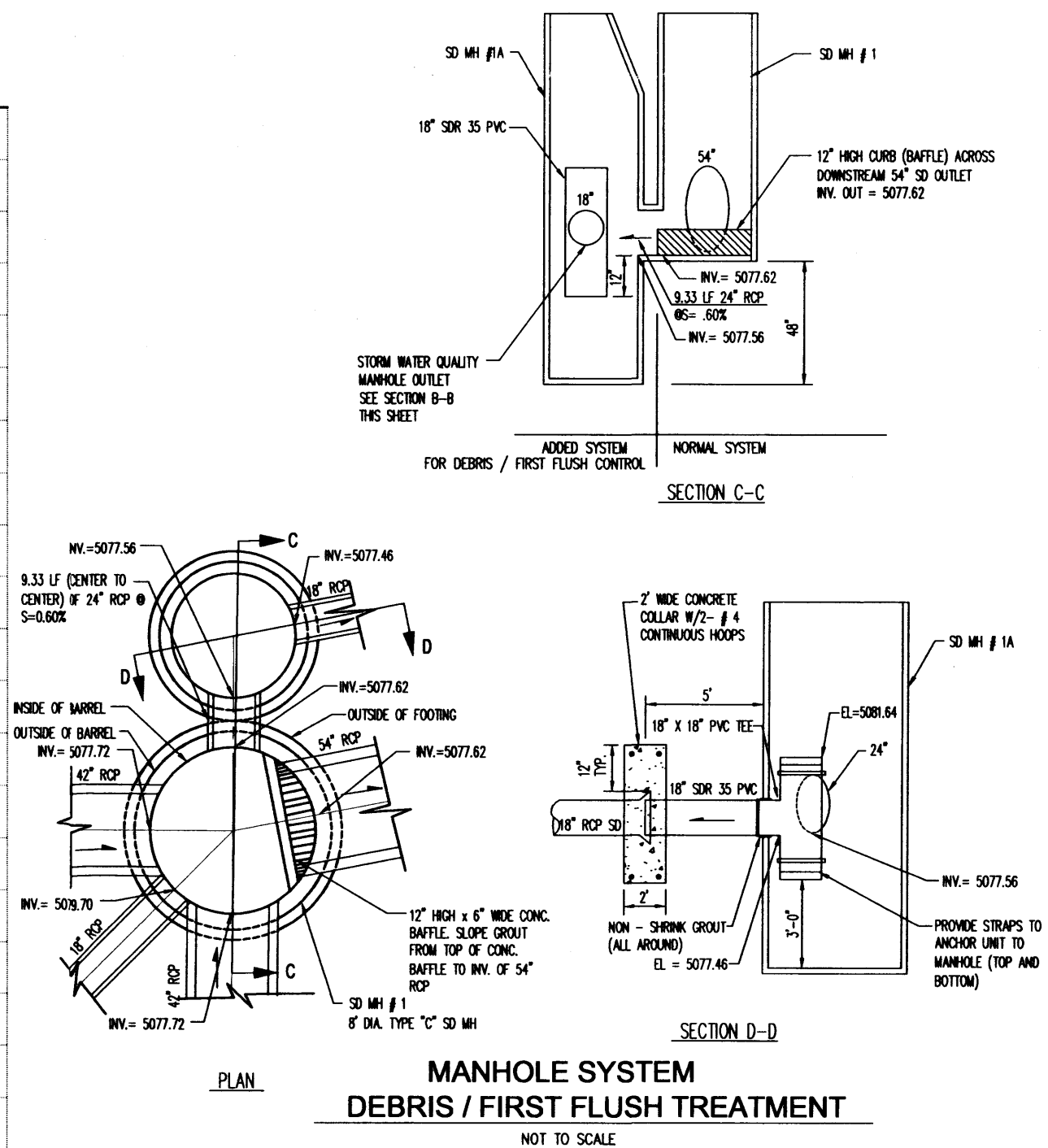


1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. ALL CURB RETURN RADIUS SHALL BE 30' UNLESS OTHERWISE SPECIFIED.
3. ALL CURVE DATA AND DIMENSIONS REFER TO FACE OF CURB UNLESS OTHERWISE SPECIFIED.
4. CONTRACTOR IS TO INSTALL A 4" x 4" x 5' POST AT THE END OF EACH SANITARY SEWER SERVICE LATERAL.
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8. CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
9. ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
10. REMOVAL OF THE EXISTING CURB & GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWCUT ONLY).
11. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB & GUTTER.

1. AMAFEA FIELD ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY WORK WITHIN THE AMAFEA R/W. TELEPHONE NUMBER 884-2215, JERRY LOVATO.
2. NO WORK WILL BE PERFORMED IN THE AMAFEA R/W BETWEEN MAY 15 AND OCTOBER 15 WITHOUT WRITTEN PERMISSION FROM AMAFEA.
3. ALL SURGRADE, BACK FILL AND EMBANKMENT SHALL BE COMPACTED TO 95% (MODIFIED PROCTOR) WITHIN THE AMAFEA R/W. TESTING REPORTS SHALL BE PROVIDED TO AMAFEA FIELD ENGINEER.
4. AMAFEA FIELD ENGINEER WILL BE NOTIFIED 48 HOURS PRIOR TO FINAL INSPECTION OF ANY FACILITIES WITHIN THE AMAFEA R/W.
5. ALL DISTURBED GROUND AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 1012 NATIVE SEEDING AS CURRENTLY UPDATED.



6"x6" x NO. 6 GAUGE WIRE

S=0.5% MIN., n=0.017, Qw=13.26 cfs  
(LOTS 8-10, 3.0 AC \* 4.42 cfs/AC)

FOR FL

11' 11'

2'

5'

By \_\_\_\_\_

E: 11/2002

E: 11/2002

11/2002

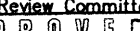
**CONCRETE RIBBON CHANNEL DETAIL**  
NTS

JOINTS SHALL BE IN ACCORDANCE WITH SECTION 340.5 AND 340.6.2.2 OF CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

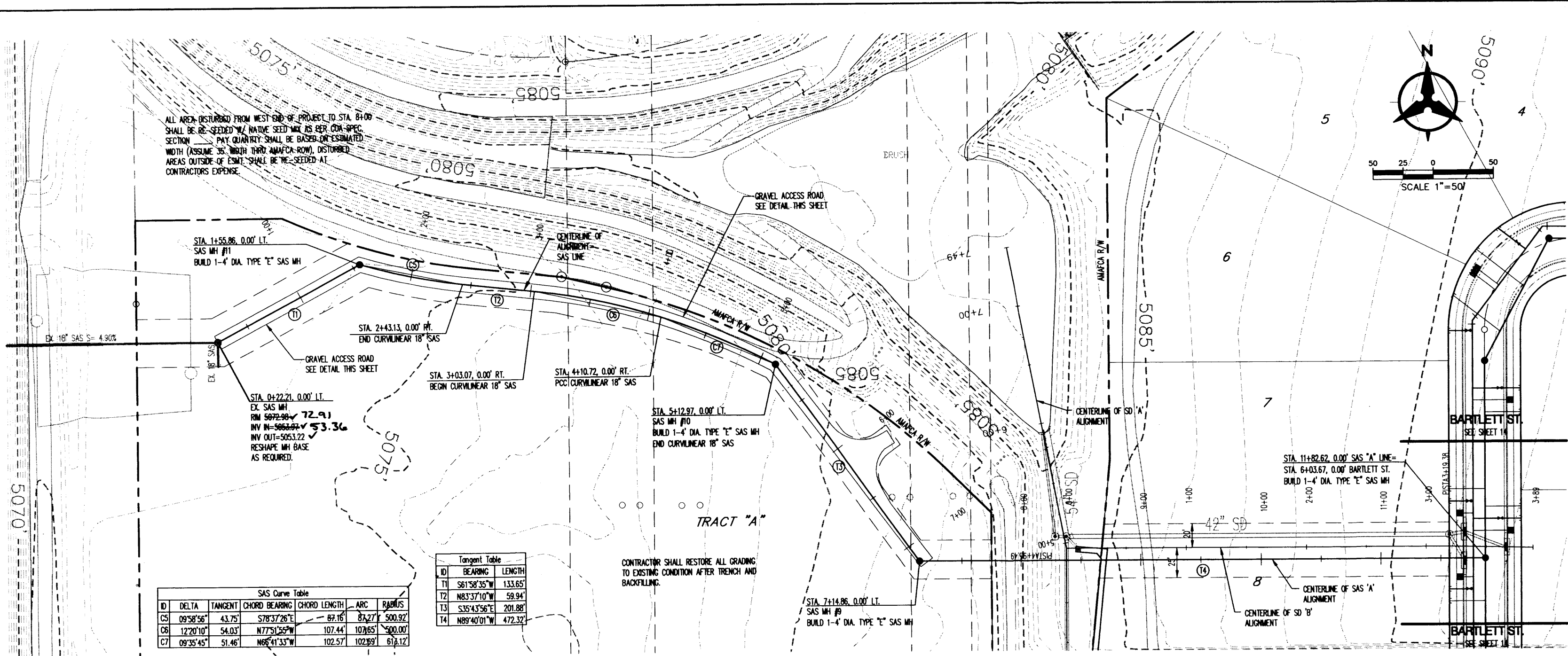
	REMAIN
	REVISION
	DESIGN
S	
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S	

**Bohannon ▲ Huston<sup>INC</sup>**  
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335  
**ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES**

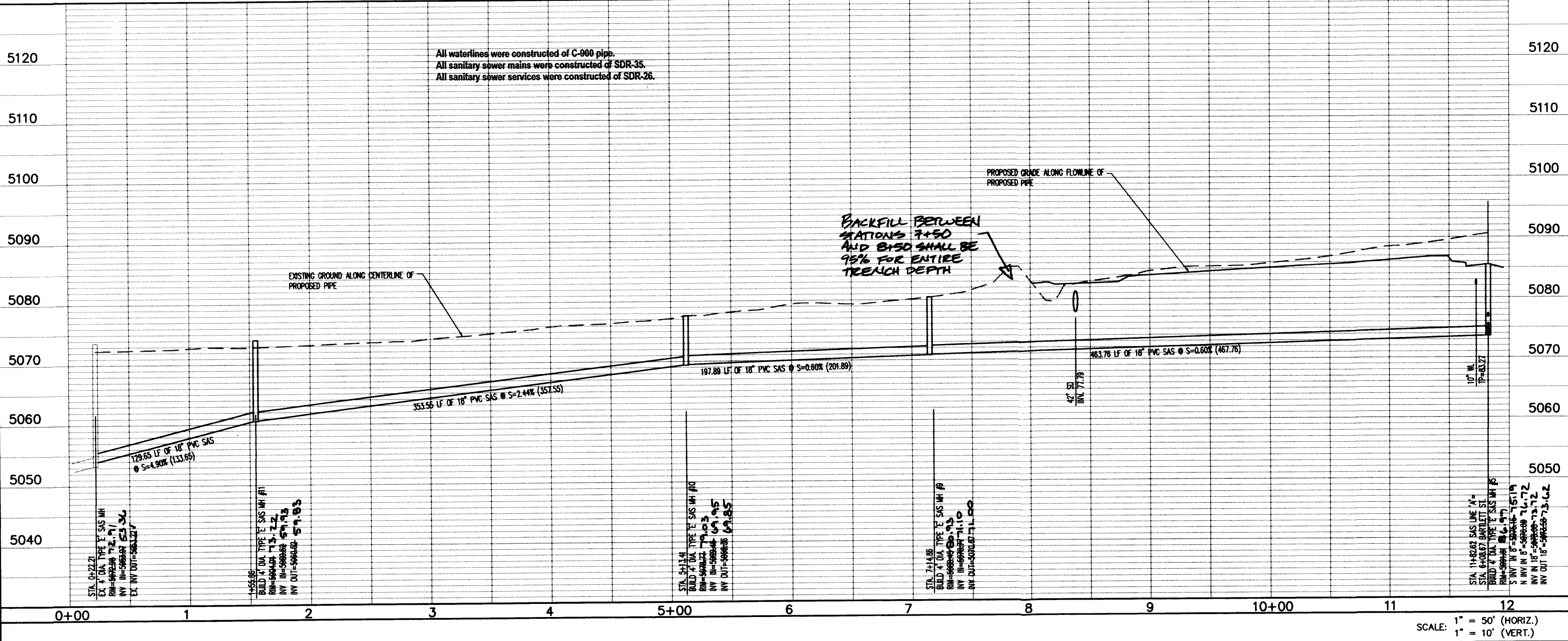
**CITY OF ALBUQUERQUE**  
**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING DEVELOPMENT GROUP**  
**JOURNAL CENTER PHASE 2, UNIT2**  
**STORM DRAIN PLAN & PROFILE**  
**SD 1A LINE**

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
	APR 25 2000		

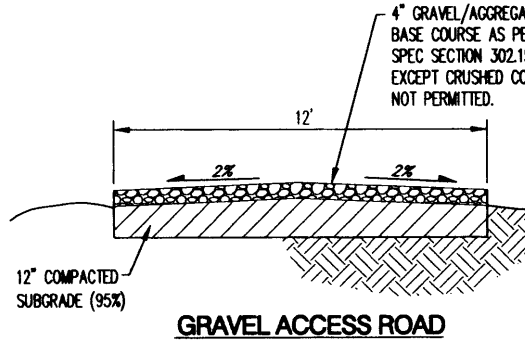
City Project No.	Zone Map No.	Sheet	Of
651783	D-17	11	24



SAS "A" LINE



- NOTES**
1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
  2. ALL CURB RETURN RADII SHALL BE 30' UNLESS OTHERWISE SPECIFIED.
  3. ALL CURVE DATA AND DIMENSIONS REFER TO FACE OF CURB UNLESS OTHERWISE SPECIFIED.
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  10. REMOVAL OF THE EXISTING CURB & GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWTOOTH ONLY).
  11. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB & GUTTER.



4" GRAVEL/AGGREGATE BASE COURSE AS PER COA SPEC SECTION 302.15 EXCEPT CRUSHED CONC. NOT PERMITTED.

- AMAFCA NOTES**
1. AMAFCA FIELD ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY WORK WITHIN THE AMAFCA R/W. TELEPHONE NUMBER 884-2215, JERRY LOVATO.
  2. NO WORK WILL BE PERFORMED IN THE AMAFCA R/W BETWEEN MAY 15 AND OCTOBER 15 WITHOUT WRITTEN PERMISSION FROM AMAFCA.
  3. ALL SUBGRADE, BACK FILL AND EMBANKMENT SHALL BE COMPACTED TO 95% (MODIFIED PROCTOR) WITHIN THE AMAFCA R/W. TESTING REPORTS SHALL BE PROVIDED TO AMAFCA FIELD ENGINEER.
  4. AMAFCA FIELD ENGINEER WILL BE NOTIFIED 48 HOURS PRIOR TO FINAL INSPECTION OF ANY FACILITIES WITHIN THE AMAFCA R/W.
  5. ALL DISTURBED GROUND AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 1012 NATIVE SEEDING AS CURRENTLY UPDATED.
  6. THE BERM DISTURBED BETWEEN STA. 5+00 TO STA. 7+00 SHALL BE BACKFILLED WITH SAME CLEAN MATERIAL AT 95% MINIMUM COMPACTION, MOISTURE CONDITION W/ NO TRASH.
  7. IF ANY OF AMAFCA MAINTENANCE ROAD ON THE TOP OF THE BERM IS DISTURBED IT WILL BE REPLACED WITH 6" GRAVEL BASE COURSE OVER 12" COMPACTED SUBGRADE.

**Bohannon & Huston**  
Courtland | 7500 Jefferson St. NE Albuquerque, NM 87109-4335  
ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

**CITY OF ALBUQUERQUE**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP

**JOURNAL CENTER PHASE 2, UNIT2**  
PLAN & PROFILE  
SAS "A" LINE

APPROVED  
APR 2 2 2003  
DESIGN REVIEW COMMITTEE

City Project No. 651783  
Zone Map No. D-17  
Sheet 19 of 24

**AS-BUILT INFORMATION**

CONTRACTOR: **Bohannon & Huston** DATE: **4/14/03**

WORK: **PLAN & PROFILE** DATE: **03**

DESIGNED BY: **AL** DATE: **03**

DRAWN BY: **AL** DATE: **03**

CHECKED BY: **AL** DATE: **03**

RECORDED BY: **AL** DATE: **03**

**BENCH MARKS**

AS MONUMENT "MA-9"

Y=1519.208-317, X=84.263-317

G=0-039667193081574

Q=1 -001215' CENTRAL ZONE

(MAD 1927)

