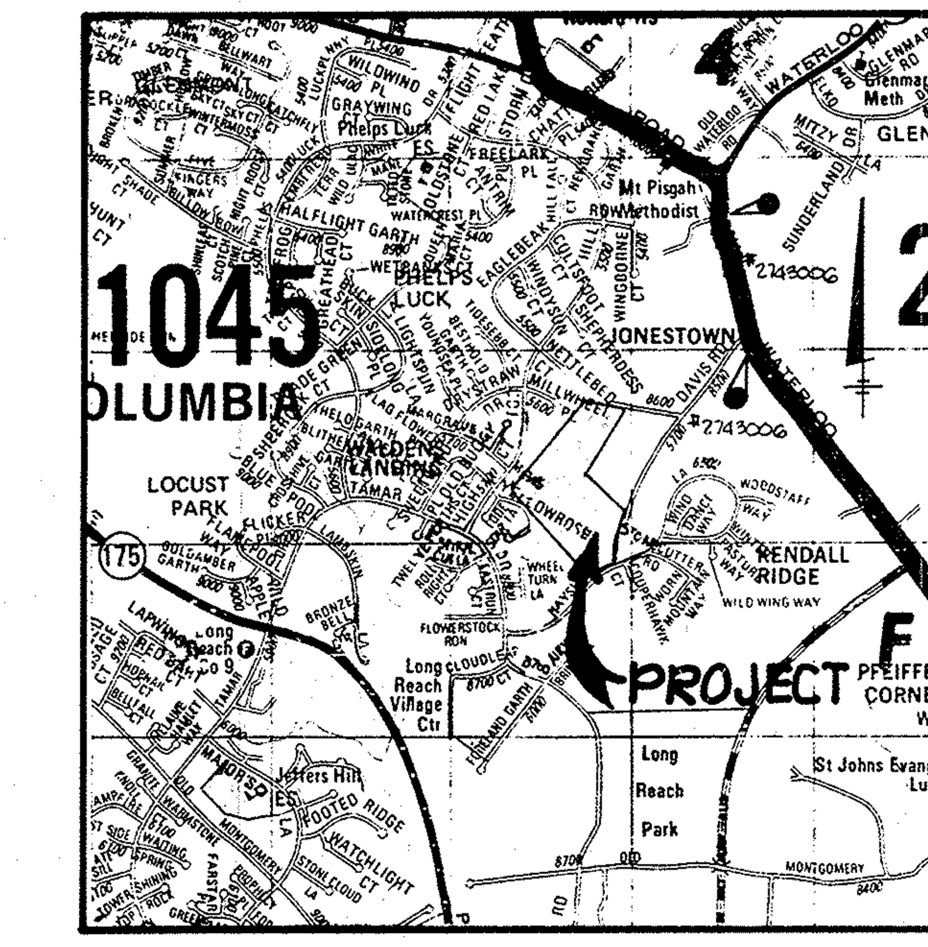
SHEET INDEX

ROADWAY, STORMDRAINS & STORM WATER MANAGEMENT

LONG MEADOW

6 TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=2000'

NOTE: 10/22/15 CAPITAL PROJECT D-1159 PRINCIPLE SPILLWAY REPAIR IN POND #1, OPEN SPACE LOT 15 BY REPLACING THE CMP ANTI-VORTEX DEVICE CONTROL STRUCTURE AND 60" CMP WITH AN RCP OUTLET CONTROL STRUCTURE AND 54" RCP.

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
4. CONTRACTOR SHALL NOTIFIY THE FOLLOWING UTILITIES AT LEASE FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISS UTILITY	1-800-257-7777
BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 or 3554
BALTIMORE GAS AND ELECTRIC COMPANY	539-8000, ext. 691
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	792-7272

5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
6. ALL STREET CURB RETURNS SHALL HAVE 35.0' RADII UNLESS OTHERWISE NOTED.
7. STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
8. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1978 EDITION.
9. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

    ALL 50' RIGHT-OF-WAYS 25 & 30 M.P.H.

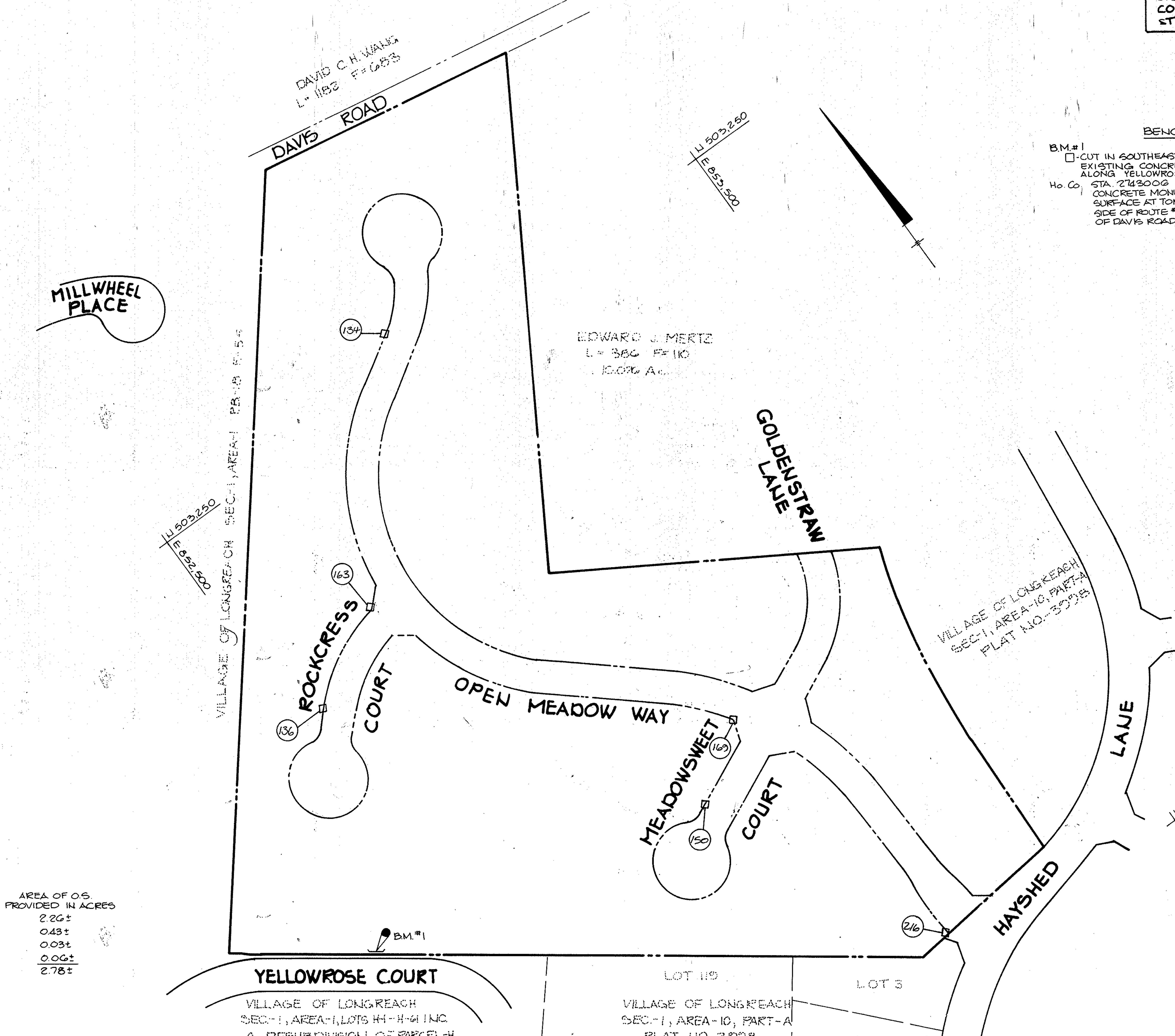
11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
12. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
13. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
14. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
15. SUBJECT PROPERTY ZONED R-12 PER 8-2-85 COMPREHESIVE ZONING PLAN.
16. TOPO TAKEN FROM FIELD RUN SURVEY DATED SEPTEMBER, 1985 BY THE RIEMER GROUP, INC.
17. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
18. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
19. SEE OFFICE OF PLANNING AND ZONING FILE NO'S S 86 37 & P 86 40.
20. THE EXISTING DRIVEWAY WILL BE ABANDONED WHEN OTHER PUBLIC ACCESS BECOMES AVAILIBLE.

BENCH MARKS

B.M.#1 ELEV. 411.04
□-CUT IN SOUTHEAST CORNER OF EXISTING CONCRETE WINGWALL ALONG YELLOWROSE CT.

Ho. Co. STA. 2743006 ELEV. 515.094
CONCRETE MONUMENT 0.1' BELOW SURFACE AT TOP OF BANK WEST SIDE OF ROUTE #108, 100'± SOUTH OF DAVIS ROAD.

HORIZONTAL & VERTICAL CONTROLS USED IN AS-BUILT SURVEY



PLAN
SCALE: 1"=100'

LOT SIZE IN SQ.FT.	NO. OF LOTS	AREA IN ACRES	O.S. REQUIRED	AREA OF O.S. REQUIRED IN ACRES	AREA OF O.S. PROVIDED IN ACRES
12,000 OR GREATER	17	5.67±	8%	0.45±	2.26±
10,800 - 11,999	3	0.78±	10%	0.08±	0.43±
9600 - 10,799	18	4.16±	20%	0.83±	0.03±
8400 - 9599	23	4.71±	30%	1.41±	0.06±
TOTALS	61			2.77±	2.78±

DENSITY TABULATION

GROSS AREA	FLOODPLAIN STEEP SLOPES	NET AREA	NO. OF DWELLING UNITS ALLOWED	FLOODPLAIN LOT ADJUSTMENT	TOTAL NO. OF D.U. PROPOSED	TOTAL NO. OF D.U. ALLOWED	DENSITY PER ACRE
21.96Ac±	1.67Ac±	20.29Ac±	61	0	61	0	3.00

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

[signature] 9-9-86
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[signature] 9-11-86
CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO.	REVISION
12/22/15	1	Add Capital Project D-1159 ref.

OWNER:
GEORGE C. DEERING
ROBERT M. HANKIN
ROBERT R PRELLER
5838 STILLMEADOW LANE
COLUMBIA, MARYLAND

DEVELOPER:
LONG MEADOW VENTURERS
ONE KNOLL NORTH DRIVE
SUITE 502
COLUMBIA, MARYLAND

PROJECT: **LONG MEADOW**
SECTION ONE
LOTS 1 THRU 65

AREA TAX MAP NO. 36 PARCEL NO. 263
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **TITLE SHEET**

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

9-4-86
DATE

STATE OF MARYLAND ARTHUR E. MUEGGE III No. 8707 REGISTERED PROFESSIONAL ENGINEER

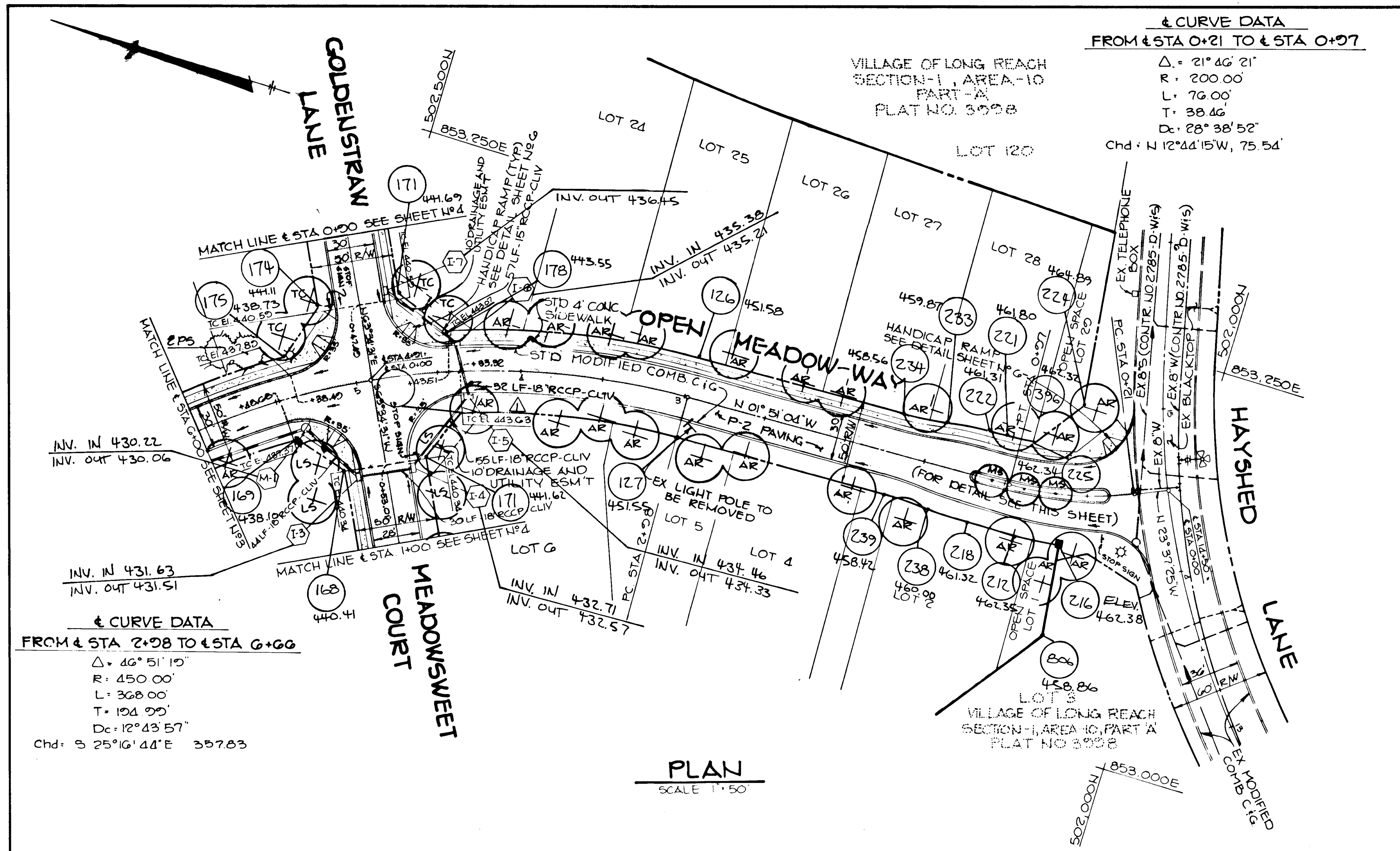
[signature]
ARTHUR E. MUEGGE #8707

DESIGNED BY:	D.A.M.
DRAWN BY:	F.D.M
PROJECT NO:	23000
DATE:	JULY 31, 1986
SCALE:	AS SHOWN
DRAWING NO.	1 OF 10

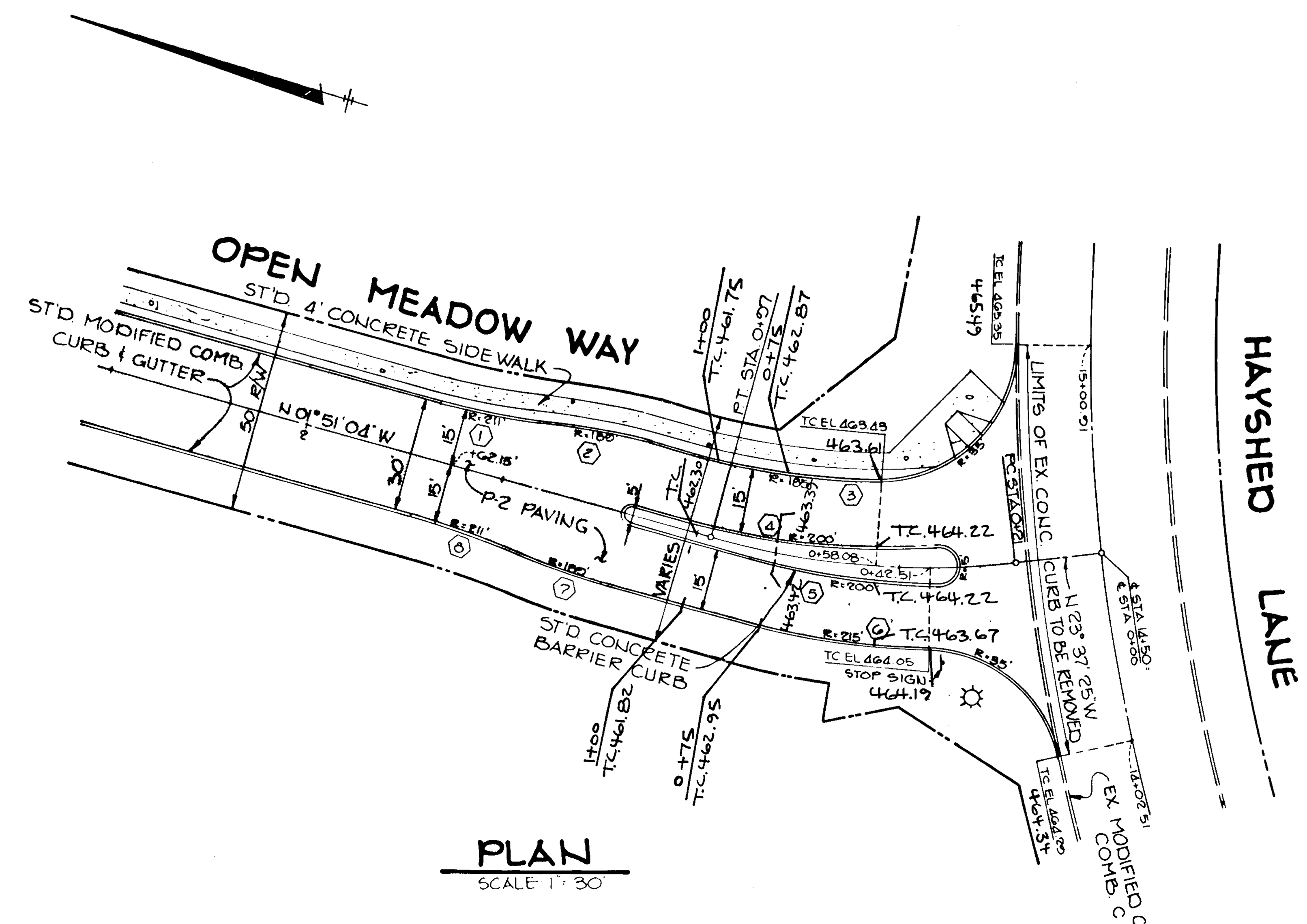
AS-BUILT DEC. 16, 1991

F-86-203

1234



PLAN
SCALE 1"=50'



PLAN
SCALE 1"=30'

