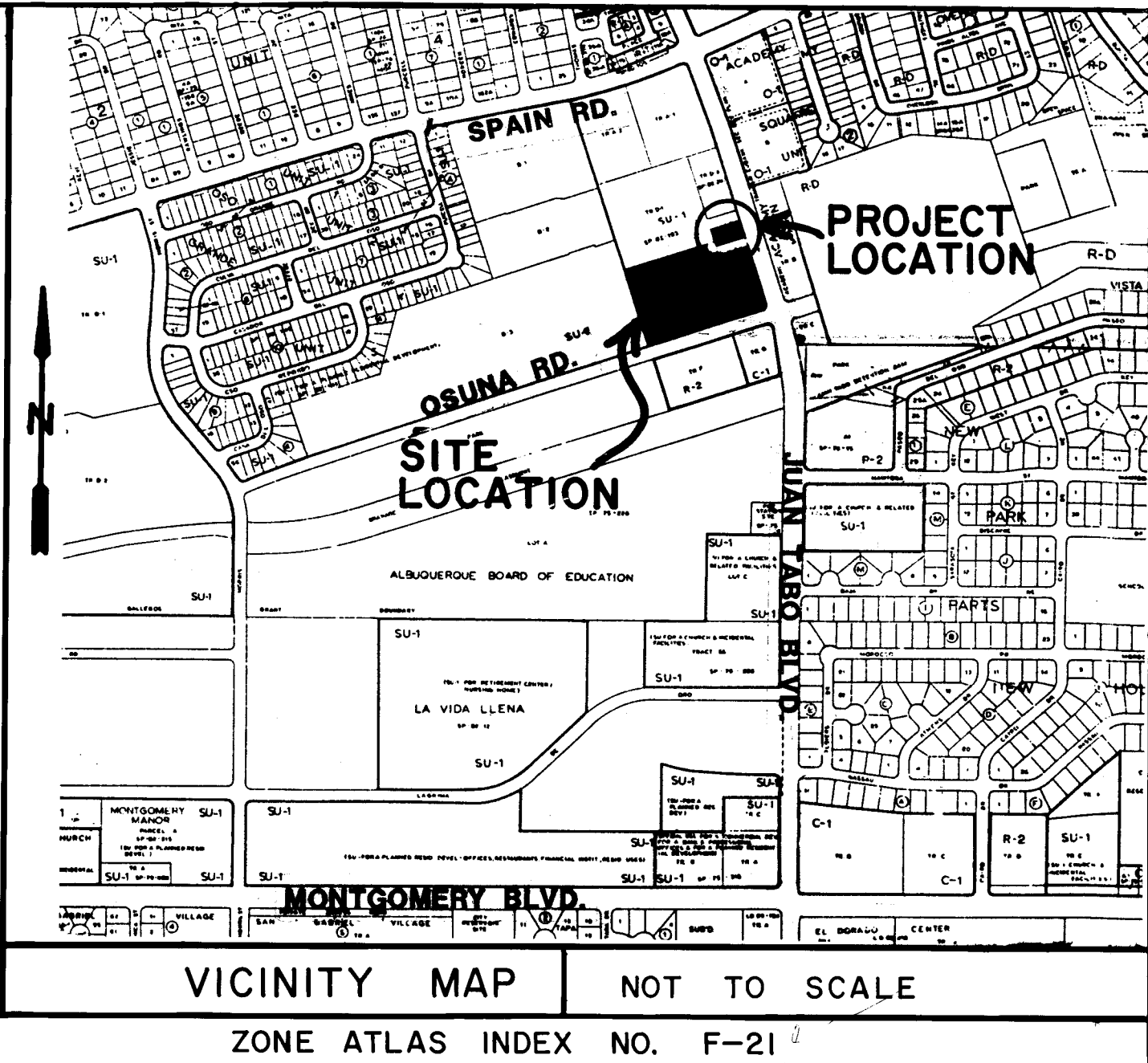


WATERLINE FOR MARK V  
PROFESSIONAL BUILDING



GENERAL NOTES

1. All work detailed on these plans to be performed under contract shall, except as otherwise stated or provided for hereon, be constructed in accordance with the City of Albuquerque Interim Standard Specifications Public Works Construction 1985.
2. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
3. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer or surveyor so that the conflict can be resolved with minimum amount of delay.
4. All utilities and utility service lines shall be installed prior to paving.
5. Backfill compaction shall be according to specified street use.
6. Tack coat requirements shall be determined by the City Engineer.
7. All work shall be installed by qualified personnel in an approved standard of practice.
8. The cost of additional design work due to errors and omissions in construction shall be borne by the contractor.
9. Verify all dimensions and conditions prior to starting work. Notify the engineer of any discrepancies or inconsistencies.
10. Verify in field all existing conditions shown on drawings.
11. All utilities shown and any other utilities that are not shown on the plans but are within the construction area shall be located, identified and protected at all times during construction.
12. All work shall meet applicable codes.
13. Where drawings do not conform with minimum code requirements the work shall be installed in accordance with codes at no additional cost to owner.
14. Contractor shall maintain access to adjacent properties during construction. Overnight parking of construction equipment shall not obstruct driveways or designated traffic lanes.
15. The contractor will be required to confine the work within the public easements.

