

August 28, 1996

Martin J. Chávez, Mayor

Larry Read  
Larry Read & Associates  
P.O. Box 90233  
Albuquerque, NM 87199

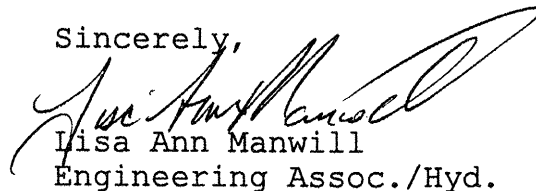
**RE: BONDS, PELTIER & GUSTAFSON (H19-D61) ENGINEER'S  
CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. ENGINEER'S  
CERTIFICATION DATED 8-1-96.**

Dear Mr. Read:

Based on the information provided on your submittal dated August 8, 1996, the above referenced project is approved for a Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,



Lisa Ann Manwill  
Engineering Assoc./Hyd.

c: Andrew Garcia  
File

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

PROJECT TITLE: BONDS, PELTIER & GUSTAFSON ZONE ATLAS/DRNG. FILE: H-19-Z (H19-D61)

LEGAL DESCRIPTION: LOT 6-A-1-B BLOCK 'C' LOUISIANA SUBDIVISION

CITY ADDRESS: 2400 BLOCK OF PROSPECT PLACE NE

ENGINEERING FIRM: LARRY READ & ASSOCIATES CONTACT: LARRY READ

ADDRESS: P. O. BOX 90233 ALB. NM 87199 PHONE: 858-3165

OWNER: \_\_\_\_\_ CONTACT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

ARCHITECT: KNIGHT SEAVEY CONTACT: JUD CERVENAK

ADDRESS: 1600 UNIVERSITY BLVD. PHONE: 242-9800

SURVEYOR: \_\_\_\_\_ CONTACT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ CONTACT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

PREDESIGN MEETING:

\_\_\_\_ YES  
X NO

DRB NO. 95-286  
EPC NO. \_\_\_\_\_

\_\_\_\_ COPY OF CONFERENCE RECAP SHEET

PROJECT NO. \_\_\_\_\_

PROVIDED

TYPE OF TRANSMITTAL:

\_\_\_\_ DRAINAGE REPORT

\_\_\_\_ DRAINAGE PLAN

\_\_\_\_ PRELIMINARY GRADING AND DRAINAGE

\_\_\_\_ GRADING PLAN

\_\_\_\_ EROSION CONTROL PLAN

X ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

\_\_\_\_ SKETCH PLAT APPROVAL

\_\_\_\_ PRELIMINARY PLAT APPROVAL

\_\_\_\_ SITE DEVELOPMENT PLAN APPROVAL

\_\_\_\_ FINAL PLAT APPROVAL

\_\_\_\_ BUILDING PERMIT APPROVAL

\_\_\_\_ FOUNDATION PERMIT APPROVAL

X CERTIFICATE OF OCCUPANCY APPROVAL

\_\_\_\_ ROUGH GRADING PERMIT APPROVAL

\_\_\_\_ GRADING/PAVING PERMIT APPROVAL

\_\_\_\_ OTHER \_\_\_\_\_

DATE SUBMITTED: AUGUST 1, 1996

BY: LARRY READ

AUS - 8

## DRAINAGE COVENANT

THIS COVENANT made this \_\_\_\_\_ day of \_\_\_\_\_, 1981, by and between the City of Albuquerque, a municipal corporation, (City) and AFC G. LTD. Co. A New Mexico Limited Liability Co. (Owner, which term includes successors and assigns.)

RECITAL

The Owner is owner of certain real property located at 2400 Block Prospect Pl NE in Albuquerque, New Mexico, (the Property) and more particularly described as follows:

LOT 6-A-1-A, Block "C" Louisiana Subdivision  
Bernalillo County  
Albuquerque, New Mexico

Pursuant to City ordinances, regulations, and other applicable laws, the Owner is required to install and/or maintain certain drainage facilities on the Property, and the parties wish to provide for an agreement as to the obligations and responsibilities for same.

DESCRIPTION OF FACILITIES

The following facilities are to be constructed and/or maintained by the owner: Allow runoff from Lot 6-A-1-B to enter the existing detention pond on Lot 6-A-1-A. See Exhibit 'A' for easement boundary.

CONSTRUCTION OF DRAINAGE FACILITIES

The Owner shall construct the drainage facilities in accordance with standards, plans, and specifications prescribed and approved by the City.

MAINTENANCE OF FACILITIES

The Owner shall, at his cost in accordance with the standards, plans, and specifications prescribed by the City, maintain said drainage facility. The City shall have the right to enter periodically upon the Property to inspect the drainage facility.

FAILURE TO COMPLY AND LIEN

In the event that the Owner shall fail to construct the drainage facility in accordance with standards, plans, and specifications prescribed and approved by the City or fail to adequately maintain said facilities, the City shall give the Owner notice in writing to construct, correct, or maintain said facilities, and if the Owner fails to comply therewith within 30 days, the City may enter upon said property to perform the necessary construction or maintenance. The cost of the City's performing such construction or maintenance shall be paid by the Owner. In the event the Owner fails to pay said cost within thirty (30) days after being billed for same, the City may file a lien against the Property.

LIABILITY

The City shall not be liable for any damages to the Owner resulting from its construction, modification, or maintenance of said facilities.

NOTICE

The written notice provided for herein shall be accomplished by mailing same to:

AFC Partners Limited Partnership  
2632 Mesilla, NE  
Albuquerque, New Mexico 87110

The Owner may change said address by giving written notice, certified mail, return receipt requested, to the City Engineer, City/County Building One Civic Plaza, Albuquerque, New Mexico 87103.

Drainage Covenant Page 1 of 2

RECEIVED  
SEP 11 1981

INDEMNIFICATION AND HOLD HARMLESS

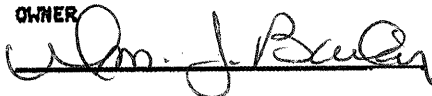
The Owner agrees to defend, indemnify, and hold harmless, the City, its officials, agents and employees from and against any and all claims, actions, suits, or proceedings of any kind brought against said parties for or on account of any matter arising from the drainage facility provided for herein or the Owner's failure to construct, maintain, or modify the drainage facility under this Covenant.