CURVE DATA

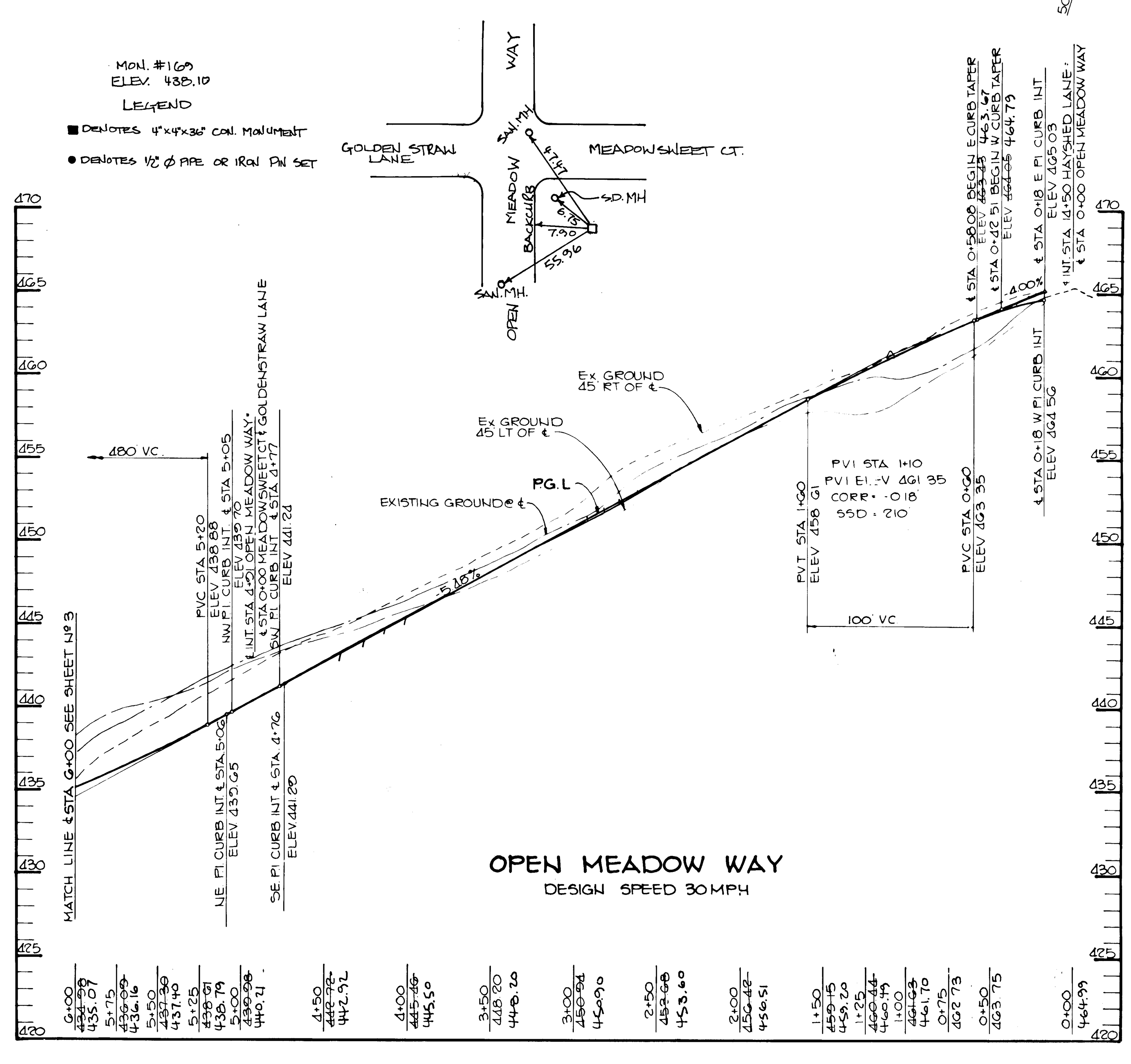
NO.	Δ	RAD.	LEN.	TAN.	CHD.	L.C.B.
1	06°24'33"	211.00'	23.60'	11.81'	23.59'	N05°03'21"W
2	06°24'33"	189.00'	21.14'	10.58'	21.13'	N05°03'21"W
3	13°39'21"	185.00'	44.09'	22.15'	43.99'	N08°40'45"W
4	18°28'38"	200.00'	64.50'	32.53'	64.22'	S11°05'23"E
5	13°43'28"	200.00'	47.91'	24.07'	47.79'	S08°42'49"E
6	13°13'47	215.00'	49.64'	24.93'	49.53'	S08°27'58"E
7	06°24'33"	189.00'	21.14'	10.58'	21.13'	S01°21'13"W
8	06°24'33"	211.00'	23.60'	11.81'	23.59'	S01°21'12"W

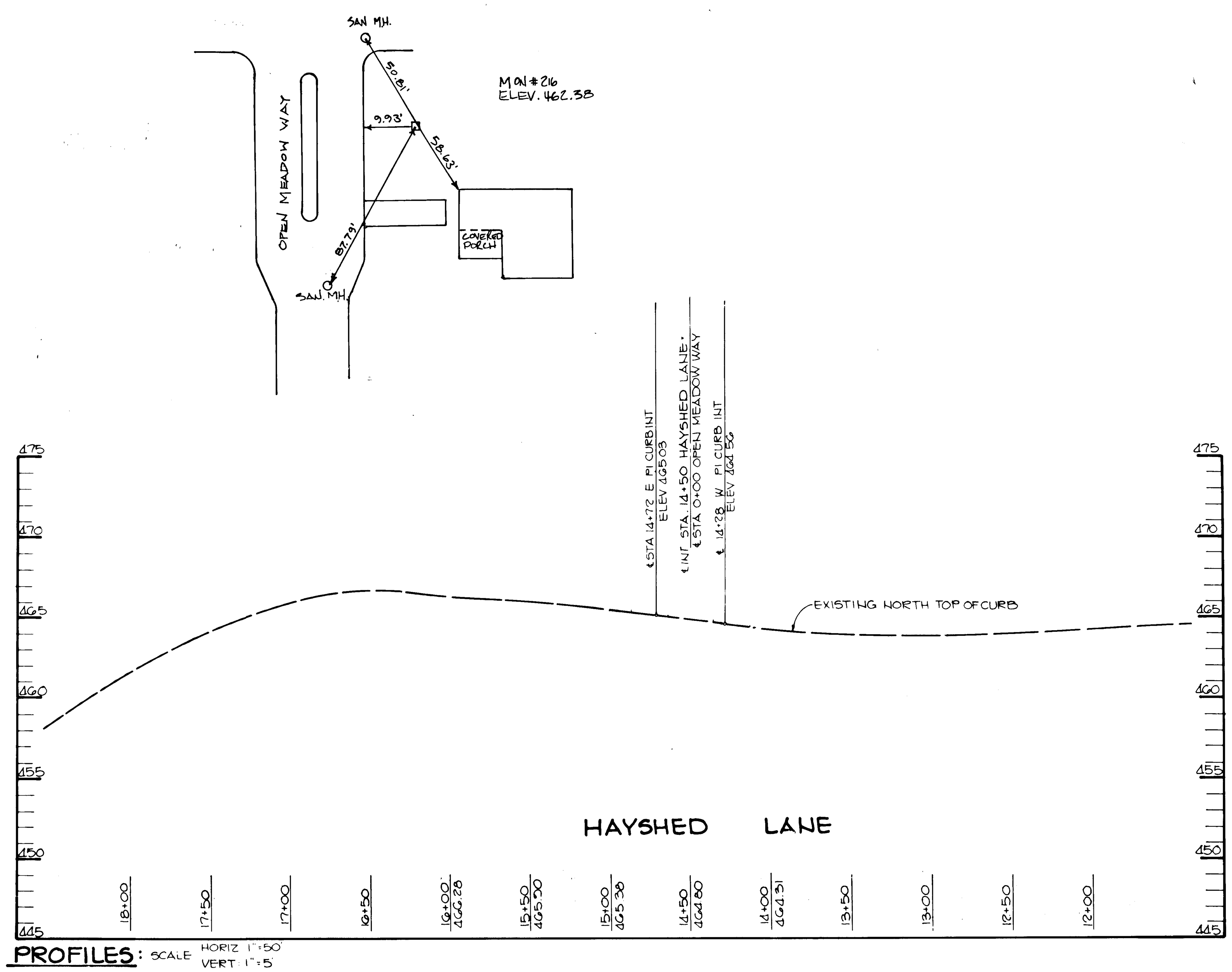
MON. #169
ELEV. 438.10

LEGEND

■ DENOTES 4"x4"x36" CON. MONUMENT

● DENOTES 1/2" Ø PIPE OR IRON PIN SET





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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	DATE 9-9-86
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
CHIEF, BUREAU OF ENGINEERING	DATE 9.11.86

DATE	NO	REVISION
10-29-86	1	REVISED PIPE SIZE BETWEEN I-5 & I-6

OWNER
GEORGE C DEERING
ROBERT M HANKIN
ROBERT R PRELLER
5838 STILLMEADOW LANE
COLUMBIA, MARYLAND

DEVEL:
LONG MEADOW VENTURERS
ONE KNOLL NORTH DRIVE
SUITE 502
COLUMBIA MARYLAND

PROJECT **LONG MEADOW**
SECTION ONE
LOTS 1 THRU 65

AREA TAX MAP Nº 36 PARCEL Nº 263
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

TITLE **PLAN AND PROFILE OF OPEN MEADOW WAY AND HAYSHED LANE**

THE RIEMER GROUP, INC.

The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

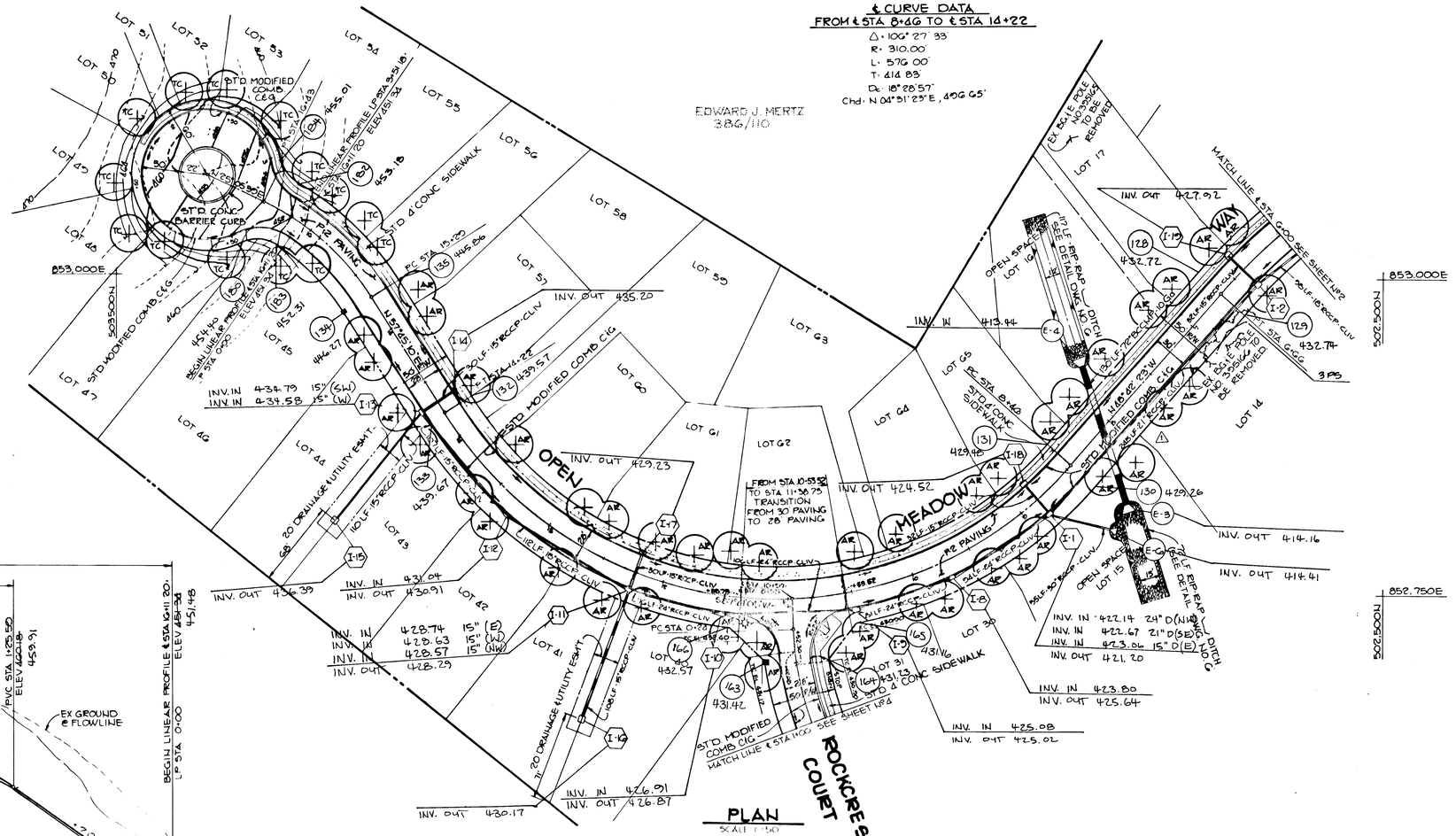
9-4-86
DATE

ARTHUR E. MUEGGE #8707

DESIGNED BY	D.A.M.
DRAWN BY	D.A.M.
PROJECT NO	23000
DATE	JULY 31, 1986
SCALE	AS SHOWN
DRAWING NO.	2 OF 10

AS-BUILT DEC. 16, 1991

F-86-203



& CURVE DATA
FROM & STA 8+46 TO & STA 14+22

Δ = 106° 27' 33"
R = 310.00'
L = 576.00'
T = 414.83'
Dc = 18° 28' 57"
Chd = N 04° 31' 23" E, 496.65'

& CURVE DATA
FROM & STA 15+29 TO & STA 16+43

Δ = 32° 39' 31"
R = 200.00'
L = 114.00'
T = 58.60'
Dc = 28° 38' 52"
Chd = N 41° 25' 24" E 112.46'

LEGEND

DENOTES 4"x4"x36" CONC MONUMENT
DENOTES 1/2" Ø PIPE OR IRON PIN SET

OPEN MEADOW WAY
DESIGN SPEED 30 MPH

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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
9-9-86
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
9-11-86
CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO.	REVISION
10-29-86	⚠ 1	REVISED PIPE SIZE BETWEEN I-1 & I-2

OWNER
GEORGE C. DEERING
ROBERT M. HANKIN
ROBERT R. PRELLER
5838 STILL MEADOW WAY
COLUMBIA, MARYLAND

DEVL:
LONG MEADOW VENTURERS
ONE KNOLL NORTH DRIVE
SUITE 502
COLUMBIA, MARYLAND

PROJECT: **LONG MEADOW**
SECTION ONE
LOTS 1 THRU 65

AREA: TAX MAP Nº 36 — PARCEL Nº 263
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

TITLE: **PLAN AND PROFILE OF OPEN MEADOW WAY**

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

9-4-86
DATE

Arthur E. Muegge
ARTHUR E. MUEGGE #8707

DESIGNED BY: D.A.M.
DRAWN BY: D.A.M.
PROJECT NO: 23000
DATE: JULY 31, 1986
SCALE: AS SHOWN
DRAWING NO. 3 OF 10

1230

AS-BUILT DEC. 16, 1991

F-86-203

℄ CURVE DATA
FROM ℄ STA 0+24 TO ℄ STA 1+94
Δ = 40° 35 04"
R = 240 00'
L = 170.00'
T = 88.74'
Dc = 23° 52' 24"
Chd = S 67° 25 59" W, 166.47'

