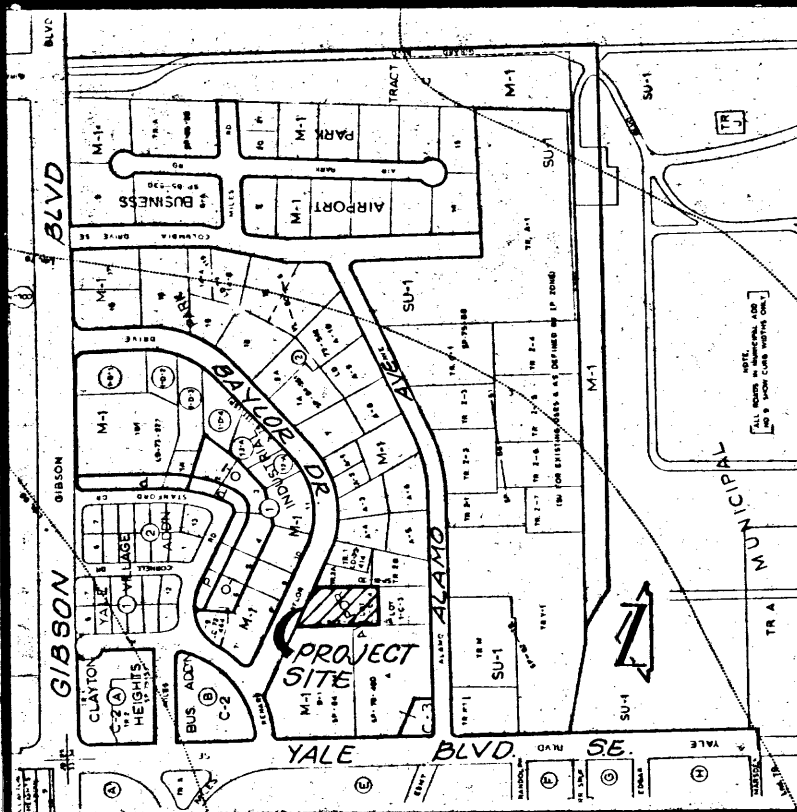




VICINITY MAP M-16
SCALE: 1" = 800'

PROJECT BENCHMARK
THE STATION IS A 3/4" ALUMINUM TABLET SET FLUSH WITH THE CONCRETE PAVEMENT. THE STATION IS STAMPED "ACS, I-MIG, 1984". THE STATION IS LOCATED 2.7 MILES SOUTHEAST OF DOWNTOWN ALBUQUERQUE, IN THE INTERSECTION OF GIBSON BLVD. & YALE BLVD. TO REACH THE STATION FROM I-25, TRAVEL EAST ON GIBSON BLVD. 1 MILE.
ELEVATION = 5189.847 FEET (MSLD)

TBM
TOP OF CURB ELEVATION AT THE WESTERLY CURB SCRIBE AT THE NORTHWEST CORNER OF LOT I-C-4 AS SHOWN ON THE DRAWING BELOW.
ELEVATION = 5120.36 FEET (MSLD)

LEGAL DESCRIPTION
LOT I-C-4, BLOCK 2, AIRPORT INDUSTRIAL PARK

- LEGEND**
- 5130 — EXISTING CONTOUR
 - ⊕ EXISTING SPOT ELEVATION
 - 5130 — EXISTING RETAINING WALL
 - EXISTING MAINHOLE
 - SAS — EXISTING SANITARY SEWER LINE
 - 5130 — EXISTING FIRE HYDRANT
 - W — EXISTING WATER LINE
 - EXISTING TELEPHONE RISER
 - 5130 — EXISTING FENCE
 - (TC 30.00) EXISTING ELEVATION
 - TC 20.00 NEW ELEVATION
 - 25 NEW CONTOUR
 - ⊕ NEW SPOT ELEVATION
 - — — NEW BASIN BOUNDARY
 - — — NEW SHALE
 - — — NEW CONCRETE
 - — — NEW ASPHALT
 - — — NEW RETAINING WALL
 - + 50.59 AS-BUILT ELEVATION
 - AS BUILT