COVENANT RUNNING WITH THE PROPERTY

The obligation of the Owner set forth herein shall be binding upon the Owner, his heirs, and assigns, and the property of the Owner as described herein and will run with said property until released by the City.

OWNER

CITY OF ALBUQUERQUE, NEW MEXICO



City Engineer

ATTEST:

City Clerk

Chief Administrative Officer

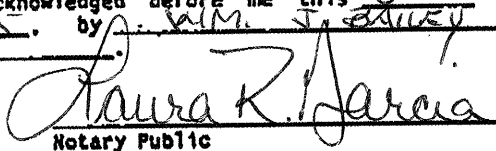
REVIEWED BY:

Assistant City Attorney

City Attorney

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

The foregoing instrument was acknowledged before me this 8th day  
of SEPTEMBER, 1995, by W.M. J. Bailey  
of AFC 6 LTD. CO.

  
Notary Public

My Commission Expires:

10-4-98

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

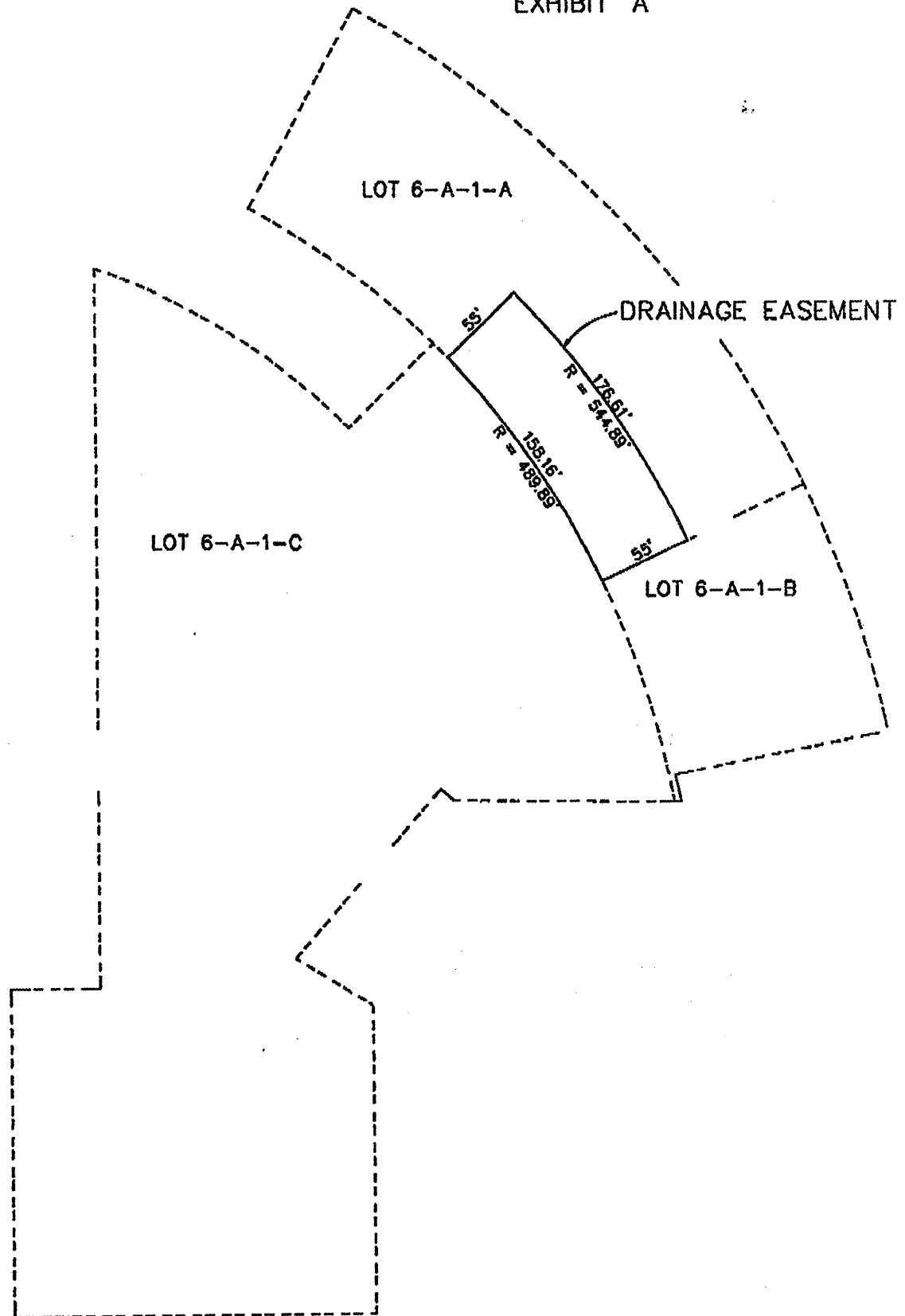
The foregoing instrument was acknowledged before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_,  
Chief Administrative Officer of the City of Albuquerque.

Notary Public

My Commission Expires:

Drainage Covenant Page 2 of 2  
Rev. 10/85  
ID25320

## EXHIBIT 'A'



## DRAINAGE COVENANT

THIS COVENANT made this \_\_\_\_\_ day of \_\_\_\_\_, 1981, by and between the City of Albuquerque, a municipal corporation, (City) and AFC Partners Limited Partnership (Owner, which term includes successors and assigns.) 2 a New Mexico Limited Partnership

RECITAL

The Owner is owner of certain real property located at 2400 Black Prospect Pl. NE in Albuquerque, New Mexico, (the Property) and more particularly described as follows:

LOT 6-A-1-C, Block 'C' Louisiana Subdivision  
Bernalillo County  
Albuquerque, New Mexico

Pursuant to City ordinances, regulations, and other applicable laws, the Owner is required to install and/or maintain certain drainage facilities on the Property, and the parties wish to provide for an agreement as to the obligations and responsibilities for same.

DESCRIPTION OF FACILITIES

The following facilities are to be constructed and/or maintained by the owner: Construct a retention pond on Lot 6-A-1-C and allow runoff from Lot 6-A-1-A & 6-A-1-B to enter the pond. See Exhibit 'A' for easement boundary.

The Owner shall construct the drainage facilities in accordance with standards, plans, and specifications prescribed and approved by the City.

MAINTENANCE OF FACILITIES

The Owner shall, at his cost in accordance with the standards, plans, and specifications prescribed by the City, maintain said drainage facility. The City shall have the right to enter periodically upon the Property to inspect the drainage facility.