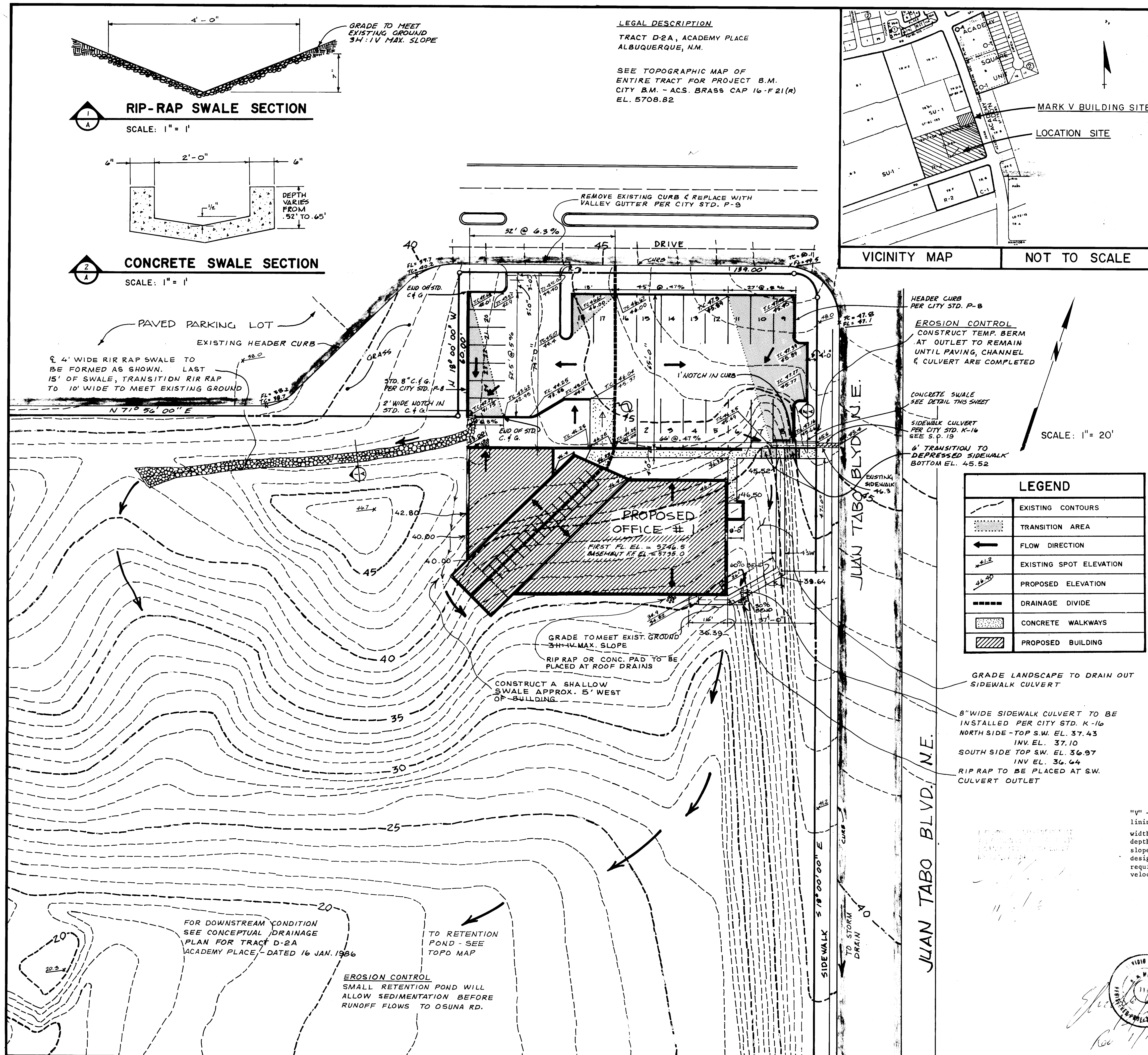
INDEX

SHEET TITLE	SHEET NO.
COVER SHEET	1
DRAINAGE PLAN	2
PLAN & PROFILE	3

*Russell B. Smith*  
1-16-87

26 28350187

REV.	SHEETS	CITY ENGR.	DATE	DATE	DATE
APPROVAL OF REVISIONS					
PREPARED BY: <b>RESOURCE TECHNOLOGY INCORPORATED</b>		APPROVED FOR CONSTRUCTION <i>[Signature]</i> C.E. 6/6/86			
PROJECT NO. <b>2835</b>		SHEET 1 OF 3			