The following items concerning the Alamo Rent-A-Car Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

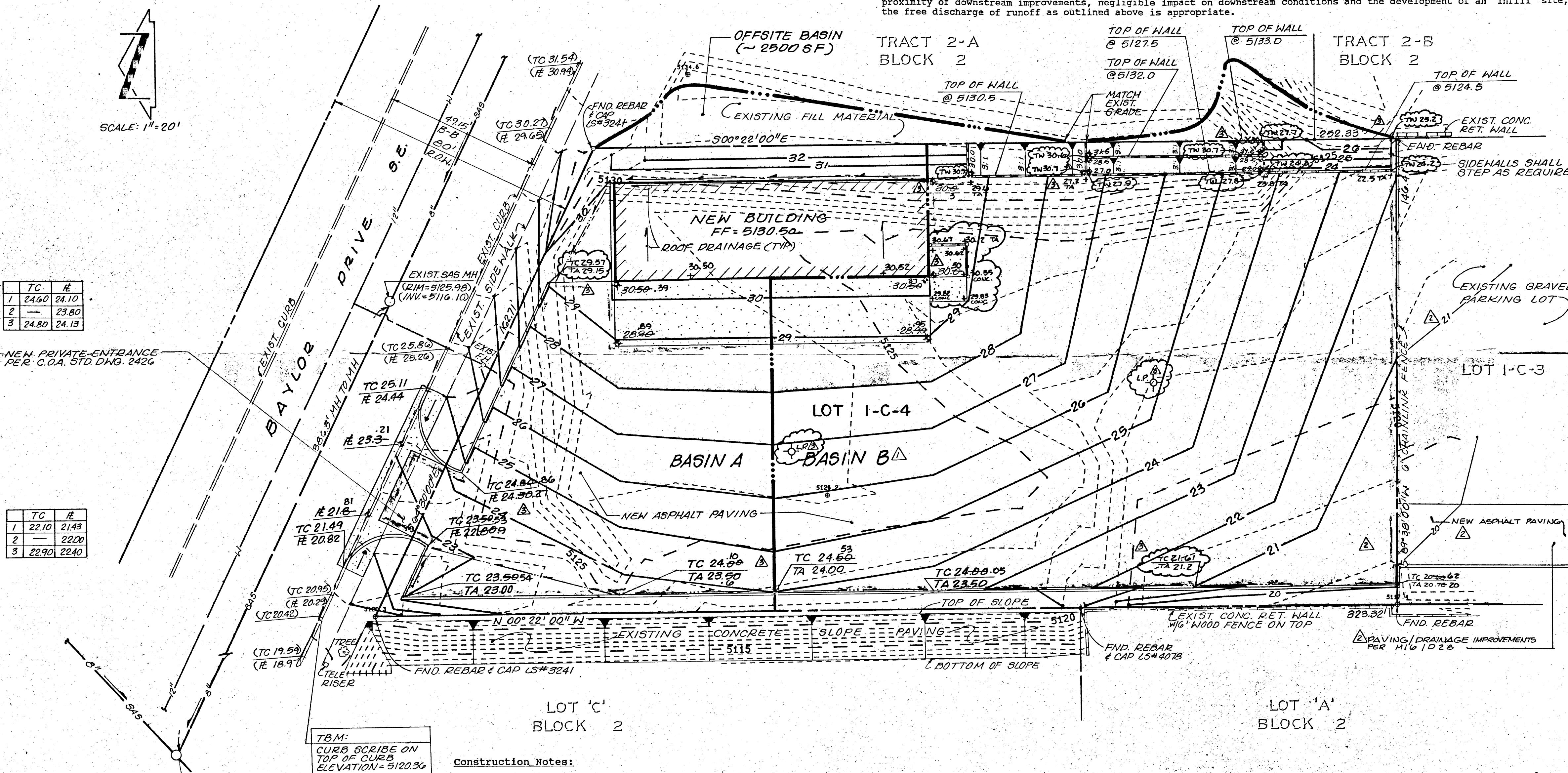
As shown by the Vicinity Map, the site is located along the south side of Baylor Drive S.E. just east of the intersection with Renard Place S.E. At present, the site is undeveloped. Much of the surrounding area is developed commercially, thereby making this an infill site.

