



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 1, 1988

Douglas W. Copeland, P.E.  
Easterling & Associates, Inc.  
5643 Paradise Boulevard, NW  
Albuquerque, New Mexico 87114

RE: REVISED GRADING & DRAINAGE PLAN, TRACT 1  
CLIFFORD INDUSTRIAL PARK, RECEIVED AUGUST 29, 1988  
FOR FINAL PLAT APPROVAL (C-17/D1U)

Dear Mr. Copeland:

The above referenced submittal, revised August 8, 1988, is approved as the Master Drainage Plan to be followed for subsequent development and subdivision. Any proposed subdivisions will require an executed Subdivision Improvements Agreement prior to the City Engineer's sign-off on any Final Plats if infrastructures are required.

All site development of lots will require a separate detailed Drainage and Grading Plan submittal, with the drainage scheme being consistent with this approved plan.

If you have any questions, call me at 768-2650.

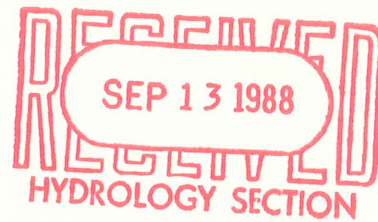
Cordially,

*Roger A. Green, P.E.*  
Roger A. Green, P.E.  
C.E./Hydrology Section

xc: Robert Kastning

RAG/bsj  
(WP+748)

Jack Clifford & Company



September 9, 1988

Project # 3628

Mr. Roger A. Green, P.E.  
C.E./Hydrology Section  
City of Albuquerque  
P.O. Box 1293  
Albuquerque, NM 87103

Dear Mr. Green:

Re: Clifford Industrial Park/Washington Business Park  
Drainage Plan Submittal

The above-referenced submittal requires a design variance for public drainage structures on Lot 15 of the subject subdivision.

Proposed is a public drainage swale versus the typical concrete channel. The swale is designed to match the existing swale constructed within the 35-foot public drainage easement at the west side of the subdivision. The proposed design also conforms to the approved drainage report prepared by Bohannon-Huston, Inc. dated August, 1982 for Clifford Industrial Park, Lots 1-63 and Tract B.

If you have any questions, call me at 881-0900.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Robert L. Kastning'.

Robert L. Kastning  
Land Development Planner  
and Coordinator

RLK:lm

FILE COPY

# City of Albuquerque

wpt748

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103



MAYOR	CHIEF	DEPUTY CAO	DEPUTY CAO
KEN SCHULTZ	ADMINISTRATIVE OFFICER	DEVELOPMENT & ENTERPRISE SERVICES	PUBLIC SERVICES
	GENE ROMO	LARRY LARRANAGA	DAN WEAKS

June 27, 1988

Douglas W. Copeland, P.E.  
Easterling & Associates, Inc.  
5643 Paradise Boulevard, NW  
Albuquerque, New Mexico 87114

RE: REVISED GRADING & DRAINAGE PLAN, TRACT 1  
CLIFFORD INDUSTRIAL PARK, RECEIVED JUNE 24, 1988  
FOR FINAL PLAT APPROVAL (C-17/D1U)

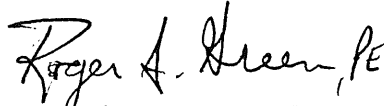
Dear Mr. Copeland:

The above referenced submittal, revised June 24, 1988, is approved as the Master Drainage Plan to be followed for subsequent development and subdivision. Any proposed subdivisions will require an executed Subdivision Improvements Agreement prior to the City Engineer's sign-off on any Final Plats if infrastructures are required.

All site development of lots will require a separate detailed Drainage and Grading Plan submittal, with the drainage scheme being consistent with this approved plan.

If you have any questions, call me at 768-2650.

Cordially,

  
Roger A. Green, P.E.  
C.E./Hydrology Section

xc: Robert Kastning

RAG/bsj



CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
UTILIT. DEVELOPMENT DIVISION/HYDROLOGY SECTION

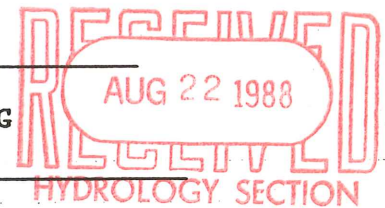
PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: C-17/D14 DATE: 6-22-88  
EPC NO.: \_\_\_\_\_ DRB NO.: 88-355 ZONE: 54-1 for M-1  
SUBJECT: Clifford Industrial Park  
STREET ADDRESS: Washington & Alameda  
LEGAL DESCRIPTION: TRACTS B-1, B-2, B-3, B-4

APPROVAL REQUESTED: ☒ PRELIMINARY PLAT ☒ FINAL PLAT  
☐ SITE DEVELOPMENT PLAN ☐ BUILDING PERMIT  
☐ GRADING/PAVING PERMIT ☐ OTHER

ATTENDANCE: WHO  
Robert Kashner  
Roger Green

REPRESENTING  
Clifford & Co.  
City Hydrology



FINDINGS:

- ① To replot Tract B-1, one of the following items are required:
- Make Tract B-1-A have a blanket drainage easement granted to Lot J to provide for a drainage swale outfall or retention pond site. This way, no Master Drainage Plan revision would be necessary.
  - Revise the Master Drainage Plan showing the revised Lot J. Plan would show one of the following drainage schemes:
    - Retention ponding on Lot J until Tract B-1-A is subdivided and drainage outfall is constructed.
    - Retention ponding on Tract B-1-A until further subdivision.
    - discharge to Washington street with reanalysis of downstream capacity.
    - Construction of downstream drainage system across Tract B-1-A.
- ② If replot is approved with blanket Drainage Easement, then revised Grading & Drainage Plan will be required at time of Lot J development.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED: Roger Green  
TITLE: Civil Engineer  
DATE: 6/22/88

SIGNED: Robert Kashner  
TITLE: \_\_\_\_\_  
DATE: 6-22-88

\*\*NOTE\*\* PLEASE PROVIDE A COPY OF THIS PRE-DESIGN FORM WITH THE DRAINAGE SUBMITTAL.



