

# KEYED NOTES

## PHASE I CONSTRUCTION

- 1 DROP INLET, TYPE D
- 2 DROP INLETS  
(1 TYPE A, 2 TYPE AA, 1 TYPE DD)
- 3 DRAINAGE CHANNEL, SECTION A-A
- 4 TEMPORARY DESILTING POND  
(40' x 40' BOTTOM, 1' DEEP, MIN.)
- 5 TEMPORARY DIVERSION DITCH & DIKE,  
SECTION C-C

## FUTURE CONSTRUCTION

- 1 DRAINAGE CHANNEL, SECTION A-A
- 2 PERMANENT DIVERSION DITCH & DIKE, SECTION B-B  
(POND OUTLET DISCHARGE ONLY)
- 3 DIVERSION DITCH & DIKE (SECTION C-C MIN.)  
REQUIRED IF FUTURE LOT IMPROVEMENTS  
INFRINGE ON THE EXISTING DITCH
- 4 TEMPORARY DESILTING POND  
(40' x 40' BOTTOM, 1' DEEP, MIN.)

## LEGEND

PHASE I STREET PAVEMENT

HIGH POWER ELECTRIC  
TRANSMISSION LINE POLES

EXISTING CONTOURS

WATER BLOCK

PROPOSED STREET GRADES

ANALYSIS POINT

DIRECTION OF FLOW

AREAS REQUIRING 100% PONDING  
OF RUNOFF 2.2" RAINFALL WITH  
24 HR. RELEASE RATE.

DRAINAGE DIVIDE

## NOTES:

1. LOTS 9, 11 & 12, AND 17, 18, 19,  
& 20 ARE ALLOWED FREE  
DISCHARGE FROM UNSHADOWED  
AREAS.
2. CONSTRUCTION PROJECT  
2404 HAS BEEN SUBMITTED  
FOR CITY REVIEW.

## NOTE:

OURAY ROAD GRADES ARE SUBJECT TO CHANGE  
BEYOND (WEST OF) THE LIMIT OF DETAILED  
STUDY IN ORDER TO MATCH FUTURE UNSER BLVD.  
(PER DRC REVIEW 4-17-85)

SCALE: 1" = 100'

EL RANCHO ATRISCO  
PHASE II

P.N.M. WEST MESA SWITCHING STATION

PLAINS ELECTRIC CO-OP INC.

## SAMPLE CALCULATIONS

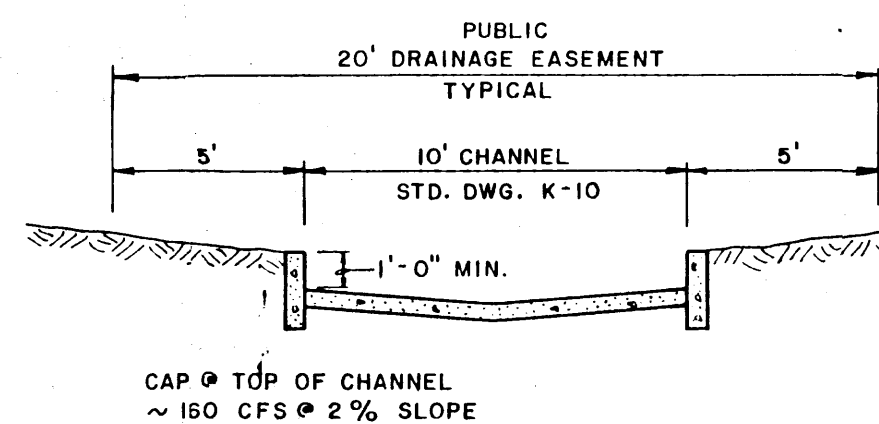
LOT 17  
AREA ALLOWED FREE DISCHARGE  
A = 0.56 ACRES  $i_{100} = 4.73$  in/hr  
70% IMPERVIOUS, B SOILS  $C = 0.86$   
 $Q_{100} = C(A - (.86)(4.73)(.56)) = 2.5$  CFS

NOTES:  
SEE DESIGN REPORT FOR STORM DRAIN  
& CHANNEL HYDRAULICS.

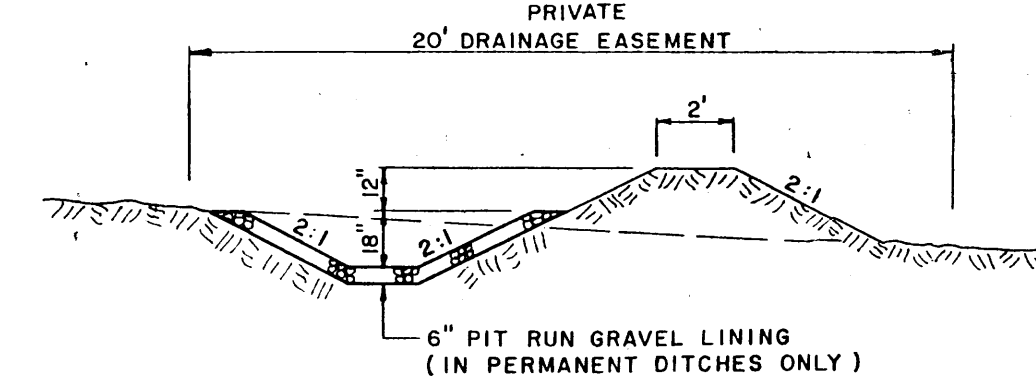
## DEVELOPED HYDROLOGY:

AP NO.	DA AC.	T <sub>c</sub> MIN	SOIL TYPE	% IMP	CN	C	P <sub>100</sub> IN.	I <sub>100</sub> IN/HR	ALLOWABLE Q <sub>100</sub> CFS
1	2.77	10	A	70	74	.76	2.2	4.7	55.4*
2	32.5	10	A	70	74	.76			64.3
3	12.3	10	A	70	74	.76			41.4
4	1.8	10	B	70	74	.86			5.1
5	14.6	10	A/B	70	74	.80			48.8
6	38.8	10	A/B	70	74	.80			115.6

\* 10 YR. VOLUMES & FLOW RATES = 0.66 x 100 YR.



SECTION A-A



SECTION B-B

SECTION C-C SIMILAR EXCEPT THAT  
GRAVEL LINING IS NOT REQUIRED

## PIT RUN GRAVEL GRADATION

Sieve Size  
US Standard

Percent by  
Weight Passing

4 inch	100
3 inch	80-100
3/4 inch	45-65
No 4	25-45
No 40	0-20
No 200	0-5

BENCH MARK: 1" H<sub>9</sub>, IRON PIPE AT PROPERTY CORNER  
APRX. 500' WEST OF THE N.W. CORNER OF THE PLAINS  
ELECTRIC CO-OP SUB-STATION 1.3 MILES N.W. OF THE  
1-40 AND COORS RD. INTERCHANGE. EL. 5172.669

**EASTERLING & ASSOCIATES INC.**  
CONSULTING ENGINEERS

5643 PARADISE BLVD. N.W. ABQ. N.M. (505) 898-8021

DRAINAGE PLAN  
VOLCANO BUSINESS PARK

DATE: FEB., 1985  
REV. 4-18-85 REV. REV.

SHEET 2 OF 2



## DRAINAGE REPORT

OFF-SITE FLOWS:

Interim Conditions: Until such time as Unser Blvd. is constructed, the off-site flows will be diverted and detained within the 20.7 acre C-1 tract and released at or below historic rates into the channel/storm drain system.

OF

FOR

INTRACT :

DEVELOPED CONDITIONS:

The drainage plan calls for runoff from the shaded areas to be ponded 100% and the non-shaded areas to free discharge. This scheme may not be practical in every instance and therefore those lots on the west side of streets can discharge at the rates shown on the plan. It is recommended that all runoff that flows to a street be routed through landscaping to reduce the frequency of runoff.

The large tracts will require some degree of detention ponding depending on how they are developed, but in any event, will be restricted to 2 cfs per acre release in the 100-year storm except as otherwise shown on Sheet 2.

TABLE 1, HYDROLOGY - EXISTING CONDITIONS

AP #	DA AC	H FT	S FT/FT	L FT	T <sub>C</sub> MIN	SOIL TYPE	% IMP	CN	C	P <sub>2</sub> IN	P <sub>10</sub> IN	P <sub>100</sub> IN	I <sub>2</sub> N/IN	I <sub>10</sub> N/IN	I <sub>100</sub> N/IN	V <sub>2</sub> FT <sup>3</sup>	V <sub>10</sub> FT <sup>3</sup>	V <sub>100</sub> FT <sup>3</sup>	Q <sub>2</sub> CFS	Q <sub>10</sub> CFS	Q <sub>100</sub> CFS
A	51.5	220	.07	3150	10.7	A	20	65	.26	1.0	1.5	2.2	2.0	3.1	4.5	—	9,350	37,390	—	41.5	603
B	61.2	200	.07	2750	9.7	A	7	58	.20	1.0	1.5	2.2	1.9	3.1	4.7	—	—	8890	—	—	57.5
C	15.0	22	.02	950	6.9	B	0	70	.34	1.0	1.5	2.2	1.9	3.1	4.7	—	4,360	18,900	—	15.8	240
D	6.5	18	.02	1050	7.5	B	0	70	.34	1.0	1.5	2.2	1.9	3.1	4.7	—	1,890	7,790	—	6.9	104
E	47.2	88	.03	2700	13.2	B	0	70	.34	1.0	1.5	2.2	1.8	2.65	4.0	—	13,700	56,540	—	42.5	642

EROSION CONTROL:

No lot grading is anticipated prior to development of each lot. Grading should be limited to that area necessary for construction. Any additional graded areas should be reseeded with native grasses and protected from runoff through the use of low dikes and shallow ditches.

[illegible]

## SOILS INFORMATION

Soil series and map symbols	Degree and kind of limitations for—						Suitability as source of—				Soil features affecting—		Hydrological soil groups
	Septic tank absorption fields	Sewage lagoons	Shallow excavations	Wellings from cisterns	Sanitary latrines from cisterns	Local roads and drains	Road fill	Sand	Gravel	Topsoil	Pond reservoir areas	Dikes, levees, and other embankments	
*Bhurpant: Bb, BcA, BCC, BfB. For Wink part of B43, see Wink series, for Kokan part of BKO, see Kokan series.	Slight if slope is 1 to 8 percent, moderate if 8 to 15.	Severe: seepage.	Severe: cuts, bank slides.	Slight if slope is 1 to 8 percent, moderate if 8 to 15.	Moderate: fine sands.	Slight if slope is 1 to 8 percent, moderate if 8 to 15.	Good.....	Fair: excess fines.	Unsuited.....	Poor: too sandy.	Seepage.....	Piping: seepage.....	A
Pajariot: PAC, PbB.....	Slight.....	Severe: seepage.	Slight.....	Slight.....	Severe: seepage.	Slight.....	Good.....	Poor: excess fines.	Unsuited.....	Good.....	Seepage.....	Piping.....	B

### DESCRIPTIONS

**BCC—Bluepoint loamy fine sand, 1 to 9 percent slopes.** This soil is nearly level to moderately sloping. It has the profile characteristics representative of the series, but on about 10 percent of the acreage the surface is sandy. Included in mapping are areas of Madurese, Pajarrito, and Wink soils, which make up about 15 percent of the unit. Runoff is slow, and the hazard of soil blowing is severe. This soil is used for range, watershed, wildlife habitat, recreation, and community development. Dryland capability subclass VIIe; native plant community 2.