PROPERTY OF EDWARD J. MERTZ 38℄/110

OPEN MEADOW WAY

ROCKCRESS COURT

GOLDENSTRAW LANE

MEADOWSWEET COURT

YELLOWROSE COURT

LOT 30 LOT 31 LOT 32 LOT 33 LOT 34 LOT 35 LOT 36 LOT 37 LOT 38 LOT 39 LOT 40 LOT 41 LOT 42 LOT 43 LOT 44 LOT 45 LOT 46 LOT 47 LOT 48 LOT 49 LOT 50 LOT 51 LOT 52 LOT 53 LOT 54 LOT 55 LOT 56 LOT 57 LOT 58 LOT 59 LOT 60 LOT 61 LOT 62 LOT 63 LOT 64 LOT 65 LOT 66 LOT 67 LOT 68 LOT 69 LOT 70 LOT 71 LOT 72 LOT 73 LOT 74 LOT 75 LOT 76 LOT 77 LOT 78 LOT 79 LOT 80 LOT 81 LOT 82 LOT 83 LOT 84 LOT 85 LOT 86 LOT 87 LOT 88 LOT 89 LOT 90 LOT 91 LOT 92 LOT 93 LOT 94 LOT 95 LOT 96 LOT 97 LOT 98 LOT 99 LOT 100 LOT 101 LOT 102 LOT 103 LOT 104 LOT 105 LOT 106 LOT 107 LOT 108 LOT 109 LOT 110 LOT 111 LOT 112 LOT 113 LOT 114 LOT 115 LOT 116 LOT 117 LOT 118 LOT 119 LOT 120 LOT 121 LOT 122 LOT 123 LOT 124 LOT 125 LOT 126 LOT 127 LOT 128 LOT 129 LOT 130 LOT 131 LOT 132 LOT 133 LOT 134 LOT 135 LOT 136 LOT 137 LOT 138 LOT 139 LOT 140 LOT 141 LOT 142 LOT 143 LOT 144 LOT 145 LOT 146 LOT 147 LOT 148 LOT 149 LOT 150 LOT 151 LOT 152 LOT 153 LOT 154 LOT 155 LOT 156 LOT 157 LOT 158 LOT 159 LOT 160 LOT 161 LOT 162 LOT 163 LOT 164 LOT 165 LOT 166 LOT 167 LOT 168 LOT 169 LOT 170 LOT 171 LOT 172 LOT 173 LOT 174 LOT 175 LOT 176 LOT 177 LOT 178 LOT 179 LOT 180 LOT 181 LOT 182 LOT 183 LOT 184 LOT 185 LOT 186 LOT 187 LOT 188 LOT 189 LOT 190 LOT 191 LOT 192 LOT 193 LOT 194 LOT 195 LOT 196 LOT 197 LOT 198 LOT 199 LOT 200 LOT 201 LOT 202 LOT 203 LOT 204 LOT 205 LOT 206 LOT 207 LOT 208 LOT 209 LOT 210 LOT 211 LOT 212 LOT 213 LOT 214 LOT 215 LOT 216 LOT 217 LOT 218 LOT 219 LOT 220 LOT 221 LOT 222 LOT 223 LOT 224 LOT 225 LOT 226 LOT 227 LOT 228 LOT 229 LOT 230 LOT 231 LOT 232 LOT 233 LOT 234 LOT 235 LOT 236 LOT 237 LOT 238 LOT 239 LOT 240 LOT 241 LOT 242 LOT 243 LOT 244 LOT 245 LOT 246 LOT 247 LOT 248 LOT 249 LOT 250 LOT 251 LOT 252 LOT 253 LOT 254 LOT 255 LOT 256 LOT 257 LOT 258 LOT 259 LOT 260 LOT 261 LOT 262 LOT 263 LOT 264 LOT 265 LOT 266 LOT 267 LOT 268 LOT 269 LOT 270 LOT 271 LOT 272 LOT 273 LOT 274 LOT 275 LOT 276 LOT 277 LOT 278 LOT 279 LOT 280 LOT 281 LOT 282 LOT 283 LOT 284 LOT 285 LOT 286 LOT 287 LOT 288 LOT 289 LOT 290 LOT 291 LOT 292 LOT 293 LOT 294 LOT 295 LOT 296 LOT 297 LOT 298 LOT 299 LOT 300 LOT 301 LOT 302 LOT 303 LOT 304 LOT 305 LOT 306 LOT 307 LOT 308 LOT 309 LOT 310 LOT 311 LOT 312 LOT 313 LOT 314 LOT 315 LOT 316 LOT 317 LOT 318 LOT 319 LOT 320 LOT 321 LOT 322 LOT 323 LOT 324 LOT 325 LOT 326 LOT 327 LOT 328 LOT 329 LOT 330 LOT 331 LOT 332 LOT 333 LOT 334 LOT 335 LOT 336 LOT 337 LOT 338 LOT 339 LOT 340 LOT 341 LOT 342 LOT 343 LOT 344 LOT 345 LOT 346 LOT 347 LOT 348 LOT 349 LOT 350 LOT 351 LOT 352 LOT 353 LOT 354 LOT 355 LOT 356 LOT 357 LOT 358 LOT 359 LOT 360 LOT 361 LOT 362 LOT 363 LOT 364 LOT 365 LOT 366 LOT 367 LOT 368 LOT 369 LOT 370 LOT 371 LOT 372 LOT 373 LOT 374 LOT 375 LOT 376 LOT 377 LOT 378 LOT 379 LOT 380 LOT 381 LOT 382 LOT 383 LOT 384 LOT 385 LOT 386 LOT 387 LOT 388 LOT 389 LOT 390 LOT 391 LOT 392 LOT 393 LOT 394 LOT 395 LOT 396 LOT 397 LOT 398 LOT 399 LOT 400 LOT 401 LOT 402 LOT 403 LOT 404 LOT 405 LOT 406 LOT 407 LOT 408 LOT 409 LOT 410 LOT 411 LOT 412 LOT 413 LOT 414 LOT 415 LOT 416 LOT 417 LOT 418 LOT 419 LOT 420 LOT 421 LOT 422 LOT 423 LOT 424 LOT 425 LOT 426 LOT 427 LOT 428 LOT 429 LOT 430 LOT 431 LOT 432 LOT 433 LOT 434 LOT 435 LOT 436 LOT 437 LOT 438 LOT 439 LOT 440 LOT 441 LOT 442 LOT 443 LOT 444 LOT 445 LOT 446 LOT 447 LOT 448 LOT 449 LOT 450 LOT 451 LOT 452 LOT 453 LOT 454 LOT 455 LOT 456 LOT 457 LOT 458 LOT 459 LOT 460 LOT 461 LOT 462 LOT 463 LOT 464 LOT 465 LOT 466 LOT 467 LOT 468 LOT 469 LOT 470 LOT 471 LOT 472 LOT 473 LOT 474 LOT 475 LOT 476 LOT 477 LOT 478 LOT 479 LOT 480 LOT 481 LOT 482 LOT 483 LOT 484 LOT 485 LOT 486 LOT 487 LOT 488 LOT 489 LOT 490 LOT 491 LOT 492 LOT 493 LOT 494 LOT 495 LOT 496 LOT 497 LOT 498 LOT 499 LOT 500 LOT 501 LOT 502 LOT 503 LOT 504 LOT 505 LOT 506 LOT 507 LOT 508 LOT 509 LOT 510 LOT 511 LOT 512 LOT 513 LOT 514 LOT 515 LOT 516 LOT 517 LOT 518 LOT 519 LOT 520 LOT 521 LOT 522 LOT 523 LOT 524 LOT 525 LOT 526 LOT 527 LOT 528 LOT 529 LOT 530 LOT 531 LOT 532 LOT 533 LOT 534 LOT 535 LOT 536 LOT 537 LOT 538 LOT 539 LOT 540 LOT 541 LOT 542 LOT 543 LOT 544 LOT 545 LOT 546 LOT 547 LOT 548 LOT 549 LOT 550 LOT 551 LOT 552 LOT 553 LOT 554 LOT 555 LOT 556 LOT 557 LOT 558 LOT 559 LOT 560 LOT 561 LOT 562 LOT 563 LOT 564 LOT 565 LOT 566 LOT 567 LOT 568 LOT 569 LOT 570 LOT 571 LOT 572 LOT 573 LOT 574 LOT 575 LOT 576 LOT 577 LOT 578 LOT 579 LOT 580 LOT 581 LOT 582 LOT 583 LOT 584 LOT 585 LOT 586 LOT 587 LOT 588 LOT 589 LOT 590 LOT 591 LOT 592 LOT 593 LOT 594 LOT 595 LOT 596 LOT 597 LOT 598 LOT 599 LOT 600 LOT 601 LOT 602 LOT 603 LOT 604 LOT 605 LOT 606 LOT 607 LOT 608 LOT 609 LOT 610 LOT 611 LOT 612 LOT 613 LOT 614 LOT 615 LOT 616 LOT 617 LOT 618 LOT 619 LOT 620 LOT 621 LOT 622 LOT 623 LOT 624 LOT 625 LOT 626 LOT 627 LOT 628 LOT 629 LOT 630 LOT 631 LOT 632 LOT 633 LOT 634 LOT 635 LOT 636 LOT 637 LOT 638 LOT 639 LOT 640 LOT 641 LOT 642 LOT 643 LOT 644 LOT 645 LOT 646 LOT 647 LOT 648 LOT 649 LOT 650 LOT 651 LOT 652 LOT 653 LOT 654 LOT 655 LOT 656 LOT 657 LOT 658 LOT 659 LOT 660 LOT 661 LOT 662 LOT 663 LOT 664 LOT 665 LOT 666 LOT 667 LOT 668 LOT 669 LOT 670 LOT 671 LOT 672 LOT 673 LOT 674 LOT 675 LOT 676 LOT 677 LOT 678 LOT 679 LOT 680 LOT 681 LOT 682 LOT 683 LOT 684 LOT 685 LOT 686 LOT 687 LOT 688 LOT 689 LOT 690 LOT 691 LOT 692 LOT 693 LOT 694 LOT 695 LOT 696 LOT 697 LOT 698 LOT 699 LOT 700 LOT 701 LOT 702 LOT 703 LOT 704 LOT 705 LOT 706 LOT 707 LOT 708 LOT 709 LOT 710 LOT 711 LOT 712 LOT 713 LOT 714 LOT 715 LOT 716 LOT 717 LOT 718 LOT 719 LOT 720 LOT 721 LOT 722 LOT 723 LOT 724 LOT 725 LOT 726 LOT 727 LOT 728 LOT 729 LOT 730 LOT 731 LOT 732 LOT 733 LOT 734 LOT 735 LOT 736 LOT 737 LOT 738 LOT 739 LOT 740 LOT 741 LOT 742 LOT 743 LOT 744 LOT 745 LOT 746 LOT 747 LOT 748 LOT 749 LOT 750 LOT 751 LOT 752 LOT 753 LOT 754 LOT 755 LOT 756 LOT 757 LOT 758 LOT 759 LOT 760 LOT 761 LOT 762 LOT 763 LOT 764 LOT 765 LOT 766 LOT 767 LOT 768 LOT 769 LOT 770 LOT 771 LOT 772 LOT 773 LOT 774 LOT 775 LOT 776 LOT 777 LOT 778 LOT 779 LOT 780 LOT 781 LOT 782 LOT 783 LOT 784 LOT 785 LOT 786 LOT 787 LOT 788 LOT 789 LOT 790 LOT 791 LOT 792 LOT 793 LOT 794 LOT 795 LOT 796 LOT 797 LOT 798 LOT 799 LOT 800 LOT 801 LOT 802 LOT 803 LOT 804 LOT 805 LOT 806 LOT 807 LOT 808 LOT 809 LOT 810 LOT 811 LOT 812 LOT 813 LOT 814 LOT 815 LOT 816 LOT 817 LOT 818 LOT 819 LOT 820 LOT 821 LOT 822 LOT 823 LOT 824 LOT 825 LOT 826 LOT 827 LOT 828 LOT 829 LOT 830 LOT 831 LOT 832 LOT 833 LOT 834 LOT 835 LOT 836 LOT 837 LOT 838 LOT 839 LOT 840 LOT 841 LOT 842 LOT 843 LOT 844 LOT 845 LOT 846 LOT 847 LOT 848 LOT 849 LOT 850 LOT 851 LOT 852 LOT 853 LOT 854 LOT 855 LOT 856 LOT 857 LOT 858 LOT 859 LOT 860 LOT 861 LOT 862 LOT 863 LOT 864 LOT 865 LOT 866 LOT 867 LOT 868 LOT 869 LOT 870 LOT 871 LOT 872 LOT 873 LOT 874 LOT 875 LOT 876 LOT 877 LOT 878 LOT 879 LOT 880 LOT 881 LOT 882 LOT 883 LOT 884 LOT 885 LOT 886 LOT 887 LOT 888 LOT 889 LOT 890 LOT 891 LOT 892 LOT 893 LOT 894 LOT 895 LOT 896 LOT 897 LOT 898 LOT 899 LOT 900 LOT 901 LOT 902 LOT 903 LOT 904 LOT 905 LOT 906 LOT 907 LOT 908 LOT 909 LOT 910 LOT 911 LOT 912 LOT 913 LOT 914 LOT 915 LOT 916 LOT 917 LOT 918 LOT 919 LOT 920 LOT 921 LOT 922 LOT 923 LOT 924 LOT 925 LOT 926 LOT 927 LOT 928 LOT 929 LOT 930 LOT 931 LOT 932 LOT 933 LOT 934 LOT 935 LOT 936 LOT 937 LOT 938 LOT 939 LOT 940 LOT 941 LOT 942 LOT 943 LOT 944 LOT 945 LOT 946 LOT 947 LOT 948 LOT 949 LOT 950 LOT 951 LOT 952 LOT 953 LOT 954 LOT 955 LOT 956 LOT 957 LOT 958 LOT 959 LOT 960 LOT 961 LOT 962 LOT 963 LOT 964 LOT 965 LOT 966 LOT 967 LOT 968 LOT 969 LOT 970 LOT 971 LOT 972 LOT 973 LOT 974 LOT 975 LOT 976 LOT 977 LOT 978 LOT 979 LOT 980 LOT 981 LOT 982 LOT 983 LOT 984 LOT 985 LOT 986 LOT 987 LOT 988 LOT 989 LOT 990 LOT 991 LOT 992 LOT 993 LOT 994 LOT 995 LOT 996 LOT 997 LOT 998 LOT 999 LOT 1000

LOT G4 LOT G5 LOT 16 LOT 17 LOT 18 LOT 19 LOT 20 LOT 21 LOT 22 LOT 23 LOT 14 LOT 13 LOT 12 LOT 11 LOT 10 LOT 9 LOT 8 LOT 7

OPEN SPACE LOT 15

LIMIT OF SUBMISSION ℄ STA 2+68.40

TEMP TIMBER BARRICADE SEE HO.CO. STD. NO. 4.11

TEMP TEE TURN AROUND SEE HO.CO. STD. NO. R5.05

REVERTIBLE ESM'T

EX. BG.I.E. POLE 3451C TO BE REMOVED

MODIFIED COMB C&G

50' R/W

5' CONC. SIDEWALK

MATCH LINE ℄ STA 1+00 SEE SHEET NO 2

MATCH LINE ℄ STA 0+50 SEE SHEET NO 2

MATCH LINE ℄ STA 1+00 SEE SHEET NO 2

END LINEAR PROFILE ℄ STA 3+41.85

BEGIN LINEAR PROFILE ℄ STA 2+30.11

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BEGIN LINEAR PROFILE ℄ STA 2+30.11

END LINEAR PROFILE ℄ STA 1+75.52

BEGIN LINEAR PROFILE ℄ STA 1+75.52

10' CURB TRANSITION SEE DETAIL SHEET NO 6

DRAINAGE, SEWER, UTILITY, ACCESS AND 100 YR. FLOODPLAIN EASEMENT

SEDIMENT CONTROL AND S.W.M. POND

INV. IN 417.02
INV. OUT 416.85

INV. IN 412.13
INV. OUT 412.03

INV. OUT 411.00

INV. IN 408.00

INV. IN 411.00
INV. OUT 408.55

INV. OUT 408.00

30 LF 18" RCP CLASS V

30 LF 18" RCP CLASS V

38 LF 24" RCP CLASS V

38 LF 60" CMP. 10 GA.

STD. CONC. BARRIER CURB

DRAINAGE UTILITY AND ACCESS EASEMENT FOR S.W.M.F.

4' MACADAM PATHWAY

RIP-RAP CHANNEL (SEE DETAIL DWG. NO 6)

NOTE: FOR GRADING OF SEDIMENT AND S.W.M.F. POND SEE SHEET NO 8

EX. 8"S (CONTR. NO. C-2519 W/S)
EX. 6"W (CONTR. NO. C-2519 W/S)

EX. 8"D

EX. 15"D

EX. 21"D

EX. 24"D

EX. 8"S

EX. 6"W

EX. 8"D

EX. 15"D

EX. 21"D

EX. 24"D

EX. 8"S

EX. 6"W

EX. 8"D

EX. 15"D

EX. 21"D

EX. 24"D

EX. LIGHT POLE TO BE REMOVED

EX. LIGHT POLE TO BE REMOVED

EX. LIGHT POLE TO BE REMOVED

EX. LIGHT POLE TO BE REMOVED

PLAN
SCALE 1"=50'

VILLAGE OF LONG REACH SECTION-1 AREA-1 PART-A PLAT 3928

℄ CURVE DATA
FROM ℄ STA 0+06 TO ℄ STA 2+68.40
Δ = 85° 23 23"
R = 200 00'
L = 172.40'
T = 91.57'
Dc = 28° 38 52"
Chd = N 38° 52 05" E, 167.12'

LINEAR PROFILE

ROCKCRESS COURT
DESIGN SPEED 25 MPH

EX. GROUND 45' LT. OF ℄
EX. GROUND @ ℄
EX. GROUND 45' RT. OF ℄
EX GROUND @ B.R.L.
EX GROUND @ FLOWLINE
P.G.L.
-2.00%
+1.40%
+2.00%
-2.00%
-2.60%

50' V.C. 50' V.C. 50' V.C.

PVT STA 2+05 ELEV 423.85
PVC STA 1+55 ELEV 423.77
PVI STA 1+60 ELEV 422.88
PVT STA 1+65 ELEV 422.93
PVI STA 2+10 ELEV 423.82
PVT STA 2+15 ELEV 424.03
PVC STA 2+35 ELEV 424.83
PVI STA 1+60 ELEV 422.12
CORR = +0.93
PVI ELEV 422.12
CORR = +0.07
PVI ELEV 423.82
CORR = +0.07
PVI ELEV 424.03
CORR = +0.07

SUMP STA 1+60 ELEV 422.45
PVI STA 1+60 ELEV 422.12
CORR = +0.33
PVC STA 1+35 ELEV 422.77
PVI STA 1+60 ELEV 422.88
PVT STA 1+85 ELEV 422.93
PVC STA 2+35 ELEV 424.83
PVI STA 2+10 ELEV 423.82
PVT STA 2+15 ELEV 424.03
PVC STA 2+35 ELEV 424.83
PVI STA 2+10 ELEV 423.82
PVT STA 2+15 ELEV 424.03

END LINEAR PROFILE ℄ STA 3+41.85 ELEV 426.78
BEGIN LINEAR PROFILE ℄ STA 2+30.11 ELEV 426.28
END LINEAR PROFILE ℄ STA 2+30.11 ELEV 426.28
BEGIN LINEAR PROFILE ℄ STA 2+30.11 ELEV 426.28
END LINEAR PROFILE ℄ STA 1+75.52 ELEV 427.40
BEGIN LINEAR PROFILE ℄ STA 1+75.52 ELEV 427.40

BEGIN N. CURB TAPER STA 0+42.08 ELEV 425.17
N. PI CURB INT. STA 0+14 ELEV 423.50
N. PI CURB INT. STA 0+14 ELEV 423.67
BEGIN S. CURB TAPER STA 0+52.30 ELEV 430.00
5 PI CURB INT. STA 0+14 ELEV 431.67

PVT STA 2+15 ELEV 444.33
PVC STA 1+68.40 ELEV 444.64
PVT STA 1+68.40 ELEV 444.44
PVC STA 1+18.40 ELEV 444.33

EX. GROUND 45' LT. OF ℄
EX. GROUND @ ℄
EX. GROUND 45' RT. OF ℄
EX. GROUND @ B.R.L.
EX. GROUND @ FLOWLINE
P.G.L.
+1.68%
+1.68%
-1.00%
PROPOSED FUTURE GRADE

BEGIN L.H.S. CURB TAPERS STA 0+53.01 ELEV 440.34
BEGIN L.H.S. CURB TAPERS STA 0+47.45 ELEV 440.90
N.W. PI CURB INT. STA 0+15 ELEV 441.22
N. W.E. PI CURB INT. STA 0+15 ELEV 441.29
SEE P.I. CURB INT. STA 0+15 ELEV 441.29
N.W. PI CURB INT. STA 0+15 ELEV 439.70
N.E. PI CURB INT. STA 0+15 ELEV 439.65

LIMIT OF W. CURB & GUTTER STA 2+30
LIMIT OF E. CURB & GUTTER STA 2+27
END PAVING 443.85
LIMIT OF SUBMISSION STA 2+68.40 ELEV 442.72
CREST STA 2+22.23 ELEV 442.77

PVC STA 2+25 ELEV 443.70
PVI STA 2+75 ELEV 447.14 CORR -0.45 SSD = 200'
PVT STA 3+25 ELEV 446.64
100' V.C.

2:1 SLOPED

MEADOWSWEET COURT
DESIGN SPEED 25 MPH

GOLDENSTRAW LANE
DESIGN SPEED 30 MPH

3.00 L.P. 424.68 442.17
2.50 L.P. 423.88 443.55 423.38 443.97
2.00 L.P. 444.64 444.36
1.75 L.P. 444.46 444.18
1.50 L.P. 444.46 444.75 444.18 443.90
1.25 L.P. 444.46 444.75 444.18 443.90
1.00 L.P. 444.46 443.90
0.50 L.P. 444.46 443.90 444.18 443.61
442.19 T.C. 442.89 T.C.
0.00 442.89
1.00 444.46 444.17
1.50 444.46 444.75 444.18 444.04
0.50 444.46 444.75 444.18 443.90
0.00 440.72
0.50 440.68 440.68
1.00 442.26 442.26
1.50 443.52 443.52
2.00 444.39 444.39
2.50 445.65 445.65
2.50 446.93 446.93
2.75 446.65 446.65
3.00 446.77 446.77
3.25 446.64 446.64

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

MON. #150
ELEV. 443.00

SAN.MH.
7.90'
9.60'
121.15'
FRONT CORNER OF INLET
MEADOWSWEET CT.
32.30'
CABLE TV
FRONT CORNER OF TRANSFORMER

MON# 136
ELEV. 427.61

CHORD FROM 443.37'
9.65'
446.57'
9.78'
CORNER PORCH
CORNER PORCH
CABLE TV BOX
BACK OF CURB
ROCKCROSS CT.

LEGEND
■ DENOTES 4"×4"×36" CONCRETE MONUMENT
● DENOTES ½" Ø PIPE OR IRON PIN SET

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9-9-86

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 9-11-86

DATE	NO.	REVISION

OWNER
GEORGE C DEERING
ROBERT M HANKIN
ROBERT R PRELLER
5838 STILLMEADOW LANE
COLUMBIA, MARYLAND

DEVEL:
LONG MEADOW VENTURERS
ONE KNOLL NORTH DRIVE
SUITE 502
COLUMBIA MARYLAND

PROJECT: LONG MEADOW
SECTION ONE
LOTS 1 THRU 65

AREA — TAX MAP NO 36 — PARCEL NO 203
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

TITLE: PLAN AND PROFILE OF MEADOWSWEET COURT, ROCKCRESS COURT AND GOLDENSTRAW LANE

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

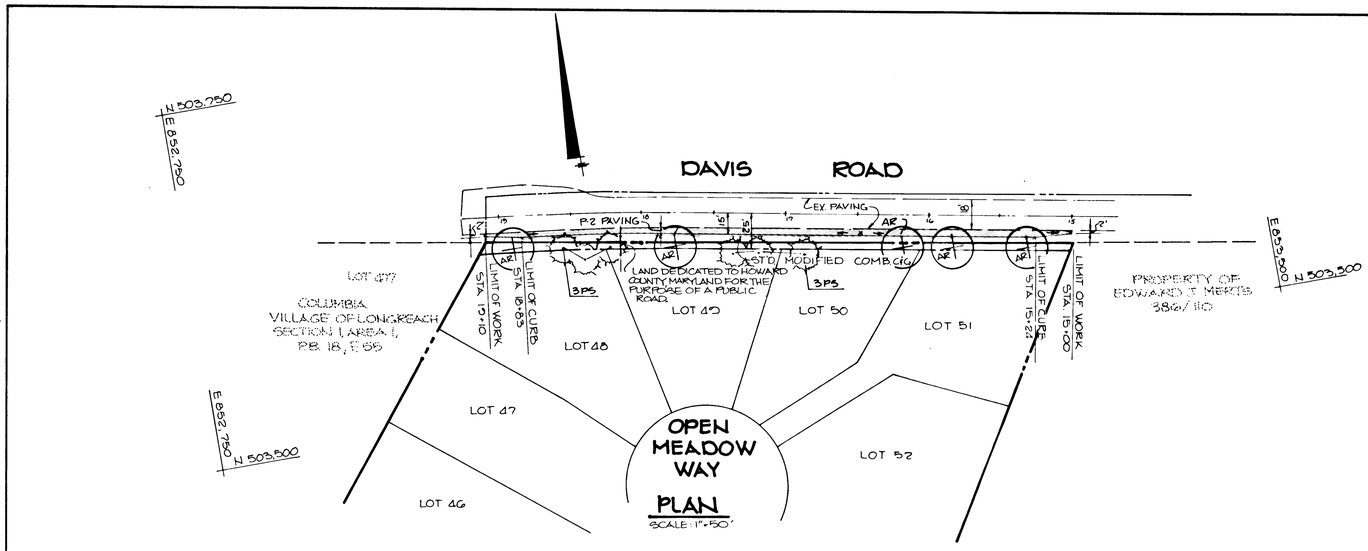
9-4-86 DATE
ARTHUR E. MUEGGE #6707

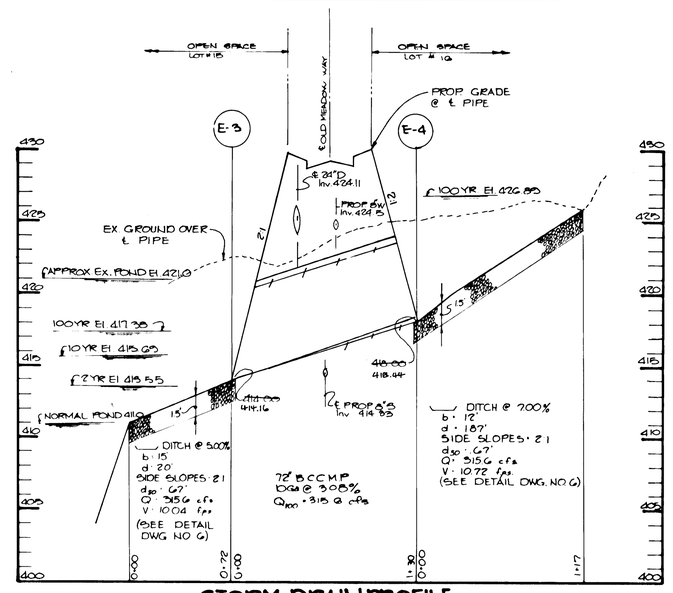
DESIGNED BY: D.A.M.
DRAWN BY: D.A.M.
PROJECT NO: 23000
DATE: JULY 31, 1986
SCALE: AS SHOWN
DRAWING NO. 4 OF 10

