HYDROLOGY

C18/D7

LASERTECHNICS

INC. SITE

C18 - D8

1 PLAN

ESPEY, HUSTON & ASSOCIATES, INC.
Engineering & Environmental Consultants
4801 INDIAN SCHOOL ROAD, N.E., SUITE 204
ALBUQUERQUE, N.M. 87110
(505) 255-1625

CORPORATE OFFICE
P.O. BOX 519
AUSTIN, TEXAS 78767

August 12, 1983

Mr. Richard Leonard
AMAFCA
P.O. Box 25851
Albuquerque, New Mexico 87125

RECEIVED
AUG 15 1983
CITY ENGINEER

SUBJECT: Lasertechnics
I-25 and Wilshire
EH&A Job No. 3576

Dear Mr. Leonard:

On August 11, 1983, Mr. Dan Sabo of your office met with Mike Rengel and me regarding jurisdiction and requirements for flood protection of the Lasertechnics facility located as shown on the attached map. The following items were agreed upon and is comfirmation of our understanding of agreements made.

1. The channel adjacent to the Lasertechnics project is under the jurisdiction of AMAFCA.
2. AMAFCA has no plans for changes or improvements of this channel.
3. The only protection required would be that which the owner feels he needs regarding his own property.
4. The 100-year flood elevation is one foot above the bottom of the channel.

Flood plain dedication req. ② Bank protection required to demonstrate meets criteria

The opportunity to meet with your representative is appreciated. Should there be comments or questions regarding our meeting and the agreements, please contact this office.

Sincerely,

William F. Coleman

William F. Coleman, P.E.

/cs

cc: Dan Sabo - AMAFCA
Fred Aguirre - City

enclosure

RICHARD E. LEONARD
EXECUTIVE ENGINEER

B. H. SWINBURNE, CHAIRMAN
WILLIAM V. HEREFORD, VICE-CHAIRMAN
FRANCES McCOY, SECRETARY-TREASURER
R. WARD HUNNICUTT, DIRECTOR
KLESTON LAWS, DIRECTOR

Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority

2600 PROSPECT AVE., N.E.
P. O. BOX 25851 - ALBUQUERQUE, N. M. 87125
TELEPHONE 884-2215

August 15, 1983

Mr. William F. Coleman, P.E.
Espey, Huston & Associates, Inc.
4801 Indian School Road, NE, Suite 204
Albuquerque, NM 87110

Subject: Lasertechnics
I-25 and Wilshire

Dear Bill:

Reference your letter of August 12, 1983.

Item 3 perhaps needs some amplification. It might be better to say that the owner is responsible for protecting his property either now or when it becomes necessary.

Item 4. The flood elevation is shown as one foot on the Flood Insurance Rate Map dated September 15, 1983; however, the arroyo dedication should be the width of the arroyo.

Sincerely,

Dan Sabo

Dan Sabo
Drainage Engineer

ic
cc: Fred Aguirre ✓

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 19, 1983

Mr. Dennis Lorenz
Espey, Huston & Associates, Inc.
4801 Indian School Road NE, Suite 204
Albuquerque, New Mexico 87110

Ref: The Lasertechnics Avenue Drainage Plan and
Phase 1 Drainage Plan dated September 14 and
September 2 respectively (File No. C18-D8)

Dear Mr. Lorenz:

The referenced plans satisfy my comments; Therefore, this plan is approved. The building plans will be signed off with the inclusion of the approved Phase 1 plan and copies of the "Construction Within Public Right of Way" document in the building set.

If you have any questions regarding the above please feel free to contact me.

Very truly yours,

Fred J. Aguirre
Design Hydrologist

FJA/fs

ESPEY, HUSTON & ASSOCIATES, INC.
Engineering & Environmental Consultants
4801 INDIAN SCHOOL ROAD, N.E., SUITE 204
ALBUQUERQUE, N.M. 87110
(505) 255-1625

EH&A Job No. 3576

CORPORATE OFFICE
P.O. BOX 519
AUSTIN, TEXAS 78767

GRADING & DRAINAGE REPORT
FOR
LASERTECHNICS, INC. SITE
AT
WILSHIRE AVE. AND
WEST FRONTAGE RD. TO I-25

RECEIVED
AUG 18 1983
ENGINEERING

Prepared for
Wallace A. Wendell, A.I.A.
2651-K Pan American Freeway N.E.
Albuquerque, New Mexico 87107

August, 1983

ESPEY, HUSTON & ASSOCIATES, INC.