FILE COPY



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR  
KEN SCHULTZ

CHIEF  
ADMINISTRATIVE OFFICER  
GENE ROMO

DEPUTY CAO  
PUBLIC SERVICES  
FRANK MARTINEZ

DEPUTY CAO  
PLANNING/DEVELOPMENT  
BILL MUELLER

May 31, 1988

Douglas Copeland, P.E.  
Easterling & Associates, Inc.  
5643 Paradise Boulevard, NW  
Albuquerque, New Mexico 87114

RE: GRADING & DRAINAGE REPORT SUBMITTAL OF CLIFFORD INDUSTRIAL  
PARK, TRACTS B-2, B-3, & B-4, RECEIVED MAY 13, 1988  
FOR FINAL PLAT APPROVAL (C-17/D1U)

Dear Mr. Copeland:

The above referenced submittal dated May 4, 1988, is approved for platting purposes. Any proposed subdivision will require an executed Subdivision Improvements Agreement prior to the City Engineer's sign-off of the Final Plat if infrastructures are required.

All site development of lots will require a separate detailed drainage and grading plan submittal, with the drainage scheme consistent with this approved plan.

If you have any questions, call me at 768-2650.

Cordially,

Roger A. Green, P.E.  
C.E./Hydrology Section

xc: Robert Kastning, Jack Clifford & Co.

RAG/bsj

6-17/014



October 16, 1987

Mr. Fred Aguirre  
City of Albuquerque  
Hydrology Section  
POB 1293  
Albuquerque, NM 87103

Dear Fred:

This is a request for a variance from the Master Drainage Plan (Bohannon-Huston, August 1982) for Clifford Industrial Park (Zone Atlas C-17).

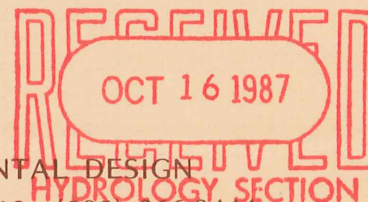
A Grading/Drainage Plan was approved February 10, 1986 for Washington Business Park, a 23-lot development located at the northeast corner of Washington Street and Washington Place, N.E. The scope of this project was reduced to 8 lots and a second Drainage/Grading Plan was approved June 19, 1986. Both the 23-lot and the 8-lot plans used a runoff coefficient of 0.88 in the calculations which was higher than the 0.70 used in the Master Plan calculations. The 8-lot approval was made contingent upon any further development addressing this runoff coefficient discrepancy.

A summary of the development of the site thus far is as follows (see accompanying site sketch):

- ° Lots 5-8,  $C = 0.88$
- ° Tract B-2, Phase I,  $C = 0.70$

We are proposing developing the remainder of the site so that the total developed peak discharge will be in compliance with the Master Plan. This will be accomplished as follows (see accompanying calculations):

- ° Lots 1-4,  $C = 0.88$
- ° Tract B-3,  $C = 0.88$
- ° Tract B-2, Phase II,  $C = 0.70$
- ° Construction of a detention pond on Tract B-2, Phase II, which along with a similar pond existing on Tract B-2, Phase I, will limit discharge from the total site (16 acres) to an acceptable peak rate.



CIVIL ENGINEERING / HYDROLOGY / ENVIRONMENTAL DESIGN  
1100 ALVARADO N.E. ALBUQUERQUE, NEW MEXICO 87110 (505) 266-3444

Mr. Aguirre  
October 16, 1987  
Page Two

This plan will establish the site's peak discharge rate at the same level planned for in the Master Plan to comply with the downstream capacities of drainage structures in Clifford Industrial Park. If we can provide any further information or data regarding this request, please don't hesitate to call.

Sincerely,

WEISS-HINES ENGINEERING, INC.



Steve Clark

SC/tdq

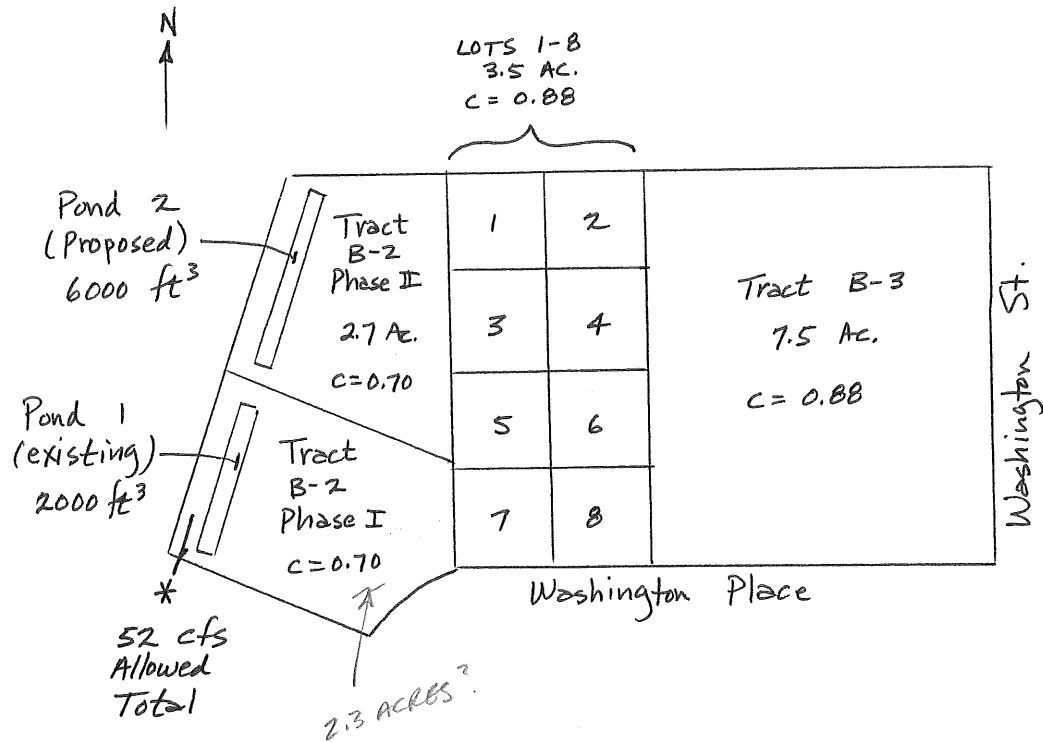
Attachments

cc: Frank Gauer  
Jack Clifford & Co.