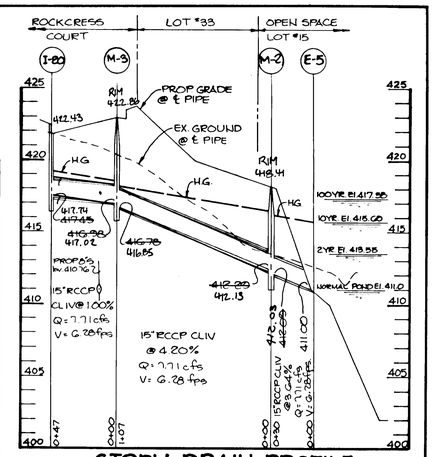
1236

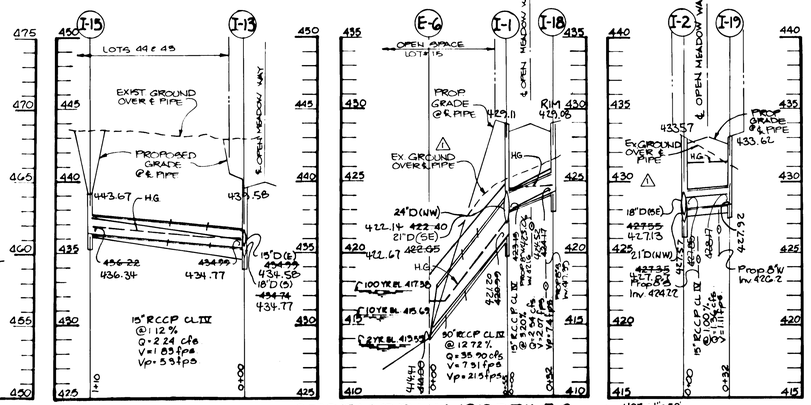
AS-BUILT DEC. 16, 1991

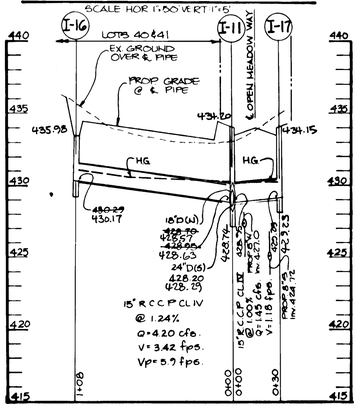
F-86-203

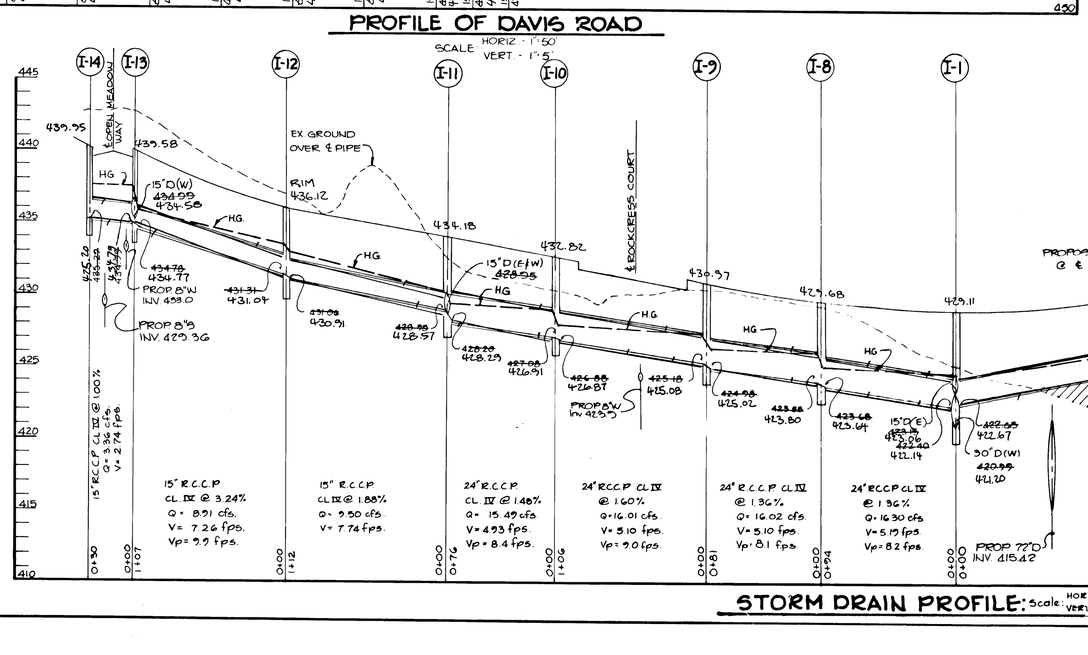












APPROVED:	HOWARD COUNTY OFFICE OF PLANNING AND ZONING
	CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9-9-86
APPROVED:	HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
	CHIEF, BUREAU OF ENGINEERING — DATE 9-11-86

DATE	NO	REVISION
10-29-86	1	REVISED PROFILES FROM I-1 TO I-7 AND FROM E-6 TO I-18 AND FROM I-2 TO I-19

OWNER	DEVELOPER
GEORGE C. DEERING ROBERT M. HANKIN ROBERT R. PREUER 5838 STILLMEADOW LANE COLUMBIA, MARYLAND	LONG MEADOW VENTURERS ONE KNOLL NORTH DRIVE SUITE 302 COLUMBIA, MARYLAND

PROJECT: **LONG MEADOW**
SECTION ONE
LOTS 1 THRU 65

AREA: TAX MAP NO 36 PARCEL Nº 203
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

TITLE: PLAN AND PROFILE OF DAVIS ROAD AND STORM DRAINAGE PROFILES

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3108 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

9-4-86 DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — No. 6707 — REGISTERED PROFESSIONAL ENGINEER

Arthur E. Muegge
ARTHUR E MUEGGE 6707

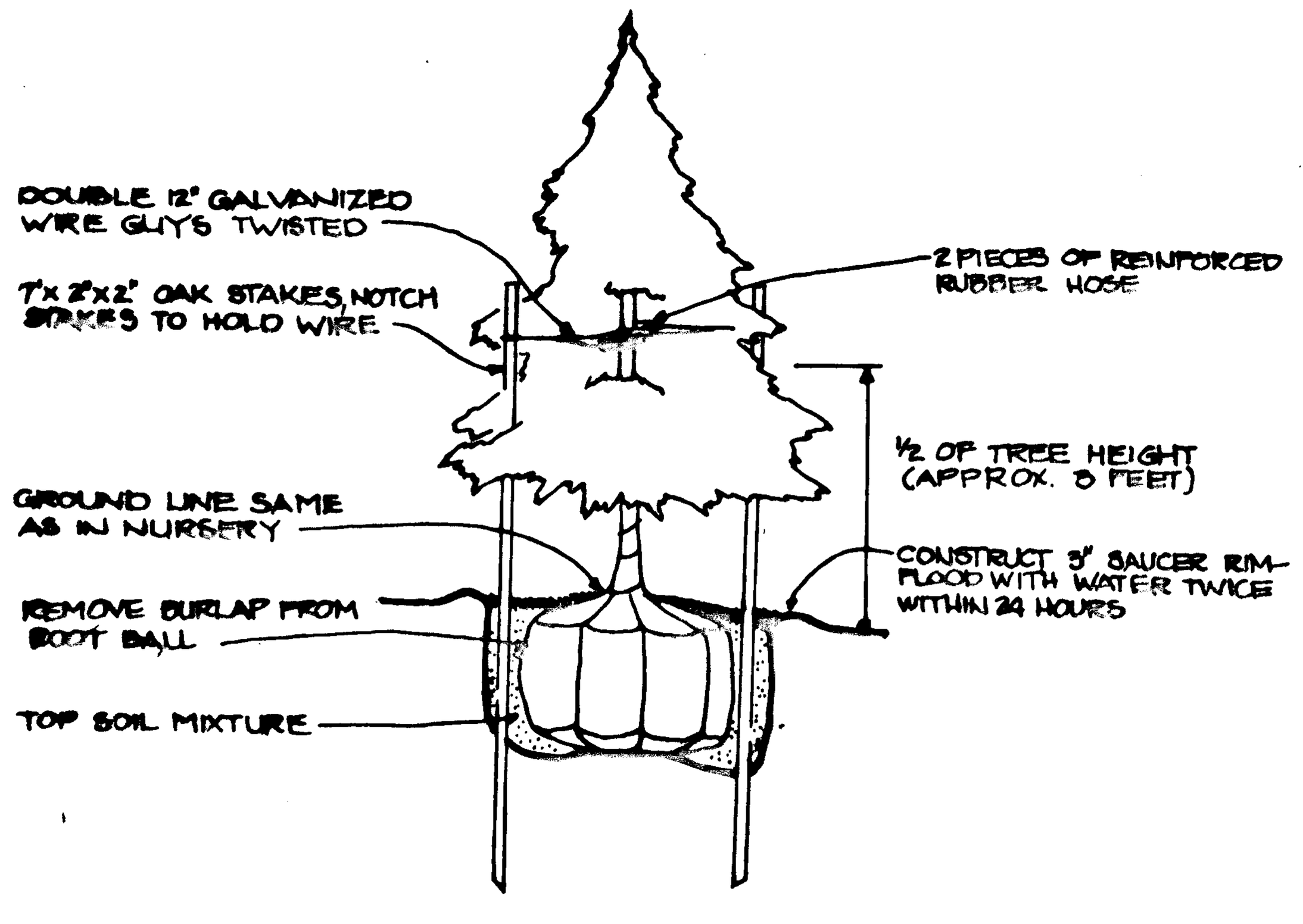
DESIGNED BY:	D.A.M.
DRAWN BY:	K.J.B.
PROJECT NO:	23000
DATE	JULY 31, 1986
SCALE:	AS SHOWN
DRAWING NO.	5 OF 10

AS-BUILT DEC. 16, 1991

F-86-203

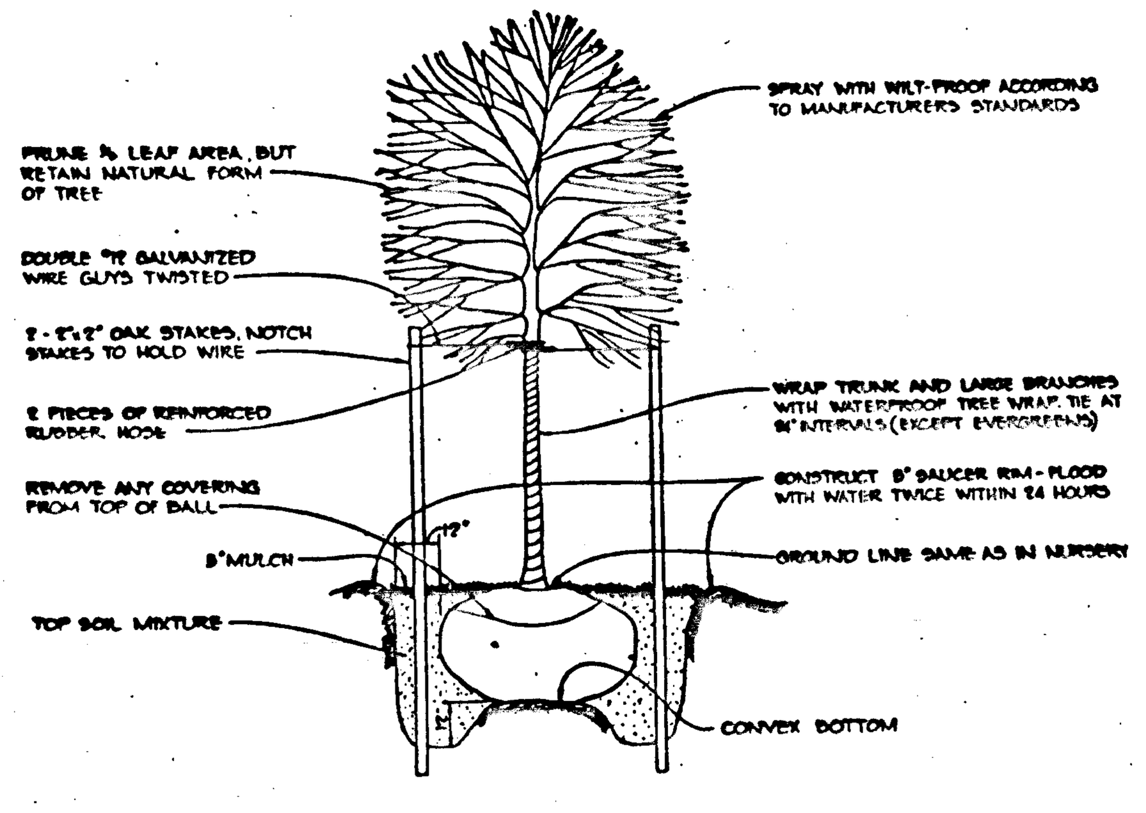
1236

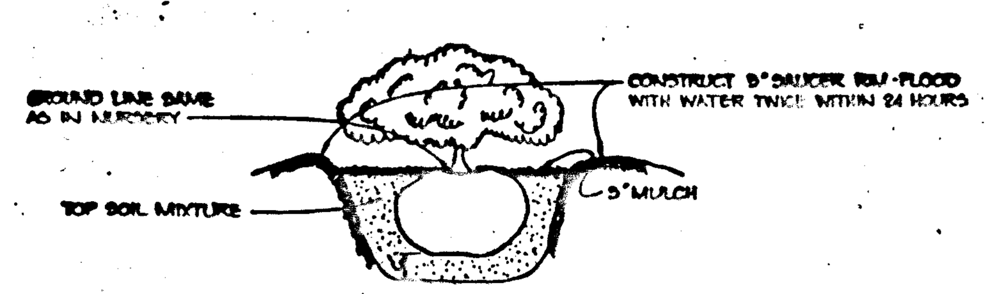
MARYLAND BLUEPRINT CO., INC. 744-2823



EVERGREEN PLANTING DETAIL

NO SCALE





PLANTING DETAILS

NO SCALE

PLANT LIST

SHADE TREES

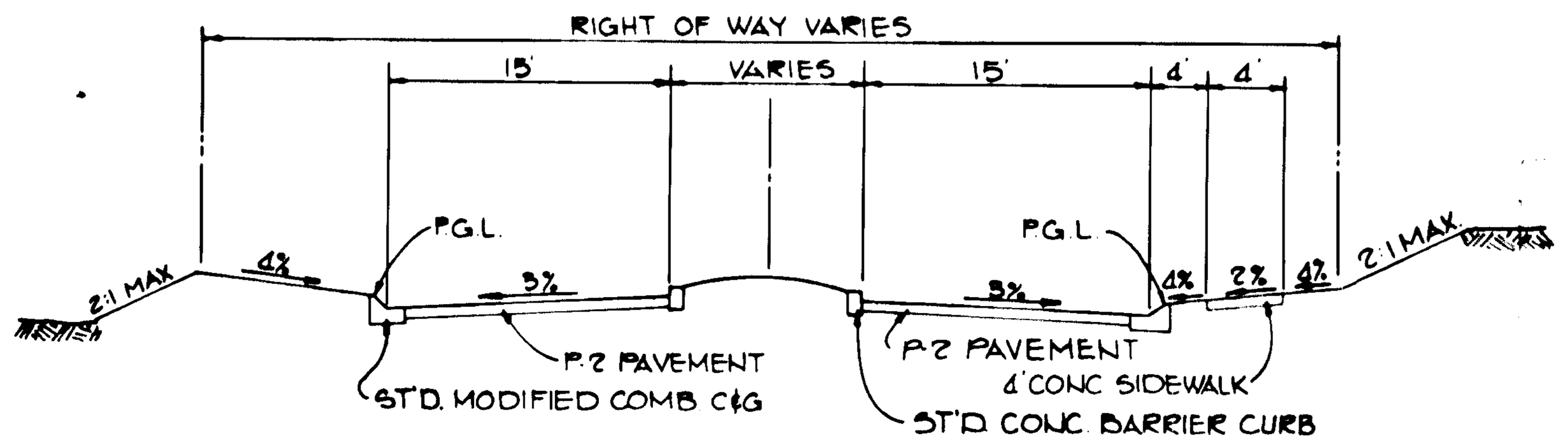
QTY.	ABR.	NAME	SIZE	REMARKS
75	Ar	ACER RUBRUM Red Maple	2½ - 3"Cal., 13 - 15'Ht.	Full head, B & B
18	Ls	LIQUIDAMBAR STYRACIFLUA Sweet Gum	2½ - 3"Cal., 12 - 14'Ht.	Full head, B & B
15	Qc	QUERCUS COCCINEA Scarlet Oak	2½ - 3"Cal., 12 - 14'Ht.	Full head, B & B
28	Tc	TILIA CORDATA "GREENSPIRE" Greenspire Linden	2½ - 3"Cal., 12 - 14'Ht.	Full head, B & B

EVERGREENS

QTY.	ABR.	NAME	SIZE	REMARKS
13	Ps	PINUS STROBUS Eastern White Pine	8 - 10'Ht.	Full branching, B & B

FLOWERING TREES

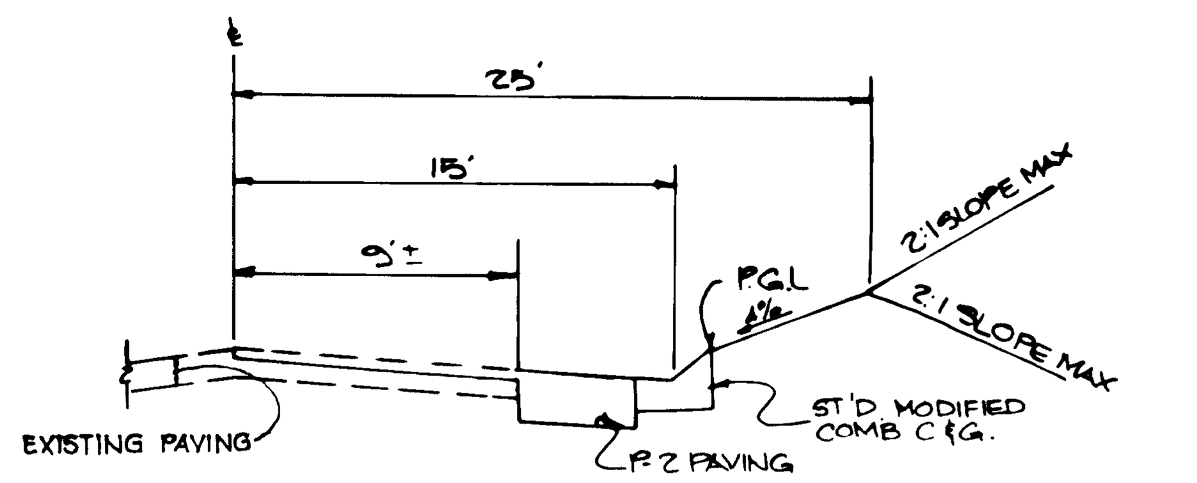
QTY.	ABR.	NAME	SIZE	REMARKS
3	Ms	MALUS SNOWCLOUD Snowcloud Crabapple	2 - 2½"Cal., 8-9'Ht.	Full head, B & B



