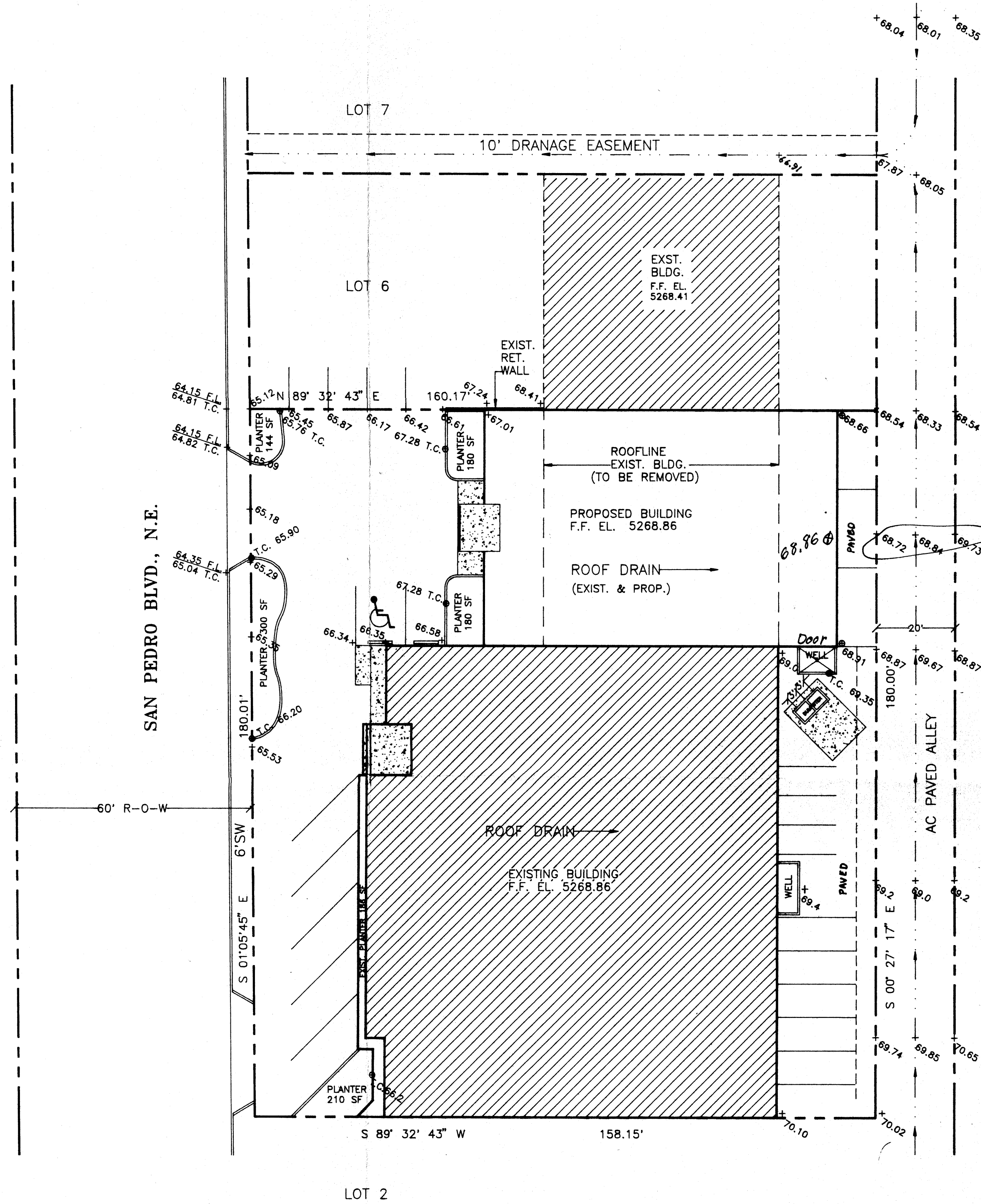
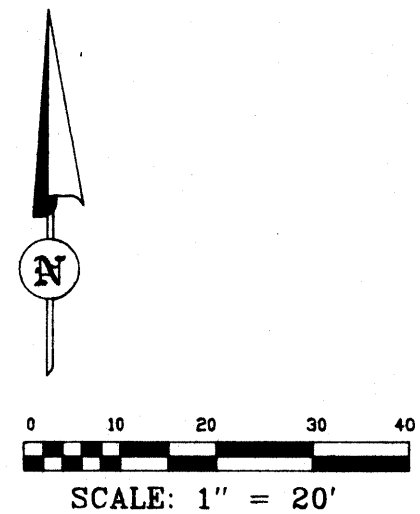


