PLAN

NO.	DATE	BY	SURVEYED	DESIGNED	DRAWN	TRACED	ALIGNMENT CHECKED	RT. OF WAY CHECKED

NOTE BOOK

No.

℄ CURVE DATA
R = 275.00'
L = 70.00'
Δ = 14° 35' 04"
T = 35.19'
CHD = S55° 28' 41" W
69.81'

℄ CURVE DATA
R = 330.00'
L = 633.90'
Δ = 110° 03' 38"
T = 471.82'
CHD = S 28° 04' 09" W
540.84'

N 536,250 E 846,000

MATCH LINE SEE SHEET 2 OF 4

BALTIMORE GAS AND ELECTRIC COMPANY R/W

LOT 17
MOUNT HEBRON
SECTION 13

CONSTRUCT TEMPORARY EARTH BERM @ ℄ STA. 28+00 (SEE DETAIL SHEET 3 OF 4)

CONSTRUCT 2 TYPICAL DRIVEWAY ENTRANCES (DRWG. D-34 PAGE 89) OPPOSITE ℄ STA. 28+50 FOR ACCESS TO BALTIMORE GAS AND ELECTRIC COMPANY R/W.

LOT 1
BLOCK E

LOT 3
BLOCK G

LOT 4

BUILDING RESTRICTION LINE

50'

FURROW AVENUE

P.C. STA 29+42.87

I-3 ℄ STA 29+57.36
TOP ELEV. 420.01

I-2 ℄ STA 30+99.96
TOP ELEV. 423.56

33' 32' 30' PAVING

50' R/W

40'

BITUMINOUS CONCRETE CURB

24" BCCMP (36") @ 16 GAGE

24" BCCMP @ 16 GAGE (16 GA)

PROVIDE STANDARD STOP SIGN

EXISTING 30' PAVING

EXISTING 30' R/W

DUFF COURT

SECTION 13

LIMIT OF ℄ STA. 27+29.63

P.R.C. STA. 27+99.63

REMOVE EXISTING TEE TURN AROUND AND DEAD END BARRICADE

EXISTING TRANSMISSION TOWER

CONSTRUCT STANDARD BEAM TYPE GUARD RAIL (DRWG. D-44 PAGE 99)

℄ CURVE DATA
R = 550.00'
L = 143.24'
Δ = 14° 55' 19"
T = 72.03'
CHD = S 55° 38' 48" W
142.84'

LOT 31
MOUNT HEBRON
SECTION 13

I-1 ℄ STA 30+00
TOP ELEV. 422.79

CONSTRUCT TEMPORARY EARTH BERM @ ℄ STA. 30+00 (SEE DETAIL SHEET 3 OF 4)

I-4 ℄ STA 30+30
TOP ELEV. 422.79

CARDIE WAY

℄ CURVE DATA
R = 210.00'
L = 207.69'
Δ = 56° 40' 00"
T = 113.23'
CHD = N 82° 30' 00" W
199.33'

P.C. STA 1+10

P.T. STA 3+17.69

LOT 1

LOT 2

NOTE: CONTRACTOR SHALL COMPLETELY REMOVE STONE FILTERS, EARTH BERMS AND SEDIMENT GENERATED BY CONSTRUCTION UPON COMPLETION OF WORK.

VICINITY MAP
SCALE: 1" = 1200'

BALTIMORE GAS AND ELECTRIC
MT. HEBRON SECTION 14
FURROW AVE.
MT. HEBRON ROAD
PROJECT
PROPOSED 10" WATER
PROPOSED 8" SEWER

10/12/73
STATE OF MARYLAND
WILLIAM B. CARTER
No. 4575
REGISTERED
Professional Engineers & Land Surveyors
Reg. No. 4575

DESIGNED BY: C.J. CROVO
DRAFTED BY: A.R. ZIERDEN
CHECKED BY: R.B. CARTER

PURDUM & JESCHKE
CONSULTING ENGINEERS AND LAND SURVEYORS
1023 N. CALVERT STREET
BALTIMORE, MARYLAND 21202

OWNER AND DEVELOPER
MOUNT HEBRON, INC.
2417 MOUNT HEBRON DRIVE
ELLICOTT CITY, MARYLAND 21043

LIMIT OF SECTION 14 ℄ STA 4+07.69

SEE DRAINAGE AREA MAP FOR SEDIMENT CONTROL MEASURES

N 536,250 E 845,250

S 69° 10' 00" W

18" FUTURE 50' R/W

FUTURE 30' PAVING

FUTURE DRAIN

CONSTRUCT TEMPORARY TEE TURN AROUND AND DEAD END BARRICADE DWG. D-33 PAGE 88
℄ STA. 4+20
TOP ELEV. 384.76 (S-1)