**BKD—Bluepoint-Kokan association, hilly.** This mapping unit is about 50 percent a Bluepoint loamy fine sand that has 5 to 15 percent slopes and 40 percent a Kokan gravelly sand that has 15 to 40 percent slopes. The gently rolling to rolling Bluepoint soil is on fans between gravelly ridges of the hilly to steep Kokan soil.

The Kokan soil has the profile described as representative of the Kokan series. On about 10 percent of the acreage, however, it has a high lime layer in the substratum.

On both soils, runoff is slow and the hazard of water erosion is moderate or severe.

**PAC**—Pajarito loamy fine sand, 1 to 9 percent slopes. This nearly level to moderately sloping soil is on the East and West Mesas. It has the profile described as representative of the series.

Included with this soil in mapping are areas of Bluepoint, Madurez, and Wink soils. On about 30 percent of the acreage are areas where the surface layer is fine sandy loam.

This soil is used for range, watershed, wildlife habitat, and community development. Dryland capability subclass VIIe; native plant community 6.

EASTERLING &amp; ASSOCIATES INC.

—CONSULTING ENGINEERS—

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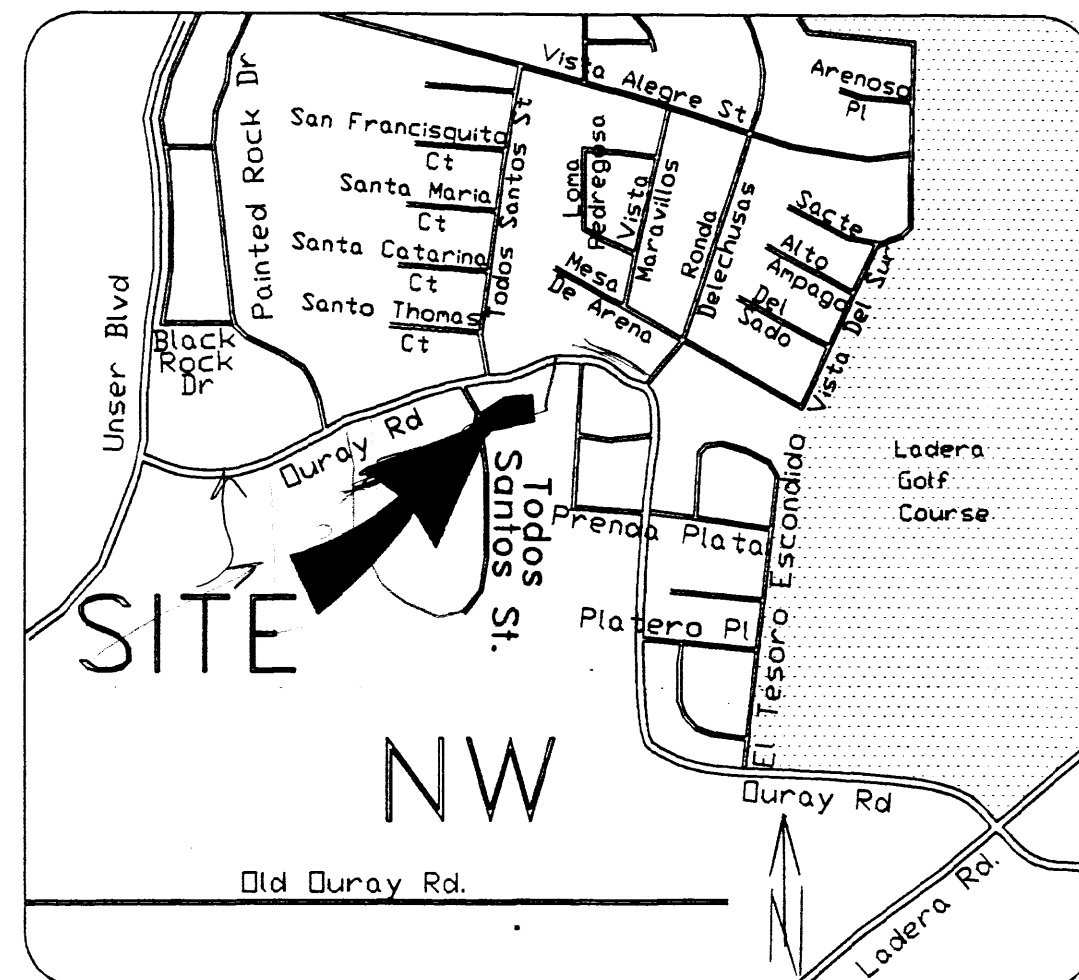
DRAINAGE PLAN  
VOLCANO BUSINESS PARK

DATE: NOV., 1984

REV. 2-15-85 REV. 4-18-85 REV. \_\_\_\_\_

SHEET 1 OF 2





VICINITY MAP  
NOT TO SCALE

BENCHMARK: ACS 4-G10 ELEVATION 5123.40

#### NOTE:

1. THIS IS NOT A BOUNDARY SURVEY. PROPERTY CORNERS, BEARINGS AND DISTANCES ARE SHOWN HEREON ARE FOR ORIENTATION PURPOSES ONLY.
2. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON MAPS AND/OR EVIDENCES ON THE GROUND. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL UTILITIES, SHOWN OR NOT SHOWN ON THIS DRAWING, PRIOR TO ANY EXCAVATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
4. CONTRACTOR IS RESPONSIBLE FOR KEEPING RUN-OFF ON SITE DURING CONSTRUCTION AND CLEANING UP SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY AND ADJOINING PROPERTIES AFTER CONSTRUCTION.

#### LEGEND

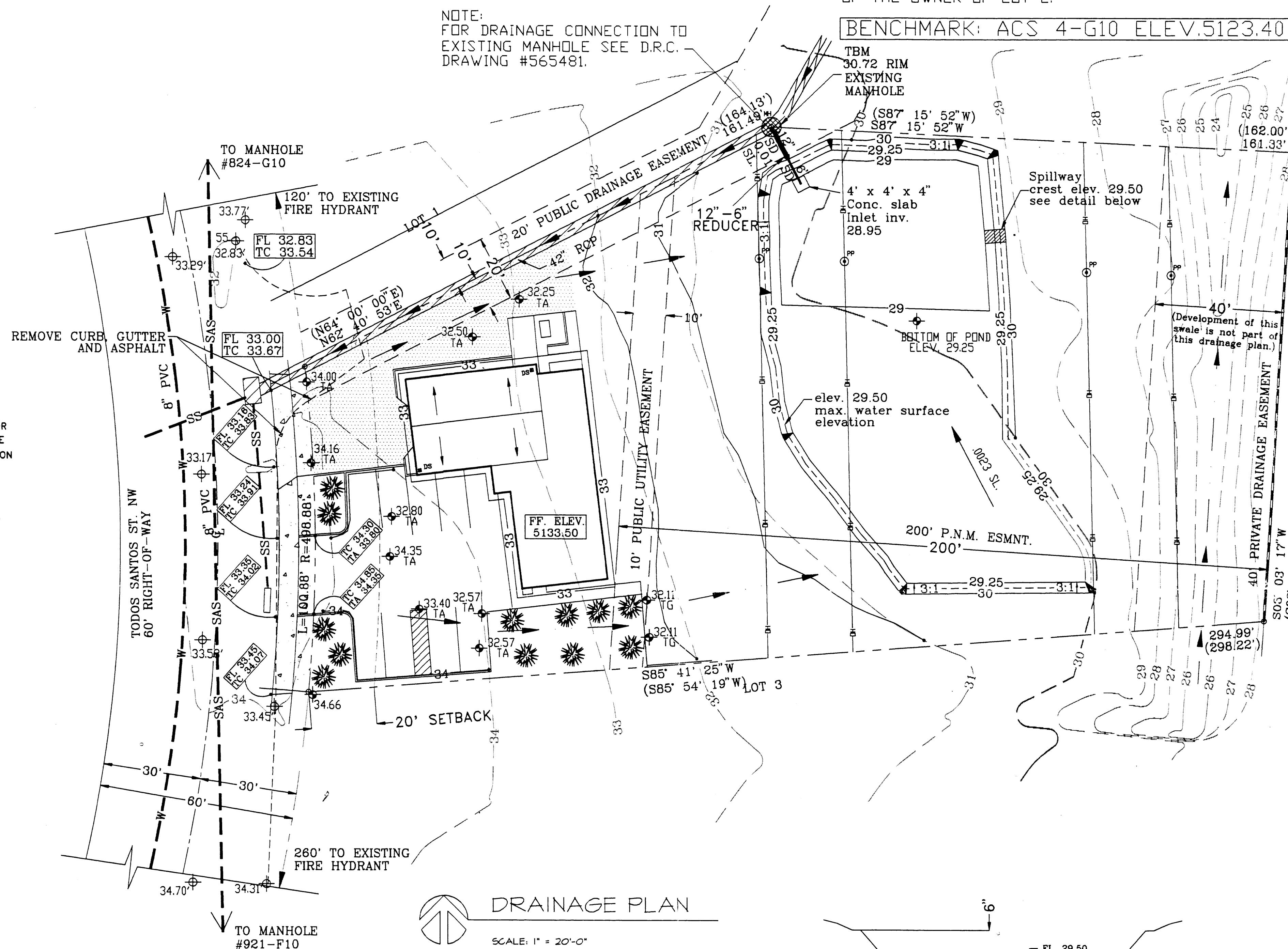
- 33 — EXISTING CONTOUR ELEVATION
- 30 — PROPOSED CONTOUR ELEVATION
- EXISTING 42" RCP
- — — — — PROPERTY LINE
- SS — EXISTING STORM SEWER
- W — EXISTING WATER LINE
- SAS — EXISTING SANITARY SEWER
- PP — POWER POLE
- MH — EXISTING MANHOLE
- OH — EXISTING OVERHEAD LINE
- — — — — EXISTING BLOCK WALL ON PROPERTY LINE
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- ASPHALT PAD
- PL 57.00  
TC 57.50 PROPOSED ELEVATIONS, TOP OF CURB, FLOWLINE
- 57.50  
TG PROPOSED ELEVATIONS  
TOP OF GRAVEL
- 57.50  
TA PROPOSED ELEVATIONS  
TOP OF ASPHALT
- FF. ELEV.  
5133.50 PROPOSED FINISH  
FLOOR ELEVATION
- 58.16 EXISTING SPOT ELEVATIONS
- 34.66 PROPOSED SPOT ELEVATIONS
- PROPOSED LANDSCAPE AREA
- PROPOSED DIRECTION OF FLOW