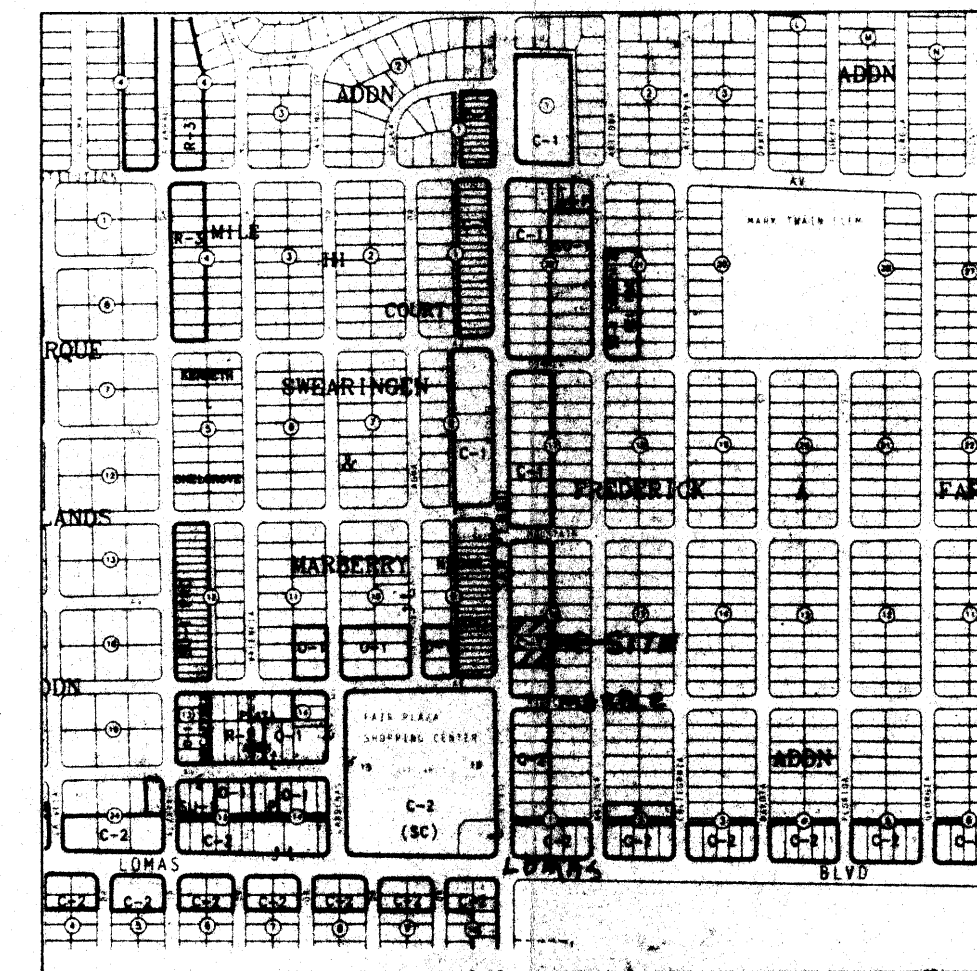


Residential  
Area  
Does not  
drain to  
Alley.