FAILURE TO COMPLY AND LIEN

In the event that the Owner shall fail to construct the drainage facility in accordance with standards, plans, and specifications prescribed and approved by the City or fail to adequately maintain said facilities, the City shall give the Owner notice in writing to construct, correct, or maintain said facilities, and if the Owner fails to comply therewith within 30 days, the City may enter upon said property to perform the necessary construction or maintenance. The cost of the City's performing such construction or maintenance shall be paid by the Owner. In the event the Owner fails to pay said cost within thirty (30) days after being billed for same, the City may file a lien against the Property.

LIABILITY

The City shall not be liable for any damages to the Owner resulting from its construction, modification, or maintenance of said facilities.

NOTICE

The written notice provided for herein shall be accomplished by mailing same to:

AFC Partners Limited Partnership  
2632 Mesilla, NE  
Albuquerque, New Mexico 87110

The Owner may change said address by giving written notice, certified mail, return receipt requested, to the City Engineer, City/County Building One Civic Plaza, Albuquerque, New Mexico 87103.

Drainage Covenant Page 1 of 2

113

RECEIVED

11/13

6-A-1-C

INDEMNIFICATION AND HOLD HARMLESS

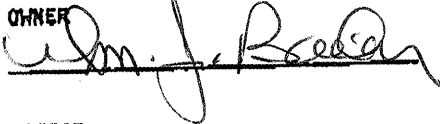
The Owner agrees to defend, indemnify, and hold harmless, the City, its officials, agents and employees from and against any and all claims, actions, suits, or proceedings of any kind brought against said parties for or on account of any matter arising from the drainage facility provided for herein or the Owner's failure to construct, maintain, or modify the drainage facility under this Covenant.

COVENANT RUNNING WITH THE PROPERTY

The obligation of the Owner set forth herein shall be binding upon the Owner, his heirs, and assigns, and the property of the Owner as described herein and will run with said property until released by the City.

OWNER

CITY OF ALBUQUERQUE, NEW MEXICO



City Engineer

ATTEST:

City Clerk

Chief Administrative Officer

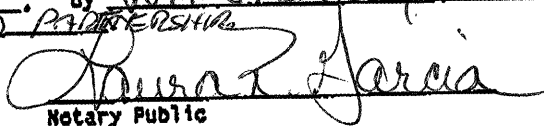
REVIEWED BY:

Assistant City Attorney

City Attorney

STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss.

The foregoing instrument was acknowledged before me this 8<sup>th</sup> day of SEPTEMBER, 1998, by W.M. J. BAILEY of LEC PARTNERS LIMITED PARTNERSHIP



Notary Public

My Commission Expires:

6-4-98

STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss.

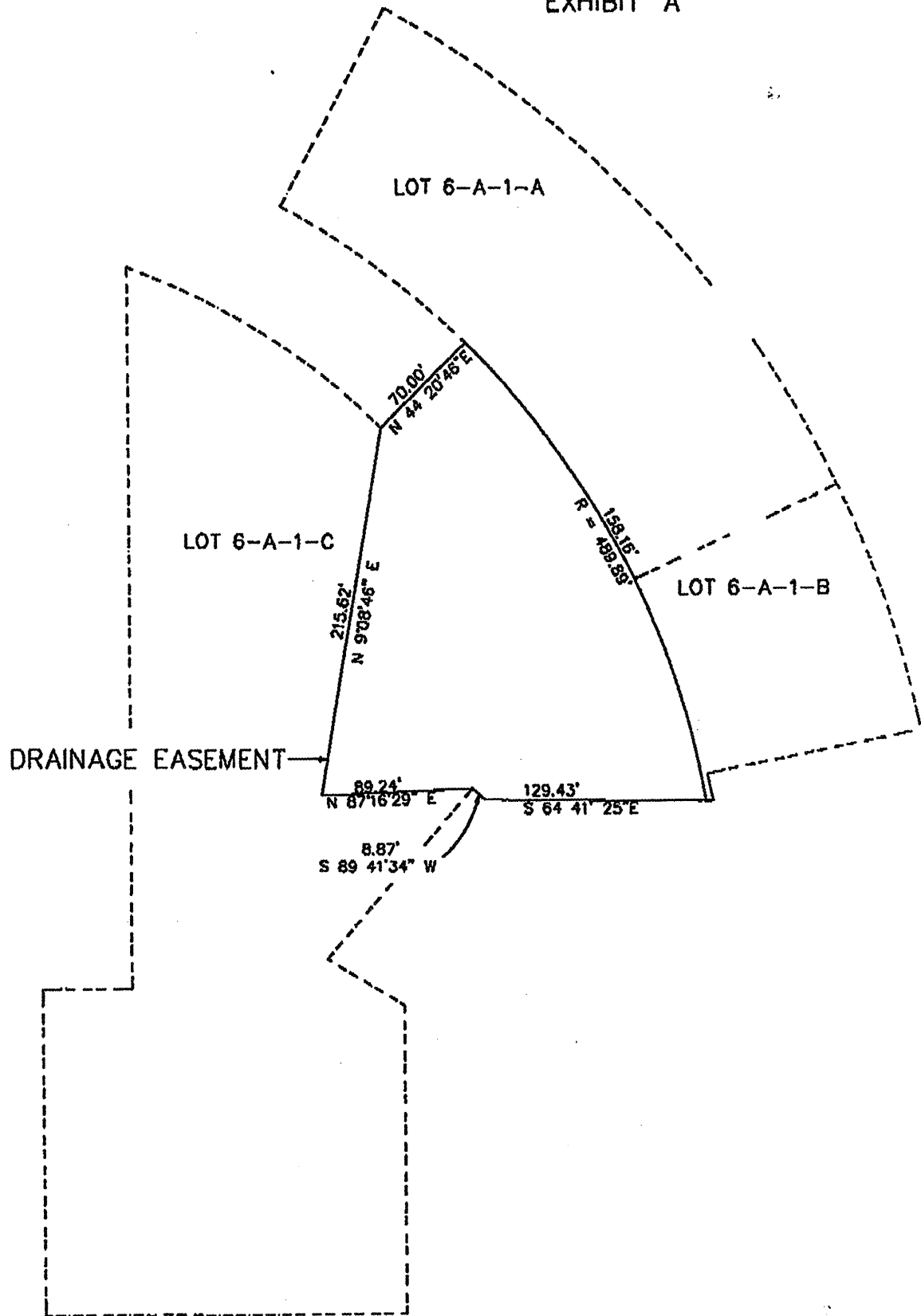
The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_, Chief Administrative Officer of the City of Albuquerque.