## LOT 2 VOLCANO BUSINESS PARK

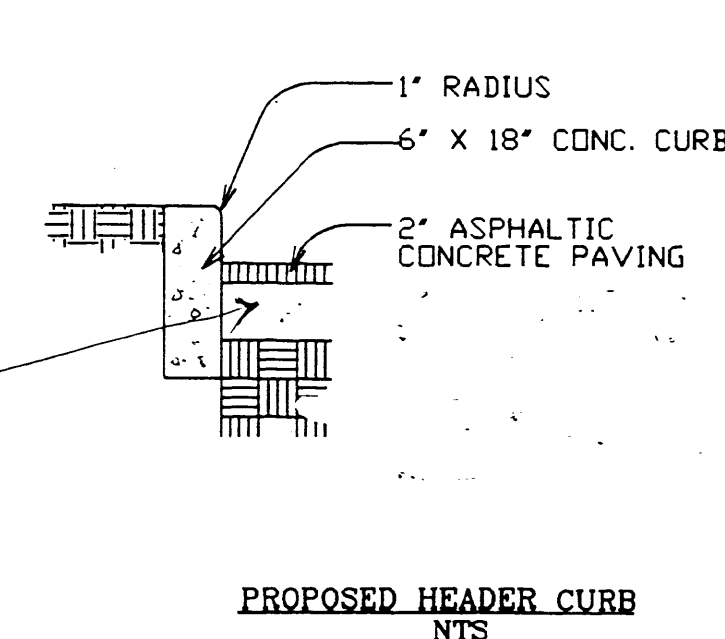
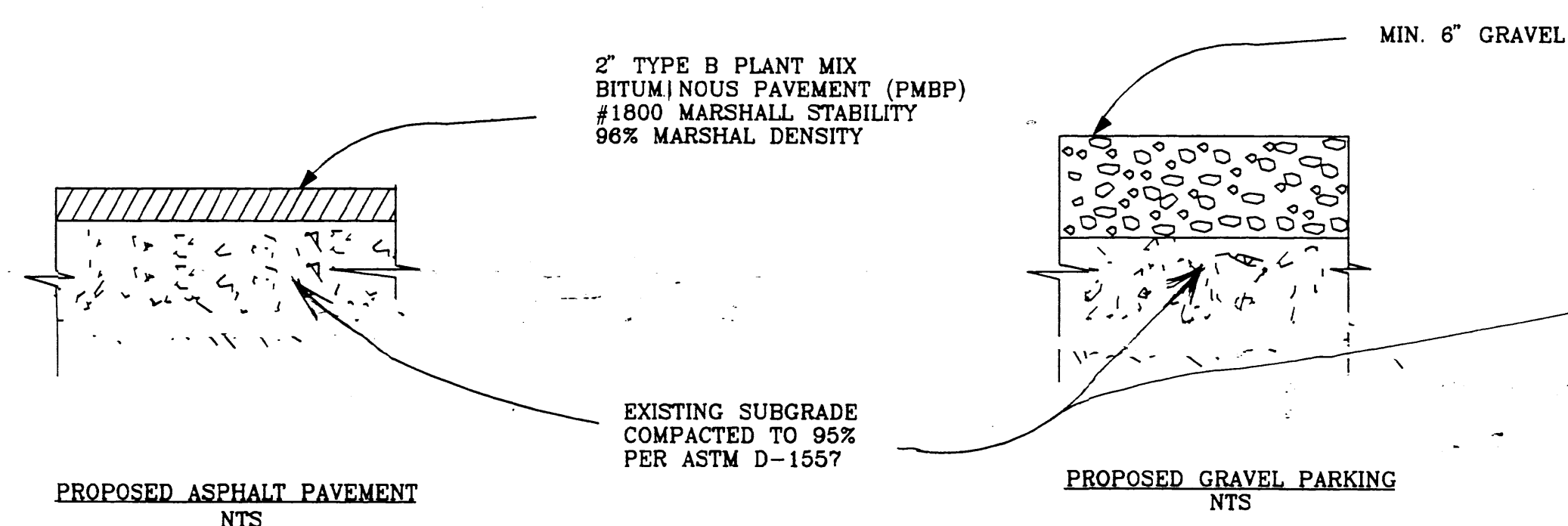
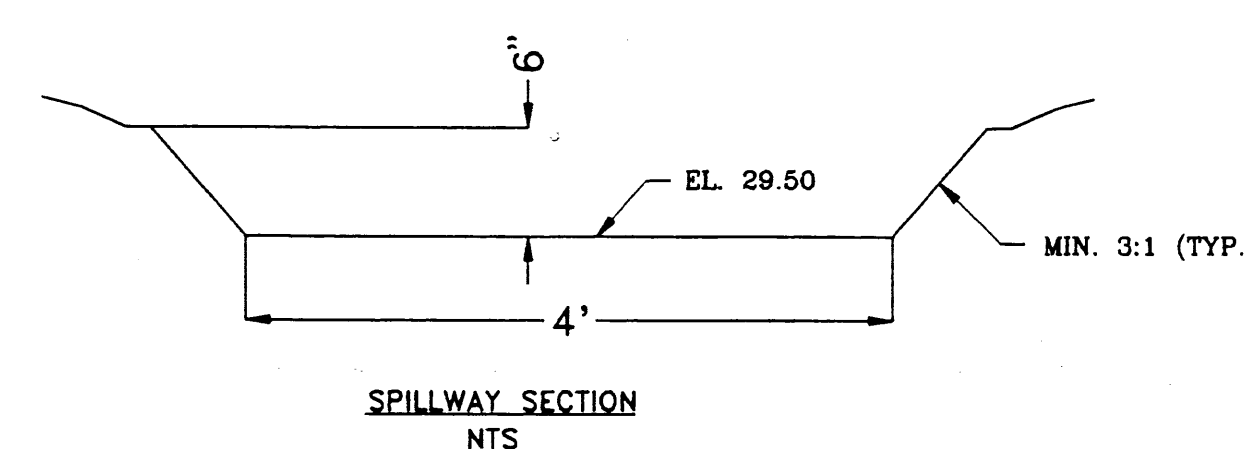
NOTE:  
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DRAWING #565481.

NOTE:  
MAINTENANCE OF THE STORM SEWER FROM  
THE POND TO THE MANHOLE IS THE RESPONSIBILITY  
OF THE OWNER OF LOT 2.

BENCHMARK: ACS 4-G10 ELEV.5123.40



DRAINAGE PLAN  
SCALE: 1" = 20'-0"



#### DRAINAGE AND GRADING PLAN FOR LOT 2, VOLCANO BUSINESS PARK

LEGAL DESCRIPTION: LOT 2, VOLCANO BUSINESS PARK

ADDRESS: 3021 TODOS SANTOS NW

FLOODPLAIN INFORMATION: The property is located on Zone X, outside the 500-year floodplain in accordance with FIRM Panel 35001C0 326 D, dated September 20, 1996.

EXISTING CONDITIONS: The subject area consists of approximately one acre of unimproved land in the city-approved development plan of Volcano Business Park. The lot is bounded on the west by Todos Santos Street NW (asphalt pavement, curb and gutter, sidewalk); on the north and south by unimproved Lots 1 and 3, respectively, of the same business park; and on the east by an existing walled residential subdivision. The lot is 298 feet deep, the rear 208 feet of which is an easement for the Public Service Company of New Mexico.

The lot slopes an average of 2.5% from west to east, directing the surface runoff to a drainage easement swale on the east 40 feet of the property, and eventually to a catch basin at the southeast corner of Lot 1. There are no offsite flows except for the runoff coming through the swale from Lot 3.

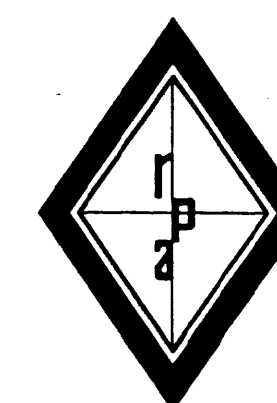
PROPOSED IMPROVEMENTS: Two buildings with approximately 3905 square feet of total roof area will be built. Asphalt parking fronting Todos Santos Street and gravel parking on the north and east sides of the structures will be built. Concrete sidewalk will be constructed. Landscaping will be provided.

A detention pond will be constructed at the rear of the lot. A six-inch diameter pipe will release the water from the pond to the existing 42-inch storm drain in the 20-foot public drainage easement adjoining the subject property.

EROSION CONTROL: Water from activities during construction and/or from rain will be temporarily ponded on site to prevent silt from entering the existing rights-of-way. Parking lot grading will take place after most of the building construction is completed to ensure that any runoff produced by rainfall during construction will flow toward the pond and silt will remain on site.

ANALYSIS: This drainage and grading plan utilizes the downstream analysis and pond routing performed by Brasher Lorenz, Inc. Consulting Engineers to determine the allowable discharge rate for the subject site under fully developed conditions and establish on-site detention ponding criteria. Brasher Lorenz' report "Supplemental Calculations for Lot 2, Volcano Business Park" is submitted with and made a part of this plan.

CALCULATIONS: The aforementioned report provides calculations that determine the existing and developed on-site hydrology using the AHYMO computer program, downstream capacity, ponding sizing and routing, and spillway design.

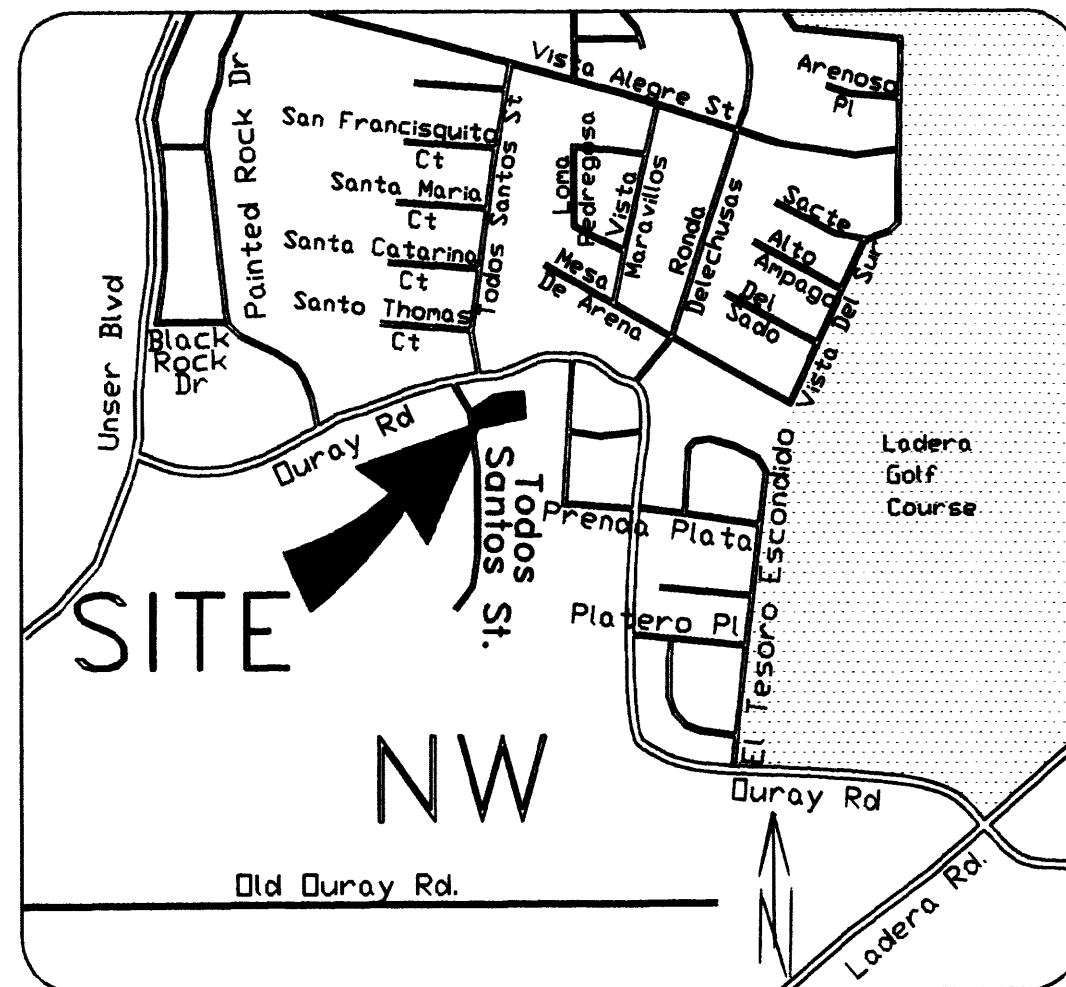


RHOMBUS P.A., INC.

