

CALCULATIONS DRAINAGE

EXISTING CONDITIONS:

The site is located at the intersection of Amherst Drive, N.E., and Alta Monte Avenue, N.E., both of which are paved with standard curb and gutter. The site is in Candelaria Business Center. The approved grading and drainage plan for Candelaria Business Center (Hydrology File No. G16/D57) shows a plan for developing the portion of the center which lies north of the drainage easement and which encompasses this site. The plan shows runoff being directed to the existing drainage easement. There is a 66" RCP storm drain line directly south of the site in the drainage easement that was, at one time, a concrete-lined open channel. The site is presently undeveloped and slopes steeply away from the streets and then more gently in a westerly direction. The owner of this site also owns the lot directly to the west which is Tract A-3-A-1-C.

PROPOSED CONDITIONS:

It is proposed to develop the site as shown on the plan. The site is proposed to discharge to the existing drainage easement where it will flow on the surface to the first inlets which are roughly 600 feet west of the site in the existing drainage easement. Any runoff that bypasses the inlets will enter the open channel at the west boundary of Candelaria Business Center. The site is very near the A.M.A.F.C.A. North Diversion Channel. Therefore, the storm runoff from this site will have reached the North Diversion Channel before the peak flow in the 66" storm sewer is reached. Since the owner of this site also owns the site to the west, the slope is allowed to ncroach along the north end of the west property line.

DRAINAGE CRITERIA:



The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology, of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Arroyo Flood Control Authority, January 1993.

PRECIPITATION ZONE:

The site is east of the Rio Grande River but west of San Mateo Boulevard and is, therefore, in Precipitation Zone 2.

EROSION CONTROL REQUIREMENTS:

The contractor shall be responsible for compliance with the following:

- No sediment-bearing water shall be allowed to discharge from the site during
- During grading operations and until the project has been completed, all adjacent property, rights-of-way, and easements shall be protected from flooding by runoff
- Should the contractor fail to prevent sediment-bearing water from entering public right-of-way, he shall promptly remove from the public right-of-way any and all sedimentation originating from the site.
- Control of sediment-bearing waters will be accomplished by use of a compacted earth berm of adequate height. The berm shall be located along the downstream perimeter

CONSTRUCTION NOTES:

from the site.

- UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHITHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
- THIS PLAN SHOWS VERTICAL GRADES AND DISPOSITION OF STORM WATER RUNOFF. NO DIMENSIONS ARE SHOWN ON THIS PLAN. FOR DIMENSIONS OF BUILDING AND PAVING LAYOUT, PLEASE SEE ARCHITECTURAL SITE PLAN.

LAND TREATMENT AREAS, EXCESS PRECIPITATION AND UNIT PEAK DISCHARGE:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 2 in the table below, the values contained in which are from the City of Albuquerque, D.P.M. Also shown are the existing and proposed land treatment areas.

Land	a		E		Exist	ting Site	Areas	Deve	eloped Sit	e Areas	
Treatment	100-V	r 10-vr	100-vr	10-year	%	Sq. Ft.	Acres	%	Sq.Ft	Acres.	
Α	1.56	0.38	0.53	0.13	100.0	44,002	1.0101	26.8	11,803	02710	
В	2.28	0.95	0.78	0.28	0.0	. 0	0.0	0.0	0	0.0	
С	3.14	1.71	1.13	0.52	0.0	0	0.0	0.0	0	0.0	
D -	4.70	3.14	2.12	1.34	0.0	0	0.0	73.2	32,199	0.7391	
Totals					100.0	44,002	1.0101	100.0	44,002	1.0101/	

WEIGHTED UNIT PEAK DISCHARGE VALUES:

Existing	9W100	=	1 56.	cfs/acre
	QIAMO	=	0.38	cfs/acre

= 0.2710 X 2.28 + 0.7392 X 4.70 = 4.09 cfs/acre = 0.2710 X 0.95 + 0.7392 X 3.14 = 2.58 cfs/acre

WEIGHTED EXCESS PRECIPITATION:

Existing $E_{W100} = 0.53 \text{ in.}$ = 0.13 in.

 $= 0.2710 \times 0.78 + 0.7392 \times 2.12 = 1.78 \text{ in.}$ = 0.2710 X 0.28 + 0.7392 X 1.34 =1.07 in.

SUMMARY OF VOLUMES AND PEAK DISCHARGE RATES

	<u>V100</u>	V10	Q100	Q10
EXISTING DEVELOPED	1,943. 6,527	477 3,923	1.56 4.09	0.38 2.58
INCREASE	4.584	3,923	2.53	2.20

CAPACITY OF 8" DIA. PVC PIPE UNDER DOCK:

Area draining to the inlet = $80 \times 44 + 100 \times 125 + 16 \times 80 = 17300 \text{ sf} = 0.40 \text{ ac.} = A_T$ $A_D = 80 \times 44 = 3520 = 20\% A_T$ $A_C = 13780 = 80\% A_T$

 $q_W = 0.8 \times 3.14 + 0.2 \times 4.70 = 3.45 \text{ cfs/acre.}$ $Q_{100} = 0.4 \times 3.45 = 1.38 \text{ cfs}$ $E_W = 0.8 \times 1.13 + 0.2 \times 2.12 = 1.33 \text{ in.}$ $V_{100} = 17,300 \times (1.33 / 12) = 1917 \text{ cf}$ Use Orifice Equation: Q = CA(2gh)1/2 C = 0.6 A = 0.3491 H = 0.67 ft.
Q = 0.6 X 0.3491 (2 X 32.2 X 0.67)1/2 = 1.38cfs Therefore the 8" PVC pipe is adequate for the 100-year peak discharge with the head above the pipe not rising above the top of the grate. In the event that the pipe or grate should become plugged, the water will overflow through the

OFF-SITE FLOW:

The site has no off-site flow. The existing lots are paved with curb and gutter and the high point in the street is at the intersection of Amherst Drive and Alta Monte Avenue.

BENCH MARK:

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON ACS STATION "P-225", WITH AN ELEVATION OF 5099.957.

LEGAL DESCRIPTION:

TRACT LETTERED A-THREE-A-1-D (A-3-A-1-D) OF THE PLAT OF TRACTS A3A1A, A3A1B, A3A1C AND A3A1D, CANDELARIA BUSINESS CENTER, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, AS THE SAME ARE SHOWN AND DESIGNATED ON THE PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON AUGUST 09, 1995 IN VOLUME 95C, FOLIO 295.