ELEVATION=5069.23

LOCATED IN SOUTHEAST QUADRANT OF PASO DEL NORTE & NORTH

DIVERSION CHANNEL INTERSECTION

**SURVEY INFORMATION**

FIELD NOTES

NO. BY DATE

**ENGINEER'S SEAL**

PROFESSIONAL ENGINEER

4/14/03

REVISIONS

No. Date

By

DESIGNED BY: BUS

DRAWN BY: KJW

CHECKED BY: BUS

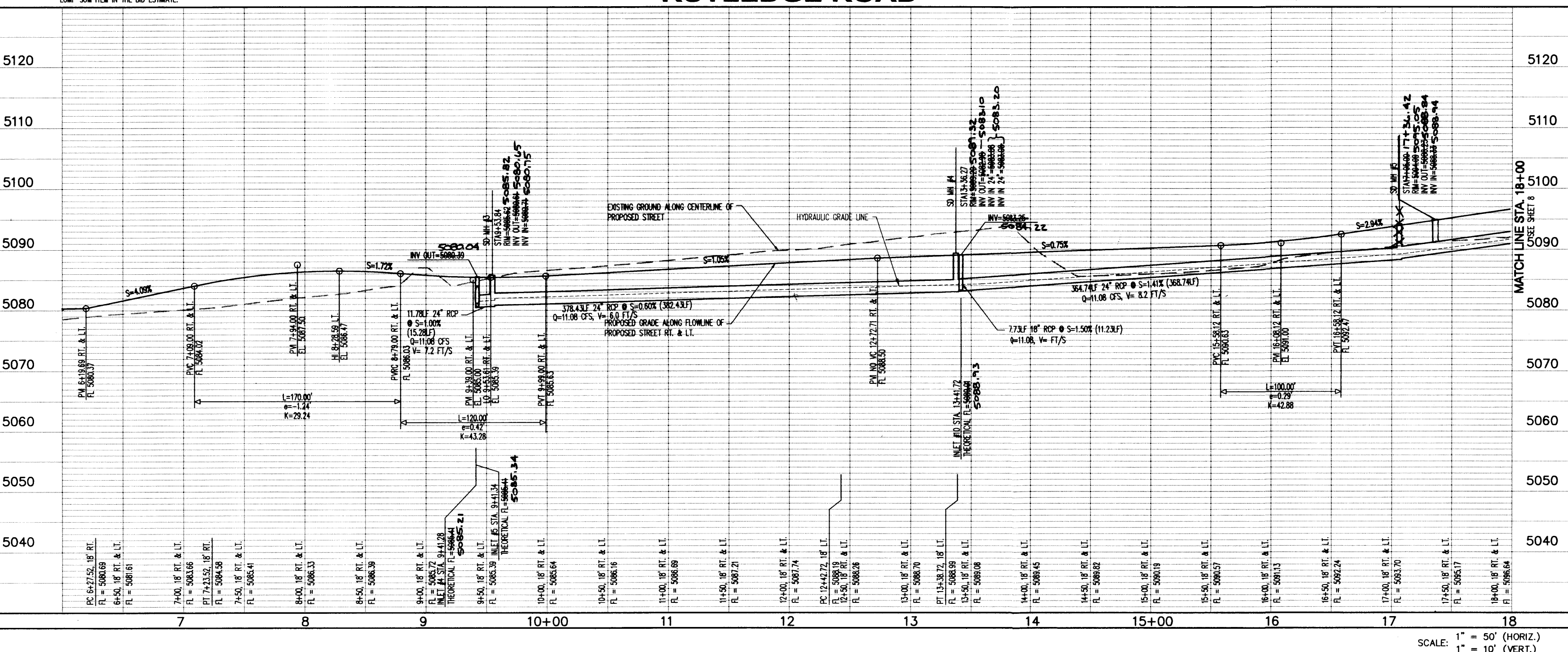
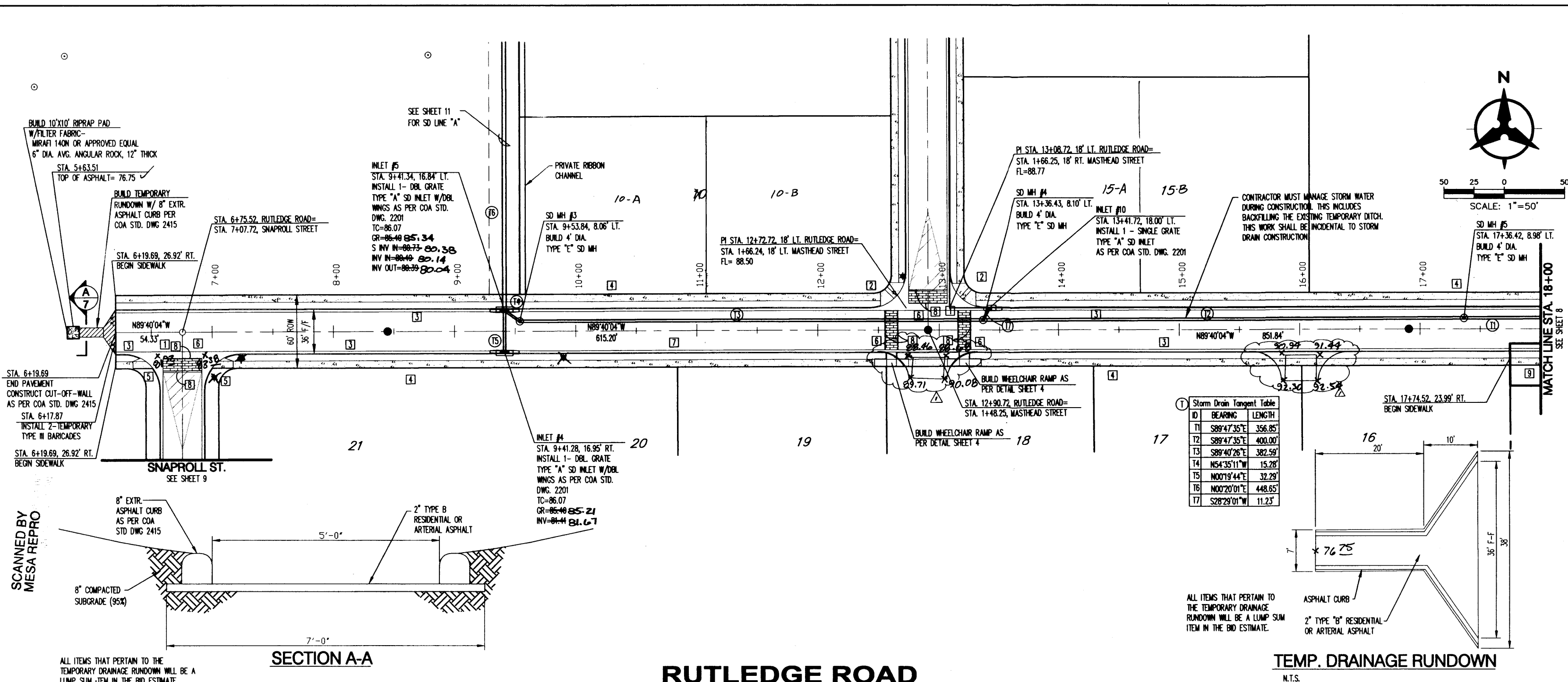
DATE: 10/2002

DATE: 10/2002

DATE: 10/2002







**NOTES**

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- WHEELCHAIR RAMPS SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB & GUTTER.

**KEYED NOTES**

- INSTALL 6" CONCRETE VALLEY GUTTER AS PER STD. DWG. 2420
- BUILD WHEELCHAIR RAMP AS PER DETAIL SHEET 4
- STD. CURB & GUTTER AS PER COA STD. DWG. 2415
- DEFERRED 6" SIDEWALK
- BUILD UNIDIRECTIONAL WHEELCHAIR RAMP PER DETAIL SHEET 4
- BRICK PAVEMENT CROSS WALK PAVEMENT. SEE DETAIL SHEET 4
- ASPHALT PAVEMENT PER SECTION SHEET 4
- 12" SOLID WHITE STRIPE
- 6" SIDEWALK PER COA STD. DWG. 2430.

\* NOT APPLICABLE THIS SHEET

**Bohannon & Huston**

Courtyard 7 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

**CITY OF ALBUQUERQUE**

PUBLIC WORKS DEPARTMENT

ENGINEERING DEVELOPMENT GROUP

**JOURNAL CENTER PHASE 2, UNIT2**

PAVING PLAN & PROFILE

**RUTLEDGE ROAD**

Design Approval	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
REVIEWED			

City Project No.	Zone Map No.	Sheet	Of
651783	D-17	7	24







# GRADING NOTES:

- ALL WORK DETAILED ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS, 1986 EDITION, AS AMENDED THROUGH UPDATE # 7.
- A CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY COSTS INCURRED FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- PAVING/ROADWAY GRADES SHALL BE ±0.05 FT. FROM SHOWN PLAN ELEVATIONS.
- PADS SHALL NOT VARY FROM A TRUE HORIZONTAL PLANE BY MORE THAN ±0.01 FOOT AT ANY POINT. THIS TRUE PLANE SHALL NOT VARY FROM THE SHOWN PAD ELEVATION BY ±0.02 FOOT.
- MAINTENANCE OF DRAINAGE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH THEY ARE CONSTRUCTED. ROOF DRAINS AND APPURTENANCES SHALL BE REGULARLY INSPECTED AND OBSTRUCTIONS REMOVED.
- THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE AND FEDERAL REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS AND GRADING OPERATIONS.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS AND INSPECTION APPROVALS NECESSARY FOR THE CONSTRUCTION OF THESE FACILITIES AND ALL GRADING OPERATIONS.
- THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
- DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONSTRUCTION SAFETY: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S SOLE RESPONSIBILITY.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY, ROADWAYS OR ONTO PRIVATE PROPERTY.
- THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DISTURB OR DAMAGE EXISTING FEATURES TO REMAIN DURING ALL PHASES OF CONSTRUCTION.
- ALL SIDEWALKS SHALL HAVE A 2% CROSS-SLOPE UNLESS OTHERWISE INDICATED.

## ASBUILT LEGEND

✓ TC 77.81  
FL 77.01  
TC 77.51  
FL 77.08

= AS BUILT MATCHES DESIGN ELEVATION

= AS BUILT ELEVATION

I, Daniel S. Aguirre, NMPE 11955, OF THE FIRM Wilson & Company, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 9-1-04. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Joaquin Arguelles, Jr., NMPS 7472.

I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 3-28-05 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR Permanent Certificate of Occupancy.

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

DATE 3/29/05

## DRAINAGE REPORT

### Site Description

The project site, in Journal Center Phase 2 Unit 2, is located west of the intersection of Masthead St. and Jefferson St. in northeast Albuquerque. It is the first lot in a four-lot business park and is bounded on the north by proposed Tract A-2, on the east by proposed Tract A-4, on the west by the North Diversion Channel and on the south by Rutledge Rd., Snaproll St. and Lot 17-A Interstate Industrial Tract Unit 4.

### Legal Description

Tract A-1 Journal Center Phase 2 Unit 2

### Flood Hazard Zones

The site is not located in a flood zone as shown by Panels 35001C0136D & 35001C0137D.

### Existing Conditions

The site is entirely located in Basin A1 as shown on the "Journal Center-Phase 2 Unit II: Drainage Plan & Basin Map" by Bohannon Huston, Inc., dated 8 November 2002. That plan was an amendment to the approved drainage report for Journal Center Phase 2 Units 1&2 (D17/D3AA). The site was slightly graded to direct flows under the Bohannon Huston, Inc. plan.

### Proposed Conditions

The site is located in Basin A1-b as shown on the "Brunacini @ Journal Center Drainage Plan" by Wilson & Company, Inc., dated 24 August 2004. Under developed conditions for Tract A-1, the site will continue to accept flows from Snaproll St. NE and Rutledge Rd. and from a portion of undeveloped Tract A-4. This basin is indicated as Basin 100 on this plan and flows will be directed through the parking lot and around the building to the northwest corner of the lot and discharged into a temporary retention pond located on Tract A-2.

### Developed Condition results are as follows:

1) Land Treatment - 56% Land Treatment D, 25% Land Treatment B and 19% Land Treatment C.

2) V(10day) = 1.65 Ac-ft

The proposed grading will provide an interim retention pond with a minimum of the above required volume of 1.65 Ac-ft, 3:1 sides slopes and a depth of three feet with one foot of free board. The pond will remain until such time as proposed Tract A-2 is developed, at which time flows from Basin 101 will primarily flow to an outlet structure to be located on the west property line of Tract A-1, with ultimate discharge to the North Diversion Channel.

### Conclusion

The development of this site is designed to adhere to the "Brunacini @ Journal Center Drainage Plan" by Wilson & Company, Inc., dated 24 August 2004. That document indicates interim temporary retention ponding with ultimate discharge to the North Diversion Channel.

## LEGAL DESCRIPTION

TRACT A-1, JOURNAL CENTER, PHASE 2, UNIT 2

## BENCH MARK

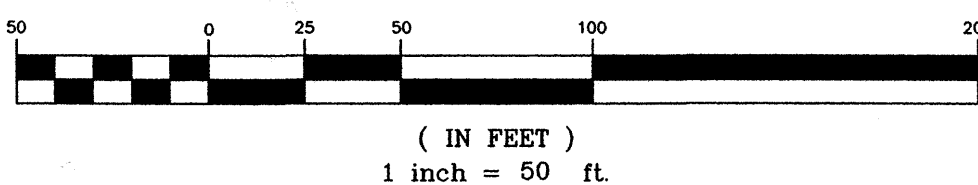
NGS BRASS TABLE STAMPED "REEVES 2, 1991" GEOGRAPHIC POSITION (NAD 1927)  
NM STATE PLANE COORDINATES (CENTRAL ZONE) X = 394,062.557 Y = 1,516,507.279  
GROUND TO GRID FACTOR = 0.99967022 DELTA ALPHA = -00'12"15"  
NGVD 1929 TRIG ELEVATION = 5074.0

## LEGEND

EXISTING INTERMEDIATE CONTOUR  
EXISTING INDEX CONTOUR  
BASIN BOUNDARY LINE

PROPOSED INTERMEDIATE CONTOUR  
PROPOSED INDEX CONTOUR  
BASIN TAG

## GRAPHIC SCALE



WCEA X4218034  
AUGUST 2004

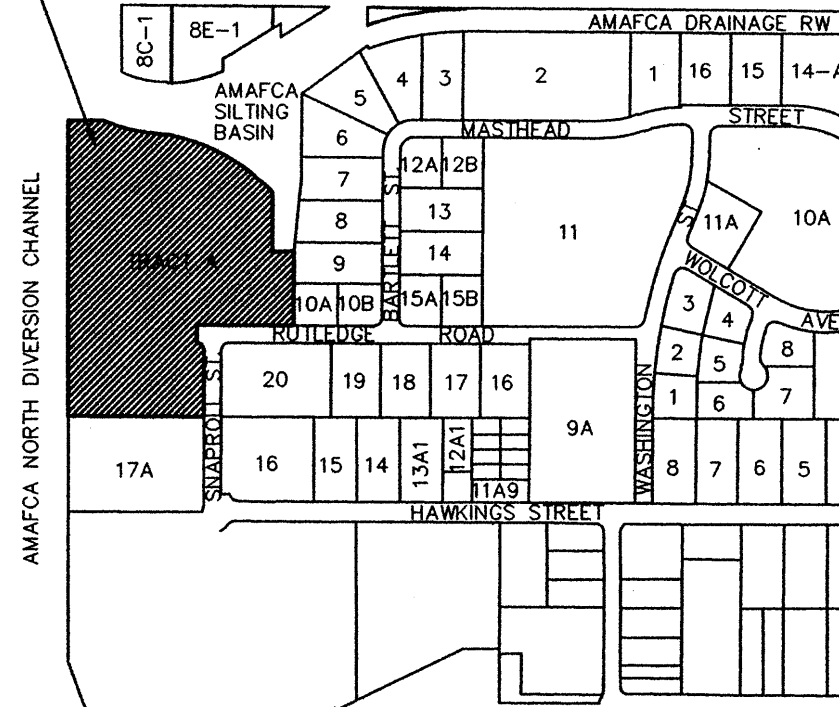
## CURVE DATA

ID	DELTA	TANGENT	ARC	RADIUS	CHORD	CHORD BRG
C1	90°12'33"	25.09'	39.36'	25.00'	35.42'	N45°13'40"E
C2	18°39'37"	82.97'	164.47'	505.00'	163.74'	S74°39'50"E
C3	30°45'00"	166.69'	325.34'	606.20'	321.45'	S61°07'47"E
C4	89°47'27"	24.91'	39.18'	25.00'	35.29'	S44°46'20"E
C5	150°35'52"	80.15'	159.36'	606.20'	158.93'	S68°38'21"E
C6	90°25'47"	20.15'	31.57'	20.00'	28.39'	S80°31'02"E
C7	89°34'13"	19.85'	31.27'	20.00'	28.18'	S09°28'58"W
C8	14°35'09"	74.23'	147.65'	580.00'	147.25'	N69°39'28"W
C9	08°46'40"	45.76'	91.30'	535.00'	91.19'	N79°52'39"W
C10	11°14'28"	49.70'	99.08'	505.00'	98.92'	S78°22'24"E

## TANGENT DATA

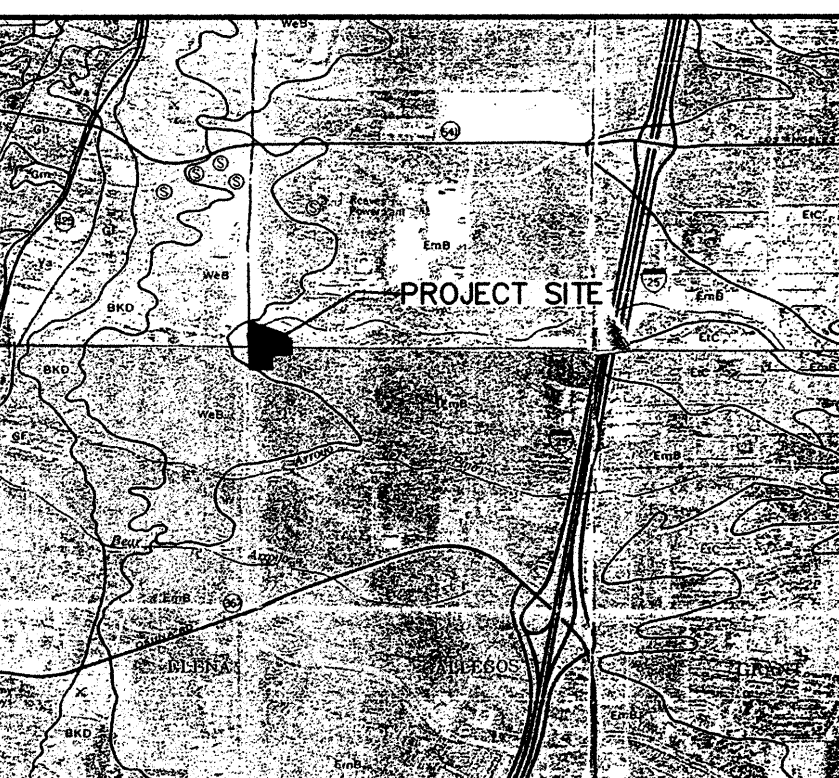
ID	BEARING	DISTANCE
T1	S76°30'17"E	38.16'
T2	S45°45'17"E	49.94'
T3	S00°19'36"W	60.00'
T4	N54°16'04"E	12.11'
T5	S35°43'56"E	20.00'
T6	S54°16'04"W	12.56'
T7	S00°09'41"W	25.00'
T8	N76°57'03"W	34.64'
T9	N00°00'22"E	40.00'