GENERAL

LAND USE  
present - vacant lot with frontage onto Juan Tabo NE which is paved and has curb and gutter  
proposed - office complex in the northeast corner of the lot

SOIL TYPE  
Embudo - gravelly fine sandy loam and gravelly sandy loam  
Hydrologic Soil Group B

LOT AREA  
Total tract area - irregular shape - 5.51 acres  
Development area 0.47 acres

HYDROLOGY

TIME OF CONCENTRATION  
flow length across lot 740 ft.  
elevation difference 35 ft.  
time of concentration 4 minutes; use 10 minutes

6 - HOUR RAINFALL DEPTH  
10 - yr 1.66 in.  
100 - yr 2.52 in.

RAINFALL INTENSITY  
10 - yr 3.60 in./hr.  
100 - yr 5.47 in./hr.

RUNOFF COEFFICIENTS  
present condition C = 0.340  
developed condition C = 0.365

RUNOFF RATES  
present condition  
10 - yr 6.7 cfs  
100 - yr 10.2 cfs  
developed condition  
10 - yr 6.9 cfs  
100 - yr 10.6 cfs

RUNOFF VOLUMES  
present condition  
10 - yr 11,288 cu. ft.  
100 - yr 17,136 cu. ft.  
developed condition  
10 - yr 11,644 cu. ft.  
100 - yr 17,676 cu. ft.

ON-SITE FLOWS

The existing drainage runoff flows into a retention pond formed by landfill. The pond is shown on the topographical map of Tract D-2 included in this submittal. The pond has an approximate capacity of 7400 cubic feet. As shown on the hydrology notes, the existing 100-year volume of runoff is 17,136 cubic feet. When the pond overflows the runoff flows into Osuna Road NE then westward to a storm drain which empties into Bear Arroyo.

The proposed development will increase the runoff rate by only 0.4 cfs. Since this increase is minimal, we propose to leave the existing drainage condition as is. Another factor considered was the storm drain in Osuna Road NE. The inlets are approximately 1860 feet west of this development. They are draining a residential subdivision in which all runoff flows along paved, curbed streets. The time of concentration for this area will be very short. The retention pond on Tract D-2A will slow the time of concentration of runoff from this site allowing flow from the residential subdivision to flow out of the area first.

Finally, this is to be a temporary solution. The whole tract is to be developed. At that time a drainage plan describing a more permanent solution will be submitted.

Approximately half of the developed flow will empty into Juan Tabo NE. These flows will be carried in the street to storm drain inlets at the intersection of Juan Tabo NE and Osuna Road NE. The storm drain carries the flow to Bear Arroyo. The inlets are at the low point in Juan Tabo NE so if they would be plugged the overflow would end up running west down Osuna Road NE and end up in Bear Arroyo, where the flow would end up if no development occurred.

OFF-SITE FLOWS

Flows on Juan Tabo NE are contained within the curb and gutter. Flows west of the Tract flow to Osuna Road NE, south of the site. Osuna Road NE drains westward into a storm drain which carries the flow to Bear Arroyo. The lot to the north does drain across the far west side of the property within a 20 foot drainage easement. This runoff flows through a 6-inch diameter pipe which empties into the easement as shown on the topographical map. From here it flows into the storm drain in Osuna Road NE. There is no affect on the proposed development site.