Notary Public

My Commission Expires:

---

EXHIBIT 'A'



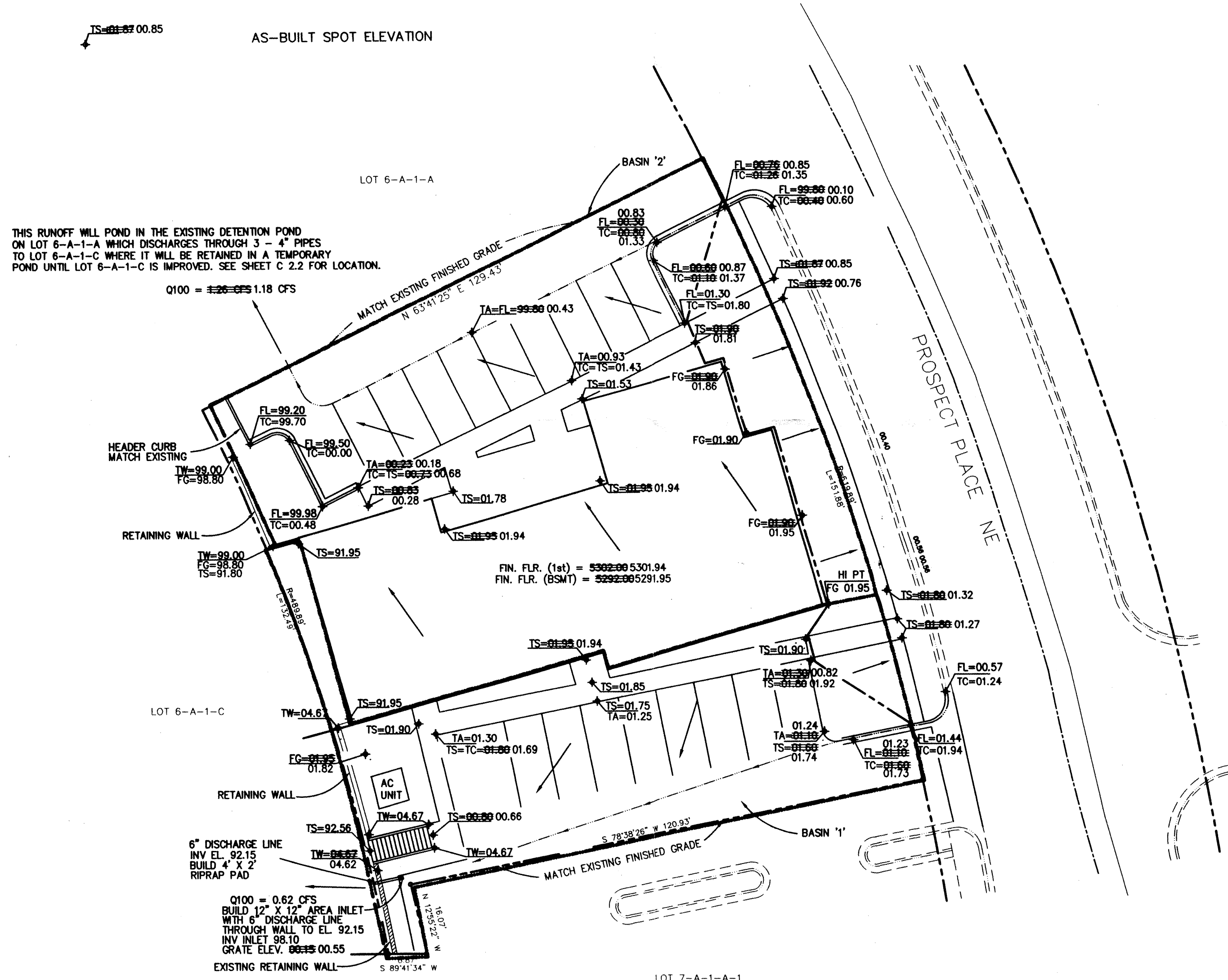


# LEGEND

	DRAINAGE BASIN BOUNDARY
	EXISTING CONTOUR
	PROPOSED CONTOUR
	FLOW DIRECTION
	PROPERTY LINE
	FINISHED SPOT ELEVATION
	NEW SIDEWALK CULVERT
	EXISTING CURB AND GUTTER
	NEW CURB AND GUTTER
	SWALE
	AS-BUILT SPOT ELEVATION

# ABBREVIATIONS

TA	TOP OF ASPHALT PAVING ELEVATION
TC	TOP OF CONCRETE CURB ELEVATION
TS	TOP OF CONCRETE SIDEWALK ELEVATION
TW	TOP OF CONCRETE RETAINING WALL ELEVATION
FG	FINISHED ELEVATION OF EARTH
FL	FLOWLINE ELEVATION OF CONCRETE GUTTER



# GRADING AND DRAINAGE PLAN

SCALE 1" = 20'

# DRAINAGE DISCUSSION

## EXISTING CONDITIONS:

THE PROJECT SITE IS CURRENTLY UNDEVELOPED. THE SITE HAS BEEN RECENTLY GRADED ACCORDING TO AN OVERALL SITE GRADING AND DRAINAGE PLAN PREPARED BY MARK GOODWIN AND ASSOCIATES AND STAMPED 1-11-95. THE MASTER GRADING AND DRAINAGE PLAN, TITLED "AFC OFFICE BUILDINGS" INCLUDED THIS SITE AS WELL AS LOT 6-A-1-A TO THE NORTH AND 6-A-1-C TO THE EAST FOR A TOTAL OF 2.928 ACRES. THIS SITE CONTAINS APPROXIMATELY 0.404 ACRES. SINCE THE SITE HAS BEEN RECENTLY GRADED, THE VEGETATION IS SPARSE. THE EXISTING SITE SLOPES TO THE EAST AT LESS THAN 1% WITH A STEEP SLOPE AT THE EASTERN EDGE THAT VARIES FROM 5 TO 8 FEET IN HEIGHT.