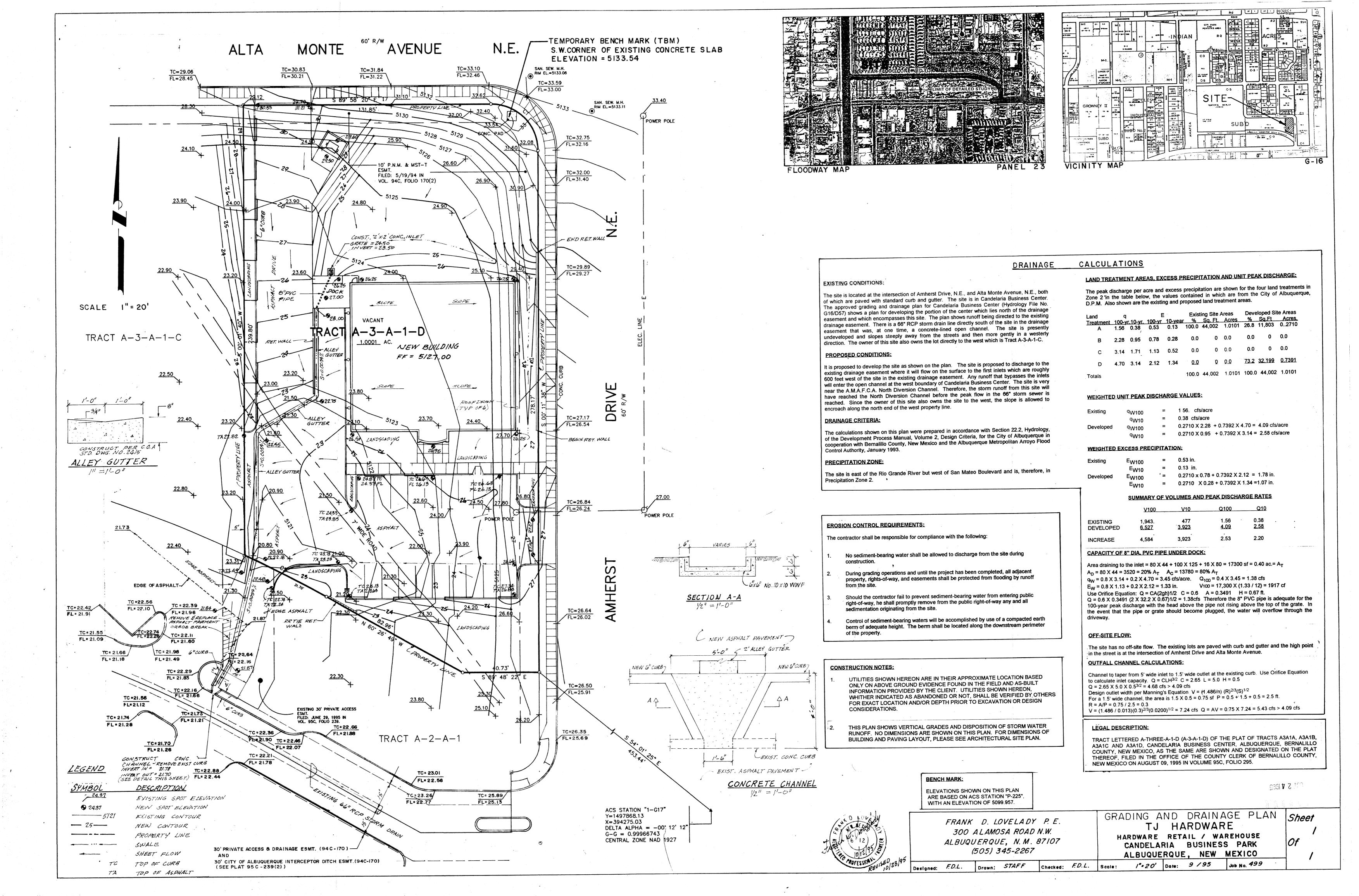


FRANK D. LOVELADY P. E. 300 ALAMOSA ROAD N.W. ALBUQUERQUE, N.M. 87107 (505) 345-2267

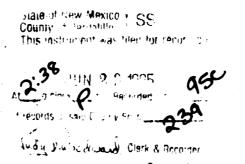
Designed: F.D.L. Drawn: STAFF Checked: F.D.L. Scale: 1"=20' Date: 9 /95 Job No. 499

GRADING AND DRAINAGE PLAN TJ HARDWARE HARDWARE RETAIL / WAREHOUSE CANDELARIA BUSINESS PARK

ALBUQUERQUE, NEW MEXICO



95064385



PLAT OF

TRACT A-2-A-1 AND A-3-A-1

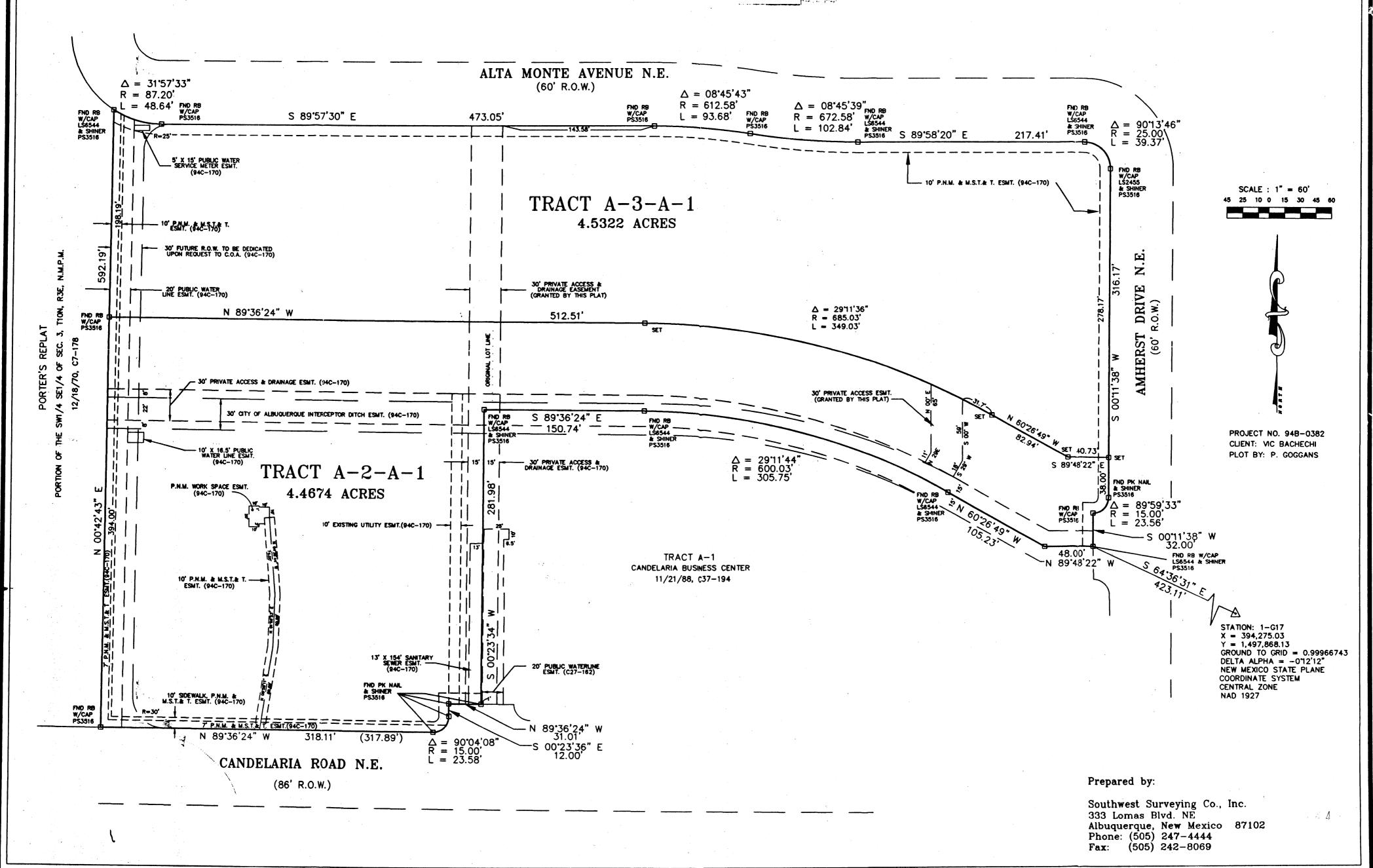
CANDELARIA BUSINESS CENTER

SECTION 03 T.10.N., R.3.E., N.M.P.M.

