

DEVELOPMENT & BUILDING SERVICE CENTER
ONE STOP SHOP
600 SECOND ST. N.W.

ATTENTION: Arlene

505-924-3900

Records Withdrawal Form

Project No. J-19/D4, J-19/D4A, J-19/D4B, J-19/D4C Date: Dec 15, 2004

Project Title: Kaseman Hospital

a. File b. Mylars c. Redlines/Comments
d. Other G & D plans, Plats

Requested by: KEVIN Georges and Assoc. ATTN: BILL SANTANA Phone No.: 255 4975
Name and Company

Comments: 1 Band copy each of:

J-19 D4C - "Drop off Grading Plan, Plate 1, C102

J-19 D4B - A1 of 17, C102

J-19 D4A - 1 of 1

J-19 D4 = Plot Plan, A1, A2, Plate 1

Deliver copies to KGA - Planning
originals back to B&D Dept
Suite 201.

Anticipated Return Date: _____

I hereby accept full responsibility for the security of the above noted records/plans until return receipt acknowledgement is completed. Records/plans will be returned to the Development and Building Services Center on or before the indicated anticipated return date.

Delivery Picked Up By:

Name: Sarah Motsinger
Print

Organization: Construction Reporter

Signed: Sarah Motsinger

Date: 12-15-04

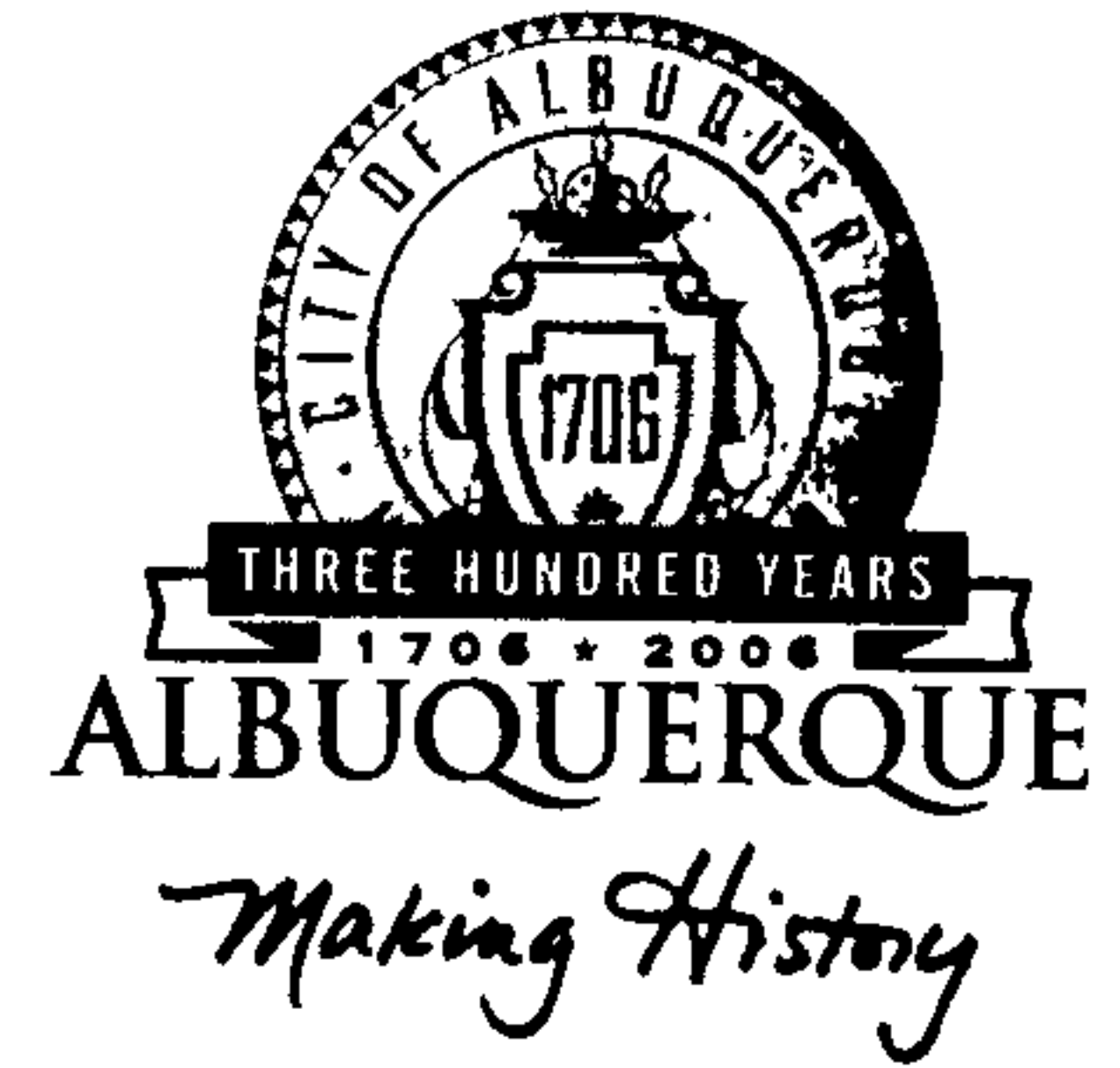
Office Use Only

Return Acknowledged:

Received By: _____
Print

Date: _____

CITY OF ALBUQUERQUE



April 6, 2005

Jeff Mortensen, PE
Jeff Mortensen & Associates, Inc
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

**Re: Presbyterian Kaseman Hospital Pond Elimination Analysis
Engineer's Stamp dated 1-11-05 (J19/D4B)**

Dear Mr. Mortensen,

Based upon the information provided in your submittal dated 1-11-05, the above referenced plan is approved. A site-specific grading plan will be required to support either a Paving or Building Permit but I agree that the pond can be eliminated during any future expansion.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE.
Principal Engineer, Planning Dept.
Development and Building Services

C: file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: PRESBYTERIAN KASEMAN HOSPITAL ZONE ATLAS/DRNG. FILE #.J19 D4B
 DRB # _____ EPC # _____ WORK ORDER #: _____

LEGAL DESCRIPTION: TRACT 1, EAST END ADDITION
 CITY ADDRESS: 8300 CONSTITUTION NE, ALBUQUERQUE, NM 87110

ENGINEERING FIRM: JEFF MORTENSEN & ASSOC., INC. CONTACT: JEFF MORTENSEN
 ADDRESS: 6010-B MIDWAY PARK BLVD. NE PHONE: (505) 345-4250
 CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87109

OWNER: PRESBYTERIAN MEDICAL GROUP CONTACT: ARCHITECT
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: KEVIN GEORGES & ASSOCIATES CONTACT: KEVIN GEORGES
 ADDRESS: 214 TRUMAN NE PHONE: 255-4975
 CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87108-1216

SURVEYOR: JEFF MORTENSEN & ASSOC., INC. CONTACT: JEFF MORTENSEN
 ADDRESS: 6010-B MIDWAY PARK BLVD. NE PHONE: (505) 345-4250
 CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87109

CONTRACTOR: N/A CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL

- ☒ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEER'S CERTIFICATION (TCL)
☐ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
☒ OTHER - I-40 DRAINAGE MEMO BY PB (NMDOT)

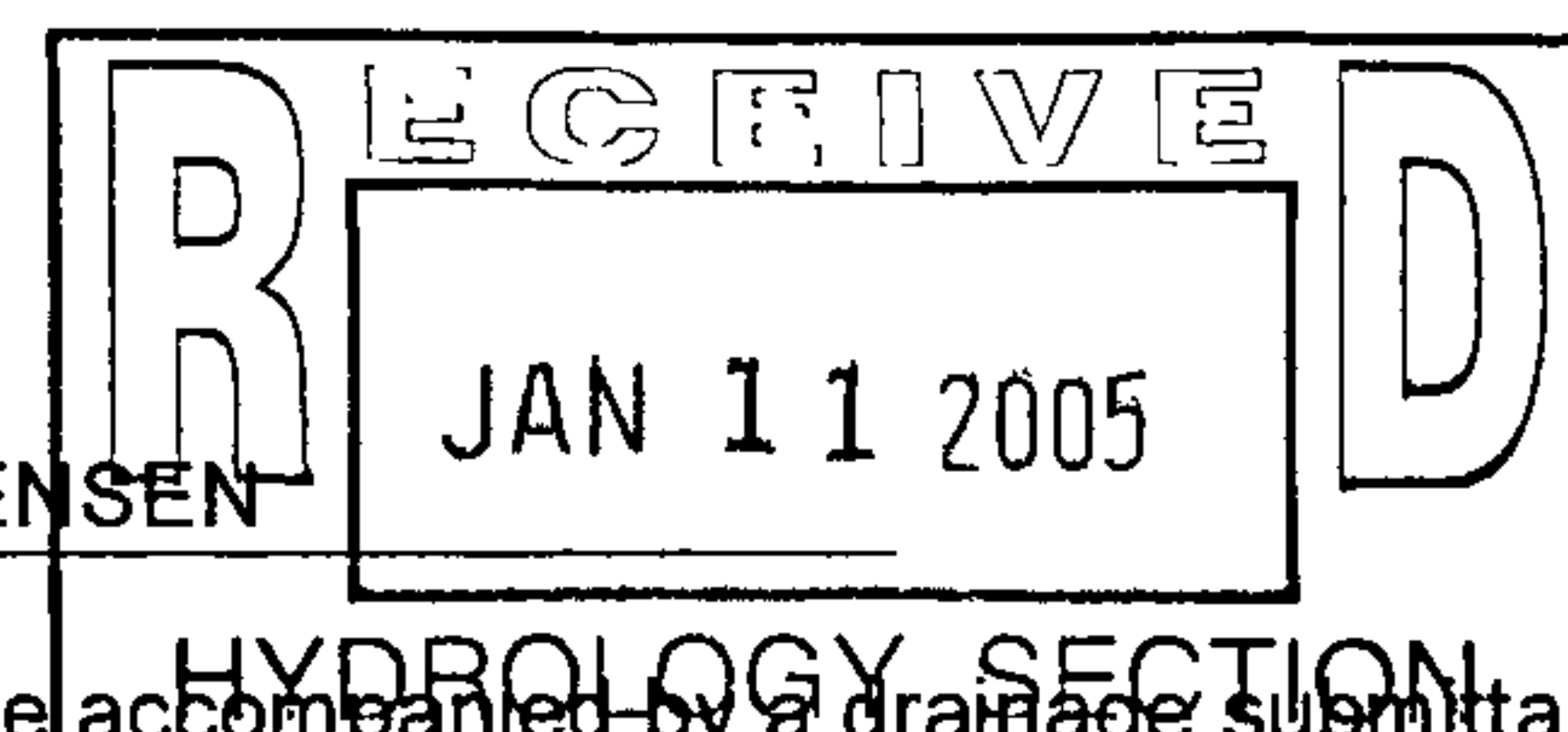
CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☒ OTHER (SPECIFY) ELIMINATION OF PONDING