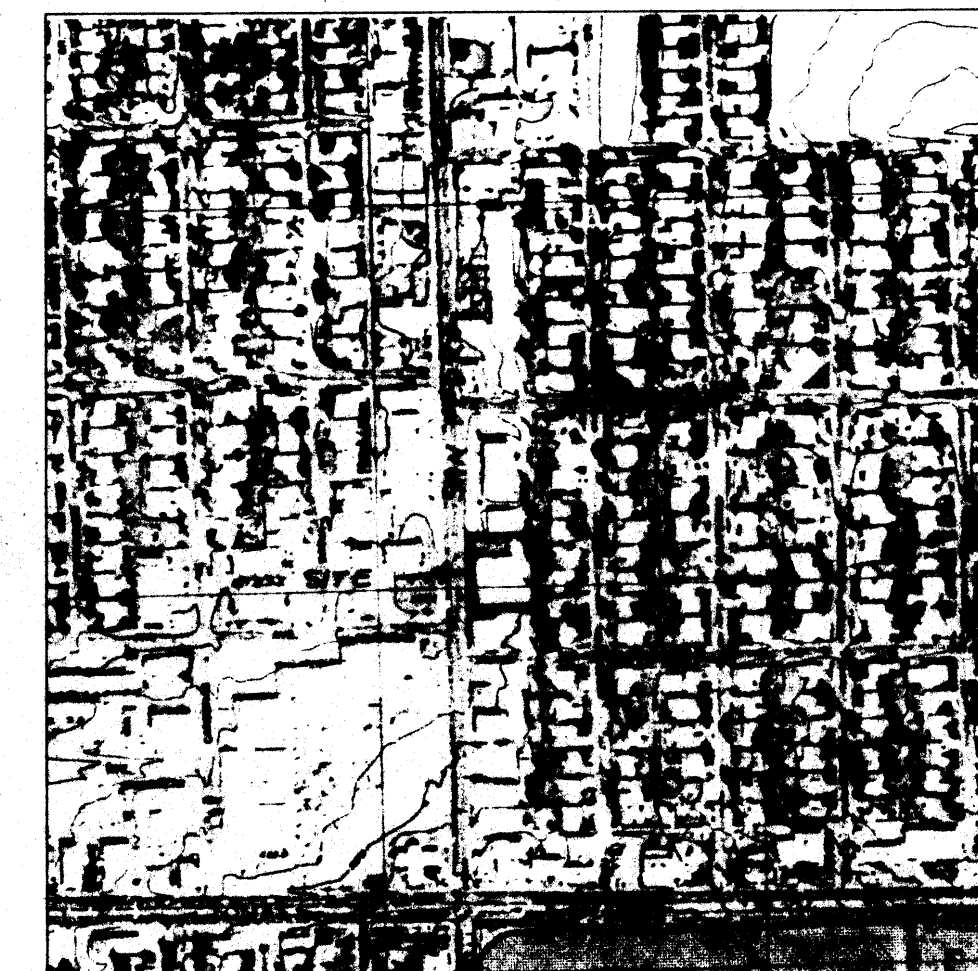
CHANNEL CAPACITIES  
CALCULATIONS USING CIVIL TOOLS

| ALLEY             |                              |
|-------------------|------------------------------|
| INPUT             | OUTPUT                       |
| Y(FT) = .21       | Q = 4.24 CFS                 |
| B(FT) = 0         | A = 2.10 SF                  |
| M(FT/FT) = 47.62  | P = 20.00 FT                 |
| S(FT/FT) = .0084  | V = 2.02 FPS                 |
| N(FT-1/6) = .015  | F = 1.10 SUPER CRITICAL FLOW |
| DRAINAGE EASEMENT |                              |
| INPUT             | OUTPUT                       |
| Y(FT) = .67       | Q = 31.17 CFS                |
| B(FT) = 0         | A = 3.35 SF                  |
| M(FT/FT) = 7.46   | P = 10.09 FT                 |
| S(FT/FT) = .0384  | V = 9.31 FPS                 |
| N(FT-1/6) = .015  | F = 2.83 SUPER CRITICAL FLOW |

- LEGEND
- EXISTING SPOT ELEVATIONS
  - EXISTING CONTOURS
  - PROPOSED CONTOURS
  - CONCRETE
  - PROPOSED SPOT ELEVATIONS, AS NOTED
  - EXISTING BUILDINGS



LEGAL DESCRIPTION: TRACT A, BLOCK 16, FREDERICK A. FARR  
ADDITION, BERNALILLO COUNTY, NEW MEXICO  
ADDRESS: 1208 SAN PEDRO BLVD., N.E.



PANEL NO. 350002 0030

DISCUSSION

GENERAL:

THIS PROPOSED BUILDING ADDITION INCLUDES A REPLAT OF LOTS 3, 4, AND 5 OF THE FREDERICK A. FARR ADDITION, DEMOLISHING THE EXISTING BUILDING ON LOT 3, AND BUILDING A TWO STORY ADDITION TO THE BUILDING ON LOTS 3 AND 4. THIS DRAINAGE AND GRADING PLAN HAD PREVIOUSLY BEEN APPROVED ON 01/16/92. THE APPROVED ADDITION DESIGN ROUTED ONE-HALF OF THE ROOF AREA DRAINAGE TO THE FRONT AND ONE-HALF THE ROOF AREA DRAINAGE TO THE ALLEY AT THE REAR. DUE TO ARCHITECTURAL CONSIDERATIONS, THE ROOF AREA WILL NOW ALL DRAIN TO THE ALLEY AT THE REAR. THIS NEW DRAINAGE AND GRADING PLAN IS SUBMITTED TO ASSESS THE EFFECT OF THIS CHANGE.

OFFSITE FLOWS:

SINCE THE 1992 APPROVED DRAINAGE AND GRADING PLAN WAS ACCEPTED, A NEW STANDARD PROCEDURE HAS BEEN APPROVED AND PRINTED AS DPM CHAPTER 22.2. THE NEW PROCEDURE HAS BEEN USED FOR THIS SUBMITTAL.