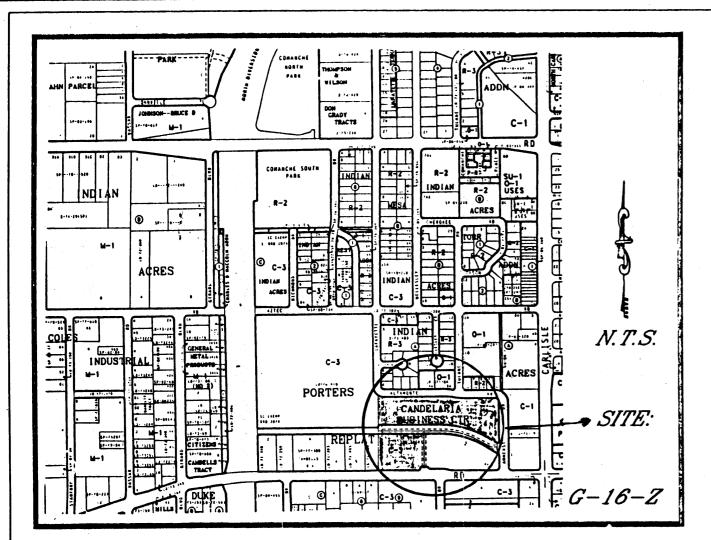
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

JUNE 1994

SHEET 2 OF 2



1994.



State of New Mexico : SC County of Beinglillic This instrument was fried for enally un-

LEGAL DESCRIPTION:

TRACTS LETTERED A-2-A AND A-3-A OF THE CANDELARIA BUSINESS CENTER, AS THE SAME IS SHOWN AND DESIGNATED ON THE MAP OF SAID PLAT, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON MAY 19, 1994 IN VOLUME 94C FOLIO 170.

TRACT A-2-A-1 AND A-3-A-1

SECTION 03 T.10.N., R.3.E., N.M.P.M.

ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

CANDELARIA BUSINESS CENTER

PLAT OF

JUNE 1994

SHEET 1 OF 2

FREE CONSENT

BY: MY

95064385

THE UNDERSIGNED OWNER(S) AND PROPRIETOR(S) OF THE PROPERTY DESCRIBED HEREON DO HEREBY CONSENT TO THE PLATTING OF SAID PROPERTY AS SHOWN HEREON AND THE SAME IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THEIR DESIRES AND DO HEREBY REPRESENT THAT THE UNDERSIGNED INDIVIDUALS ARE AUTHORIZED TO SO ACT. AND DO HEREBY SPANT ADDITIONAL EASEMENTS) AS SHOWN HEREON.

OWNER(S) SIGNATURE: Jimes OWNER(S) PRINT NAME: Jimes ADDRESS OBOX 25500 ALL	Okuder -	A. U.P.	DATE: 7/6/94
OWNER(S) PRINT NAME:	the B. Alexand	er	
ADDRESS POBOX 25500 AIL	NM 87/25-	0500	TRACT: A - 3 - A
	OCC.	,	

CKNOWLEDGMEN'	r ,
TATE OF NEW M	IEXICO)
OUNTY OF BERN	

THIS INSTRUMENT WAS ACKNOWLEDGED BY:	BEFORE ME THIS 6 DAY OF July
MY COMMISSION EXPIRES:	(are him unser
9/25/96	NOTARY PUBLIC

APPROVALS: 59-95-150	DRB NO.: 94-050
Wirl Club.	071994
CIT? SURVEYOR	DATE
Lichard Jones	7.26.99
TRAFEIC ENGINEERING	DATE
Came Chaves	7-26-94
PARYS & GENERAL SERVICES Kane	7-28-94
UTILITY DEVELOPMENT DIVISION	DATE
NA NA	
REAL PROPERTY DIVISION	DATE
Jan Jugar	7-27-11
A.M.A.F.C.A.	DATE
Jana / Work	7-27-77
CITY ENGINEER	DATE
Clark Claus	6-28-95
CUY PLANNER, ALBUQUERQUE PLANNING DIVISION	ON DATE

SURVEYOR'S CERTIFICATION

I, FRANKLIN E. WILSON, A REGISTERED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE CF NEW MEXICO, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME OF UNDER MY SUPERVISION, MEETS THE MINIMUM REQUIREMENTS OF MONUMENTATION AND SURVEYS OF THE ALBUQUERQUE SUBDIVISION ORDINANCE, AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNC VLEDGE AND BELIEF.

SOUTHWEST SURVEYING CO., 'NC. 333 LOMAS BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87102 PHONE: (505) 247-4444 FAX: (505) 242-8069

VICINITY MAP

OWNER(S) SIGNATURE: A LANGE CARLO NC.-VICTOR BACHECHI, PRESIDENT ADDRESS: PO Box 25966 - Alby, NM 11125 DATE: 1-5-94 TRACT: A-2-A ACKNOWLEDGMENT STATE OF NEW MEXICO COUNTY OF BERNALILLO MY COMMISSION EXPIRES: 8-8-95

DISCLOSURE STATEMENT:

THE PURPOSE OF THIS PLAT IS TO CREATE TWO (2) NEW TRACTS FROM TWO (2) EXISTING TRACT OF LAND.

SUBDIVISION DATA / NOTES

- 1. PLAT WAS COMPILED USING EXISTING RECORD DATA & ACTUAL FIELD SURVEY.
- ALL CORNERS IDENTIFIED AS "SET" WERE SET WITH A NO. 4 REBAR & CAP STAMPED "LS6446", UNLESS OTHERWISE NOTED.
- 3. BEARINGS ARE STATE PLANE GRID BEARINGS, CENTRAL ZONE.
- 4. DISTANCES ARE GROUND DISTANCES.
- PLAT SHOWS ALL EASEMENTS OF RECORD.
- 6. GROSS ACREAGE: 8.9997 ACRES
- 7. NUMBER OF EXISTING TRACTS: 2

8. NUMBER OF TRACTS/LOTS CREATED: 2

EASEMENT NOTES:

- The private access and drainage easements are provided on Tract A-2-A-1 and Tract A-3-A-1 for the use and benefit by and for the owners/users of Tracts A-1, A-2-A-1 and A-3-A-1 and will be maintained by the owners/users of Tracts A-2-A-1 and A-3-A-1 as
- The private sanitary sewer easement across Tract A-2-A-1 is provided for the use and benefit of Tract A-1 and will be maintained by the owner of said tract.

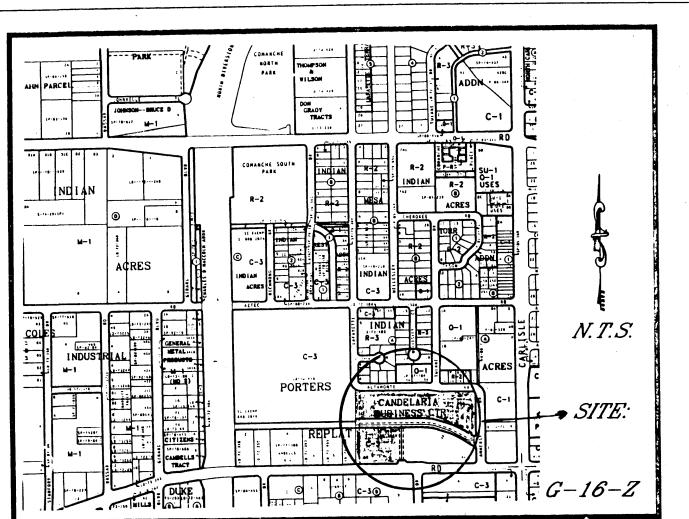
#1 and #2 Existing per Candelaria Business Center as filed November 21, 1988 in Volume C37, folio 194.

"Any further development on these properties will cause the developer to complete the waterline construction as identified in the existing Subdivision Improvements Agreement."

THIS IS TO CERTIFY THAT TAXES ARE CURRENT & PAID ON UPC#: 1-016-060-414-080-40217, 1-016-060-443-049-40216

PROPERTY OWNER OF RECORD:

Cano Fre Summest Bank of alleging 1 BERNALILLO COUNTY TREASURER'S OFFICE: Benevia Santillares 42995



VICINITY MAP

OWNER(S) SIGNATURE:

OWNER(S) PRINT NAME: CARIO INC.-VICTOR BACHECHI, PRESIDENT

ADDRESS: PO Box 25966 - Alby. NM 11125

ACKNOWLEDGMENT
STATE OF NEW MEXICO

).SS

COUNTY OF BERNALILLO

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 5 DAY OF July

BY:

MY COMMISSION EXPIRES:

NOTARY PUBLIC

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BERNALILLO COUNTY TREASURER'S OFFICE:

Benerta Santillares 4-2995

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PLAT OF

TRACT A-2-A-1 AND A-3-A-1

CANDELARIA BUSINESS CENTER

SECTION 03 T.10.N., R.3.E., N.M.P.M.

ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

JUNE 1994

SHEET 1 OF 2

State of New Mexico 3 SS County of Bernalillo 3 SS This instrument was fried for record on

ACCO'CLOCK CIN Recorded in VOSA records of said County Folio 234

LEGAL DESCRIPTION:

TRACTS LETTERED A-2-A AND A-3-A OF THE CANDELARIA BUSINESS CENTER, AS THE SAME IS SHOWN AND DESIGNATED ON THE MAP OF SAID PLAT, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON MAY 19, 1994 IN VOLUME 94C FOLIO 170.

FREE CONSENT

THE UNDERSIGNED OWNER(S) AND PROPRIETOR(S) OF THE PROPERTY DESCRIBED HEREON DO HEREBY CONSENT TO THE PLATTING OF SAID PROPERTY AS SHOWN HEREON AND THE SAME IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THEIR DESIRES AND DO HEREBY REPRESENT THAT THE UNDERSIGNED INDIVIDUALS ARE AUTHORIZED TO SO ACT. AND DO HEREBY CRANT ADDITIONAL EASEMENT(S) AS SHOWN HEREON.

OWNER(S) SIGNATURE: Jimble Claude - A. V. P. DATE: 7/6/94
OWNER(S) PRINT NAME: The fact B. Alexander
ADDRESS POBOX 25500 All NM 87/135-0500 TRACT: A-3-A

ACKNOWLEDGMENT
STATE OF NEW MEXICO
).S:
COUNTY OF BERNALILLO
)

Mymormiss in the DAY OF Teller

CAROL MIN DIGER

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 6 DAY OF BY:
MY COMMISSION EXPIRES:

9/25/96

NOTARY PUBLIC

APPROVALS: 57-95-150	DRB NO.: 94-050
Wil Chil	071994
CIT! SURVEYOR	DATE
TRAFFIC ENGINEERING	7.26-99 DATE
PARKS & GENERAL SERVICES	7-26-94 DATE
Robert W. Chane	7-28-94
UTILITY DEVELOPMENT DIVISION	DATE
REAL PROPERTY DVINOV	7-21-11
A.M.A.F.C.A.	7-29-91
CITY ENGINEER	DATE 6-28-95
CLY PLANNER, ALBUQUERQUE PLANNING DIVISIO	ON DATE

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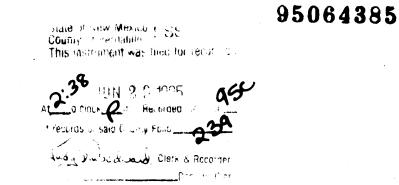
FRANKLIN E. WILSON, N.M.L.S. NO. 6446

SOUTHWEST SURVEYING CO., 'NC. 333 LOMAS BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87102 PHONE: (505) 247-4444 FAX: (505) 242-8069