Jim Lewis  
Schlegel Lewis Nelson Brawley  
Architects



# CALCULATIONS



- Per Bohannon-Huston Master Drainage Plan, total allowed peak flow at  $C = 0.70$  at Point \*:

$$Q = CIA = (0.70)(4.65)(7.5 + 3.5 + 2.2 + 2.7) = 52 \text{ CFS}$$

- Free Discharge Lots 1-8 and Tract B-3 at  $C = 0.88$ :

$$Q = CIA = (0.88)(4.65)(3.5 + 7.5) = 45 \text{ cfs}$$

- Discharge allowed Tract B-2 to total 52 cfs at Point \*:

$$52 - 45 = 7 \text{ cfs}$$

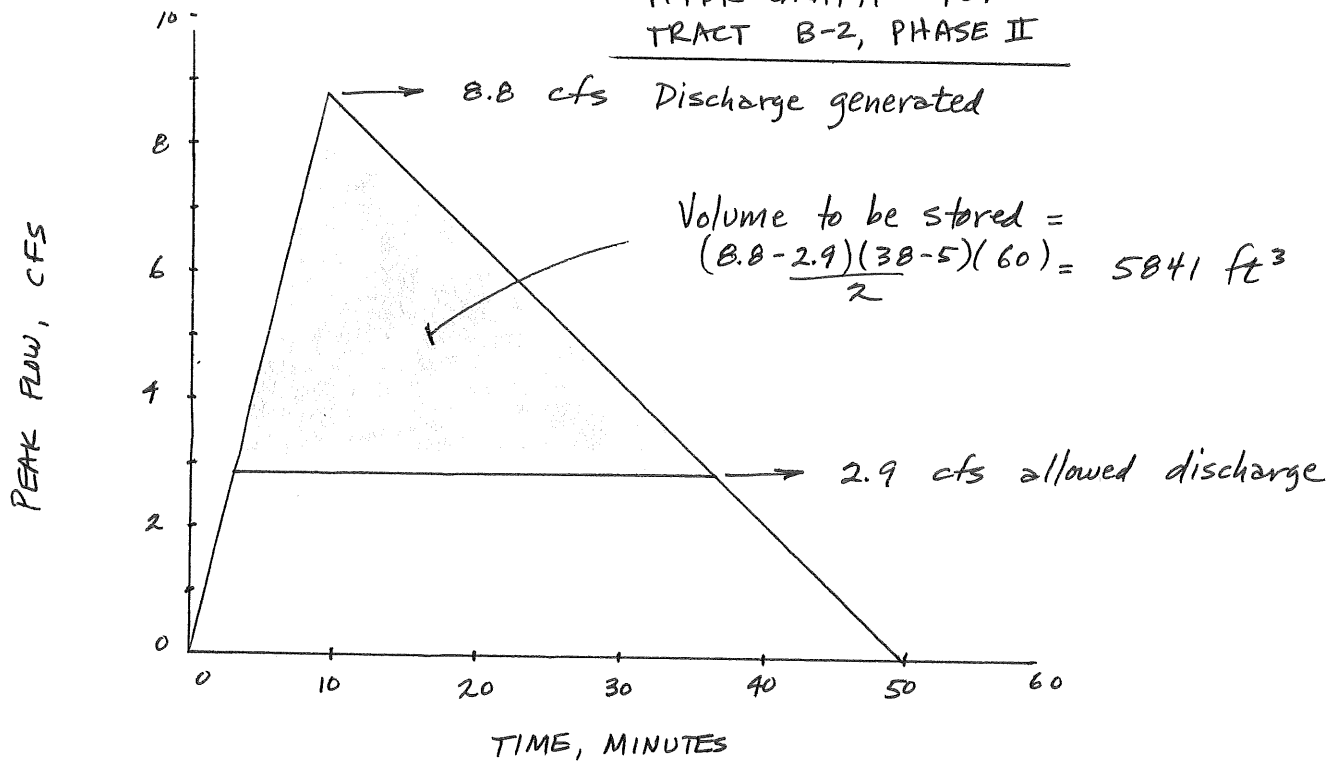
- Discharge Tract B-2, Phase I = 4.1 cfs with Pond 1
- Discharge allowed Tract B-2, Phase II to total 7 cfs:

$$7 - 4.1 = 2.9 \text{ cfs (Phase II allowed)}$$

- Discharge Tract B-2, Phase II at  $C = 0.70$ :

$$Q = CIA = (0.70)(4.65)(2.7) = 8.8 \text{ cfs (Phase II allowed)}$$

HYDROGRAPH FOR  
TRACT B-2, PHASE II



Pond Size Proposed Phase II, Tract B-2:

$$(300')(20')(1') = 6000 \text{ CF}$$



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

FILE COPY

June 19, 1986

Steve Clark  
Weiss-Hines Engineering, Inc.  
1100 Alvarado, NE  
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE REPORT OF WASHINGTON BUSINESS PARK,  
RECEIVED MAY 30, 1986 FOR PRELIMINARY PLAT APPROVAL  
(C17/D1U)

Dear Steve:

The above referenced submittal, revised June 16, 1986, is approved for Preliminary Plat. The existing infrastructure listing approved by DRB will need to be revised appropriately.