## PROJECT SITE



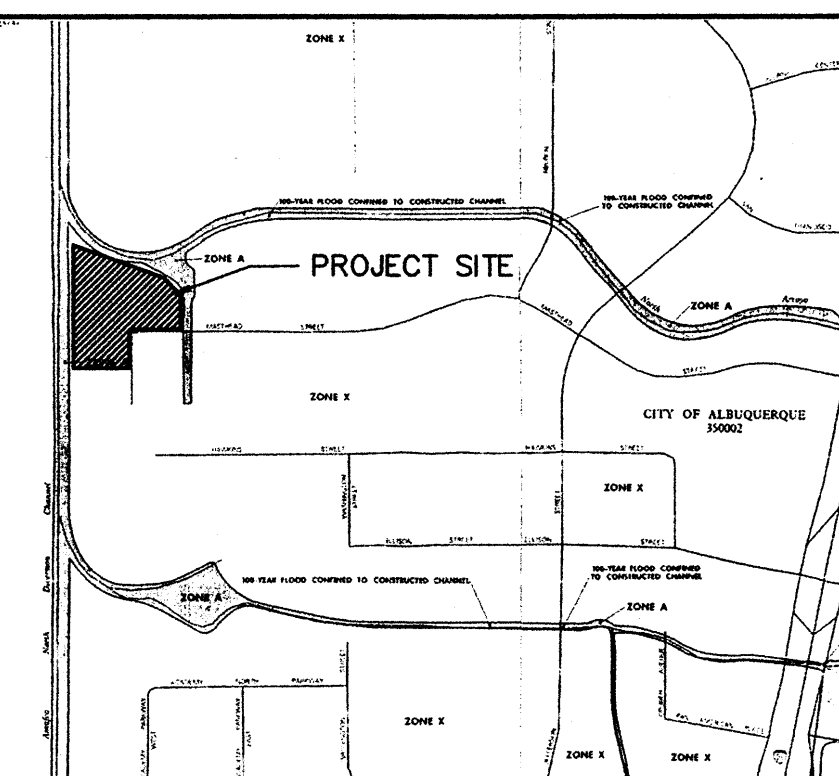
## LOCATION MAP

ZONE ATLAS MAP NO. D-16 & D-17



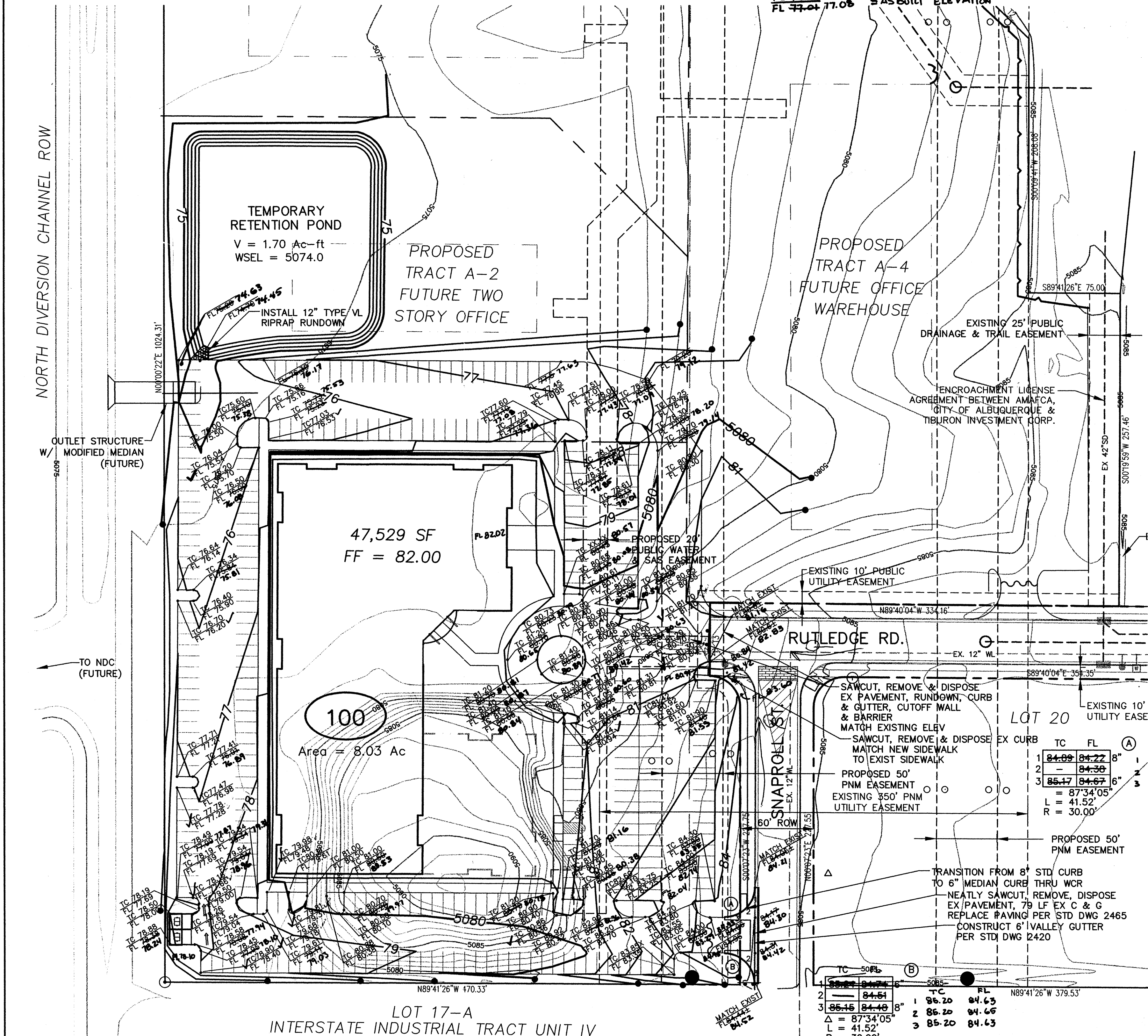
## SOILS MAP

REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY  
SHEET NO. 11 & 12



## FLOOD INSURANCE MAP

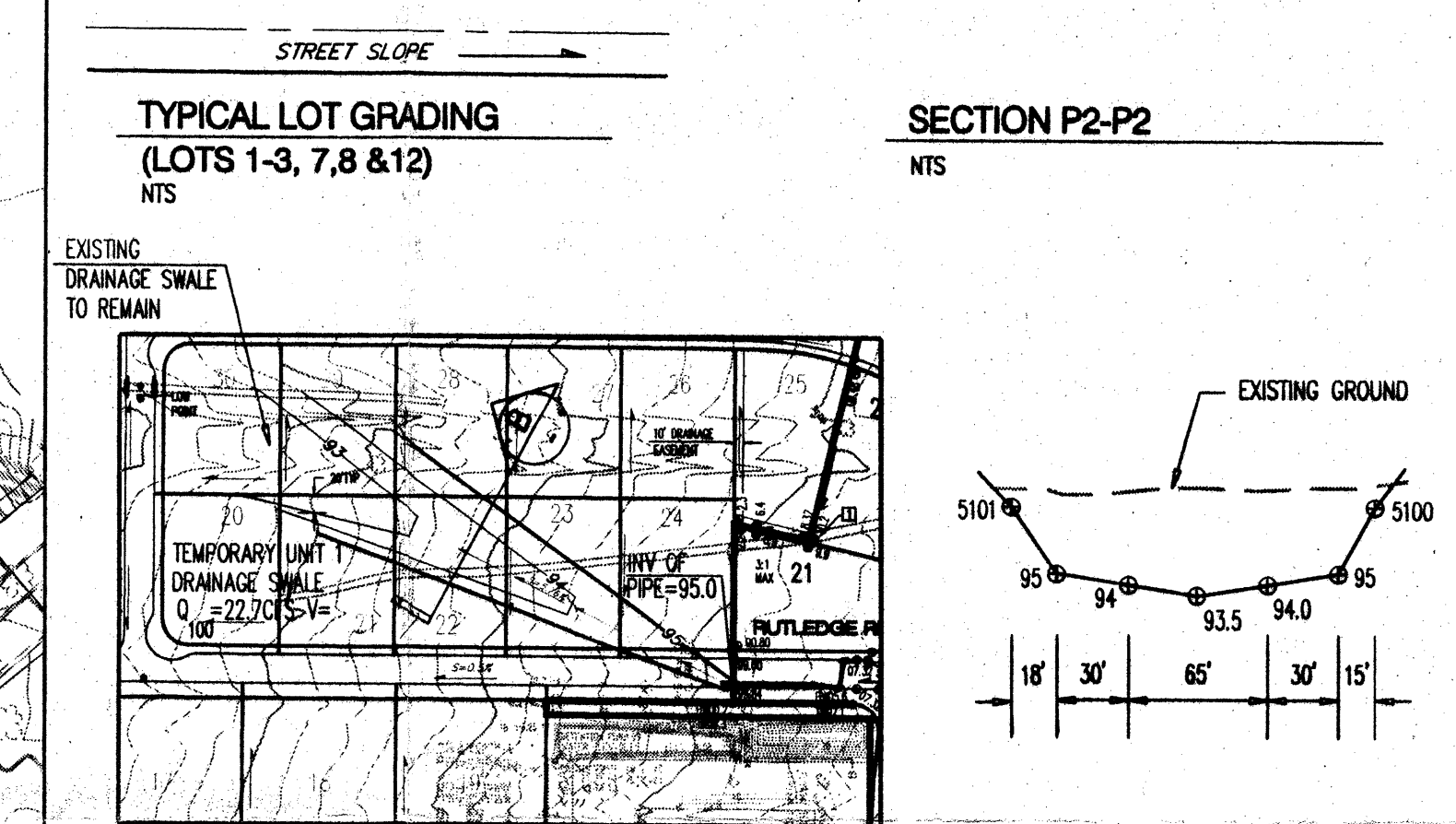
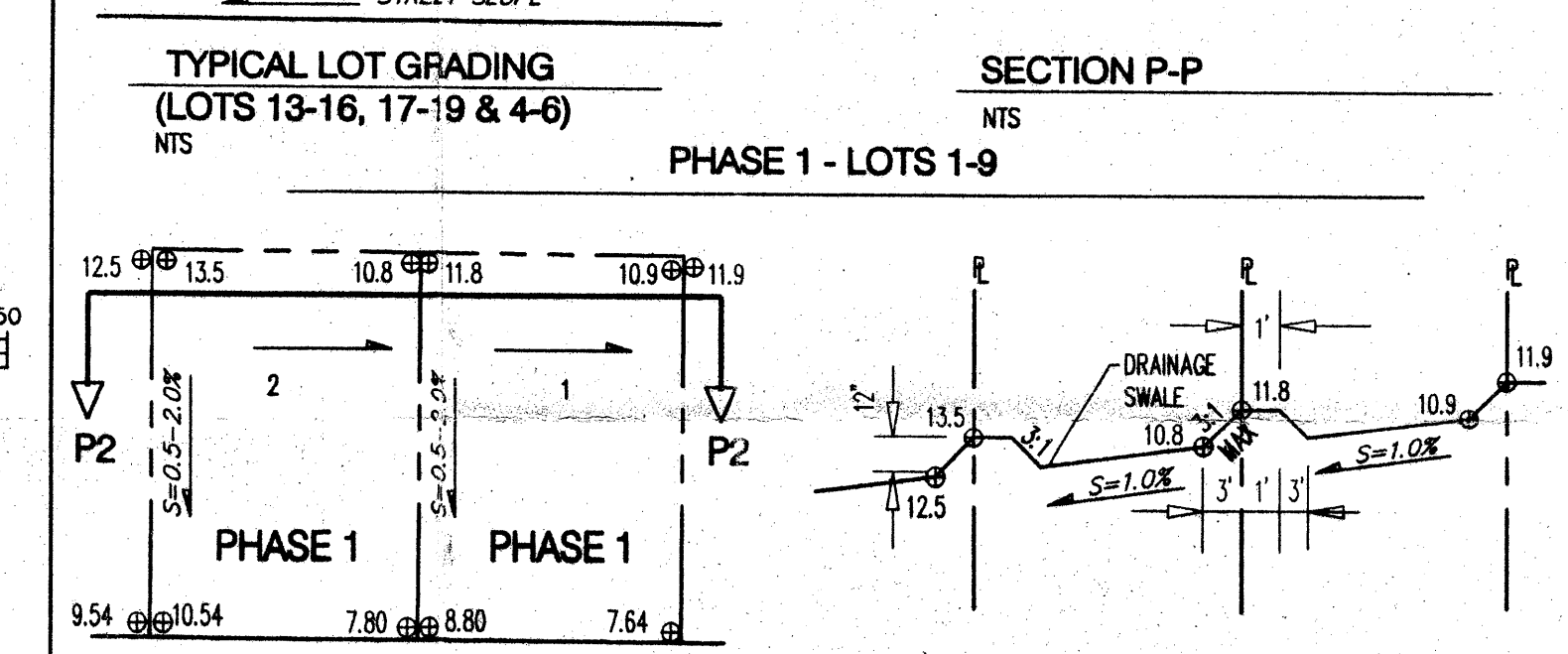
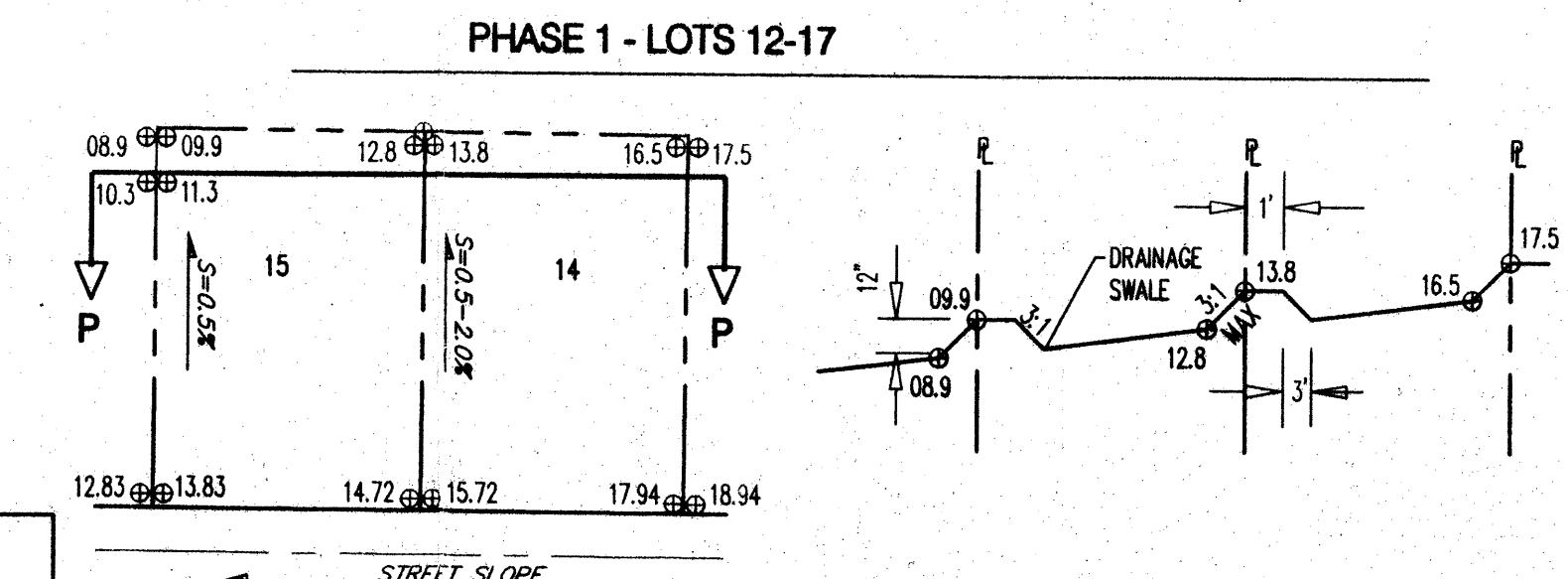
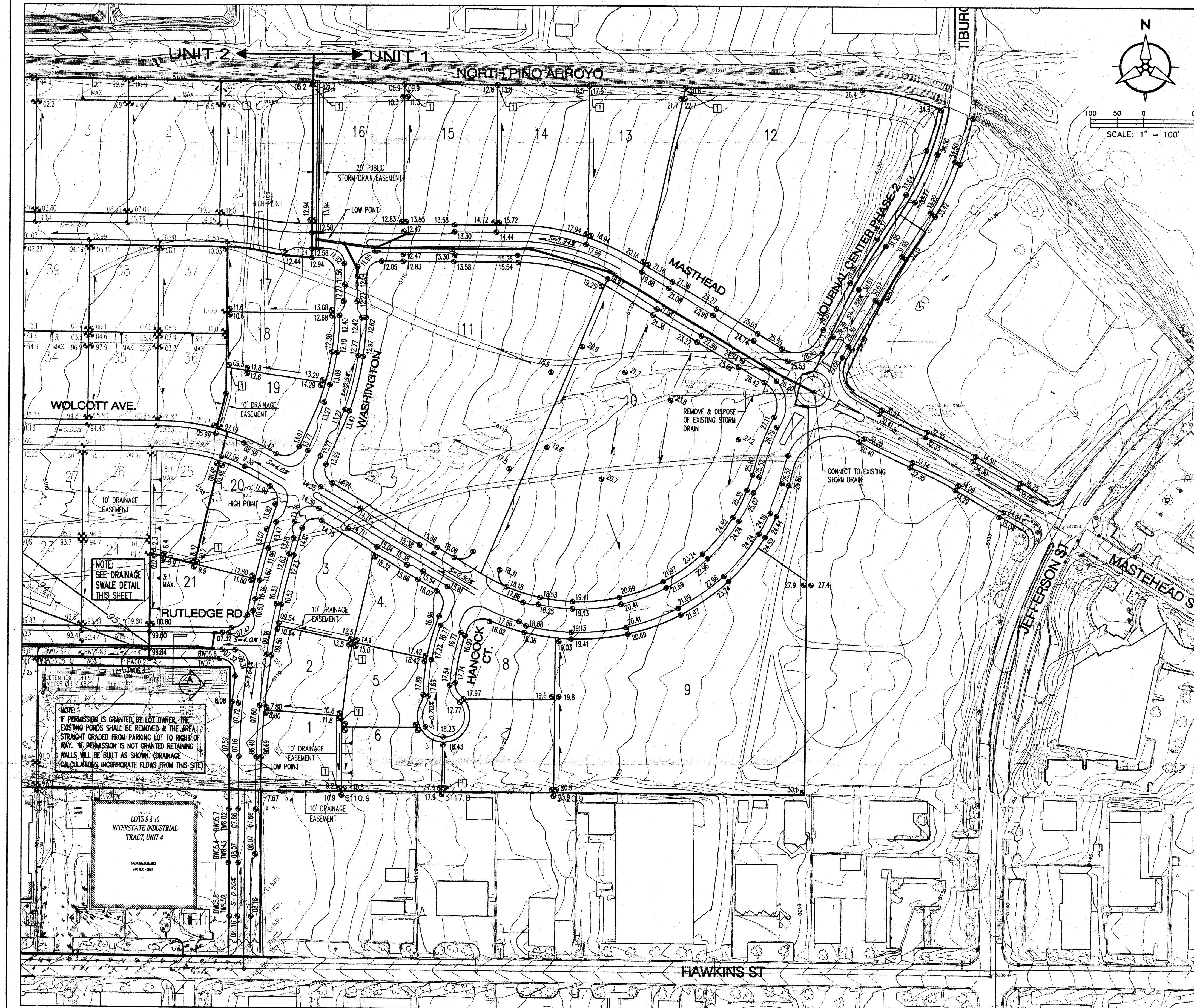
REFERENCE: FLOOD INSURANCE STUDY  
PANELS 35001C0136D & 35001C0137D





# KEYED NOTES

TURNED BLOCK



- ## GENERAL NOTES
1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
  2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATIONS AS NOTED IN THE SOILS REPORT.
  3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
  4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERM AS PER THE DETAIL ON THIS SHEET AND NETTING THE SOIL TO KEEP IT FROM BLOWING AS PER THE EROSION CONTROL DETAIL THIS SHEET.
  5. ALL STREET ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATIONS.

## LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATION
- CMU RETAINING WALL
- CMU WALL
- SWALE
- DIRECTION OF FLOW
- WATER BLOCK
- SLOPE
- STORM DRAIN INLET
- TEMPORARY GRADING LIMIT
- UNIT BOUNDARY

**Bohannon & Huston**  
 Courtyard One 7500 JEFFERSON NE ALBUQUERQUE NEW MEXICO 87109  
 ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

**CITY OF ALBUQUERQUE**  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DEVELOPMENT GROUP

**JOURNAL CENTER-PHASE2**  
 WAREHOUSE/STORAGE - UNIT 1  
 GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. \_\_\_\_\_ Zone Map No. **D-17** Sheet **X** Of **X**

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGN	
CONTRACTOR	DATE	STAKED BY	DATE	NO.	BY	NO.	BY	NO.	DATE	NO.	DATE
ACS Brass Tablet stamped "1-A11-1990"		Geographic Position (NAD 1927)									
N.M. State Plane Coordinates (Central Zone)		X= 365236.60 Y= 153171.91									
Ground-to-Grid Factor= 0.999658		U.S. National Grid									
SD 1929 Elevation= 5331.73											

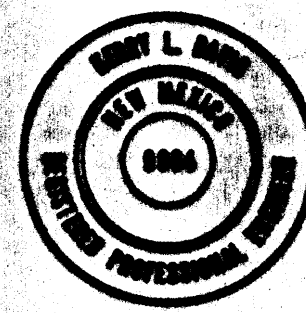


# KEYED NOTES

- TURNED BLOCK
- EXISTING CHANNEL RANDOM

## GRADING AND DRAINAGE CERTIFICATION

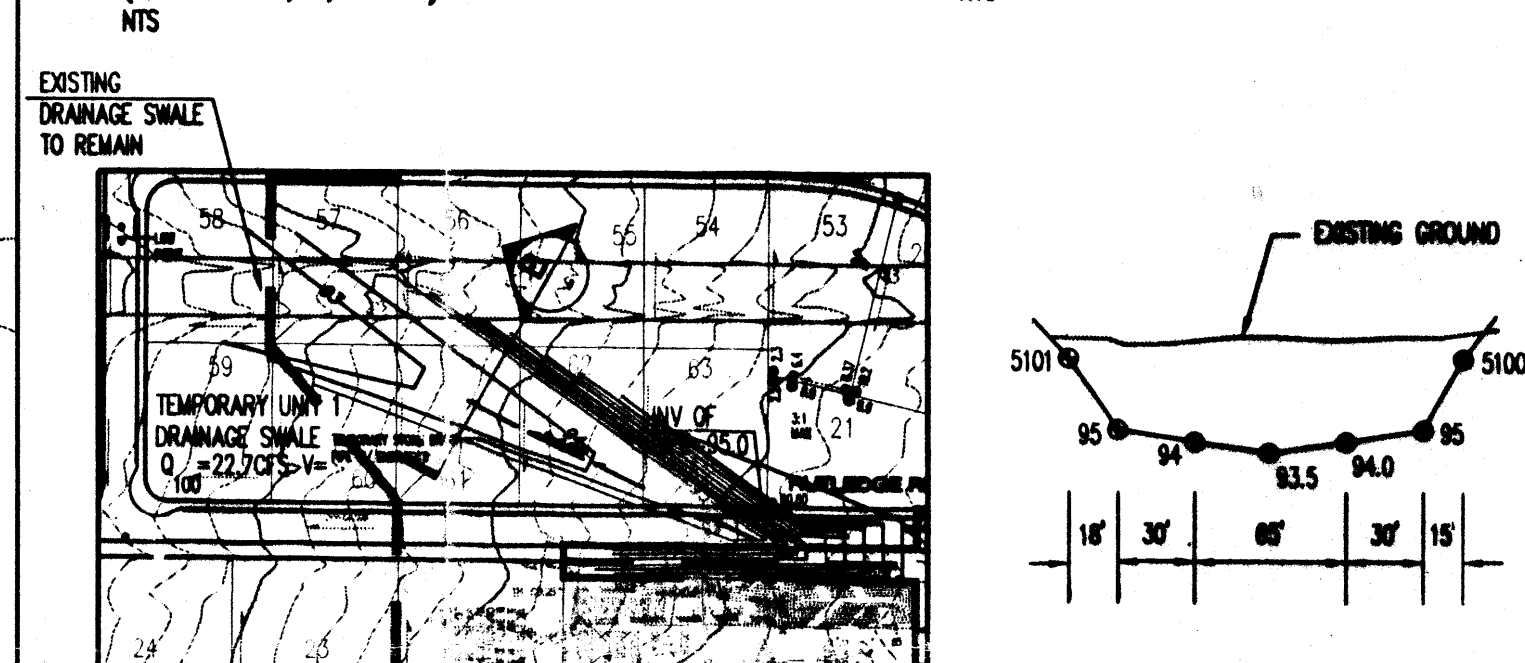
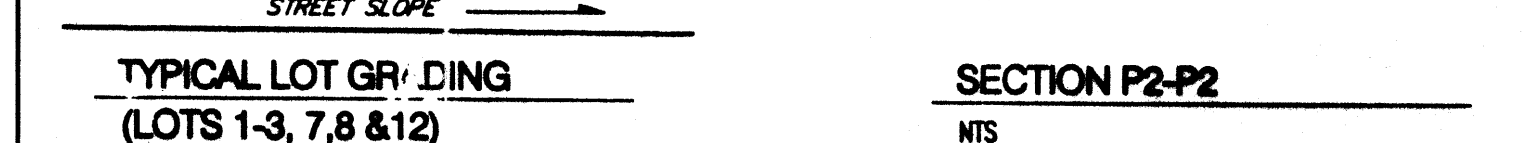
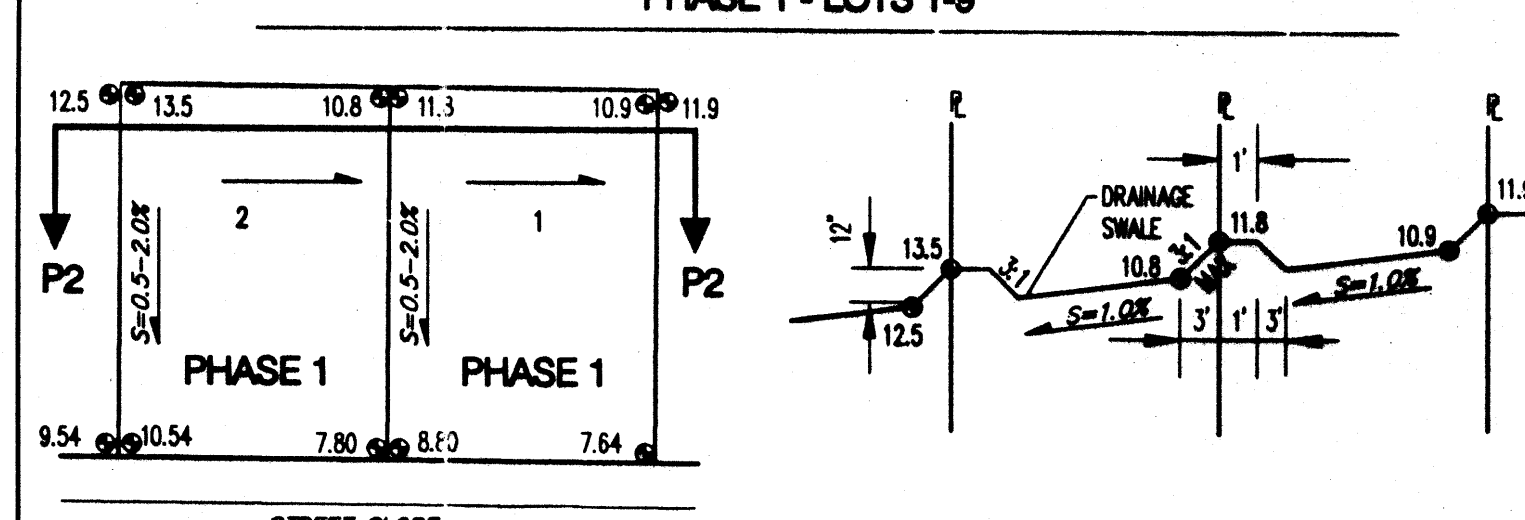
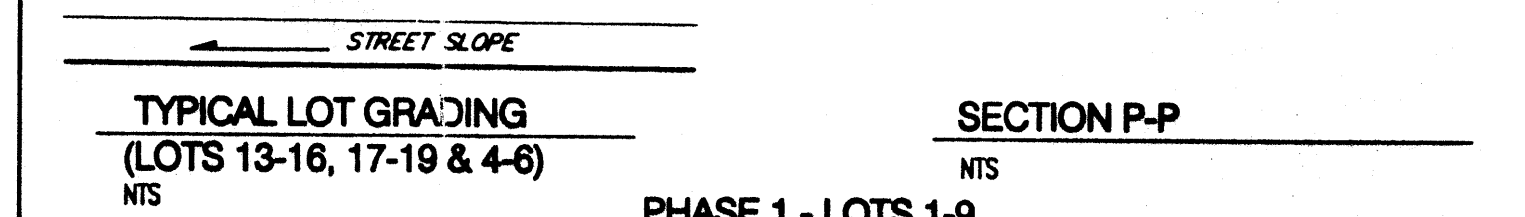
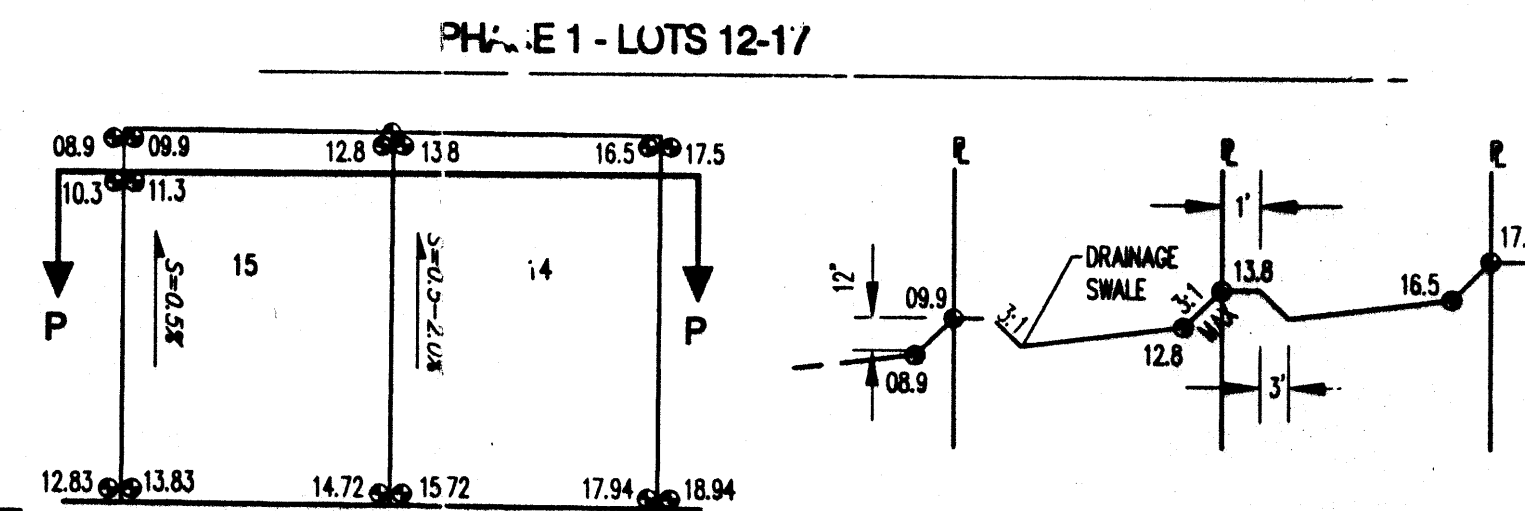
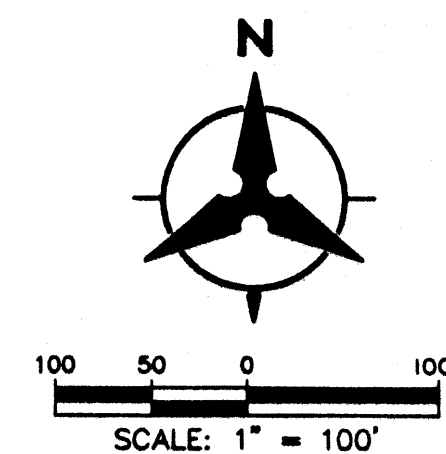
KERRY L. DAVIS OF BOHANNAN HUSTON, N.M.P.E. # 9984, HEREBY CERTIFY THAT THE AS-BUILT GRADING AND DRAINAGE CONDITIONS OF THE SITE ARE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN (CITY OF ALBUQUERQUE DRAINAGE FILE # D17/D3AA), TO THE BEST OF MY KNOWLEDGE AND BELIEF. AS-BUILT ELEVATIONS ARE SHOWN ON THE PLAN WHERE THE ORIGINAL DESIGN ELEVATION HAS BEEN CROSSED OUT AND THE AS-BUILT ELEVATION ADDED. AS-BUILT ELEVATIONS FOR MASS GRADING WERE VERIFIED BY SPARLING CONSTRUCTION CO., INC. IN JANUARY, 2001. AS-BUILT ELEVATIONS FOR INFRASTRUCTURE IMPROVEMENTS WERE VERIFIED BY BOHANNAN HUSTON IN OCTOBER AND NOVEMBER, 2001. THIS STATEMENT DOES NOT REPRESENT CERTIFICATION OF CONTRACTOR'S METHODS OR MATERIALS.



NAME Kerry L. Davis  
DATE 11-15-01

I, Carl Smith, do hereby attest to the fact that the as-built information shown hereon is the result of a field survey performed by me or under my direct supervision, and that the same is true and correct. AS OF 15 JAN 01

Carl Smith  
S.C.T. Survey Manager



GENERAL NOTES

- CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATIONS PROVIDED BY GEOTEST INC. DATED 10/24/00.
- THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERM AS PER THE DETAIL ON THIS SHEET AND NOTING THE SOIL TO KEEP IT FROM BLOWING AS PER THE EROSION CONTROL DETAIL THIS SHEET.
- ALL STREET ELEVATIONS ARE TYP. OF CURB UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATIONS.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATION
- CMU RETAINING WALL
- CMU WALL
- SWALE
- DIRECTION OF FLOW
- WATER BLOCK
- SLOPE
- STORM DRAIN INLET
- TEMPORARY GRADING LIMIT
- UNIT BOLD DAY

Bohannon Huston  
Surveyed One 7500 JEFFERSON NE Albuquerque NEW MEXICO 87109  
ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP

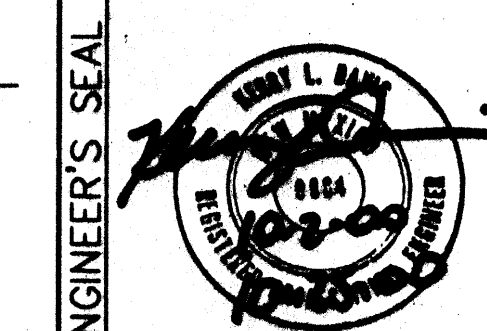
JOURNAL CENTER-PHASE2  
WAREHOUSE/STORAGE - UNIT 1  
GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
NOV 16 2001	D-17	4	40

AS-BUILT INFORMATION	
CONTRACTOR	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
RECORDED BY	DATE

BENCH MARKS	
CONTRACTOR	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
RECORDED BY	DATE

SURVEY INFORMATION	
FIELD NOTES	DATE
NO.	BY



ENGINEER'S SEAL	
DATE	BY

REVISIONS	
No.	Date

Designed By: CMG	DATE: 10/2000
Drawn By: CMG/DLM	DATE: 10/2000
Checked By: BUS	DATE: 10/2000



# REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

REVISED: NOVEMBER, 1990  
PREPARED BY: BOHANNAN-HUSTON, INC.

The purpose of this revised drainage management plan is to update the plan to reflect the development of Journal Center since the plan was first approved in 1984. Since that time, Journal Center has been replatted, new streets constructed and new businesses have moved in. All new development has conformed to the 1984 plan and individual development plans have been approved by the City. The drainage concepts and basins remain substantially identical to the 1984 drainage management plan.

The purpose of this plan is to outline drainage patterns, flow rates and facility capacities for the Journal Center Industrial/Commercial Park. The plan also serves to update recommendations made in an October 1980 report entitled *Journal Center Interim Drainage Report* based on current thinking outlined in the Drainage Ordinance and Development Process Manual (DPM).