TRANSFER\SCOTT\94B-03B2 Wed Jun 29 11:25:42 1994

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PLAT OF

TRACT A-2-A-1 AND A-3-A-1

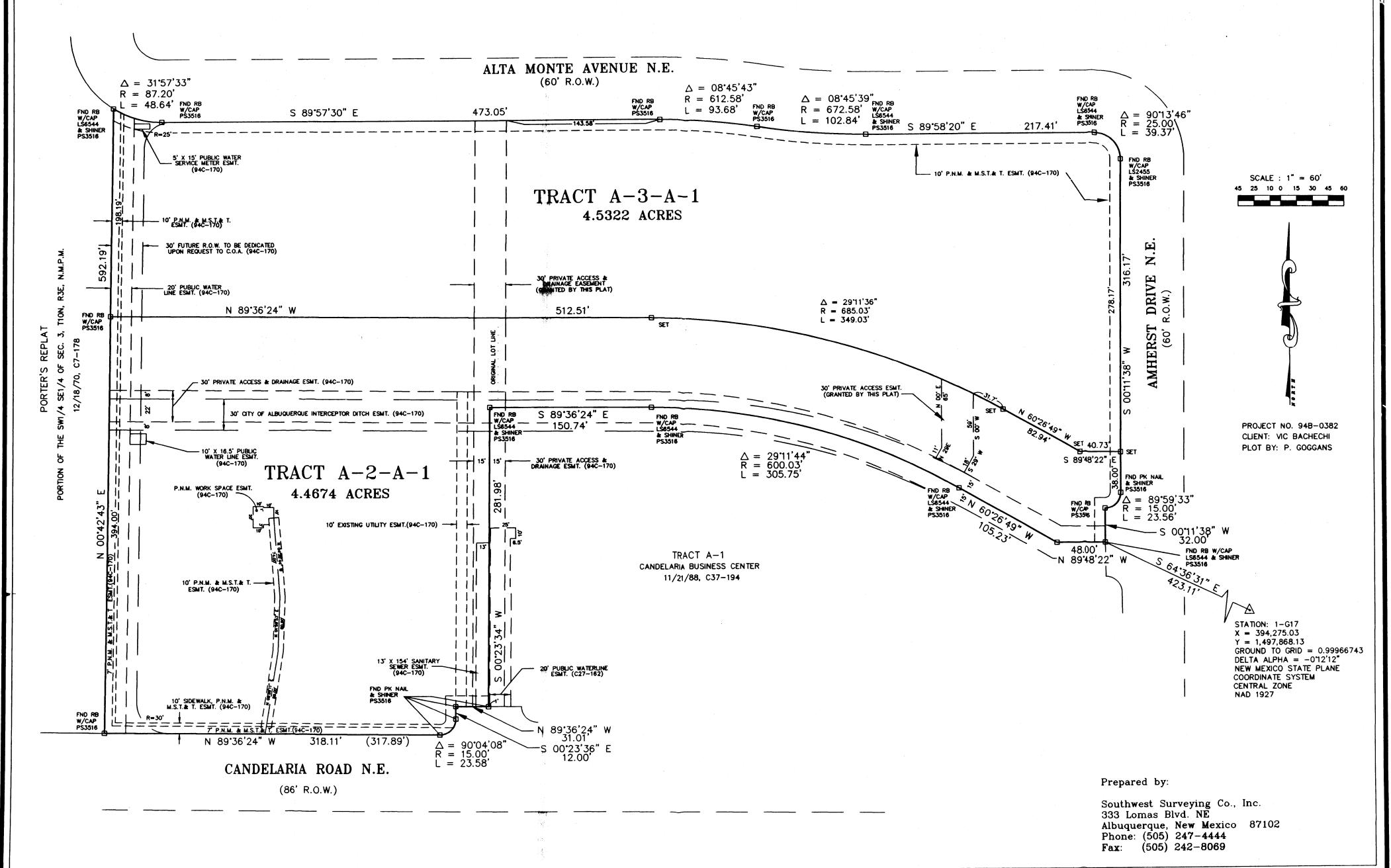
CANDELARIA BUSINESS CENTER

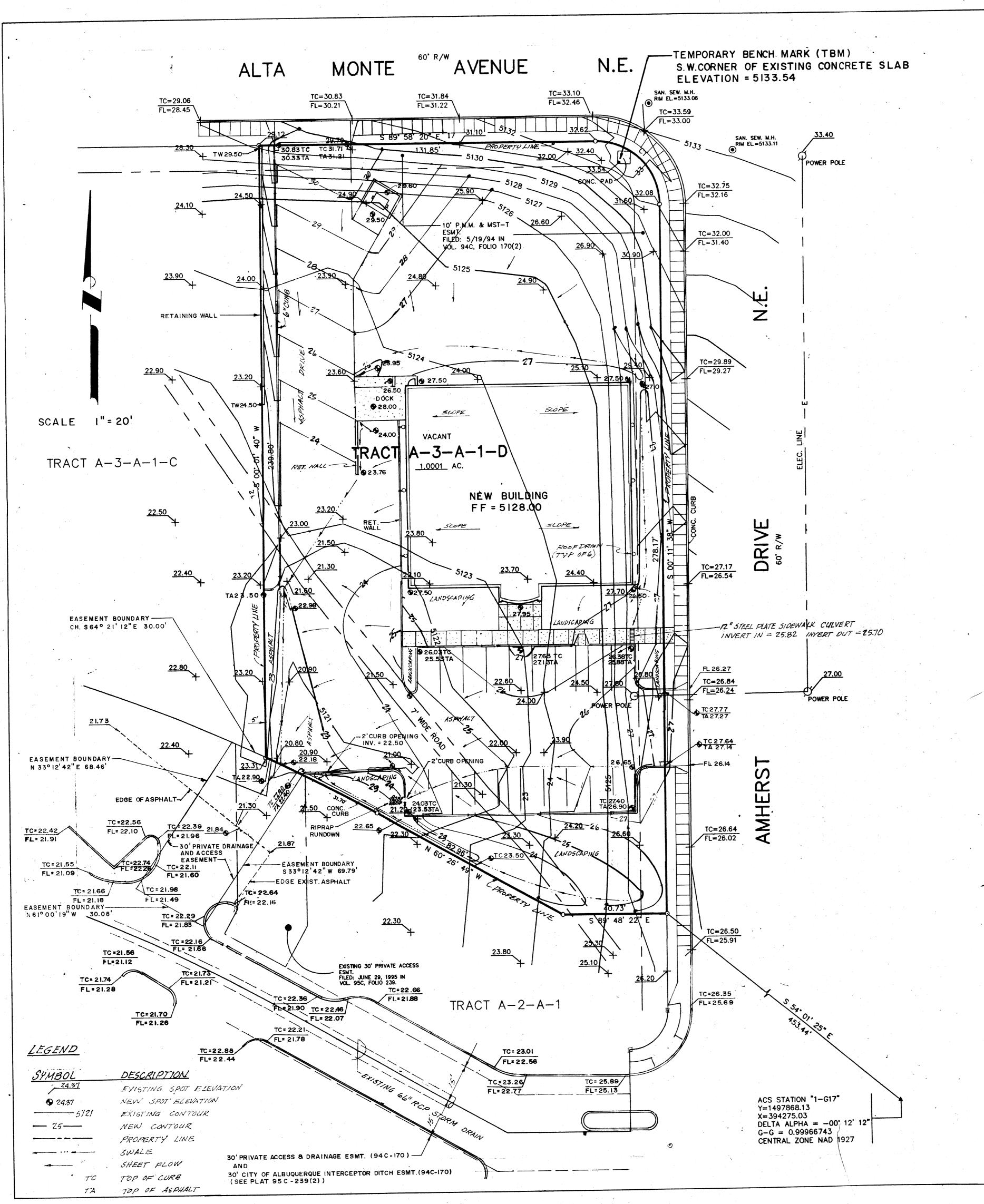
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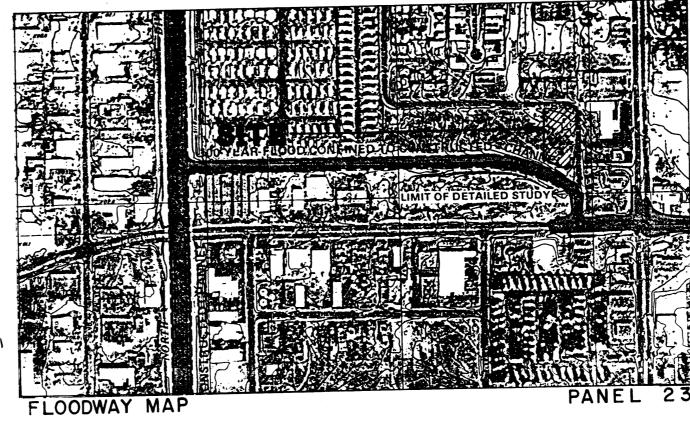
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

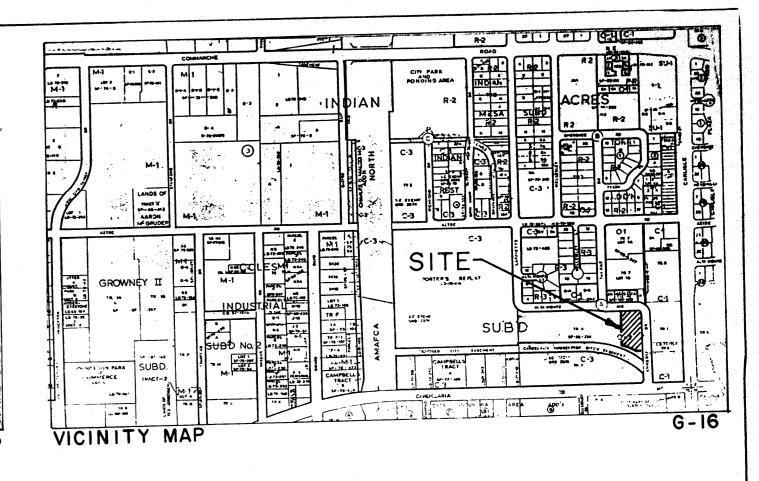
JUNE 1994

SHEET 2 OF 2









DRAINAGE

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PRECIPITATION ZONE:

The site is east of the Rio Grande River but west of San Mateo Boulevard and is, therefore, in Precipitation Zone 2.

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The contractor shall be responsible for compliance with the following:

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THIS PLAN SHOWS VERTICAL GRADES AND DISPOSITION OF STORM WATER RUNOFF. NO DIMENSIONS ARE SHOWN ON THIS PLAN. FOR DIMENSIONS OF BUILDING AND PAVING LAYOUT, PLEASE SEE ARCHITECTURAL SITE PLAN.

CALCULATIONS

LAND TREATMENT AREAS, EXCESS PRECIPITATION AND UNIT PEAK DISCHARGE:

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В		0.95		0.28	0.0		0.0	0.0	0	0.0
С	3.14	1.71	1.13	0.52	0.0	0	0.0	0.0	0	0.0
D	4.70	3.14	2.12	1.34	0.0	Q	0.0	73.2	32.199	0.7391
Totals					100.0	44,002	1.0101	100.0	44,002	1.0101

WEIGHTED UNIT PEAK DISCHARGE VALUES:

Existing	0.4400	= 1 56, cfs/acre	
_xisting .	9W100 9W10	= 0.38 cfs/acre	
Developed	9W10	= 0.2710 X 2.28 + 0.7392 X 4.70 = 4.09	cfs/acre
20. Stoped	G(A/10	= 0.2710 X 0.95 + 0.7392 X 3.14 = 2.58	cfs/acre

WEIGHTED EXCESS PRECIPITATION:

Existing	E _{W100}	=	0.53 in.
	E _{W10}	=	0.13 in.
Developed	E _{W100}	· =	$0.2710 \times 0.78 + 0.7392 \times 2.12 = 1.78 \text{ in.}$
	E _{W10}	=	0.2710 X 0.28 + 0.7392 X 1.34 =1.07 in.

SUMMARY OF VOLUMES AND PEAK DISCHARGE RATES

	<u>V100</u>	V10	Q100	Q10
EXISTING DEVELOPED	1,943. <u>6,527</u>	477 3.923	1.56 4.09	0.38 2.58
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OFF-SITE FLOW:

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BENCH MARK:

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON ACS STATION "P-225", WITH AN ELEVATION OF 5099.957.