The approved Master Plan for Clifford Industrial Park assumed 72% impervious for the watershed under developed conditions. Your Drainage Report assumes 93% impervious. If the remaining watershed is also proposed to be developed with more than 72% impervious area, then the downstream stormdrain systems must be analyzed for capacity with runoff greater than originally designed for.

Final Plat sign-off by the City Engineer will require an executed Subdivision Improvements Agreement.

If you have any questions, call me at 766-7644.

Cordially,

*Roger A. Green, PE*

Roger A. Green, P.E.  
C.E./Hydrology

cc: Jim Folkman, Jack Clifford & Company  
Jim Lewis, Schlegal, Lewis Architects

RAG/bsj



## DRAINAGE INFORMATION SHEET

PROJECT TITLE: WASHINGTON BUSINESS PARK ZONE ATLAS/DRNG. FILE #: C-17-2  
 LEGAL DESCRIPTION: LOTS 55-62 + TRACT 'B' CLIFFORD INDUSTRIAL PARK  
 CITY ADDRESS: NW CORNER WASHINGTON ST + WASHINGTON PLACE NE.  
 ENGINEERING FIRM: WEISS-HINES ENGINEERING CONTACT: STEVE CLARK  
 ADDRESS: 1100 ALVARADO NE PHONE: 505-266-3444  
 OWNER: PARKWAY PARTNERS LTD CONTACT: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
 ARCHITECT: SCHLEGEL - LEWIS CONTACT: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
 SURVEYOR: CLAUSEN + ASSOCIATES CONTACT: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
 CONTRACTOR: FRANK HINES CONTACT: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

## PRE-DESIGN MEETING:

☐ YES☐ NO☐ COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED  
 MAY 30 1986  
 HYDROLOGY SECTION

DRB NO. 86-340

EPC NO. \_\_\_\_\_

PROJ. NO. \_\_\_\_\_

## TYPE OF SUBMITTAL:

- ☒ DRAINAGE REPORT  
☒ DRAINAGE/GRADING PLAN  
☒ CONCEPTUAL GRADING & DRAINAGE PLAN  
☐ RESUBMITTAL  
☐ EROSION CONTROL PLAN  
☐ 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  
☐ CERTIFICATE OF OCCUPANCY APPROVAL  
☐ ROUGH GRADING PERMIT APPROVAL  
☐ GRADING/PAVING PERMIT APPROVAL  
☐ OTHER \_\_\_\_\_ (SPECIFY)

DATE SUBMITTED: MAY 30, 1986BY: Weiss-Hines Engineering, Inc.DATE RECEIVED: 5/30

RECEIVED BY: \_\_\_\_\_

NOTE: SUBSTITUTE  
 THESE DRAWINGS FOR  
 THOSE SUBMITTED  
 5/27/86 WITH  
 DRAINAGE REPORT.



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

February 10, 1986

Steve Clark  
Weiss-Hines Engineering, Inc.  
1100 Alvarado, NE  
Albuquerque, New Mexico 87110

RE: DRAINAGE & GRADING PLAN OF WASHINGTON BUSINESS PARK  
RECEIVED JANUARY 17, 1986 FOR PRELIMINARY PLAT APPROVAL  
(C-17/D1U)

Dear Steve:

The above referenced submittal, dated January 14, 1986, is approved for Preliminary Plat. Plat should identify all access easements for Lots 1 thru 23 as drainage easements also.

Before Final Plat sign-off by City Engineer, an executed Subdivision Improvements Agreement is needed.

If you have any questions, call me at 766-7644.

Cordially,

*Roger A. Green, PE*

Roger A. Green, P.E.  
C.E./Design Hydrology

cc: Jack Clifford & Company  
P.O. Box 35640 Station D 87176

RAG/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT

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

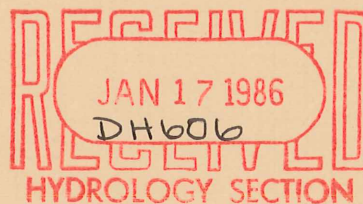
ENGINEERING DIVISION

Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER



WEISS-HINES ENGINEERING, INC.



January 17, 1986

Mr. Carlos Montoya, P.E.  
Design Hydrology Section  
123 Central N.W.  
Albuquerque, NM 87102

Re: Review of Washington Business Park (DRB #85-726)

Dear Mr. Montoya:

In response to your letter dated January 10, 1986, the three missing items are addressed as follows:

1. Plans are stamped, dated, and signed.
2. Grading Plan has been submitted.
3. The Master Plan for Clifford Industrial Park does include runoff from Tract 'B', and the 35' drainage easement on the west property line was sized accordingly.

If you have any questions regarding these items, please call me at 266-3444.

Thank you,

Steve Clark  
Weiss-Hines Engineering, Inc.

SC:tdq





# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

January 10, 1986

Steve Clark  
Weiss-Hines Engineering, Inc.  
1100 Alvarado, NE  
Albuquerque, New Mexico 87110

RE: PRELIMINARY REVIEW OF WASHINGTON BUSINESS PARK  
RECEIVED JANUARY 8, 1986 (C-17/D1U)

Dear Mr. Clark:

A preliminary review of the referenced drainage plan has shown the following items missing.

1. Require engineer stamp, signature, and date.
2. Require proposed grading for the site.
3. Please address if the master plan includes developed runoff from Tract B. If the master plan does not include this information, then downstream capacity will need to be addressed.

If you have any questions regarding this project, call me at 766-7644.