## OFFSITE DRAINAGE:

SINCE THIS SITE WAS GRADED ACCORDING TO THE MASTER GRADING AND DRAINAGE PLAN REFERENCED ABOVE, NO OFFSITE DRAINAGE ENTERS THE SITE. THE PROPOSED GRADING AND DRAINAGE SHOWN WITHIN THIS PLAN HAS MAINTAINED HISTORIC OFFSITE DRAINAGE PATTERNS WHICH ALSO MATCH THE MASTER GRADING AND DRAINAGE PLAN.

## PROPOSED DRAINAGE:

THE PROPOSED DRAINAGE PLAN FOR THIS SITE IS IN ACCORDANCE WITH THE MASTER GRADING AND DRAINAGE PLAN REFERENCED ABOVE. THE SITE HAS BEEN DIVIDED INTO TWO DRAINAGE BASINS. THE SOUTHERN BASIN '1' INCORPORATES APPROXIMATELY 0.14 ACRES WHICH INCLUDES THE SOUTHERN PARKING CANOPY AND PAVEMENT, LANDSCAPING AREAS AND STAIRWELL. THE NORTHERN BASIN '2' CONTAINS 0.27 ACRES AND INCLUDES THE BUILDING ROOF, THE NORTHERN PARKING LOT AND THE LANDSCAPE AREA EAST OF THE BUILDING ADJACENT TO PROSPECT PLACE. BASIN '2' WILL DRAIN NORTH INTO THE EXISTING DETENTION POND ON LOT 6-A-1-A AS WAS PROPOSED IN THE MASTER GRADING AND DRAINAGE PLAN. BASIN '2' WILL DISCHARGE INTO THE LOWER POND, POND 'B', VIA AN AREA DRAIN AND PIPE NEAR THE WESTERN PROPERTY LINE. THIS DISCHARGE IS ALSO IN ACCORDANCE WITH THE MASTER GRADING AND DRAINAGE PLAN.

## DRAINAGE CALCULATIONS:

THESE CALCULATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2, VOLUME 2, "DESIGN CRITERIA", DATED JANUARY, 1993. THE SITE IS WITHIN PRECIPITATION ZONE 3 AS SHOWN IN FIGURE A-1. THEREFOR PEAK DISCHARGE RATES FOR A 100 YEAR - 6 HOUR STORM ARE 2.60 CFS/ACRE AND 5.02 CFS/ACRE FOR TREATMENT TYPES 'B' AND 'D' RESPECTIVELY AS SHOWN IN TABLE A-9. EXCESS PRECIPITATION IS 0.92 INCHES AND 2.36 INCHES FOR TREATMENT TYPES 'B' AND 'D' RESPECTIVELY PER TABLE A-8.

## BASIN '1'

AREA=0.14 ACRES  
TYPE 'A' SOIL = 0%  
TYPE 'B' SOIL = 23.98%  
TYPE 'C' SOIL = 0%  
TYPE 'D' SOIL = 76.02%  
100 YEAR 6 HOUR RUNOFF

$Q_{100} = 0.14 \times 0.2398 \times 2.60 \text{ CFS/AC} + 0.14 \times 0.7602 \times 5.02 \text{ CFS/AC} = 0.62 \text{ CFS}$   
 $V_{100} = (0.14 \times 0.2398 \times 0.92 \text{ IN} + 0.14 \times 0.7602 \times 2.36 \text{ IN})/12 = 0.02351 \text{ AC-FT}$   
 $V_{100} = 0.02351 \times 43560 = 1024 \text{ CF}$

## 10 YEAR 6 HOUR RUNOFF

$Q_{10} = 0.62 \text{ CFS} \times 0.667 = 0.41 \text{ CFS}$   
 $V_{10} = 1024 \text{ CF} \times 0.667 = 683 \text{ CF}$

## BASIN '2'

AREA=0.27 ACRES  
TYPE 'A' SOIL = 0%  
TYPE 'B' SOIL = 1.90%  
TYPE 'C' SOIL = 0%  
TYPE 'D' SOIL = 98.10%  
100 YEAR 6 HOUR RUNOFF

$Q_{100} = 0.27 \times 0.019 \times 2.60 \text{ CFS/AC} + 0.27 \times 0.9810 \times 5.02 \text{ CFS/AC} = 1.18 \text{ CFS}$   
 $V_{100} = (0.27 \times 0.019 \times 0.92 \text{ IN} + 0.27 \times 0.9810 \times 2.36 \text{ IN})/12 = 0.04862 \text{ AC-FT}$   
 $V_{100} = 0.04862 \times 43560 = 2118 \text{ CF}$

## 10 YEAR 6 HOUR RUNOFF

$Q_{10} = 1.18 \text{ CFS} \times 0.667 = 0.7871 \text{ CFS}$   
 $V_{10} = 2118 \text{ CF} \times 0.667 = 1413 \text{ CF}$

## EXISTING POND 'A' CALCULATIONS:

THE MASTER GRADING AND DRAINAGE PLAN INCLUDED THE AREA OF LOT 6-A-1-B (THIS SITE) WITH THE AREA OF LOT 6-A-1-A TO THE NORTH (TOTAL AREA 1.2913 AC) IN THE RUNOFF VOLUME CALCULATION FOR BASIN 'A' OF THE MASTER DRAINAGE PLAN. TO ASSURE ADEQUATE DETENTION VOLUME WAS PROVIDED IN THE EXISTING POND ON LOT 6-A-1-A (POND 'A' PER THE MASTER GRADING AND DRAINAGE PLAN), THE TOTAL RUNOFF VOLUME FROM LOT 6-A-1-A AND FOR LOT 6-A-1-B BASIN 2 WILL BE COMBINED TO COMPARE TOTAL RUNOFF VOLUME.