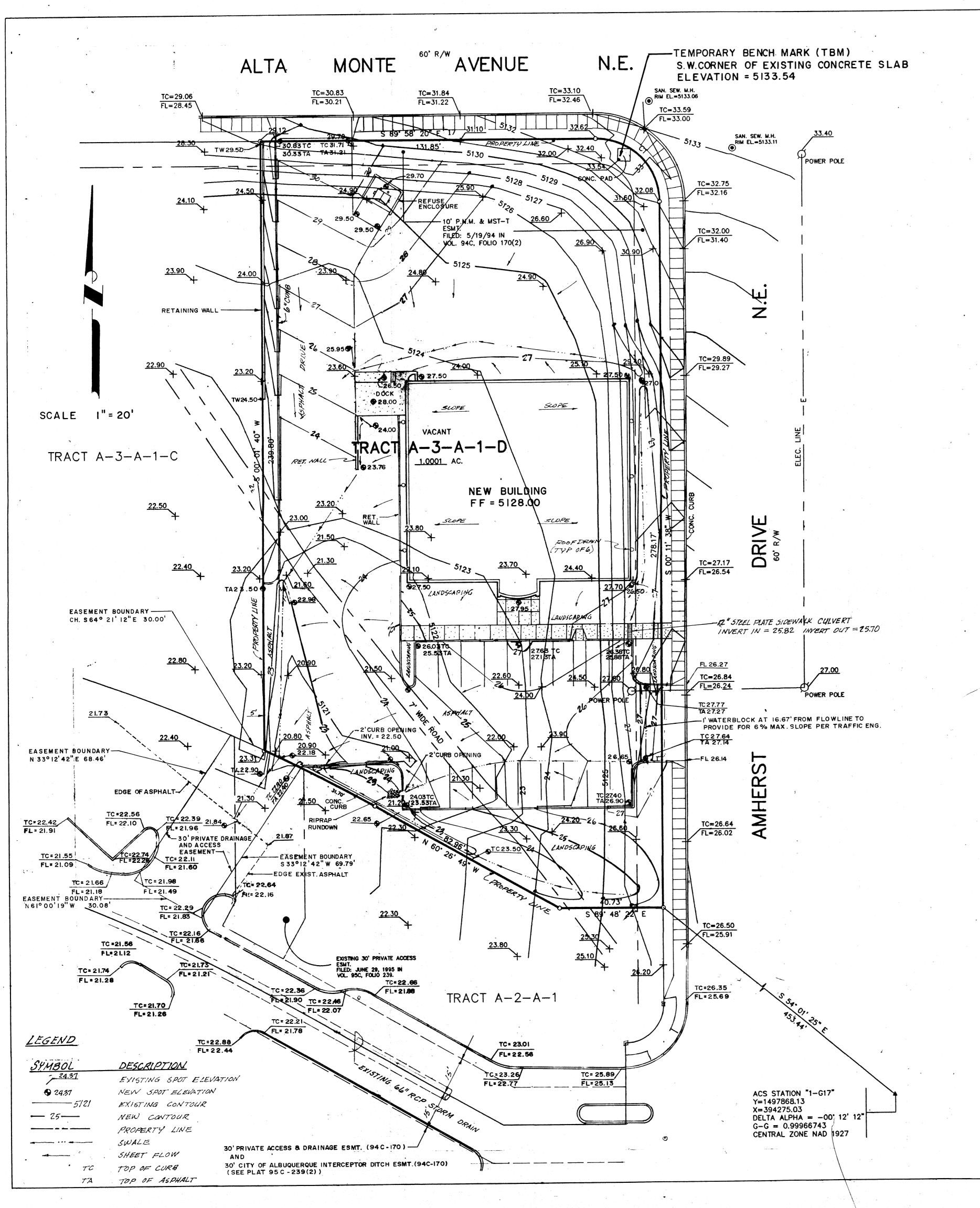


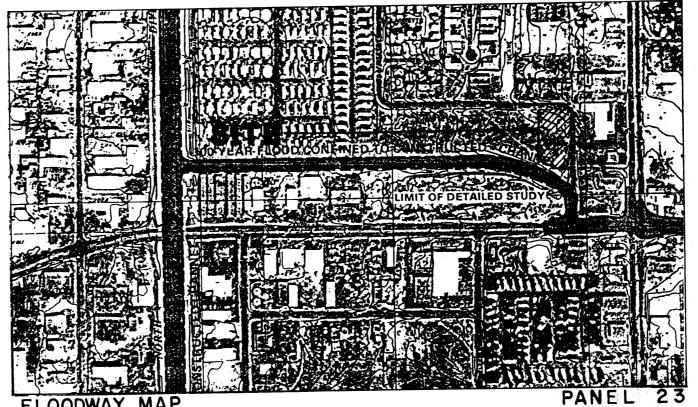
FRANK D. LOVELADY P. E. 300 ALAMOSA ROAD N.W. ALBUQUERQUE, N.M. 87107 (505) 345-2267

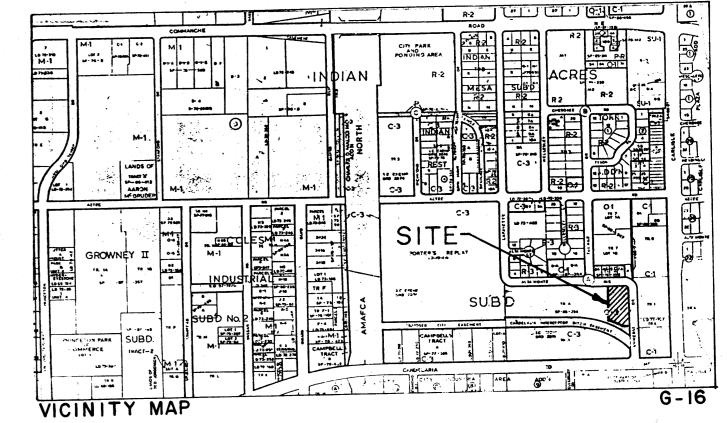
TJ HARDWARE HARDWARE RETAIL / WAREHOUSE CANDELARIA BUSINESS PARK

GRADING AND DRAINAGE PLAN Sheet

ALBUQUERQUE, NEW MEXICO Checked: F.D.L. | Scale: 1"=20' | Date: 9 /95 Drawn: STAFF







CALCULATIONS DRAINAGE

EXISTING CONDITIONS:

The site is located at the intersection of Amherst Drive, N.E., and Alta Monte Avenue, N.E., both of which are paved with standard curb and gutter. The site is in Candelaria Business Center. The approved grading and drainage plan for Candelaria Business Center (Hydrology File No. G16/D57) shows a plan for developing the portion of the center which lies north of the drainage easement and which encompasses this site. The plan shows runoff being directed to the existing drainage easement. There is a 66" RCP storm drain line directly south of the site in the drainage easement that was, at one time, a concrete-lined open channel. The site is presently undeveloped and slopes steeply away from the streets and then more gently in a westerly direction. The owner of this site also owns the lot directly to the west which is Tract A-3-A-1-C.

PROPOSED CONDITIONS:

It is proposed to develop the site as shown on the plan. The site is proposed to discharge to the existing drainage easement where it will flow on the surface to the first inlets which are roughly 600 feet west of the site in the existing drainage easement. Any runoff that bypasses the inlets will enter the open channel at the west boundary of Candelaria Business Center. The site is very near the A.M.A.F.C.A. North Diversion Channel. Therefore, the storm runoff from this site will have reached the North Diversion Channel before the peak flow in the 66" storm sewer is reached. Since the owner of this site also owns the site to the west, the slope is allowed to encroach along the north end of the west property line.

DRAINAGE CRITERIA:

The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology, of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Arroyo Flood Control Authority, January 1993.