Cordially,

Carlos A. Montoya, P.E.  
City/County Floodplain Administrator

CAM/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT

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

ENGINEERING DIVISION

Telephone (505) 766-7467

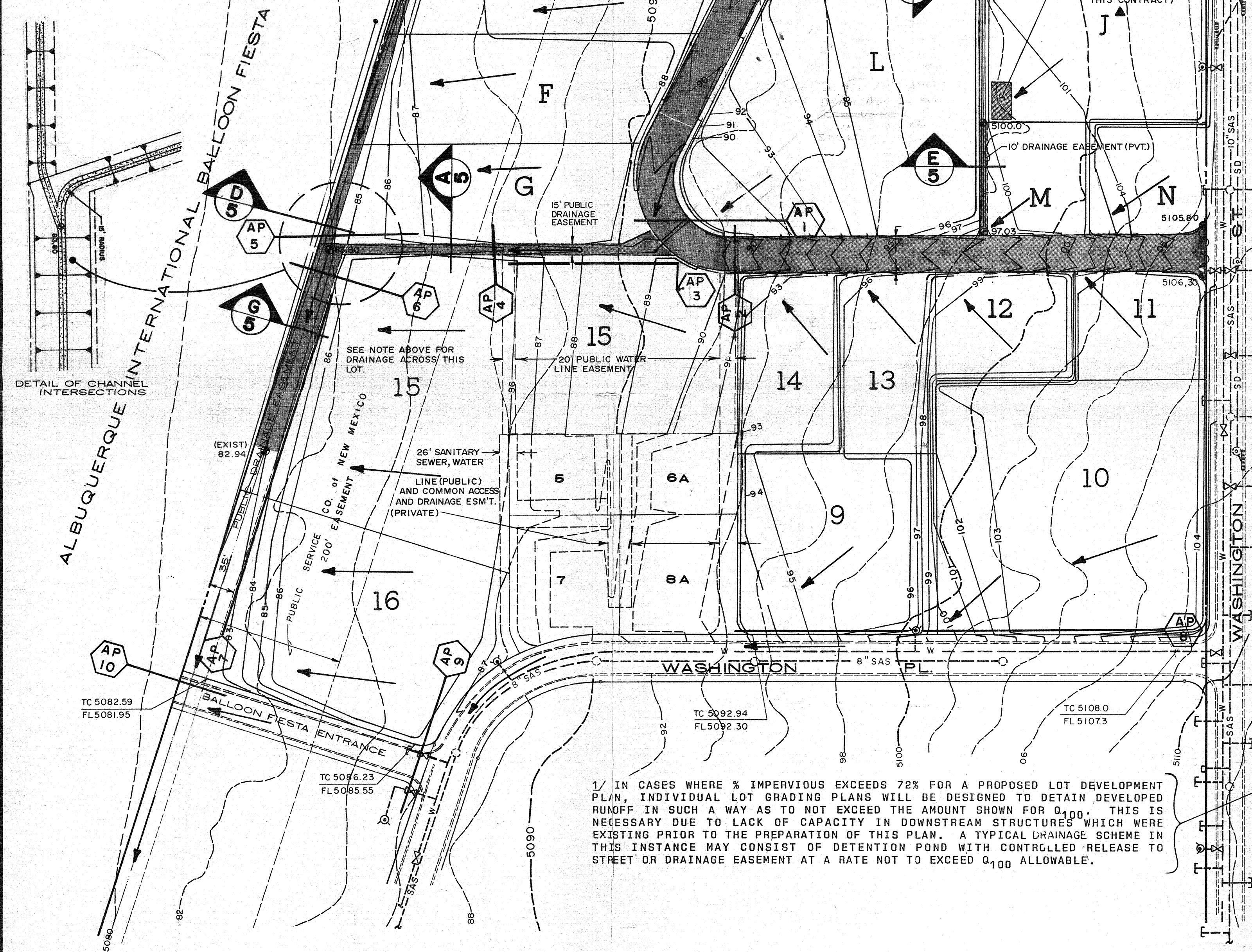
AN EQUAL OPPORTUNITY EMPLOYER



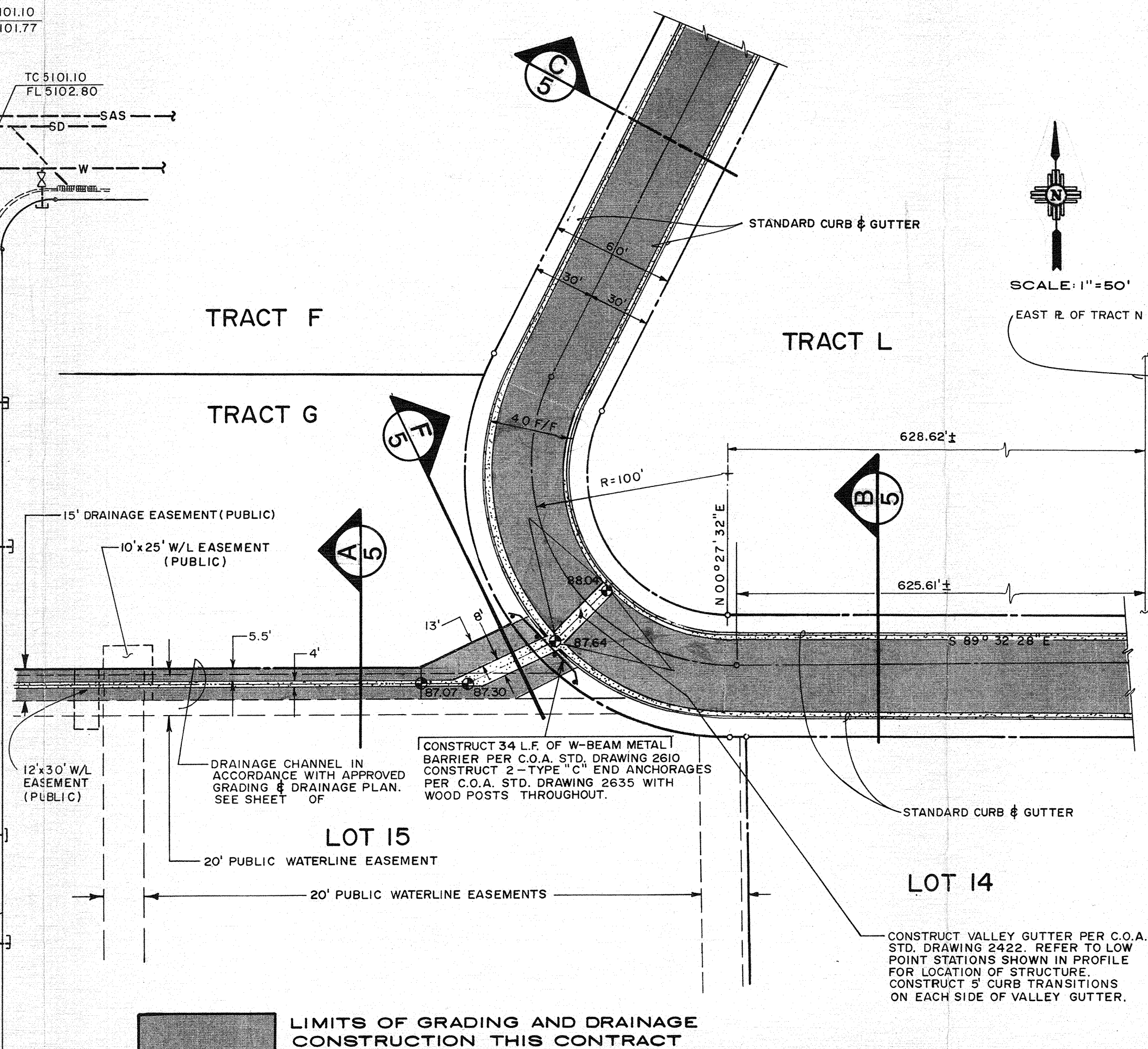
NOTE: A TEMPORARY BLANKET DRAINAGE EASEMENT IS GRANTED ON LOT 15 FOR THE BENEFIT OF LOTS 5, 6A, 7 & 8A OF WASHINGTON BUSINESS PARK. PRIOR TO DEVELOPMENT OF LOT 15 A PERMANENT DRAINAGE EASEMENT WILL BE GRANTED.

NOTE: GRADING SCHEME SHOWN TO DEMONSTRATE FEASIBILITY OF OVERALL SUBDIVISION MASTERPLAN DUE TO GENTLE CROSS SLOPE FROM EAST DOWN TO WEST, RETAINING WALLS ARE NOT CONSIDERED TO BE NECESSARY.

DETAILED GRADING AND DRAINAGE PLANS WILL BE PREPARED FOR EACH LOT AS IT IS DEVELOPED IN THE FUTURE.



1/ IN CASES WHERE % IMPERVIOUS EXCEEDS 72% FOR A PROPOSED LOT DEVELOPMENT PLAN, INDIVIDUAL LOT GRADING PLANS WILL BE DESIGNED TO DETAIN DEVELOPED RUNOFF IN SUCH A WAY AS TO NOT EXCEED THE AMOUNT SHOWN