As shown by Panel 35 of 50 of the National Flood Insurance Program Flood Boundary and Floodway Maps for the City of Albuquerque, New Mexico, this site does not lie within a designated flood hazard zone. This map indicates, however, that there is minor downstream flooding within Yale Boulevard S.E. The development of this site will have a negligible impact on this existing condition.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. As shown by this plan, this project consists of the construction of a commercial building along with adjacent paving and landscaping. At present, the site slopes from east to west and discharges its runoff onto adjacent properties. A portion of the site presently drains to Baylor Drive S.E. while the rear portion of the site discharges its runoff to the southwest corner of the site. The proposed grades will follow this existing drainage pattern such that the proposed improvements within Basin A will discharge directly to Baylor Drive S.E. via the private entrance to be constructed at this part of the site improvements. Basin B will continue to drain to the southwest corner of the site where the runoff will be conveyed across Lot I-C-3 and discharged via the existing driveway to Alamo Avenue S.E. Alamo Avenue S.E. contains a public storm drain system which accepts runoff within the street and conveys that runoff to a downstream public drainage channel. This channel ultimately discharges to the A.M.A.F.C.A. South Diversion Channel. The capacity of this outfall was determined adequate by the Albuquerque International Airport Drainage and Traffic Circulation study prepared by this office for the City of Albuquerque, November, 1981.

A small offsite basin will contribute runoff to this site. Offsite flows will be accepted and conveyed through the site. Due to the small extent of the offsite basin, the offsite flows are anticipated to have negligible impact on this development.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The peak discharge of runoff has been calculated using the Rational Method while the SCS Method has been used to used to quantify the volume of runoff generated. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, coupled with the Mayor's Emergency Rule adopted January 14, 1986. Based upon the proximity of downstream improvements, negligible impact on downstream conditions and the development of an infill site, the free discharge of runoff as outlined above is appropriate.



TC	ft
1	24.60
2	23.80
3	24.80

NEW PRIVATE ENTRANCE PER C.O.A. STD. DNG. 2426

TC	ft
1	22.10
2	22.20
3	22.90

TBM:
CURB SCRIBE ON TOP OF CURB
ELEVATION = 5120.36

Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call Service, 260-1990, for location of existing utilities.
2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
3. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning safety and health.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has undertaken no field verification of the location,

depth, size, or type of existing utility lines, pipelines, or underground utility lines, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local

ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.

6. The design of planters and landscaped areas is not part of this plan. The planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 31: Cu - Cut and fill land
Hydrologic Soil Group: A
Existing Pervious CN = 54 (DPM Plate 22.2 C-2)
Pasture or Range Land: fair condition)
Developed Pervious CN = 39 (DPM Plate 22.2 C-2)
Open space: good condition)

Time of Concentration/Time to Peak

$T_c = 0.0078 L^{0.77} / S^{0.385}$ (Kirpich Equation)

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.3$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = C i A$

where C varies
 $i = P_6 (6.84) T_c^{-0.51} = 4.86$ in/hr
 $P_6 = 2.3$ in (DPM Plate 22.2D-1)
 $T_c = 10$ min (minimum)
 $A =$ area, acres