INFORMATION SHEET

PROJECT TITLE Lasertechnics, Inc. TYPE OF SUBMITTAL Drainage Report

ZONE ATLAS PAGE NO. C-18-Z CITY ADDRESS

LEGAL DESCRIPTION Lot 6A, Unit B, North Albuquerque Acres

ENGINEERING FIRM Espey, Huston & Associates CONTACT Billy Goolsby, P.E.

ADDRESS 4801 Indian School Rd. N.E., Suite 204 PHONE 255-1625

OWNER Lasertechnics, Inc. CONTACT Gary Pearson

ADDRESS 6007 Osuna N.E. PHONE 883-5353

ARCHITECT Wallace Wendell, A.I.A. CONTACT Wallace Wendell

ADDRESS 2651-K Pan Am Freeway N.E. PHONE 344-1036

SURVEYOR Albuquerque Surveying Co. CONTACT Fred Sanchez

ADDRESS 2119 Menaul N.E. PHONE 884-2036

CONTRACTOR CONTACT

ADDRESS PHONE

DATE SUBMITTED August 18, 1983

BY Espey, Huston & Associates, Inc.

BILLY J. GOOLSBY
NEW MEXICO
6418
REGISTERED PROFESSIONAL ENGINEER

ESPEY, HUSTON & ASSOCIATES, INC.

TABLE OF CONTENTS

I. PURPOSE

II. SITE LOCATION AND DESCRIPTION

III. PRESENT HYDROLOGIC CONDITIONS
- A. Off-Site Flows
- B. On-Site Flows
- C. Existing Drainage Facilities
- D. Flood Hazard

IV. PROPOSED GRADING AND DRAINAGE
- A. Off-Site Flows
- B. On-Site Flows
- C. Drainage Improvements

V. EROSION CONTROL PLAN

VI. CONCLUSIONS

APPENDIX - DRAINAGE COMPUTATIONS

ESPEY, HUSTON & ASSOCIATES, INC.

LIST OF FIGURES

1. VICINITY MAP
2. FLOOD HAZARD MAP
3. EXISTING DRAINAGE MAP
4. GRADING AND DRAINAGE PLAN
5. EROSION CONTROL PLAN

I. PURPOSE

The purpose of this report is to provide information as to the compatibility of the proposed grading and drainage for the development of the site, in association with the on-site physical features, as well as, the adjacent properties and roadways. Also, addressed in the report is the relationship to flood hazard and the erosion control plan during construction.

II. SITE LOCATION AND DESCRIPTION

The Lasertechnics site is located in the southwest corner of the intersection of Wilshire Ave. and the West Frontage Rd. to Interstate Highway 25 (I-25). See Figure 1 - Vicinity Map. This intersection is located just north of Los Angeles Dr. in the Northeast Heights of Albuquerque. The property is bounded by Wilshire Ave. on the north, the West Frontage Rd. on the east, a mobile home park on the south and southern half of the west side, and a vacant lot on the northern half of the west side. Also, located adjacent to the south property line is an AMAFCA arroyo that crosses under I-25 through 8 - 48 inch culvert pipes and continues to the west through the mobile home park.

The site contains approximately 2.66 acres. The existing ground slope is from the east to the west with a minor slope to the south. The average east/west slope is 2.8 percent and the minor slope to the south is 0.8 percent.

The soils on the site are in the Soil Conservation Service (SCS) soils association of Tijeras - Embudo and are level to moderately sloping, well drained loamy and gravelly soils on alluvial fans. The hydrologic grouping of these soils by SCS shows them to be a type "B" soil which means they have a moderate rate of

infiltration when thoroughly wetted. This information was obtained from the Soil Survey for Bernalillo County by the SCS.

The vegetation for the site is sparse native grasses and weeds. There are no bushes or trees on the site.

III. PRESENT HYDROLOGIC CONDITIONS

A. Off-Site Flows

There are no off-site flows coming onto or crossing the project site that are of any major concern. The only off-site flow onto the property is the runoff from the West Frontage Rd. from the centerline west. The West Frontage Rd. presently does not have curb and gutter, therefore, the runoff is not concentrated but rather just sheet flow from the asphalt. Wilshire Ave. is a paved street with curb and gutter and sidewalk and intercepts any flows that might come onto the site from the north. The previously mentioned arroyo adjacent to the south property line is a floodway channel, however, the flows in this channel are confined to the channel banks because of the controlling culvert pipes under the highway. See Figure 2 - Flood Hazard Map.