OPEN MEADOW WAY FROM ℄ STA 0+58.08 TO ℄ STA 1+62.15
DESIGN SPEED - 30 MPH

TYPICAL DIVIDED ROADWAY SECTION

NO SCALE

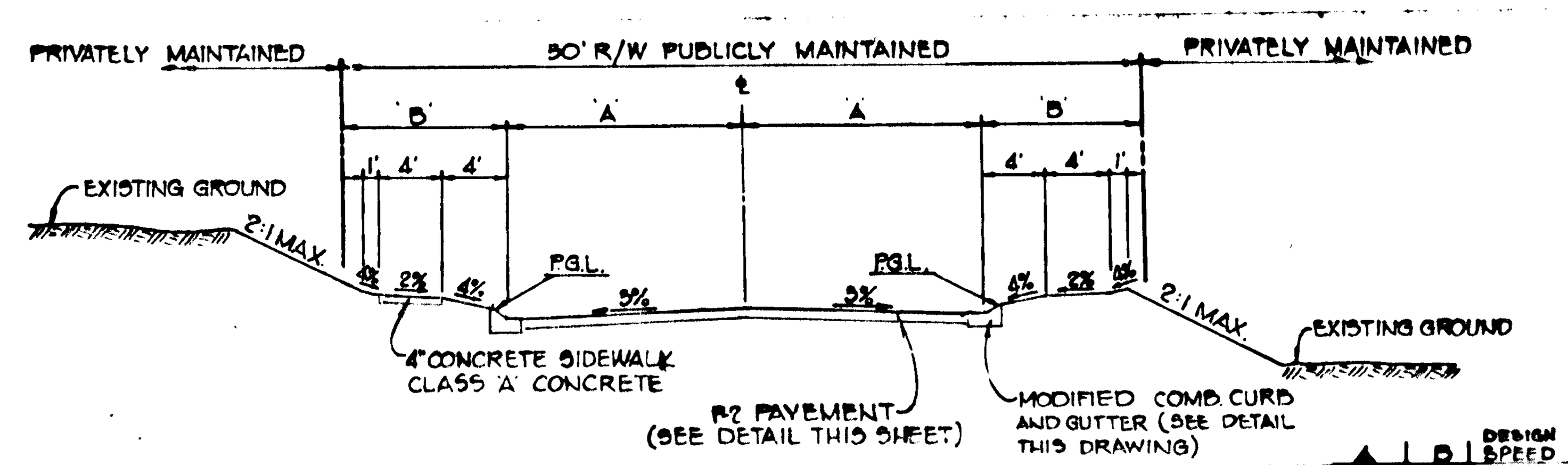


NOTE: SEE HOWARD COUNTY STANDARD DETAILS R-1.02 AND R-10.01 FOR ADDITIONAL NOTES AND DIMENSIONS

DAVIS ROAD ℄ STA 15+24 TO ℄ STA 18+82
DESIGN SPEED 30 MPH

DAVIS ROAD WIDENING DETAIL

NO SCALE

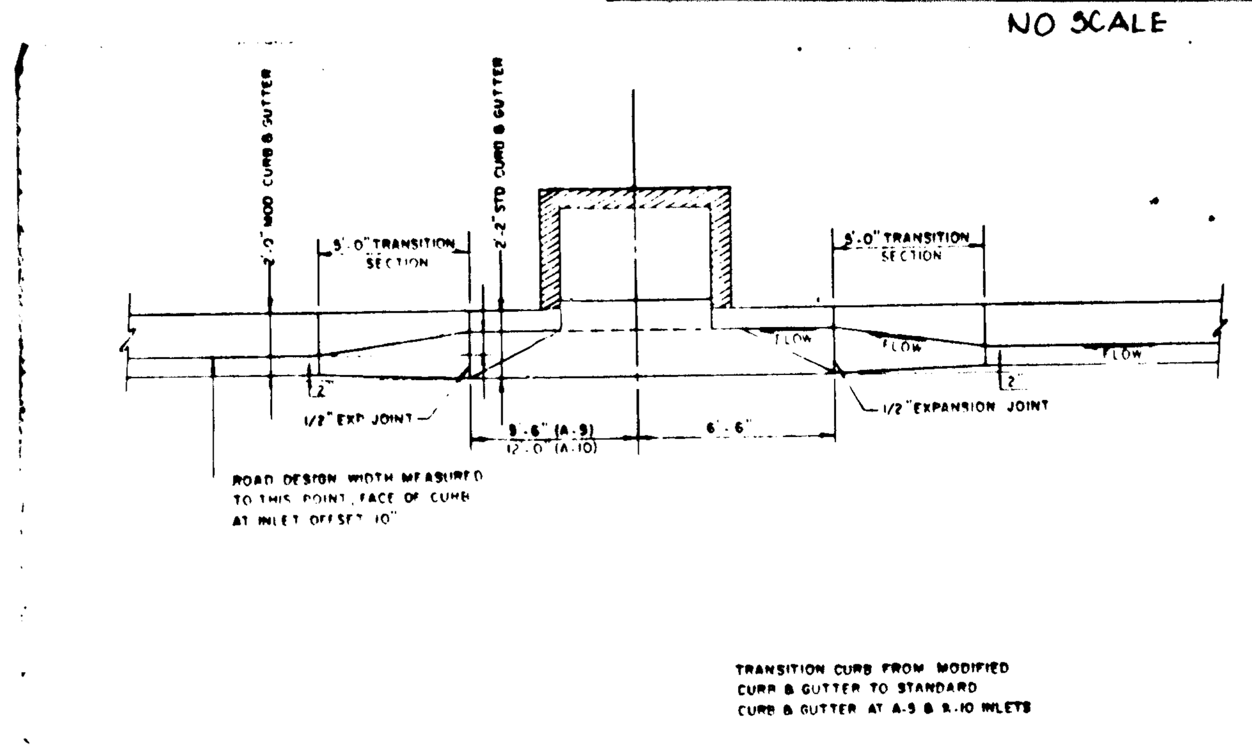


		A	B	DESIGN SPEED
OPEN MEADOW WAY FROM ℄ STA 0+00 TO ℄ STA 10+53.82	OPEN MEADOW WAY	15'	10'	30
MEADOWSWEET COURT FROM ℄ STA 0+51.76 TO ℄ STA 1+75.52	MEADOWSWEET COURT	14'	11'	25
ROCKCRESS COURT FROM ℄ STA 0+51.10 TO ℄ STA 2+30.11	ROCKCRESS COURT	14'	11'	25
GOLDENSTRAW LANE FROM ℄ STA 0+46.50 TO ℄ STA 2+20	GOLDENSTRAW LANE	15'	10'	30
OPEN MEADOW WAY FROM ℄ STA 11+38.73 TO ℄ STA 16+11.20	OPEN MEADOW WAY	14'	11'	30

ZONED: R-12

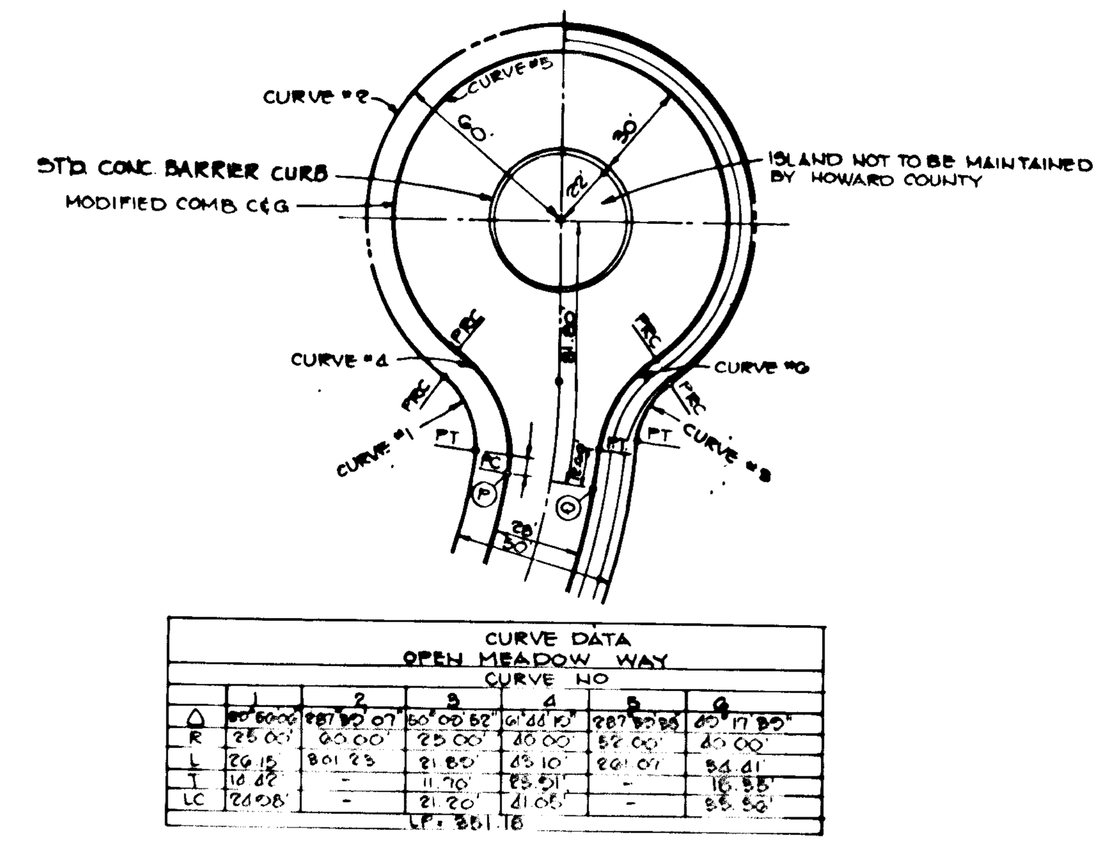
TYPICAL SECTION FOR 50' R/W

NO SCALE

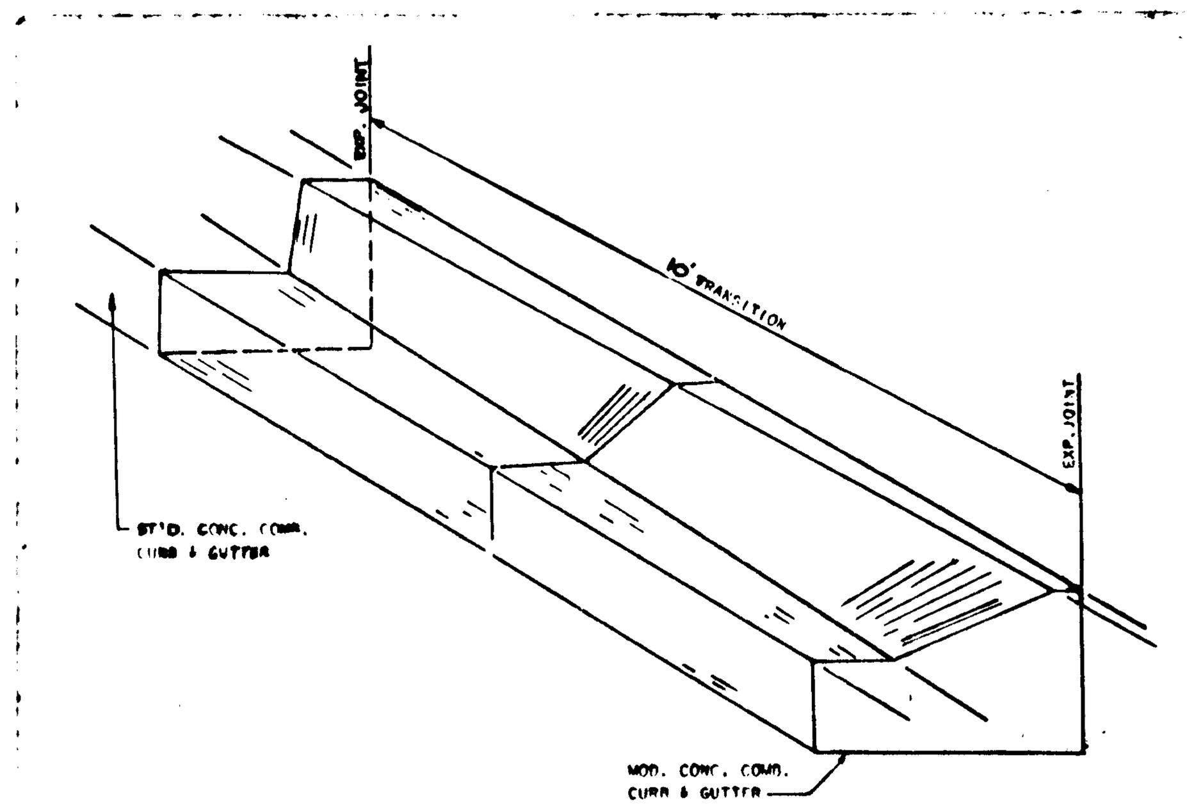


CONCRETE CURB AND GUTTER TRANSITION

NO SCALE

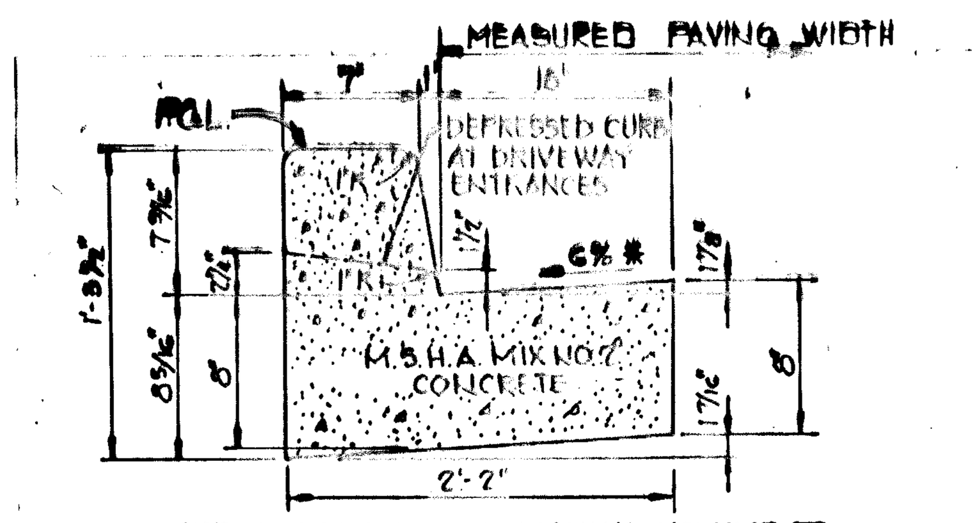


OPEN MEADOW WAY



TRANSITION CURB SECTION AT 'A' TYPE INLETS

NO SCALE

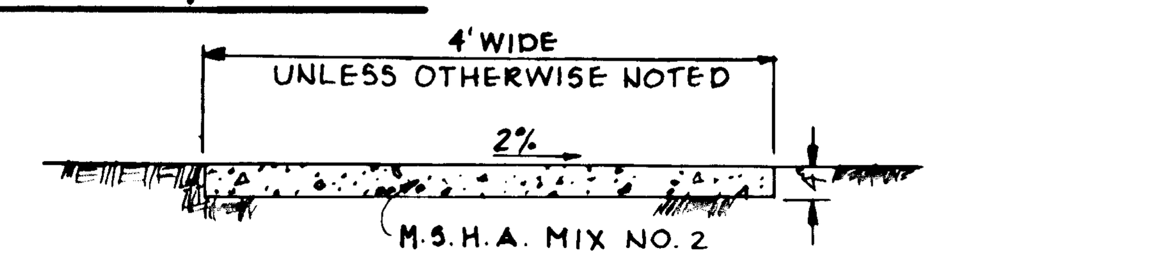


HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-8.01)

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

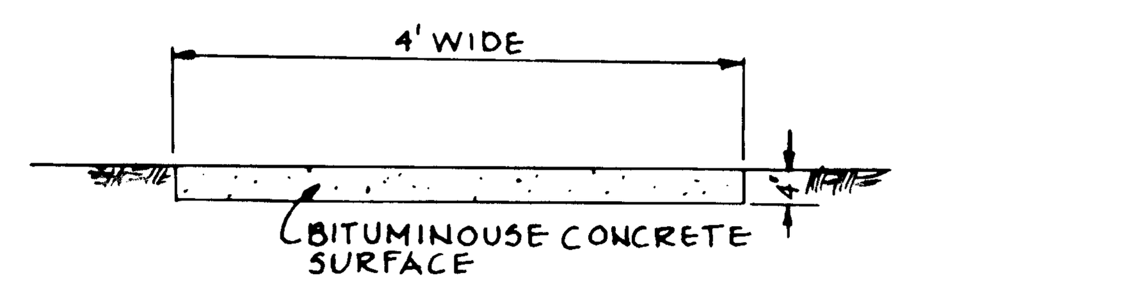
STANDARD 7" COMBINATION CURB AND GUTTER

No Scale



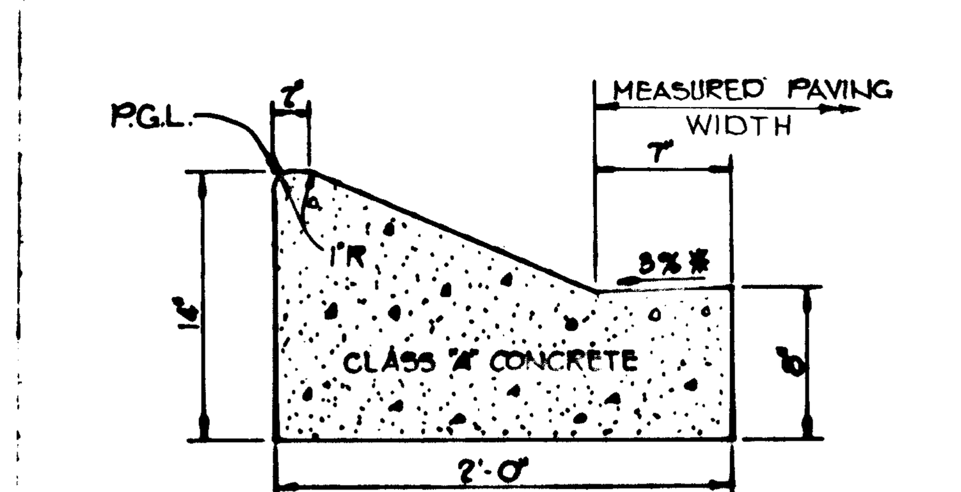
SIDEWALK DETAIL

NO SCALE



MACADAM PATHWAY DETAIL

NO SCALE



HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-8.01)

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

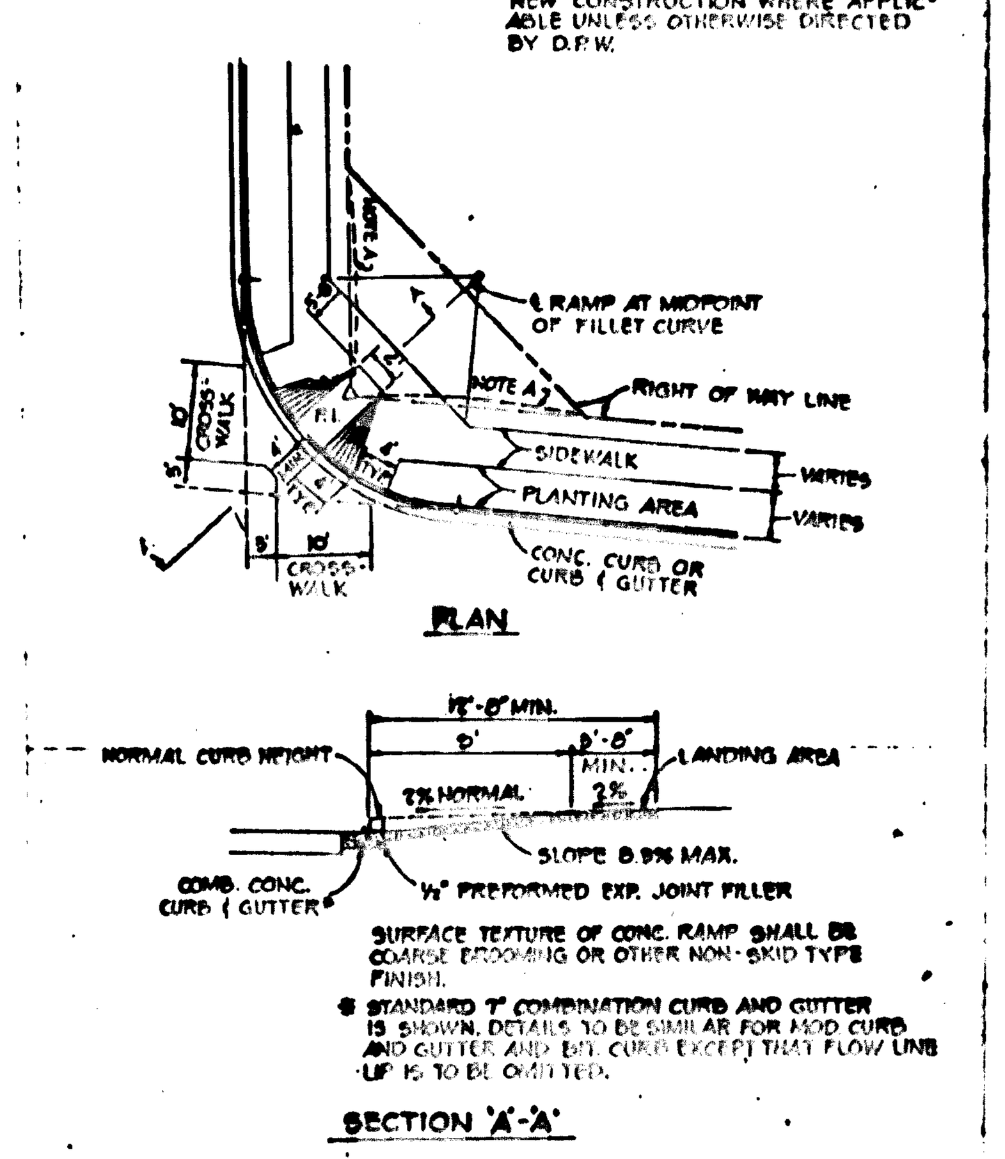
MODIFIED COMBINATION CURB AND GUTTER

No Scale

NOTES:

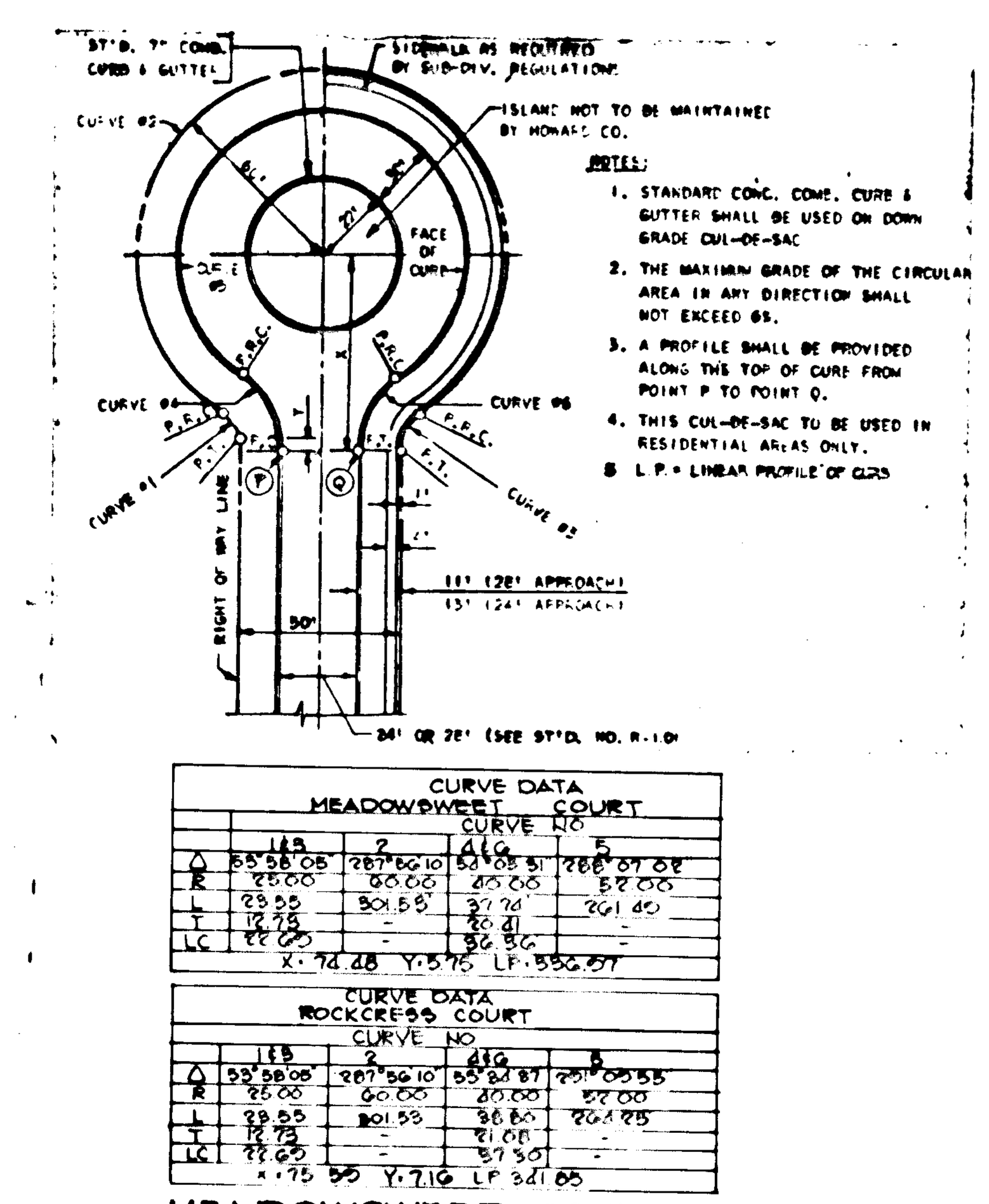
A. RIGHT OF WAY LINE TRUNCATION TO BE SET 25' FROM P.I. ALONG EACH OF THE INTERSECTING LINES AS SET FORTH IN SECTION 16.118, PAR. F.6 OF SUBDIVISION REGULATIONS. MINIMUM DISTANCE BETWEEN BACK OF SIDEWALK AND RIGHT OF WAY LINE TO BE 1 FOOT.

B. TYPE 'A' RAMP TO BE USED FOR ALL NEW CONSTRUCTION WHERE APPLICABLE UNLESS OTHERWISE DIRECTED BY D.P.W.

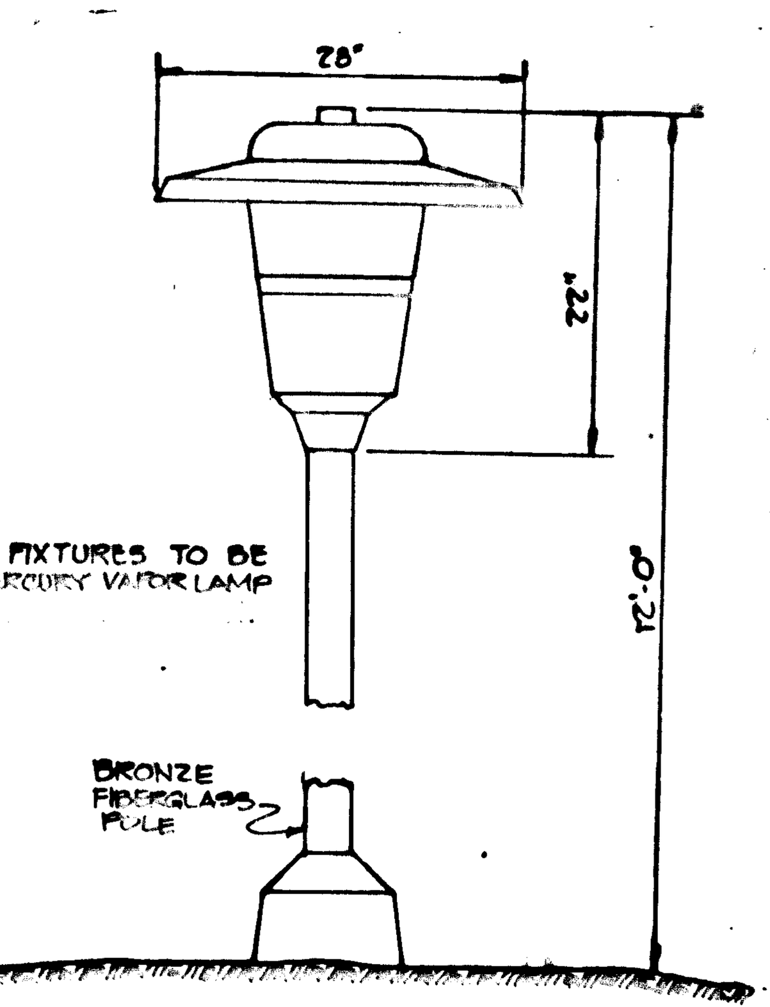


TYPICAL HANDICAP RAMP

NO SCALE

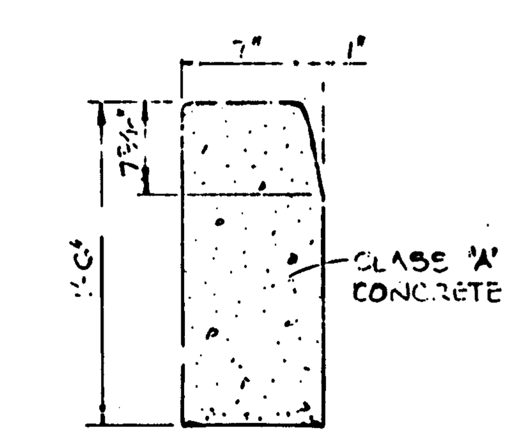


NOTE: ALL STREET LIGHT FIXTURES TO BE 175 WATT 'MODERN MERCURY VAPOR LAMP POST TOP FIXURE.



☼ - DETAIL - LIGHTING FIXTURE

No Scale



HOWARD COUNTY STD R-3.03

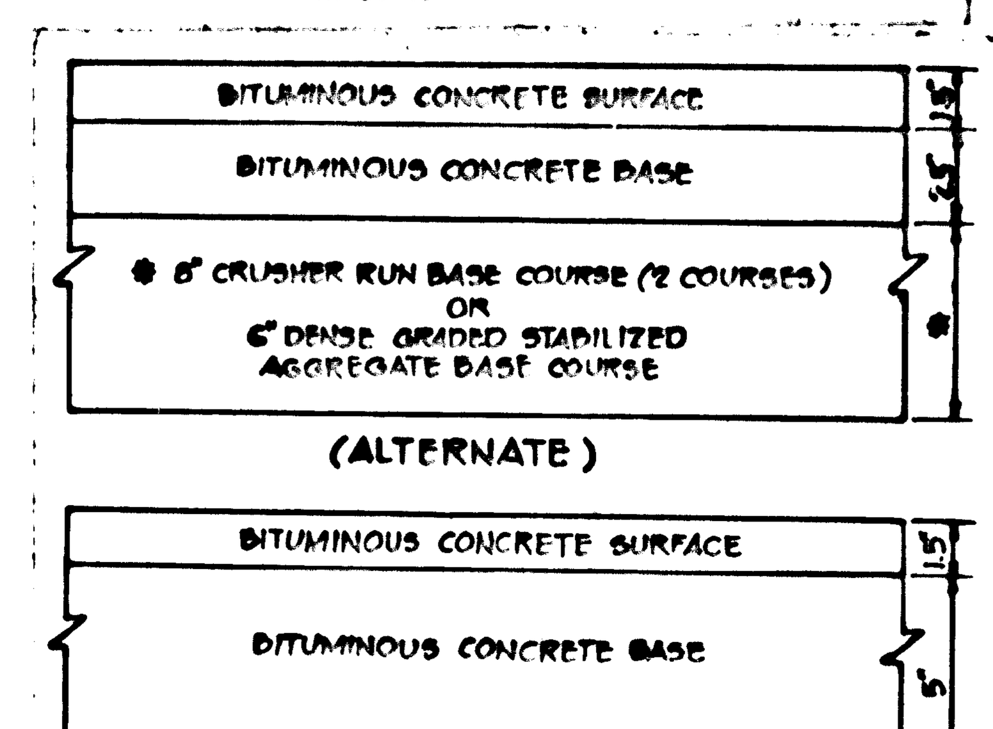
STANDARD BARRIER CURB

No Scale

MEADOWSWEET COURT
ROCKCRESS COURT

CUL-DE-SAC DETAILS

NO SCALE



HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

6½" PAVING, P-2

NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9-9-86

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING — DATE 9-11-86

DATE	NO	REVISION

OWNER:
GEORGE C. DEERING
ROBERT M. HANKIN
ROBERT R. PRELLER
5838 STILL MEADOW LANE
COLUMBIA, MARYLAND

DEVEL:
LONG MEADOWS VENTURES
ONE KNOLL NORTH DRIVE
SUITE 502
COLUMBIA, MARYLAND
21045

PROJECT: LONG MEADOW
SECTION ONE
LOTS 1 THRU 65

AREA: TAX MAP № 36 PARCEL № 263
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

TITLE: DETAIL SHEET

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

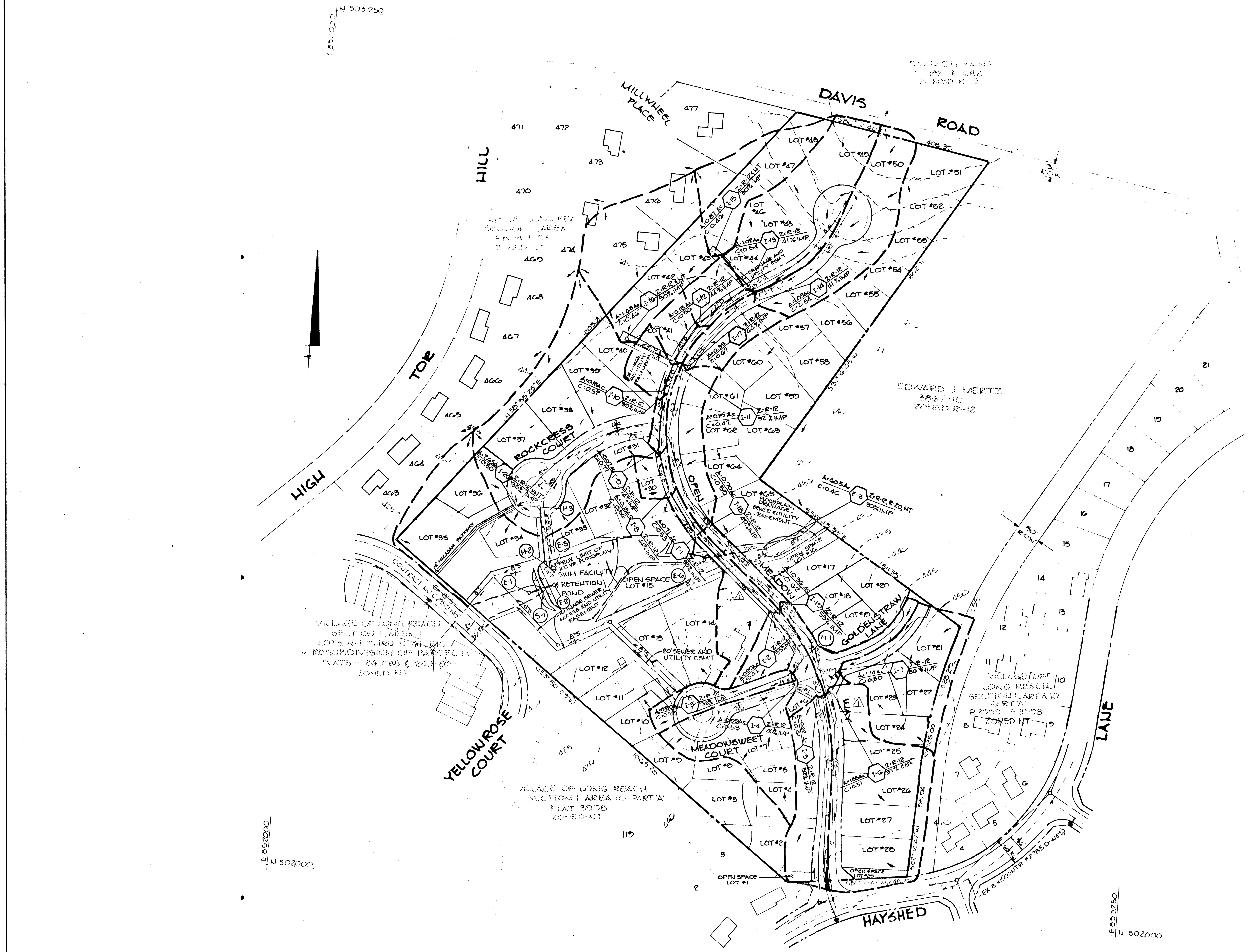
DATE 9-7-86 (5-86-37)

DESIGNED BY: D.A.M.
DRAWN BY: K.J.B.
PROJECT NO: 23000
DATE: JULY 31, 1986
SCALE: AS SHOWN
DRAWING NO. 6 OF 10

ARTHUR E. MUEGGE # 6707

DEC. 16 1991

F-86-203



STRUCTURE SCHEDULE

No.	Type	Location	Inv. In	Inv. Out	Top Curb Elev.	Remarks
I-1	A-5	15' Lt. Centerline Sta. 8+83.31	24"D(NW)422.~~40~~14 21"D(SE)~~422.65~~421.67 15"D(E) 423.~~15~~06	~~420.99~~ 421.20	~~428.93~~ 429.11	Ho. Co. Std. SD-4.01
I-2	A-5 w/ Def.	15' Lt. Centerline Sta. 6+40	15"D(NE)~~427.85~~ 427.57 18"D(SE)~~427.55~~ 427.13	~~427.35~~ 427.07	~~433.39~~ 433.57	Ho. Co. Std. SD-4.01 and SD-4.83
I-3	A-5	14' Rt. Centerline Sta. 0+58.51	~~431.98~~ 431.63	~~431.78~~ 431.51	~~440.43~~ 440.61	Ho. Co. Std. SD-4.01
I-4	A-5 w/ Def.	14' Lt. Centerline Sta. 0+58.51	~~433.03~~ 432.71	~~432.83~~ 432.57	~~440.43~~ 440.71	Ho. Co. Std. SD-4.01 and SD-4.83
I-5	A-5 w/ Def.	15' Lt. Centrline Sta. 4+27.82	△1 ~~434.79~~ 434.46	~~434.59~~ 434.33	~~443.93~~ 444.25	Ho. Co. Std. SD-4.01 and SD-4.83
I-6	A-10 w/ Def.	15' Rt. Centerline Sta. 4+31.51	~~435.35~~ 435.38	~~435.15~~ 435.21	~~443.73~~ 440.00	Ho. Co. Std. SD-4.02 and SD-4.83
I-7	A-5 w/ Def.	15' Rt. Centerline Sta. 0+52.99	---	~~436.42~~ 436.45	~~440.74~~ 441.42	Ho. Co. Std. SD-4.01 and SD-4.83
I-8	A-5	15' Lt. Centerline Sta. 9+72	~~423.88~~ 423.80	~~423.68~~ 423.64	~~429.52~~ 429.68	Ho. Co. Std. SD-4.01
I-9	A-5	15' Lt. Centerline Sta. 10+48.02	~~425.18~~ 425.08	~~424.98~~ 425.02	~~430.80~~ 430.97	Ho. Co. Std. SD-4.01
I-10	A-5	14' Lt. Centerline Sta. 11+50	~~427.08~~ 426.91	~~426.88~~ 426.87	~~432.59~~ 432.82	Ho. Co. Std. SD-4.01
I-11	A-5	14' Lt. Centerline Sta. 12+23	15"(E) 428.~~95~~74 15"(W) 428.~~95~~.63 15"(NW)428.~~95~~.57	~~428.20~~ 428.29	~~433.88~~ 434.18	Ho. Co. Std. SD-4.01
I-12	A-5	14' Lt. Centerline Sta. 13+31	~~431.31~~ 431.04	~~431.06~~ 430.91	~~435.84~~ 436.12	Ho. Co. Std. SD-4.01
I-13	A-5 w/ Def.	14' Lt. Centerline Sta. 14+32	15"(SE)~~434.99~~ 434.79 15"(W) ~~434.99~~ 434.58	~~434.78~~ 434.77	~~439.52~~ 439.58	Ho. Co. Std. SD-4.01 and SD-4.83
I-14	A-5 w/ Def.	14' Rt. Centerline Sta. 14+32		~~435.29~~ 435.20	~~439.52~~ 439.95	Ho. Co. Std. SD-4.01 and SD-4.83
I-15	'K' Inlet	See Plan	---	436.~~22~~34	443.~~4*~~69	Ho. Co. Std. SD-4.13
I-16	'K' Inlet	See Plan	---	430.~~29~~17	435.~~8*~~98	Ho. Co. Std. SD-4.13
I-17	A-5 w/ Def.	14' Rt. Centerline Sta. 12+23	---	429.~~25~~ 429.23	~~433.88~~ 434.15	Ho. Co. Std. SD-4.01 and SD-4.83
I-18	A-5	15' Rt. Centerline Sta. 8+83.31	---	~~424.17~~ 424.52	~~428.93~~ 429.08	Ho. Co. Std. SD-4.01
I-19	A-5 w/ Def.	15' Rt. Centerline Sta. 6+40	---	~~428.17~~ 427.92	~~433.39~~ 433.62	Ho. Co. Std. SD-4.01 and SD-4.83
I-20	A-10	Sta. 1+60 LP	---	417.~~45~~74	422.~~45~~43	Ho. Co. Std. SD-4.02
M-2	Std. 4'-0" Dia. Manhole	See Plan	412.~~29~~ .23	412.~~09~~ .03	418.~~2*~~ .41	Ho. Co. Std. G-5.11
M-1	Std. 4'-0" Dia. Manhole	20' Lt. Centerline Sta. 5+39	△1 430.~~53~~ .22	430.~~33~~ .06	438.~~2*~~ .37	Ho. Co. Std. G-5.11
M-3	Std. 4'-0" Dia. Manhole	See Plan	~~416.98~~ 417.62	416.~~78~~ 416.85	422.~~9*~~ 422.86	Ho. Co. Std. G-5.11
E-1	60" Metal End Section	See Plan	---	408.~~00~~ .12	---	Ho. Co. Std. SD-5.61
E-2	24" Metal End Section	See Plan	~~408.00~~ 410.06	---	---	Ho. Co. Std. SD-5.61
E-3	72" Metal End Section	60' Lt. Centerline Sta. 8+42	---	~~414.00~~ 414.16	---	Ho. Co. Std. SD-5.61
E-4	72" Metal End Section	51' Rt. Centerline sta. 7+79	~~418.00~~ 418.44	---	---	Ho. Co. Std. SD-5.61
E-5	15" Concrete End Section	See Plan	---	411.00	---	Ho. Co. Std. SD-5.51
E-6	30" Concrete End Section	62' Lt. Centerline sta. 8+59	---	414.~~00~~44	---	Ho. Co. Std. SD-5.51
S-1	Special Structure	See Plan	411.~~0~~ .66	408.~~55~~ .68	---	See Sheet 6 of 10

* Top of rim or grate elevation

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

[signature] 9-9-86

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[signature] 9-11-86

CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO	REVISION
10-29-86	△1	REVISED INVERTS IN & OUT ON STRUCTURES I-1, I-2, I-3, I-4, I-5, I-6 AND MH-1. REVISED PIPE SIZES.