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES - INFORMAL WITH BRAD BINGHAM
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED: 01/11/2005 BY: JEFFREY G. MORTENSEN



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based upon the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



2004. 120.1

Memorandum

Parsons Brinckerhoff
5801 Osuna Road, NE Suite 200
Albuquerque, NM 87109
(505) 881-5357
Fax (505) 881-7602

To: Raymunda Van Hoven, PDE, NMSHTD Drainage

Cc: Tony S. Abbo, PDE, NMSHTD Project Development
Dan Hogan, City of Albuquerque, Hydrology Division
Dennis Valdez, NMSHTD District Three

From: Peter Brakenhoff, Parsons Brinckerhoff
Darryl Gregg, Parsons Brinckerhoff

Date: December 30, 2002

**RE: I-40 / Pennsylvania Avenue Overpass in Albuquerque
NM Project No. IM-040-3(120)163, CN 3117
Storm Drainage Design**

PB recently submitted the Final Design Inspection plans (90% complete design) and preliminary engineer's estimate for the Pennsylvania Street / I-40 Overpass Reconstruction project for your review and comment. The plans include the design elements necessary to accommodate the drainage improvements at the intersection of Pennsylvania Street and Constitution Avenue as well as the new storm drain system at the intersections of Constitution Avenue, Rhode Island Street and Bellamah Avenue.

This memo serves as a record of the assumptions, decisions and conclusions relating to the design of the storm drainage system.

STORM DRAINAGE ANALYSIS

The storm runoff reaching the intersection of Pennsylvania Street and Constitution Avenue is roughly bounded on the west by Pennsylvania Street, on the north by the Embudo Arroyo, on the east by Wyoming Boulevard, and on the south by Constitution Avenue and Constitution Place. The properties south of Constitution Avenue and Constitution Place were determined to drain toward Interstate 40, and do not impact the subject intersection. A drainage basin map is attached with this memo.

Drainage sub-basins were defined for each of the four intersections where it was anticipated collection inlets would be placed. An additional sub-basin was added to isolate the runoff reaching the retention / detention basin located at the northwest corner of the Presbyterian Hospital property. It is assumed that the runoff from this sub-basin will not reach the Pennsylvania / Constitution intersection until the flow from all other basins have already passes through. Peak discharges were determined for both the 100-year and 10-year, 6-hour storms.

The majority of the storm drainage runoff is generated within sub-basin P2, which contains slightly less than 60 acres and conveys the peak discharge to Bellamah Avenue east of Rhode Island Street, just north of the park.



COLLECTION SYSTEM DESIGN CONSTRAINTS

Because no other means of capturing the runoff reaching this intersection currently exists or is planned for the foreseeable future, a significant amount of discharge has been concentrated into a small area for collection. The existing collection system inlets are inadequate and the current point of discharge into the small, overgrown earth channel paralleling the interstate cannot accommodate the expected peak flows.

The proposed storm drainage system will convey along the west side of Pennsylvania Street and under the interstate to the existing channel located in the center of the highway. This requires boring and jacking a large conduit under the westbound interstate driving lanes and penetration of the existing concrete-lined channel. There are two major obstacles that constrain the design options:

- The depth of the interstate channel combined with the cover available under the existing driving lanes limit the slope and diameter of the discharge pipe, and reduces the capacity of the system.
- The proposed storm drainage pipe will need to pass under the existing 42-inch Water Transmission Line that crosses Pennsylvania Street and parallels the north side of the interstate.

As a result of these constraints, the proposed storm drainage outfall pipes are limited to conveying only the 10-year design flows. The additional flow generated by the 100-year storm will need to be directed to a different point of discharge.

INLET ANALYSIS & DESIGN

Collection inlets were placed to capture as much runoff as possible before reaching the Pennsylvania / Constitution intersection, with the knowledge that the most-upstream inlets would not be capable of intercepting the entire flow without a large amount of bypass flow.

The inlets were sized to intercept the entire 100-year runoff, but due to the large discharge concentrating on this area, the storm drainage outfall pipes could only be designed for the 10-year peak discharges.

DRAINAGE OUTFALL PIPE DESIGN

As noted above, the collection system has been limited to conveying the 10-year storm event only. The backbone of the collection system consists of pipes ranging in diameter from 36 to 72 inches. The inlets are connected to the main system by means of 18 to 24 inches pipes.

Relocation of portions of the existing utility systems has been avoided by strategic placement of the proposed storm drainage system. Along Constitution Avenue, one reach of 38" by 60" horizontal elliptical pipe was recommended to convey the flow under an existing 8-inch sanitary sewer line.



DESIGN CONCERNS & OPTIONS FOR CONSIDERATION

The concerns with the current design of the storm drainage collection system are as follows:

- o Cost and constructability of boring and jacking the 72-inch pipe under WB I-40;
- o Inability to convey the 100-year flows; and
- o Construction phasing at intersections of Constitution Avenue & Pennsylvania Street and Constitution Avenue & Rhode Island Street.

The current design of the boring and jacking under WB I-40 can only provide 24 inches of cover from the top of the proposed 72-inch pipe to the surface of the interstate highway driving lanes, whereas a cover of 5 to 6 feet would be more desirable. Two smaller diameter pipes (in parallel) could attain an equivalent capacity, which would slightly increase the amount of cover, but essentially double the cost of boring and jacking to approximately \$220,000. The parallel pipes would need approximately 5 feet of separation, which would require a specially-design splitter box and would likely create a less than desirable hydraulic condition.

The portion of the 100-year flow that cannot be conveyed directly to the I-40 Channel will need to be removed from the intersection by overland or surface flow. The existing concrete rundown pad west of the intersection could be re-designed / modified to accommodate this flow. The outfall channel parallel along the multi-use trail north of I-40 would be designed to ensure it has sufficient capacity. With a slope of 1.5% and roughness coefficient of $n=0.015$, a bottom width of 5 feet and 2:1 side slopes, a capacity of 615 cfs can be provided.

As an option to both concerns, the existing channel should be analyzed to determine if a combination box culvert and earth channel or concrete lined channel can be used to convey all flow to the west for eventual discharge to the Embudo Arroyo.

