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6/19/14

AMENDMENT TO THE FINAL DRAINAGE STUDY FOR THE STONEBRIDGE SUBDIVISION UNITS 3B & 3C



BOHANNAN-HUSTON, INC.

Courtyard One

7500 JEFFERSON NE

Albuquerque

NM 87109-4335

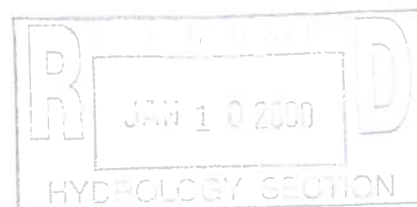
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REVISED JANUARY 7, 2000

PREPARED FOR:

**CENTEX HOMES
BUILDING B
6700 JEFFERSON NE
ALBUQUERQUE, NEW MEXICO 87109**



Revised Street Capacity Calculations
 Stonebridge Subdivision
 Units 3B + 3C
 December 13, 1999

①
 SFS

Basin U - Stone Mountain

14.92 cfs

See Arroyo Summary Table

lots = 24

cfs/lot = 0.62 cfs/lot

A road at 4% can handle 25.2 cfs.
 and 5% can handle 22.1 cfs.
 More than 14.92 produced.
 No inlets needed.

Basin V1 - Rocky Mountain Road

14.92 cfs added from Basin U

+
 $\frac{1}{2}$ the flow in Bandelier = $\frac{17.96}{2} = 8.98$ cfs.

+
6.85 cfs produced
 30.75 cfs.

lots = 9

cfs/lot = 0.76 cfs/lot produced

A road at 7.76% can handle only
 14.1 cfs.

Inlets are required.

Each Inlet accepts 5.5 cfs. $\times 3$ inlets = 16.5 cfs.

$14.92 + 8.98 + 0(7.6) - 16.5 =$ left in Rocky Mtn Rd.
 u Band. lots inlets
 $= 13.48$ cfs < 14.1 ok.



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Additional inlet at Rocky Mtn / Pebble Int.

$$S = 3.3\%$$

$$Q = 13.48 \text{ cfs}$$

$$Q_{1/2} = 6.74 \text{ cfs}$$

$$d = .34'$$

$$Q_{\text{in inlet}} = 6 \text{ cfs}$$

$$Q_{\text{in road}} = 13.48 - 6 = 7.48 \text{ cfs}$$

Basin V2 - Rocky Mtn Rd

→ Receives 7.48 cfs from V1

→ Receives 7.2 cfs from S

$$14.68 \text{ cfs}$$

A street at slope 3.3% can
handle 27.7 cfs.

$$14.68 < 27.7 \text{ OK}$$

No inlets required

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Basin R

5.59 cfs.

A street at slope 3.33% can handle
27.7 cfs.

Enough capacity

Basin S

9.43 cfs.

5.59 cfs from Basin R
15.02 cfs total

The street at 3.41% can handle 28.0 cfs.
Inlets are not required.

Basin T

5.43 cfs.

The road at slope 4.44% can hold
24.6 cfs.

No inlets are needed.

Add Basin T to Basin S

15.02 cfs S
5.43 cfs T
20.45 cfs

The steepest slope 3.41% can hold 28.0 cfs

Inlets are required at that slope

Each inlet accepts 6.6 cfs

① The road slope has been modified and the
street capacity has therefore changed.

Bandelier Road

Receives offsite flow

OFF 1 8.18 cfs

OFF 2 1.96 cfs

10.14 cfs. offsite

Basin X 4.49

14.63 total

A 46' F-F road at 7.97% can handle
25.0 cfs.

No Inlets required

OFFSITE BASINS 3 & 4 now diverted into
MARBLE STONE DRIVE through a pipe
and rundown. This is the same as was
built in Unit 1.

BASIN Z1

7.16 cfs

2.76 Basin O

14.63 Basin X

24.55 cfs total

A 46' F-F road at 1.73% can handle 60.8 cfs.
Inlets are not required except at low point.



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Basin W

11.27 cfs

+ 7.83 cfs OFF 3 + OFF 4

19.1 cfs.

A road at 4% can handle 25.2 cfs
5% 22.1 cfs.

No inlets required.

Basin Y

Receives 19.1 cfs from Basin W

6.22 cfs

25.32 cfs.

At a slope of 2.679%, the road can handle
31.7 cfs. No inlets required.

Basin Z2

6.26 cfs.

+ 25.32 cfs Basin Y

31.58 cfs.

At a slope of 2.679%, the road can handle
31.7 cfs. No inlets needed.

Inlets will be added to divert water
to the SAD storm drain when built.