FOR 0.40. THIS IS NECESSARY DUE TO LACK OF CAPACITY IN DOWNSTREAM STRUCTURES WHICH WERE EXISTING PRIOR TO THE PREPARATION OF THIS PLAN. A TYPICAL DRAINAGE SCHEME IN THIS INSTANCE MAY CONSIST OF DETENTION POND WITH CONTROLLED RELEASE TO STREET OR DRAINAGE EASEMENT AT A RATE NOT TO EXCEED 0.100 ALLOWABLE.



#### MAXIMUM ALLOWABLE RUNOFF FROM EACH LOT

LOT NO.	ACRES	Q <sub>100</sub> CFS/AC	Q <sub>100</sub> (CFS)
C	1.42	2.3	3.3
D	1.44	2.3	3.3
E	1.35	2.3	3.1
F	1.31	2.3	3.0
G	1.33	2.3	3.1
H	1.58	2.3	3.6
I	.70	2.3	1.6
J	1.79	2.3	4.1
K	.82	2.3	1.9
L	3.03	2.3	7.0
M	.47	2.3	1.1
N	.48	2.3	1.1
9	1.43	3.2	4.6
10	2.80	3.2	9.0
11	.58	2.3	1.3
12	.59	2.3	1.4
13	.72	2.3	1.7
14	.72	2.3	1.7
15	4.48	2.3	10.3
16	2.17	2.3	5.0
5, 6A, 7 & 8A	2.05	3.2	6.6

BENCHMARK INFORMATION:  
"S-017" LOCATED APPROXIMATELY 1,580' NORTH OF PASEO DEL NORTE ON WASHINGTON ST. A BRASS TABLET IN TOP OF WEST CURB ELEVATION: 5111.03'

LEGAL DESCRIPTION:  
TRACT B-1 OF CLIFFORD INDUSTRIAL PARK AND TRACTS B-2, B-3, & B-4 OF WASHINGTON BUSINESS PARK, SERNAL ILL. COUNTY, ALBUQUERQUE, NEW MEXICO