THIS PROPERTY IS LOCATED IN RAINFALL ZONE 3 AND THE LAND TREATMENTS AND MAX  $Q_{100}$  RUNOFFS USED ARE: A = 1.87, B = 2.60, C = 3.45, AND D = 5.02 CFS/ACRE. THIS PROCEDURE IS RECOMMENDED FOR SMALL WATERSHEDS OF LESS THAN 20 ACRES. THE TOTAL TRACT AREA IS 28,680 S.F. THE FOLLOWING TABLES LIST THE VARIOUS OFFSITE FLOWS.

| EXISTING TO ALLEY (EAST) |                |                     |          |
|--------------------------|----------------|---------------------|----------|
| TREATMENT (CFS)          | AREA (SF)ACRES | MAX RUNOFF (CFS/AC) | RUNOFF   |
| C                        | (1500) 0.0344  | 3.45                | 0.12     |
| D                        | (18696) 0.4292 | 5.02                | 2.15     |
| TOTAL EXISTING TO ALLEY  |                |                     | 2.27 CFS |

| EXISTING TO STREET (WEST) |                |                     |          |
|---------------------------|----------------|---------------------|----------|
| TREATMENT (CFS)           | AREA (SF)ACRES | MAX RUNOFF (CFS/AC) | RUNOFF   |
| B                         | (186) 0.0043   | 2.60                | 0.01     |
| D                         | (8298) 0.1905  | 5.02                | 0.96     |
| TOTAL EXISTING TO STREET  |                |                     | 0.97 CFS |
| TOTAL EXISTING RUNOFF     |                |                     | 3.24 CFS |

| PROPOSED TO ALLEY (EAST) |                |                     |          |
|--------------------------|----------------|---------------------|----------|
| TREATMENT (CFS)          | AREA (SF)ACRES | MAX RUNOFF (CFS/AC) | RUNOFF   |
| D                        | (21096) 0.4843 | 5.02                | 2.43 CFS |

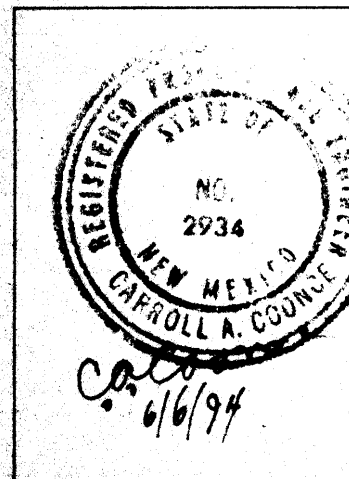
| PROPOSED TO STREET (WEST)       |                |                     |          |
|---------------------------------|----------------|---------------------|----------|
| TREATMENT (CFS)                 | AREA (SF)ACRES | MAX RUNOFF (CFS/AC) | RUNOFF   |
| B                               | (1200) 0.0275  | 2.60                | 0.07     |
| D                               | (6384) 0.1466  | 5.02                | 0.74     |
| TOTAL PROPOSED RUNOFF TO STREET |                |                     | 0.81 CFS |
| TOTAL PROPOSED RUNOFF           |                |                     | 3.24 CFS |
| INCREASE IN RUNOFF TO ALLEY     |                |                     | 0.16 CFS |

THE EXISTING AND PROPOSED RUNOFFS COMPUTE AS EQUAL, WHICH IS COINCIDENTAL.

THE ALLEY TO THE SOUTH CONTRIBUTES ANOTHER 0.28 CFS IN THIS REACH, SO THAT THE TOTAL WOULD BE 3.71 CFS. THE ALLEY CAN CARRY FROM EDGE 4.24 CFS.

THE DRAINAGE EASEMENT TO THE NORTH WHICH CONVEYS THIS FLOW TO SAN PEDRO CAN CARRY 31.17 CFS. THUS IT WOULD APPEAR THAT THE INCREASE TO THE ALLEY OF 0.16 CFS DOES NOT CREATE A BURDEN TO ANY OF THE SURROUNDING PROPERTY OWNERS.

THE OFFSITE FLOWS AT THE PRESENT TIME ARE ALL FREE DISCHARGE TO SAN PEDRO, AND THE SAME SCHEME IS MAINTAINED BY THIS DESIGN. Indirectly thru Alley & Easement.



C.A. COONCE & ASSOC.  
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12324 PINEHEDGE N.E. ALBUQUERQUE, N.M. 87112 PH (505) 298-1088

| TITLE                            |          |
|----------------------------------|----------|
| DRAINAGE & GRADING PLAN          |          |
| PROJECT                          |          |
| SAN PEDRO MAIL STORAGE EXPANSION |          |
| DATE                             | REVISION |
| 05/31/94                         | REVISED  |
| DRAWN                            | LSC      |
| CHECKED                          | CAC      |

