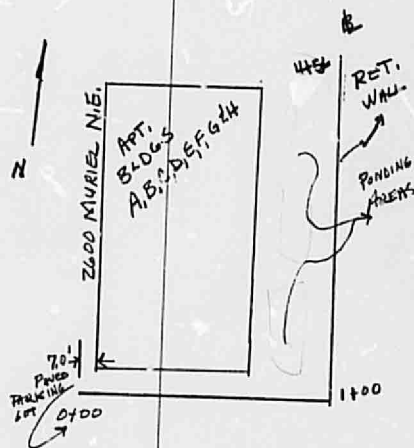


(14)

PROFILE & X-SECTIONS
PONDING AREAS
2600 MURIEL N.E.



8-19-81
□ AQUINO
K DURAN
P CHAVEZ

B.M. + 4.39 H.I. 5605.90 - ELEV 5601.59

N.B.B. F.H. N.W. QUAD MURIEL &
CORROVA N.E.

0+00 4.56 5601.42 PUT,

+25 2.2 5603.88 BIR. BOSTL.

+50 2.8 5603.18 " "

+75 2.4 5603.58 " "

1+00 1.8 5604.18 GRD.

T.P. 1 3.03 5608.55 0.46 5605.52 TOP RET. WHEEL

1+04.0

+06.5

03¹⁵
4²
14⁰
B.O.G.

03¹⁵
4²
7⁰

03¹⁵
4²
2
05⁵³
3⁰²
4
4" DRAIN

1708

03.55

 $\frac{55}{03}$
 52
 14°
 BLDG

 $\frac{02}{02}$
 52
 8°

 $\frac{03}{03}$
 52
 5°

 $\frac{04}{04}$
 44
 12

1730

 $\frac{03}{03}$
 51
 14°
 BLDG

 $\frac{02}{02}$
 51
 8°

 $\frac{02}{02}$
 58
 4°

 $\frac{5603.85}{47}$
 12

1763

 $\frac{5603.15}{54}$
 14°
 BLDG

 $\frac{5603.05}{52}$
 8°

 $\frac{5603.05}{52}$
 5°

 $\frac{5603.65}{49}$
 12

1790

 $\frac{5603.75}{48}$
 14°
 BLDG

 $\frac{5602.85}{52}$
 8°

 $\frac{5602.95}{52}$
 5°

 $\frac{5603.65}{49}$
 12

08.55

Z+14

5603.75

40

140

B106

5603.75

40

60

5603.75

40

50

5604.25

43

0

Z+25

5603.85

42

140

B106,

5603.75

40

60

5603.95

46

50

5604.35

42

0

Z+75

5604.25

43

140

B106.

5604.05

43

80

5604.45

4L

50

5604.95

36

0

Z+86

5604.25

43

140

B106.

5604.15

44

80

5604.65

32

50

5604.85

37

0

3+0

08.25

3+35°

3+73°

4+16°

5604.05

4°

14°

BLD.

5603.55

5°

8°

5603.75

4°

5°

5604.55

4°

A

5604.70

3°

14°

BLD.

5604.35

4°

8°

5604.65

3°

5°

5605.15

3°

A

5605.35

3°

14°

BLD.

5604.85

3°

8°

5604.95

3°

5°

5605.35

3°

A

5605.35

3°

14°

BLD.

5604.35

4°

8°

5604.65

3°

5°

5605.35

3°

A

		08.55		
4+50				
4+56				
T.P. 2	1.54	09.73	0.36	5:08.19

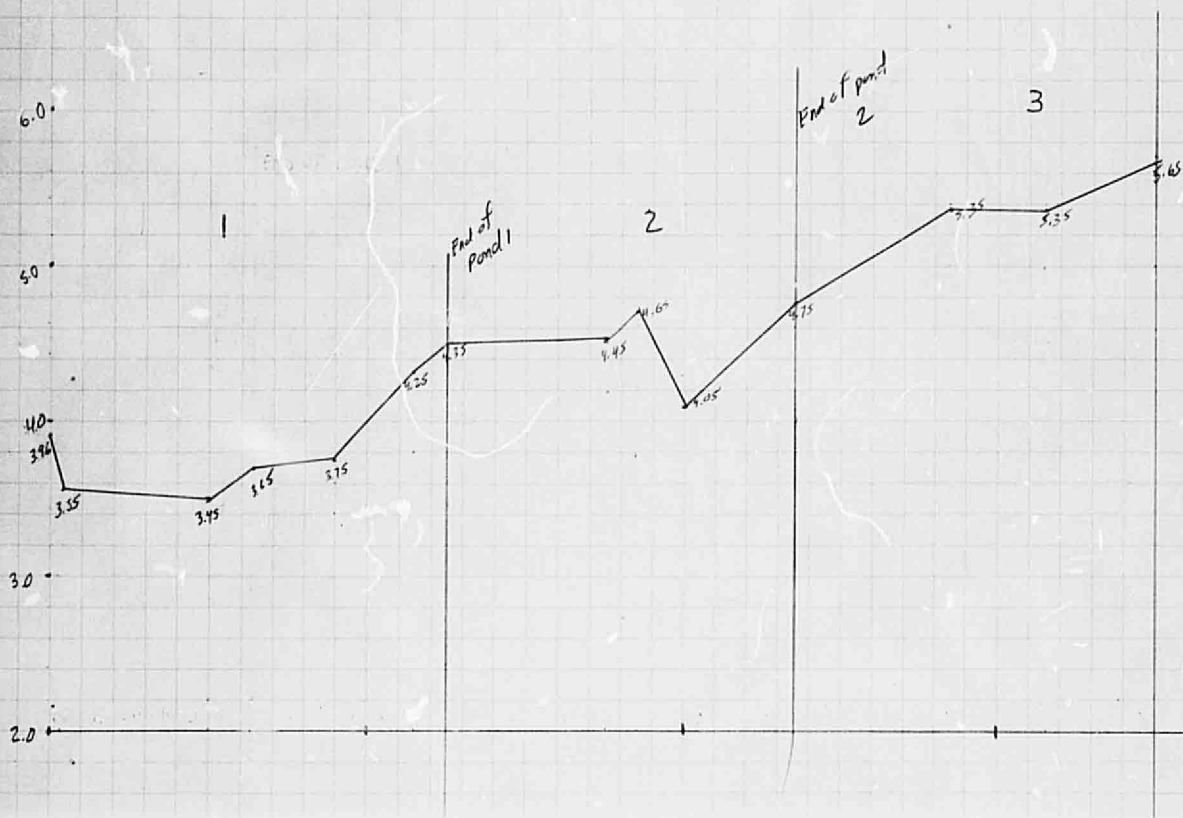
B.M.
Tie

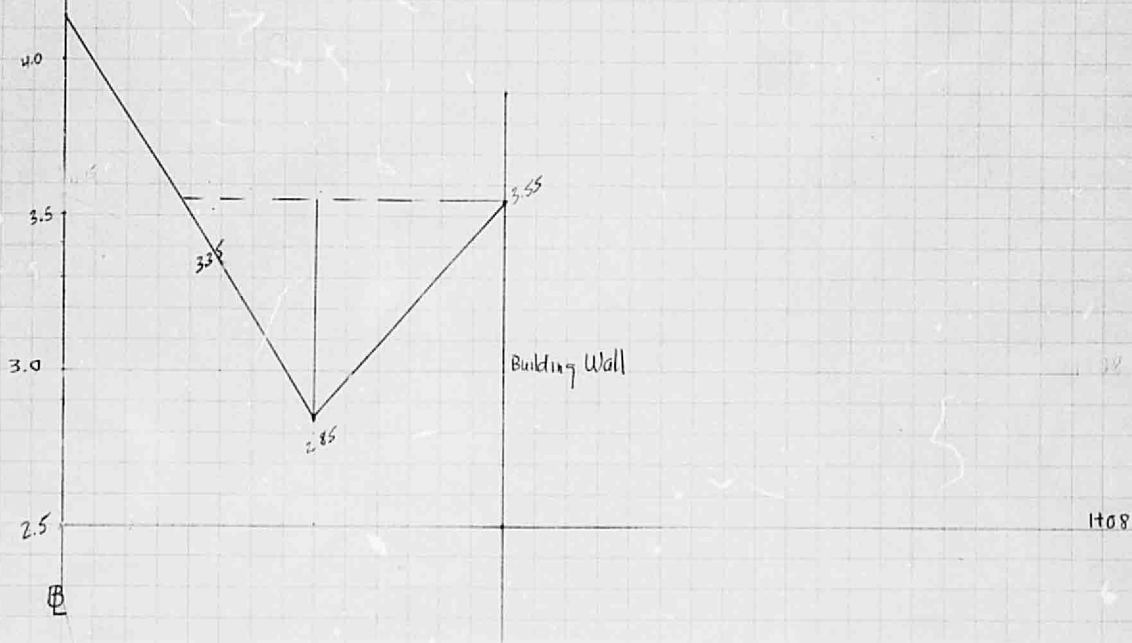
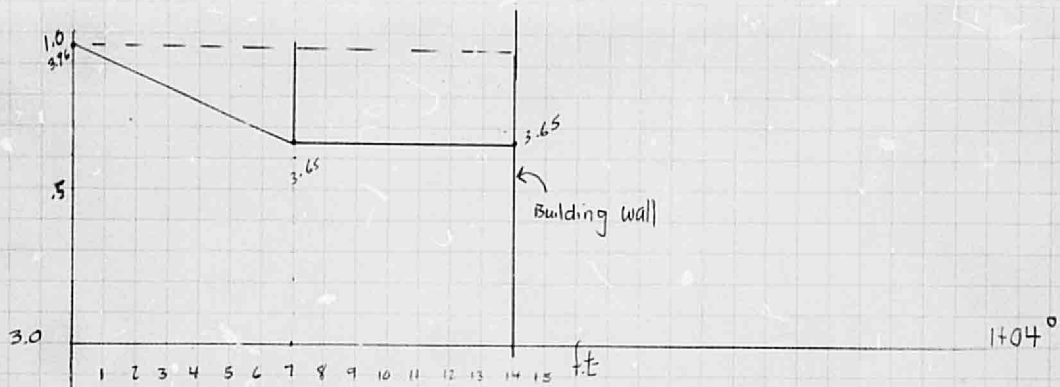
8.18 5601.55 (5601.59) N.B.B. F.H. N.W. QUAD MURIEL & CORDOVANE

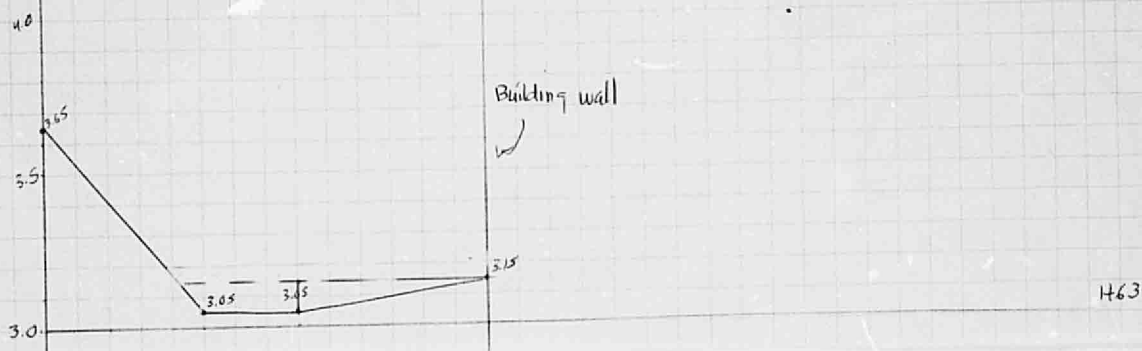
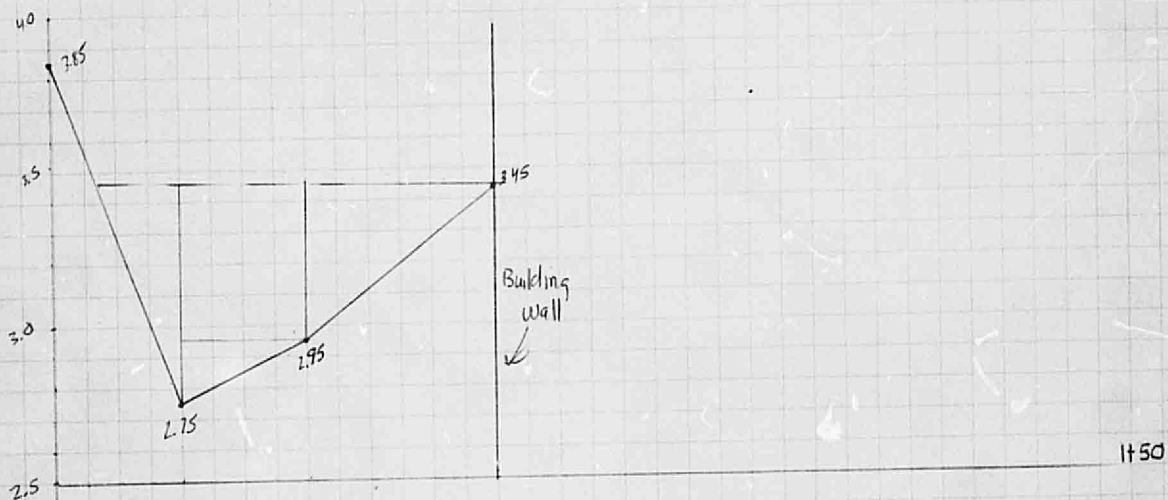
5606.05
25 38 35 27
14° 8° 5° 4°