RIP-RAP CHANNEL "A" SEE SHEET 4 OF 4

FUTURE DRAIN

BALTIMORE GAS AND ELECTRIC COMPANY R/W

LOT 1
LOT 2
BLOCK F
LOT 3

N 536,750 E 846,000

PLAN
SCALE: 1" = 50'

PLAN AND PROFILE
FURROW AVENUE

MT HEBREW

2ND ELECTION DISTRICT | SECTION 14 | HOWARD COUNTY, MARYLAND
OCTOBER 5, 1973 | SHEET 1 OF 4 | SCALE : AS SHOWN

W O Gilbert 4-26-74
Chief, Bureau of Highways — Date

J H Clawsmith 3/18/74
Chief, Division of Land Development and Transportation Planning — Date

APPROVED
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE: 1/4/74

PROFILE

DATE	BY	SURVEYED	DESIGNED	DRAWN	TRACED	GRADES CHECKED	STRUCTURE LOCATIONS CHECKED

NOTE BOOK

No.

FURROW AVENUE

VERTICAL CURVE DATA
LENGTH = 240'
P.V.I. STA. = 33+50
P.V.I. ELEV. = 442.22
H.S.D. = 165
CORR. = 2.10

VERTICAL CURVE DATA
LENGTH = 200'
P.V.I. STA. = 36+45
P.V.I. ELEV. = 445.15
H.S.D. = 170'
CORR. = +2.00

VERTICAL CURVE DATA
LENGTH = 350
P.V.I. STA. = 30+10
P.V.I. ELEV. = 415.04
H.S.D. = 116.5'
CORR. = +5.38

LIMIT OF SECTION 13 ℄ STA. 27+29.63 ELEV. 427.10

EXISTING ℄ PAVING

EXISTING GROUND ℄ LEFT BUILDING RESTRICTION LINE

EXISTING GROUND ℄ RIGHT BUILDING RESTRICTION LINE

EXISTING GROUND ℄ STA. 30+99.96 ELEV. 423.43

EXISTING GROUND ℄ STA. 30+57.36 ELEV. 419.34

℄ As-Built

℄ CARDIE WAY

P.G.L.

P.V.C. STA. 28+35 ELEV. 432.57

P.V.T. STA. 31+85 ELEV. 423.91

P.V.C. STA. 32+30 ELEV. 422.62

P.V.C. STA. 34+70 ELEV. 443.42

P.V.T. STA. 34+70 ELEV. 443.42

P.V.C. STA. 35+45 ELEV. 444.15

P.V.T. STA. 37+45 ELEV. 454.15

VATCH LINE ELEV. 457.75 SEE SHEET 3 OF 4

℄ Parsley Drive STA. 34+83.85 Elev. 445.55

-1.30%
-3.00%
+1.00%
+3.00%
+1.00%
+1.00%

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

	26+00	27+00	28+00	29+00	30+00	31+00	32+00	33+00	34+00	35+00	36+00	37+00
Ground	426.14	424.79	421.62	421.13	420.47	420.11	419.34	419.32	420.37	420.78	421.32	422.35
	423.27	424.85	426.20	428.23	429.98	432.19	433.82	435.82	437.27	440.30	442.00	441.5
	441.82	442.62	442.93	443.42	444.16	444.67	445.23	446.31	447.38	448.35	450.50	452.60
	454.32	456.33										

455 450 445 440 435 430 425 420 415 410

#16

K&E 48 7024 MADE IN U.S.A.
PLATE 1, PLAN PROFILE
KEUFFEL & ESSER CO.