It is proposed that runoff from sites be allowed to discharge to street rights-of-way or facilities in a free discharge manner. This runoff will be directed to three primary outfalls: the North Pino Arroyo Channel, Jefferson Street storm drain and Los Angeles Blvd. The North Pino Arroyo Channel is concrete lined with grass free board and discharges runoff into the North Diversion Channel. The Jefferson Street storm drain discharges into the Domingo Baca Arroyo, north of Los Angeles Blvd. Runoff collected in Los Angeles Blvd. discharges into the North Diversion Channel. The accompanying plan identifies flow directions and the location of the primary outfalls.

Runoff rates and facility capacities are contained in the tables below. Based on this information, three points should be highlighted:

1. Current runoff criteria yields flow rates less than those used in the 1980 report.
2. Approximately 112 cfs will be directed to Los Angeles Blvd. during the 100-year storm. 226 cfs is collected in the storm drain system and conveyed to the Domingo Baca Arroyo. The 112 cfs represents a figure less than the undeveloped flow rate from the site prior to its development.

Additional functions of the updated plan will be to guide engineers in preparing future drainage plans and aiding City review of these future plans. Drainage basins which have been altered slightly have been re-analyzed and are shown in the table below to have no significant nor adverse impact on drainage facilities.

The criteria used for the minor re-analysis performed in this updated plan remained identical to that previously used and approved in the original 1984 plan.

3. Section 8C of the Drainage Ordinance stipulates that the curb flow line depth shall not exceed 0.5 feet during the 10-year storm in arterial street sections. As the values indicate, this criteria is exceeded at several locations along Jefferson Street.

As provided in Section 8H of the Ordinance, a variance to the requirement outlined in No. 3 is requested for the following reasons:

1. Considerable expense has already been applied to the construction of drainage facilities in the area. The Pino Arroyo Channel and Jefferson Street storm sewer represent an investment of approximately 2 million dollars. Design was guided and approved based upon criteria in effect at the time assuming free discharge from all parcels.
2. The total length of street over which the criteria is exceeded is approximately 3000 feet. This represents a relatively short distance compared to the total length of Jefferson Street running through and south from the project.

BASED ON THE INFORMATION PRESENTED IN THIS PLAN, IT IS PROPOSED THAT A FREE DISCHARGE MANAGEMENT APPROACH BE APPROVED FOR ALL PARCELS WITHIN THE PARK, AND THAT A VARIANCE TO SECTION 8C BE GRANTED FOR THE 10-YEAR FLOW CRITERIA IN JEFFERSON STREET.

LOCATION MAP  
ZONE ATLAS D-17-Z

BASIN HYDROLOGY (Developed Conditions)

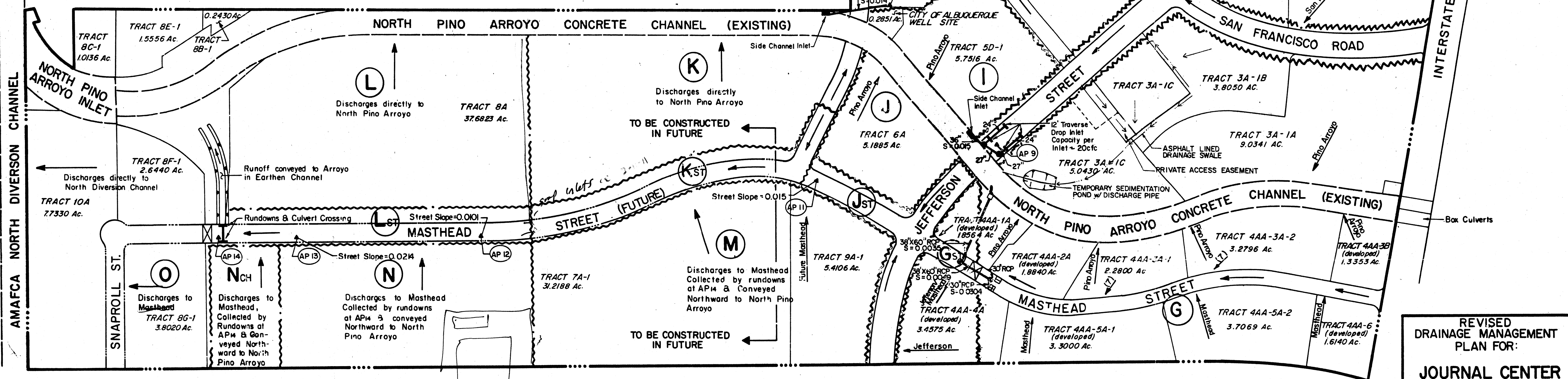
BASIN ID	AREA	DISCHARGES TO	LONGEST REACH (FT.)	SLOPE (AVERAGE)	TC (MIN.)	INTENSITY (IN/HR.)	Q <sub>100</sub>	Q <sub>100</sub> 1980 REPORT
A **	5.4	Headline	1200	0.02	10.0	4.7	61	95
B-1**	18.0	Jefferson	1650		10.0	4.7	68	N.A.
C	27.6	Diversion Berm	1200		10.0	4.7	102	116
D-1	14.3	Tiburon	1000		10.0	4.7	54	N.A.
E-1	13.1	Jefferson	1100		10.0	4.7	49	N.A.
F	19.6	Pino Arroyo	1250		10.4	4.6	72	73
G	22.5	Pino Arroyo	1250		10.4	4.6	83	84
HST	3.0	Jefferson	500		10.0	4.7	12	12
H-1	29.1	Tiburon	1600		10.0	4.7	109	N.A.
I	5.2	Pino Arroyo	450		10.0	4.7	20	21
J	4.6	Pino Arroyo	450		10.0	4.7	17	19
JST	0.6	Masthead	1000		10.0	4.7	3	2
K	15.6	Pino Arroyo	1200		10.0	4.7	59	63
KST	1.3	Masthead	1300		10.0	4.7	5	5
L	15.4	Pino Arroyo	1200		10.0	4.7	58	64
LST	1.4	Masthead	1200		10.0	4.7	5	6
M	25.5	Masthead	1200		10.0	4.7	96	87
N	13.0	Masthead	1200		10.0	4.7	49	51
NCH	3.4	Masthead	650		10.0	4.7	13	14
O	5.3	Snapshot	650	0.02	10.0	4.7	20	22
A-1**	19.6	Headline	N.A.	N.A.	N.A.	N.A.	85	N.A.

STREET & STORM SEWER HYDRAULICS

AP	CONTRIB-UTING BASIN(S)	10-YEAR STORM (all values cfs)				100-YEAR STORM (all values cfs)				COMMENTS
		Q	STREET CAPACITY	SEWER/SS CAPACITY	FLOW IN STREET	Q	STREET CAPACITY	SS CAPACITY	FLOW IN STREET	
1	A, OF-1	64	112	N.A.	64	98	112	N.A.	98	Street has adequate capacity
2	B-1	45	112	N.A.	45	68	200	N.A.	45	10 year street capacity exceeded
3	OF-1, A, B-1	109	109	36" Full street section (30" RCP)	69	166	200	59	126	" " "
4	OF-1, Street, AB-1, Street	115	30" Full street section (30" RCP)	59	73	176	170	59	136	" " "
5	D-1	35	100	107 (48" RCP)	0	54	100	107	0	Basin D-1 runoff collected in Triple 'C' inlets
6	C	67	N.A.	48" RCP	N.A.	102	N.A.	120	N.A.	Basin C runoff collected in 48" RCP inlet
7	Street, OF-1, A, B-1, C, D-1	211	36" (72" RCP)	64	147	321	180	232	96	90 cfs discharged to Paseo del Norte
8	E-1	32	9" East half of street (36" RCP)	32	N.A.	49	104	N.A.	49	10 year street capacity exceeded
9	E-1, Street	46	25" East half of street (36" RCP)	0	46	69	200	83	0	74 cfs collected by inlets
10	H-1	72	N.A.	N.A.	72	109	N.A.	110	N.A.	Runoff conveyed to Pino Arroyo
11	GST, JST	10	160	N.A.	10	15	160	N.A.	15	" " "
12	APII, KST, M	76	N.A.	N.A.	76	116	130	N.A.	116	" " "
13	API2, N	108	N.A.	N.A.	108	165	160	N.A.	165	" " "
14	API3, NCH	117	N.A.	N.A.	N.A.	178	N.A.	N.A.	N.A.	Runoff collected in concrete runoffs
15	A, OFFSITE	N.A.	N.A.	N.A.	N.A.	43.1	84.7	N.A.	43.1	" " "

N.A. - Not Applicable  
\*\* - See Note #6  
\*- Using 1994 DPM Hydrology criteria to calculate flows

- NOTES
1. Basin Hydrology based on DPM Criteria, Chapter 22 (DPM Edition, 1984).  
a. Tc - Plate 22.2 13-1 (10 minute minimum)  
b. Intensity - Plate 22.2 D-2  
c. "C" for 85% Impervious = 0.80  
d. Plate 22.2 C-1  
e. 100 year rainfall = 2.2 in. - Plate 22.2 D-1
  2. Street capacities determined using DPM Criteria, Chapter 22, Plates 22.3 D-1 thru 22.3 D-4 (DPM Edition, 1984).
  3. Storm sewer sized to operate under pressure flow - Plate 22.3 B-5.
  4.  $Q_{10} = 0.657(Q_{100})$  - Plate 22.2 D-1 (DPM Edition, 1984).
  5. Jefferson Street classified as min. arterial - 10 year street capacities based on 0.5' at curb flowline.
  6. Double 'B' and 'C' inlets assumed to collect an average of 10cfs during 100-year flow.
  7. The south half (max.) of these lots may drain to Masthead Street as necessary.
  8. The drainage basin for this 37 cfs (100-year storm) discharge is located east of and within the right-of-way of I-25. Calculations for this discharge can be found under City Drainage file D-17/D30. Handling of this 37 cfs discharge will occur as follows:  
a. Interim (undeveloped) Basin A and B-1 Plan - As shown, flow is discharged to the surface and will drain by overland flow to Headline Road. This extension of drainage facilities may be performed in phases, i.e., each development will construct only its required portion of the facility, in accordance with the Drainage Ordinance and approved site-specific drainage plans.  
b. Ultimate Plan - With the development of Basins A and B-1, the flow will be carried by surface facilities or underground storm drains to the Domingo Baca Arroyo or to Headline Road. This extension of drainage facilities may be performed in phases, i.e., each development will construct only its required portion of the facility, in accordance with the Drainage Ordinance and approved site-specific drainage plans.
  9. The 37 cfs (100-year) offsite flow is labeled OF-1. The 10-year storm value is 24 cfs.
  10. The high point in Headline Blvd. is located at the Lang Ave. intersection. This condition will cause a flow split. Approximately 37 cfs is assumed to flow north on Headline Blvd.



LEGEND

- PROPERTY LINE
- BASIN DIVIDE
- WATER BLOCK
- DOUBLE 'B' INLET
- DOUBLE 'C' INLET
- DOUBLE 'D' INLET
- TRIPLE 'C' INLET
- STORM SEWER & MANHOLE
- MAJOR FLOW DIRECTION & DISCHARGE LOCATION
- ANALYSIS POINT

DEVELOPED TRACTS ARE NOTED AS SUCH

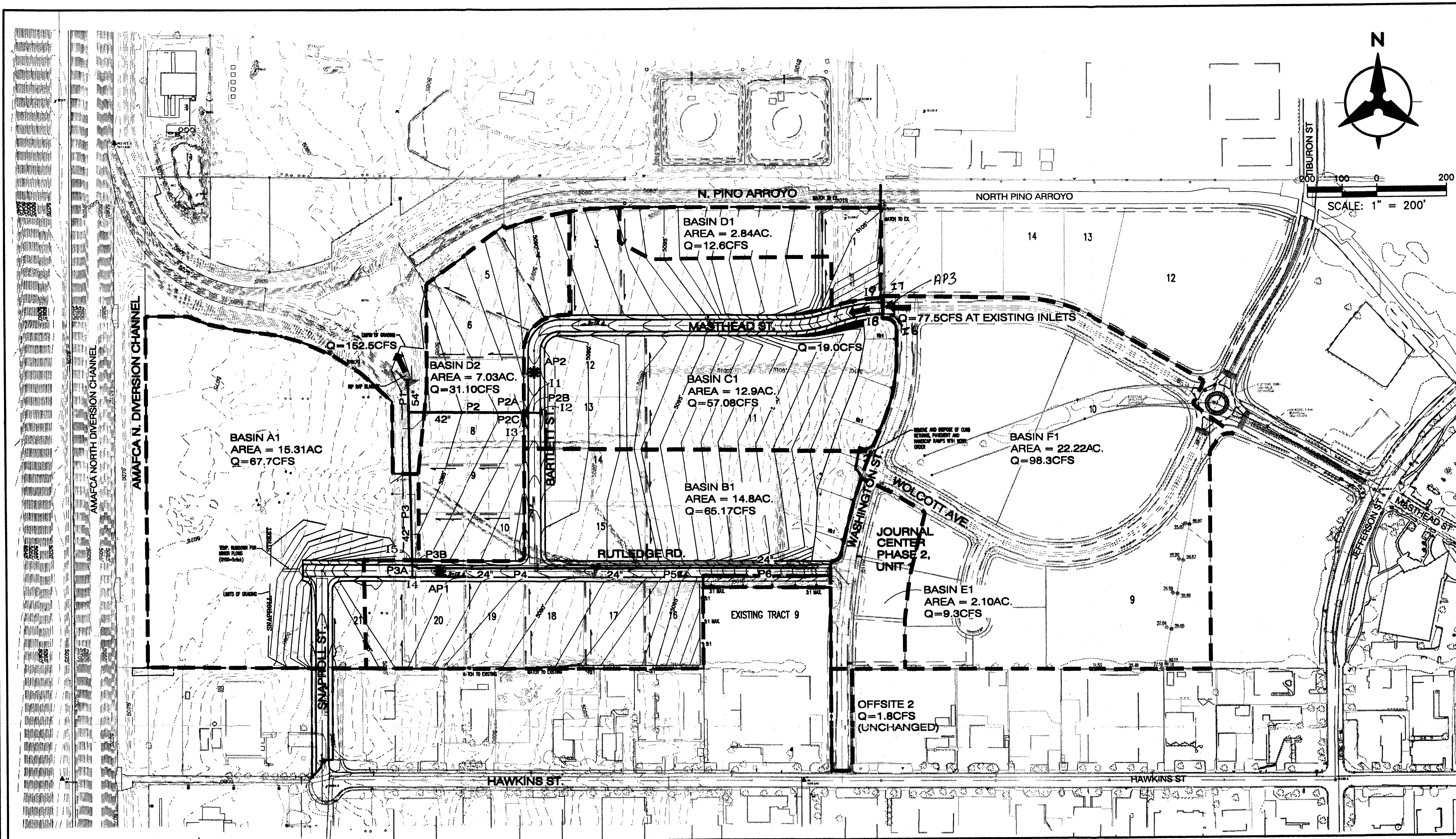
REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

DECEMBER 1992

ORIGINAL PLAN JULY 1984  
REVISION NO. 4 NOVEMBER 1990  
REVISION NO. 5 DECEMBER 1992

JOB NO. 9010101





### Journal Center Phase - 2 Unit - 2 Drainage Management Plan

#### Purpose

The purpose of this plan is to amend the approved drainage report for Journal Center Phase 2 Units 1&2 (ref. hydrology file # D17/D3AA). Unit 1 has been constructed and this plan amends Unit 2, for the purpose of obtaining preliminary plat approval of Unit 2.

#### Site Location and Background Information

Journal Center Phase - 2 Unit - 2 is located southwest of Journal Center Phase 1, west of the intersection of Masthead and Jefferson in northeast Albuquerque. This site is bounded on the east by Washington, on the north by the North Pino Arroyo, on the west by the AMAFCA North Diversion Channel and on the south by commercial development along Hawkins St. The site is in precipitation zone 2 as defined by Figure A-1 of the DPM section 22.2 A.1. The existing legal description of the site is Tract 8A-1, Journal Center Phase - 2. Please see the vicinity map on this sheet for a graphic depiction of the site location.

The most recent drainage report to address drainage of this site and the surrounding area is entitled "Drainage Report for Journal Center - Phase 2", dated August 25, 2000, and prepared by Bohannon & Huston. That drainage report has been approved (see letter dated 10/3/00 from Brad Bingham to Kerry Davis) and can be found in hydrology file # D17/D3AA. This submittal is in full compliance with the guidance and recommendations set forth in that report.

#### Existing Conditions

The existing conditions of this site are substantially unchanged from the description in the approved drainage report. Some earthwork/borrow was performed for the construction of Unit 1, however existing drainage patterns remain essentially unchanged.

#### Proposed Conditions

Under proposed conditions the site is 85% land treatment D, with 5% and 10% land treatment B and C respectively. The following changes to basins in the approved drainage report have been made. Please reference the Proposed Basin Map in the approved drainage report:

Basin F in Unit 1 is now Basin F1 where the lots on the west side of Washington are now included in Unit 2 Basin C1. The flow has been decreased from Q=109.1 cfs to Q=98.3 cfs. The sump condition proposed in Unit 1 to capture the flow from Basin F has been modified in this plan. Inlets are proposed west of the existing inlets in Masthead, this portion of the street would be considered "on grade" and the residual flow passing from basin F1 to basin C1 is 19.0 cfs. Basin E in Unit 1 is now Basin E1 where the lots on the west side of Washington are now included in Unit 2, Basin B1. The flow has been decreased from Q=12.8 cfs to Q=11.1 cfs. All of the previously approved basins in Unit 2 have been modified to accommodate earthwork and grading, see this sheet.

Flows from Basins D1 & D2 flow into the North Pino Arroyo (and/or the AMAFCA de-silting basin) and Basin A1 flows to the AMAFCA North Diversion Channel. These flows do not impact flows in any streets.

The residual flow from Basin F1 of 19.0 cfs combines with Basin C1 (Q=57.1 cfs) which flows in the street to inlets in sump condition (AP2) for a total flow of 76.1 cfs. The hydraulic capacity of the street, inlets and pipes are shown in tables on this sheet.

Basins E1 and Offsite 2 (total Q= 11.1 cfs) in Unit 1 flow in Washington to existing inlets in sump. A proposed 24" storm drain will tie to the existing 24" storm drain in Rutledge, and convey the 11.1 cfs to the 48" SD at the low point in Rutledge (AP1).