FACILITIES ENGINEERS ♦ ENVIRONMENTAL CONSULTANTS  
2620 San Mateo NE SUITE B  
Albuquerque, NM 87110

TEL. (505) 881-6690 FAX (505) 881-6896





VICINITY MAP  
NOT TO SCALE

BENCHMARK: ACS 4-G10 ELEVATION 5123.40

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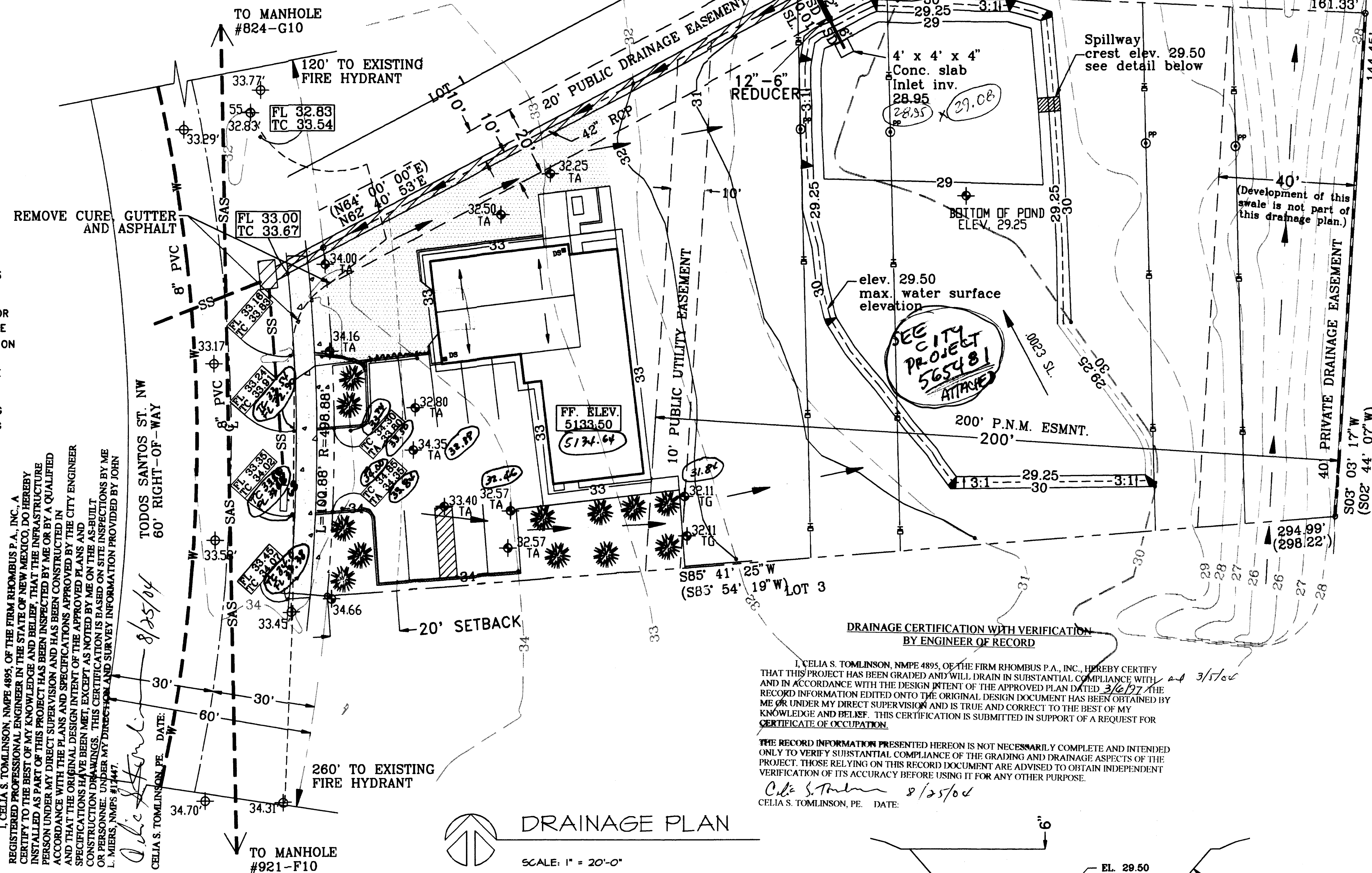
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## LOT 2 VOLCANO BUSINESS PARK

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DRAINAGE CERTIFICATION WITH VERIFICATION  
BY ENGINEER OF RECORD

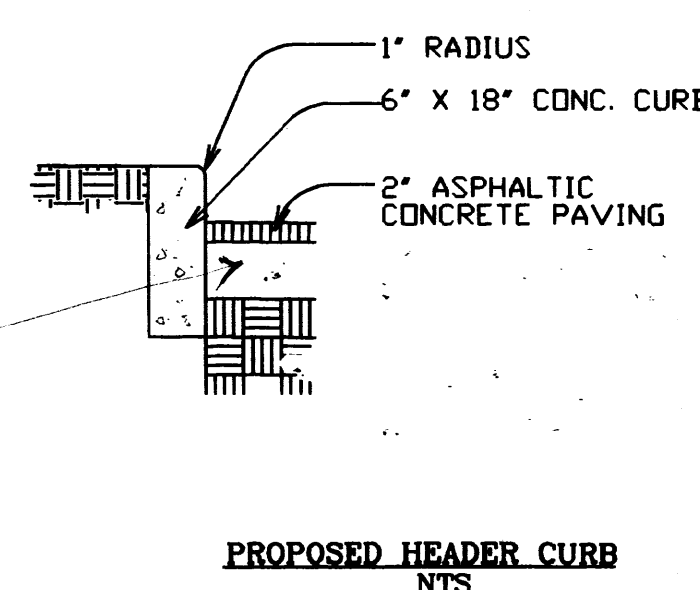
I, CELIA S. TOMLINSON, N.M.P.E. 4895, OF THE FIRM RHOMBUS P.A., INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED IN SUBSTANTIAL COMPLIANCE WITH THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THE PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Celia S. Tomlinson 8/25/04  
CELIA S. TOMLINSON, P.E. DATE:

#### DRAINAGE PLAN

SCALE: 1" = 20'-0"

SPILLWAY SECTION  
NTS



LOT 2, VOLCANO  
BUSINESS PARK  
TODOS SANTOS ST. NW

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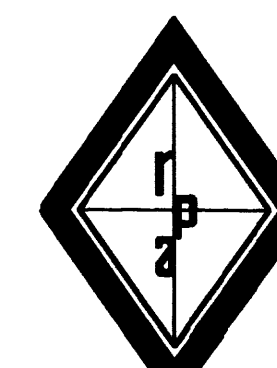
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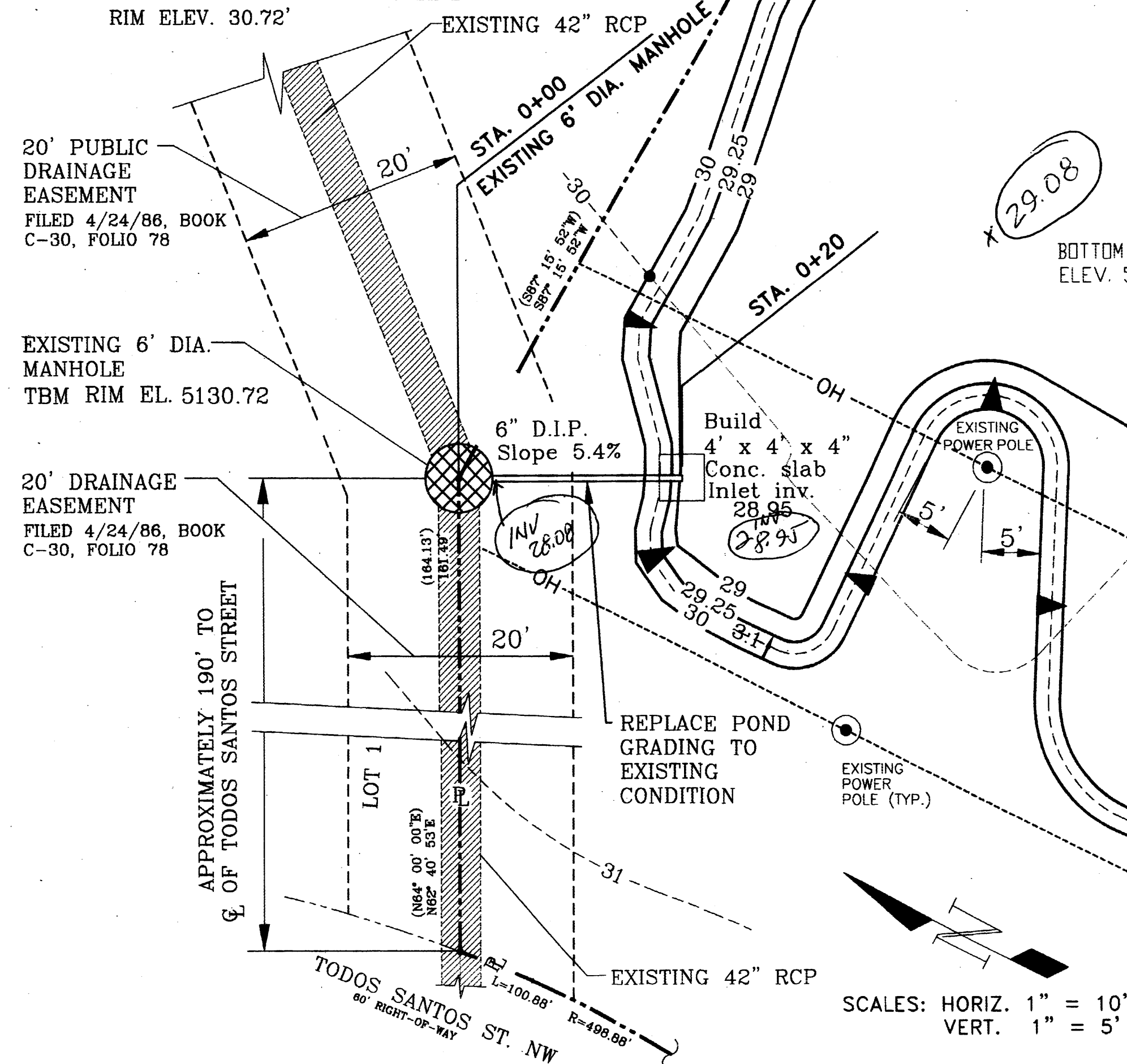
BENCHMARK: ACS 4-G10 ELEVATION (NGVD29): 5123.40

BENCH MARK LOCATION: IN THE PNM EASEMENT BETWEEN TODOS SANTOS ST NW & PRENDA DE PLAYA NW, 0.39 MI EAST OF UNSER BLVD NW, 397' NORTHERN OF C/L OURAY RD NW