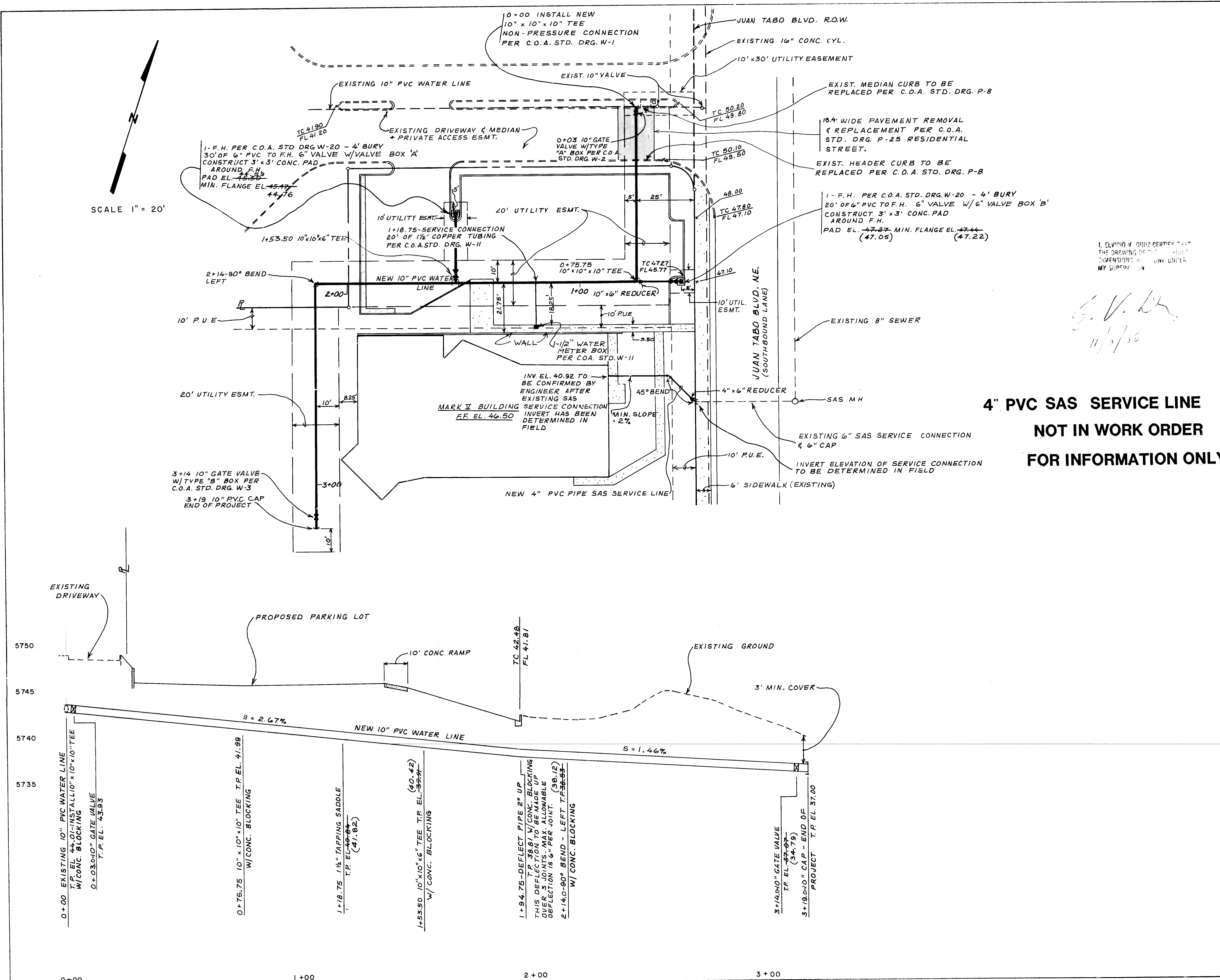
26 28350287

FOR INFORMATION ONLY

DESIGNED BY: S.D.	DRAINAGE AND GRADING PLAN
DRAWN BY: A.P.	
CHECKED BY: E.D.	
DEC. 1985	PREPARED BY: RESOURCE TECHNOLOGY INC.

2835 SHEET 2 OF 3





**4" PVC SAS SERVICE LINE  
NOT IN WORK ORDER  
FOR INFORMATION ONLY**

- LEGEND**
- T.P. 37.00 TOP OF PIPE ELEVATION
  - T.C. 47.80 TOP OF CURB ELEVATION
  - \* 48.00 EXISTING SPOT ELEVATION
  - FIRE HYDRANT
  - ⊕ GATE VALVE

NOTE:  
CONC. BLOCKING TO BE PLACED AT ALL BENDS AND TEES IN WATERLINE PER C.O.A. STD. DRG. W-22  
REFER TO SOILS REPORT FOR TRENCH PREPARATION & BACKFILL

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: WATERLINE PLAN & PROFILE FOR MARK V PROFESSIONAL BUILDING					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	4/18/86	Liquid Waste	<i>[Signature]</i>	4/18/86
A.C.E. - Design	" "	" "	Traffic	<i>[Signature]</i>	4/18/86
A.C.E. - Hydrology	" "	" "	Water	<i>[Signature]</i>	4/18/86
DRAWING NO. 2835		MAP NO. F-21		SHEET 3 OF 3	