B. On-Site Flows

The on-site flows for the existing condition are those which are produced by the storm rainfall on the site. The excess rainfall volume that is not infiltrated into the soil runs off the site to the west as sheet flow.

Since the area is relatively small, the chosen method for computing the runoff from the site was the Rational Method or Q = CIA where:

Q, is the discharge rate in c.f.s.,

C, is coefficient of runoff excess based on the imperviousness of the site,

I, is the rainfall intensity associated with the storm frequency rainfall and time of concentration for rainfall, and

A, is the drainage area in acres.

This method was used for both the existing and developed condition runoff determination. The runoff for the existing condition state from the total site was determined to be 6.40 c.f.s. for the 100-year frequency storm and 4.11 c.f.s. for the 10-year frequency storm. However, since the flow across the site is sheet flow, these concentration rates would not be realized at any one point on the property. See Figure 3 - Existing Drainage Map and the Appendix for the determination of the runoff rates.

C. Existing Drainage Facilities

The existing downstream discharge facilities in the vicinity of the site include Wilshire Ave. and the arroyo adjacent to the south property line. With the current construction of Special Assessment District 201, a 60 inch storm sewer is being installed in the vicinity of Wilshire Ave. and San Mateo Blvd., whereby, discharge into Wilshire Ave. would now be allowable. The project site is the most upstream area that could contribute to Wilshire Ave. and the existing developed properties downstream have ponded runoff to meet earlier drainage criteria.

Therefore, the new system will have sufficient capacity to handle flows from Wilshire Ave. Wilshire Ave. has sufficient capacity to handle direct discharge from a portion of the proposed development of this site. The arroyo along the south boundary is also available for discharge from the site. The possible discharge from the site is very minute compared to the flow in the channel such that the runoff from this site would not significantly effect the flow in the arroyo.

D. Flood Hazard

The project site is not located within a flood hazard area in total, however, a small portion of the southeast corner of the property is encroaching upon the 100-year flood plain for the arroyo. See Figure 2 - Flood Hazard Map and Figure 3 - Existing Drainage Map.

AMAFCA has no plan at this time to improve the channel and the project site will not receive any protection from such improvement. Consequently, it will be the property owner's responsibility to provide any protection necessary for development in this area.

The current development plan does not have any construction proposed for the area adjacent to the arroyo and the owner will have to assume the responsibility of repair maintenance or suffer a loss of property ground due to possible erosion at this point. Should a problem arise that erosion becomes severe and the property is in jeopardy of becoming flooded from the arroyo, a solution to the protection at this location could be a deflection wall or soft lining with rock or some other durable material to prevent further erosion of the exposed soil bank.

IV. PROPOSED GRADING AND DRAINAGE

The proposed development for the project site will be a laser manufacturing facility which will be owned and operated by Lasertechnics, Inc. The development will be phased development with approximately the northern half of the building to be constructed first and the south half to be for future expansion.

The report herein will address the site in the ultimate development plan for grading and drainage purposes.

A. Off-Site Flows

As mentioned in a previous section, there are no significant off-site flows to be taken into consideration in the grading and drainage plan for the development. The only off-site runoff will be from the West Frontage Rd. and this is a minor amount that can be incorporated into the runoff on the east side of the property. Should the West Frontage Rd. be fully developed sometime in the future with curb and gutter, the runoff from it onto the property will be eliminated.

B. On-Site Flows

Since there is adequate capacity in the existing drainage facilities in the vicinity of the project site, free discharge is feasible. Therefore, ponding of excess storm water is not a requirement.

The total runoff from the project site under developed conditions for various storm frequencies as calculated by the Rational Method are as follows:

From the north half of the property to Wilshire Ave.

Frequency	Discharge
10-year	3.36 c.f.s.
100-year	5.11 c.f.s.

And from the south half of the property to the floodway arroyo (AMAFCA channel)

Frequency	Discharge
10-year	3.58 c.f.s.
100-year	5.45 c.f.s.

Refer to the calculations included in the Appendix and Figure 4 -Grading and Drainage Plan.