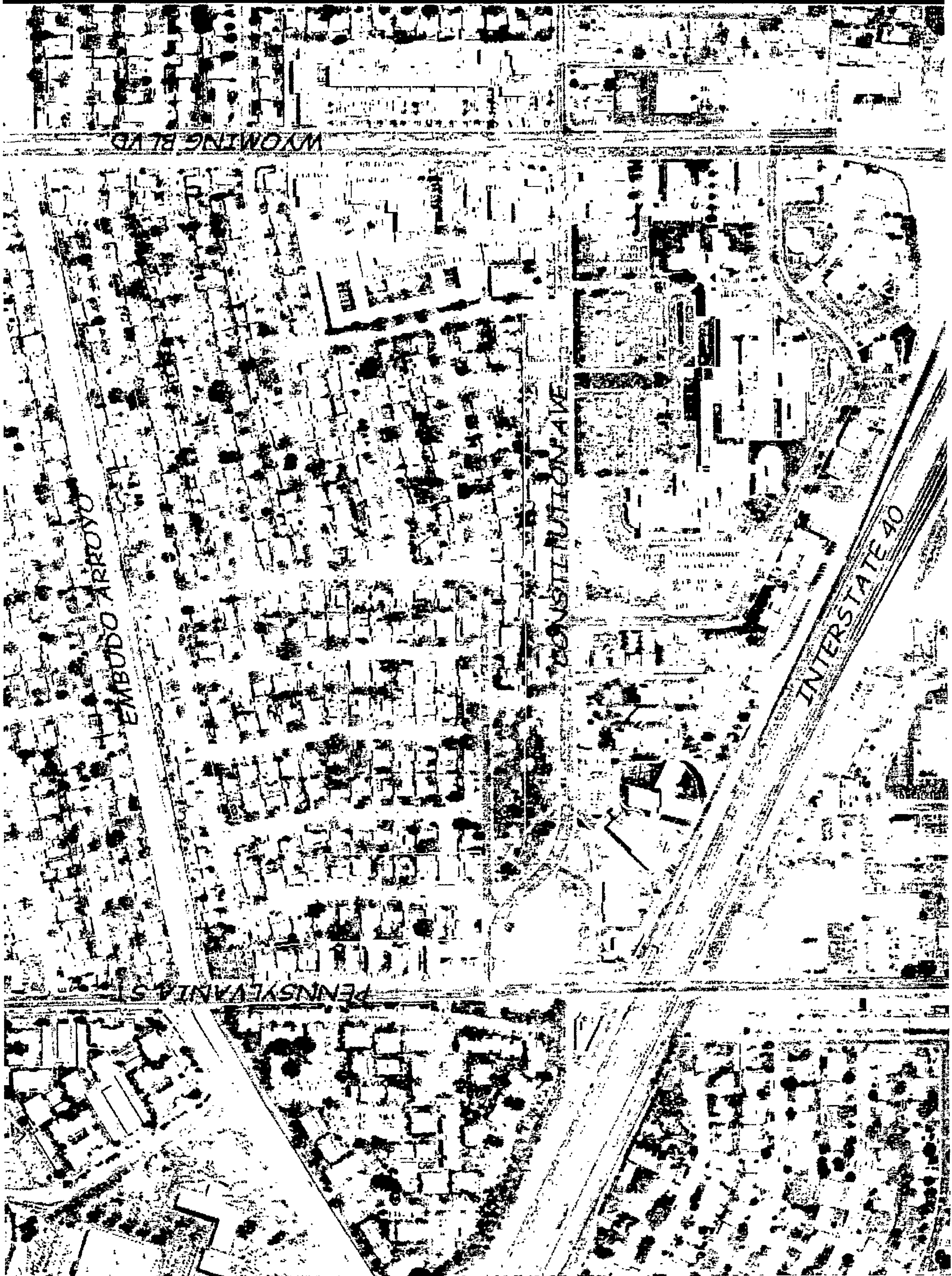
The cost of removing the 100-year flow from this intersection may outweigh the option of capturing a significant portion of the runoff at a strategic upstream location. By constructing a small collection system along Hendola Drive to convey the runoff north to the Embudo Channel, 40% to 50% of the Basin P2 flow could be diverted.

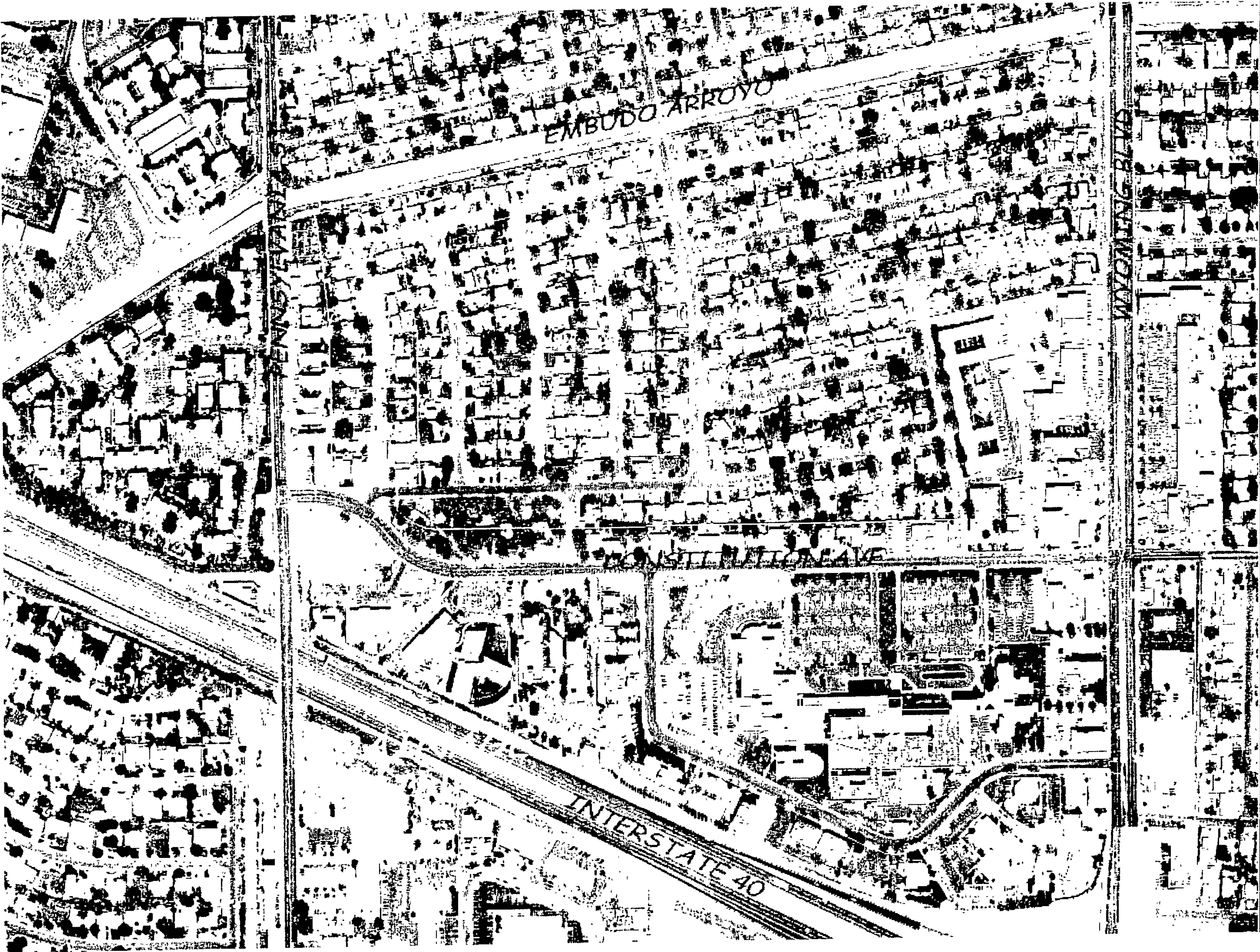
We recommend scheduling a separate coordination meeting to discuss the drainage design issues on this project. We'll discuss this in further detail during the Final Design Inspection review meeting on January 8, 2002.

Attachments:

1. Drainage Basin Layout Map
2. Calculations of Runoff
3. Capacity Calculations for Concrete Lined Channel

Cc: file





PENNSYLVANIA STREET ~ INTERSTATE 40 ~ STORM DRAINAGE ANALYSIS ~

TABLE 1 ~ DRAINAGE BASIN CHARACTERISTICS ~ EXISTING CONDITIONS

BASIN IDENTIFIER	PROPOSED INLET LOCATION	AREA			Land Treatment Type (%) *				Land Treatment Type (Acres) *			
		(sq. ft.)	(acres)	(sq. mi.)	A**	B	C	D	A**	B	C	D
P-1	Rhode Island St	571,803	13.13	0.0205	16	-	55	29	2.07	-	7.22	3.84
P-2	Bellamah Ave	2,602,054	59.73	0.0933	28	2	46	24	16.73	1.19	27.48	14.34
P-3A	Constitution Ave	1,036,460	23.79	0.0372	-	5	23	72	-	1.19	5.47	17.13
P-3B	Constitution Ave	374,249	8.59	0.0134	30	-	0	70	2.58	-	-	6.01
P-4	Pennsylvania St	213,788	4.91	0.0077	-	-	21	79	-	-	1.03	3.88
Entire Basin		4,798,354	110.16	0.1721	19	2	37	41	21.37	2.38	41.20	45.20

* Land Treatment Types based on City of Albuquerque Development Process Manual ~ Chapter 22, Table A-4 (June 1997)

** 35% of the Land Treatment Type "D" within the Single Family Residential areas of Basins P-1 and P-2 have been considered Type "A" to account for backyard ponding.

** 30% of the Land Treatment Type "D" with the Light Industrial (Hospital) area (All of Basin P-3B) has been considered Type "A" to account for on-site detention. It is assumed that the runoff from this sub-basin will not reach the Pennsylvania / Constitution intersection until the flow from all other basins have already passed through.