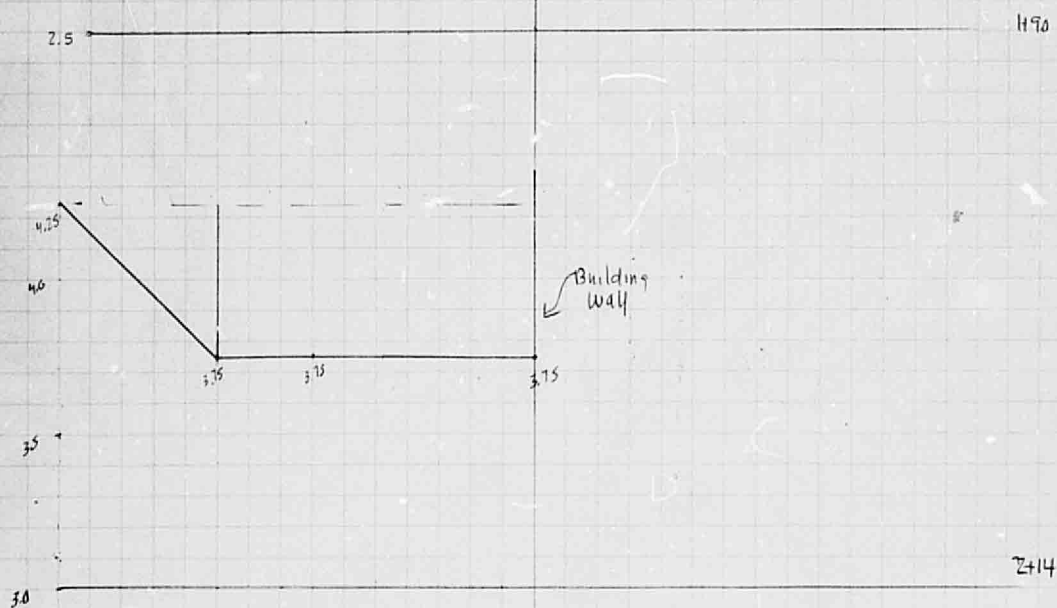
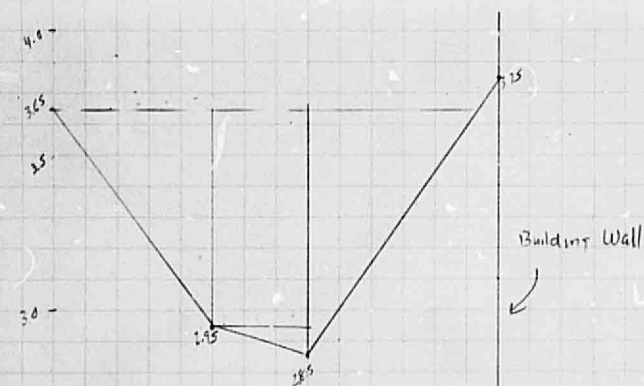
5605.85 5605.85 5605.85 5606.05
27 27 27 25
14° 7° 5° 4°

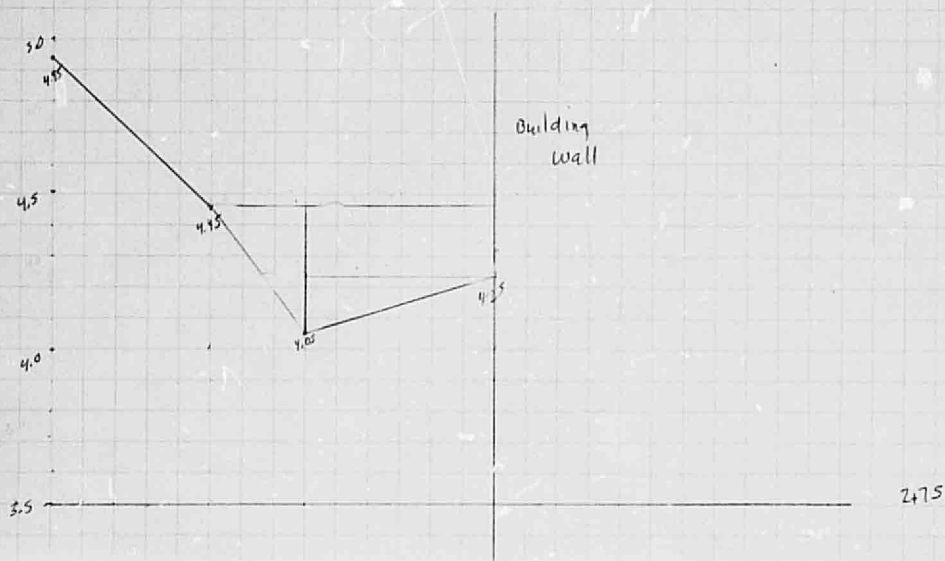
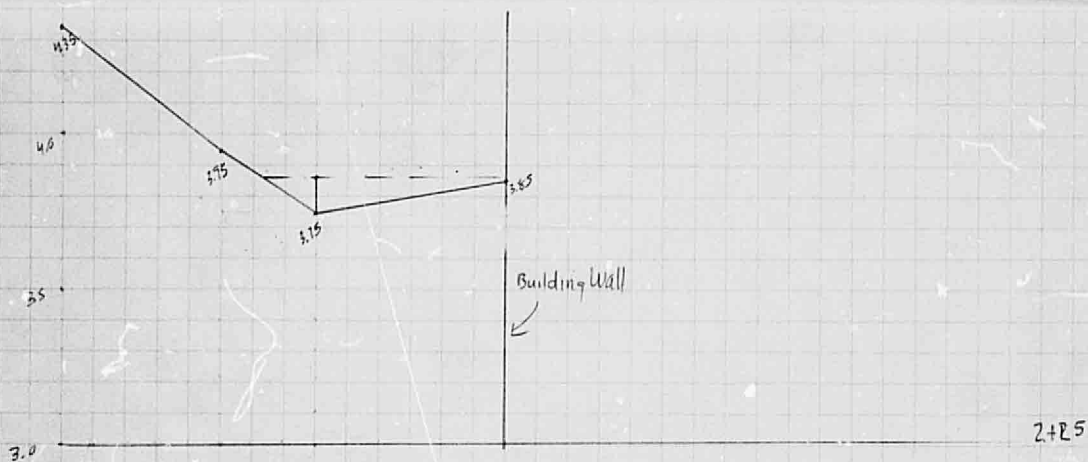
PROFILE From South to North

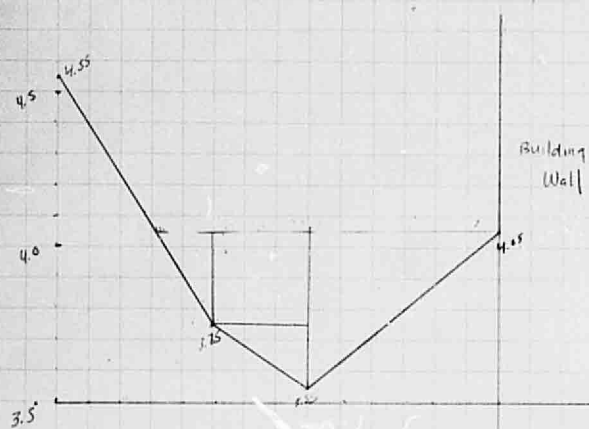
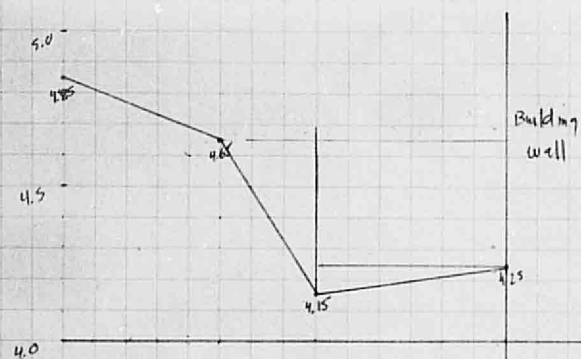


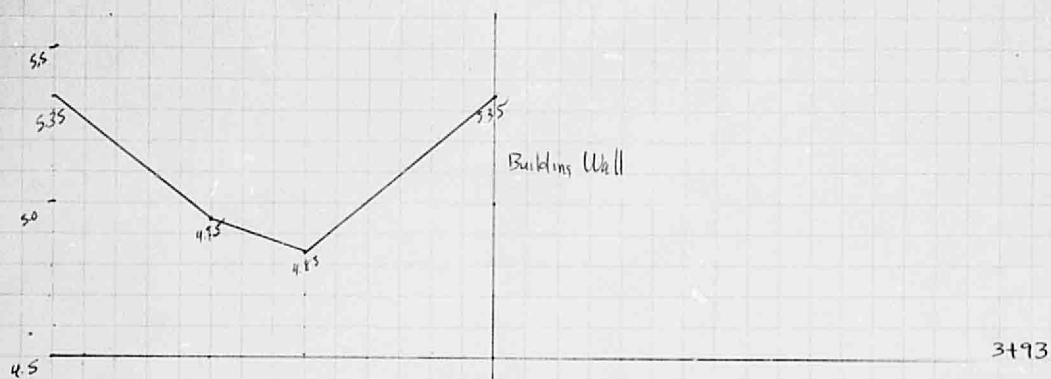
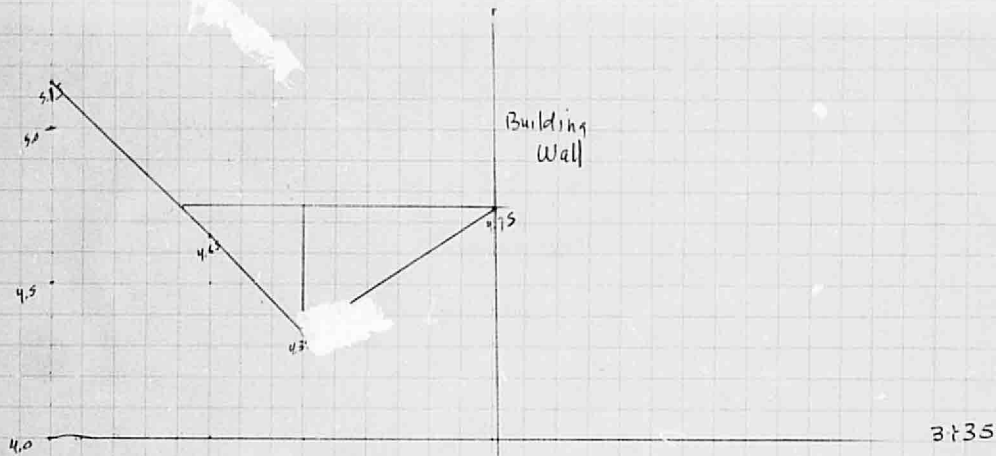