V. EROSION CONTROL PLAN

Erosion will not occur as a result of the proposed development because there will not be any exposed soil within the disturbed area after construction due to the paving and landscaping. Since the site will actually be developed in a phased manner, disturbance outside the limits of the first phase will be held to a bare minimum. Every effort will be made to return any disturbance as closely back to existing conditions as possible to prevent erosion from occurring. During the construction temporary erosion control measures will be utilized. These measures will include ditching and diking, installing hay bales at catch points and ground

watering to prevent dust and wind erosion. Particular attention will be given to construction adjacent to Wilshire Ave. such that sediment and soil is not discharged onto the pavement. When the construction work is completed then the drainage improvements and landscaping will control the runoff and erosion. See Figure 5 - Erosion Control Plan.

VI. CONCLUSIONS

The proposed development for the project site, once completed, will enhance the property and is compatible with the development in the area. The storm runoff from the site will be controlled in accordance to City of Albuquerque and AMAFCA criteria, and in no way will create a flood or erosion hazard to the site or adjacent properties. Standard erosion and pollution prevention methods will be employed during construction to minimize the nuisance of construction.

ESPEY, HUSTON & ASSOCIATES, INC.

APPENDIX

DRAINAGE COMPUTATIONS

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

DRAINAGE CALCS.

SUBJECT LASER TECHNICS #3576
SHEET 1 OF 8 BY REC
DATE 8/14/87 CK BY [illegible]

UNDEVELOPED CONDITION

A. DRAINAGE AREAS - ONSITE

Area A = 0.981 acres

Area B = 0.554 acres

Area C = 1.382 acres

Area D = 0.320 acres

Area E = 0.205 acres

Total Area = 3.442 acres

B. NO OFFSITE DRAINAGE AREAS

Area A

C Factor = .40 for undeveloped condition

$T_c = .0078 \frac{(L)^{.77}}{(S)^{.385}} = .0078 \frac{(329)^{.77}}{(.0344)^{.385}} = 2.48$ min. use 10 min

$R_{100} = 2.2''$ $R_{10} = 2.2(.657) = 1.45''$

$I_{100} = R_{100}\ 6.84\ t_c^{-.51} = 2.2(6.84)(10)^{-.51} = 4.65$

$I_{10} = R_{10}\ 6.84\ t_c^{-.51} = 1.45(6.84)(10)^{-.51} = 3.06$

$q_{100} = CI_{100}A = 0.40(4.65)(0.981)$

$= \underline{\underline{1.82 \text{ cfs}}}$

$q_{10} = CI_{10}A = 0.40(3.06)(0.981)$

$= 1.20$ cfs

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT Lasertechnics
SHEET 2 OF 8 BY AEC
DATE 8/11/83 CK BY AEF

ONSITE UNDEVELOPED CONDITION

Area B Area = .554 acres

$t_c = .0078 \frac{(294)^{.77}}{(.036E)^{.385}} = 3.91$ min use 10 min

$R_{100} = 2.8''$ $I_{100} = 4.65$

$R_{10} = 1.45''$ $I_{10} = 3.06$

$q_{100} = (0.4)(4.65)(0.554 ac.)$

$= \underline{1.03 \text{ cfs}}$

$q_{10} = (0.4)(3.06)(0.554 ac.)$

$= 0.678$ cfs

Area C Area = 1.382 acres

$t_c = .0078 \frac{(301)^{.77}}{(.0385)^{.385}} = 2.21$ min use 10 min.

$q_{100} = (0.4)(4.65)(1.382 ac)$

$= \underline{2.57 \text{ cfs}}$

$q_{10} = (0.4)(3.06)(1.382 ac)$

$= 1.69$ cfs

Area D Area = .330 acres

$t_c = .0078 \frac{(251)^{.77}}{(.0395)^{.385}} = 1.91$ min use 10 min

$q_{100} = (0.4)(4.65)(0.330 ac)$

$= \underline{0.60 \text{ cfs}}$

$q_{10} = (0.4)(3.06)(0.330 ac)$

$= 0.39$ cfs

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT Lasertechnics
SHEET 3 OF 6 BY RFC
DATE 8/14/83 CK BY