BASIN ID	Single Family Resid.				Multiple Unit Resid.		Light Indust.		Parks		Streets		Weighted % Impervious
	Units (Houses)	Acres	Units / Acre	%Imp.	Acres	%Imp.	Acres	%Imp.	Acres	%Imp.	Acres	%Imp.	
P-1	58	13.13	4.4	45.2							-	90	45
P-2	227	48.24	4.7	47.3	3.16	70	6.19	70	1.17	7	0.97	90	52
P-3A					3.65	70	16.74	70	1.30	7	2.11	90	72
P-3B							8.59	70					70
P-4					1.99	70	0.61	70			2.30	90	79

Entire Basin	61.37	8.80	32.13	2.47	5.37
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PENNSYLVANIA STREET ~ INTERSTATE 40
~ STORM DRAINAGE ANALYSIS ~ EXISTING CONDITIONS ~ 100-YEAR EVENT

TABLE 2 ~ RUNOFF VOLUMES and PEAK DISCHARGES ~ CATCH BASIN DESIGN FLOWS (Q's)

BASIN IDENTIFIER	PROPOSED INLET LOCATION	AREA (A) (acres)	City of Albuquerque Development Process Manual Method			Rational Method
			* WEIGHTED EXCESS PRECIPITATION	RUNOFF VOLUME (ACRE-FEET)	* PEAK DISCHARGE / DESIGN FLOW (Q _{DES}) in CFS	* PEAK DISCHARGE / DESIGN FLOW (Q _{DES}) in CFS
P-1	Rhode Island St	13.13	1.50	1.64	48.05	47.96
P-2	Bellamah Ave	59.73	1.36	6.78	201.15	200.92
P-3A	Constitution Ave	23.79	2.04	4.05	107.97	107.63
P-3B	Constitution Ave	8.59	1.85	1.32	35.01	34.94
P-4	Pennsylvania St	4.91	2.14	0.87	23.02	22.95
Entire Basin		110.16	1.60	14.68	415.20	414.41

* Weighted Excess Precipitation and Peak Discharge based on Precipitation Zone 3, 100 Year, 6-Hour Storm

$$Q_{DES} = (Q_P / A_T) \times A$$

Where A = Area in acres tributary to catch basin.

A_T = Total area in acres of the appropriate subarea.

Q_P = Peak Q from appropriate subarea, in c.f.s.

110.16 acres

415.20 c.f.s.

Q_P / A_T =

3.77 c.f.s. /acre

PENNSYLVANIA STREET ~ INTERSTATE 40
~ STORM DRAINAGE ANALYSIS ~ EXISTING CONDITIONS ~ 10-YEAR EVENT

TABLE 3 ~ RUNOFF VOLUMES and PEAK DISCHARGES ~ CATCH BASIN DESIGN FLOWS (Q's)

BASIN IDENTIFIER	PROPOSED INLET LOCATION	AREA (A) (acres)	City of Albuquerque Development Process Manual Method			Rational Method
			* WEIGHTED EXCESS PRECIPITATION	RUNOFF VOLUME (ACRE-FEET)	* PEAK DISCHARGE / DESIGN FLOW (Q _{DES}) in CFS	* PEAK DISCHARGE / DESIGN FLOW (Q _{DES}) in CFS
P-1	Rhode Island St	13.13	0.81	0.89	28.65	28.73
P-2	Bellamah Ave	59.73	0.71	3.51	114.68	115.03
P-3A	Constitution Ave	23.79	1.24	2.46	70.44	70.57
P-3B	Constitution Ave	8.59	1.11	0.79	21.88	21.92
P-4	Pennsylvania St	4.91	1.32	0.54	15.21	15.23
Entire Basin		110.16	0.89	8.19	250.86	251.49

* Weighted Excess Precipitation and Peak Discharge based on Precipitation Zone 3, 10 Year, 6-Hour Storm

$$Q_{DES} = (Q_P / A_T) \times A$$

Where A = Area in acres tributary to catch basin.
A_T = Total area in acres of the appropriate subarea.
Q_P = Peak Q from appropriate subarea, in c.f.s.

110.16 acres
250.86 c.f.s.

Q_P / A_T = 2.28 c.f.s. /acre

Trapezoidal Channel between Multi-use Trail and Apartment Complex

Slope = 0.015 ft/ft

Side Slope H:V	Mannings n	Bottom Width (ft)	Discharge Q (cfs)	Depth (ft)	Velocity (ft/s)	Freeboard (ft)	Overall Depth (ft)	Top Width (ft)
2	0.035	5	50	1.32	4.94	1.1	2.5	14.8
2		6		1.22	4.85	1.1	2.3	15.4
2		7		1.14	4.75	1.1	2.3	16.1
2	0.035	5	75	1.64	5.54	1.2	2.8	16.2
2		6		1.52	5.45	1.2	2.7	16.7
2		7		1.42	5.36	1.2	2.6	17.3
2	0.035	5	100	1.9	5.99	1.2	3.1	17.3
2		6		1.77	5.92	1.2	2.9	17.8
2		7		1.66	5.83	1.2	2.8	18.3
2	0.035	5	125	2.12	6.37	1.5	3.7	19.7
2		6		1.99	6.3	1.5	3.5	20.1
2		7		1.87	6.22	1.5	3.4	20.6
3	0.035	5	50	1.2	4.7	1.1	2.3	18.9
3		6		1.1	4.6	1.1	2.2	19.3
3		7		1	4.5	1.1	2.1	19.7
3	0.035	5	75	1.5	5.4	1.2	2.7	20.9
3		6		1.4	5.3	1.1	2.5	21.3
3		7		1.3	5.2	1.1	2.4	21.7
3	0.035	5	100	1.8	5.8	1.2	3.0	22.9
3		6		1.7	5.7	1.2	2.9	23.2
3		7		1.6	5.6	1.2	2.8	23.6
3	0.035	5	125	2	6.2	1.5	3.5	26.2
3		6		1.9	6.1	1.5	3.4	26.6
3		7		1.8	6	1.5	3.3	27.0
2	0.015	5	50	0.83	8.98	1.2	2.0	13.2
2		6		0.76	8.72	1.2	2.0	13.8
2		7		0.7	8.46	1.2	1.9	14.6
2	0.015	5	75	1.04	10.15	1.3	2.3	14.2
2		6		0.96	9.91	1.2	2.2	14.8
2		7		0.89	9.65	1.2	2.1	15.5
2	0.015	5	125	1.37	11.75	1.6	3.0	17.0
2		6		1.27	11.55	1.6	2.9	17.6
2		7		1.18	11.31	1.6	2.8	18.2
2	0.015	5	615	3.5	14.61	1.8	5.3	26.2
2	0.015	5	443	3	13.42	1.7	4.7	24.0

DEVELOPMENT & BUILDING SERVICE CENTER
ONE STOP SHOP
600 SECOND ST. N.W.

ATTENTION: Arlene
505-924-3900

Records Withdrawal Form

Project No. J-19/D4, J-19/D4A, J-19/D4B, J-19/D4C Date: Dec 15, 2004

Project Title: Kaseman Hospital

a. File b. Mylars c. Redlines/Comments
d. Other G & D plans, Plans

Requested by: KEVIN Georges and Assoc. ATTN: BILL SANTANA Phone No.: 255 4975
Name and Company

Comments: 1 Band Copy Each of:

J-19 D4C - "Drop off Grading Plan, Plate 1, C102"

J-19 D4B - A1 of 17, C102

J-19 D4A - 1 of 1

J-19 D4 = Plot Plan, A1, A2, Plate 1

Deliver copies to KGA
originals back to B&G Dept
Suite 201.

Anticipated Return Date: _____

I hereby accept full responsibility for the security of the above noted records/plans until return receipt acknowledgement is completed. Records/plans will be returned to the Development and Building Services Center on or before the indicated anticipated return date.

Delivery Picked Up By:

Name: Sarah Motsinger
Print

Organization: Construction Reporter

Signed: Sarah Motsinger

Date: 12-15-04

Office Use Only

Return Acknowledged:

Received By: R. Dorch
Print

Date: 12-14-04

DRAINAGE INFORMATION SHEET

930114

PROJECT TITLE: PRESBYTERIAN KASEMAN HOSP. ZONE ATLAS/DRNG. FILE #: I-19/D4B
DRB #: _____ EPC #: _____ WORK ORDER #: _____
LEGAL DESCRIPTION: TRACT 1 EAST END ADDITION
CITY ADDRESS: 8300 CONSTITUTION N.E.
ENGINEERING FIRM: Jeff Mortensen & Assoc. CONTACT: Gary Bittner
ADDRESS: 6010B Midway Park Blyd. N.E. PHONE: 345-4250
OWNER: PRES. HEALTHCARE SERVICES CONTACT: _____
P.O. BOX 26666
ADDRESS: ALBUQUERQUE, NM 87125 PHONE: _____
ARCHITECT: SMPC CONTACT: CHRIS WILLADSEN
ADDRESS: 115 AMHERST DRIVE SE. PHONE: 255-8668
SURVEYOR: JEFF MORTENSEN & ASSOC. CONTACT: CHUCK CALA
ADDRESS: 6010-B MIDWAY PARK BLVD N.E. PHONE: 345-4250
CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION
☐ OTHER