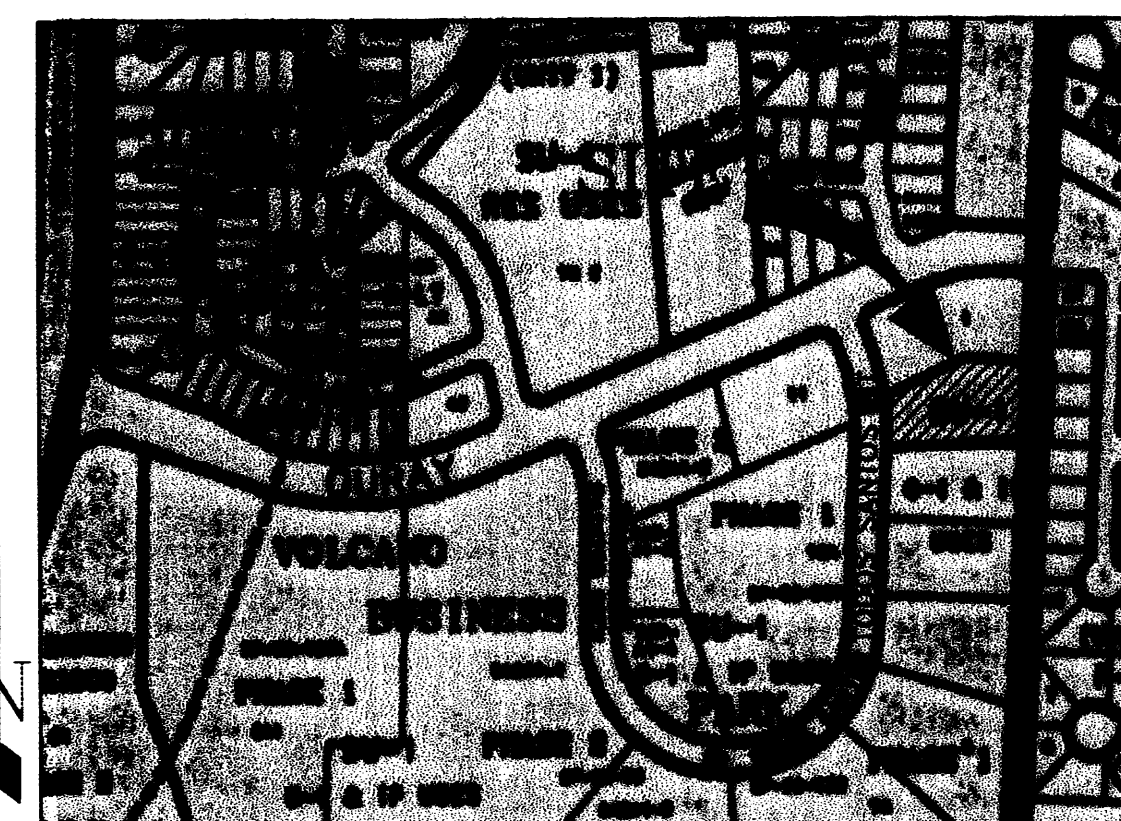
BENCH MARK DESCRIPTION: 60 PENNY NAIL IN SOUTH SIDE OF POWER POLE NO. W273, ON THE EAST POLE OF THE DOUBLE PYLON, PROJECTING 1.0' ABOVE GROUND.

NM STATE PLANE X & Y (NAD27): 0.0

T.B.M. STORM SEWER MANHOLE NEAR THE POND AT EASEMENT CENTERLINE RIM ELEV. 30.72'



## PROPOSED DRAIN LINE TO MANHOLE FOR LOT 2 VOLCANO BUSINESS PARK



### GENERAL NOTES:

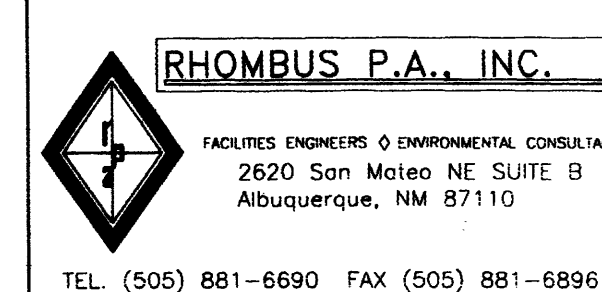
- CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS AMENDED THROUGH UPDATE 7 WILL BE REFERRED TO HEREIN AS THE "STANDARD SPECIFICATIONS".
- TWO WORKING DAYS PRIOR TO EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE-CALL SYSTEM (260-1990) AND DETERMINE LOCATION OF EXISTING UTILITIES.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITHOUT DELAY.
- ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC. WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED, AND RE-SET BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.

- THREE (3) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADE PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION.
- ANY WORK OCCURRING WITHIN AN ARTERIAL ROADWAY REQUIRES 24 HOURS CONSTRUCTION.
- ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART F.

### THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED:

- ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- TACK COAT REQUIREMENTS SHALL BE DETERMINED BY ENGINEER.
- SIDEWALK AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHENEVER NEW CURB AND GUTTER IS BUILT.
- SIDEWALK AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHENEVER NEW CURB AND GUTTER IS BUILT.

NOTE: MAINTENANCE OF THE STORM SEWER FROM THE POND TO THE MANHOLE IS THE RESPONSIBILITY OF THE OWNER OF LOT 2, PER PRIVATE FACILITY COVENANT.

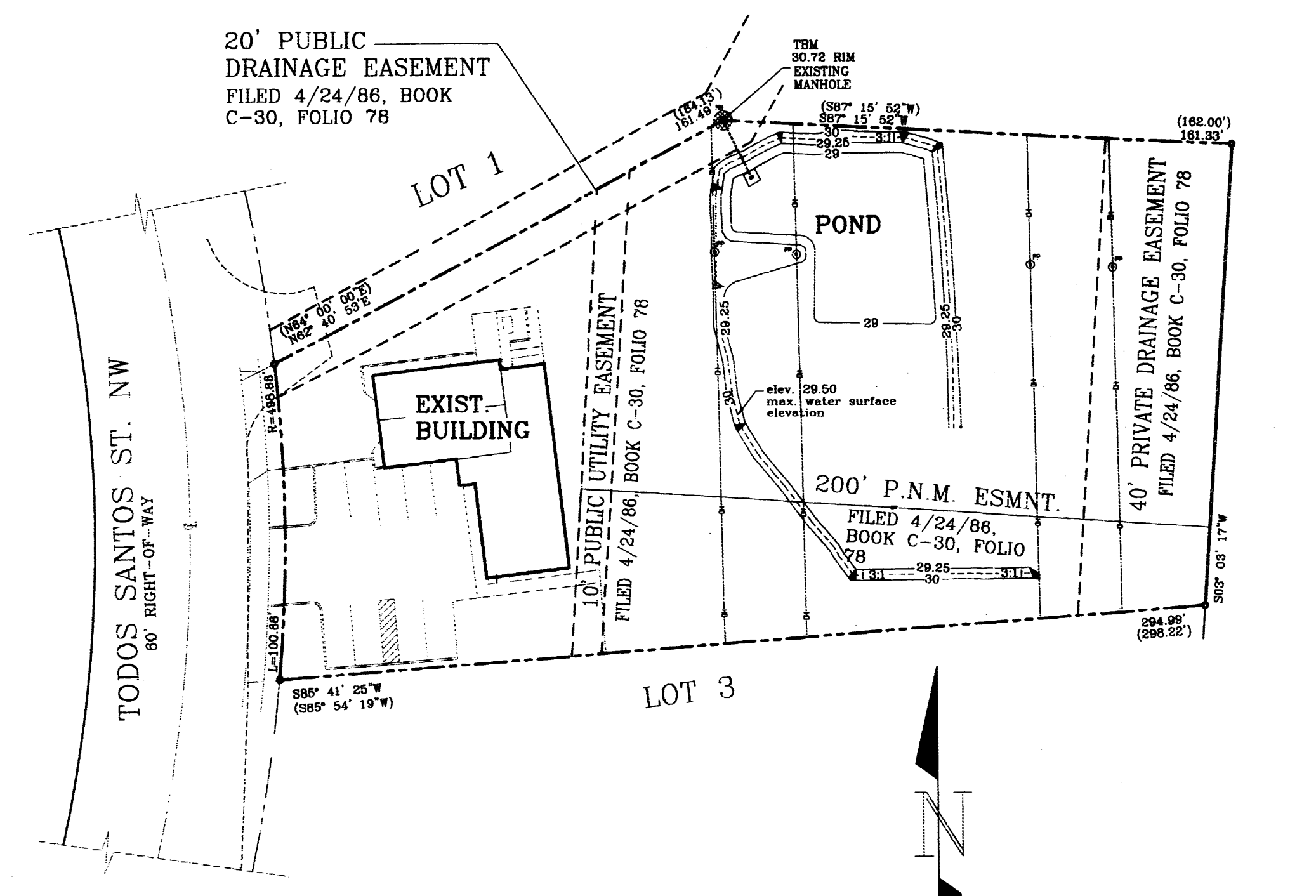
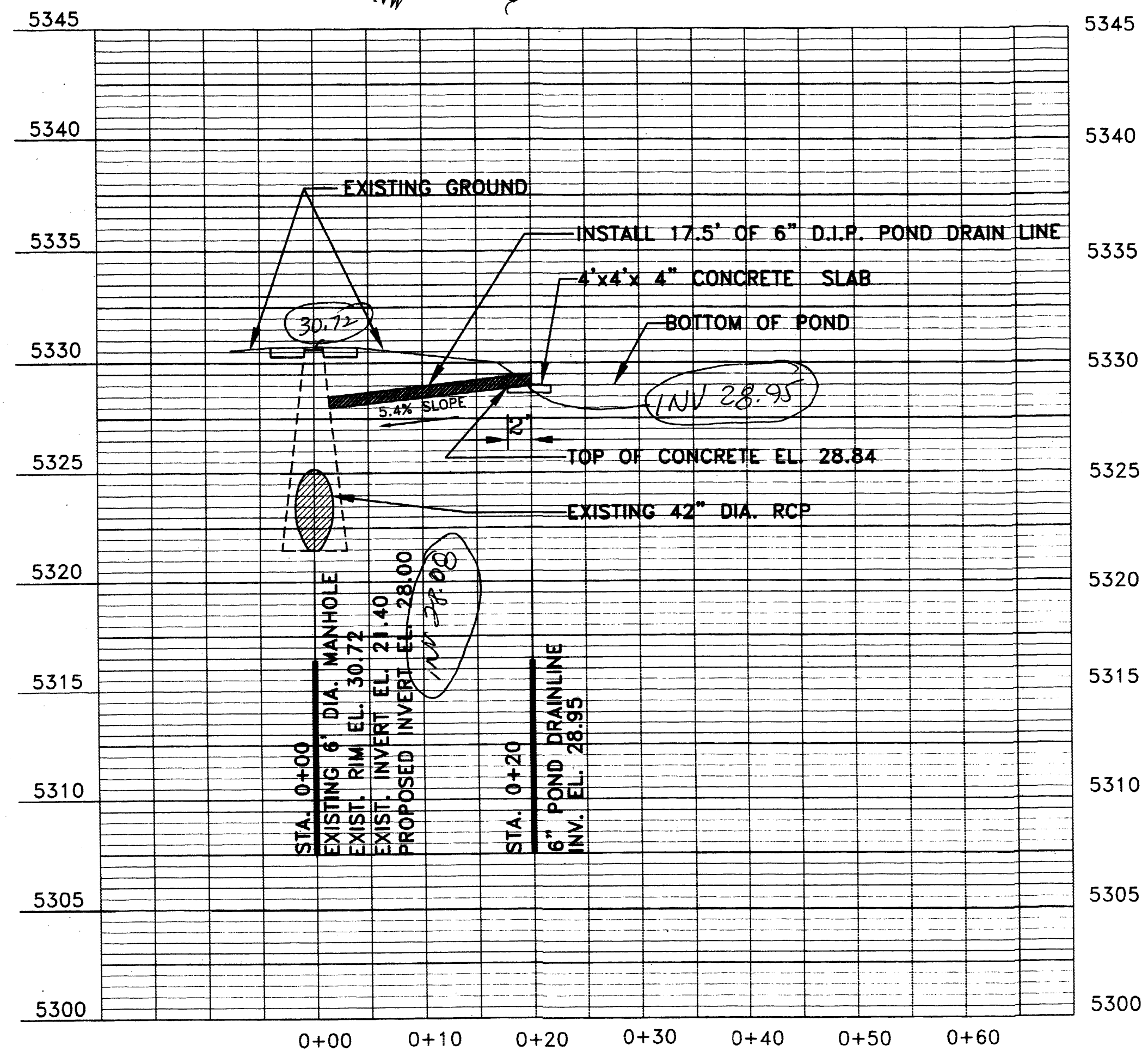