AS BUILT 7-12-76

F-74-35

℄ CURVE DATA
R = 330.00'
L = 633.90'
Δ = 110°03'38"
T = 471.82'
CHD = S 08°04'09" W
540.84'

BLOCK (E)
LOT 4
LOT 2
LOT 3
LOT 5
LOT 6
LOT 7
PRC STA 35+76.77
N 335,750
E 846,000
BUILDING RESTRICTION LINE
50'
AVENUE
CONSTRUCT TEMPORARY EARTH BERM @ ℄ STA. 38+00 (SEE DETAIL SHEET 3 OF 4)
CONSTRUCT TEMPORARY TEE TURN AROUND AND DEAD END BARRICADE DRAWING D-33 PAGE 88
BITUMINOUS MOUNTABLE CURB
℄ STA. 35+27.45
TOP ELEV. 444.06
FURROW
S 23°53'36" E
30' R/W
40
℄ 30' PAVING
41
42
℄ FUTURE 30' PAVING 43
FUTURE 50' R/W
BITUMINOUS MOUNTABLE CURB
18" BCCMP 16 GAGE (24'±)
0+63.15
34+63.15
18" BCCMP 16 GAGE (41'±)
MATCH LINE SEE SHEET 1 OF 4
40'
R=330
PROVIDE STANDARD STOP SIGN
CONSTRUCT TEMPORARY EARTH BERM @ ℄ STA. 34+00 (SEE DETAIL SHEET 3 OF 4)
PC STA 0+46.70
PRC STA 35+76.77
PT STA 36+99.92
℄ CURVE DATA
R = 306.00'
L = 123.15'
Δ = 23°03'34"
T = 62.42'
CHD = S 35°25'23" E
122.32'
BUILDING RESTRICTION LINE
LOT 2
LOT 3
LOT 4
LOT 5
BLOCK (H)
℄ CURVE DATA
R = 300.00'
L = 220.00'
Δ = 42°01'01"
T = 115.21'
CHD = S 38°14'30" W
215.10'
LIMIT OF SECTION 14 ℄ STA 40+76.92
PARSLEY
DRIVE
BUILDING
RESTRICTION LINE
50' R/W
18" BCCMP 16 GAGE (24'±)
℄ STA 0+46.70
TOP ELEV. 438.69
℄ STA 35+27.45
TOP ELEV. 444.06
20' DRAINAGE EASEMENT
RESTRICTION LINE PC STA 2+66.70
PT STA 2+66.70
LOT 1
LOT 3
BLOCK (G)
LOT 4
LOT 5
TOP ELEV. 423.69
℄ STA 1+85.63
TOP ELEV. 435.93
30' PAVING
BITUMINOUS MOUNTABLE CURB
27" RCCP
RIP-RAP CHANNEL "B" SEE SHEET 4 OF 4
20' DRAINAGE EASEMENT
CONSTRUCT TEMPORARY EARTH BERM @ ℄ STA. 3+13.39 (SEE DETAIL SHEET 3 OF 4)
S 71°13'39" W (434')
CONSTRUCT TEMPORARY TEE TURN AROUND AND DEAD END BARRICADE DRAWING D-33 PAGE 88
FUTURE 30' PAVING
FUTURE 50' R/W
LIMIT OF SECTION 14 ℄ STA 3+89.70
N 535,750
E 845,500
E 845,750
N 535,250

PLAN
SCALE: 1"=50'

APPROVED
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 1/14/74

10/11/73
STATE OF MARYLAND
WILLIAM F. CROCKETT
No. 4575
REGISTERED
Professional Engineers & Land Surveyors
William F. Crockett
Reg. No. 4575

DESIGNED BY: C.J. CROVO
DRAFTED BY: A.R. ZIERDEN
CHECKED BY: R.B. CARTER

PURDUM AND JESCHKE
CONSULTING ENGINEERS AND LAND SURVEYORS
1023 N. CALVERT STREET
BALTIMORE, MARYLAND 21202

OWNER AND DEVELOPER
MOUNT HEBRON, INC.
2417 MOUNT HEBRON DRIVE
ELLICOTT CITY, MARYLAND 21043

PLAN AND PROFILE
FURROW AVENUE AND

MT HEBRON

2ND ELECTION DISTRICT | SECTION 14 | HOWARD COUNTY, MARYLAND
OCTOBER 5, 1973 | SHEET 2 OF 4 | SCALE : AS SHOWN

W O Culbert 4-26-74
Chief, Bureau of Highways Date

J W Clawson 3/18/74
Chief, Division of Land Development and Transportation Planning Date