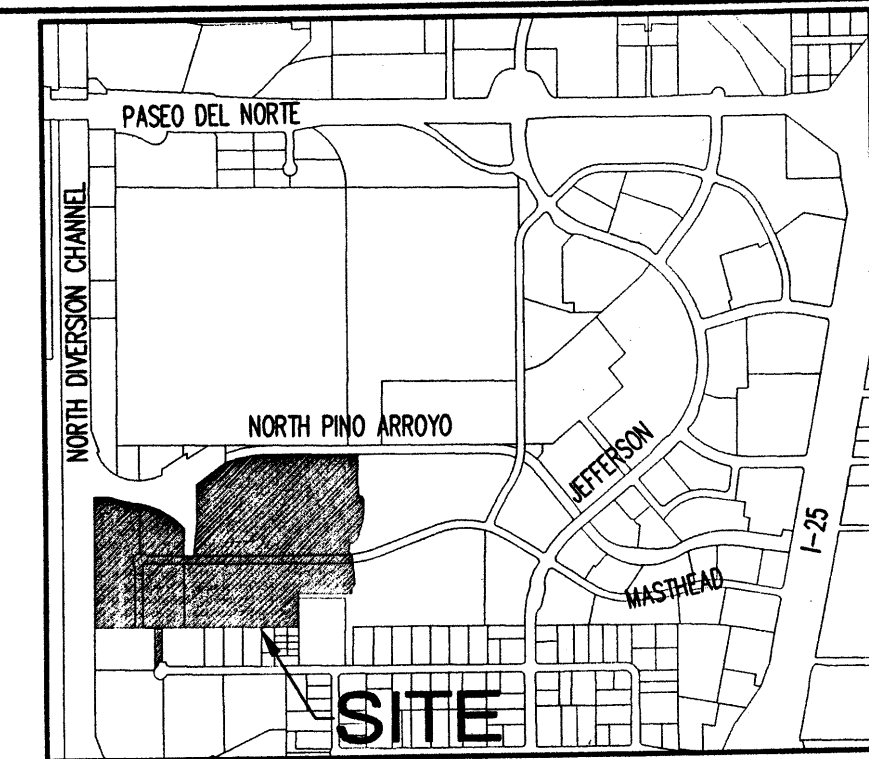
Basin B1 (Q=65.36 cfs) flows in the street to inlets in sump condition (AP1). In the storm drain this flow combines with the 11.1 cfs in the 24" SD for a total flow in the 48" SD of 76.4 cfs. Flows at AP1 and AP2 combine (Q= 152.5 cfs) and outfall from the 54" SD to the AMAFCA de-silting basin west of basin D2.

Hydraulic capacity calculations for the streets, inlets and pipes are provided on this sheet. The storm drains are designed to operate as gravity systems, without pressure flow.

#### Conclusions

This drainage submittal has been prepared in accordance with City of Albuquerque requirements, and complies with the previously approved drainage report for the area. This plan clearly demonstrates the proposed grading and drainage concepts. The implementation of these concepts will result in the safe passage of the 100 year storm event.

With this submittal we request hydrology department approval of this Grading and Drainage Plan for preliminary plat approval.



VICINITY MAP  
ZONE ATLAS ZONE INDEX MAP NO. D-17-Z

#### LEGAL DESCRIPTION

TRACT 8A-1, JOURNAL CENTER PHASE 2

JOURNAL CENTER - PHASE 2  
Ultimate Development Conditions Basin Data Table

This table is based on the DPM Section 22.2, Zone: 2										
BASIN	Area	Area	Land Treatment Percentages				Q(100)	Q(100)	WT E	V(100) <sub>360</sub>
ID	(SQ. FT)	(AC.)	A	B	C	D	(cfs/ac.)	(csf)	(inches)	(CF)
UNIT1										
F1	967907	22.22	0.0%	5.0%	10.0%	85.0%	4.42	98.28	1.95	157608
E1	91622	2.10	0.0%	5.0%	10.0%	85.0%	4.42	9.30	1.95	14919
UNIT2										
C1	562195	12.91	0.0%	5.0%	10.0%	85.0%	4.42	57.08	1.95	91544
B1	643724	14.78	0.0%	5.0%	10.0%	85.0%	4.42	65.36	1.95	104820
D1	123807	2.84	0.0%	5.0%	10.0%	85.0%	4.42	12.57	1.95	20160
D2	306295	7.03	0.0%	5.0%	10.0%	85.0%	4.42	31.10	1.95	49875
A1	667021	15.31	0.0%	5.0%	10.0%	85.0%	4.42	67.73	1.95	108613

Street Capacity Table					
ASSUMES 36" F-F, 2% CROSS-SLOPE, AND STD. CURB AND GUTTER					
	ANALYSIS POINT	FLOW IN STREET cfs	STREET SLOPE	EGL	DEPTH ABOVE FL
Rutledge	AP1	65.2	1.10%	0.98	0.65
Bartlett	AP2	76.1	1.00%	1.04	0.71
Masthead	AP3	42.5	0.20%	0.85	0.79

INLET TABLE							
INLET #	CONTRIBUTING BASIN	INLET TYPE	INLET CONDITION	ACTUAL FLOW cfs	AVAIL HEAD ft	CAPACITY	Notes
I1	1/3 C1 & BYPASS FROM F1	DBL A, DBL WING	sump	25.36	0.85	37.57	INCLUDES A 50% CLOGGING FACTOR
I2	1/3 C1 & BYPASS FROM F1	DBL A, DBL WING	sump	25.36	0.85	37.57	INCLUDES A 50% CLOGGING FACTOR
I3	1/3 C1 & BYPASS FROM F1	DBL A, DBL WING	sump	25.36	0.85	37.57	INCLUDES A 50% CLOGGING FACTOR
I4	1/2 B1	DBL A, DBL WING	sump	32.68	1.00	47.94	INCLUDES A 50% CLOGGING FACTOR
I5	1/2 B1	DBL A, DBL WING	sump	32.68	1.00	47.94	INCLUDES A 50% CLOGGING FACTOR
I6	BASIN F1	EXISTING. DBL A, S WING	on grade	FROM NOMOGRAPH d=1.0', s=0.2%		17.5	FLOW AT INLET = 38.75 CFS
I7	BASIN F1	EXISTING. DBL A, S WING	on grade	FROM NOMOGRAPH d=1.0', s=0.2%		17.5	FLOW AT INLET = 38.75 CFS
I8	BASIN F1	DBL C	on grade	FROM NOMOGRAPH d=.79', s=0.2%		11.75	BYPASS FLOW FROM BASIN F1= 9.50
I9	BASIN F1	DBL C	on grade	FROM NOMOGRAPH d=.79', s=0.2%		11.75	BYPASS FLOW FROM BASIN F1= 9.50

STORM DRAIN PIPE TABLE							
PIPE #	Size in.	Slope	PIPE Capacity	ACTUAL FLOW	LENGTH	INVERT IN	INVERT OUT
P6	24	0.0100	22.62	11.08	357.00	92.30	88.73
P5	24	0.0100	22.62	11.08	400.00	98.63	84.63
P4	24	0.0100	22.62	11.08	363.00	84.53	80.70
P3B	24	0.0100	22.62	11.08	20.00	80.60	80.40
P3A	24	0.0210	32.78	32.68	32.00	81.07	80.40
P3	42	0.0060	77.93	76.44	450.00	80.40	77.70
P2C	24	0.0130	25.79	25.36	18.00	80.05	79.81
P2B	24	0.0150	27.71	25.36	46.00	80.50	79.81
P2A	24	0.0130	25.79	25.36	18.00	80.05	79.81
P2	42	0.0060	77.93	76.08	336.00	79.71	77.70
P1	54	0.0065	158.54	152.53	92.00	77.60	77.00

PIPE CAPACITIES ARE BASED ON GRAVITY FLOW USING MANNING'S EQN. WHERE n=0.013

LEGEND	
5470	EXISTING CONTOUR
52.4	PROPOSED CONTOUR
52.4	SPOT ELEVATION
—>	DIRECTION OF FLOW
—+—+—+—	DRAINAGE CONTROL BEWM SEE SECTION THIS SHEET
—+—+—+—	SLOPE
—+—+—+—	STORM DRAIN INLET
—+—+—+—	TEMPORARY GRADING LIMIT
—+—+—+—	UNIT BOUNDARY
—+—+—+—	DRAINAGE BASIN BOUNDARY

<b>Bohannon &amp; Huston</b> Engineering & Spatial Data & Advanced Technologies Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335	
<b>CITY OF ALBUQUERQUE</b> PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP JOURNAL CENTER-PHASE 2 UNIT II: DRAINAGE PLAN & BASIN MAP	
Design Review Committee	City Engineer Approval
City Project No.	Zone Map No. D-17
Sheet	Of



# KEYED NOTES

- 1 TURNED BLOCK
- 2 EXISTING CHANNEL RUNDOWN

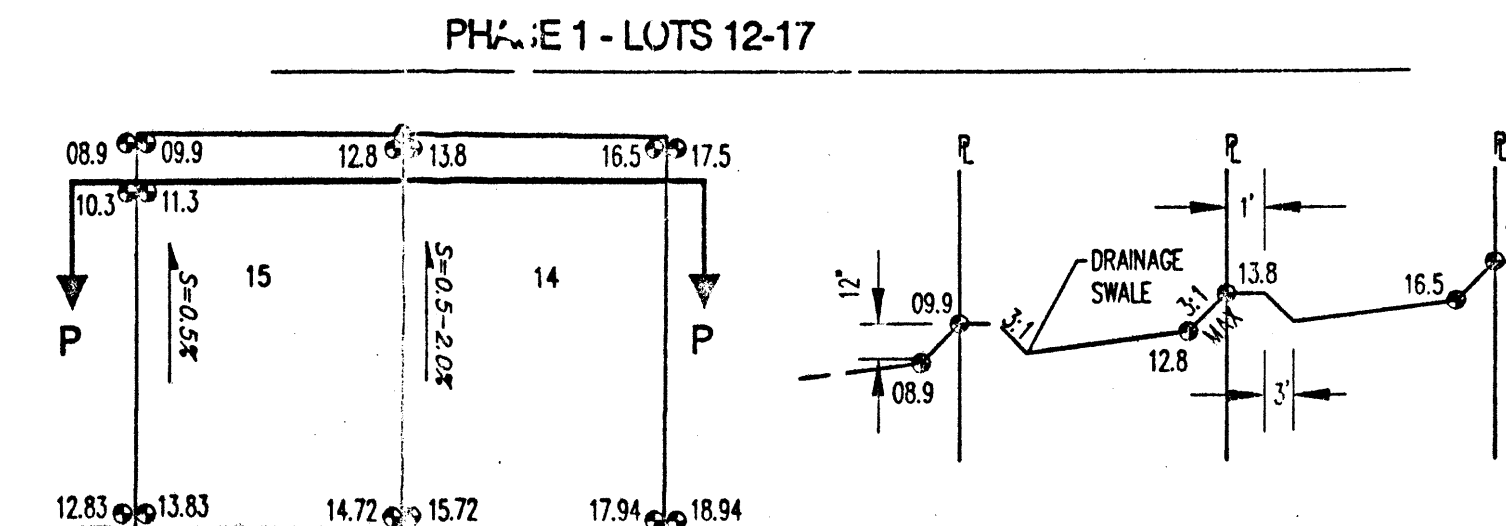
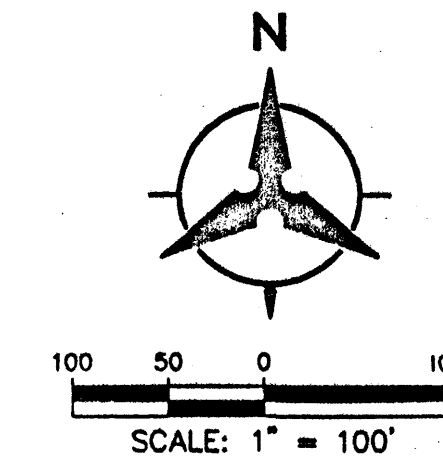
## DRAINAGE CERTIFICATION

KERRY L. DAVIS  
HUSTON, N.M.P.E. # 3984, HEREBY CERTIFY THAT THE  
AS-BUILT DRAINAGE CONDITIONS OF THE SITE ARE IN  
SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND  
DRAINAGE PLAN, TO THE BEST OF MY KNOWLEDGE AND BELIEF.  
AS-BUILT ELEVATIONS ARE SHOWN ON THE PLAN WHERE THE  
ORIGINAL DESIGN ELEVATION HAS BEEN CROSSED OUT AND  
THE AS-BUILT ELEVATION ADDED. AS-BUILT ELEVATIONS WERE  
VERIFIED BY SPADLING CONSTRUCTION CO., INC., L.S.P.  
THIS STATEMENT DOES NOT REPRESENT  
CERTIFICATION OF CONTRACTOR'S METHODS OR MATERIALS.



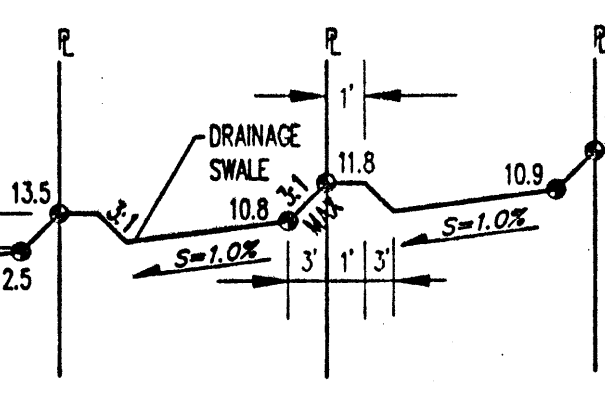
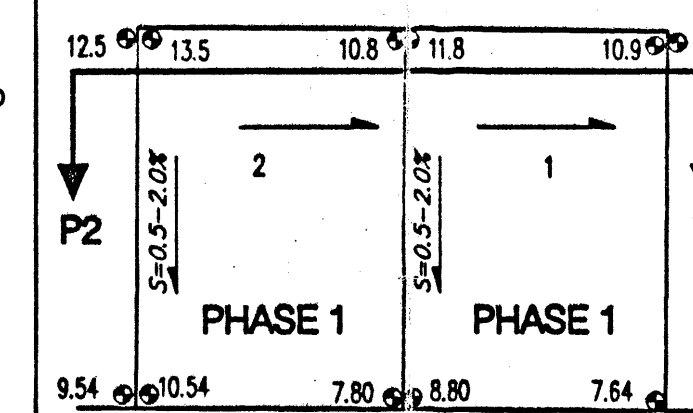
I, Carl Smith, do hereby attest to the fact that the  
as-built information shown hereon is the result  
of a field survey performed by me or under my  
direct supervision, and that the same is true and  
correct. AS OF 15 JAN 01

Carl Smith S.C.C.I. Survey Manager



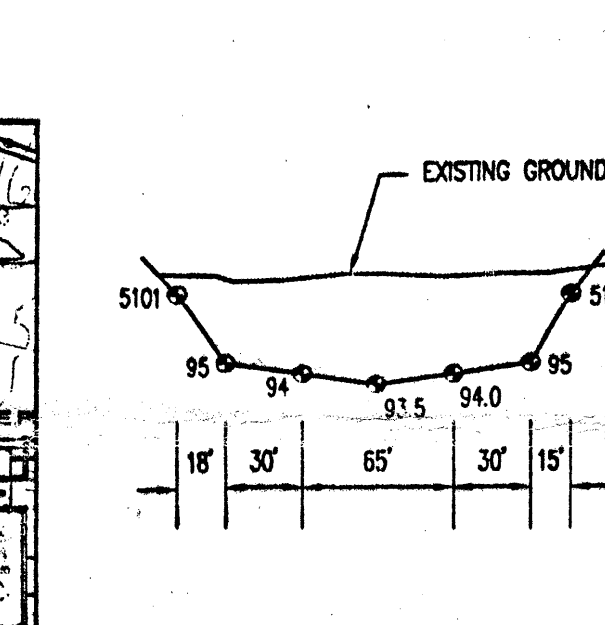
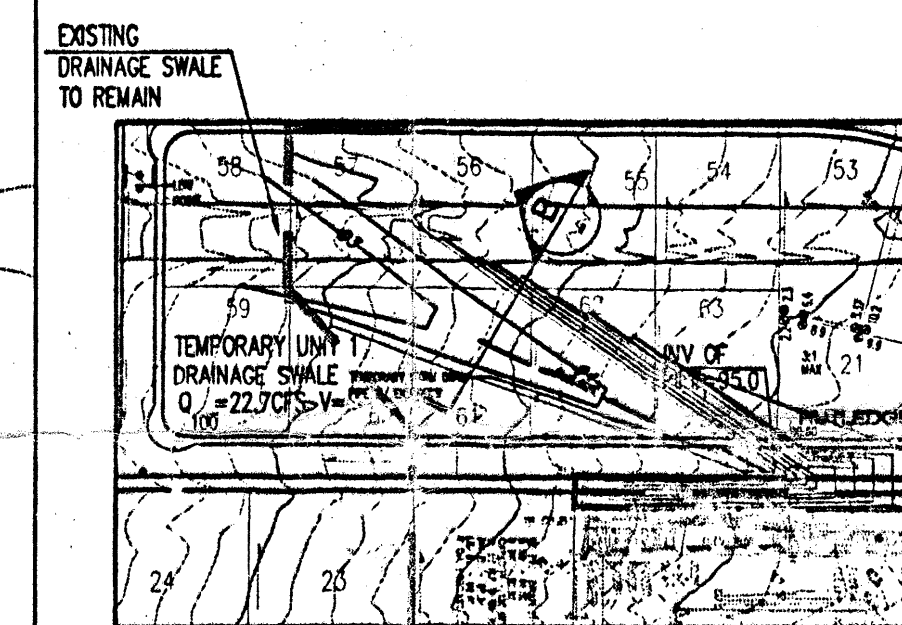
TYPICAL LOT GRADING  
(LOTS 13-16, 17-19 & 4-6)  
NTS

SECTION P-P  
NTS



TYPICAL LOT GRADING  
(LOTS 1-3, 7, 8 & 12)  
NTS

SECTION P2-P2  
NTS



TEMPORARY SWALE DETAIL  
SCALE: 1"=200'

## GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATIONS PROVIDED BY ROBERT INC. DATED 10/24/00.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER THE DETAIL ON THIS SHEET AND KETING THE SOIL TO KEEP IT FROM BLOWING AS PER THE EROSION CONTROL DETAIL THIS SHEET.
5. ALL STREET ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATIONS.