## BASIN 'A'

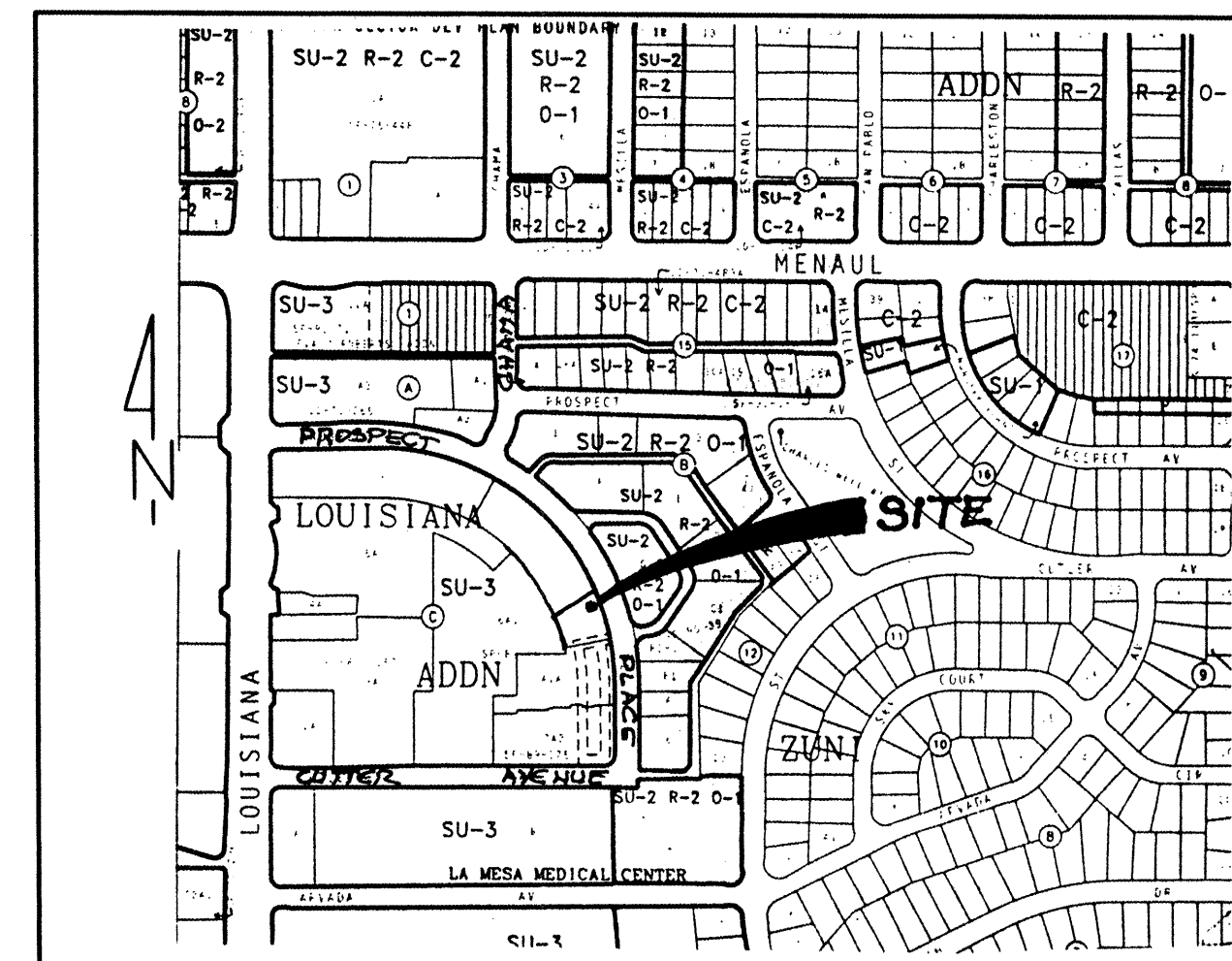
AREA=1.2913 - 0.404 = .8873 ACRES  
TYPE 'A' SOIL = 0%  
TYPE 'B' SOIL = 24.82%  
TYPE 'C' SOIL = 0%  
TYPE 'D' SOIL = 75.18%  
100 YEAR 6 HOUR RUNOFF

$V_{100} = (0.8873 \times 0.2482 \times 0.92 \text{ IN} + 0.8873 \times 0.7518 \times 2.36 \text{ IN})/12 = 0.1481 \text{ AC-FT}$

## BASIN '2'

FROM ABOVE  $V_{100} = 0.0461 \text{ AC-FT}$

$V_{100} \text{ TOTAL} = 0.1942 \text{ AC-FT VS. THE MASTER PLAN'S } V_{100} = (.2482 \times .92 + .7518 \times 2.36) \times 1.2913/12 = 0.2155 \text{ AC-FT. THEREFOR IS LESS THAN THE VOLUME ANTICIPATED BY THE MASTER AND WE CAN CONCLUDE THE DETENTION PONDS AND STORM DRAIN SYSTEMS DESIGNED IN THE MASTER PLAN ARE ADEQUATE FOR THIS SITE'S PROPOSED DEVELOPMENT.}$



## LEGAL DESCRIPTION

LOT 6-A-1-B OF THE LOUISIANA SUBDIVISION  
ALBUQUERQUE, NEW MEXICO

## TEMPORARY BENCHMARK

A TEMPORARY BENCHMARK HAS BEEN SET AT THE NORTHWEST CORNER OF PARCEL 6-A AND IS A REBAR PAINTED PERMANENT ORANGE. ELEVATION 5297.16

## ACS BENCHMARK

A SQUARE CUT ON TOP OF THE CONCRETE CURB ON THE NORTHWEST SIDE OF THE HANDICAP RAMP AND IS A REBAR STATION IS LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD. AND INDIAN SCHOOL ROAD, NE. ELEVATION 5271.07

## GENERAL NOTES

- THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, (LATEST EDITION) SHALL GOVERN ALL WORK AND MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING BLUE STAKE TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL REGULATIONS GOVERNING CONSTRUCTION PROJECTS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOP SOIL DISTURBANCE PERMIT FROM THE CITY OF ALBUQUERQUE ENVIRONMENTAL HEALTH DEPARTMENT PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM, OR IS BLOWN FROM THE SITE INTO THE PUBLIC RIGHT-OF-WAY OR ANY ADJACENT PRIVATE PROPERTY. THE CONTRACTOR SHALL REMOVE ANY SOIL THAT HAS ENTERED THE PUBLIC RIGHT-OF-WAY OR ADJACENT PUBLIC PROPERTY AT NO ADDITIONAL COST TO THE OWNER.
- ALL POINTS ON THE EAST PROPERTY LINE (ADJACENT TO PUBLIC RIGHT-OF-WAY) SHALL BE AT LEAST 0.87' ABOVE THE FLOWLINE IN THE GUTTER ALONG THE WEST RIGHT-OF-WAY LINE OF PROSPECT PLACE.