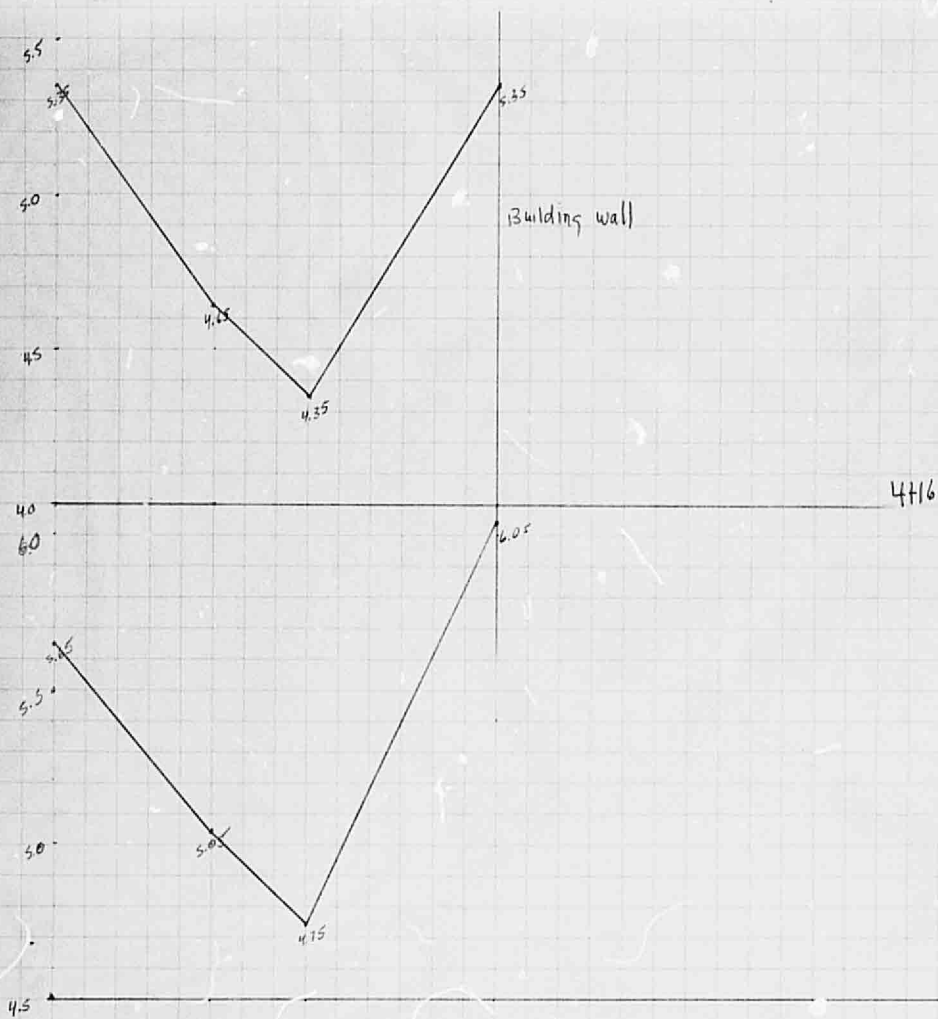


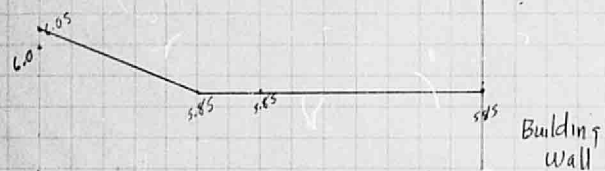












4.5

5.0

4.5

4+56

5.61

Sta.	Area
H04	3.255 sq ft.
H08	5.775 sq ft
H20	5.160
1+63	.680

Pond 1

$$V = L \frac{(A_1 + A_2)}{2 \times 27} \text{ cu yd}$$

$$4 \left(\frac{3.255 + 5.775}{2 \times 27} \right) = .6689 \text{ cu yds}$$

$$42 \left(\frac{5.775 + 5.160}{2 \times 27} \right) = 8.505 \text{ cu yds}$$

$$13 \left(\frac{5.160 + .68}{2 \times 27} \right) = 1.4059 \text{ cu yds}$$

$$\text{TOTAL} = 10.5798 \text{ cu yds}$$

1+63	.680
H90	6.40
2+14	6.25
2+25	.80

$$27 \left(\frac{.680 + 6.40}{2 \times 27} \right) = .54$$

$$24 \left(\frac{6.40 + 6.25}{2 \times 27} \right) = .622$$

$$11 \left(\frac{6.25 + .80}{2 \times 27} \right) = .14361$$

$$\text{TOTAL} = 10.5981 \text{ cu yds}$$

$$\text{TOTAL} = 21.1779 \text{ cu yd}$$

$$21.1779 \times 27 = 571.80 \text{ cu ft}$$

2+25	.80
2+75	2.40
2+86	3.45
3+00	3.00
3+35	2.00

Pond 2

$$50 \left(\frac{.80 + 2.40}{2 \times 27} \right) = .9852 \text{ cu yds}$$

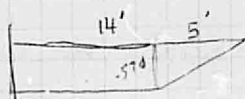
$$11 \left(\frac{2.40 + 3.45}{2 \times 27} \right) = 1.1917$$

$$14 \left(\frac{3.45 + 3.00}{2 \times 27} \right) = 1.6722$$

$$35 \left(\frac{3.00 + 2.00}{2 \times 27} \right) = 3.2407$$

$$7.0898 \times 27 = 191.42 \text{ cu ft}$$

Average depth .570



$$\begin{array}{r} 1846.80 \\ 513.00 \\ \hline 2359.80 \end{array}$$

2359.80 cu ft existing

4560.00 cu ft required

2200.20 Short

Close Estimate

$$360 \times 9 \times .570 =$$

$$\frac{360 \times 5 \times .570}{2} =$$

GRADING & DRAINAGE
PLAN

FOR

SANTA ANNA PLAZA

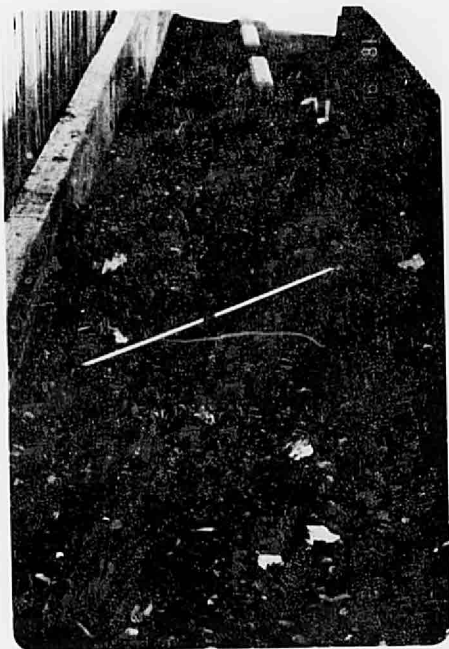
2601 Juan Tabo, N.E.
Albuquerque, N.M.



P. O. Box 3435 Pojoaque Station
Santa Fe New Mexico 87501
Phone: _____

 Santa Fe New Mexico 87501
Phone: _____

LEVI J. VALDEZ
REGISTERED PROFESSIONAL ENGINEER



①



②



③

JUAN TABO 2500 APARTMENT DRAINAGE

E

Runoff & Pond Computations "C"

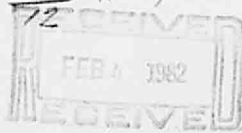
Total Area = 14,144 Sq. Ft.

Assume: Runoff Coefficient = 0.40 (Undeveloped)
= 0.90 (After Develop)

Rainfall = 2.4"

Volume of Retention

$$(0.90 - 0.40) \times \frac{2.4}{12} \times 14,144 = 1,414 \text{ ft.}^3$$



Ponding Provided.

$$\text{Pond No. 1} = (33 \times 10 \times 1.5) + (13.33 \times 1.5 \times 29) = 1075 \text{ ft.}^3$$

$$\text{Pond No. 2} = (48 \times 2 \times 7.5) + (4 \times 1.5 \times 0.75) = 117.0 \text{ ft.}^3$$

Volume of fall in
hole

$$\text{Total} = 1192 \text{ ft.}^3$$

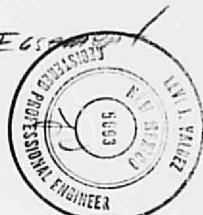
Volume of Runoff to drain into Ponding Area No. 1

All of Paved Parking Lot will drain into No. 1

Area of Parking Lot = 7,034 S.F.

$$\text{Volume} = 0.90 \times \frac{2.4}{12} \times 7,034 = 1266 \text{ ft.}^3$$

Roof area to drain west into drainage Easement
thru pipes in wall



Levi Valdez, P.E.
P.O. Box 3435 Pojoaque station
Santa Fe, New Mexico 87501

Rough
Draft

RE: 2601 Juan Tabo N.E. Revised Drainage Plan

Dear Mr Valdez:

Before the revised drainage plan can be approved, the following items must be addressed.

- a. ponding provided within pond #1^{#2} according to your computations does not satisfy the required ponding.
- b. Show what drainage area is draining to pond No. 2 unable to determine the 117 cubic feet that you are taking account for
- c. Provide calculations for verification of 3" ϕ discharge pipe from pond No. 1 as opposed to any other diameter pipe. Also provide computations for pipe outlet at the SW corner of lot.
- d. Indication of all existing structures on or adjacent (15' minimum) to the site, such as the ponding area to the west and the buildings to the North and South. (true distances)
- e. The scheme shown to discharge the 798 cubic feet of runoff from the roof gives us concern. Address the possibility of the 3" ϕ discharge pipes not functioning correctly because of the elevation above the valley gutter and thus causing flooding to take place within the building.
- f. You indicate that there will be 14" of water retention against the bulkhead before the overflow weir will begin to function. Mr Goodwin has already indicated his

concerns on the cracks all along the south side retaining wall. Mr. Fred Aguirre has also made mention that no ponding is allowed within 15 feet of any structure. There is the potential problem that the amount of runoff being retained could have an effect on the structures (retaining wall and also city sidewalk and curb and gutter)

If you have any questions concerning my comments, please feel free to call me.

Sincerely

Bernie J. Montoya
Hydrologic Engineering Tech.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 17, 1982

Levi Valdez, P.E.
P. O. Box 3435
Pojoaque Station
Santa Fe, New Mexico 87501

RE: 2601 JUAN TABO N.E. REVISED DRAINAGE PLAN - (H21-DT1

Dear Mr. Valdez:

We are unable to process your drainage plan resubmittal of March 15, 1982. The majority of the items listed in Mr. Aguirre's letter to you on August 6, 1981, have not properly been addressed on your revised plan,

If arrangements are not made within 30 days from the above date to satisfy the items of concern, our office will be forced to invoke one or more penalties under Section 205 of the City Building Code.

If you have any questions concerning this matter, do not hesitate to call me at 766-7644.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya
Hydrologic Engineering Technician

BJM/el

cc: Drainage File
Reading File
Fred Aragon

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller,

ENGINEERING DIVISION

Telephone (505) 766-7467



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

H21-D4

August 6, 1981

Levi Valdez, P.E.
P. O. Box 3435, Pojoaque Station
Santa Fe, New Mexico 87501

RE: 2601 Juan Tabo N.E. Revised Drainage Plan

Dear Mr. Valdez:

Before the revised drainage plan can be approved, the following items must be provided:

- a. Supporting data demonstrating compliance with the requirements in effect in June of 1978 and specified in the approved Drainage Report for 2500 Juan Tabo dated June 26, 1978. Such as:
 1. The allowable discharge rates and volumes from this site into the easement.
 2. The ponding requirement for this site.
- ✓ b. An as-built showing the existing conditions.
- ✓ c. A proposed plan showing the proposed grades and modifications
- (d) Soils investigation report required for ponding within 15' of any structure.
- ✓ e. Engineer's stamp with signature and date.
- (f) Location of canales, scuppers, and drain pipes.
- (g) Indication of all existing structures on or adjacent (15' minimum) to the site, such as retaining walls, buildings, pavement, ponds, etc.
- (h) Ponds 100 year water surface elevation and outlined on the plan.
- ✓ j. Vicinity map with Zone Atlas Page No. and Legal.
- ✓ k. Pond volume calculation?
- (l) Positive discharge of ponds with allowable rate and outlet calculations.
- (m) Pond overflow spillway calculations, detail and location.
- ✓ n. Verification of the downstream conditions to handle the proposed storm water runoff.