PLAN
SURVEYED
DRAWN
NOTE BOOK
No.
ALIGNMENT CHECKED
ST. OF WAY CHECKED

PROFILE
SURVEYED
DRAWN
NOTE BOOK
No.
GRADES CHECKED
"M.H." NOTES
STRUCTURE LOCATIONS CHECKED

BY | DATE

FURROW AVENUE

VERTICAL CURVE DATA
LENGTH = 800'
PVI STA. = 39+42
PVI ELEV. = 472+33
SSD = 175'
CORR. = -4.75'

STA. 37+93 MATCH LINE SEE SHEET 1 OF 4
P.V.C. STA. 37+95 ELEV. 469.33
P.G.L.
1.00%
EXISTING GROUND @ RIGHT BUILDING RESTRICTION LINE
SLOPE 3:1 TO MEET EXISTING GROUND
FUTURE ℄ GRADE
EXISTING GROUND @ ℄
LIMIT OF SECTION 14 STA 40+79.92 ELEV. 471.01
P.V.T. STA. 40+05 ELEV. 470.93
P.V.C. STA. 41+33 ELEV. 470.43

VERTICAL CURVE DATA
LENGTH = 230'
PVI STA. = 42+80
SSD = 175'
EXISTING GROUND @ LEFT BUILDING RESTRICTION LINE
P.V.T. STA. 43+65 ELEV. 457.78

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

PARSLEY DRIVE

VERTICAL CURVE DATA
LENGTH = 26'
PVI STA. = 0+28
PVI ELEV. = 442.69'
SSD = 150'
CORR. = 0.05

℄ FURROW AVE. ELEV. 443.35
P.V.C. STA. 0+15 ELEV. 442.08
P.V.T. STA. 0+41 ELEV. 442.17
P.V.C. STA. 0+84 ELEV. 440.45
P.G.L.
EXISTING GROUND @ ℄

VERTICAL CURVE DATA
LENGTH = 312'
PVI STA. = 2+40
PVI ELEV. = 434.21
HSD = 165'
CORR. = +4.87'

SUMP STA. 1+83.64 ELEV. 433.29
EXISTING GROUND @ LEFT BUILDING RESTRICTION LINE
3.00%
4.00%
℄ As-Built
EXISTING GROUND @ ℄

LIMIT OF SECTION 14 ℄ STA. 3+89.70 ELEV. 446.93
P.V.C. STA. 5+05 ELEV. 456.74
P.V.T. STA. 7+45 ELEV. 466.74
VERTICAL CURVE DATA
LENGTH = 240'
PVI STA. = 6+25
SSD = 165'
@ 50'% + 1.00%
1.00%
FUTURE GRADE
@ 50'%
SLOPE 3:1 TO MEET EXISTING GROUND
EXISTING GROUND @ RIGHT BUILDING RESTRICTION LINE

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

K&E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
48 7024 MADE IN U.S.A.

7-12-76

F-74-35

DEVELOPER'S CERTIFICATE

I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.

D. Jones Bishop 10/11/73
Date

ENGINEER'S CERTIFICATE

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

Cecilia Ghanda 10/12/73
Signature of Engineer Date

Reviewed for Howard County Soil Conservation District and meets Technical Requirements.

U.S. Soil Conservation Service Date

This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: _____ _____
District Coordinator Date
Howard Soil Conservation District

GENERAL NOTES

1) All construction shown hereon shall be in accordance with the Howard County Road Construction Code and Standard Specifications dated November 27, 1962 and revised August 1967.

2) Reference to page and drawing numbers shown hereon are referred to the above mentioned Road Construction Code and Standard Specifications.

3) Design Speed - 25 mph.

BENCH MARKS

Bench Mark "N" Elev. 404.19
P.K. Spike in 12" Maple 38.86' N.W. of CS-1

Bench Mark "O" Elev. 433.19
S.E. Anchor Bolt 18' E. of CS-3

SEDIMENT CONTROL NOTES

1) The developer shall notify the Howard County Soil Conservation District at least 24 hours prior to beginning any construction shown hereon (465-3180).