### PNM CONSTRUCTION NOTES:

- THE CONTRACTOR'S EQUIPMENT MUST MAINTAIN A MINIMUM CLEARANCE OF 20 FEET TO THE OVERHEAD CONDUCTOR.
- NO DISTURBANCE OF THE SOIL WITHIN 5 FEET OF ANY WOOD POLE.

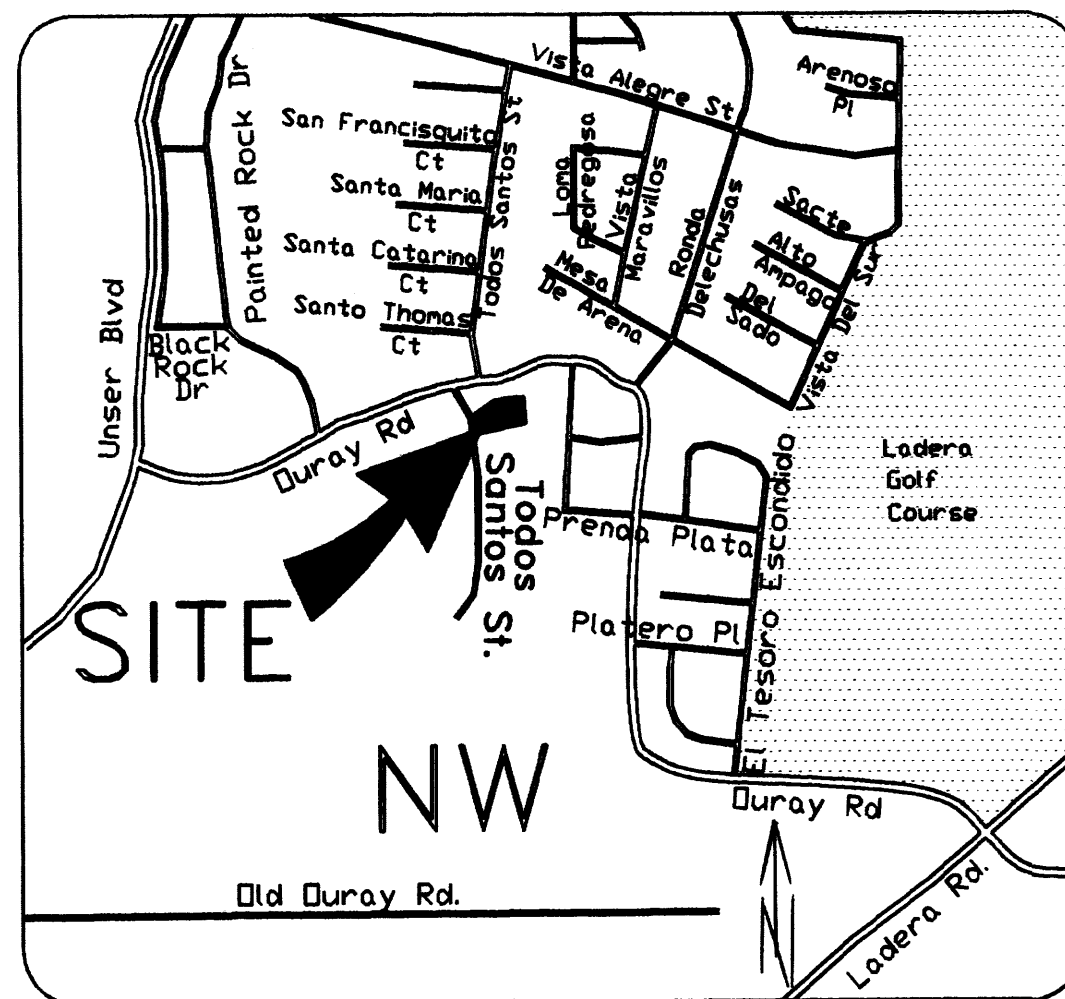
CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS  
I, CELIA S. TONLISON, N.M.P.E. 4895, OF THE FIRM RHOMBUS P.A., INC., A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE PLANS AND SPECIFICATIONS FOR THE PROPOSED DRAIN LINE TO MANHOLE FOR LOT 2, VOLCANO BUSINESS PARK, HAVE BEEN REVIEWED AND FOUND TO BE IN SUBSTANTIAL COMPLIANCE WITH THE CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS AMENDED THROUGH UPDATE 7, AND THAT THE ORIGINAL DESIGN INTENT OF THE APPROVED PLANS AND SPECIFICATIONS HAVE BEEN MET, EXCEPT AS NOTED HEREON. THIS CERTIFICATE IS VALID FOR THE PROJECT AND SITE INFORMATION PROVIDED BY ME OR PERSONNEL UNDER MY DIRECTION AND SURVEY INFORMATION PROVIDED BY JOHN L. MEERS, N.M.P.S. #12447.

DATE: 8/27/04  
CELL: 505-881-6690  
FAX: 505-881-6696



REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
1	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
2	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
3	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
4	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
5	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
6	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
7	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
8	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
9	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04
10	1	APPROVED FOR CONSTRUCTION	3-15-04	3/15/04	3/15/04	3/15/04	3/15/04





**BENCHMARK:** ACS 4-G10 ELEVATION 5123.40

#### NOTE:

1. THIS IS NOT A BOUNDARY SURVEY. PROPERTY CORNERS, BEARINGS AND DISTANCES ARE SHOWN HEREON ARE FOR ORIENTATION PURPOSES ONLY.
2. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON MAPS AND/OR EVIDENCES ON THE GROUND. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL UTILITIES, SHOWN OR NOT SHOWN ON THIS DRAWING, PRIOR TO ANY EXCAVATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
4. CONTRACTOR IS RESPONSIBLE FOR KEEPING RUN-OFF ON SITE DURING CONSTRUCTION AND CLEANING UP SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY AND ADJOINING PROPERTIES AFTER CONSTRUCTION.

#### LEGEND

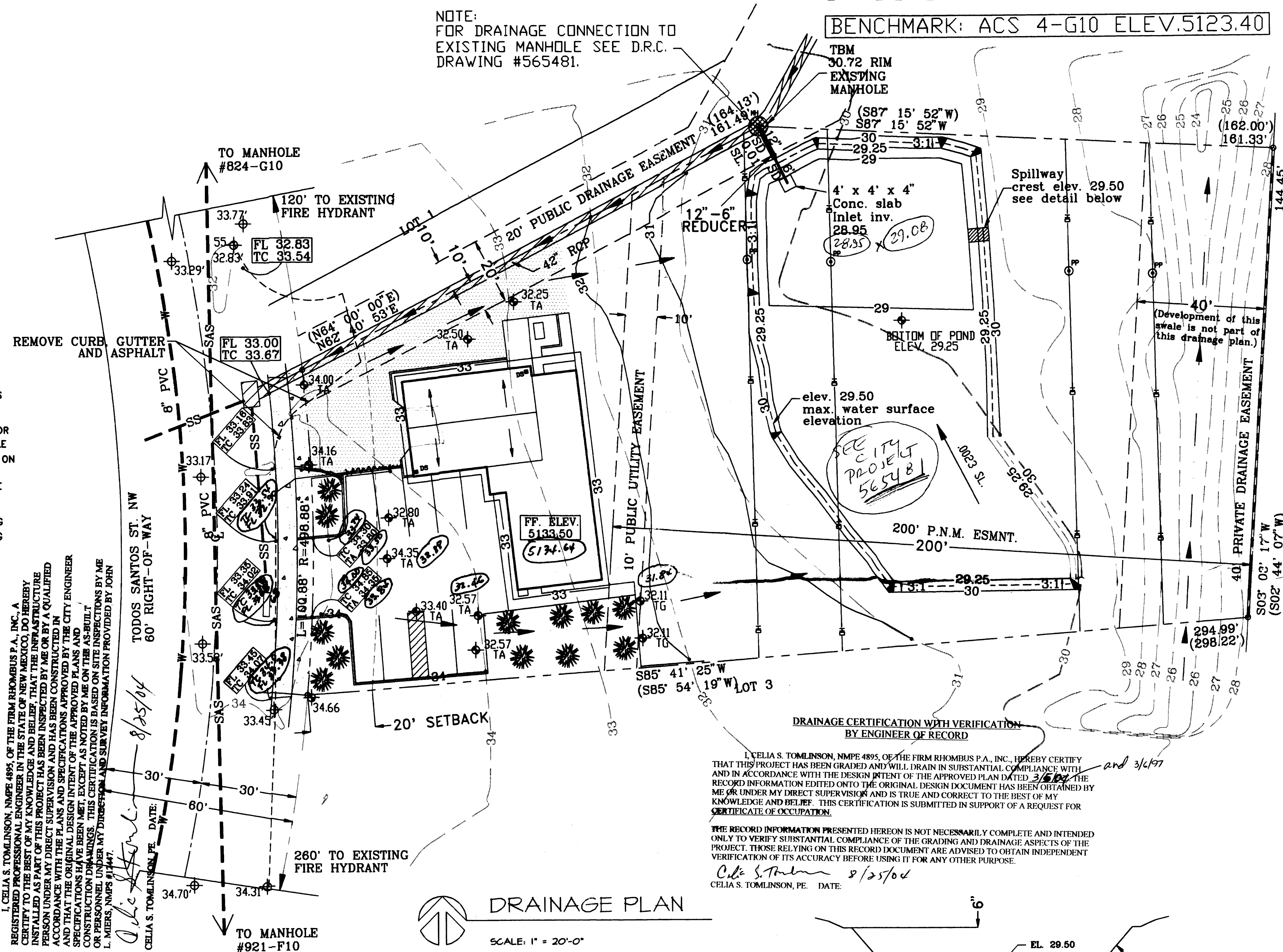
- 33 — EXISTING CONTOUR ELEVATION
- 30 — PROPOSED CONTOUR ELEVATION
- ▨ EXISTING 42" RCP
- PROPERTY LINE
- SS --- EXISTING STORM SEWER
- W --- EXISTING WATER LINE
- SAS --- EXISTING SANITARY SEWER
- ⊙ POWER POLE
- ⊙ EXISTING MANHOLE
- OH — EXISTING OVERHEAD LINE
- EXISTING BLOCK WALL ON PROPERTY LINE
- EXISTING PROPERTY CORNER
- PROPOSED MEDIAN CURB AND GUTTER
- ▨ ASPHALT PAD
- FL 57.00  
TC 57.50 PROPOSED ELEVATIONS, TOP OF CURB, FLOWLINE
- ⊙ 57.50  
TG PROPOSED ELEVATIONS  
TOP OF GRAVEL
- ⊙ 57.50  
TA PROPOSED ELEVATIONS  
TOP OF ASPHALT
- FF. ELEV.  
5133.50 PROPOSED FINISH  
FLOOR ELEVATION
- ⊙ 56.16 EXISTING SPOT ELEVATIONS
- ⊙ 34.66 PROPOSED SPOT ELEVATIONS
- ⊙ PROPOSED LANDSCAPE AREA
- PROPOSED DIRECTION OF FLOW
- 33.84 AS-BUILT ELEVATION

## LOT 2 VOLCANO BUSINESS PARK

NOTE:  
FOR DRAINAGE CONNECTION TO  
EXISTING MANHOLE SEE D.R.C.  
DRAWING #565481.