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer

ENGINEERING DIVISION

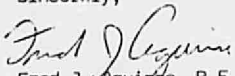
Telephone (505) 766-7467

Letter to Levi Valdez
August 6, 1981
Page 2

In your letter dated March 17, 1981, you indicated that the ponding areas and the 5' drainage easement were not constructed as designed, therefore, will not function as planned. This office has made arrangements with our survey crew to provide us with grades and cross-sections to determine what steps we need to take to correct this situation. Until this problem is corrected, this office cannot allow your client to discharge its storm water into this easement.

If you have any questions concerning my comments, please feel free to call me.

Sincerely,


Fred J. Aguirre, P.E.
Civil Engineer

FJA:gc
7824A
cc Drainage Files
f/Reading

INFORMATION SHEET

PROJECT TITLE Santa Anna Plaza TYPE OF SUBMITTAL certification
 ZONE ATLAS PAGE NO. H-2 CITY ADDRESS 2601 Juan Tabo NE
 LEGAL DESCRIPTION _____
 ENGINEERING FIRM SA Levi Valdez CONTACT _____
 ADDRESS _____ PHONE _____
 OWNER Mr. Giuseppe Matonti CONTACT _____
 ADDRESS _____ PHONE _____
 ARCHITECT Fred Aragon CONTACT _____
 ADDRESS _____ PHONE _____
 SURVEYOR _____ CONTACT _____
 ADDRESS _____ PHONE _____
 CONTRACTOR _____ CONTACT _____
 ADDRESS _____ PHONE _____

PRE-DESIGN MEETING:

☐ YES
☐ NO
☐ COPY OF CONFERENCE RECAP SHEET PROVIDED

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☐ GRADING/PAVING PERMIT APPROVAL
☐ OTHER certification (SPECIFY)

DATE SUBMITTED: 4/5/84
 BY: Fred Aragon



INFORMATION SHEET

PROJECT TITLE Santa Anna Plaza TYPE OF SUBMITTAL certification
 ZONE ATLAS PAGE NO. H-21 CITY ADDRESS 2601 Juan Tabo NE
 LEGAL DESCRIPTION _____
 ENGINEERING FIRM Levi Valdez CONTACT _____
 ADDRESS _____ PHONE _____
 OWNER Mr. Giuseppe Matonti CONTACT _____
 ADDRESS _____ PHONE _____
 ARCHITECT Fred Aragon CONTACT _____
 ADDRESS _____ PHONE _____
 SURVEYOR _____ CONTACT _____
 ADDRESS _____ PHONE _____
 CONTRACTOR _____ CONTACT _____
 ADDRESS _____ PHONE _____

PRE-DESIGN MEETING:

☐ YES
☐ NO
☐ COPY OF CONFERENCE RECAP SHEET PROVIDED

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☐ GRADING/PAVING PERMIT APPROVAL
☐ OTHER Certification (SPECIFY)

DATE SUBMITTED: 4/5/84

BY: Fred Aragon





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

April 27, 1984

Valdez Engineering Company
Civil Engineering Consultants
P.O. Box 3435
Pojoaque Station
Santa Fe, NM 87105

REF: 2601 JUAN TABO NE (H21-D4)

Dear Mr. Valdez:

Based on the information provided on your submittal of April 5, 1984, certification for the above referenced site is acceptable.

If you have any questions, please feel free to call me at 766-7644.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya
Hydrologic Engineering Tech. CE

BJM:mrk

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7457

AN EQUAL OPPORTUNITY EMPLOYER

DRAINAGE REPORT
FOR
JUAN TABO 2500
FOURPLEX DEVELOPMENT
AND
DRAINAGE MANAGEMENT PLAN
FOR
JUAN TABO 2500 ADDITION

Handwritten signature
A circular professional engineer seal for the State of Texas. The outer ring contains the text "STATE OF TEXAS" at the top and "PROFESSIONAL ENGINEER" at the bottom. The inner circle contains the text "J. L. GODWIN" and "No. 12345".

PREPARED BY:

GODWIN ENGINEERING CORPORATION
5/15/78
Rev. 6/26/78

INTRODUCTION:

Juan Tabo 2500 is a summary replat of the southern portion of Block 80 of the Snow Heights Addition and a vacated portion of Juan Tabo Boulevard. Originally Block 80 was platted into approximately 60 feet x 100 feet single family residential lots. The land, however, is zoned C-1. Therefore, the replat serves only to modify the internal lot lines into a suitable configuration for development. The present contemplated development is for six four-plexes to be developed on six lots on the western portion of the property labeled A thru F on the replat. These four-plexes will be developed per Conditional Use Permit No. ZA-78-169 as approved by the Zoning Hearing Examiner on May 16, 1978.

The remainder of the property labeled Tracts G and H will be developed in accordance with subsequent site plans which may require further summary plats for individual parcels.

OBJECTIVES:

The objectives of this report are to present a detailed drainage plan for the six four-plex site and to present a drainage management plan to be followed in subsequent developments on Tracts G and H. Both will conform to AMAFCA resolution 1972-2, in that the rate and volume for runoff leaving the site after development shall be no greater than the rate and volume prior to development.

LOCATION AND NATURAL SITE DRAINAGE:

The subject property is located in the Northeast Heights of Albuquerque. It is bounded on the north by vacant land, on the east by Juan Tabo Blvd., on the west by Muriel Street, and on the south by Phoenix Ave. (See site location map).

The natural drainage of the site is generally to the southwest. The drainage leaves the site and enters Muriel St. and Phoenix Ave. where it is carried south and west, thence southwest along Woodland Ave., thence south along Jane St. to Menaul Blvd. It then flows west along Menaul Blvd. approximately 2500 feet where it enters a storm sewer. That storm sewer flows to a drainage easement and channel which crosses Menaul Blvd. just east of Britt St. (See site location map). Approximately the east 40-50 feet of the property drains directly into Juan Tabo and south along Juan Tabo to enter an arroyo just south of Phoenix Ave. (See topographic map).

I. DETAILED DRAINAGE PLAN FOR FOUR-FLEX DEVELOPMENT SITE:

Attached is a drainage plan for the proposed development site. Since all lots will be developed identically, Lots E & F have been selected as being typical of the drainage solution and all calculations have been based on the drainage plan shown for them.

Attached are some sample calculations, as computed by the difference between volume (natural) and volume (developed). The required pond volume for each lot is 624 cu. ft., 1248 cu. ft. for Lots E & F combined. It is proposed, since the area is available, to retain 100% of the runoff generated within the designated drainage area. Using a composite runoff factor for the drainage area, the volume required to retain 100% of the runoff generated is computed as 1508 cu. ft. for Lots E & F combined. The 1508 cu. ft. of pond volume will be provided in the rear lot areas. Runoff will be routed into the ponds as shown on the attached site drainage plan.

To retain the grade difference, a retaining wall is proposed along the north, east, and south property lines as shown on the attached site drainage plan.

SUMMARY OF RECOMMENDATIONS:

In conclusion, the following are recommendations regarding drainage management for the proposed six four-plex site:

1. That 100% of the runoff generated within the designated drainage area be routed into the rear ponds as shown. This will insure that the runoff from the site is less after development as opposed to its natural state.
2. That the aforementioned retaining wall be provided.
3. That a means of pond overflow and channeling to Muriel Street, along the south side yard of Lot A, be provided to insure against flooding.

II. DRAINAGE MANAGEMENT PLAN FOR SUBSEQUENT DEVELOPMENT OF TRACTS G AND H:

Commercial development plans for Tracts G and H will require driveways to enter and exit from Juan Tabo Blvd. and Phoenix Ave. Along Juan Tabo Blvd., such driveways should be designed with a grade relative to the top of curb on Juan Tabo that only permits the easternmost portion of the property to drain into Juan Tabo to the extent that it presently does.

The remainder (western majority) of Tract G should be developed with appropriate ponding areas along the western boundary of Tract G. Such ponding areas would be computed by the difference between volume (natural) and volume (developed); and specifically located as appropriate to individual development plan(s).

Excess flow which is permitted to leave Tract G based upon a calculation of Q (natural) would be routed across the west boundary of Tract G into the ponding

areas on Lots A thru F as previously discussed. Such excess flow would then follow the overspill routing and channeling for Lots A thru F southward along the rear of those lots and westward along the south boundary of Lot A to Muriel St. A drainage easement for such routing has been provided on the replat. This method will avoid a duplication of routing along the west boundary of Tract G. (See Replat Drainage Routing Plan attached).

The required ponding areas so developed in Tract G would be arranged for overspill into the ponding areas of Lots A thru F so as to insure that only "clean" drainage leaves Tract G.

Tract H should be similarly developed with its own ponding areas and routing of excess runoff to Muriel Street to be calculated by the same methods as outlined above.

SUMMARY OF CONCLUSIONS:

1. That runoff allowed to enter Juan Tabo be limited to that runoff which presently does so.
2. That pond locations on Tract G and facilities for overspill across the west boundary of Tract G be designed to prevent erosion at such boundary.
3. That runoff permitted to leave Tracts G and H be calculated as a maximum of Q (natural) using C = 0.40 based upon the following:

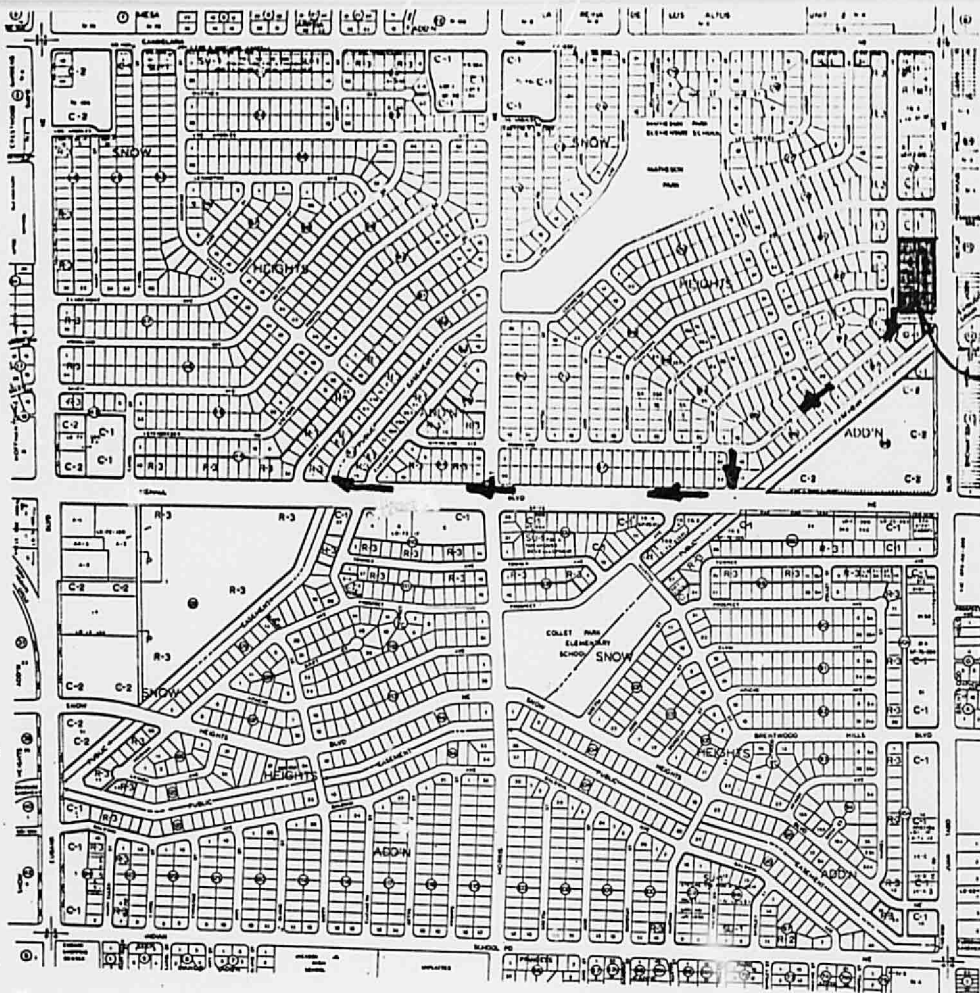
Natural Site Factors:

L = 500 feet

H = 11 feet

Tc = 4 minutes

$$I = \frac{189}{T+25} = \frac{189}{29} = 6.52 \text{ inches/hour}$$



SITE

OFF SITE DAMAGE

1" = 100'

LEGEND

ADON

ADON

ADON

ADON

ADON

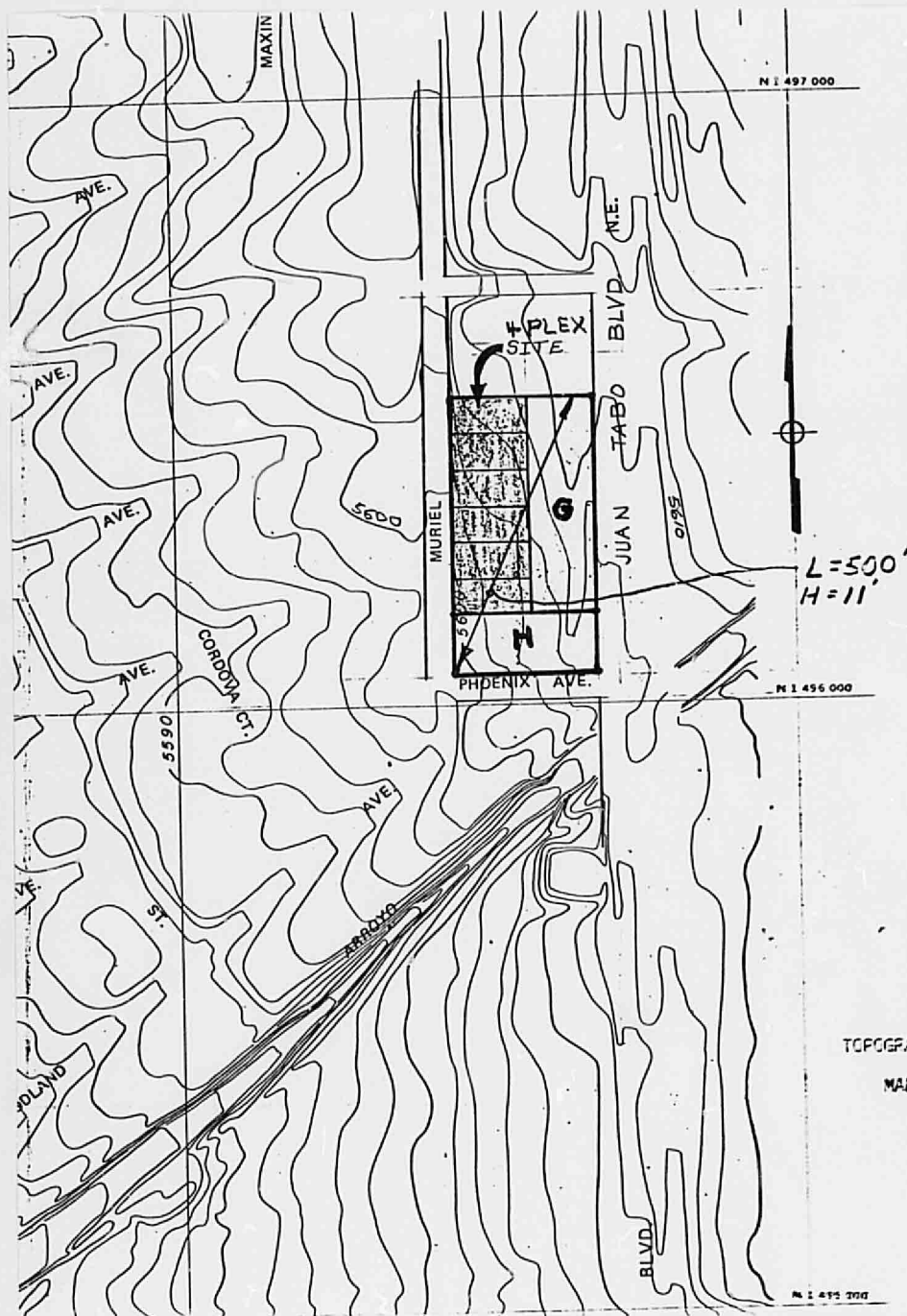
ADON

ADON

ADON

SITE LOCATION MAP

H-21-Z



CALCULATIONS

Required Volume of on site retention ponding.

$$= \text{Vol. (devel.)} - \text{Vol. (nat.)}$$

using: $C = 0.40$ for natural and developed pervious area.

$C = 0.95$ for all impervious areas.

$$\text{total rainfall} = 2.4" = 2.4/12 = 0.20'$$

TYPICAL LOT AREAS OF USE	
USE	AREA
Total	7620 s.f.
Buildings	3242 s.f.
Parking	1860 s.f.
Sidewalk	568 s.f.
Open (landscaped)	1950 s.f.

$$\text{Volume (Nat.)} = CA (0.20) = 0.40 (7620) 0.20 = 610 \text{ cu.ft.}$$

$$\text{Composite } C = \frac{(3242 + 1860 + 568) .95 + 1950 (.40)}{7620} = 0.81$$

$$\text{Volume (devel.)} = 0.81 (7620) 0.20 = 1234 \text{ cu.ft.}$$

$$\text{Required Volume of pond / lot} = 1234 - 610 = 624 \text{ cu.ft.}$$

It is proposed to capture 100% of the runoff generated within the drainage boundary. Using Lots E & F as being typical of the drainage plan, the composite C within the drainage boundary is:

$$\text{Composite } C = \frac{(2 \times 3242) .95 + [(1950 \times 2) - (5 \times 92)] .40}{(2 \times 3242) + (1950 \times 2) - (5 \times 92)} = 0.76$$

Cont.

Total Volume Captured = $0.76 (9924) 0.20 = 1505 \text{ cu. ft.}$

= 754 cu. ft./lot which is greater than
 624 cu. ft./lot as the computed required.

Pond Volumes

Note: all side slopes into ponds are 2:1 where
not adjacent to retaining wall.

ponds are intended to hold 1.0' in depth.

pond volume = pond bottom area $\times 1.0'$ + summation
of lineal footage of pond sides @ 2:1 slope
 $\times 1.0'$.

Lots E & F

bottom volume: $116' \times 12' \times 1' = 1392$

side slope volume: $(116 + 12) \times 1 = 128$

1520 cu. ft.

Lots C & D

bottom volume: $115 \times 12 \times 1 = 1380$

side slope volume: $(12 + 115 + 12) \times 1 = 139$

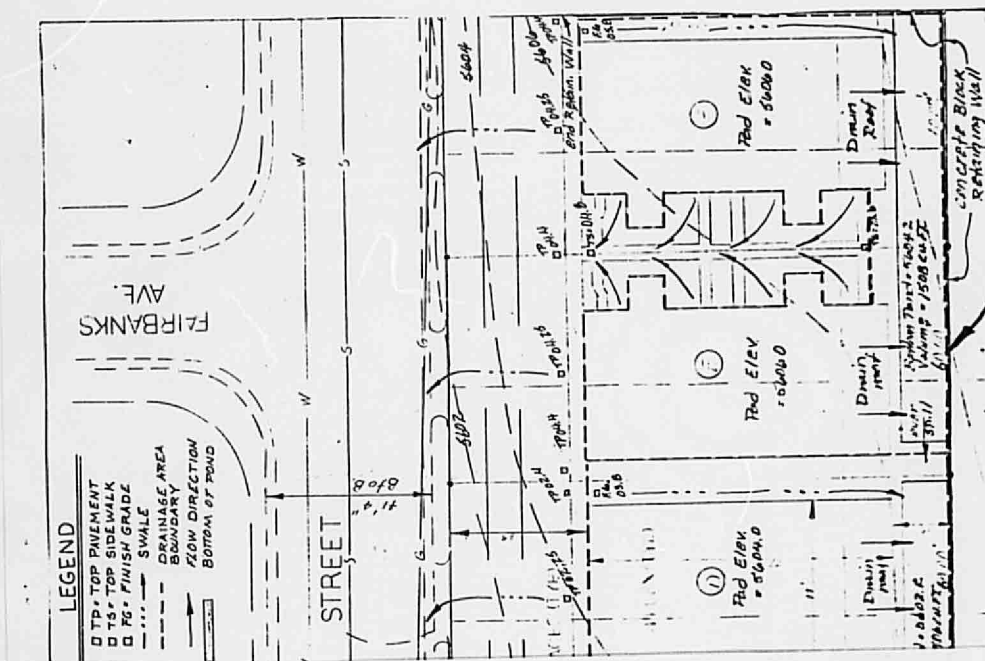
1519 cu. ft.

Lots A & B

bottom volume: $118 \times 12 \times 1 = 1416$

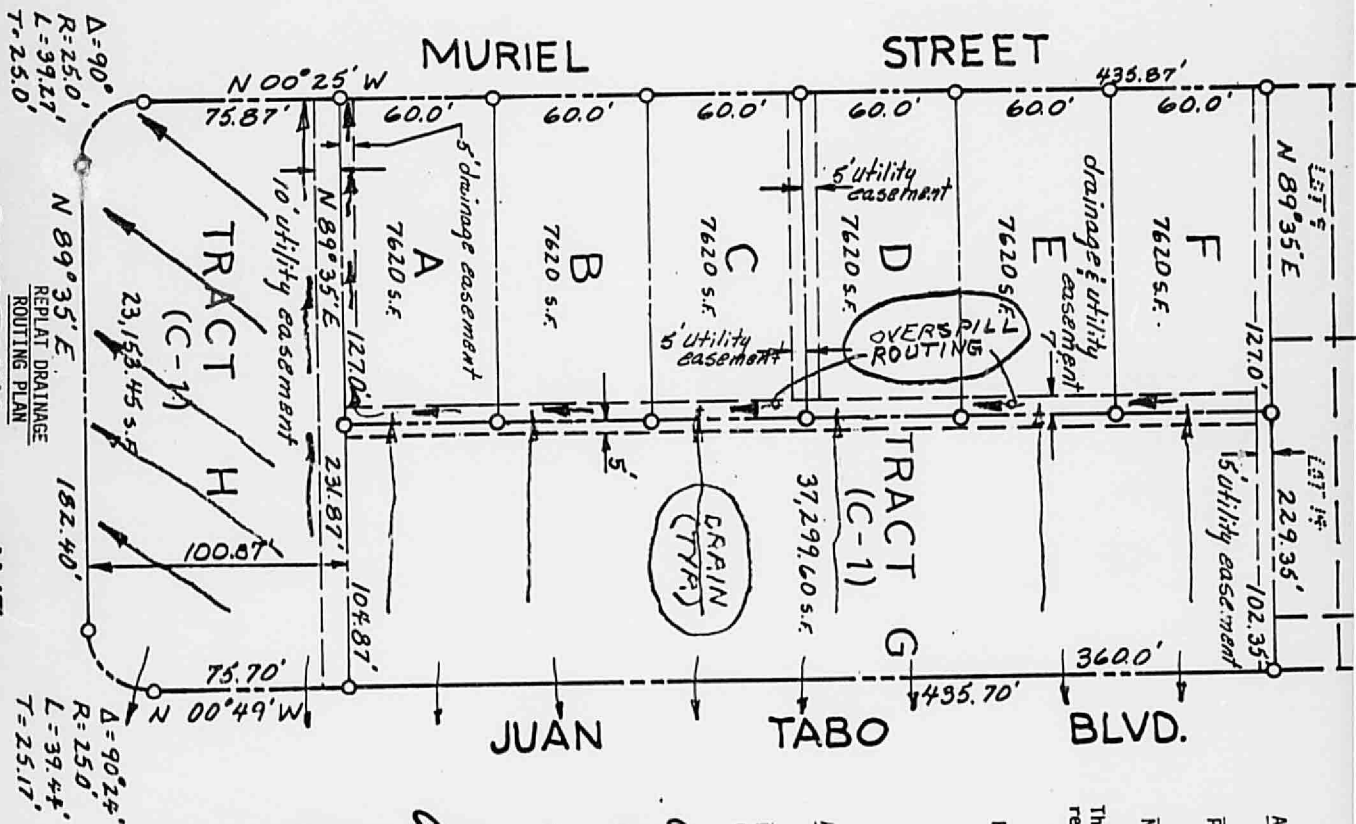
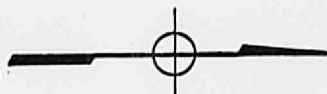
side slope area: $(118 + 12) \times 1 = 130$

1546 cu. ft.