## LEGEND

- 5470 EXISTING CONTOUR
- 52.4 PROPOSED CONTOUR
- 52.4 SPOT ELEVATION
- CMU RETAINING WALL
- CMU WALL
- SWALE
- DIRECTION OF FLOW
- WATER BLOCK
- SLOPE
- STORM DRAIN INLET
- TEMPORARY GRADING LIMIT
- UNIT BOUNDARY

DRB#

**Bohannon & Huston**  
Surveyors  
7500 JEFFERSON NE ALBUQUERQUE NEW MEXICO 87109  
ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

**CITY OF ALBUQUERQUE**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP  
JOURNAL CENTER-PHASE2  
WAREHOUSE/STORAGE - UNIT 1  
GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

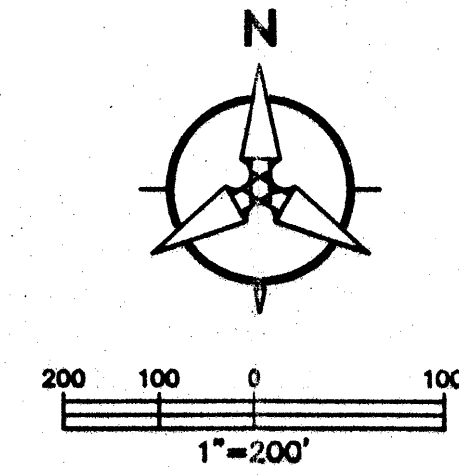
City Project No. Zone Map No. Sheet Of

D-17 4 40

BHI JOB NO. 01154

Copyright Bohannon, Huston 2000





5470

EXISTING CONTOUR

EXISTING PROPERTY LINE

DRAINAGE BASIN

PROPOSED SUBDIVISION

DIRECTION OF FLOW

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of	
-	D-17-Z	X		X

X



# REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

REVISED: NOVEMBER, 1990  
PREPARED BY: BOHANNAN-HUSTON, INC.

The purpose of this revised drainage management plan is to update the plan to reflect the development of Journal Center since the plan was first approved in 1984. Since that time, Journal Center has been replatted, new streets constructed and new businesses have moved in. All new development has conformed to the 1984 plan and individual development plans have been approved by the City. The drainage concepts and basins remain substantially identical to the 1984 drainage management plan.

Additional functions of the updated plan will be to guide engineers in preparing future drainage plans and aiding City review of these future plans. Drainage basins which have been altered slightly have been re-analyzed and are shown in the table below to have no significant nor adverse impact on drainage facilities.

The criteria used for the minor re-analysis performed in this updated plan remained identical to that previously used and approved in the original 1984 plan.

The purpose of this plan is to outline drainage patterns, flow rates and facility capacities for the Journal Center Industrial/Commercial Park. The plan also serves to update recommendations made in an October 1980 report entitled *Journal Center Interim Drainage Report* based on current thinking outlined in the Drainage Ordinance and Development Process Manual (DPM).

It is proposed that runoff from sites be allowed to discharge to street rights-of-way or facilities in a free discharge manner. This runoff will be directed to three primary outfalls: the North Pino Arroyo Channel, Jefferson Street storm drain and Los Angeles Blvd. The North Pino Arroyo is a concrete lined with grass free board and discharges runoff into the North Diversion Channel. The Jefferson Street storm drain discharges into the Domingo Baca Arroyo, north of Los Angeles Blvd. Runoff collected in Los Angeles Blvd. discharges into the North Diversion Channel. The accompanying plan identifies flow directions and the location of the primary outfalls.

Runoff rates and facility capacities are contained in the tables below. Based on this information, three points should be highlighted:

1. Current runoff criteria yields flow rates less than those used in the 1980 report.
2. Approximately 112 cfs will be directed to Los Angeles Blvd. during the 100-year storm. 226 cfs is collected in the storm drain system and conveyed to the Domingo Baca Arroyo. The 112 cfs represents a figure less than the undeveloped flow rate from the site prior to its development.

3. Section 8C of the Drainage Ordinance stipulates that the curb flow line depth shall not exceed 0.5 feet during the 10-year storm in arterial street sections. As the values indicate, this criteria is exceeded at several locations along Jefferson Street.

As provided in Section 6H of the Ordinance, a variance to the requirement outlined in No. 3 is requested for the following reasons:

1. Considerable expense has already been applied to the construction of drainage facilities in the area. The Pino Arroyo Channel and Jefferson Street storm sewer represent an investment of approximately 2 million dollars. Design was guided and approved based upon criteria in effect at the time assuming free discharge from all parcels.
2. The total length of street over which the criteria is exceeded is approximately 3000 feet. This represents a relatively short distance compared to the total length of Jefferson Street running through and south from the project.

BASED ON THE INFORMATION PRESENTED IN THIS PLAN, IT IS PROPOSED THAT A FREE DISCHARGE MANAGEMENT APPROACH BE APPROVED FOR ALL PARCELS WITHIN THE PARK, AND THAT A VARIANCE TO SECTION 8C BE GRANTED FOR THE 10-YEAR FLOW CRITERIA IN JEFFERSON STREET.

## LOCATION MAP

ZONE ATLAS D-17-Z

## BASIN HYDROLOGY (Developed Conditions)

BASIN ID	AREA	DISCHARGES TO	LONGEST REACH (FT.)	SLOPE (AVERAGE)	TC (MIN.)	INTENSITY (IN./HR.)	Q 100	Q 100 1980 REPORT
A**	5.4	Headline	1200	0.02	10.0	4.7	61	95
B-1**	18.0	Jefferson	1650		10.0	4.7	68	N.A.
C	27.6	Diversion Berm	1200		10.0	4.7	102	116
D-1	14.3	Tiburon	1000		10.0	4.7	54	N.A.
E-1	13.1	Jefferson	1100		10.0	4.7	49	N.A.
F	19.6	Pino Arroyo	1250		10.4	4.6	72	73
G	22.5	Pino Arroyo	1250		10.4	4.6	83	84
GST	3.0	Jefferson	500		10.0	4.7	12	12
H-1	29.1	Tiburon	1600		10.0	4.7	109	N.A.
I	5.2	Pino Arroyo	450		10.0	4.7	20	21
J	4.6	Pino Arroyo	450		10.0	4.7	17	19
JST	0.6	Headline	1000		10.0	4.7	3	2
K	15.6	Pino Arroyo	1200		10.0	4.7	59	63
KST	1.3	Headline	1300		10.0	4.7	5	5
L	15.4	Pino Arroyo	1200		10.0	4.7	58	64
LST	1.4	Headline	1200		10.0	4.7	5	6
M	25.5	Headline	1200		10.0	4.7	96	87
N	13.0	Headline	1200		10.0	4.7	42	51
NCH	3.4	Headline	650		10.0	4.7	13	14
O	5.3	Headline	650	0.02	10.0	4.7	20	22
A-1**	19.6	Headline	N.A.	N.A.	N.A.	N.A.	85	N.A.

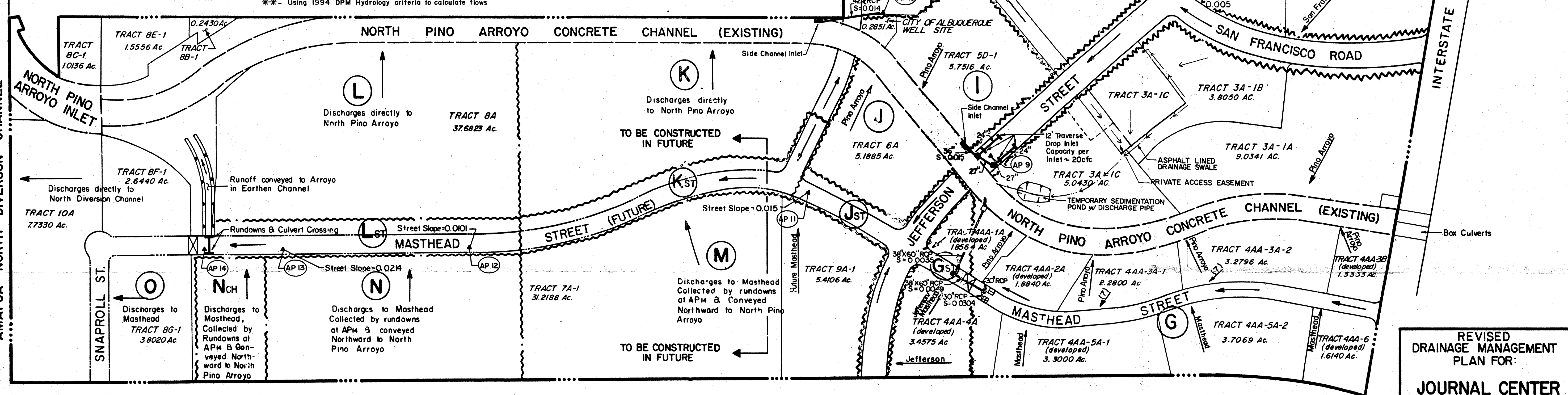
## STREET & STORM SEWER HYDRAULICS

AP	CONTRIBUTING BASIN(S)	10-YEAR STORM (all values cfs)				100-YEAR STORM (all values cfs)				COMMENTS
		Q	STREET CAPACITY	STORM SEWER(S) CAPACITY	FLOW IN STREET	Q	STREET CAPACITY	SS CAPACITY	FLOW IN STREET	
1	A, OF-1	64	112	N.A.	64	98	112	N.A.	98	Street has adequate capacity.
2	B-1	45	18-East half of street	N.A.	45	68	200	N.A.	45	10 year street capacity exceeded.
3	OF-1, A, B-1	109	36-Full street section	36" RCP	69	166	200	59	126	" " "
4	OF-1, Street	113	30-Full street section	30" RCP	59	176	170	59	136	" " "
5	D-1	35	100	(48" RCP)	0	54	100	107	0	Basin D-1 runoff collected in Triple 'C' inlets.
6	C	67	N.A.	(48" RCP)	N.A.	102	N.A.	120	N.A.	Basin C runoff collected in 48" RCP inlet.
7	Street, OF-1, A, B-1, C, D-1	211	36-Full street section	36" RCP	64	321	180	232	96	90 cfs discharged to Paseo del Norte.
8	E-1	32	9-East half of street	N.A.	32	49	104	N.A.	49	10 year street capacity exceeded.
9	E-1, Street	46	25-East half of street	36" RCP	0	69	200	83	0	74 cfs collected by inlets.
10	H-1	72	N.A.	(42" RCP)	N.A.	109	N.A.	110	N.A.	Runoff conveyed to Pino Arroyo.
11	GST, JST	10	160	N.A.	10	15	160	N.A.	15	" " "
12	API1, KST, M	76	N.A.	N.A.	76	116	130	N.A.	116	" " "
13	API2, N	108	N.A.	N.A.	108	165	160	N.A.	165	" " "
14	API3, NCH	117	N.A.	N.A.	N.A.	178	N.A.	N.A.	N.A.	Runoff collected in concrete runways.
15	A, OFFSITE	N.A.	N.A.	N.A.	N.A.	43.1	84.7	N.A.	43.1	" " "

N.A. - Not Applicable  
\* - See Note #6  
\*\* - Using 1994 DPM Hydrology criteria to calculate flows

## NOTES

1. Basin Hydrology based on DPM Criteria, Chapter 22 (DPM Edition, 1984).  
a. Tc - Plate 22.2 13-1 (10 minute minimum)  
b. Intensity - Plate 22.2 D-2  
c. 'C' for 85% Impervious = 0.80 - Plate 22.2 C-1  
d. 100 year rainfall = 2.2 in. - Plate 22.2 D-1
2. Street capacities determined using DPM Criteria, Chapter 22, Plates 22.3 D-1 thru 22.3 D-4 (DPM Edition, 1984).
3. Storm sewer sized to operate under-pressure flow - Plate 22.3 B-5.
4.  $Q_{10} = 0.657(Q_{100})$  - Plate 22.2 D-1 (DPM Edition, 1984).
5. Jefferson Street classified as min. arterial - 10 year street capacities based on 0.5' at curb flowline.
6. Double 'B' and 'C' inlets assumed to collect an average of 10cfs during 100-year flow.
7. The south half (max.) of these lots may drain to Masthead Street as necessary.
8. The drainage basin for this 37 cfs (100-year storm) discharge is located east of and within the right-of-way of I-25. Calculations for this discharge can be found under City Drainage file D-17/030. Handling of this 37 cfs discharge will occur as follows:  
a. Interim (undeveloped Basin A and B-1) Plan - As shown, flow is discharged to the surface and will drain by overland flow to Headline Road.  
b. Ultimate Plan - With the development of Basins A and B-1, the flow will be carried by surface facilities or underground storm drains to the Domingo Baca Arroyo or to Headline Road. This extension of drainage facilities may be performed in phases, i.e., each development will construct only its required portion of the facility, in accordance with the Drainage Ordinance and approved site-specific drainage plans.
9. The 37 cfs (100-year) offsite flow is labeled OF-1. The 10-year storm value is 24 cfs.
10. The high point in Headline Blvd. is located at the Lang Ave. intersection. This condition will cause a flow split. Approximately 37 cfs is assumed to flow north on Headline Blvd.



## LEGEND

- PROPERTY LINE
- BASIN DIVIDE
- WATER BLOCK
- DOUBLE 'B' INLET
- DOUBLE 'C' INLET
- DOUBLE 'D' INLET
- TRIPLE 'C' INLET
- STORM SEWER & MANHOLE
- MAJOR FLOW DIRECTION & DISCHARGE LOCATION
- ANALYSIS POINT
- DEVELOPED TRACTS ARE NOTED AS SUCH

## REVISED DRAINAGE MANAGEMENT PLAN FOR: JOURNAL CENTER

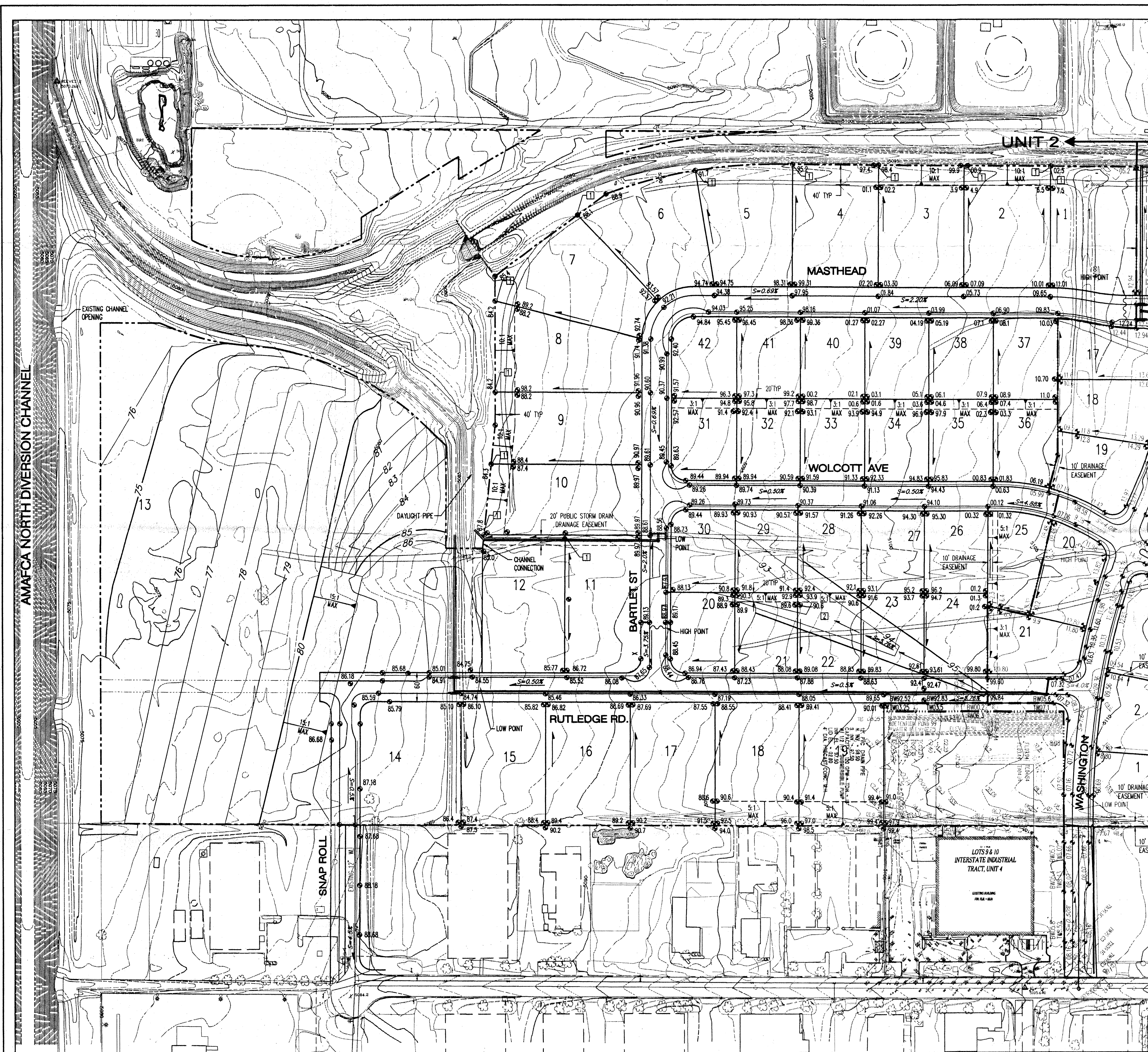
DECEMBER 1992

ORIGINAL PLAN JULY 1984  
REVISION NO. 4 NOVEMBER 1990  
REVISION NO. 5 DECEMBER 1992

JOB No. 901001







PHASE 2 - LOTS 1-9, 12-15

PHASE 2 - LOTS 10, 11, 16-46

SECTION P-P

SECTION P-P

**GENERAL NOTES**

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- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER THE DETAIL ON THIS SHEET AND NETTING THE SOIL TO KEEP IT FROM BLOWING AS PER THE EROSION CONTROL DETAIL THIS SHEET.
- ALL STREET ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATIONS.