ONSITE UNDEVELOPED CONDITION

AREA E Area = 0.205 acres

$t_c = .0078 \frac{(171)^{.77}}{(.0607)^{.385}} = 1.90$ min use 10 min

$Q_{100} = (0.4)(4.65)(0.205\ ac)$

$= \underline{0.38\ cfs}$

$Q_{10} = (0.4)(3.06)(0.205\ ac)$

$= 0.25\ cfs$

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT Lacertechnics

SHEET 4 OF 8 BY AEC
DATE 8/11/85 CK BY

ONSITE DEVELOPED CONDITION

DRAINAGE AREAS

Area A = 1.616 acres

Area B = 1.479 acres

Area C = 0.201 acres

Area D = 0.146 acres

Total Area = 3.442 acres

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT LASER TECHNICS #3576
SHEET 5 OF 8 BY REC
DATE 8/10/83 CK BY

ONSITE DEVELOPED CONDITION

Area A

"C" Factor

	Area	% Total	"C"	"CA"
Roof	.357 Ac.	22.09	.90	.199
Sidwk.	.122 Ac.	7.55	.95	.072
Park.	.399 Ac.	33.45	.95	.233
Lawn	.758 Ac.	46.91	.35	.164

Total = 1.616 Ac Composite "C" = 0.658

$T_c = .0078 \frac{L^{.77}}{S^{.385}} = .0078 \left(\frac{(355)^{.77}}{(.0158)^{.385}} \right) = 5.00$ min use 10 min

d_{min} to I_{100} = 2.2" d_{10} = 2.2 (.657) = 1.45"

$I_{100} = d_{100}\ 6.84\ T_c^{-.51} = (2.2)\ 6.84\ (10)^{-.51} = 4.65$

$I_{10} = d_{10}\ 6.84\ T_c^{-.51} = (1.45)\ 6.84\ (10)^{-.51} = 3.06$

$Q_{100} = C I_{100} A = (0.658)(4.65)(1.616)$

$= \underline{4.94 \text{ cfs}}$

$Q_{10} = (0.658)(3.06)(1.616)$

$= 3.25$ cfs

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT Laertechnics
SHEET 6 OF 8 BY AEC
DATE 8/11/03 CK BY

ONSITE DEVELOPED CONDITION

AREA B

C Factor

	Area	% Total	"C"	CA
Roof	.405 Ac.	27.38	.90	.246
Sdwk	.031 Ac.	2.10	.95	.020
Asph	.519 Ac.	35.09	.95	.333
Lawn	.524 Ac.	35.43	.35	.124
Total = 1.479 Ac.			Composite C =	0.723

$T_c = .0078\, L^{.77} / S^{.385} = .0078 \left(\frac{(425)^{.77}}{(.01275)^{.385}}\right) = 4.79$ min use 10 min

$Rainfall_{100} = 2.2''$ $R_{10} = 1.45''$

$I_{100} = R_{100}\, 6.84\, t_c^{-.51} = (2.2)(6.84)(10)^{-.51} = 4.65$

$I_{10} = R_{10}\, 6.84\, t_c^{-.51} = (1.45)(6.84)(10)^{-.51} = 3.06$

$Q_{100} = C I_{100} A = (0.723)(4.65)(1.479)$

$= \underline{4.97 \text{ cfs}}$

$Q_{10} = C I_{10} A = (0.723)(3.06)(1.479)$

$= 3.27$ cfs

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT Laserterhnics
SHEET 7 OF 8 BY REC
DATE 8/11/83 CK. BY

ONSITE DEVELOPED CONDITION

Area C

C Factor = 0.35 (Entire area is landscape)

Total Area = 0.201 Acres

$T_c = .0078 \frac{(60)^{.77}}{(.0083)^{.385}} = 1.15$ min use 10 min.

$R_{100} = 2.2"$, $R_{10} = 1.45"$

$I_{100} = (2.2)6.84(10)^{-.51} = 4.65$

$I_{10} = (1.45)6.84(10)^{-.51} = 3.06$

$Q_{100} = (0.35)(4.65)(0.201)$

$= \underline{\underline{0.33 \text{ cfs}}}$

$Q_{10} = (0.35)(3.06)(0.201)$

$= 0.22$ cfs

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT Lasertechnics
SHEET 8 OF 8 BY REC
DATE 8/11/85 CK BY RE

ONSITE DEVELOPED CONDITION

Area D

"C" Factor

	Area	% Total	"C"	"Ca"
Impt.	.025	17.12	.95	0.163
Ldspc.	.121	82.88	.35	0.29

Total = .146 acres Composite "C" = .453

$t_c = .0078 \frac{(1611)^{.77}}{(.0529)^{.385}} = 1.17$ min use 10 min.