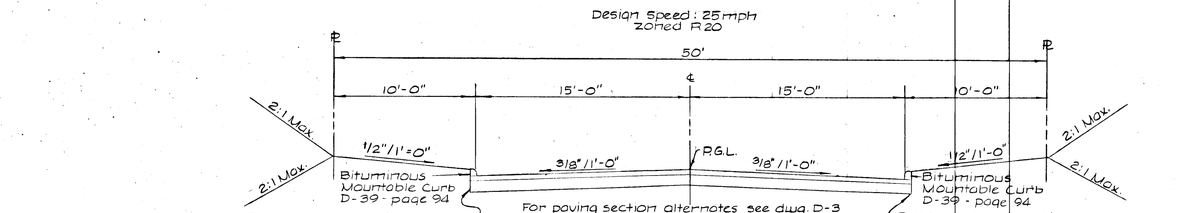
2) Berms, sediment traps, etc., to be constructed prior to any onsite grading or disturbance to any existing surface material, and are to be stabilized as soon after construction as possible.

3) All sediment control structures to remain in place until permission for their removal has been obtained from the Howard Soil Conservation District. (465-3180 or 465-5000 Ext. 291).

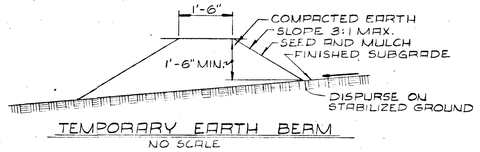
4) All graded areas not to be sodded shall be stabilized by seeding and mulching in accordance with the following:
1. Site preparation:
   A. Harrow or disc in areas proposed to be seeded the following materials at the specified rate, to a depth of 3".
      1) Pulverized limestone at 1 1/2 tons/acre.
      2) Commercial fertilizer 5-10-10 at 3/4 tons/acre.
      3) Super phosphate at 600 lbs/acre.
2. Seeding:
   A. Sow the following seed mixture at the rate of 200 lbs/acre with a mechanical spreader.
      1) 20% Annual Rye Grass
      2) 80% Kentucky 31 Fescue
   B. The seeded area shall then be raked with a York Rake (minimum of 2 passes), covered and compacted with Cultipacker or other approved method.
3. Mulching:
   A. Seeded areas shall be uniformly mulched immediately after seeding with unweathered small grain straw at the rate of 1 1/2 to 2 tons/acre.
   B. Tie mulch down with liquid asphalt at 0.1 gal/s.y.. or emulsified asphalt at 0.04 gal/s.y..

STRUCTURE SCHEDULE

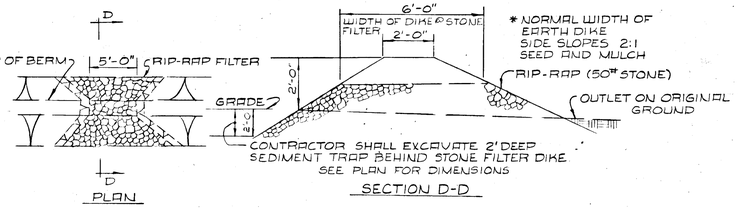
STRUCTURE	TYPE	INV. IN	INV. OUT	TOP ELEV.	STD. DETAIL
I-1	Double S Comb.	———	419.81	423.56	———
I-2	A-5	415.63	415.38	420.01	P.119-A Dwg. 64-F
I-3	A-10	———	416.00	420.01	P.119-A Dwg. 64-H
I-4	A-5	433.37	433.12	438.52	P.119-A Dwg. 64-H
I-5	A-10	434.48	433.73	438.52	P.119-A Dwg. 64-H
I-6	Double S Comb.	439.75	439.50	444.06	———
I-7	Std. Single S Comb.	———	440.06	444.06	———
M-1	"B" Shallow	404.37	404.12	409.55	———
M-2	Std. Manhole	418.49	412.70	422.28	P.158 Dwg. D-103
M-3	"B" Shallow	437.95	437.70	442.17	———
S-1	Super-H Wall	———	383.01	384.76	P.101 Dwg. D-46
S-2	Std. Type "E"	———	420.19	423.69	P.109 Dwg. D-54



