

VICINITY MAP
SCALE: 1" = 800'

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

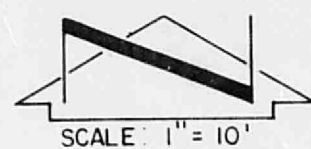
EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2

EXISTING M.H.
INVELEV 5304.2
INVELEV 5304.2



SCALE: 1" = 10'

EXISTING BUILDING
TBM FF = 5306.60 FEET (MSLD)

LEGEND

- PROPOSED CONCRETE
- PROPOSED LANDSCAPING
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DIRECTION OF FLOW
- TOP OF CURB ELEVATION
- FLOW LINE ELEVATION

PROJECT BENCHMARK:
ACS BM 6-H18" CHISELED IN TC AT
NNW RETURN AT INTERSECTION OF
LOUISIANA BLVD. N.E. & MENAUL BLVD.
N.E. ELEVATION: 5301.34 FEET (MSLD)

TEMPORARY BENCHMARK:
FINISH FLOOR OF EXISTING BUILDING TO
THE NORTH (AS SHOWN)
ELEVATION: 5306.60 FEET (MSLD)

ADDRESS:
7001 PROSPECT N.E.

LEGAL:
TRACT X, BLOCK 15, ZUNI ADDITION

DRAINAGE PLAN

The following items concerning the Midas Muffler Shops Drainage Plan are contained herein:

- Vicinity Map
- Grading Plan
- Calculations

The proposed improvements, as shown by the Vicinity Map, are located at the N.E. corner of the intersection of Chama Street, N.E. and Towner Avenue, N.E. The site is more particularly described as Tract X, Block 15 of the replat of Zuni Addition. At present, the site is undeveloped. Adjacent lands are, at this time, developed.

As shown by Plate H-19 of the Albuquerque Master Drainage Study, the site does not lie within a designated Flood Hazard Zone. It has been revealed however, during a predesign conference with Mr. Brian G. Burnett, Hydrology Section, that downstream capacity does not exist. Because of this, the routing of runoff through a positive discharge pond is required. The existing drainage pattern of the site is one in which runoff flows from north to south. Chama Street slopes from north to south and Towner Avenue slopes from east to west. No significant offsite flows are anticipated. A site inspection revealed that roof water from the existing building to the north flows to Chama Street through the existing curb cut during a thunderstorm, however, some sheet flow may enter the site. This water will be accepted and conveyed through the site.

The grading plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'-0" intervals, 2) continuity between existing and proposed elevations and 3) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements include the construction of a commercial building with adjacent parking and required landscaping. The grading required by these improvements will not alter the existing drainage pattern. Runoff will continue to flow into Chama Street where it will turn and flow to the south.

The calculations which appear below analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these calculations, only a minor increase in runoff is anticipated due to the proposed development. These calculations also demonstrate that it is not possible to pond the entire 100-year, 6-hour runoff volume in the fully developed state. An attempt has been made, however, to pond as much runoff as possible. The ponding of runoff will occur primarily on the paved portion of the site with a minor amount of ponding in the landscape area at the southwest corner of the site. If the volume of the pond is exceeded, runoff will leave the site via the proposed driveway to Towner Avenue. This point of overflow is indicated on the grading plan.

Calculations

Ground Cover Information

- From SCS Bernalillo County Soil Survey, Plate 31:

Etc Embudo Tijeras Complex

Hydrologic Soil Group B

- Existing Condition

$A_{total} = 14,806 \text{ sf} = 0.34 \text{ Ac}$

$A_{imp} = 4250 \text{ sf} = 0.10$

% impervious = 0.10 = 29%

0.34

'C' Factor = 0.47 (DFM Plate 22.2C-1)

- Developed Condition

$A_{imp} = 13,890 \text{ sf} = 0.32$

$A_{perv} = 916 \text{ sf}$

% impervious = 0.32 = 94%

0.34

'C' Factor = 0.90 (DFM Plate 22.2C-1)

