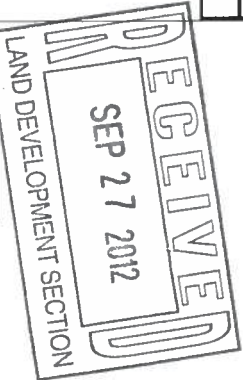


New Day Expansion
2820 Ridgcrest
Albuquerque, New Mexico



REVISIONS

- △
- △
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- △

DRAWN BY _____
REVIEWED BY _____
DATE _____
PROJECT NO. 11-01
DRAWING NAME _____

PRELIMINARY
GRADING AND
DRAINAGE
PLAN

SDP-4

OF

CALCULATIONS

CALCULATIONS: 1949 New Day Expansion : 9/25/12

Based on Drainage Design Criteria for City of Albuquerque
Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE CALCULATIONS: 100-YEAR, 6-HOUR STORM

AREA OF SITE: 108932 SF = 2.5 Ac

HISTORIC FLOWS:

Area A	=	108932	100%
Area B	=	0	0%
Area C	=	0	0%
Area D	=	0	0%
total Area	=	108932	100%

DEVELOPED FLOWS:

Area A	=	10893	10%	EXCESS PRECIP: Precip. Zone 3
Area B	=	25054	23%	E _A = 0.66
Area C	=	32680	30%	E _B = 0.92
Area D	=	40305	37%	E _C = 1.29
total Area	=	108932	100%	E _D = 2.36

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted E = $E_A A_A + E_B A_B + E_C A_C + E_D A_D$

$A_A + A_B + A_C + A_D$

Historic = 0.66 in. Developed E = 1.54 in.

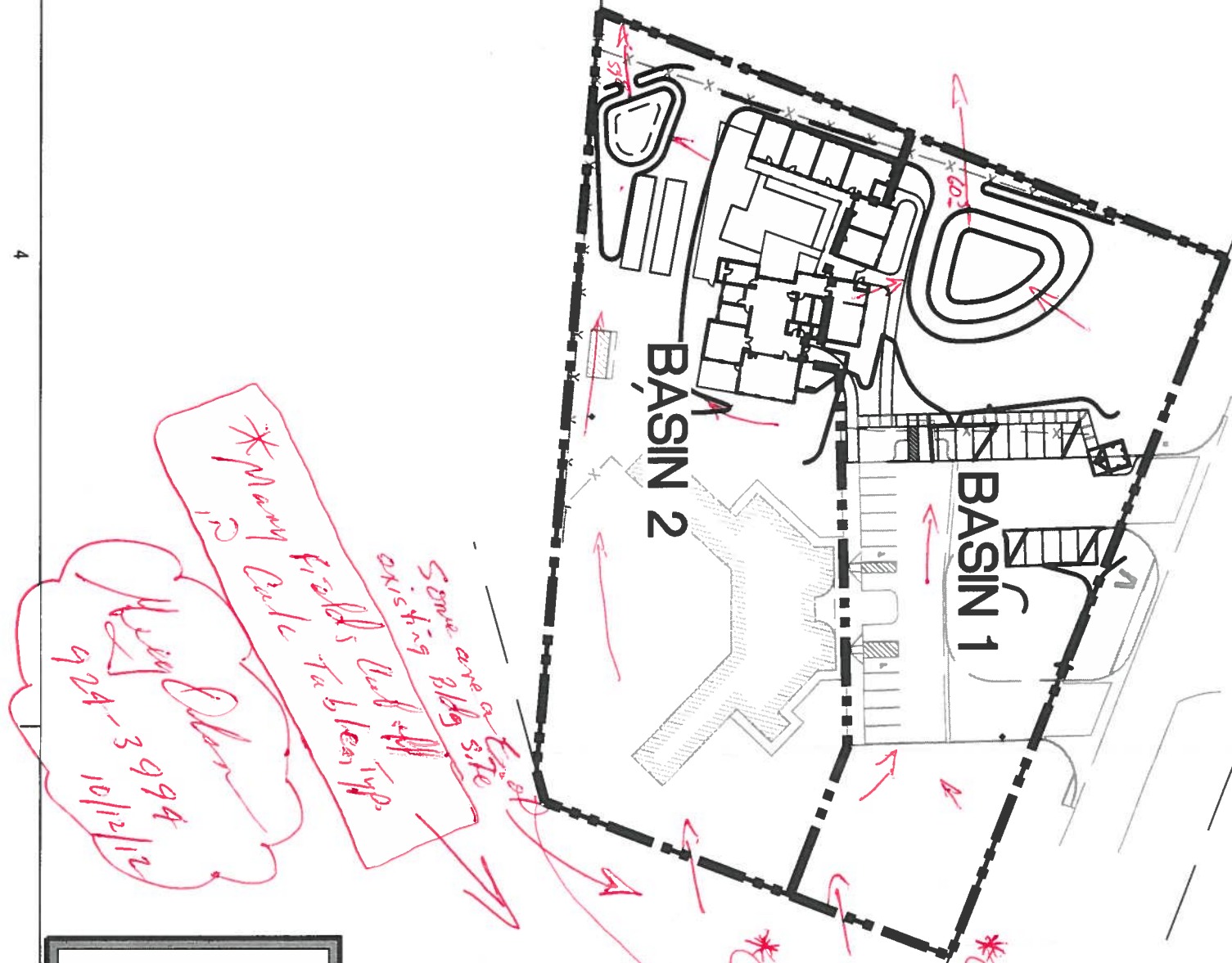
On-Site Volume of Runoff: $V_{360} = E \cdot A / 12$

Historic V = 5991 CF Developed V₃ = 13960 CF

On-Site Peak Discharge Rate: $Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D / 4$
For Precipitation Z 3

Q_{pA}	=	1.87	Q_{pC}	=	3.45
Q_{pB}	=	2.60	Q_{pD}	=	5.02
Historic ()	=	4.7 CFS	Developed Q_p	=	9.2 CFS

DETAIN FLOOD TO HISTORIC UNDVELOPED



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1949 CG-101.dwg

Sep 26, 2012

SHEET NO.

Drainage File: M18 - D014