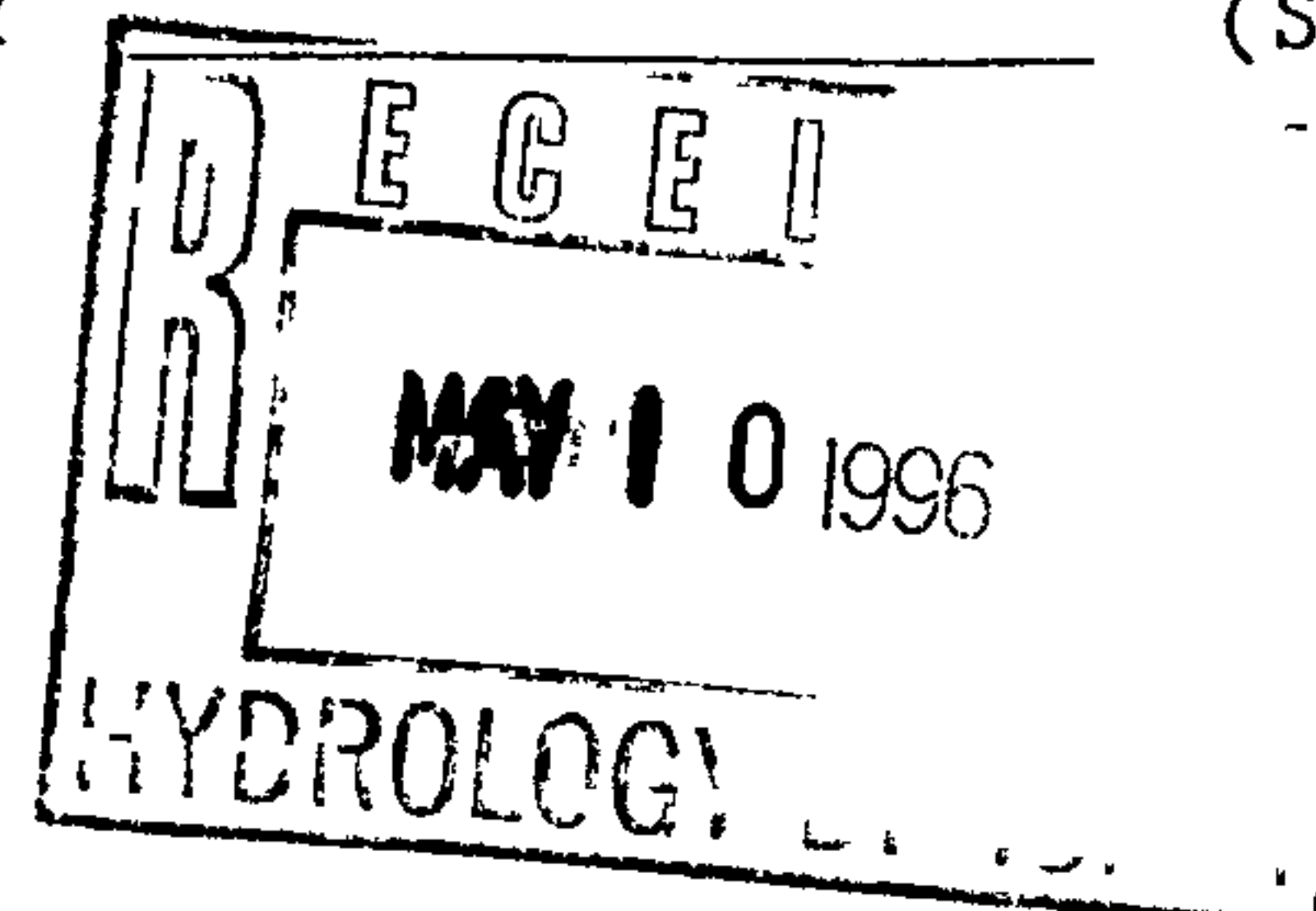
PRE-DESIGN MEETING:

☐ YES
☒ NO
☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☒ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER (SPECIFY)

DATE SUBMITTED: 05/09/96
BY: Gary R. Bittner *GB*





Martin J. Chávez, Mayor

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

RE: DRAINAGE PLAN FOR WEST EXPANSION @ PRESBYTERIAN KASEMAN
HOSPITAL (J19-D4B) ENGINEER'S STAMP DATED 5/8/96.

Dear Mr. Mortensen:

Based on the information provided on your May 10, 1996 submittal, the above referenced site is approved for Building, Foundation and Grading Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the D.P.M. checklist will be required.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

A handwritten signature in cursive script that reads 'Bernie J. Montoya'.

Bernie J. Montoya, CE
Engineering Associate

BJM/dl

c: Andrew Garcia

File

Good for You, Albuquerque!



Q

Kaseman Rad. Therapy Cntr.
(V-19/D4B)

Note to File:

Bob Hasaka submitted
the compaction test
results for the perm.
Code. Enforcement
has been notified that
they can release a
permanent C.O.

Jeff Mortensen has
also been notified.

Bob P. Austin

3-16-94



Professional Service Industries, Inc.

4 MAR 14 P12:18

MAR 16 1994

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Bradbury & Stamm
P.O. Box 25027
1217 1st Street, NW
Albuquerque, New Mexico 87125

PROJECT: Anna Kasemen Hospital
Albuquerque, New Mexico

Attn: Gina Zamora

DATE: 3-10-94

OUR REPORT NO: 531-30052-85 2 of 3

TEST DATA:

TEST NO	DATE	ELEV DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	OPTIMUM MOISTURE CONTENT	IN PLACE MOISTURE CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT
1	3-10-94	(-) 4"	03	122.2	12.2	12.1	107.2	87.7	1B
②	3-10-94	(-) 6"	03	122.2	12.2	7.3	119.3	97.6 ②	1A
3	3-10-94	(-) 4"	03	122.2	12.2	15.2	103.9	85.0	1B
④	3-10-94	(-) 8"	03	122.2	12.2	11.9	118.5	96.9 ④	1A
5	3-10-94	(-) 6"	03	122.2	12.2	9.9	105.4	86.3	1B
✓ 6	3-10-94	(-) 6"	03	122.2	12.2	10.7	108.5	88.8	1B

TEST LOCATION:

1	South end of pond at center - approximately 4' from existing fence
2	South end of pond at southeast corner - approximately 3' from existing fence
3	East side of pond at approximately 60' north of southeast corner - approximately 10'
4	East side of pond at approximately 70' south of northeast corner - approximately 5'
5	Northeast corner of pond approximately 4' from fence
6	North end of pond at center - approximately 6' from fence

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
MOISTURE CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry
density obtained on sample indicated by
soil ID number.

- 1. FILL MATERIAL
- 2. BACKFILL
- 3. BASE COURSE
- 4. SUBBASE
- 5. SOIL CEMENT
- 6. OTHER

- A. TEST RESULTS COMPLY WITH SPECIFICATIONS
- B. RECOMPACTION REQUIRED
- C. TEST IS AFTER RECOMPACTION
- D. MOISTURE CONTENT OUT OF SPECIFICATION

REMARKS:

cc: Stephens, Mallory, Pearl, Campbell Architects
Presbyterian Health Care Services

Respectfully submitted,
Professional Service Industries, Inc.



Professional Service Industries, Inc.

34 MAR 14 12:18

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Bradbury & Stamm
P.O. Box 25027
1217 1st Street, NW
Albuquerque, New Mexico 87125

PROJECT: Anna Kasemen Hospital
Albuquerque, New Mexico

Attn: Gina Zamora

DATE: 3-10-94

OUR REPORT NO: 531-30052-85 3 of 3

TEST DATA:

TEST NO	DATE	ELEV DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	OPTIMUM MOISTURE CONTENT	IN PLACE MOISTURE CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT*
7	3-10-94	(-) 6"	03	122.2	12.2	10.6	102.7	84.0	1B
8	3-10-94	(-) 6"	03	122.2	12.2	7.4	99.6	81.5	1B
9	3-10-94	(-) 6"	03	122.2	12.2	19.8	98.9	81.0	1B
10	3-10-94	(-) 6"	03	122.2	12.2	10.9	95.9	78.5	1B
11	3-10-94	(-) 2"	03	122.2	12.2	6.4	117.8	96.4	1A

TEST LOCATION:

7	North end of pond at 10' west of center - approximately 4' from fence
8	West end of pond - above drain pipe and approximately 3' from fence
9	West end of pond at approximately 50' south of northwest corner - approximately 10'
10	West end of pond at approximately 60' south of northwest corner - approximately 4'
11	West end of pond at approximately 50' north of southwest corner - approximately 2'

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
MOISTURE CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry
density obtained on sample indicated by
soil ID number.

- 1. FILL MATERIAL
- 2. BACKFILL
- 3. BASE COURSE
- 4. SUBBASE
- 5. SOIL CEMENT
- 6. OTHER

- A. TEST RESULTS COMPLY WITH SPECIFICATIONS
- B. RECOMPACTION REQUIRED
- C. TEST IS AFTER RECOMPACTION
- D. MOISTURE CONTENT OUT OF SPECIFICATION

REMARKS:

cc: Stephens, Mallory, Pearl, Campbell Architects
Presbyterian Health Care Services

Respectfully submitted,
Professional Service Industries, Inc.



Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Bradbury & Stamm
P.O. Box 25027
1217 1st Street, NW
Albuquerque, New Mexico 87125

PROJECT: Anna Kasemen Hospital
Albuquerque, New Mexico

Attn: Gina Zamora

DATE: 3-11-94

OUR REPORT NO: 531-30052-86 2 of 2

TEST DATA:

TEST NO	DATE	ELEV DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	OPTIMUM MOISTURE CONTENT	IN PLACE MOISTURE CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT
1	3-11-94	At Grade	03	122.2	12.2	10.2	119.9	98.1 (8)	1A
2	3-11-94	At Grade	03	122.2	12.2	9.5	113.0	92.4 (7)	1A
3	3-11-94	At Grade	03	122.2	12.2	8.3	117.8	96.4 (5)	1A
4	3-11-94	At Grade	03	122.2	12.2	14.0	114.9	94.1 (3)	1A
5	3-11-94	At Grade	03	122.2	12.2	11.3	119.7	98.0 (1)	1A

TEST LOCATION:

1	Northwest corner of Pond Berm site location prepared by contractor - retest #8 on 3-10-94 ✓
2	Retest #7 - 3-10-94
3	Retest #5 - 3-10-94
4	Retest #3 - 3-10-94
5	Retest # 1 - 3-10-94

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
MOISTURE CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

- A. TEST RESULTS COMPLY WITH SPECIFICATIONS
- B. RECOMPACTION REQUIRED
- C. TEST IS AFTER RECOMPACTION
- D. MOISTURE CONTENT OUT OF SPECIFICATION

REMARKS:

cc: Stephens, Mallory, Pearl, Campbell Architects
Presbyterian Health Care Services

Respectfully submitted,
Professional Service Industries, Inc.



Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Bradbury & Stamm
P.O. Box 25027
1217 1st Street, NW
Albuquerque, New Mexico 87125

PROJECT: Anna Kasemen Hospital
Albuquerque, New Mexico

Attn: Gina Zamora

DATE: 3-15-94

OUR REPORT NO: 531-30052-87 2 of 2

TEST DATA:

TEST NO	DATE	ELEV DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	OPTIMUM MOISTURE CONTENT	IN PLACE MOISTURE CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT
1	3-15-94	-6"	03	122.2	12.2	109.4	8.7	89.5 ^⑥	1A,C
2	3-15-94	-6"	03	122.2	12.2	108.6	8.2	88.9	1B,C
3	3-15-94	-6"	03	122.2	12.2	109.2	9.4	89.4	1B,C
4	3-15-94	-6"	03	122.2	12.2	110.5	9.8	90.4 ^⑨	1A,C
5	3-15-94	-6"	03	122.2	12.2	110.2	9.1	90.2 ^⑩	1A,C

TEST LOCATION:

1	North end Pond Berm at center approximately 6' from fence - retest #6
2	West end Pond Berm approximately 50' south of northwest corner 4' from fence - retest#9
3	West end Pond Berm approximately 60' south of northwest corner 4' from fence - retest#10
4	West end Pond Berm approximately 50' south of northwest corner 4' from fence - retest#9
5	West end Pond Berm approximately 60' south of northwest corner 4' from fence - retest#10

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
MOISTURE CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry
density obtained on sample indicated by
soil ID number.

1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

- A. TEST RESULTS COMPLY WITH SPECIFICATIONS
- B. RECOMPACTION REQUIRED
- C. TEST IS AFTER RECOMPACTION
- D. MOISTURE CONTENT OUT OF SPECIFICATION

REMARKS:

cc: Stephens, Mallory, Pearl, Campbell Architects
Presbyterian Health Care Services

Respectfully submitted,
Professional Service Industries, Inc.

PUBLIC WORKS DEPARTMENT

SIDEWALK & DRIVEPAD INSPECTION

508-19

APPROVED

[Signature]

Inspector

Permits

Dispatch

Insp. Office

Phone: 768-2561

857-8025

857-8036

MAR 16 1994

1000

Date 2-15-94 Permit No. 9443371
Contractor Broadway Construction
Location 8300 Constance Street
Time _____

Bob Hosaka



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 25, 1994

Jeff Mortensen, P.E.
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd NE
Albuquerque, N.M. 87109

RE: ENGINEER'S CERTIFICATION FOR PRESB KASEMAN RAD THERAPY CNTR((J-19/D4B) ;
ENGINEER'S STAMP DATED 02-11-94; RECEIVED FEBRUARY 11, 1994
FOR CERTIFICATE OF OCCUPANCY APPROVAL

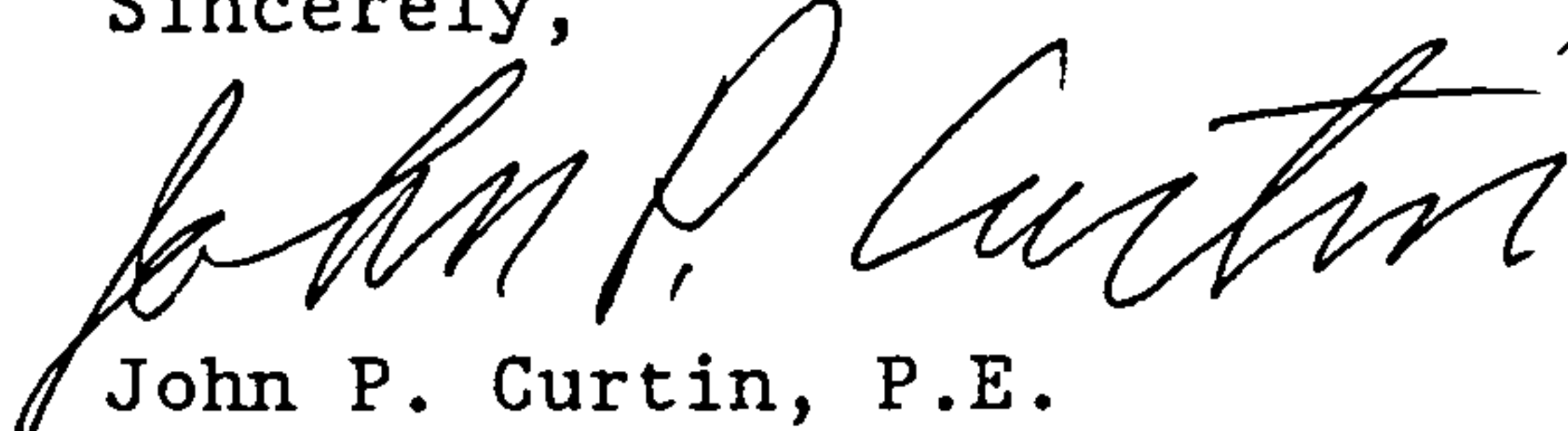
Dear Mr. Mortensen:

Based on the information included in the submittal referenced above, City Hydrology releases a Temporary Certificate of Occupancy for this project.

A Permanent Certificate of Occupancy will be released when a copy of the compaction test results for the pond berm is submitted.

If I can be of further assistance, you may contact me at 768-2727.

Sincerely,


John P. Curtin, P.E.
PWD/Hydrology

c: INSPECTOR

WPHYD/7732/jpc

PROJECT TITLE: PRESBYTERIAN KASCHMAN RADIATION THERAPY CENTERZONE ATLAS/DRNG. FILE #: 519/14B

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: TR1 East End AdditionCITY ADDRESS: 8300 Constitution NEENGINEERING FIRM: Jeff Mortensen & Assoc. CONTACT: Jeff MortensenADDRESS: 6010-B Midway Park Blvd. N.E. PHONE: 345-4250OWNER: Pres. Healthcare Services CONTACT: John BrownADDRESS: P.O. Box 26666 PHONE: _____
Alb, NM 87125ARCHITECT: SMPC CONTACT: David HassardADDRESS: 115 Amherst SE PHONE: 255-8668SURVEYOR: Jeff Mortensen & Assoc. CONTACT: Jeff MortensenADDRESS: 6010-B Midway Park Blvd NE PHONE: 345-4250CONTRACTOR: Bradbury & Stamm CONTACT: Jeff MerrillatADDRESS: _____ PHONE: 765-1200

TYPE OF SUBMITTAL:

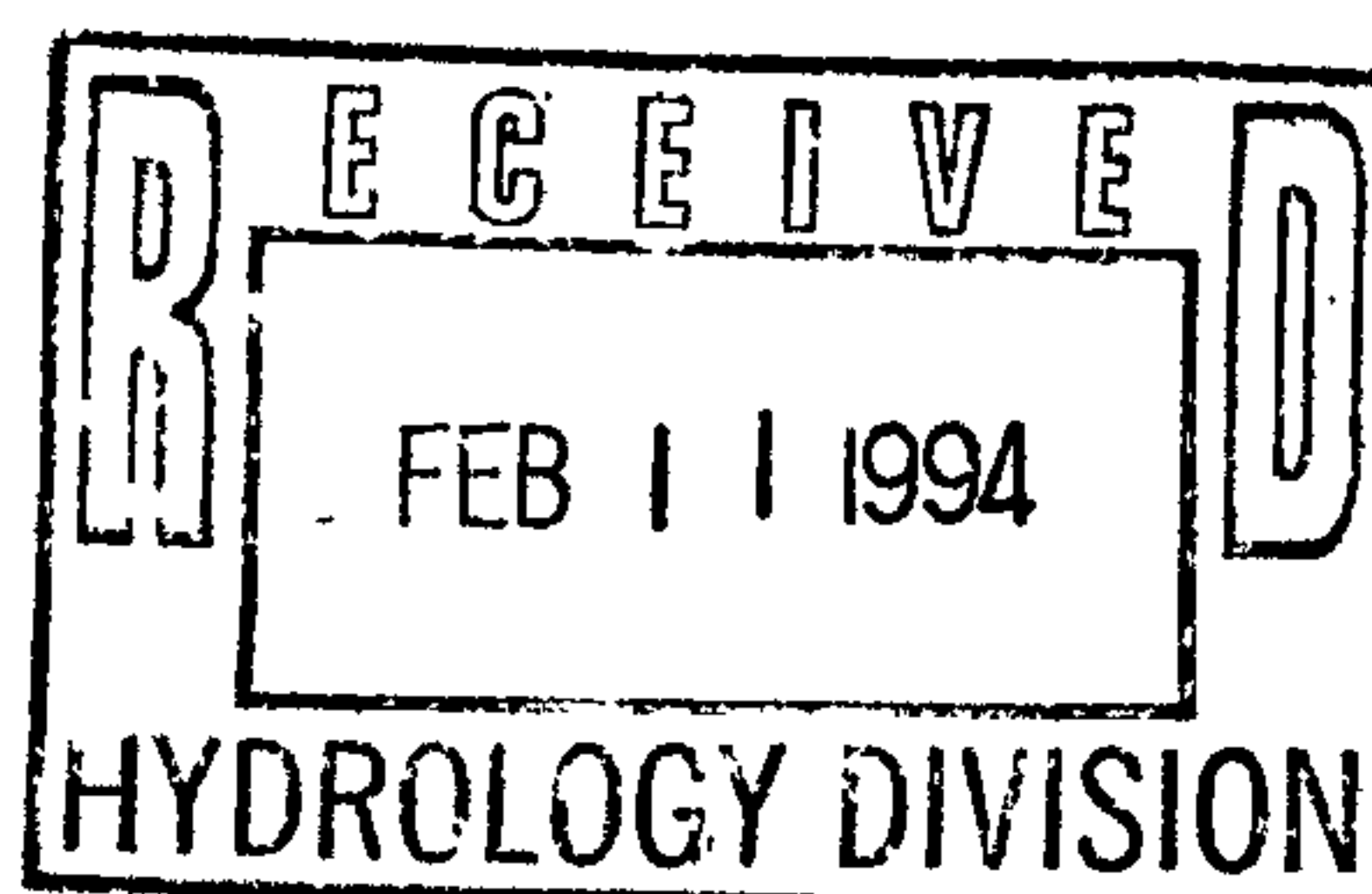
- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION
☐ OTHER