#### LEGEND

DESCRIPTION	NEW	EXISTING
CONTOURS	—	—
SPOT ELEVATION	• 82.2	• 82.2
DRAINAGE AREA BOUNDARY	=====	=====
DRAINAGE DIVIDE	=====	=====
WATER BLOCK	=====	=====
DIRECTION OF FLOW	=====	=====
ASPHALT PAVING	=====	=====
LANDSCAPING	=====	=====
RETAINING WALL	=====	=====
GARDEN WALL	=====	=====
SWALE	=====	=====
PROPERTY LINE	=====	=====
FENCE	=====	=====
CATCH BASIN	=====	=====
STORM DRAIN MANHOLE AND LINE	=====	=====
SANITARY SEWER MANHOLE AND LINE	=====	=====
FIRE HYDRANT AND WATER LINE	=====	=====
REDUCERS	=====	=====
WATER VALVES	=====	=====
WATER CONNECTIONS	=====	=====
WATER JOINTS	=====	=====
CONCRETE	=====	=====
GAS LINE	=====	=====
UNDERGROUND TELEPHONE	=====	=====
CABLE TELEVISION	=====	=====
POWER/TELEPHONE POLE	=====	=====
UNDERGROUND ELECTRICAL	=====	=====
CURB ELEVATION	=====	=====
HYDROLOGICAL ANALYSIS POINT	=====	=====
DETAIL REFERENCE	=====	=====
KEYED NOTES	=====	=====
CITY AND DETAIL REFERENCE	=====	=====

#### HYDROLOGY

ANALYSIS POINT	DESCRIPTION	ACREAGE (AC)	Q <sub>100</sub> /ACRE * (CFS)	Q <sub>100</sub> (CFS)	CAPACITY PROVIDED (CFS)
1	PRESIDENT ST. & TRACTS H, I, K & L	7.1	2.3	16.4	24.1
2	WILSHIRE AVE., TRACTS J, M & N AND LOTS 11, 12, 13 & 14	6.3	2.3	14.5	54.4
3	EAST HALF OF LOT 15 & LOTS 5, 6A, 7 & 8A	3.5	2.3 & 3.2	9.9	49.4
4	TOTAL OF AP 1, 2 & 3	16.9	2.3 & 3.2	40.8	49.4
5	TRACTS D, E, F & G	5.4	2.3	12.5	25.1
6	TOTAL OF AP 4 & 5	22.3	2.3 & 3.2	53.3	25.9
7	WEST HALF OF LOT 15 & LOT 16	4.9	2.3	11.3	125.9
8	LOTS 9 & 10	4.2	3.2	13.5	62.0
9	LOTS 9 & 10 AND LOTS ON S. SIDE OF WASHINGTON PLACE N.E.	13.5	3.2	43.2	62.0
10	TOTAL OF ABOVE	40.7	2.3 & 3.2	107.8	125.9

\* PEAK RATES ACQUIRED FROM BOHANNAN-HUSTON INC. AUG. 1982 • SEE NOTES FOR FULL EXPLANATION.

#### SOILS INFORMATION FROM SOIL SURVEY U.S.D.A., S.C.S.

SOIL SERIES AND MAP SYMBOLS	SEPTIC TANK ABSORPTION FIELDS	SEWAGE LAGOONS	SHALLOW EXCAVATIONS	DWELLINGS WITHOUT BASEMENTS	SANITARY LANDFILL (TRENCH TYPE)	LOCAL ROAD AND STREETS	ROAD FILL	SAND	GRAVEL	TOPSOIL	POND RESERVOIR AREAS	SOIL FEATURES AFFECTING —	HYDROLOGIC SOIL GROUP
* Embudo: EmB, Etc. For Tensas part of Etc, see Tensas series.	Slight	Severe: seepage.	Moderate: small stones.	Slight	Severe: seepage.	Slight	Good	Poor: excess fines.	Poor: excess fines.	Poor: small stones.	Seepage	Piping; compressible	B
* Wink: WnB, WnB, WM. For Embudo part of WnB, see Embudo series; for Madurez part of WM, see Madurez series.	Slight	Severe: seepage.	Slight	Slight	Severe: seepage.	Slight	Fair: low strength.	Unsuitable	Unsuitable	Good	Seepage	Piping; erodes easily.	B

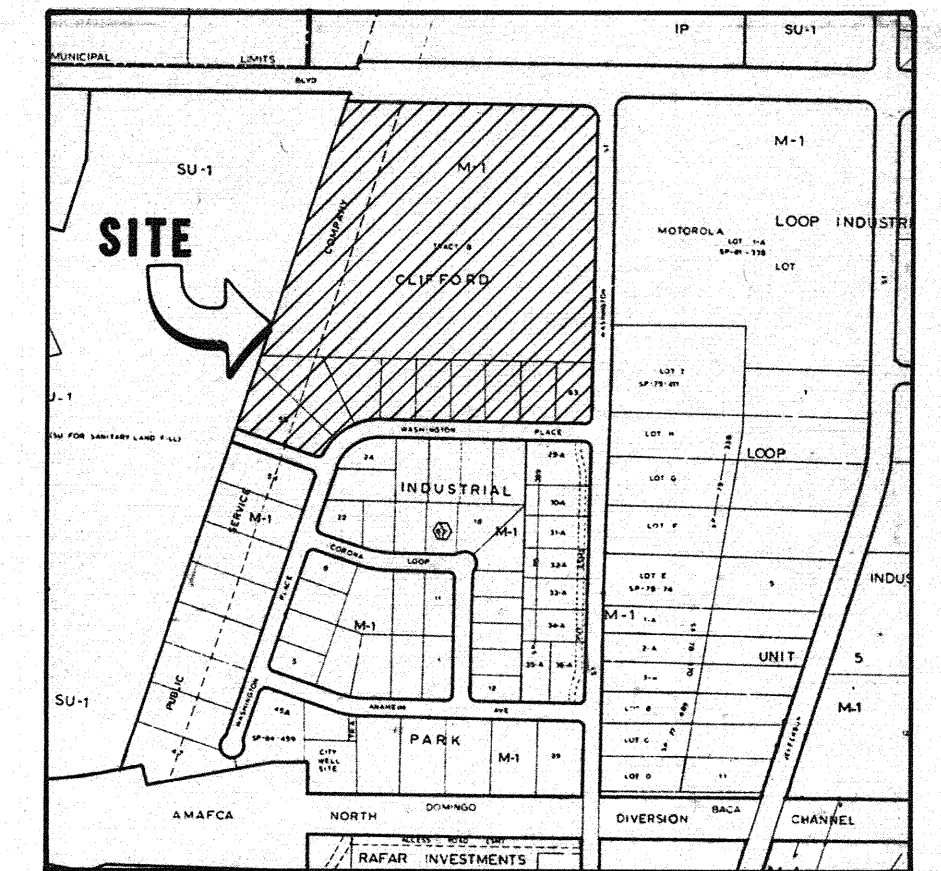
Embudo—Embudo gravelly fine sandy loam, 0 to 5 percent slopes. This level to gently sloping soil is on the East Mesa. It has the profile described as representative of the series. Included in mapping are areas around Central Avenue and Troncy Road in Albuquerque where the surface layer is thick and slightly darker than is typical and the subsoil is clay and cobbly. Also included are areas of Tijeras, Millett, and Tonto soils. Runoff is medium, and the hazard of water erosion is moderate.