**KEYED NOTES**

- TURNED BLOCK JUST ABOVE PROPOSED GRADE
- TEMPORARY DAYLIGHT CHANNEL BUILT W/ UNIT I TO BE REMOVED W/ UNIT II

**LEGEND**

- 5470 EXISTING CONTOUR
- PROPOSED CONTOUR
- 52.4 SPOT ELEVATION
- CMU RETAINING WALL
- CMU WALL
- SWALE
- DIRECTION OF FLOW
- WATER BLOCK
- SLOPE
- STORM DRAIN INLET
- TEMPORARY GRADING LIMIT
- UNIT BOUNDARY

**ENGINEER'S SEAL**

**Bohannon - Huston**  
Countywide One 7500 JEFFERSON NE ALBUQUERQUE NEW MEXICO 87109  
ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

**CITY OF ALBUQUERQUE**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP  
JOURNAL CENTER-PHASE 2: WAREHOUSE/STORAGE  
UNIT II: GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
	D-17	X	X



# GENERAL NOTES

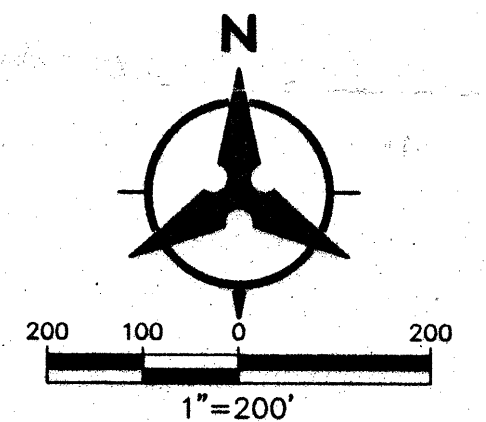
- EXISTING ZONING: IP  
PROPOSED ZONING: IP  
PROPOSED DEVELOPMENT: INDUSTRIAL PARK: OFFICE & OFFICE WAREHOUSE PROPERTIES
- GROSS ACREAGE: 87.6139 Acres.  
NET ACREAGE: 71.3789 Acres.  
TOTAL NUMBER OF LOTS: 63 D.U.  
PROPOSED DENSITY: 0.88 D.U./Acre.
- TYPICAL LOT ACREAGE: 4 TYPES  
UNIT 1:  
1-8 0.50-0.79 ACRES  
9-12 4.06-4.60 ACRES  
13 14.1 ACRES  
14-16 1.0 ACRES  
17-2 0.5 ACRES  
UNIT 2:  
1-19 1.0-1.1 ACRES  
20-42 0.5 ACRES
- ALL STREETS AND DRAINAGE IMPROVEMENTS ARE TO BE PUBLIC, TO BE DEDICATED FOR MAINTENANCE TO THE CITY OF ALBUQUERQUE.
- ALL SANITARY AND WATER UTILITIES IN THE STREET R/W ARE TO BE PUBLIC, AND TO BE DEDICATED FOR MAINTENANCE TO THE CITY OF ALBUQUERQUE.
- THIS SUBDIVISION LIES WITHIN THE CITY OF ALBUQUERQUE. WATER AND SANITARY SEWER CAPABILITIES ARE BASED ON THE WATER AND SANITARY SEWER INFRASTRUCTURE IMPROVEMENTS MUST BE APPROVED BY THE CITY OF ALBUQUERQUE.
- DEVELOPMENT REQUIREMENTS FOR INDIVIDUAL LOTS INCLUDING SETBACKS, LANDSCAPING, PARKING ETC. SHALL CONFORM TO THE REQUIREMENTS OF THE JOURNAL CENTER MASTER PLAN.
- LANDSCAPING WITHIN R/W WILL BE MAINTAINED SUBJECT TO APPROVAL BY THE CITY OF ALBUQUERQUE.

TIBURON INVESTMENT CO.

*Rich Ellison* 8.24.00  
DICK ELKINS, TREASURER  
TIBURON INVESTMENT CO. DATE

NCS TRIANGULATION STATION MONUMENT STAMPED "REEVES"  
GEOGRAPHIC POSITION (NAD 1927)  
N.M. STATE PLANE COORDINATES (CENTRAL ZONE)  
X=393,890.55 Y=1,516,528.81  
GROUND TO GRID FACTOR = 0.99967155  
DELTA ALPHA = -00°12'16"  
NGVD 1929 ELEVATION = 5073.27

LEGEND	
---	SUBDIVISION BOUNDARY LINE
---	NEW LOT LINE
---	OLD LOT LINE
---	ADJOINING PROPERTY LINE
---	EASEMENT LINE
---	CENTERLINE
△	CITY OF ALBUQUERQUE SURVEY CONTROL MONUMENT
▲	4" ALUMINUM CAP STAMPED "CITY OF ALBUQUERQUE CENTERLINE MONUMENTATION, DO NOT DISTURB, P.L.S. 6544"



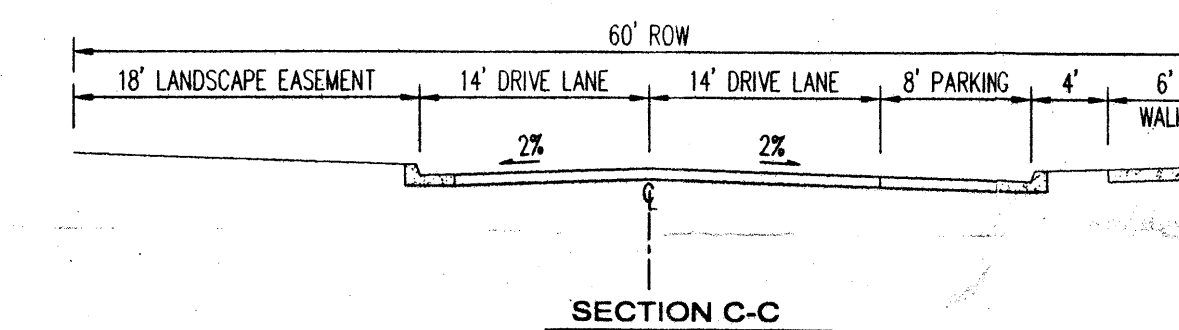
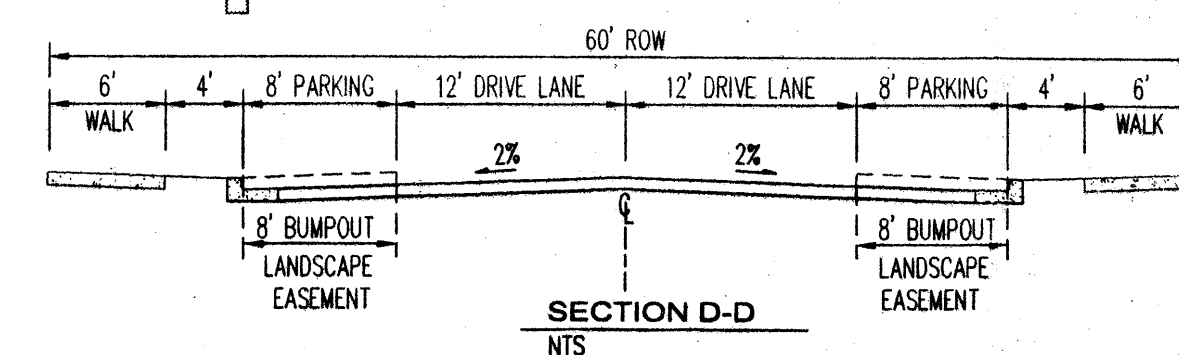
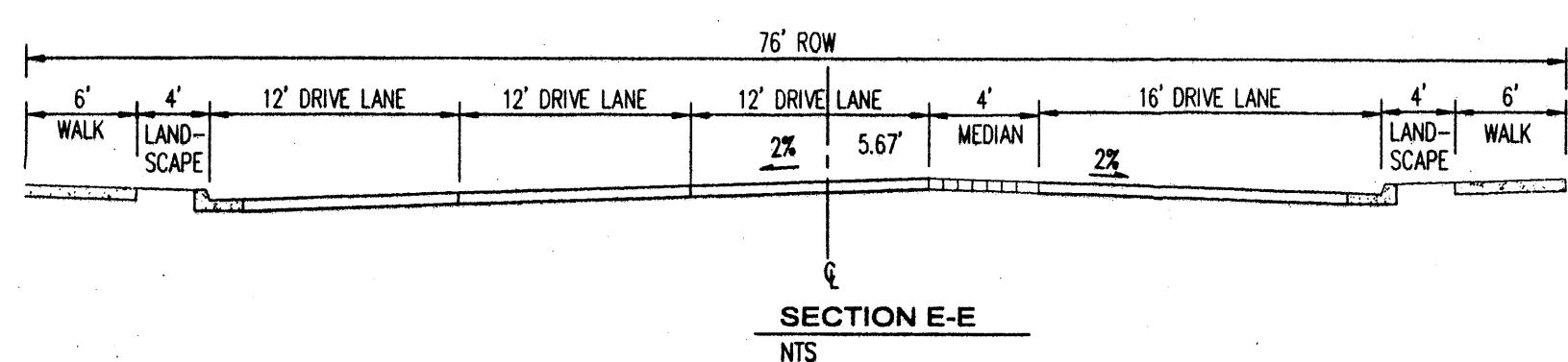
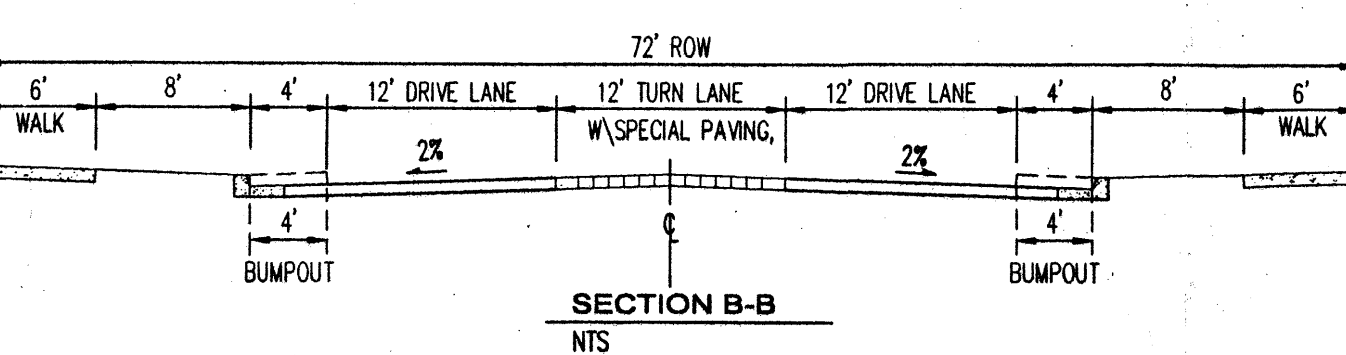
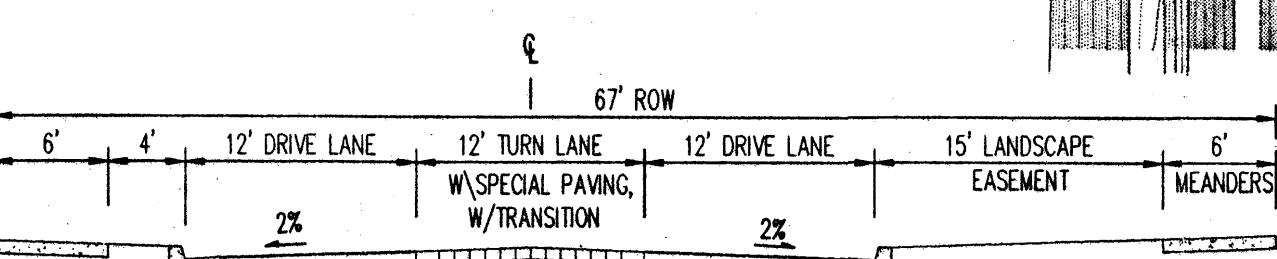
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X=399,828.26 Y=1,514,860.93  
GROUND TO GRID FACTOR = 0.99966298  
DELTA ALPHA = -00°11'35"  
NGVD 1929 ELEVATION = 5196.73

## SURVEY NOTES:

- ALL BOUNDARY CORNERS ARE MARKED AS SHOWN.
- STREET CENTERLINE MONUMENTATION SHALL BE INSTALLED AT SELECTED CENTERLINE P.C.'S, P.T.'S, ANGLE POINTS AND STREET INTERSECTIONS AND SHOWN THUS (C) WILL BE MARKED BY A FOUR (4") ALUMINUM CAP STAMPED "CITY OF ALBUQUERQUE CENTERLINE MONUMENTATION, DO NOT DISTURB, P.L.S. 6544"
- THE SUBDIVISION BOUNDARY WILL BE TIED TO THE NEW MEXICO STATE PLANE COORDINATE SYSTEM AS SHOWN.
- BASIS OF BEARINGS WILL BE NEW MEXICO STATE PLANE GRID BEARINGS.
- DISTANCES SHALL BE GROUND DISTANCES.
- MANHOLES WILL BE OFFSET AT ALL POINTS OF CURVATURE, POINTS OF TANGENCY, STREET INTERSECTIONS AND ALL OTHER ANGLE POINTS TO ALLOW THE USE OF CENTERLINE MONUMENTATION.

APPROVED FOR MONUMENTATION AND STREET NAMES

*JLB* 8/25/00  
CITY SURVEYOR DATE

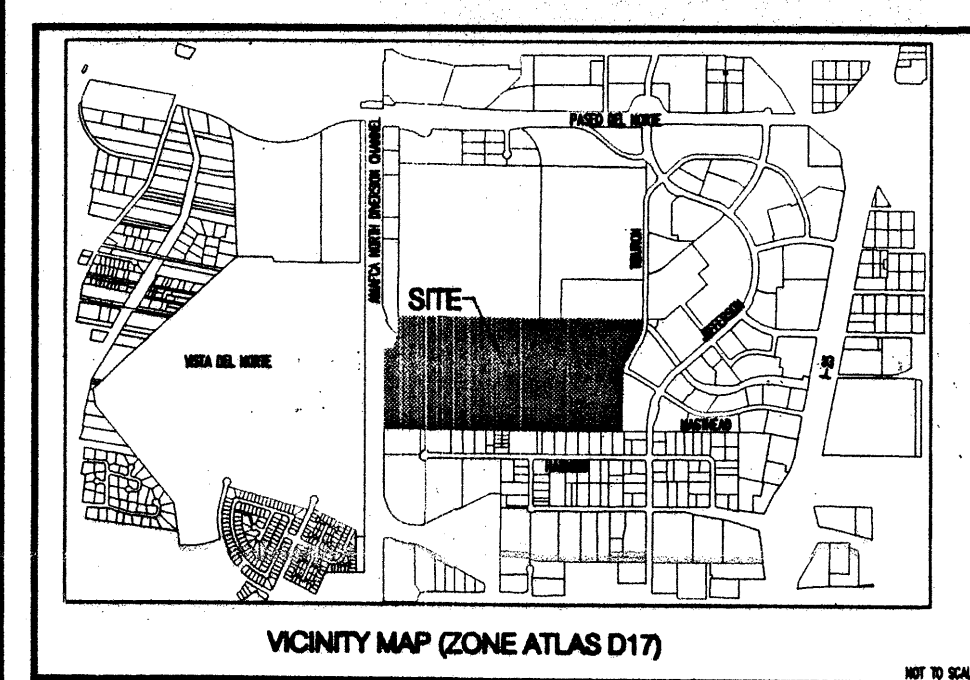


CENTERLINE TANGENT DATA		
No.	BEARING	DISTANCE
T1	S 89°40'04"E	1442.32'
T2	S 00°19'57"W	574.18'
T3	S 00°19'59"W	714.30'
T4	S 89°40'04"E	700.41'
T5	S 89°40'04"E	737.28'
T6	S 89°40'04"E	390.23'
T7	S 59°20'37"E	568.21'
T8	N 30°38'23"E	327.53'
T9	S 59°00'27"E	474.09'
T10	N 00°07'39"E	346.33'
T11	N 00°19'56"E	142.89'
T12	N 85°48'20"E	7.13'
T13	S 59°20'37"E	234.60'

CENTERLINE CURVE DATA			
No.	DELTA	TANGENT	RADIUS
C1	89°58'58"	75.00'	117.81'
C2	89°58'57"	75.00'	117.81'
C3	13°10'24"	43.88'	380.00'
C4	13°10'24"	43.88'	380.00'
C5	30°19'27"	102.97'	201.12'
C6	22°34'36"	112.71'	222.50'
C7	03°31'32"	51.36'	102.68'
C8	17°08'49"	57.29'	113.72'
C9	10°28'59"	518.09'	712.85'
C10	38°32'41"	132.87'	255.64'
C11	24°27'03"	361.55'	712.09'
C12	24°14'46"	107.40'	211.59'
C13	30°38'37"	104.17'	203.35'
C14	06°23'13"	44.64'	89.18'
C15	06°24'47"	44.82'	89.54'

BOUNDARY TANGENT DATA		
No.	BEARING	DISTANCE
B1	S 83°59'21"E	74.17'
B2	S 76°30'00"E	38.16'
B3	S 45°45'00"E	49.94'
B4	S 12°38'46"W	60.00'

BOUNDARY CURVE DATA			
No.	DELTA	TANGENT	RADIUS
BC1	18°39'37"	82.97'	164.47'
BC2	30°45'00"	166.69'	325.34'
BC3	20°24'18"	179.57'	355.34'
BC4	24°48'20"	87.81'	172.87'
BC5	22°34'36"	106.73'	210.68'
BC6	11°06'48"	165.26'	329.48'
BC7	79°29'59"	20.79'	34.69'
BC8	02°26'01"	12.85'	25.70'



# PRELIMINARY PLAT JOURNAL CENTER- PHASE 2 OFFICE AND OFFICE / WAREHOUSE PROPERTIES

ALBUQUERQUE, NEW MEXICO  
AUGUST 2000

(REPLAT OF TRACTS 7A-1, 8A, 8F-1, 8G-1, 10-A)

Bohannon & Huston

Courtyard One 7500 JEFFERSON NE Albuquerque NEW MEXICO 87109

ENGINEERS PLANNERS PHOTOGRAMMETRISTS SURVEYORS SOFTWARE DEVELOPERS

BHI JOB NO. 01164

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