$R_{100} = 2.2$ $R_{10} = 1.45$

$I_{100} = 4.65$ $I_{10} = 3.06$

$Q_{100} = (0.453)(4.65)(.146\ ac)$

$= \underline{0.31\ cfs}$

$Q_{10} = (0.453)(3.06)(.146\ ac)$

$= 0.20\ cfs$

753

GRANT OF EASEMENT

FOR

FLOODWAY, AND STORM DRAINAGE WORKS

83 58944

RECEIVED
AUG 31 1983
CITY ENGINEER

Lasertechnics, Inc.

6007 Osuna Rd. N.E., Albuquerque, New Mexico 87107

Grantor, for good and valuable consideration, the receipt of which is hereby acknowledged, does grant, bargain, sell and convey unto the ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY, a political subdivision of the State of New Mexico, Grantee, and its successors and assigns, the permanent right and easement to construct, reconstruct, operate and maintain bridges, roads, channel improvements, inlet structures, embankments, energy dissipators, and other storm drainage improvements on, in, under, over and across the following described real estate.

The land in which the foregoing rights and easements are granted is located in the County of Bernalillo and State of New Mexico and is more particularly described in Exhibit "A" attached hereto and incorporated herein by reference.

TO HAVE AND TO HOLD the said right and easement for the uses and purposes aforesaid, unto the Grantee, its successors and assigns, forever, except that any portion of the easement granted herein shall revert to the Grantor, its successors or assigns, as and to the extent said portion is declared unnecessary for flood control or drainage by the Board of Directors of the Albuquerque Metropolitan Arroyo Flood Control Authority. Any reversion shall be conveyed by quitclaim deed.

THERE IS RESERVED to the Grantor, its successors and assigns, the right to use said lands for open space landscaping and other purposes which will not interfere with the rights and easements hereby granted, provided that Grantor obtains Grantee's written approval for such use, not to be unreasonably withheld.

WITNESS its hand and seal this 27 day of August, 1983 1981.

Lasertechnics Inc

by [illegible] its President

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD

'83 AUG 30 AM 11:15

753-755

BK 43A PG

DOLORES C. WALLER
COUNTY CLERK & RECORDER

DEPUTY

ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO)
) SS.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this _____ day of _____, 1981, by _____.

My Commission Expires:

_____ _____
Notary Public

(SEAL)

ACKNOWLEDGMENT FOR CORPORATION

STATE OF NEW MEXICO)
) SS.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 29th day of August, 1981, by Gary Pearson, Vice President of Lasertechnics, Inc.
(Title of Officer) (Name of Corporation Acknowledging)

a Delware corporation, on behalf of said corporation.

My Commission Expires:
August 1, 1984

Carol F Sena
Notary Public

(SEAL)

EXHIBIT "A"

GRANT OF EASEMENT FOR FLOODWAY AND STORM DRAINAGE WORKS

An easement for floodway and storm drainage works granted to the Albuquerque Metropolitan Flood Control Authority, said easement being a portion of Lot 6A, Block 14, Tract A, Unit B of North Albuquerque Acres and being more particularly described as follows:

BEGINNING at the South East Corner of said lot, said Corner being a No. 4 rebar w/plastic cap marked "4708" and bears S 62° 27' 42" E, 1139.11 feet from the West ¼ Corner of Section 13, Township 11 North, Range 3 East, New Mexico Principle Meridian; thence N 89° 50' 00" W, 50.00 feet to a point which lies on the south boundary of said lot, thence N 70° 01' 22" E, 57.11 feet to a point which lies on the east boundary of said lot, thence S 10° 35' 10" W, 20.00 feet to the point of beginning and containing .011 acres more or less.

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

VICINITY MAP
SCALE : 1" = 800'

NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.

2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with "Contract Documents for City-Wide Utilities and Cash Paving No. 31 "

3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.

4. 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 so that the conflict can be resolved with a minimum amount of delay.