# ENGINEER'S CERTIFICATION

THE SITE INCLUDING THE TEMPORARY RETENTION POND ON LOT 6-A-1-C HAS BEEN COMPLETED IN SUBSTANTIAL COMPLIANCE WITH THE ORIGINAL APPROVED GRADING AND DRAINAGE PLAN EXCEPT AS IDENTIFIED BY AS-CONSTRUCTED GRADING PLAN TO THE LEFT AND AS FOLLOWS:  
-THE EAST SIDE LAWN BETWEEN THE BUILDING AND PROSPECT PLACE IS GRADED TO DRAIN TO PROSPECT PLACE. THE AFFECTED AREA IS 0.0328 AC REMOVED FROM BASIN 2. THE TOTAL DISCHARGE FROM THIS AREA TO PROSPECT PLACE IS 0.0328 X 2.60 CFS/AC = 0.09 CFS (TYPE B SOIL). BASIN 2 HAS BEEN ADJUSTED TO REFLECT THIS CHANGE.  
-THE RETENTION POND ON LOT 6-A-1-C HAS BEEN RELOCATED TO WEST OF THE ORIGINAL LOCATION TO AVOID CONFLICT WITH EXISTING UNDERGROUND POWER FEEDERS.

LARRY D. READ, P.E.

1 Aug 1996



AUG - 8



# GRADING AND DRAINAGE PLAN

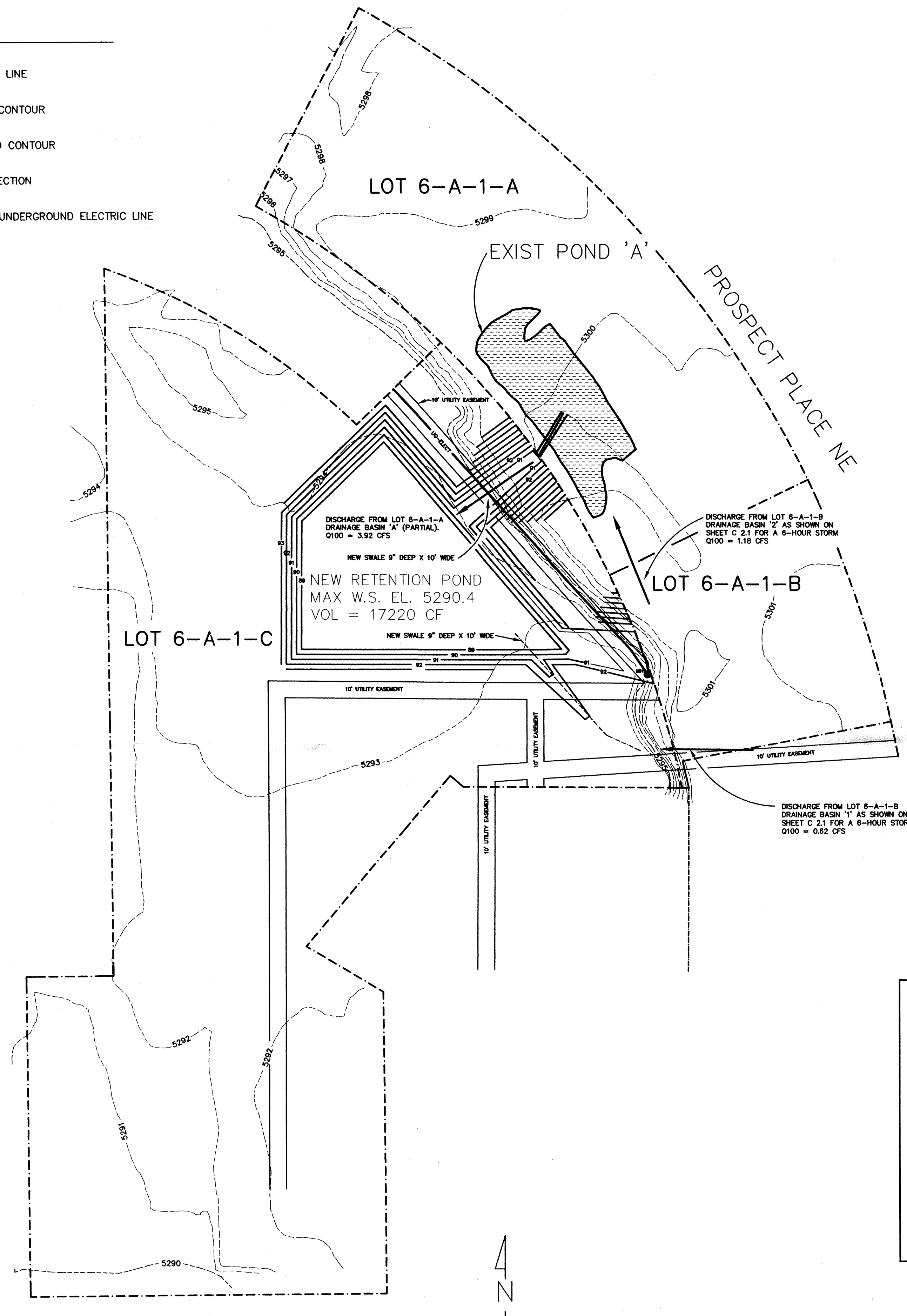
BONDS, PELTIER & GUSTAFSON OFFICE  
PROSPECT PLACE NE  
ALBUQUERQUE, NEW MEXICO

PREPARED BY: LARRY D. READ, P.E.  
P.O. BOX 90233  
ALBUQUERQUE, NEW MEXICO 87199  
(505) 858-3165

SHEET  
C 2.1

# LEGEND

---	PROPERTY LINE
- - - 29 - - -	EXISTING CONTOUR
— 29 —	PROPOSED CONTOUR
→	FLOW DIRECTION
— UG-ELECT —	EXISTING UNDERGROUND ELECTRIC LINE



## OFFSITE PONDING AREAS

SCALE: 1" = 40'

## NOTICE TO CONTRACTOR

THIS PLAN REQUIRES TWO CHANNELS TO BE CONSTRUCTED ACROSS AN UNDERGROUND ELECTRIC LINE. CONTRACTOR SHALL COORDINATE WITH PNM TO EXPOSE, LOCATE, AND VERIFY SUFFICIENT COVER EXISTS PRIOR TO START OF CONSTRUCTION.