NOTE: Provide 2" diameter weep holes through wall at 10' on center set at existing grade on east side of wall. Weep holes to be relocated as appropriate and required for overspill on subsequent development plans on Tract G.

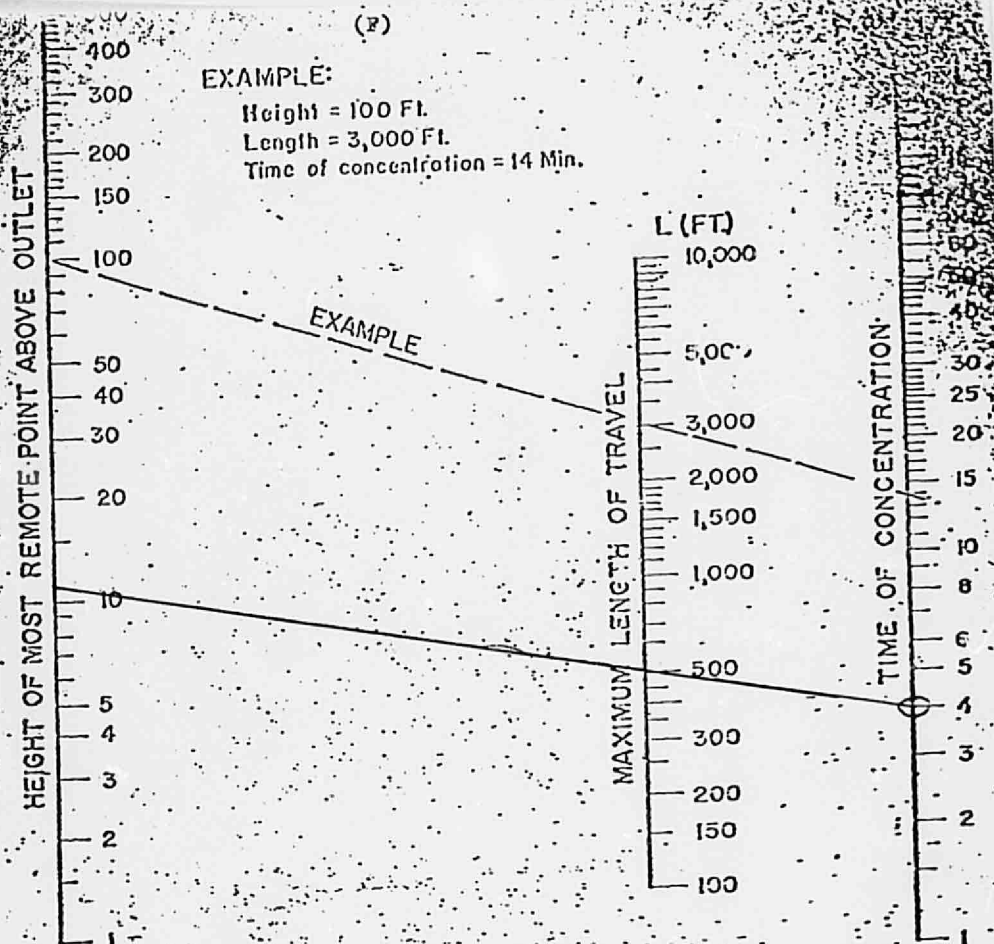
SCALE 1"=50'

By:

Chief

MOIST
FUDIT

 $\overline{\text{Gas } T}$



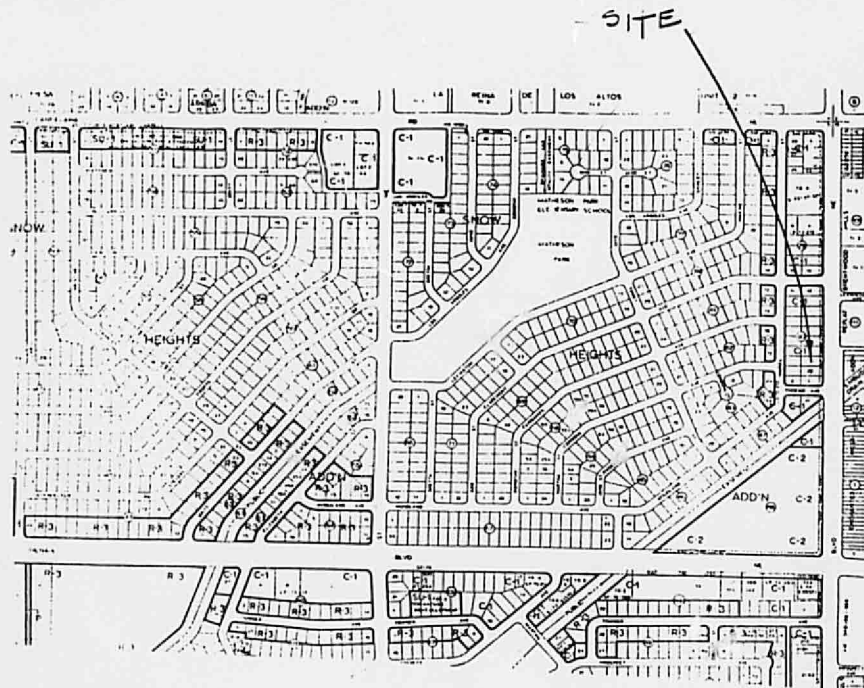
Based on study by P. Z. Kirpich,
Civil Engineering, Vol. 10, No. 6, June 1940, p. 332

TIME OF CONCENTRATION OF SMALL DRAINAGE BASINS

Reprinted from "Design of Roadside
Drainage Channels - Hydraulic Engineering
Circular No. 6", April 1962, U. S. Dept.

CITY OF AUBURN, QUE

SEWERAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



VICINITY MAP - H-21

Permit # 11492

H-21-D4

NOTICE TO CONTRACTOR

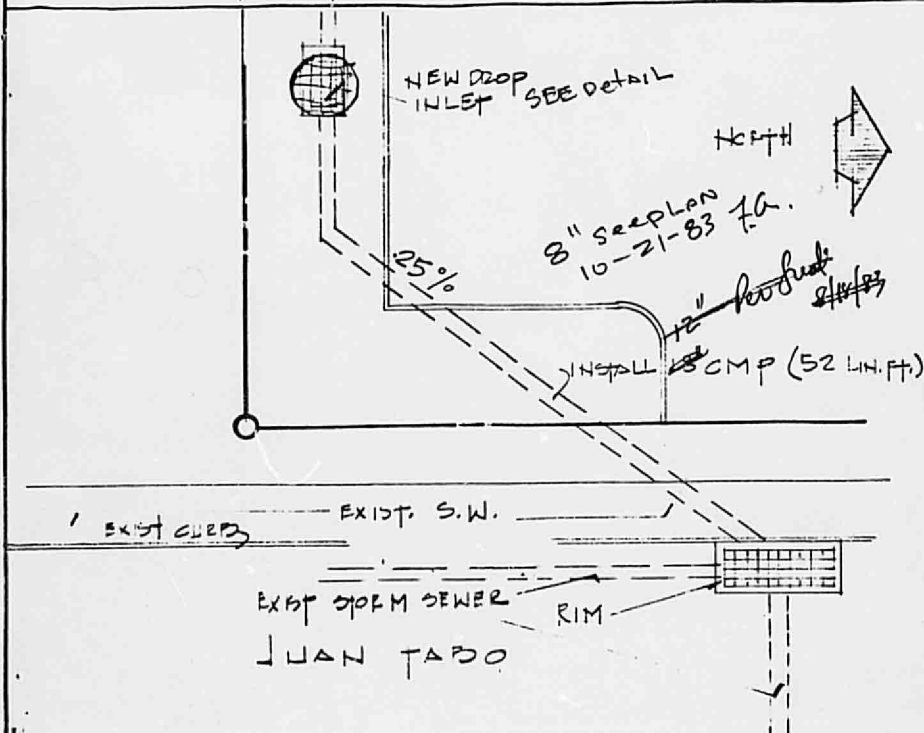
1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall 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 Arterial street use.

Legal: Tract G-2-B, Juan Tabo 2500 Sub-division B-66

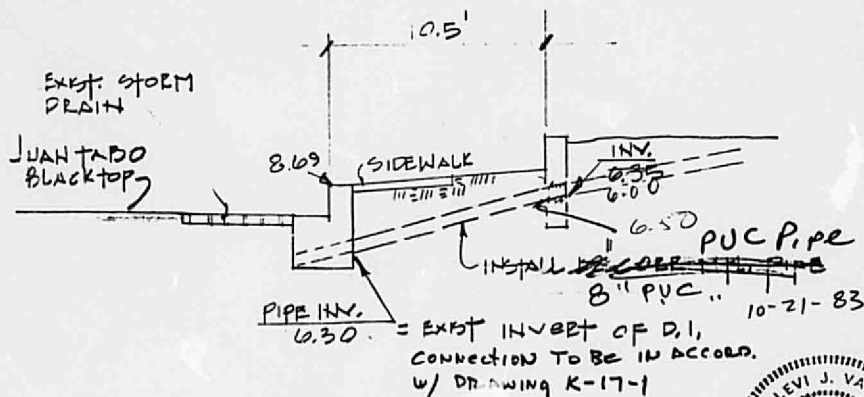
APPROVALS	NAME	DATE	TITLE
LCR/DESIGN	<i>[Signature]</i>	9/19/88	SANTA ANNE FLOOD
INSPECTOR	<i>[Signature]</i>	4-19-88	2601 JUAN TABO NE,
SE/FILED	<i>[Signature]</i>	4-20-88	SHEET 1 OF 2
			VAP No. H-21

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



PLAN



SECTION @ STORM DRAIN



APPROVALS	NAME	DATE	TITLE
AGE/DESIGN	A. Kelly	9/27/83	SANTA ANNA PLAZA
INSPECT	A. Salas	4/14/84	200 JUAN TABO NE,
SCB/FIELD	W. McManis	4/20/84	SHT 2 OF 2
			MAP NO H.21

VALDEZ ENGINEERING COMPANY

CIVIL ENGINEERING CONSULTANTS

P.O. BOX 3435

POJOAQUE STATION

SANTA FE, NEW MEXICO, 87105

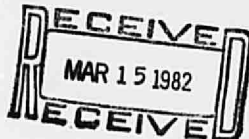
Phone 505-982-8612

MATERIALS TESTING
ENGINEERING
PLANNING

LEVI J. VALDEZ
REGISTERED PROFESSIONAL ENGINEER

March 12, 1982

Mr. Fred Aguirre, P.E.
Asst. Hydrogology Engineer
Public Works Dept.
Albuquerque, N.M.



Re: 2601 Juan Tabo, N.E. (File No. H-21-D4)

Dear Mr. Aguirre:

We are hereby submitting a revised drainage plan for the referenced site. The original site plan has been revised to show the as-built plan and revised ponding scheme.

The ponding will allow for controlled positive discharge to be ponded as shown and discharged into the drainage easement as provided in the drainage plan for the Juan Tabo 2500 Addition dated June 6, 1978 and approved on June 27, 1978.