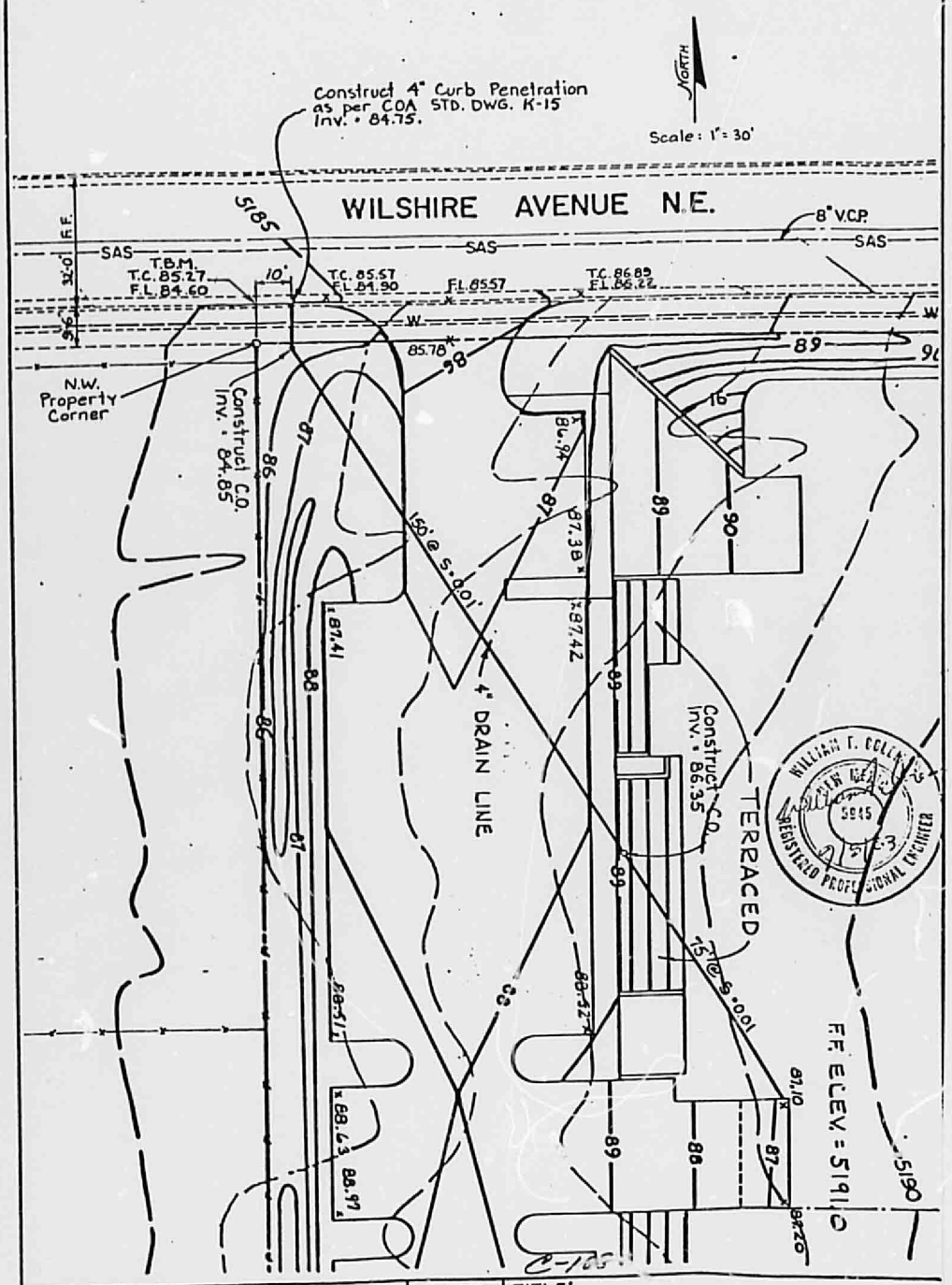
5. Backfill compaction shall be according to RESIDENTIAL street use.

C-108

APPROVALS	NAME	DATE	TITLE: LASERTECHNICS 5500 WILSHIRE AVENUE N.E.	
A.C.E./DESIGN		8 Sept 83		
INSPECTOR				
A.C.E./FIELD			PERMIT NO. SHEET 31 OF 2	MAP NO. C-18

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



APPROVALS	NAME	DATE
A.C.E./DESIGN	[illegible]	8 Sep 83
INSPECTOR	[illegible]	
A.C.E./FIELD	[illegible]	11-3