NOTE:  
MAINTENANCE OF THE STORM SEWER FROM  
THE POND TO THE MANHOLE IS THE RESPONSIBILITY  
OF THE OWNER OF LOT 2.

**BENCHMARK:** ACS 4-G10 ELEV. 5123.40



#### DRAINAGE PLAN

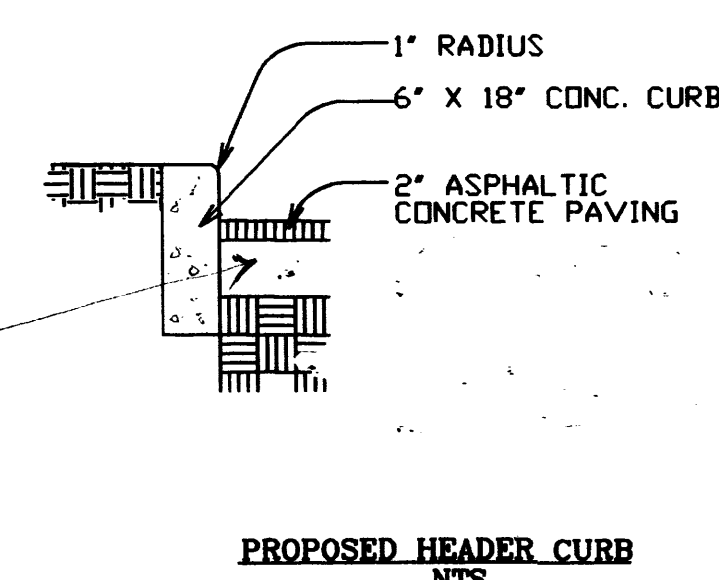
SCALE: 1" = 20'-0"

I, CELIA S. TOMLINSON, N.M.P.E. 4895, OF THE FIRM RHOMBUS P.A., INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPATION.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THE PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Celia S. Tomlinson 8/25/04  
CELIA S. TOMLINSON, P.E. DATE:

#### SPILLWAY SECTION NTS



LOT 2, VOLCANO  
BUSINESS PARK  
TODOS SANTOS ST. NW

#### DRAINAGE AND GRADING PLAN FOR LOT 2, VOLCANO BUSINESS PARK

**LEGAL DESCRIPTION:** LOT 2, VOLCANO BUSINESS PARK

**ADDRESS:** 3021 TODOS SANTOS NW

**FLOODPLAIN INFORMATION:** The property is located on Zone X, outside the 500-year floodplain in accordance with FIRM Panel 35001C0 326 D, dated September 20, 1996.

**EXISTING CONDITIONS:** The subject area consists of approximately one acre of unimproved land in the city-approved development plan of Volcano Business Park. The lot is bounded on the west by Todos Santos Street NW (asphalt pavement, curb and gutter, sidewalk); on the north and south by unimproved Lots 1 and 3, respectively, of the same business park; and on the east by an existing walled residential subdivision. The lot is 298 feet deep, the rear 208 feet of which is an easement for the Public Service Company of New Mexico.

The lot slopes an average of 2.5% from west to east, directing the surface runoff to a drainage easement swale on the east 40 feet of the property, and eventually to a catch basin at the southeast corner of Lot 1. There are no offsite flows except for the runoff coming through the swale from Lot 3.

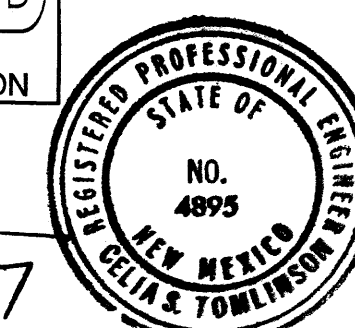
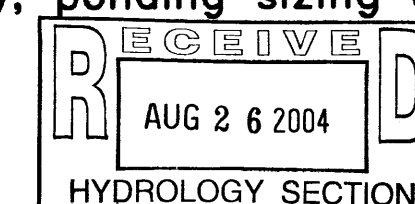
**PROPOSED IMPROVEMENTS:** Two buildings with approximately 3905 square feet of total roof area will be built. Asphalt parking fronting Todos Santos Street and gravel parking on the north and east sides of the structures will be built. Concrete sidewalk will be constructed. Landscaping will be provided.

A detention pond will be constructed at the rear of the lot. A six-inch diameter pipe will release the water from the pond to the existing 42-inch storm drain in the 20-foot public drainage easement adjoining the subject property.

**EROSION CONTROL:** Water from activities during construction and/or from rain will be temporarily ponded on site to prevent silt from entering the existing rights-of-way. Parking lot grading will take place after most of the building construction is completed to ensure that any runoff produced by rainfall during construction will flow toward the pond and silt will remain on site.

**ANALYSIS:** This drainage and grading plan utilizes the downstream analysis and pond routing performed by Brasher Lorenz, Inc. Consulting Engineers to determine the allowable discharge rate for the subject site under fully developed conditions and establish on-site detention ponding criteria. Brasher Lorenz' report "Supplemental Calculations for Lot 2, Volcano Business Park" is submitted with and made a part of this plan.

**CALCULATIONS:** The aforementioned report provides calculations that determine the existing and developed on-site hydrology using the AHYMO computer program, downstream capacity, ponding sizing and routing, and spillway design.



#### RHOMBUS P.A., INC.

FACILITIES ENGINEERS & ENVIRONMENTAL CONSULTANTS  
2620 San Mateo NE SUITE B  
Albuquerque, NM 87110

TEL. (505) 881-6690 FAX (505) 881-6896



BENCH MARK LOCATION:	IN THE PNM EASEMENT BETWEEN TODOS SANTOS ST NW & PRENDA DE PLAYA NW, 0.39 MI EAST OF UNSER BLVD NW, 397' NORTN OF C/L OURAY RD NW
BENCH MARK DESCRIPTION:	60 PENNY NAIL IN SOUTH SIDE OF POWER POLE NO. WN273, ON THE EAST POLE OF THE DOUBLE PYLON, PROJECTING 1.0' ABOVE GROUND.

T.B.M. STORM SEWER MANHOLE NEAR THE  
POND AT EASEMENT CENTERLINE  
RIM ELEV. 30.72' - EXIS

20' PUBLIC —  
DRAINAGE  
EASEMENT  
FILED 4/24/86,  
C-30, FOLIO 78

EXISTING 6' DIA. —  
MANHOLE  
TBM RIM EL. 5130.72

20' DRAINAGE —  
EASEMENT  
FILED 4/24/86, BOOK  
C-30, FOLIO 78

APPROXIMATELY 190' TO  
OF TODOS SANTOS STREET

EXISTING 42" RCP  
STA. 0+00  
EXISTING 6' DIA. MANHOLE  
-30-

6" D.I.P.  
Slope 5.4%

Build  
4' x 4' x 4"  
Conc. slab  
Inlet inv

REPLACE POND  
GRADING TO  
EXISTING  
CONDITION

- EXISTING 42" RCF

SCALES: HORIZ. 1" = 10'  
VERT. 1" = 5'

PROPOSED CONTOUR LINE (TYP.)

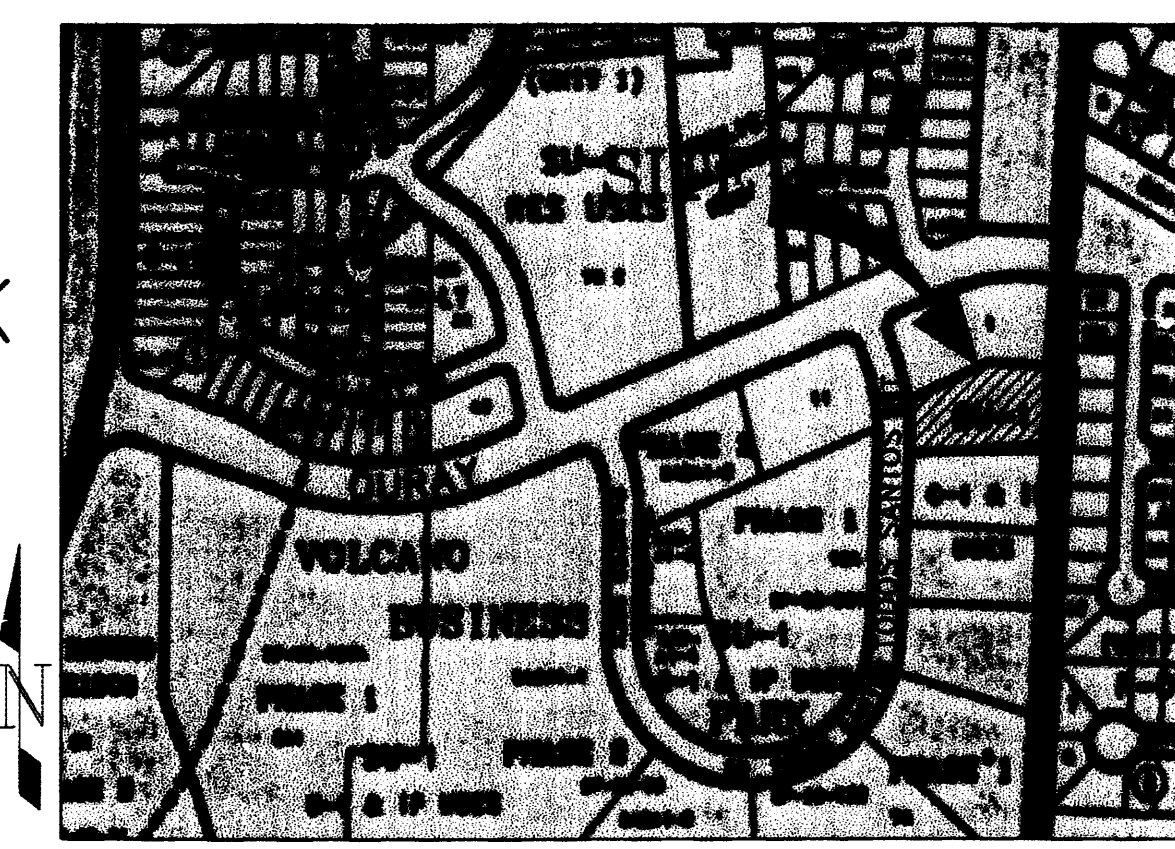
EXISTING CONTOUR LINE (TYP.)