This soil is used for watershed, wildlife habitat, community development, and range. It is subject to periodic flooding. Control of moisture is needed for proper crop production. Dryland capability subclass VIIe; native plant community 4.

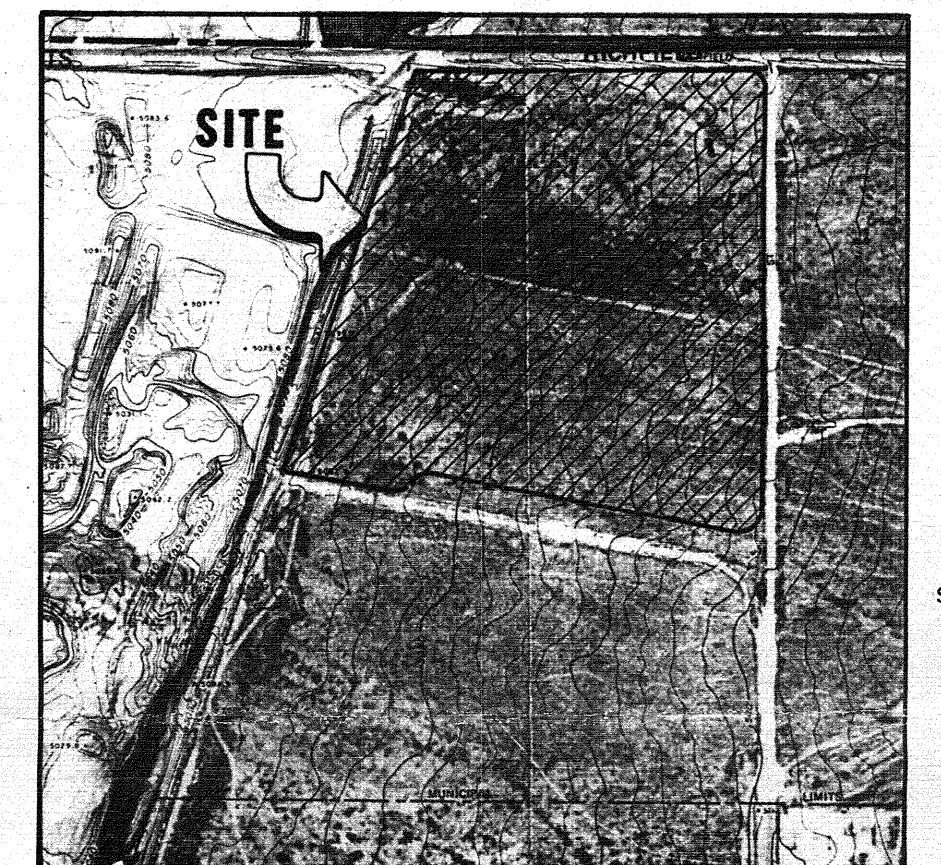
Wink—Wink-Embudo complex, 0 to 5 percent slopes. This mapping unit is about 65 percent a Wink fine sandy loam that has 1 to 5 percent slopes and 25 percent Embudo gravelly fine sandy loam, 0 to 5 percent slopes. The Wink soil is on slight rises and ridges. It has a profile similar to that described as representative of the Embudo series, but the surface layer is yellowish brown gravelly fine sandy loam about 5 inches thick. On both soils, runoff is medium and the hazard of water erosion is moderate.

Included in this unit in mapping are areas of Madurez, Tijeras, and Tonto soils, which make up about 10 percent of the unit. This mapping unit is used for community development, watershed, and wildlife habitat. Flooding and poor compaction are potential problems where this mapping unit is used for community development. Dryland capability subclass VIIe; native plant community 4.

#### VICINITY MAP ZONE ATLAS MAP NO. C-17Z



#### NO. 9 FLOOD HAZARD MAP & OFF-SITE FLOWS FROM F.E.M.A.



#### NO. 11 SOILS MAP SOIL SURVEY U.S.D.A., S.C.S.



NO.	REVISIONS	BY	DATE
1	REPLAT OF TRACTS B-1, B-2, B-3 & B-4	DLS	8-4-88
2	THE ELIMINATION OF LOTS N & O AND REPLATING OF LOTS J, L & M	DLS	6-24-88
3	CREATION OF TRACT B-3-A & CAPACITY PROVIDED COLUMN ADDED	DLS	5-12-88

#### CLIFFORD INDUSTRIAL PARK TRACTS C-N & WASHINGTON BUSINESS PARK LOTS 5, 6A, 7, 8A & 9-16 GRADING & DRAINAGE REPORT

EASTERLING & ASSOCIATES, INC. CONSULTING ENGINEERS			
5643 Paradise Blvd. N.W. Albuquerque, New Mexico 87114			
Designed: DLS	Drawn: DLS	Checked: DWS	Sheet 4
Job No: 2291	Date: AUG. 1988	of 9	