

DRAINAGE PLAN **A PORTION OF LOTS 1 TO 4 IN BLOCK B,** **OF THE WILSON SUBDIVISION,** **BERNALILLO COUNTY, NEW MEXICO**

ZONE MAP P-12 BENCHMARK NM-500-3 ELEV. 4930.55 SOIL TYPE "B"
 FLOOD MAP 40 100 YR. FLOOD WATER SURFACE ELEVATION = 4929.0
 TOTAL AREA = 63,540 SQ. FT. = 1.46 ACRES
 TOTAL AREA EXISTING ROOFED & PAVED = 43,000 SQ. FT. = 68%
 TOTAL AREA PROPOSED ROOFED & PAVED = 48,400 SQ. FT. = 76%

HYDROLOGY

EXISTING

4000 SF ROOF X 0.90 = 3600
 23,160 SF ASPHALT X 0.95 = 22,002
 20,540 SF LANDSCAPE X 0.25 = 5135
 15,840 SF UNIMPROVED X 0.45 = 7128
 63,540 SF 37875
 $C = 22,002 / 63,540 = 0.60$
 $100 \text{ YR} - 6 \text{ HR RAINFALL} = 2.2"$
 $I = 2.3 \times 2.2 = 5.06$
 $Q = 1.459 \times 5.06 \times 0.60 = 4.4 \text{ CFS}$
 $CN = 86 \text{ DIRECT RUNOFF} = 1.05"$
 $V = 1.05 / 12 \times 63,540 = 5560 \text{ CU. FT.}$

PROPOSED

6584 SF ROOF X 0.90 = 5926
 25,976 SF ASPHALT X 0.95 = 24,677
 15,140 SF LANDSCAPE X 0.25 = 3785
 15,840 SF UNIMPROVED X 0.45 = 7128
 63,540 SF 41516
 $C = 49,436 / 63,540 = 0.65$
 $Q = 1.459 \times 5.06 \times 0.65 = 4.8 \text{ CFS}$
 $CN = 89 \text{ DIRECT RUNOFF} = 1.25"$
 $V = 1.25 / 12 \times 63,540 = 6619 \text{ CU. FT.}$
 INCREASE IN VOLUME = 6619 - 5560 = 1059 CU. FT.
 POND VOLUME = $(704 + 1200) / 2 \times 1.1 = 1047 \text{ CU. FT.} - \text{O.K.}$

FLOW TO POND

3289 SF ASPHALT X 0.95 = 3125
 6584 SF ROOF X 0.90 = 5926
 2205 SF LANDSCAPE X 0.25 = 551
 12,078 9602
 $C = 9602 / 12,078 = 0.79$
 $Q = 1.459 \times 5.06 \times 0.79 = 1.1 \text{ CFS}$
 $CN = 88 \text{ DIRECT RUNOFF} = 1.18"$
 $V = 1.18 / 12 \times 12,078 = 1191 \text{ CU. FT.} - \text{O.K.}$

EROSION CONTROL NOTES:

- THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE TO THE FOLLOWING:
1. NO SEDIMENT BEARING WATER SHALL BE ALLOWED TO DISCHARGE THE SITE DURING CONSTRUCTION.
 2. DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED ALL ADJACENT PROPERTY, RIGHTS OF WAY, AND EASEMENTS, SHALL BE PROTECTED FROM FLOODING.
 3. ANY AND ALL SEDIMENTATION ORIGINATING ON THE SITE WHICH IS DEPOSITED WITHIN PUBLIC RIGHT OF WAY SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
 4. CONTROL OF SEDIMENT LADEN WATERS WILL BE ACCOMPLISHED BY THE USE OF A COMPACTED EARTH BERM AT LEAST 12" HIGH. THE BERM SHALL BE LOCATED ALONG THE DOWNSTREAM PERIMETERS OF THE PROPERTY.

LEGEND

PROPERTY LINE ————
 EXISTING CONTOURS ———— 4996 ————
 PROPOSED CONTOURS ———— 4997 ————
 EXISTING SPOT ELEVATIONS ⊕
 PROPOSED SPOT ELEVATIONS ⚡
 FLOW DIRECTION ————→



VICINITY MAP



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 HYDROLOGY SECTION

LOGAN/GROSS & ASSOCIATES, INC.
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LOGAN/GROSS & ASSOCIATES, INC.	FILE # H-280
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