- 1 THE ENGINEER HAS NOT INVESTIGATED THE EXISTENCE OR LOCATION OF UNDERGROUND UTILITIES OR OTHER FACILITIES WITHIN THE PROJECT SITE. THE CONTRACTOR SHALL CONTACT BLUE STAKE PRIOR TO START OF CONSTRUCTION. IF ANY CONFLICT ARISES, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.

## RETENTION POND CALCULATIONS:

THESE CALCULATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2, VOLUME 2, "DESIGN CRITERIA", DATED JANUARY, 1993. THE SITE IS WITHIN PRECIPITATION ZONE 3 AS SHOWN IN FIGURE A-1. THEREFOR RAINFALL DEPTH FOR A 100 YEAR - 6 HOUR STORM IS 2.60 INCHES AND 4.90 INCHES FOR A 100 YEAR - 10 DAY STORM AS SHOWN IN TABLE A-2. EXCESS PRECIPITATION IS 0.92 INCHES AND 2.36 INCHES FOR TREATMENT TYPES 'B' AND 'D' RESPECTIVELY PER TABLE A-8.

### BASIN '1'

AREA=0.14 ACRES  
TYPE 'A' SOIL = 0%  
TYPE 'B' SOIL = 23.98%  
TYPE 'C' SOIL = 0%  
TYPE 'D' SOIL = 76.02%

100 YEAR 6 HOUR VOLUME  
 $V100 = (0.14 \times 0.2398 \times 0.92 \text{ IN} + 0.14 \times 0.7602 \times 2.36 \text{ IN})/12 = 0.02351 \text{ AC-FT}$   
 $V100 = 0.02351 \times 43560 = 1024 \text{ CF}$

100 YEAR 10 DAY VOLUME  
 $V10DAY = V360 + AD(P10DAY-P6HR)/12$   
 $V10DAY = 1024 + .7602(6098)(4.90-2.60)/12 = 1912 \text{ CF}$

### BASIN '2'

AREA=0.27 ACRES  
TYPE 'A' SOIL = 0%  
TYPE 'B' SOIL = 13.82%  
TYPE 'C' SOIL = 0%  
TYPE 'D' SOIL = 86.18%

100 YEAR 6 HOUR VOLUME  
 $V100 = (0.27 \times 0.1382 \times 0.92 \text{ IN} + 0.27 \times 0.8618 \times 2.36 \text{ IN})/12 = 0.04862 \text{ AC-FT}$   
 $V100 = 0.04862 \times 43560 = 2118 \text{ CF}$

100 YEAR 10 DAY VOLUME  
 $V10DAY = V360 + AD(P10DAY-P6HR)/12$   
 $V10DAY = 2118 + .8618(6098)(4.90-2.60)/12 = 3125 \text{ CF}$

### BASIN 'A' (LOT 6-A-1-A)

AREA=0.8873 ACRES  
TYPE 'A' SOIL = 0%  
TYPE 'B' SOIL = 24.82%  
TYPE 'C' SOIL = 0%  
TYPE 'D' SOIL = 75.18%

100 YEAR 6 HOUR VOLUME  
 $V100 = (0.8873 \times 0.2482 \times 0.92 \text{ IN} + 0.8873 \times 0.7518 \times 2.36 \text{ IN})/12 = 0.1481 \text{ AC-FT}$   
 $V100 = 0.1481 \times 43560 = 6450 \text{ CF}$

100 YEAR 10 DAY VOLUME  
 $V10DAY = V360 + AD(P10DAY-P6HR)/12$   
 $V10DAY = 6450 + .7518(38651)(4.90-2.60)/12 = 12019 \text{ CF}$

100 YEAR 10 DAY VOLUME = 1912 + 3125 + 12019 = 17056 CF < 17220 PROVIDED  
PROVIDED IN THE RETENTION POND BELOW EL 5290.24 WHICH IS 1' BELOW FINISH FLOOR ELEVATION OF THE BUILDING ON LOT 6-A-1-B. POND SIZE IS OK!

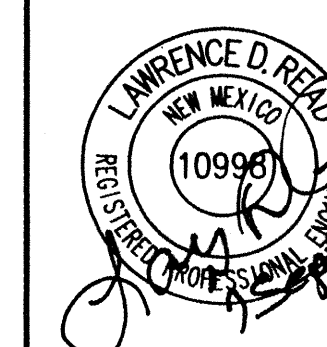
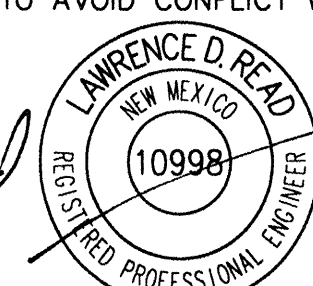
## ENGINEER'S CERTIFICATION

THE SITE INCLUDING THE TEMPORARY RETENTION POND ON LOT 6-A-1-C HAS BEEN COMPLETED IN SUBSTANTIAL COMPLIANCE WITH THE ORIGINAL APPROVED GRADING AND DRAINAGE PLAN EXCEPT AS IDENTIFIED BY AS-CONSTRUCTED GRADING PLAN TO THE LEFT AND AS FOLLOWS:

- THE EAST SIDE LAWN BETWEEN THE BUILDING AND PROSPECT PLACE IS GRADED TO DRAIN TO PROSPECT PLACE. THE AFFECTED AREA IS 0.0328 AC REMOVED FROM BASIN 2. THE TOTAL DISCHARGE FROM THIS AREA TO PROSPECT PLACE IS 0.0328 X 2.60 CFS/AC = 0.09 CFS (TYPE B SOIL). BASIN 2 HAS BEEN ADJUSTED TO REFLECT THIS CHANGE.
- THE RETENTION POND ON LOT 6-A-1-C HAS BEEN RELOCATED TO WEST OF THE ORIGINAL LOCATION TO AVOID CONFLICT WITH EXISTING UNDERGROUND POWER FEEDERS.

LARRY D. READ P.E.

*Larry D. Read*  
1 Aug 1996



## OFFSITE STORMWATER PONDS

BONDS, PELTIER & GUSTAFSON OFFICE  
PROSPECT PLACE NE  
ALBUQUERQUE, NEW MEXICO

PREPARED BY: LARRY D. READ, P.E.  
P.O. BOX 90233  
ALBUQUERQUE, NEW MEXICO 87199  
(505) 858-3165

SHEET  
C 2.2