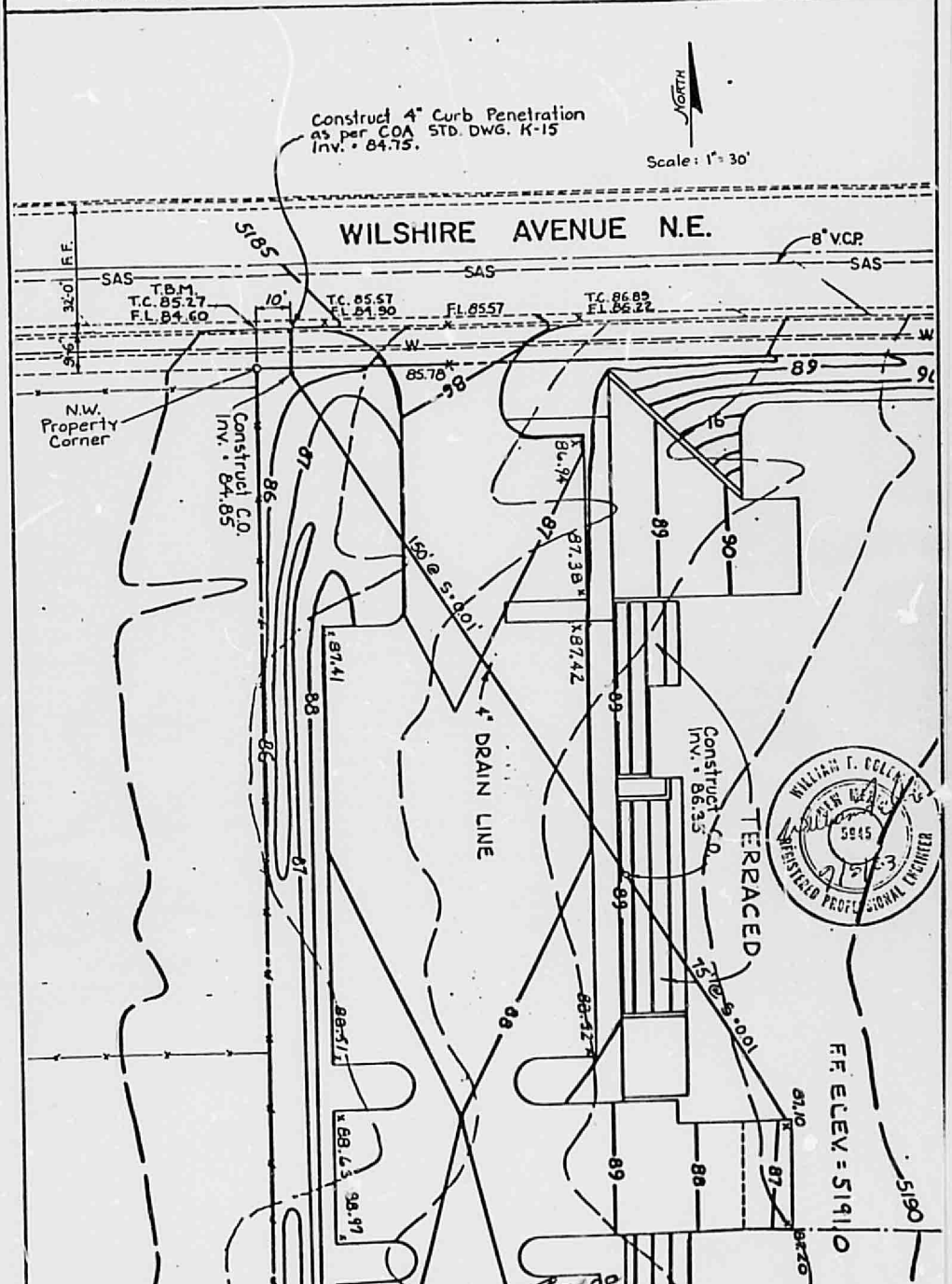
TITLE: LASERTECHNICS
5500 WILSHIRE AVENUE N.E.

PERMIT NO. SHEET 2 OF 2

MAP NO. C-18

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



APPROVALS	NAME	DATE
A.C.E./DESIGN	[illegible]	8 Sep 83
INSPECTOR	[illegible]	
A.C.E./FIELD	Ernest R. Hargett 11-3	

TITLE: LASERTECHNICS
5500 WILSHIRE AVENUE N.E.

PERMIT NO.
SHEET 2 OF 2

MAP NO. C-18

1370