The limits of the ponding areas are not within 15 feet existing footings or retaining walls.

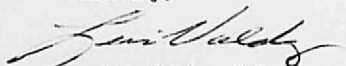
It is felt that the down stream conditions, i. e., the drainage easement and ponding area as provided in tracts A and B, (per above drainage plan), are adequate to provide for the runoff from Tract G-2-B. We concur with Mr. Neal Goodwin's evaluation as stated in his letter dated December 16, 1981 which states in part that "The system will function as intended and designed in the original plan; and, that it is adequate for handling whatever water you allow the office building to the East (2601 Juan Tabo, N.E.) to pass through". The runoff to be routed through the drainage easement will be as follows: 148 cubic feet as overflow from the parking lot runoff; 798 cubic feet as runoff from the roof; and 1266 cubic feet of controlled release positive flow from ponding area number one and through the discharge pipe at the Southwest corner of the property. All runoff from Tract G-2-B will flow through the drainage easement provided in Tracts A & B. The easement drains into the existing storm sewer system on Muriel Street.

Please refer to the site plan for original ground grades, proposed finish grades as originally approved and finish graded as-built. New proposed grades are also shown since the contractor must still excavate pond areas number one and two to bring the grades to necessary depth. A concrete bulkhead with an overflow section must also be constructed as shown and the discharge pipe at the southwest corner must be constructed as shown in the detail provided on the site plan. The positive discharge from this tract will not exceed 5 cubic feet per second.

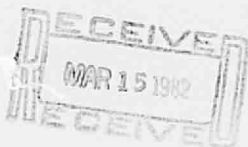
It is felt that the revised site plan as herein presented and the recommendations for work to be completed by the contractor will satisfy the items A thru N of your letter dated August 6, 1981.

Please contact our office if you should have any questions or if additional information is required.

Sincerely,



Levi J. Valdez, P.E.





8820 ACADEMY PARKWAY NORTH
128 PUEBLO LUNA, NW

• ALBUQUERQUE, NEW MEXICO 87109
87107

Professional Consultants

• PHONE (505) 344-3371
344-1433

Dec. 16, 1981

2-24

Mr. Fred Aguirre
Asst. Hydrology Engineer
Public Works Department
Albuquerque, NM

Re: Drainage from ponding areas located behind Juan Tabo 2500 Apartments.

Dear Mr. Aguirre:

Pursuant to our meeting at the above site on Nov. 20, 1981; we discussed this matter with the original developer of the site. The developer informed us that; several months ago following a heavy rainstorm they had already provided a positive drainage outlet to Muriel St. by excavation of a trench from the ponding area to the parking lot on the Muriel side of the apartments, along the south side of the apartment property.

We then went to the site and investigated. We found that in fact there is a trench just as the developer had stated; that the trench had been backfilled with course gravel; that it is of the proper depth and grade to provide positive drainage overflow. We opened the trench in three places and documented it's depth as shown in the attached photos.

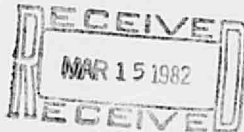
Photo 1 is near the parking lot, photo 2 is near the southeast corner of the apartments, and photo 3 is near the edge of the ponding area. The depths of the trench are clearly shown in all the photos. The bottom of the trench near the ponding area is slightly below the overflow elevation for the pond and the grade from there toward the parking lot is such as to correspond with the swale design of the originally approved drainage plan.

We are therefore of the opinion that this system will function as intended and designed in the original plan; and, that it is adequate for handling whatever water you allow the office building to the east to pass through.

We trust that this satisfies your needs in this matter. If you have any questions please advise.

Yours very truly,

Neal F. Godwin





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 4, 1982

Levi Valdez, P.E.
P. O. Box 3435
Pojoaque Station
Santa Fe, New Mexico 87501

REF: 2601 Juan. Tabo NE, Revised Drainage Plan Received 2/4/82 (H-21-D4)

Dear Mr. Valdez:

We have received your revised grading and drainage plan for Santa Anna Plaza (2601 Juan Tabo NE) submitted on February 4, 1982. I have reviewed the enclosed plan and found the majority of the items listed in my letter to you on August 6, 1981, have not been addressed. Therefore, before we can review and approve your revised plan, this office must have a comprehensive grading and drainage plan complying with my comments dated August 6, 1981.

If you have any questions regarding the above comments, please contact Mr. Bernie Montoya at 766-7644.

Sincerely,

Fred J. Aguirre, P.E.
Civil Engineer/Hydrology

FJA/BN/el

cc: Fred Aragon, Architect
Drainage File
Reading File

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467



VALDEZ

ENGINEERING CONSULTANT

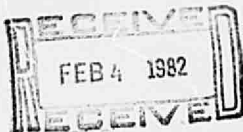
P.O. Box 3435 Pojoaque Station
Santa Fe New Mexico 87501
Phone: _____

Santa Fe New Mexico 87501
Phone: _____

LEVI J. VALDEZ
REGISTERED PROFESSIONAL ENGINEER

GRADING & DRAINAGE PLAN
FOR
SANTA ANNA PLAZA
2601 Juan Tabo N.E.
Albuquerque, N.M.

Mr. Fred J. Aguirre, P.E.
Asst. Hydrology Engineer
City of Albuquerque
Albuquerque, N.M.



Dear Fred:

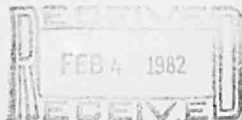
The grading and drainage plan for the above address is hereby submitted. Exhibit "A" shows the as-built grading plan and also shows work to be done by the contractor to bring this plan under compliance. These modifications are as follows: (1) construct a concrete bulkhead 15 feet from the South East corner of the building in the ponding area along the South property line, (2) construct a similar bulkhead along the ponding area at the North property line (3) Excavate ponding area number one to a depth of 18 inches and ponding area number two to a depth of 9 inches. (4) install an overflow pipe as shown at the Southwest corner of the property. One has been installed but it must be placed in concrete to prevent erosion.

Exhibit "B" shows the site plan and miscellaneous details. Exhibit "C" contains runoff and ponding computations.

This property is not located on any flood plain and there are no man made or natural drainages in the vicinity.

A drainage easement has been provided through the property West of the Santa Anna Plaza Development. As previously discussed with yourself and Mr. Goodwin the engineer for the adjacent property owners, the 5 foot easement will provide an outlet for overflow water to West. This drainage report for the Juan Tabo 2500 Addition, dated June 6, 1978 is on file in the City Engineer Office, and was approved by the City Drainage Engineer on June 27, 1978. It is assumed that any discrepancies between the above report and actual conditions will be corrected to allow routing of overflow from Tract G-2-B (Santa Anna Plaza).

Page 2
Grading & Drainage Plan
2601 Juan Tabo, N.E.



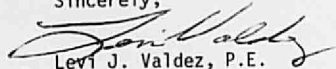
This property does not intercept any other drainage beyond its boundaries and does not block drainage from adjacent properties. The only water to be routed through the 5 foot drainage easement will be the water overflow from Tract G-2-B of the 2500 Juan Tabo Addition. Runoff from this parcel will be conveyed to the drainage easement as shown on Exhibit "A".

It is felt that the drainage provisions do not constitute an attractive nuisance or safety hazard. No ponding areas over 18 inches deep are to be constructed.

In summary, it is felt that the as-built grading plan is adequate to provide the necessary retention and to provide routing of overflow runoff through the drainage easement provided. The contractor must modify the site as shown on the drawings and as indicated in the first paragraph of this report.

Approval of this grading plan as presented is requested.

Sincerely,


Levi J. Valdez, P.E.





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 28, 1981

Levi Valdez, P.E.
P. O. Box 3435
Pojoaque Station
Santa Fe, New Mexico 87501

RE: 2601 Juan Tabo N.E. (File No. H-21-D4)

Dear Mr. Valdez:

Our survey of the 7' drainage and utility easement located immediately to the west of the referenced address clearly indicates the easement is not constructed per approved plan. Therefore, this office cannot allow the proposed storm runoff from the referenced site to be discharged into this easement, unless it can be demonstrated that this runoff can be conveyed to Muriel Street by way of the easements without adversely affecting the adjacent property owners.

Please advise this office when a revised drainage and grading plan will be submitted to this office for review. This allowed time will forestall any penalties (under section 205 of the City Building Code) from being invoked against the contractor and or owner.

If you have any questions about this matter, please feel free to call me at 766-7644.

Sincerely,

Fred J. Aguirre, P.E.
Civil Engineer/Hydrology

FJA/el

cc: Larranaga Construction
Owner/2601 Juan Tabo NE

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467



VALDEZ

ENGINEERING CONSULTANT

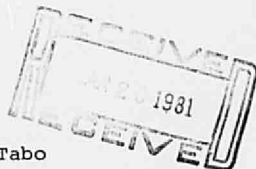
P.O. Box 3435 Pojoaque Station
Santa Fe New Mexico 87501
Phone:

1314 Apache St.
Santa Fe New Mexico 87501 471-8783
Phone:

LEVI J. VALDEZ
REGISTERED PROFESSIONAL ENGINEER

March 17, 1981

Mr. Fred Aguirre, P.E.
Assistant City Engineer
City of Albuquerque
Albuquerque, N.M.



Re: As built grading plan for 2601 Juan Tabo

Dear Mr. Aguirre:

In reference to the above referenced project we are hereby submitting the as-built plans prepared by Fred Aragon.

Note that the overflow from the ponding area along the South boundary of the property is to flow to the West and into ponding provided at the rear of Tracts A and B as stated in the drainage report for the Juan Tabo 2500 Addition dated June 27, 1978. The overflow will exit through a 4 inch diameter pipe through the concrete retaining wall. Runoff from the roof will also be allowed to drain into these ponding areas by providing no less than three cut sections in the rear retaining wall.

The contractor has been asked to excavate excess soil from the ponding areas to provide the allowable volume as shown on the site plan.

Please be advised that the ponding areas and the five foot drainage easement on Tracts A and B were not constructed as designed and therefore do not function as intended. Mr. Matonti will not take responsibility for any damages arising from runoff once it is deposited into the ponding areas on Tracts A and B.

It is felt the as-built grading plan for the development at 2601 Juan Tabo conforms to the requirements as stated in the drainage report for 2500 Juan Tabo dated June 27, 1978.

Please call if you should have any questions on the submittals.

Sincerely,



Levi J. Valdez, P.E.

**GODWIN
ENGINEERING
CORPORATION**

2820 ACADEMY PARKWAY NORTH
128 PUEBLO LUNA NW

• ALBUQUERQUE, NEW MEXICO 87110 •
87107

Professional Consultants

PHONE (505) 345-8371
344-1433

February 23, 1981

Murchison-Zimmer International Service Co., Inc.
P.O. Box 14577
Albuquerque, NM 87191

Re: Drainage from Santa Anna Plaza Building property
located at 2601 Juan Tabo NE, Albuquerque, NM

Gentlemen:

In accordance with your request and pursuant to a letter to you from Levi J. Valdez, P.E., dated February 12, 1981; we have this date made a field inspection of the conditions affecting and relating to the request by Mr. Valdez for a drainage easement across your property. We have also discussed this matter with Mr. Fred Aguirre, Assistant Drainage Engineer of the City Engineer Office; and reviewed with him the drainage report for the Juan Tabo 2500 Addition, dated June 6, 1978, which is on file in the City Engineer Office, and was approved by the City Drainage Engineer on June 27, 1978.

We understand that the City has other concerns regarding the drainage from Tract G-2-B in addition to the routing of pond overflow. Such concerns relate to the capacity of the pond provided and to its manner of construction. However, we are not addressing those issues. We have confined our attention to the question of flow crossing your property or an alternate route for that flow.

Please refer to the attached sketch plan and the attached photographs numbered (1) thru (8).