OWNER	DEVEL:
GEORGE C. DEERING ROBERT M. HANKIN ROBERT R. PRELLER 5838 STILLMEADOW LANE COLUMBIA, MARYLAND	LONG MEADOW VENTURERS ONE KNOLL NORTH DRIVE SUITE 502 COLUMBIA, MARYLAND

PROJECT **LONG MEADOW**
SECTION ONE
LOTS 1 THRU 65

AREA TAX MAP No 36 PARCEL No 263
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

TITLE **DRAINAGE AREA MAP**
(S-86-37)

THE RIEMER GROUP, INC.

The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

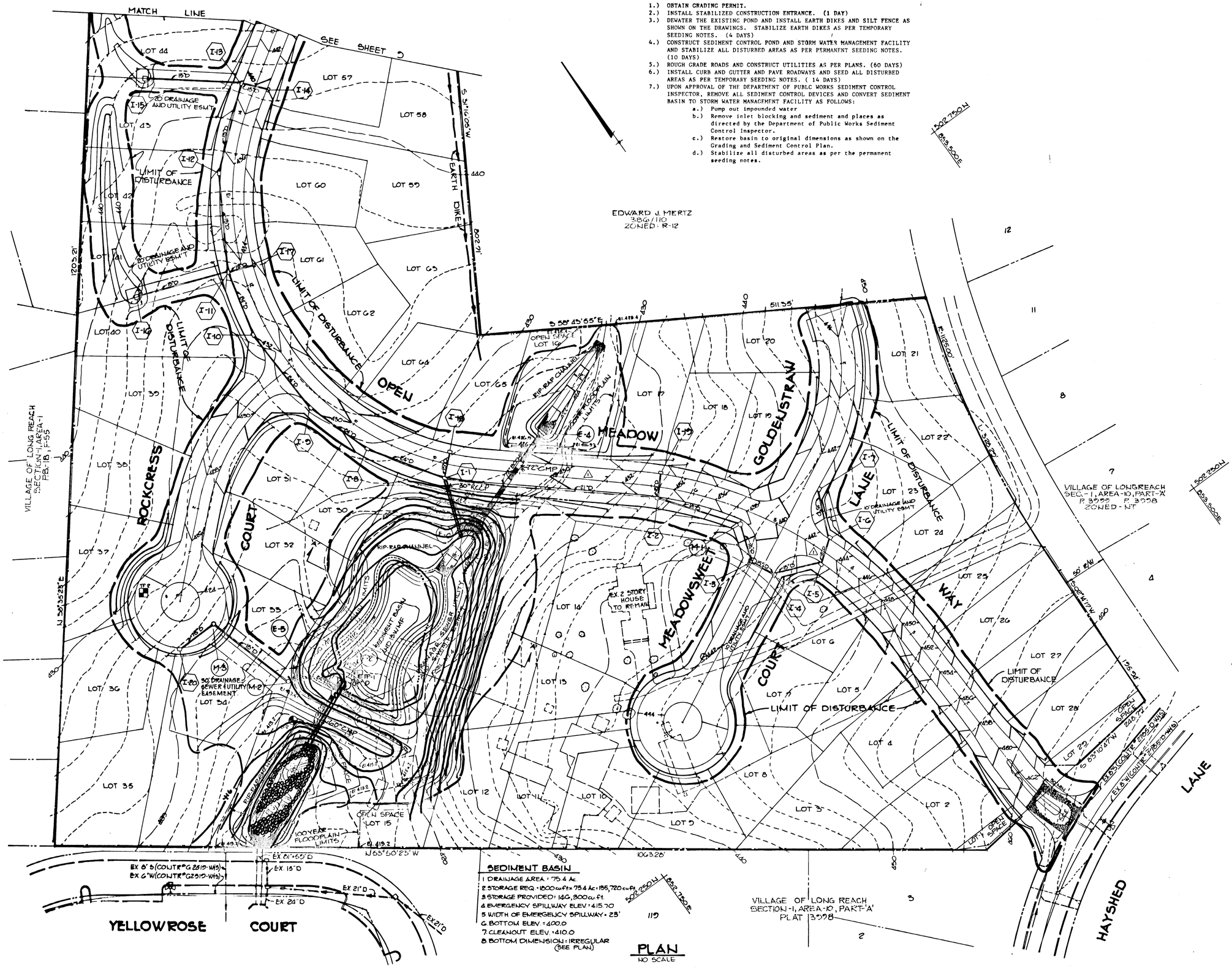
9-4-86
DATE

ARTHUR E. MUEGGE #8707

DESIGNED BY	L.J.D
DRAWN BY	DAM
PROJECT NO	2300
DATE	JULY 31, 1986
SCALE	1" = 100'
DRAWING NO.	7 OF 10

AS-BUILT DEC. 16, 1991

F-86-203



SEQUENCE OF CONSTRUCTION

1.) OBTAIN GRADING PERMIT.
2.) INSTALL STABILIZED CONSTRUCTION ENTRANCE. (1 DAY)
3.) DEWATER THE EXISTING POND AND INSTALL EARTH DIKES AND SILT FENCE AS SHOWN ON THE DRAWINGS. STABILIZE EARTH DIKES AS PER TEMPORARY SEEDING NOTES. (4 DAYS)
4.) CONSTRUCT SEDIMENT CONTROL POND AND STORM WATER MANAGEMENT FACILITY AND STABILIZE ALL DISTURBED AREAS AS PER PERMANENT SEEDING NOTES. (10 DAYS)
5.) ROUGH GRADE ROADS AND CONSTRUCT UTILITIES AS PER PLANS. (60 DAYS)
6.) INSTALL CURB AND GUTTER AND PAVE ROADWAYS AND SEED ALL DISTURBED AREAS AS PER TEMPORARY SEEDING NOTES. (14 DAYS)
7.) UPON APPROVAL OF THE DEPARTMENT OF PUBLC WORKS SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND CONVERT SEDIMENT BASIN TO STORM WATER MANAGEMENT FACILITY AS FOLLOWS:
    a.) Pump out impounded water
    b.) Remove inlet blocking and sediment and places as directed by the Department of Public Works Sediment Control Inspector.
    c.) Restore basin to original dimensions as shown on the Grading and Sediment Control Plan.
    d.) Stabilize all disturbed areas as per the permanent seeding notes.

SEDIMENT BASIN

1 DRAINAGE AREA : 75.4 Ac.
2. STORAGE REQ. = 1800 cu.ft. x 75.4 Ac = 135,720 cu.ft.
3. STORAGE PROVIDED: 146,300 cu.ft.
4. EMERGENCY SPILLWAY ELEV. = 415.70
5. WIDTH OF EMERGENCY SPILLWAY = 23'
6. BOTTOM ELEV. = 400.0
7. CLEANOUT ELEV. = 410.0
8. BOTTOM DIMENSION = IRREGULAR (SEE PLAN)

PLAN
NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

9-9-86

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

9-11-86

CHIEF, BUREAU OF ENGINEERING — DATE

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF 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."

Earl Armiger PTR — 9-4-86

DEVELOPER — DATE

EARL ARMIGER

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 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."

Arthur E. Muegge — 9-4-86

ENGINEER — DATE

ARTHUR E. MUEGGE

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.

9-9-86

U.S. SOIL CONSERVATION SERVICE — DATE

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

APPROVED Robert W. Zehner — 9/9/86

HOWARD S.C.D. — DATE

DATE	NO.	REVISION
5-1-87	2	REVISED GRADING WEST SIDE OF S.W.M. FACILITY
10-29-86	1	REVISED PIPE SIZES BETWEEN I-1 TO I-2 AND FROM I-5 TO I-6

OWNER/DEVELOPER
GEORGE C DEERING
ROBERT M. HANKIN
ROBERT R. PRELLER
5838 STILLMEADOW LANE
COLUMBIA, MARYLAND

DEVEL:
LONG MEADOW VENTURERS
ONE KNOLL NORTH DRIVE
SUITE 502
COLUMBIA, MARYLAND

PROJECT:
LONG MEADOW
SECTION ONE
LOTS 1 THRU 65

AREA TAX MAP NO. 36 PARCEL NO. 263
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE:
GRADING AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

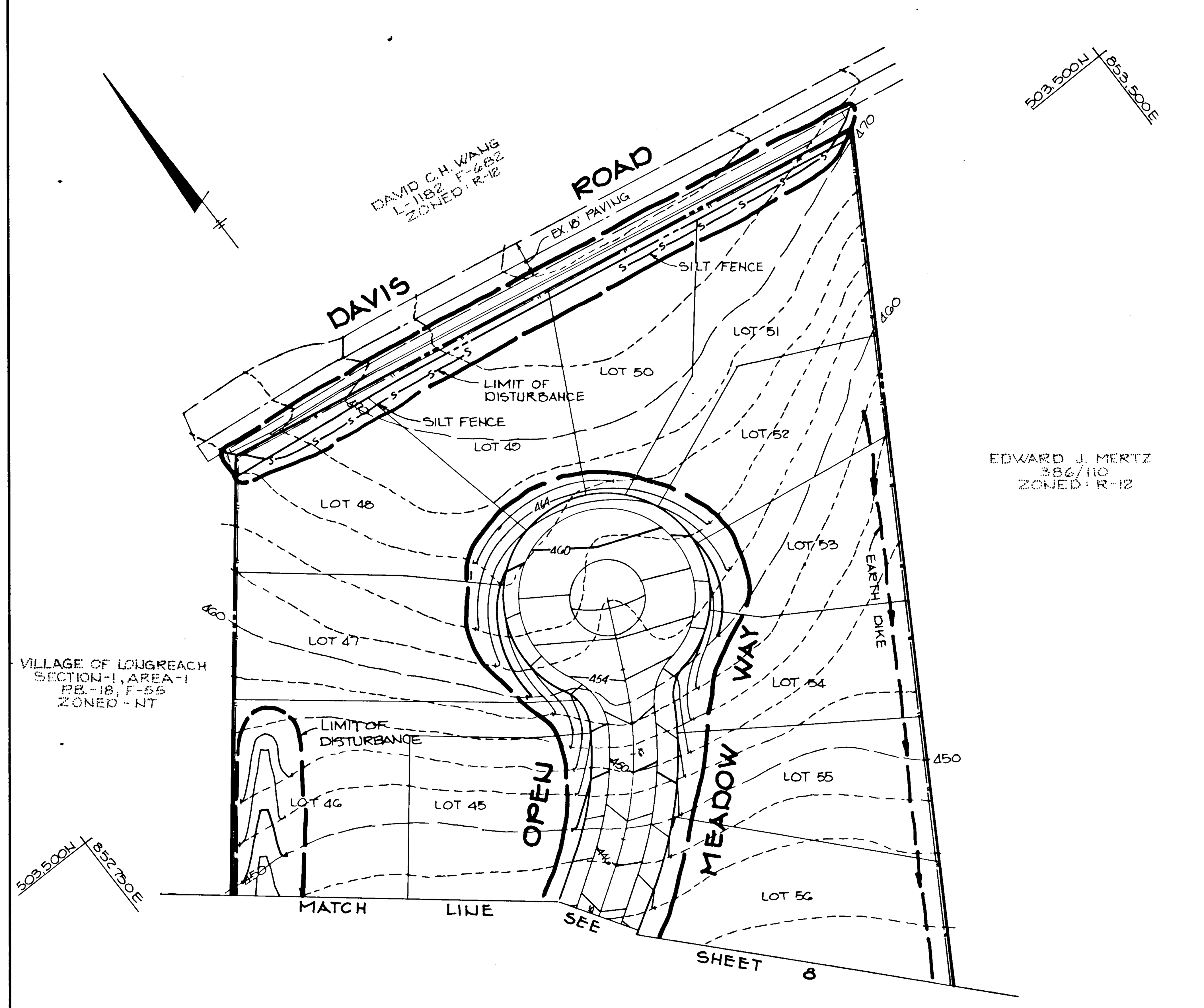
9.4.86
DATE

Arthur E. Muegge
ARTHUR E. MUEGGE #8707

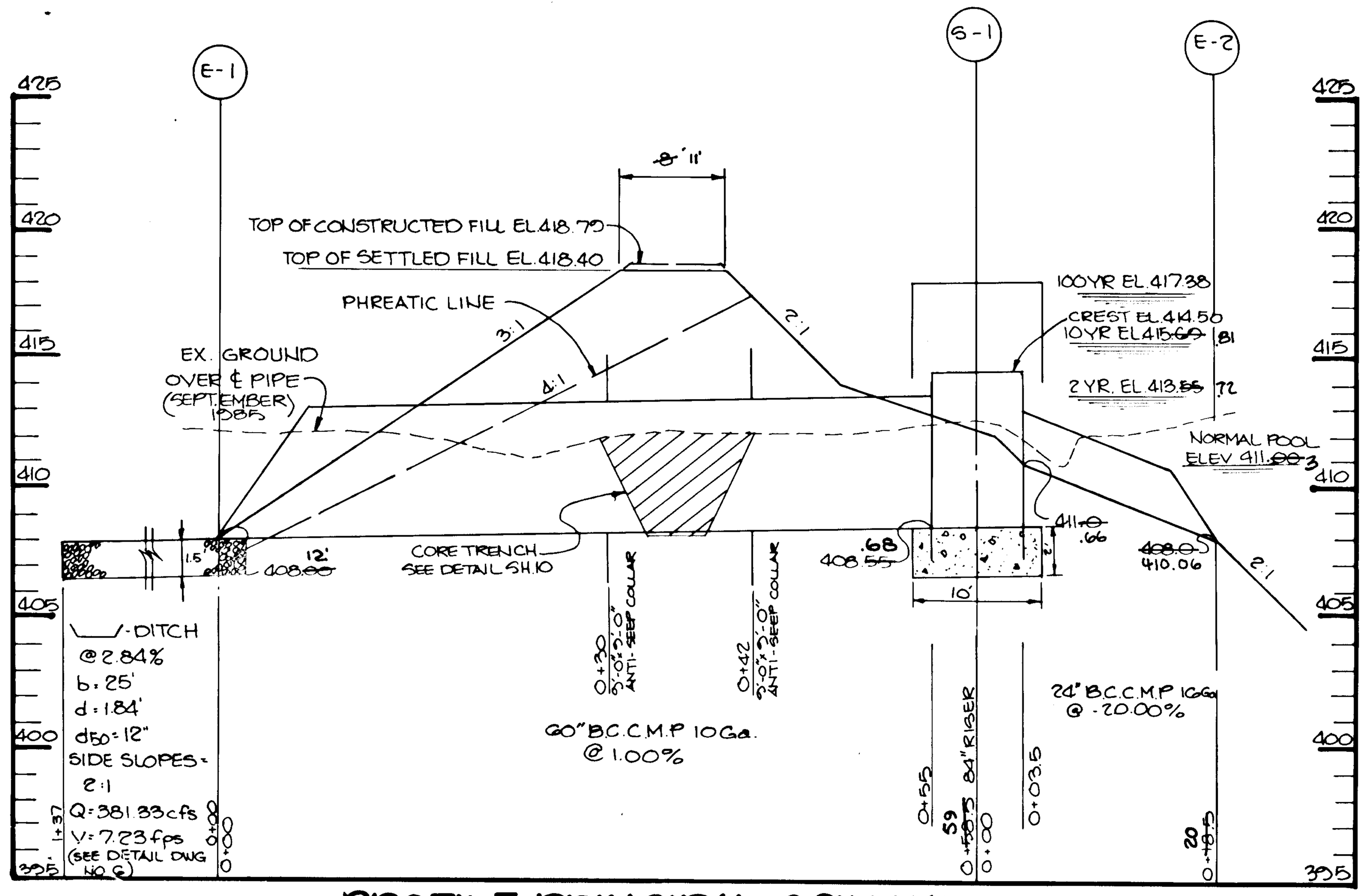
DESIGNED BY:	D.A.M.
DRAWN BY:	F.D.M.
PROJECT NO:	23000
DATE:	JULY 31, 1986
SCALE:	1" = 50'
DRAWING NO.	8 OF 10

AS-BUILT DEC. 16, 1991

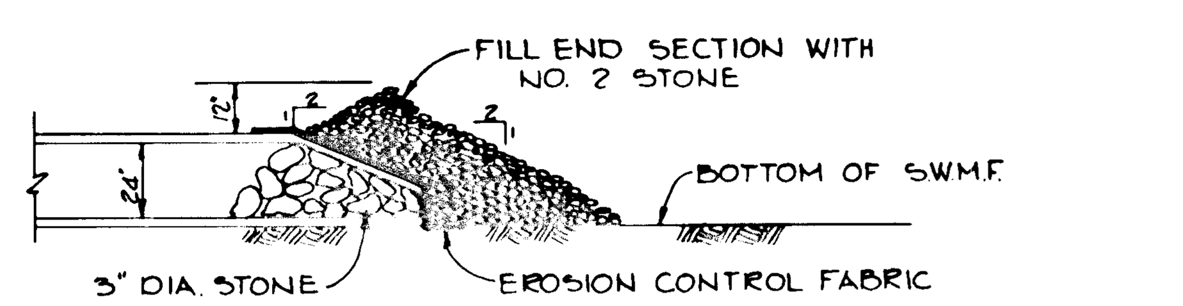
F-86-203



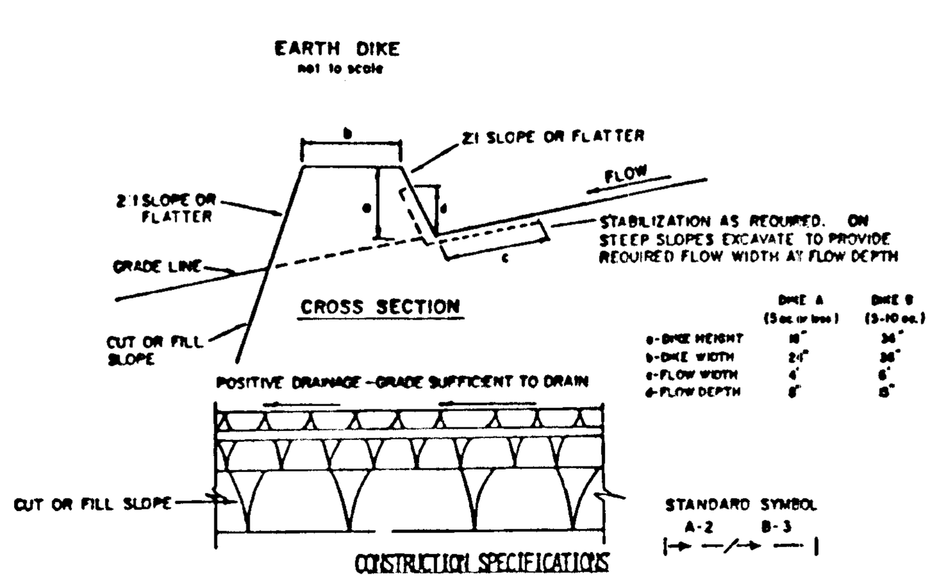
PLAN
SCALE: 1"=50'



PROFILE PRINCIPAL SPILLWAY
SCALE: HOR: 1"=10' VERT: 1"=5'



END SECTION BLOCKING DETAIL E-2
NO SCALE



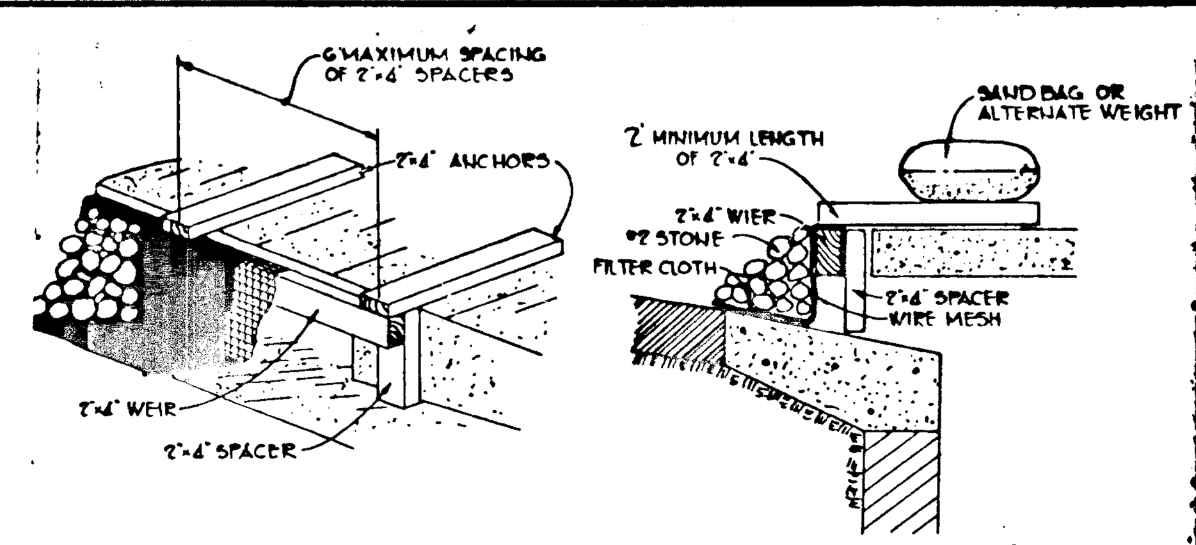
CONSTRUCTION SPECIFICATIONS

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 trapping device such as a sediment trap or 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.