WSE = 29.50'

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BASED ON BRASHER URENZ' REPORT  
'SUPPLEMENTAL CALCULATIONS FOR  
LOT 2, VOLCANO BUSINESS PARK'

PROPOSED DRAIN LINE  
TO MANHOLE FOR LOT 2  
VOLCANO BUSINESS PARK



VICINITY MAP  
NOT TO SCALE

G-10

**CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS**

I, CELIA S. TOMLINSON, NMPPE #895, OF THE FIRM RHOMBUS P.A., INC., A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE DESIGN AND CONSTRUCTION OF THE PROJECT DESCRIBED BELOW, AS INSTALLED AS PART OF THIS PROJECT HAS BEEN INSPECTED BY ME OR BY A QUALIFIED PERSON UNDER MY DIRECT SUPERVISION AND HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE ORIGINAL DESIGN INTENT OF THE APPROVED PLANS, AND THE SPECIFICATIONS HAVE BEEN MET, EXCEPT AS NOTED BY ME ON THE AS-BUILT CONSTRUCTION DRAWINGS. THIS CERTIFICATION IS BASED ON SITE INSPECTIONS BY ME OR PERSONS UNDER MY DIRECTION AND SURVEY INFORMATION PROVIDED BY JOHN

*C. J. [Signature]*

8/25/04

DATE:

PROFESSIONAL REGISTRATION NO.

TELLA & ASSOCIATES, P.C.

GENERAL NOTES:

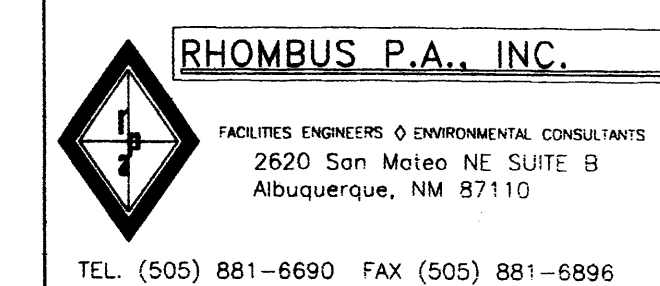
1. CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS AMENDED THROUGH UPDATE 7 WILL BE REFERRED TO HEREIN AS THE "STANDARD SPECIFICATIONS.
2. TWO WORKING DAYS PRIOR TO EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE-CALL SYSTEM (260-1990) AND DETERMINE LOCATION OF EXISTING UTILITIES.
3. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITHOUT DELAY.
4. ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC. WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED, AND RE-SET BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND PAID THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.

6. THREE (3) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924- 3400) PRIOR TO OCCUPYING AN INTERSECTION.
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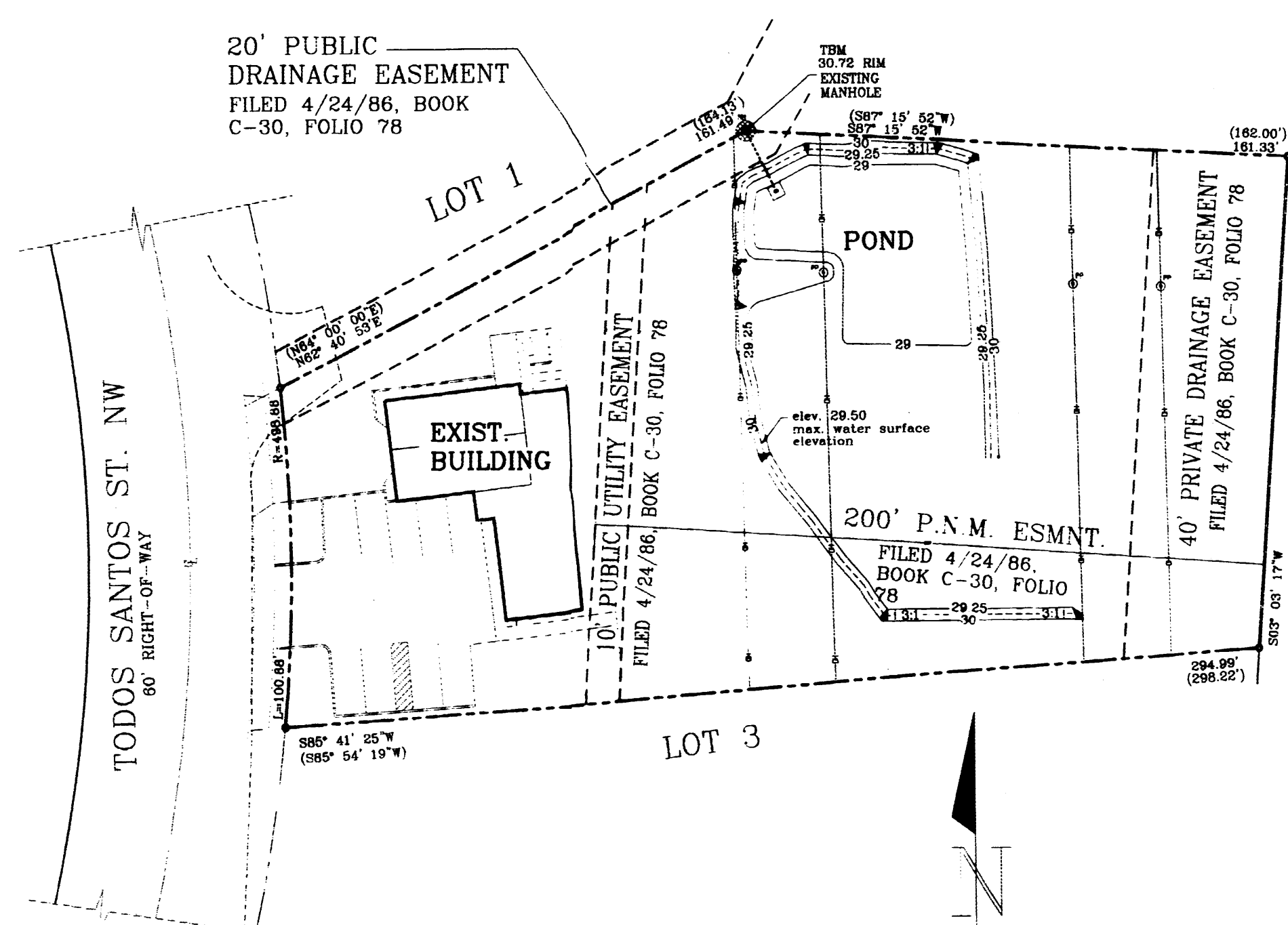
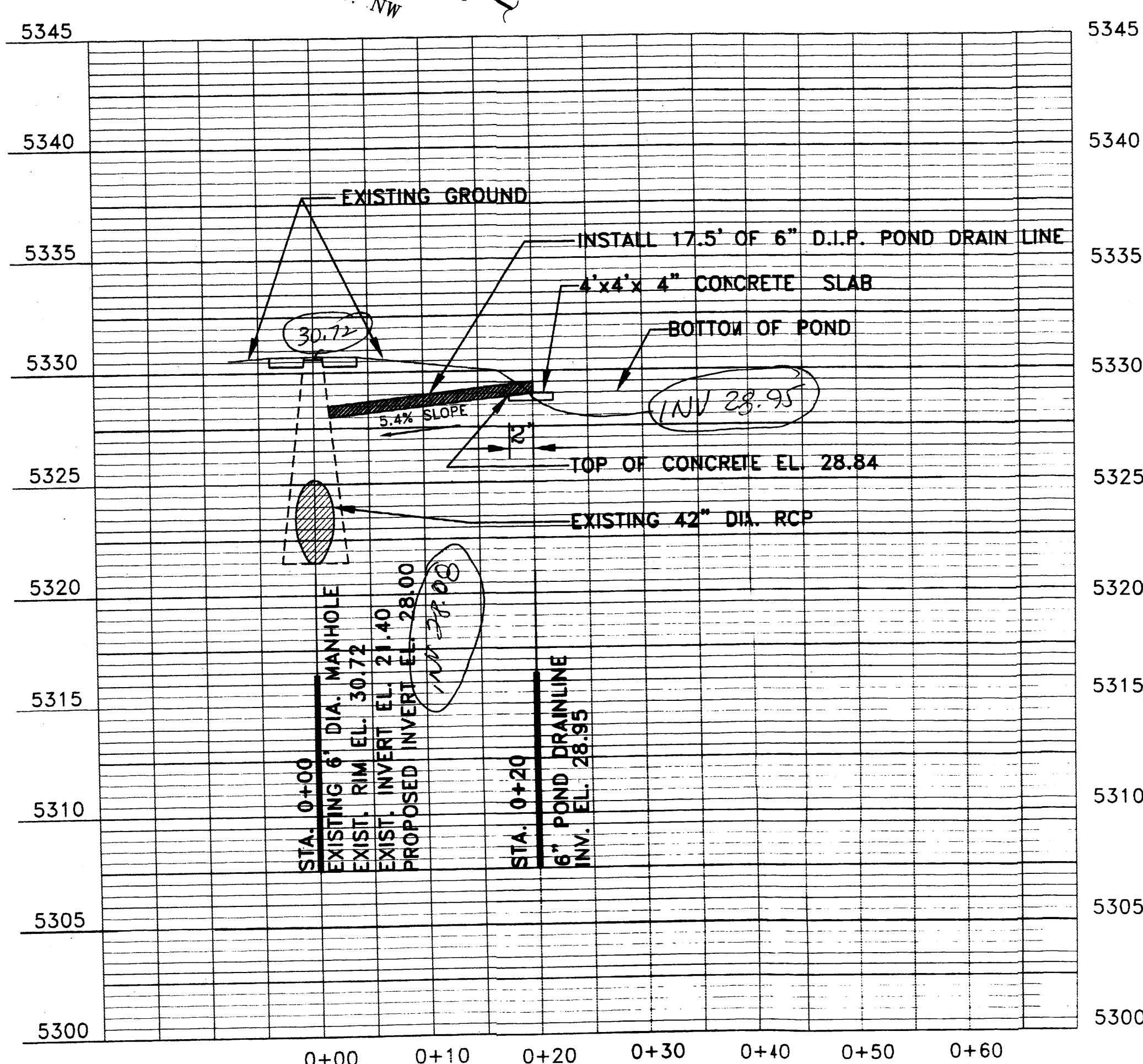
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NOTE:  
MAINTENANCE OF THE STORM SEWER FROM  
THE POND TO THE MANHOLE IS THE RESPONSIBILITY  
OF THE OWNER OF LOT 2. PER PRIVATE FACILITY COVENANT.




RECEIVED  
AUG 26 2004  
HYDROLOGY SECTION



## SITE DIAGRAM

NOT TO SCALE

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEER'S STAMP AND SIGNATURE		APPROVALS	ENGINEER	DATE	*****		
		DRG Chairman	<i>[Signature]</i>	3-15-04	APPROVED FOR CONSTRUCTION		
		Transportation	N/A	3/12/04			
		Water/Wastewater	N/A				
		Hydrology	Bradley D. Bijan	3/8/04			
		C.I.P.					
		Constr. Coord.	<i>[Signature]</i>	3-15-04	<i>[Signature]</i> 7-09-04 CITY ENGINEER DATE		
City Project No.				565481		Sheet 1 of 1	