DRAINAGE PLAN
BROADMOOR BLUFFS ESTATES
COLORADO SPRINGS, COLORADO
FOR: GATES LAND COMPANY

DREXEL, BARRELL & CO. — ENGINEERS — SURVEYORS
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Revisions — Date	Date	Designed by	Job No.
	16 AUG. 84	dlm	E-3098
	Scale	Drawn by	Drawing No.
	1" = 100'	DFW	3D 470

SCALE: 1" = 100'

These detailed plans and specifications were prepared under my direction and supervision. Said detailed plans and specifications have been prepared according to the criteria established by the City for detailed drainage plans and specifications. Said detailed plans and specifications are in conformity with the master plan of the drainage basin. Said detailed drainage plans and specifications meet the purposes for which the particular drainage facilities are designed. I accept responsibility and liability, limited by the negligent acts, errors or omissions on my part in preparation of the detailed drainage plans and specifications.

By: John Cocmon, P.E. #11956
for Drexel, Barrell & Company

NOTE: THIS IS A FINAL DRAINAGE PLAN FOR BROADMOOR BLUFFS DRIVE & FARTHING DRIVE. IT IS A PRELIMINARY DRAINAGE PLAN FOR THE SINGLE FAMILY PORTION OF BROADMOOR BLUFFS ESTATES.

LEGEND

- DRAINAGE BASIN BOUNDARY
- MINOR BASIN BOUNDARY
- A / 4.06 — MINOR BASIN DESIGNATION / AREA IN ACRES
- 4.4 / 12.2 — 5 YEAR RUNOFF IN CFS / 100 YEAR RUNOFF IN CFS
- 1.0 / 2.8 — CONTRIBUTORY 5 YR. RUNOFF IN CFS / CONTRIBUTORY 100YR. RUNOFF IN CFS
- 6" INLET 3.4/8.7/11.6 (A) — INLET SIZE, 5YR. PICKUP/100YR. PICKUP/CAPACITY
- 2.0% — STREET GRADE
- 2.0 / 4.0 — 5 YR. FLOW BY / 100 YR. FLOW BY
- DIRECTION OF FLOW (PROPOSED)
- $Q_5 = 2.0$, $Q_{100} = 8.0$ — TOTAL PEAK FLOW AT POINT
- 2.0/4.0/6.0 — 5 YR./100 YR./ALLOWABLE 1/2 STREET FLOWS

COLORADO STATE HIGHWAY 115

NOTE: EXISTING INTERCHANGE GRADING SUPERSEDES THIS TOPOGRAPHY

EX. 72" CULVERT

EX. 24" CULVERT

EX. DIVERSION

EX. ENTRANCE LANE

EX. EXIT LANE

EX. BORROW DITCH

EX. DIKE

2 - EX. 72" CULVERTS

PROPOSED ACADEMY BLVD.

EDGE OF ASPH.

PROPOSED BORROW DITCH

UNPLATTED GATES LAND CO.

ROLLED ASPH. CURB TO EDGE OF SHOULDER

PROVIDE 12" DIA. RIP RAP

8' INLET 6.2/13.1/18.4 (A)

60" RCP AT 1% Q_5 = 79 cfs Q_{100} = 210 cfs CAP = 250 cfs

8' INLET 6.2/13.1/18.4 (B)

PROVIDE 12" DIA. RIP RAP

Q_{100} = 75.0 cfs

N 4.60 / 11.2 / 21.4

5.6 / 10.7 / 20.2

5.6 / 10.7 / 20.2

L 9.50 / 12.0 / 30.1

M 3.70 / 6.8 / 15.5

K 28.84 / 43.5 / 99.4

MAJOR BASIN "II" AREA = 118.6 ac.

Q_{100} = 556.8 cfs

Q_{100} = 180 cfs

PROVIDE TEMPORARY BERM (SEE DETAIL)

CUT KNOLL TO PROVIDE POSITIVE DRAINAGE TO NORTHEAST. TOE IE = 5% MIN.

BROADMOOR BLUFF DRIVE

EXISTING BROADMOOR BLUFFS DRIVE

BROADMOOR BLUFFS PARK FILING NO. 2

APPROXIMATE LIMITS OF 100YR FLOW

SWALE "B"

PROVIDE 9" DIA. RIP RAP

NOTE: 36" RCP SHOWN BELOW IS DESIGNED FOR COMMERCIAL DEVELOPMENT WITHIN BASIN "J". ALTERNATE DEVELOPMENTS MAY WARRANT A SMALLER PIPE SIZE.

36" RCP AT 1% Q_5 = 25.4 cfs Q_{100} = 53.6 cfs CAP = 65 cfs

18" RCP AT 1% Q_5 = 14 cfs Q_{100} = 51 cfs CAP = 10.5 cfs

SWALE "A" FLOWS TO BE DIRECTED TO EXISTING DRAINAGEWAY (SEE TEMPORARY SWALE DETAIL ON SHT. 2)

48" RCP AT 10% Q_5 = 34.2 cfs Q_{100} = 99.8 CAP = 148 cfs

18" RCP STUB AT 10% CAP = 7.6 cfs

J 13.22 / 25.4 / 53.6

C 4" INLET 1.4/5.1/7.5

D 4" INLET 3.5/7.5/7.5

E 6" INLET 5.0/9.3/9.3

PROVIDE TEMPORARY SWALE (SEE DETAIL THIS SHT.)

Q_5 = 25.4 cfs Q_{100} = 53.6 cfs

MAJOR BASIN "I" AREA = 84.7 ac.

18" RCP AT 6.4% Q_5 = 38 cfs Q_{100} = 72 cfs CAP = 270 cfs

PROVIDE TEMPORARY SWALE (SEE DETAIL SHEET 2)

Q_5 = 32.4 cfs Q_{100} = 92.8 cfs SWALE "A"

FUTURE INLET

I 1.16 / 4.3 / 7.6

6" INLET 3.8/4.1/8.3 (F)

OFF 3.87 / 8.9 / 18.5

FUTURE EXTENSION OF BROADMOOR BLUFFS DRIVE

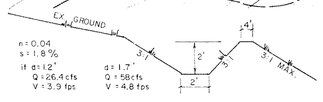
FARTHING DRIVE

6.3/11.3/6.8

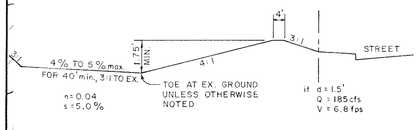
8.4/18.1/44.8

UNPLATTED GATES LAND CO.

NOTE: PROPOSED DRAINAGE STRUCTURES, RIPRAP BEDS, & SWALE GRADING IS TO BE DETAILED ON THE STREET CONSTRUCT. PLANS OR GRADING PLANS.



TEMPORARY SWALE DETAIL
NORTHERLY ACROSS BASIN "J"
N.T.S.



TEMPORARY BERM DETAIL
N.T.S.

(SEE SHEET 2)

MATCH LINE

3D 470

SHEET 1 OF 2