SCS Method

Volume: $V = 3630$ (DRO) A

Where DRO = Direct runoff in inches
 $A =$ area, acres

Existing Condition

Atotal = 42,140 sf = 0.97 Ac
Unpaved area = 42,140 sf (1.00)
 $C = 0.40$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = C i A = 0.40 (4.86) (0.97) = 1.9$ cfs
 $A_{imp} = 0$ sf; % impervious = 0%
Composite CN = 54 (DPM Plate 22.2 C-2)
DRO = 0.1 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630$ (DRO) A = 350 cf

Developed Condition

Basin A
Atotal = 15,370 sf = 0.35 Ac
Roof area = 3,000 sf (0.20)
Paved area = 9,580 sf (0.62)
Landscaped area = 2,790 sf (0.18)
 $C = 0.81$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = C i A = 0.81 (4.86) (0.35) = 1.4$ cfs
 $A_{imp} = 12,580$ sf; % impervious = 82%
Composite CN = 87 (DPM Plate 22.2 C-2)
DRO = 1.2 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630$ (DRO) A = 1,525 cf

Basin B
Atotal = 26,770 sf = 0.62 Ac
Roof area = 0 sf (0-)
Paved area = 24,370 sf (0.91)
Landscaped area = 2,400 sf (0.09)
 $C = 0.89$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = C i A = 0.89 (4.86) (0.62) = 2.7$ cfs
 $A_{imp} = 24,370$ sf; % impervious = 91%
Composite CN = 93 (DPM Plate 22.2 C-2)
DRO = 1.6 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630$ (DRO) A = 3,600 cf

Comparison

$\Delta Q_{100} = (1.4 + 2.7) - 1.9 = 3.2$ cfs (increase)
 $\Delta V_{100} = (1,525 + 3,600) - 350 = 4,775$ cf (increase)

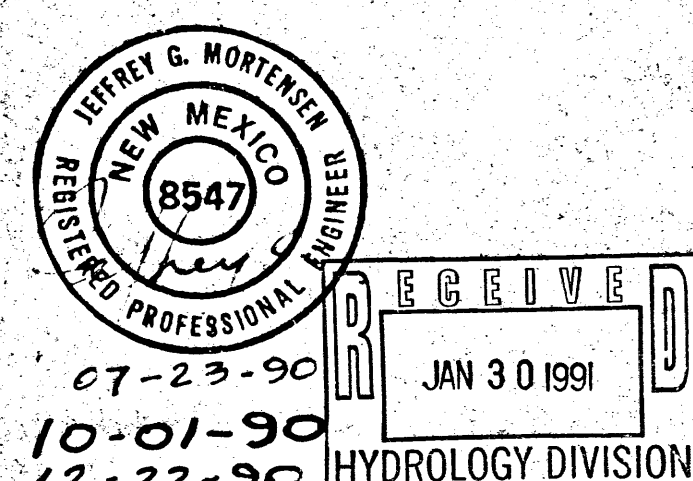
Offsite Flows

Atotal = 2500 sf = 0.06 Ac
Unpaved area = 2500 sf
 $C = 0.40$
 $Q_{100} = C i A = 0.4 (4.86) (0.06) = 0.1$ cfs

ENGINEER'S CERTIFICATION

As indicated by the as-built elevations shown hereon, the subject project has been constructed in substantial compliance with the approved design.

Jeffrey G. Mortensen, N.M.P.E. No. 8547
Date 01-29-91



Jeff Mortensen & Associates, Inc.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS (505) 345-4250

**GRADING & DRAINAGE PLAN
ALAMO RENT-A-CAR**

DESIGNED BY	NO.	DATE	BY	REVISIONS	JOB NO.
J.G.M.	1	9/90	J.G.M.	REVISE BASIN B GRADING; DELETE PUMP	900523
M.J.T.	2	12/90	J.G.M.	REFERENCE M10/D28; REVISE TEXT; REVISE GRADES @ S.W. CORNER.	DATE 09/90
J.G.M.	3	01/91	J.G.M.	AS-BUILT	SHEET 1 OF 1