STONE FILTER INLET PROTECTION
NO SCALE

STANDARD SYMBOL SFIP

Construction Specifications
FOR STONE FILTER INLET PROTECTION

I. Materials

A. Wooden frame is to be constructed of 2" x 4" construction grade lumber.

B. Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.

C. Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, EOS, 40-85, to allow sufficient passage of water and removal of sediment.

4. Stone is to be 2" in size and clean, since fines would clog the cloth.

II. Procedure

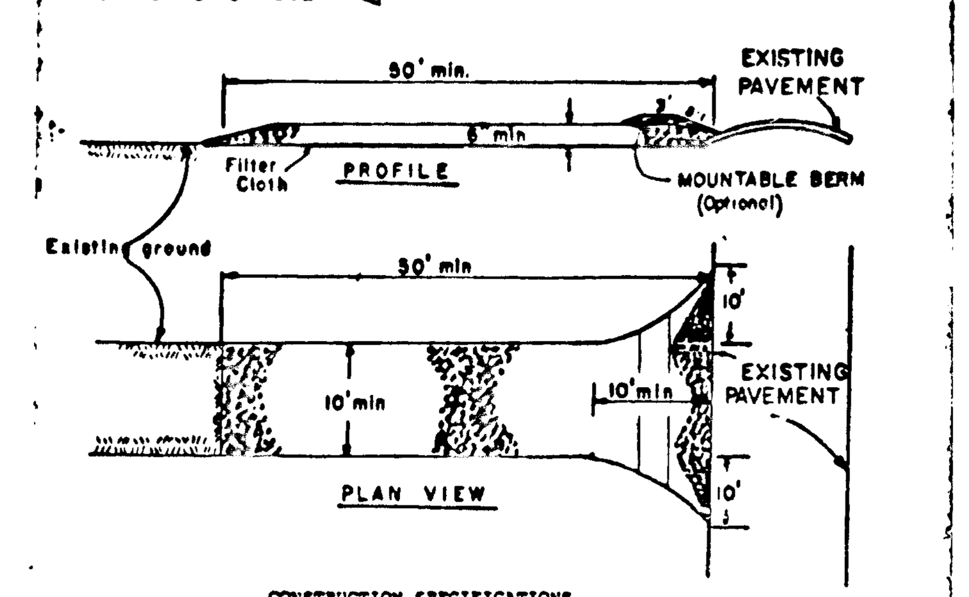
A. A swale, ditchline or yard inlet protection.

1. Excavate completely around inlet to a depth of 18" below notch elevation.
2. Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
4. Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
7. This structure must be inspected frequently and the filter fabric replaced when clogged.

B. Curb Inlet Protection.

1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.
2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4' to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

STANDARD SYMBOL SCE



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 than 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
NO SCALE

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 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 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	21.96± acres
Area Disturbed	8.07± acres
Area to be roofed or paved	2.29± acres
Area to be vegetatively stabilized	5.78± acres
Total Cut	5877± Cu. yds.
total Fill	8348± 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 distrubance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
10. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
11. Sediment will be removed from traps when its depth reaches the clean out elevation shown on the plans.

TEMPORARY SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) Where soil is highly acidic, apply dolomitic limestone at the rate of 1 ton per acre.

Seeding: For periods March 1 thru April 30 and from Agust 15 thru November 15, seed with 140 lbs. per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1½ to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal. per acre (8 gal./1000 sq.ft.) for anchoring.

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

PERMANENT SEEDING NOTES

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

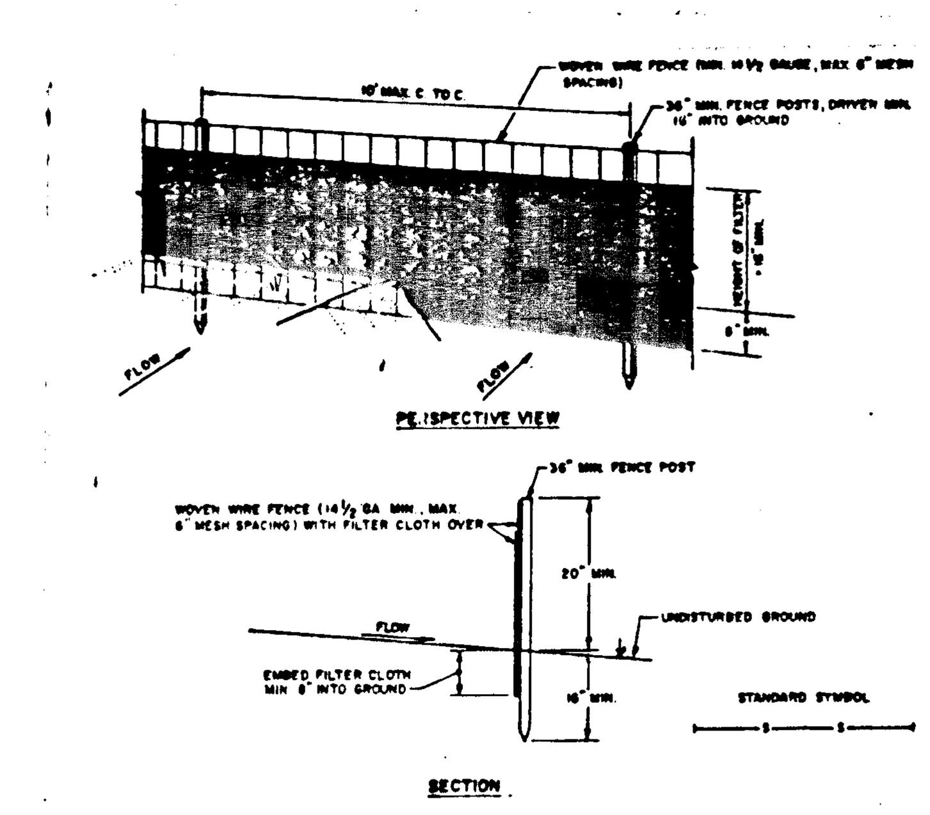
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 0-20-20 fertilizer at the rate of 600 lbs. per acre. Harrow or disc lime and 0-20-20 fertilizer into the soil to a minimum depth of 3". Lawns or high maintenance areas will be dragged and leveled with a York rake. At the time of seeding, apply 400 lbs. of 30-0-0 ureaform fertilizer and 500 lbs. of 10-20-20 or equivalent fertilizer per acre.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 40 lbs. per acre (1 lb/1000 sq.ft.) of a mixture of certified 'Merion' Kentucky bluegrass; common Ketucky bluegrass @ 40 lbs. per acre (1 lb./1000 sq.ft.) and Red Fescue, Pennlawn or Jamestown @ 20 lbs. per acre (0.5 lb./1000 sq.ft.) for the period May 1 thru July 31, seed with 40-40-20 mix as specified above and 2 lbs. per acre (0.05 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 40-40-20 mix specified above and mulch with 2 tons/acre well-anchored straw.

Mulching: Apply 1½ to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq.ft.) for anchoring.

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



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. Woven wire fence to be fastened securely to fence posts with wire ties or 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, 14½ Ga. 6" Max. Mesh Opening
FILTER CLOTH: Filter X, Mirafi 100X, Stabilinka T140N or Approved Equal
PREFABRICATED UNIT: Geofab, Envirofence, or Approved Equal

SILT FENCE
NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[signature] 9-9-86
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[signature] 9-11-86
CHIEF, BUREAU OF ENGINEERING — DATE

BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF 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] PTR. 9-4-86
DEVELOPER — DATE
EARL ARMIGER

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 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] 9.4.86
ENGINEER — DATE
ARTHUR E. MUEGGE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
[signature]
U.S. SOIL CONSERVATION SERVICE — DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
APPROVED [signature] 9-9-86
HOWARD S.C.D. — DATE

DATE	NO.	REVISION

OWNER
GEORGE C DEERING
ROBERT M HANKIN
ROBERT R PRELLER
5838 STILLMEADOW LANE
COLUMBIA, MARYLAND

DEVEL:
LONG MEADOW VENTURERS
ONE KNOLL NORTH DRIVE
SUITE 502
COLUMBIA, MARYLAND

PROJECT: LONG MEADOW
SECTION ONE
LOTS 1 THRU 65

AREA: TAX MAP Nº 36 — PARCEL 263
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

TITLE: GRADING & SEDIMENT CONTROL PLAN AND SEDIMENT CONTROL DETAILS & NOTES.

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-7890

9-4-86
DATE

ARTHUR E MUEGGE # 8707

DESIGNED BY:	D.A.M.
DRAWN BY:	D.A.M.
PROJECT NO:	23000
DATE	JULY 31, 1986
SCALE:	AS SHOWN
DRAWING NO.	9 OF 10

AS-BUILT DEC 16, 1991

F-86-203

1234

POND CONSTRUCTION SPECIFICATIONS

SITE PREPARATION

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

Material:

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most pervious borrow material shall be placed in the downstream portions of the embankment.

Compaction:

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one track or tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Cutoff Trench:

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

CORRUGATED METAL PIPE

Material:

(Steel Pipe)-This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Connections:

All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands shall be used at all joints. Antiseep collars shall be connected to the pipe in such a manner as to be completely watertight.

Bedding:

The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

CONCRETE

Material:

1. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.
2. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
3. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
4. Course Aggregate - The course aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-½) inches.
5. Reinforcing Steel - The reinforcing steel shall be be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

Design Mix:

The concrete shall be mixed in the following proportions, measured by weight. The water-cement ration shall be 5-½ to 6 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2(3-½. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

Mixing:

The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the material, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the additions of water to perserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

Forms:

The forms shall have sufficient strength and rigidity to hold the concrete and to with stand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

Reinforcing Steel:

All reinforcing material shall be free of dirt, rust, scale, oil, paint or other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

Consolidating:

Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be suplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

Finishing:

Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

Protection and Curing:

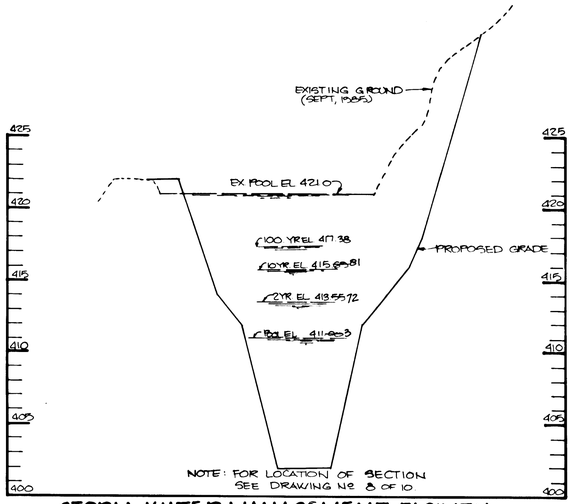
Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also by used.

Placing Temperature:

Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

STABILIZATION

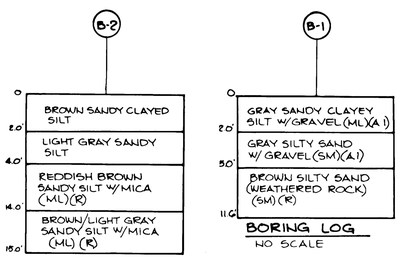
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillways, spoil and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.



NOTE: FOR LOCATION OF SECTION SEE DRAWING NO 8 OF 10

STORM WATER MANAGEMENT FACILITY SECTION 'A-A'

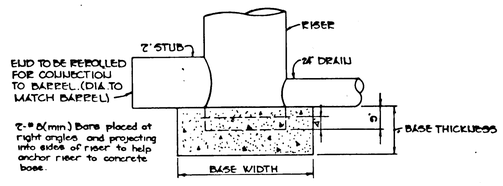
SCALE: HORIZ. 1"=50' VERT: 1"=5'



BORING LOG
NO SCALE

BORING LOGS

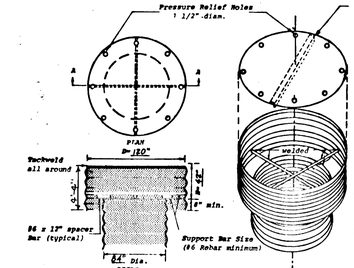
NO SCALE



RISER BASE DETAIL

NO SCALE

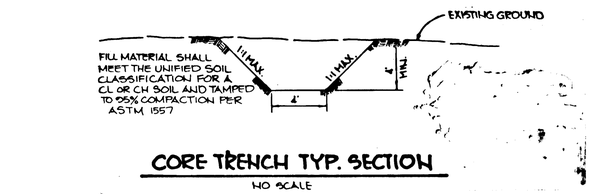
NOTE:
The concrete base shall be poured in such a manner to insure that the concrete fills the bottom of the riser to the invert of the outlet pipe to prevent the riser from breaking away from the base.



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE
(not to scale)

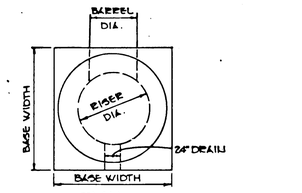
RISER DETAIL FOR SEDIMENT BASIN

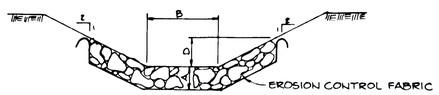
NO SCALE



CORE TRENCH TYP. SECTION

NO SCALE

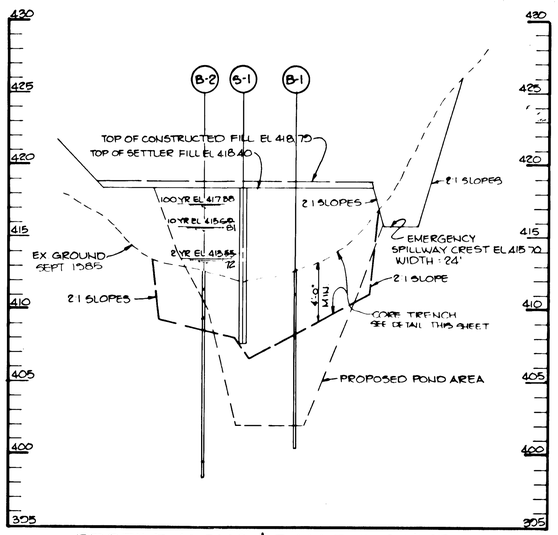




STRUCTURE	A	B	D	MEDIUM STONE DIA
E-1	1'-6"	23'	1.87'	12"
E-3	1'-6"	15'	2.00'	8"
E-4	1'-6"	12'	1.84'	8"

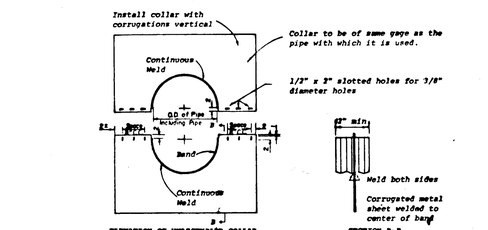
TYPICAL RIPRAP TRAPEZOIDAL CHANNEL

NO SCALE



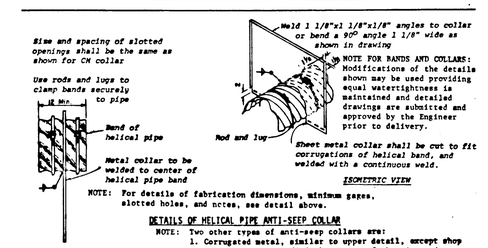
PROFILE ALONG ℄ DAM FOR SWMF

SCALE HOR 1"=50' VERT 1"=5'



NOTES FOR COLLARS:
1. All materials to be in accordance with construction and construction material specifications.
2. When specified on the plans, gasting of collars shall be in accordance with construction and construction material specifications.
3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
4. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at time of installation.
5. Each collar shall be furnished with two 1/2" diameter rods with standard tank lugs for connecting collars to pipe.

DETAILS OF CORRUGATED METAL ANTI-SEEP COLLAR



NOTE: For details of fabrication dimensions, minimum gages, slotted holes, and notes, see detail above.

DETAILS OF HELICAL PIPE ANTI-SEEP COLLAR

NOTE: Two other types of anti-seep collars are:
1. Corrugated metal, similar to upper detail, except shop welded to a short (4 ft.) section of the pipe and connected with connecting bands to the pipe.
2. Concrete, six inches thick formed around the pipe with #3 rebar spaced 15" horizontally and vertically.

ANTI-SEEP COLLAR

NO SCALE

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF 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."

Earl Armiger PRES. — 9-4-86

DEVELOPER
EARL ARMIGER — 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 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."

Arthur E. Muegge — 9.4.86

ENGINEER
ARTHUR E. MUEGGE — 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.

9-9-86

U.S. SOIL CONSERVATION SERVICE — DATE

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

APPROVED Robert W. Zirkus — 9-9-86

HOWARD S.C.D. — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

9-9-86

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

9-11-86

CHIEF, BUREAU OF ENGINEERING — DATE

DATE	NO	REVISION

OWNER/DEVELOPER
GEORGE C. DEERING
ROBERT M. HANKIN
ROBERT R. PREELER
5838 STILL MEADOW LANE
COLUMBIA, MARYLAND

DEVELOPER
LONG MEADOW VENTURERS
ONE KNOLL NORTH DRIVE
SUITE 302
COLUMBIA, MARYLAND

PROJECT: **LONG MEADOW**
SECTION ONE
LOTS 1 THRU 65

AREA TAX MAP NO 36 — PARCEL NO. 203
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: STORM WATER MANAGEMENT DETAILS AND NOTES

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

9-4-86
DATE

ARTHUR E. MUEGGE #8707

DESIGNED BY: L.J.D.
DRAWN BY: DAM
PROJECT NO: 23000
DATE: JULY 31, 1986
SCALE: AS SHOWN
DRAWING NO. 10 OF 10

12360

AS-BUILT DEC. 16, 1991

F-86-203