PRE-DESIGN MEETING:

- ☒ YES
☐ NO
☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
☒ CERTIFICATE OF OCCUPANCY APPROVAL
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 02-11-94BY: Jeffrey G. Mortensen



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 10, 1993

Jeff Mortensen, P.E.
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd NE
Albuquerque, N.M. 87109

RE: GRADING & DRAINAGE PLAN FOR PRESB KASEMAN RAD THERAPY CNTR (J-19/D4B)
ENGINEER'S STAMP DATED 05-07-93; RECEIVED MAY 10, 1993
FOR S.O.19 & BUILDING PERMIT APPROVAL

Dear Mr. Mortensen:

Based on the information included in the submittal referenced above, City Hydrology APPROVES this project for S.O.19 & Building Permit.

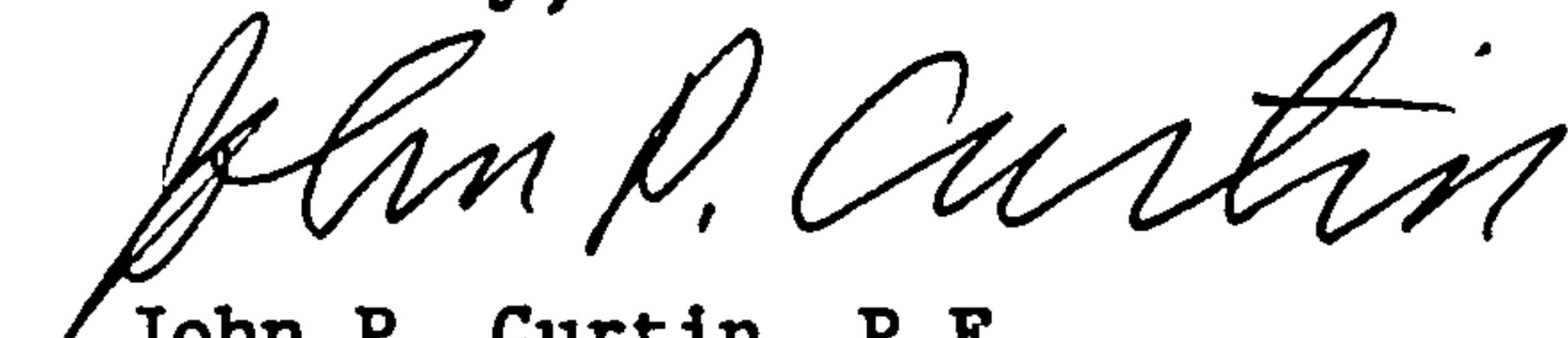
Include a copy of the Grading & Drainage Plan in the set of construction documents submitted for Building Permit.

A separate permit is required for construction within City right of way. A copy of this letter must be on hand when applying for the excavation permit.

Engineer's Certification of grades per DPM checklist must be approved before any Certificate of Occupancy is released.

If I can be of further assistance, you may contact me at 768-2727.

Sincerely,


John P. Curtin, P.E.
PWD/Hydrology

xc: Alan Martinez
Darlene Saavedra

WPHYD+7732;jpc

PUBLIC WORKS DEPARTMENT

930115

PRESBYTERIAN & SEMINARY RADIATION

PROJECT TITLE: THERAPY CENTER

ZONE ATLAS/DRNG. FILE #:

J19/D4B

DRB #:

EPC #:

WORK ORDER #:

LEGAL DESCRIPTION:

TR 1. EAST END ADDITION

CITY ADDRESS:

8300 CONSTITUTION NE

ENGINEERING FIRM: JEFF MORTENSEN & ASSOC.

CONTACT: JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE

PHONE: 345-4250

OWNER: PRCS. HEALTHCARE SERVICES

CONTACT: JOHN BROWN

ADDRESS:

PO BOX 26666
ALB, NM 87125

PHONE:

ARCHITECT:

JMPCL

CONTACT: DAVID HASSARD

ADDRESS:

115 AMHERST ST

PHONE:

255-8668

SURVEYOR: JEFF MORTENSEN & ASSOC

CONTACT: JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE

PHONE: 345-4250

CONTRACTOR: BRADBURY & STAMM

CONTACT: JEFF MERRILLAT

ADDRESS:

PHONE:

765-1200

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT☒ DRAINAGE PLAN☐ CONCEPTUAL GRADING & DRAINAGE PLAN☒ GRADING PLAN☐ EROSION CONTROL PLAN☐ ENGINEER'S CERTIFICATION☒ OTHER RESUBMITTAL

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY PROVIDED(w/
FIRST SUBMITTAL)

CHECK TYPE OF APPROVAL SOUGHT:

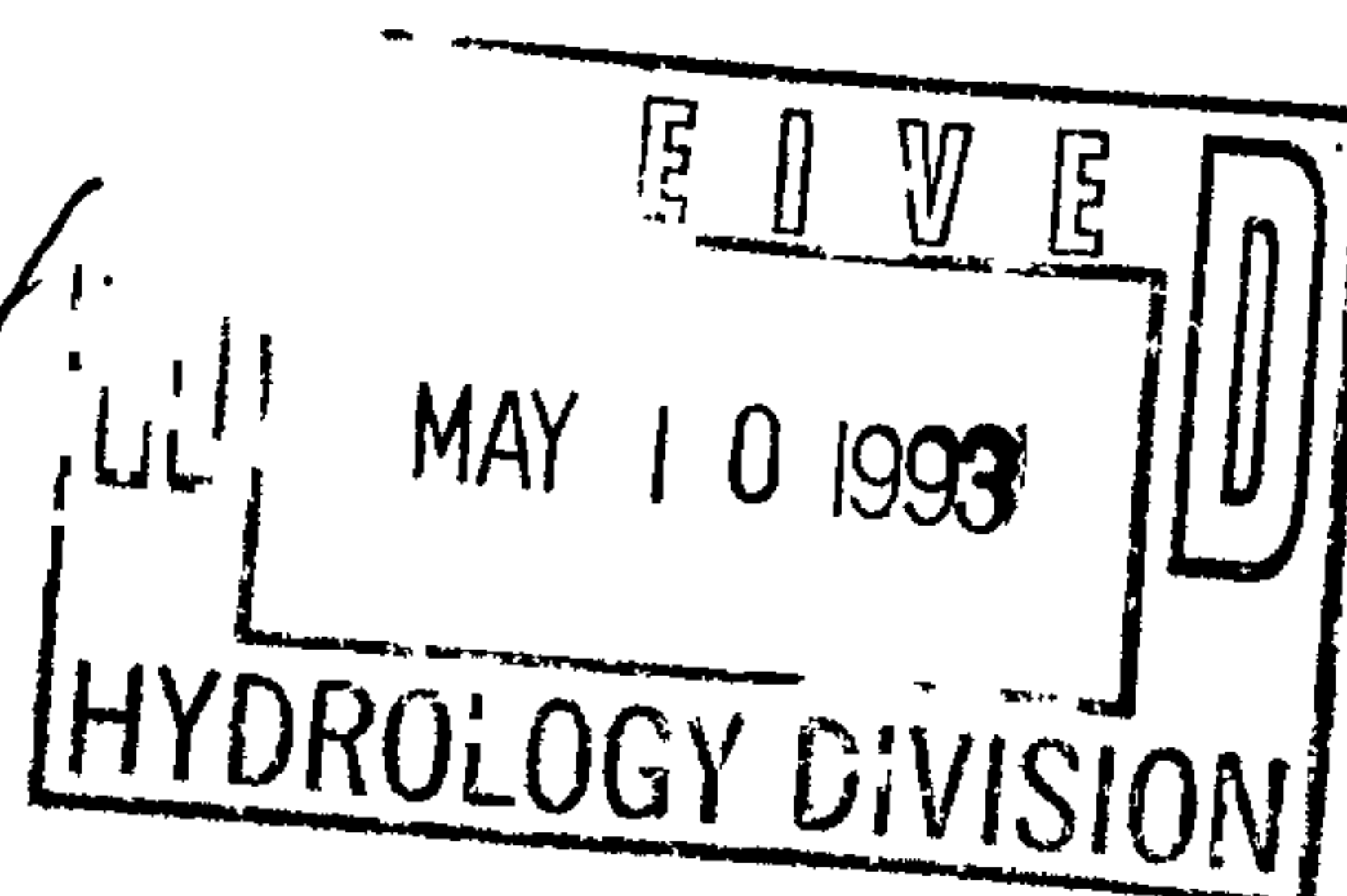
☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☐ S. DEV. PLAN FOR SUB'D. APPROVAL☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL☐ SECTOR PLAN APPROVAL☐ FINAL PLAT APPROVAL☒ FOUNDATION PERMIT APPROVAL☒ BUILDING PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☒ GRADING PERMIT APPROVAL☐ PAVING PERMIT APPROVAL☐ S.A.D. DRAINAGE REPORT☐ DRAINAGE REQUIREMENTS☒ OTHER 50 #19 (SPECIFY)