PRECIPITATION ZONE:

The site is east of the Rio Grande River but west of San Mateo Boulevard and is, therefore, in Precipitation Zone 2.

EROSION CONTROL REQUIREMENTS:

The contractor shall be responsible for compliance with the following

- No sediment-bearing water shall be allowed to discharge from the site during
- During grading operations and until the project has been completed, all adjacent property, rights-of-way, and easements shall be protected from flooding by runoff
- Should the contractor fail to prevent sediment-bearing water from entering public right-of-way, he shall promptly remove from the public right-of-way any and all sedimentation originating from the site.
- Control of sediment-bearing waters will be accomplished by use of a compacted earth berm of adequate height. The berm shall be located along the downstream perimeter of the property.

CONSTRUCTION NOTES:

- UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHITHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN
- THIS PLAN SHOWS VERTICAL GRADES AND DISPOSITION OF STORM WATER RUNOFF. NO DIMENSIONS ARE SHOWN ON THIS PLAN. FOR DIMENSIONS OF BUILDING AND PAVING LAYOUT, PLEASE SEE ARCHITECTURAL SITE PLAN.

LAND TREATMENT AREAS, EXCESS PRECIPITATION AND UNIT PEAK DISCHARGE:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 2 in the table below, the values contained in which are from the City of Albuquerque, D.P.M. Also shown are the existing and proposed land treatment areas.

Land	a		E		Exist	ing Site A	Areas	Deve	loped Sit	
Treatment	100-vr	10-vr	100-vr	10-year	%	Sa Ft	Acres	%	Sq.Ft_	Acres.
A	1.56	0.38	0.53	0.13	100.0	44,002	1.0101	26.8	11,803	02710
В	2.28	0.95	0.78	0.28	0.0	0	0.0	0.0	0	0.0
, C	3.14	1.71	1.13	0.52	0.0	0	0.0	0.0	0	0.0
D	4.70	3.14	2.12	1.34	0.0	<u> </u>	0.0	73.2	32,199	0.7391
, Totals					100.0	44,002	1.0101	100.0	44,002	1.0101

WEIGHTED UNIT PEAK DISCHARGE VALUES:

isting	qw100	=	1 56.	cfs/acre
	0	=	0 3 8	cfs/acre

0.2710 X 2.28 + 0.7392 X 4.70 = 4.09 cfs/acre 0.2710 X 0.95 + 0.7392 X 3.14 = 2.58 cfs/acre

Existing	EW100	=	0.53 in.
• •	E _{W10}	=	0.13 in.
Developed	E _{W100}	· =	$0.2710 \times 0.78 + 0.7392 \times 2.12 = 1.78 \text{ in.}$
. •	E _{W/10}	=	0.2710 X 0.28 + 0.7392 X 1.34 =1.07 in.

	<u>V100</u>	V10	Q100	
EXISTING DEVELOPED	1,943. <u>6.527</u>	477 3.923	1.56 4.09	0.38 2.5
INCREASE	4,584	3,923	2.53	2.2

OFF-SITE FLOW:

The site has no off-site flow. The existing lots are paved with curb and gutter and the high point in the street is at the intersection of Amherst Drive and Alta Monte Avenue.

LEGAL DESCRIPTION:

TRACT LETTERED A-THREE-A-1-D (A-3-A-1-D) OF THE PLAT OF TRACTS A3A1A, A3A1B, A3A1C AND A3A1D, CANDELARIA BUSINESS CENTER, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, AS THE SAME ARE SHOWN AND DESIGNATED ON THE PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON AUGUST 09, 1995 IN VOLUME 95C, FOLIO 295

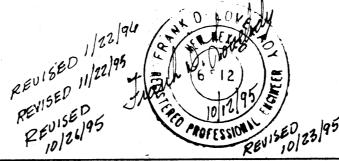
BENCH MARK:

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON ACS STATION "P-225", WITH AN ELEVATION OF 5099.957...

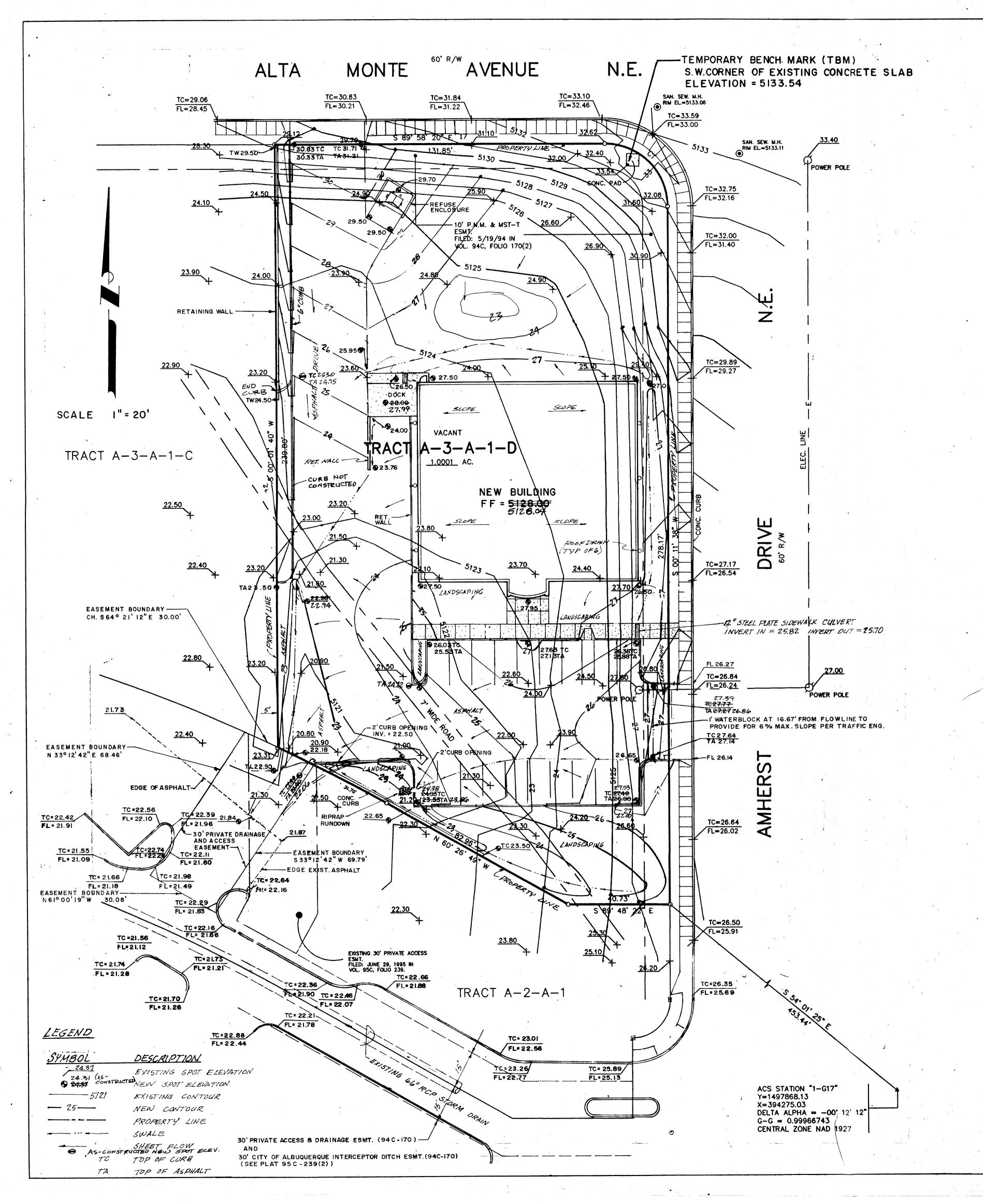
GRADING AND DRAINAGE PLAN Sheet TJ HARDWARE HARDWARE RETAIL / WAREHOUSE CANDELARIA BUSINESS PARK