RATIONAL METHOD

- Discharge: $Q = CIA$

where C varies

$i = P_6 (6.84) T_c^{-0.51} = 4.92 \text{ in/hr}$

$P_6 = 2.33 \text{ in (DFM Plate 22.2D-1)}$

$T_c = 10 \text{ min (minimum)}$

$A = \text{area} = 0.34 \text{ Ac}$

- Volume: $V = C P_6 A (1/12)$

where C varies

$P_6 = 2.33 \text{ in (DFM Plate 22.2D-1)}$

$A = 14,806 \text{ sf}$

EXISTING CONDITION

$Q_{100} = CIA = 0.47 (4.92) (0.34) = 0.8 \text{ cfs}$

$V_{100} = C P_6 A = 0.47 (2.33/12) (14,806) = 1351 \text{ cf}$

DEVELOPED CONDITION

$Q_{100} = CIA = 0.90 (4.92) (0.34) = 1.5 \text{ cfs}$

$V_{100} = C P_6 A = 0.90 (2.33/12) (14,806) = 2587 \text{ cf}$

COMPARISON

$Q_{100} = 1.5 - 0.8 = 0.7 \text{ cfs}$

$V_{100} = 2587 - 1351 = 1236 \text{ cf}$

Orifice Equation

$Q = C A \sqrt{2gh}$

let $h = 0.90 - 0.10 - 0.5 (0.33) = 0.64$

$C = 0.8 \text{ (Cameron Handbook)}$

$A = \frac{\pi d^2}{4} \text{ sf (4" pipe)}$

$g = 32.2 \text{ ft per sec}^2$

$Q = 0.80 ((0.33)^2/4) \sqrt{2(32.2) (0.64)} = 0.1 \text{ cfs}$

Pond Volume

$V_{pond} = 741 \text{ cf}$

Elev	Area, sf	Volume, cf	Vol., cf
0.03	300	21	21
0.10	300	720	741
0.90	1500		

RECEIVED
DEC 28 1982



811 DALLAS N.E. • ALBUQUERQUE • NEW MEXICO • 87110
ENGINEERS

NO.	DATE	BY	REVISIONS
1	12/27/82	J.M.	ADD DOWNSPOUTS

DESIGNED BY J.G.M.
DRAWN BY J.M.C.
APPROVED T.T.M.

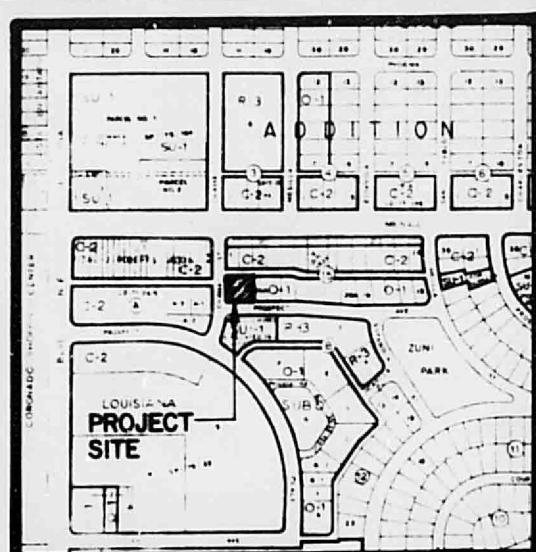
JOB NO.
2-1341
DATE
12-82

GRADING & DRAINAGE PLAN MIDAS MUFFLER SHOPS

FILE NO.

SHEET 1 OF 1

SP 12-14-0657



VICINITY MAP H-19
SCALE: 1" = 800'

DESCRIPTION

A certain tract of land located within the corporate limits of the City of Albuquerque comprising Lots 27 and 28, Block 15 of the replat of Zuni Addition filed in the office of the County Clerk of Bernalillo County on May 28th, 1954, Book D-1, Page 120, and being more particularly described as follows:

Beginning at the northwest corner of the said Lot 28 being a point along the eastern right-of-way of Chama Street, N.E. which is common with the southwest corner of Lot 1, Block 15, replat of Zuni Addition; thence N 89°35'00" E a distance of 125.00 feet to the northeast corner of the former Lot 27; thence S 00°20'30" E a distance of 120.00 feet along the eastern property line of the former Lot 27 to a point along the northern right-of-way of Towner Avenue, N.E.; thence S 89°35'00" W a distance of 95.00 feet along the northern right-of-way of Towner Avenue, N.E. to a point of curvature; thence along the arc of a curve to the right with $\Delta = 90^{\circ}04'30"$, $R = 29.96$ feet, $T = 30.00$ feet, and $L = 47.10$ feet to a point of tangency along the eastern right-of-way line of Chama Street N.E.; thence N 00°20'30" W a distance of 90.00 feet along the eastern right-of-way line of Chama Street, N.E. to the point of beginning and containing 0.3399 acres more or less.

SUMMARY PLAT
OF
TRACT X
COMPRISING LOTS 27 & 28, BLOCK 15
ZUNI ADDITION
ALBUQUERQUE, NEW MEXICO
DECEMBER, 1982

EXEMPTION

The undersigned owners of the land shown herein do hereby consent to the subdivision of said land in the manner shown on this plat and do hereby dedicate all public rights-of-way, and grant all drainage and utility easements including the right of ingress and egress and the right to trim interfering trees.

James E. Hinnen, Inc. Date

ACKNOWLEDGEMENT

STATE OF NEW MEXICO) ss
COUNTY OF BERNALILLO) ss

The foregoing instrument was acknowledged before me this day of _____, 19__.

APPROVALS

Traffic Engineer, City of Albuquerque, N.M. Date

Planning Director, City of Albuquerque, N.M. Date

City Engineer, City of Albuquerque, N.M. Date

Property Manager, City of Albuquerque, N.M. Date

Water Resources, City of Albuquerque, N.M. Date

Parks and Recreation, City of Albuquerque, N.M. Date

EMAFCA Date

Chief City Surveyor, Engineering Division Date

CERTIFICATION

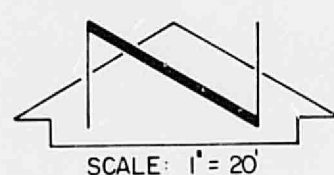
I, Thomas T. Mann, Jr., do hereby certify that I am a Registered Land Surveyor under the laws of the State of New Mexico and that this plat was prepared by me or under my supervision; shows all easements made known to me by the Owner, utility companies or other interested parties; meets the minimum requirements of monumentation and surveys of the Albuquerque Subdivision Ordinance and is true and correct to the best of my knowledge and belief.