DATE SUBMITTED:

05/07/93

BY:

JEFFREY G. MORTENSEN





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 5, 1993

Jeff Mortensen, P.E.
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd NE
Albuquerque, N.M. 87109

RE: GRADING & DRAINAGE PLAN FOR PRESB KASEMAN RAD THERAPY CNTR (J-19/D4B),
ENGINEER'S STAMP DATED 04-27-93; RECEIVED APRIL 28, 1993
FOR ROUGH GRADING & FOUNDATION PERMIT APPROVAL

Dear Mr. Mortensen:


Based on the information included in the submittal referenced above, City Hydrology APPROVES this project for Rough Grading & Foundation Permit.

The following comments must be addressed before this project will be approved for S.O.19 and Building Permit:

1. Add north arrow and scale to Grading & Drainage Plan. Call out curb drain for roof drain system on left side of building.
2. Drainage Discussion is confusing. Is peak flow 1.6 cfs/6"pipe or 1.6 cfs for all 3 pipes. Remove sentence that implies that there are 3 existing pipes. Indicate how the total pond volume required was determined. Indicate what the capacity of the proposed storm drain system is.

If you have any questions about this project, you may contact me at 768-2727.

Sincerely,


John P. Curtin, P.E.
PWD/Hydrology

xc: Alan Martinez

WPHYD+7732;jpc

PUBLIC WORKS DEPARTMENT

930112

PRESBYTERIAN - WISMAN RADIATION

PROJECT TITLE: THERAPY CENTER

ZONE ATLAS/DRNG. FILE #: J19/D4B

DRB #:

EPC #:

WORK ORDER #:

LEGAL DESCRIPTION:

TR 1.

EAST

END

ADDITION

CITY ADDRESS:

8300

CONSTITUTION

NE

ENGINEERING FIRM: JEFF MORTENSEN & ASSOC. CONTACT: JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250

OWNER: PRCS. HEALTHCARE SERVICES CONTACT: JOHN BROWN

ADDRESS: PO BOX 26666
ALB, NM 87125

PHONE:

ARCHITECT:

JMPCL

CONTACT:

DAVID HASSARD

ADDRESS: 115 AMHERST ST

PHONE:

255-8668

SURVEYOR: JEFF MORTENSEN & ASSOC

CONTACT:

JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250

CONTRACTOR: BRADBURY & STAMM

CONTACT:

JEFF MERRILLAT

ADDRESS:

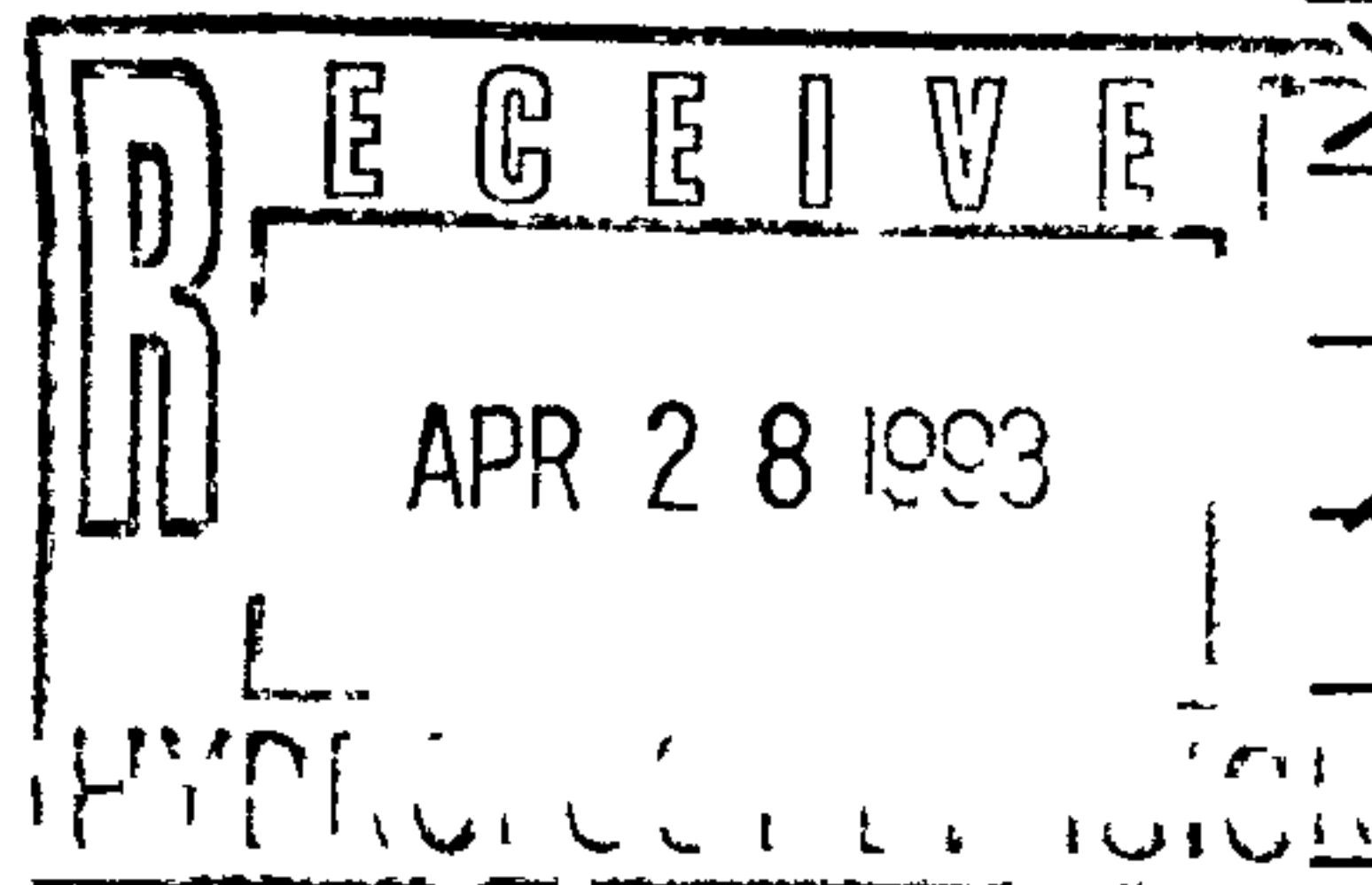
PHONE:

765-1200

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT☒ DRAINAGE PLAN☒ CONCEPTUAL GRADING & DRAINAGE PLAN☒ GRADING PLAN☐ EROSION CONTROL PLAN☐ ENGINEER'S CERTIFICATION☐ OTHER

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☐ S. DEV. PLAN FOR SUB'D. APPROVAL☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL☐ SECTOR PLAN APPROVAL☐ FINAL PLAT APPROVAL☒ FOUNDATION PERMIT APPROVAL☒ BUILDING PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☒ GRADING PERMIT APPROVAL☐ PAVING PERMIT APPROVAL☐ S.A.D. DRAINAGE REPORT☐ DRAINAGE REQUIREMENTS☒ OTHER 50 #19 (SPECIFY)

DATE SUBMITTED:

04/27/93

BY:

JEFFREY G. MORTENSEN

7732

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION/HYDROLOGY SECTION

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: J19-D4 DATE: 3/12/93
EPC NO.: _____ DRB NO.: _____ ZONE: _____
SUBJECT: KASEMAN RADIATION THERAPY ADDN
STREET ADDRESS: _____
LEGAL DESCRIPTION: TRACT 1 EAST END ADDITION

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

	WHO	REPRESENTING
ATTENDANCE:	<u>Bernie J Montoya</u>	<u>C.O.A.</u>
	<u>Jeff Mortensen</u>	<u>Jeff Mortensen & Associates</u>
	_____	_____

FINDINGS:

1. Drainage plan per D.P.M guidelines prior to Building Permit release.
2. No existing storm facilities on Constitution Place or Constitution.
3. Historical outfall along I-40 indicates flooding.
4. A.M.D.s does not reflect any future improvements.
5. Previous pond release rate has been held to .5 cfs
6. Master plan J19-D4 addresses ponding requirements.

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: <u>Bernie J Montoya</u>	SIGNED: <u>Jeff Mortensen</u>
TITLE: <u>Engineering Assistant</u>	TITLE: _____
DATE: <u>3/12/93</u>	DATE: <u>03/12/93</u>

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