TYPICAL SECTION
NO SCALE



TEMPORARY EARTH BERM
NO SCALE



SEDIMENT CONTROL DIKE
WITH STONE FILTER OUTLET
NO SCALE

APPROVED
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 1/14/74

10/12/73
STATE OF MARYLAND — CECILIA GHANDA — No. 4575 — REGISTERED PROFESSIONAL ENGINEERS & LAND SURVEYORS
Reg. No. 4575

DESIGNED BY: C.I. CROVO
DRAFTED BY: A.R. ZIERDEN
CHECKED BY: R.B. CARTER

PURDUM AND JESCHKE
CONSULTING ENGINEERS AND LAND SURVEYORS
1023 N. CALVERT STREET
BALTIMORE, MARYLAND 21202

OWNER AND DEVELOPER
MOUNT HEBRON, INC.
2417 MOUNT HEBRON DRIVE
ELLICOTT CITY, MARYLAND 21043

SEDIMENT CONTROL DETAILS AND ROAD PROFILE

MT. HEBRON

2ND ELECTION DISTRICT | SECTION 14 | HOWARD COUNTY, MARYLAND
OCTOBER 5, 1973 | SHEET 3 OF 4 | SCALE: AS SHOWN

W.O. Filbert 4-26-74
Chief, Bureau of Highways Date

S.T. Clawson 3/18/74
Chief, Division of Land Development and Transportation Planning Date

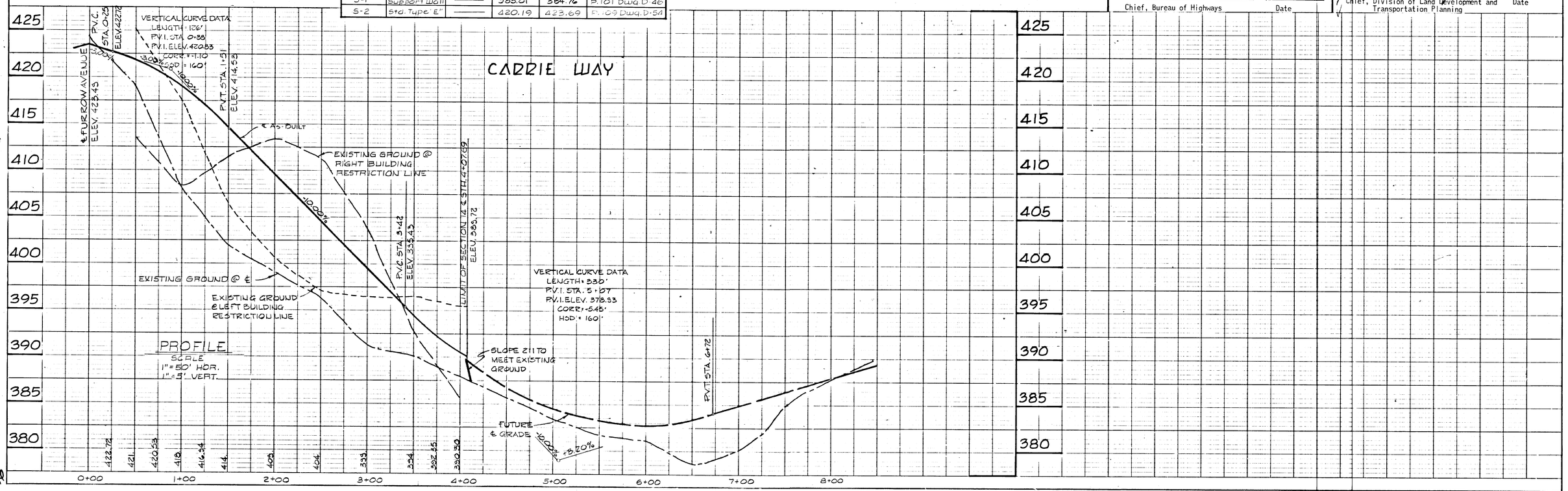
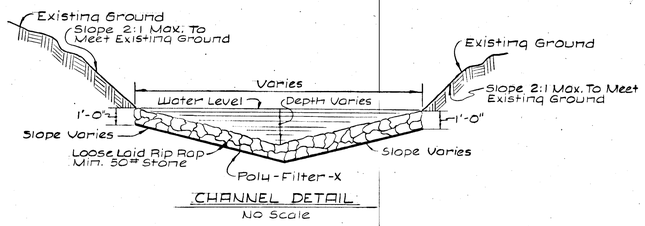


PLATE 1, PLAN PROFILE
KUFFEL & ESSER CO.
48 7024 MADE IN U.S.A.