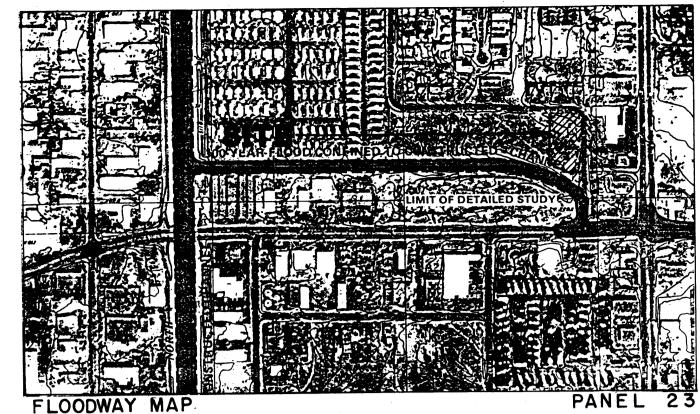
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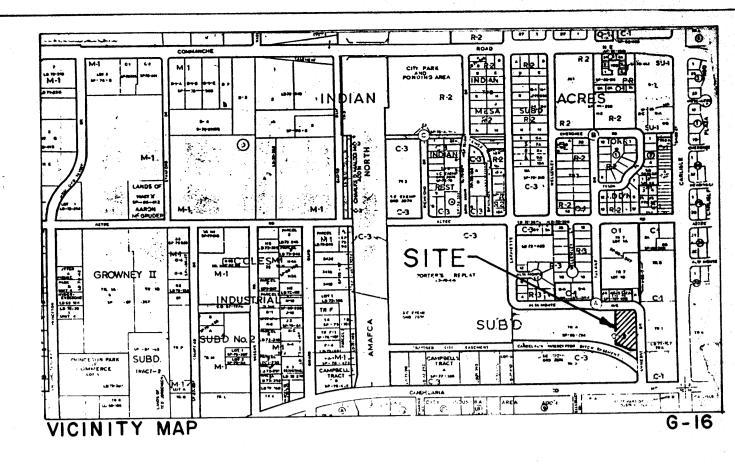
ALBUQUERQUE, NEW MEXICO Drawn: STAFF Checked: F.D.L. Scale: 1"=20' Date: 9 /95 Job No. 499 Designed: F.D.L.



FRANK D. LOVELADY P. E. 300 ALAMOSA ROAD N.W. ALBUQUERQUE, N. M. 87107 (505) 345-2267







DRAINAGE

EXISTING CONDITIONS:

The site is located at the intersection of Amherst Drive, N.E., and Alta Monte Avenue, N.E., both of which are paved with standard curb and gutter. The site is in Candelaria Business Center. The approved grading and drainage plan for Candelaria Business Center (Hydrology File No. G16/D57) shows a plan for developing the portion of the center which lies north of the drainage easement and which encompasses this site. The plan shows runoff being directed to the existing drainage easement. There is a 66" RCP storm drain line directly south of the site in the drainage easement that was, at one time, a concrete-lined open channel. The site is presently undeveloped and slopes steeply away from the streets and then more gently in a westerly direction. The owner of this site also owns the lot directly to the west which is Tract A-3-A-1-C.

PROPOSED CONDITIONS:

It is proposed to develop the site as shown on the plan. The site is proposed to discharge to the existing drainage easement where it will flow on the surface to the first inlets which are roughly 600 feet west of the site in the existing drainage easement. Any runoff that bypasses the inlets will enter the open channel at the west boundary of Candelaria Business Center. The site is very near the A.M.A.F.C.A. North Diversion Channel. Therefore, the storm runoff from this site will have reached the North Diversion Channel before the peak flow in the 66" storm sewer is reached. Since the owner of this site also owns the site to the west, the slope is allowed to encroach along the north end of the west property line.

DRAINAGE CRITERIA:

The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology, of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Arroyo Flood Control Authority, January 1993.

PRECIPITATION ZONE:

The site is east of the Rio Grande River but west of San Mateo Boulevard and is, therefore, in Precipitation Zone 2.

EROSION CONTROL REQUIREMENTS:

The contractor shall be responsible for compliance with the following:

- No sediment-bearing water shall be allowed to discharge from the site during construction.
- During grading operations and until the project has been completed, all adjacent property, rights-of-way, and easements shall be protected from flooding by runoff
- Should the contractor fail to prevent sediment-bearing water from entering public right-of-way, he shall promptly remove from the public right-of-way any and all sedimentation originating from the site.
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CONSTRUCTION NOTES:

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CALCULATIONS

LAND TREATMENT AREAS, EXCESS PRECIPITATION AND UNIT PEAK DISCHARGE:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 2 in the table below, the values contained in which are from the City of Albuquerque, D.P.M. Also shown are the existing and proposed land treatment areas.

Land									lopod on	
Treatment	100-4	r 10-vr	100-vr	10-vear	%	Sa. Ft.	Acres	%	Sq.Ft_	Acres.
A	1.56	0.38	0.53	0.13	100.0	44,002	1.0101	26.8	11,803	02710
В	2.28	0.95	0.78	0.28	0.0	0	0.0	0.0	0	0.0
С	3.14	1.71	1.13	0.52	0.0	0	0.0	0.0	0	0.0
. D	4.70	3.14	2.12	1.34	0.0	Ō	0.0	73.2	32.199	0.7391
Totals					100.0	44.002	1.0101	100.0	44,002	1.0101

WEIGHTED UNIT PEAK DISCHARGE VALUES:

Existing	9W100	=	1 56. cfs/acre
	9W10	=	0.38 cfs/acre
Developed	9W100	=	0.2710 X 2.28 + 0.7392 X 4.70 = 4.09 cfs/ac

WEIGHTED EXCESS PRECIPITATION:

	PV/A PAA 1 1/PA	1111111	A.S. I.V.A.		
		,	and the second		
Existing	E _{W100}	=	0.53 in.		
	F	=	0 13 in	-	

= 0.2710 X 0.28 + 0.7392 X 1.34 =1.07 in. SUMMARY OF VOLUMES AND PEAK DISCHARGE RATES

0.2710 X 0.95 + 0.7392 X 3.14 = 2.58 cfs/acre

 $0.2710 \times 0.78 + 0.7392 \times 2.12 = 1.78 \text{ in.}$

	V10	00 V10	Q100		Q10
EXISTING	1,943		1.56	• • • •	0.38
DEVELOPED	6.52	<u>3.923</u>	4.09		<u>2.58</u>
INCREASE	4.584	4 3.923	2.53		2.20

ENGINEER'S CERTIFICATION:

Having performed and on-site inspection of the as-constructed facilities, and having made as-constructed revisions to the elevations based on actual survey data, I hereby certify that the as-constructed facilities are in substantial conformance to the approved grading and drainage plan with Engineer's stamp-dated 10/12/95, and most recently revised 1/22/96, with one minor exception. The area behind the building was shown on the plan to drain out to the parking lot. The actual grading left a large depression in this area which, as it is now graded, will not drain.

Front D. Twill 5-

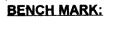
Frank D. Lovelady, N.M.P.E. 6512

OFF-SITE FLOW:

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ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON ACS STATION "P-225", WITH AN ELEVATION OF 5099.957.

> FRANK D. LOVELADY P. E. 300 ALAMOSA ROAD N.W. ALBUQUERQUE, N.M. 87107

(505) 345-2267

GRADING AND DRAINAGE PLAN Sheet TJ HARDWARE HARDWARE RETAIL / WAREHOUSE CANDELARIA BUSINESS PARK ALBUQUERQUE, NEW MEXICO

Designed: F.D.L.

Drawn: STAFF

Checked: F.D.L. Scale: 1"=20' Date: 9 /95 Job No. 499