DATE 12/14/82 THOMAS T. MANN, JR. 3752
NEW MEXICO
LAND SURVEYOR



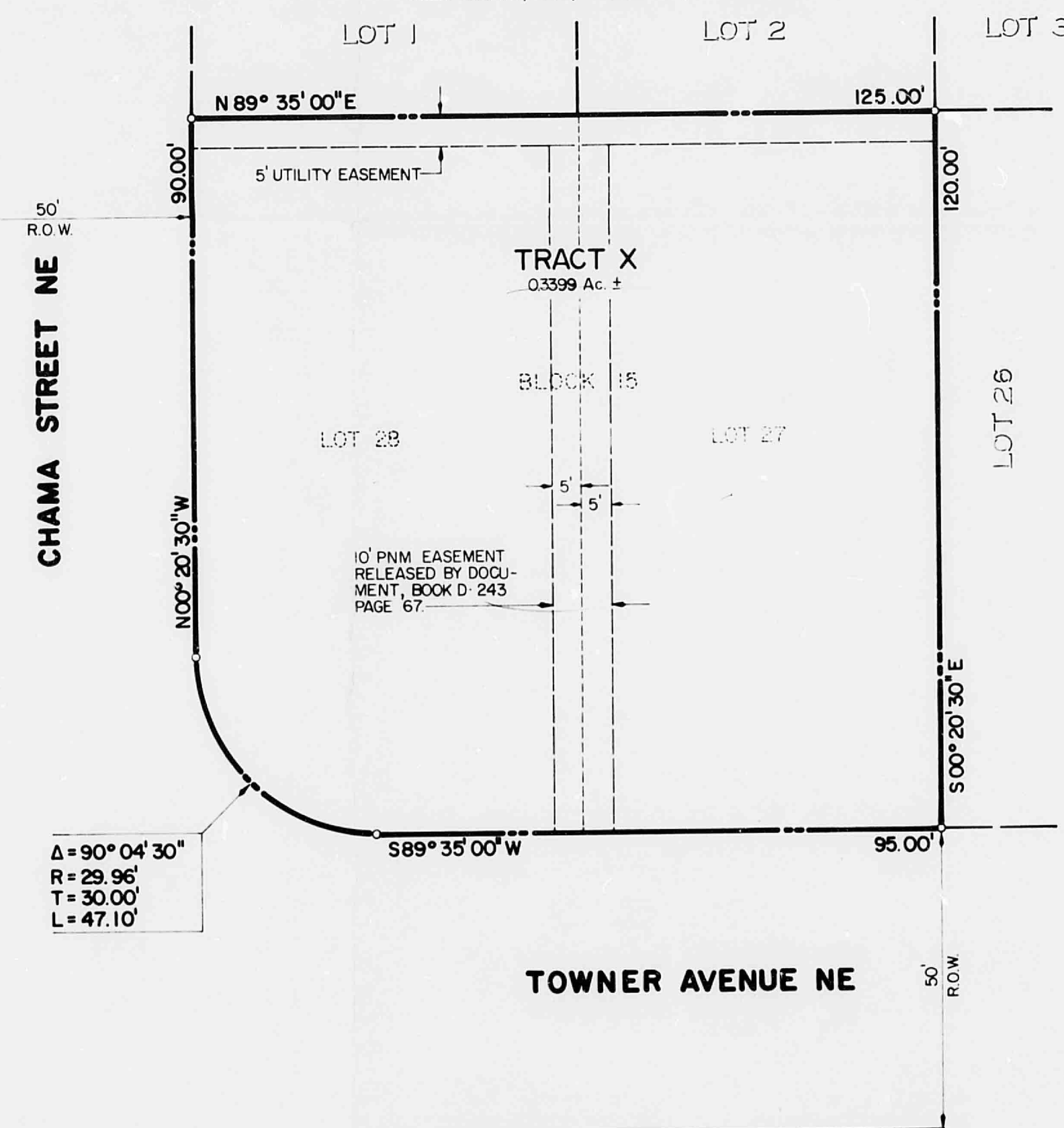
Job No 21343

BY DALLAS, N.E. - ALBUQUERQUE - NEW MEXICO - 87110
ENGINEERS



SCALE: 1" = 20'

BLOCK 15
REPLAT OF ZUNI ADDITION
FILED MAY 28, 1954, BOOK D-1, PAGE 120



NOTES

1. BEARING BASE IS REPLAT OF ZUNI ADDITION FILED MAY 28, 1954, BOOK D-1, PAGE 120
2. ALL DISTANCES ARE LOCAL GROUND MEASUREMENTS
3. A FIELD SURVEY WAS NOT PERFORMED; NO CORNERS WERE SET