7-12-76

F-74-35



CHANNEL DETAIL

NO Scale

CHANNEL "A" DESIGN DATA

A = 6.05 sq. ft. Side S = 1.00 %
P = 11.22' Slopes S 1/2 = 0.1000
R = 0.54 5:1 n = 0.03
R 2/3 = 0.663 Water Depth = 1.1'
V = 1.485/n × R 2/3 × S 1/2
V = 1.485/0.03 × 0.663 × 0.1000
V = 3.3 fps
Q = A × V
Q = 20.0 cfs.

CHANNEL "B" DESIGN DATA

A = 3.86 sq. ft. Side S = 15.60 %
P = 12.46' Slopes S 1/2 = 0.3950
R = 0.31 10:1 n = 0.03
R 2/3 = 0.458 Water Depth = 0.62'
V = 1.485/n × R 2/3 × S 1/2
V = 1.485/0.04 × 0.458 × 0.3950
V = 5.4 fps
Q = A × V
Q = 20.7 cfs

APPROVED
DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 1/14/74

4/12/73
DATE

Reg. No. 4575

DESIGNED BY: C.J. CROVO
DRAFTED BY: A.R. ZIERDAN
CHECKED BY: R.B. CARTER

PURDUM AND JESCHKE
CONSULTING ENGINEERS AND LAND SURVEYORS
1023 N. CALVERT STREET
BALTIMORE, MARYLAND 21202

OWNER AND DEVELOPER
MOUNT HEBRON, INC.
2417 MOUNT HEBRON DRIVE
ELLICOTT CITY, MARYLAND 21043

STORM DRAIN PROFILES

MT. HEBRON

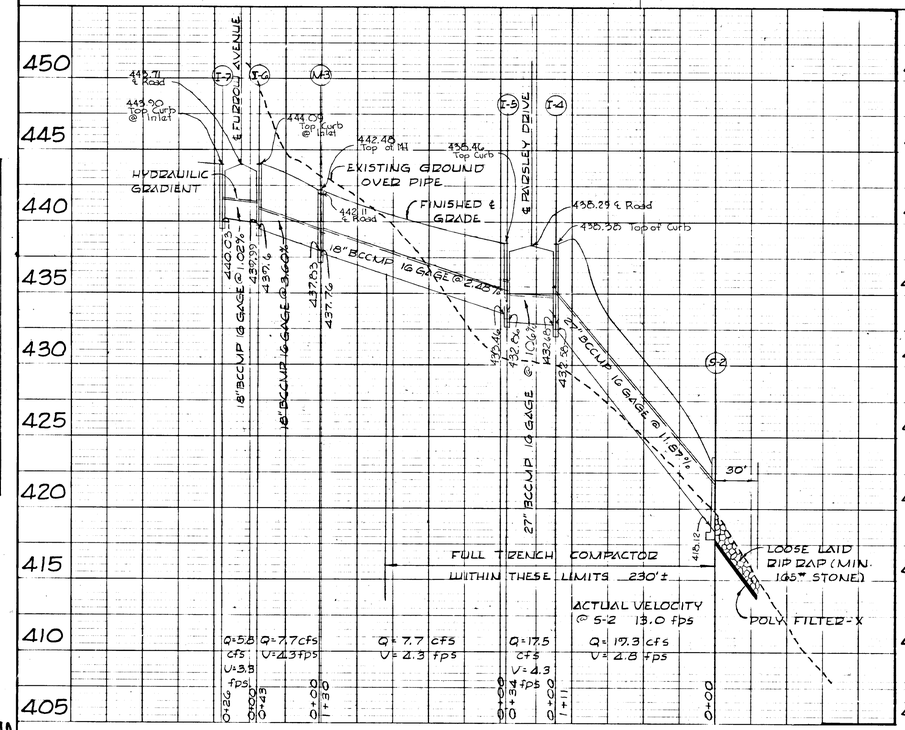
2ND ELECTION DISTRICT SECTION 14 HOWARD COUNTY, MARYLAND
OCTOBER 5, 1973 SHEET 4 OF 4 SCALE : AS SHOWN