The above mentioned Drainage Report for the Juan Tabo 2500 Addition anticipated that all overflow drainage from Tract G-2-B would be directed westerly across the west line of that tract and into the ponding area provided on the rear of Tracts A & B. That drainage Report further contemplated that there would be NO drainage cross the south line of Tract G-2-B onto your property. Subsequently, the pond on Tract A & B along with the outflow therefrom was designed accordingly. Unfortunately, the pond area on the west end of your property was not designed to take any extra drainage from Tract G-2-B.

Therefore, we do not beleive that any drainage should be routed from Tract G-2-B onto or thru your property.

06-69
RECEIVED
FEB 27 1981
CITY ENGINEER

Murchison- Zimmer
February 23, 1981
Page Two

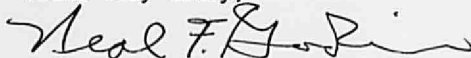
As an alternative, we suggest that it would be better to fulfill the intent of the original Drainage Report by placing an overflow pipe from the indicated ponding area on Tract G-2-B, underneath the sidewalk at the southwest corner of the building, and thru the rear fence to discharge into the existing pond on the rear of Tract A. This installation would be fairly simple to do and would involve only a minor cost to Tract G-2-B.

Although not a part of the immediate question; we call your attention to the following point which may be of future concern. That is that the existing retaining wall along the south side of Tract G-2-B has several cracks (see photographs numbered 1 thru 5) such that if the ponding area on that tract were to be filled with water, it appears that there might be considerable leakage thru the wall onto your property. Such an event might then become a point of contention as another violation of the Drainage Plan requirements for Tract G-2-B.

For the benefit of those responsible for the construction of drainage facilities on Tract G-2-B; we offer the following observation. If the onsite ponding volume requirement can be satisfied with waters derived from the front portions of Tract G-2-B, it might be beneficial to penetrate the wall or curb along the rear of the rear sidewalk, at the sidewalk level, so that water from the rear roof area could go directly into the pond on the rear of Tracts A & B; instead of routing it to the onsite area and then doubling it back thru the overflow pipe. If such penetrations were to be made, they should occur at several places in order to be effective.

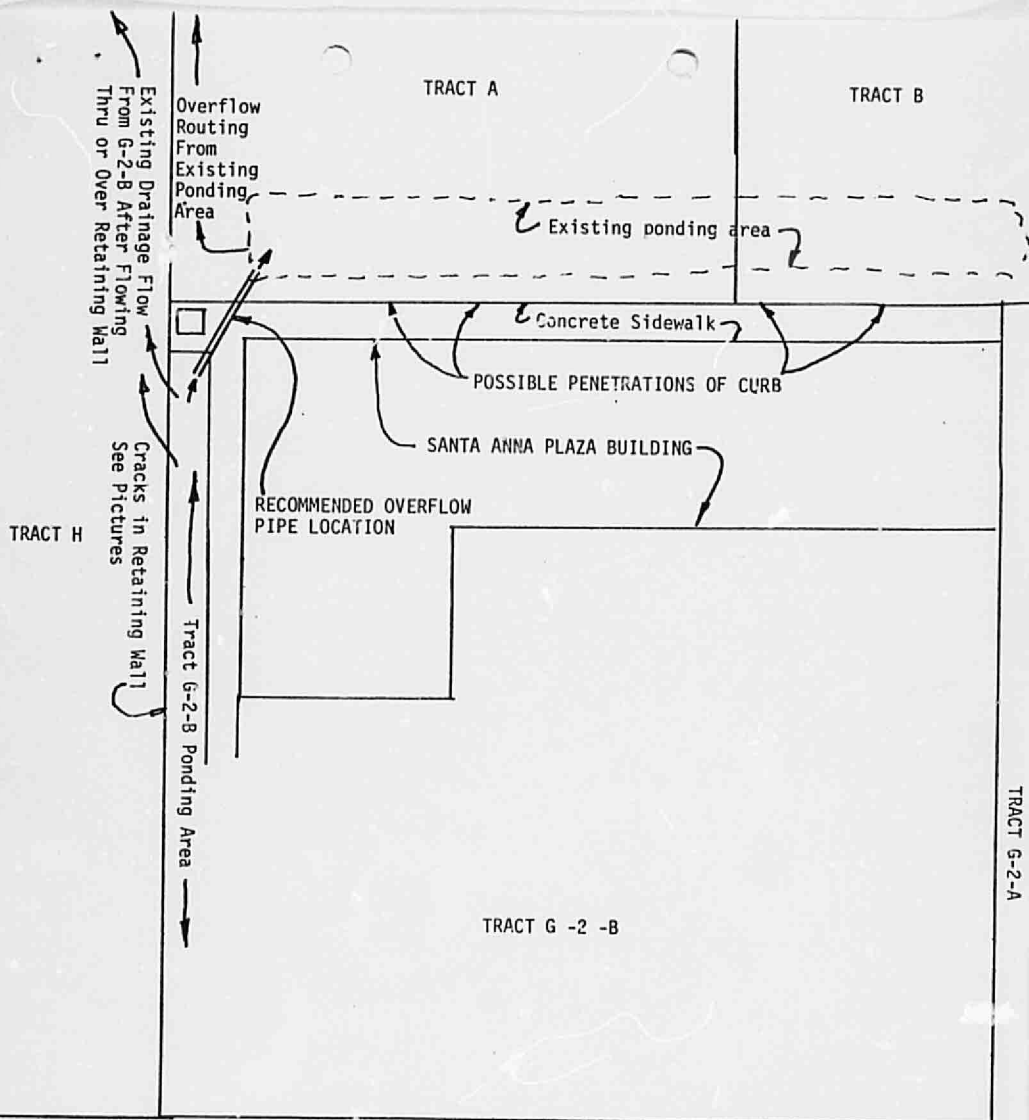
We are sending copies of this communication directly to Messrs. Valdez and Larranaga along with our statement of charges for its preparation. We will be happy to answer any questions you or other interested parties may have.

Yours very truly,



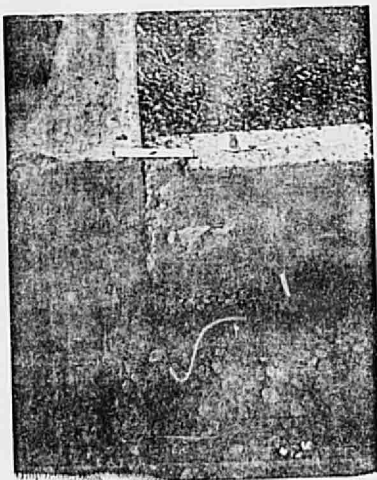
Neal F. Godwin





SKETCH PLAN OF
2601 Juan Tabo NE
(not to Scale)



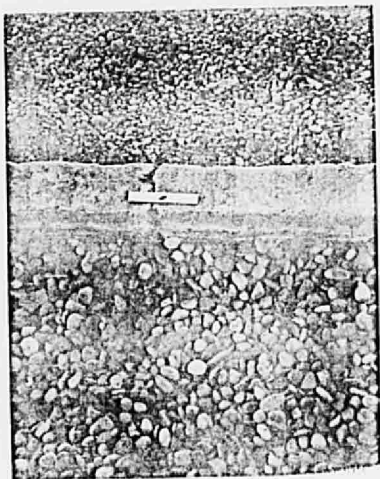
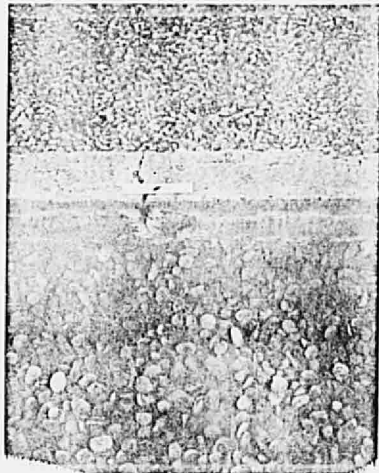
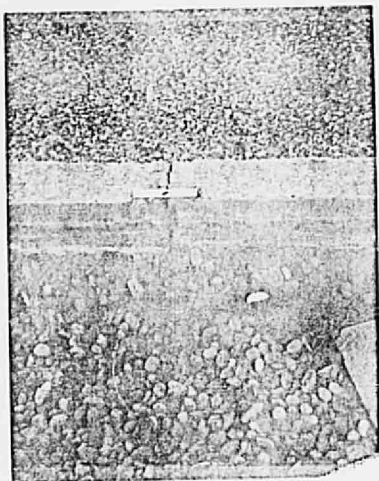


(1) Crack thru retaining wall joint with transformer pad near SW corner Tract G-2-B

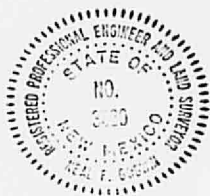


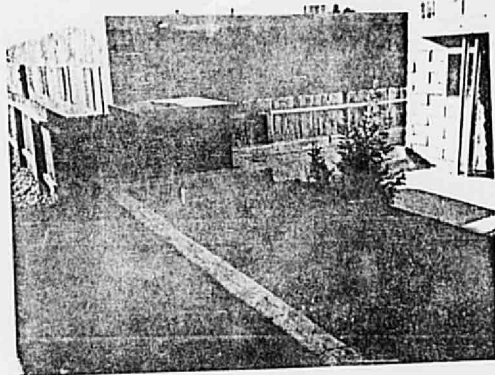
(2) Crack in retaining wall south side Tract G-2-B



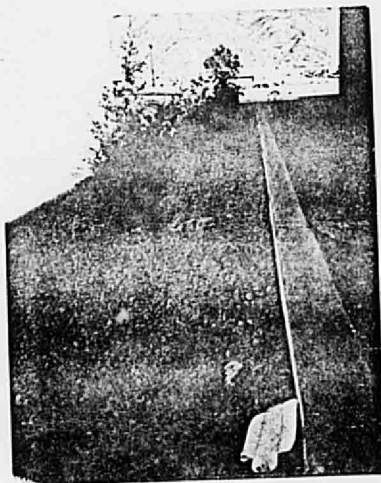


(3), (4), (5) Cracks in
retaining wall along
south side of Tract G-2-B

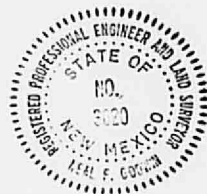


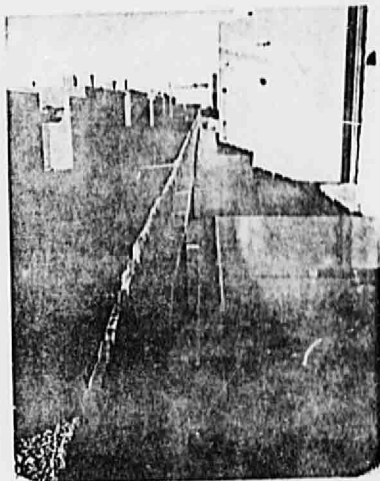


(6) Looking Westerly at west end of ponding area
along south side of Tract G-2-B

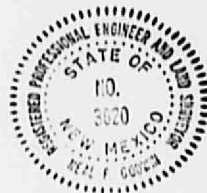


(7) Looking Easterly along
ponding area along south
side of Tract G-2-B





(8) Looking Northerly at concrete sidewalk
between building and west side of Tract G-2-B





**GODWIN
ENGINEERING
CORPORATION**

Professional Consultants

3820 ACADEMY PARKWAY, NORTH • ALBUQUERQUE, NEW MEXICO 87109 • PHONE (505) 345-8371

June 29, 1978

02-40

Mr. Bruno Conegliano
Assistant City Engineer/Hydrology
P.O. Box 1293
Albuquerque, NM 87103

RE: Proposed office building development on Tract G-1 of Juan Tabo 2500 Addition

Dear Bruno:

Herewith please find 2 prints of our grading and drainage plan as prepared for the above referenced development. This plan was prepared in accordance with "Drainage Report for Juan Tabo 2500 Addition" dated 5/15/78, revised 6/26/78, prepared by Godwin Engineering Corporation and approved by your office on 6/27/78.

This accompanying plan is submitted for your review as necessary for the issuance of a building permit for the proposed office building on Tract G-1.

We appreciate your cooperation and assistance in this matter. If you have any questions regarding the above, please advise.

Yours very truly,

Neal F. Godwin

NFG:mjb
cc: Hugh Hood