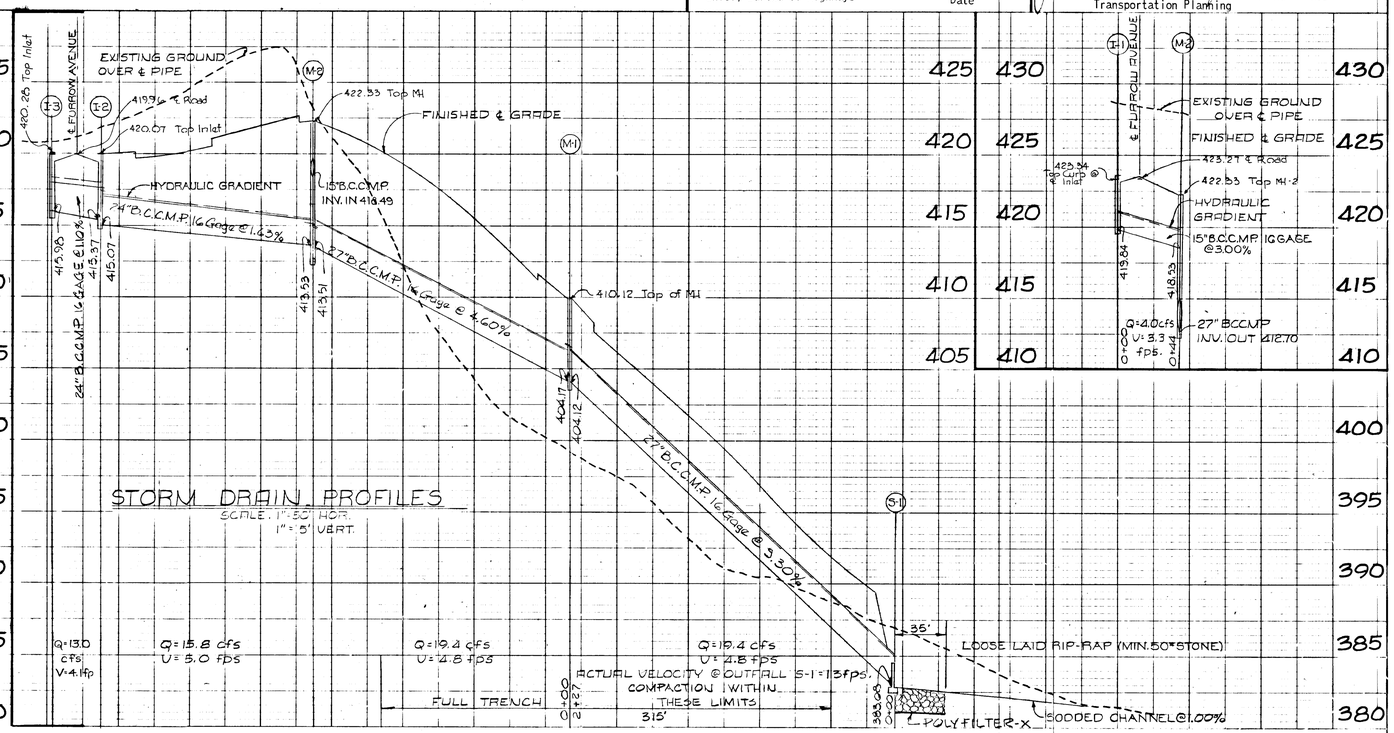
W O Talbert 4-26-74
Chief, Bureau of Highways Date

K. A. Kawamoto 3/20/74
Chief, Division of Land Development and Transportation Planning Date

PLAN: SURVEYED, PLOTTED, DRAFTED, CHECKED, NOTE BOOK, No., BY, DATE, ALIGNMENT CHECKED, ST. OF WAY CHECKED

PROFILE: SURVEYED, PLOTTED, DRAFTED, CHECKED, NOTE BOOK, No., BY, DATE, STRUCTURE NOTATIONS CHECKED, & M.H.'s NOTED





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

K&E PLATE 1, PLAN PROFILE
KEUFFEL & ESSER CO.
48 7024 MADE IN U.S.A.

7-12-76

F-74-35