



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 10, 2001

Kim Kemper, P.E.
Kemper-Vaughan Cons. Engrs.
3700 Coors Blvd NW
Albuquerque, New Mexico 87120

Re: Grading and Drainage Certification
Craig Corporation, Inc. - Phase 2 (5610 San Francisco NE) (D-18/D44)
Engineers Stamp dated 2/18/2000
Engineers Certification Dated 4/9/2001

Dear Mr. Kemper:

Based upon the information provided in your Engineers Certification submittal dated 4/9/2001, the above referenced site is approved for Certificate of Occupancy for Phase 2 of this project.

If I can be of further assistance, please contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Senior Civil Engineer
Hydrology Section, PWD

C: Vickie Chavez, COA
Teresa Martin, COA
✓ file



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 19, 2000

Kim Kemper P.E.
Kemper-Vaughn
3700 Coors Road NW
Albuquerque, NM 87120

***RE: CRAIG CORPORATION, INC., NORTH ALBQ. ACRES (D18-D44). ENGINEER'S
CERTIFICATION FOR CERTIFICATE OF OCCUPANCY APPROVAL.
ENGINEER'S STAMP DATED MAY 12, 2000.***

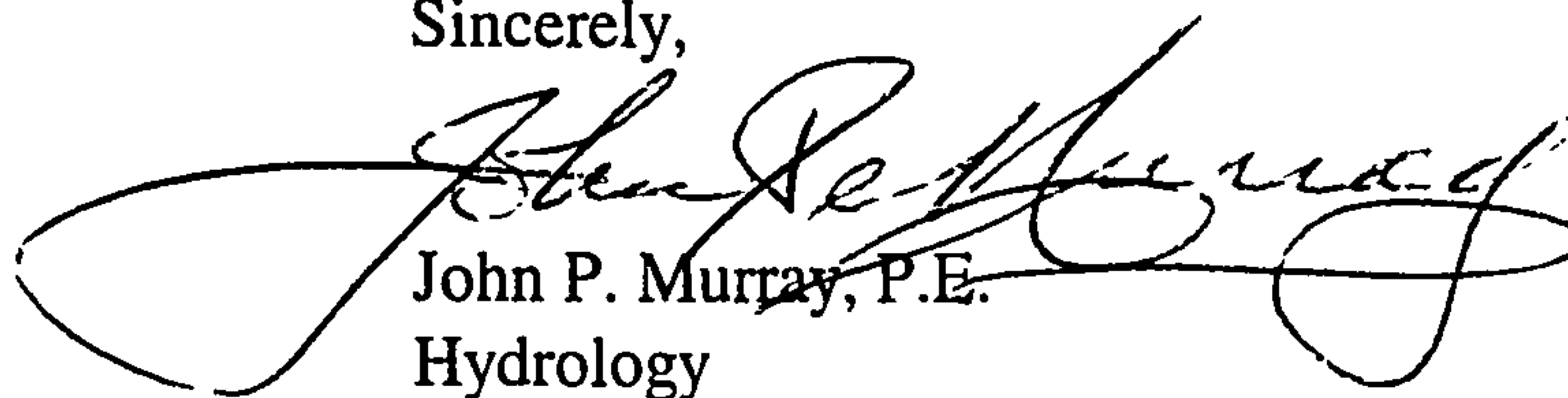
Dear Mr. Kemper:

Based on the information provided on your May 12, 2000 submittal, the above referenced project is approved for Certificate of Occupancy. Building Permit.

This is the first phase of this project. The remainder of the project will reflect the revised G&D Plan stamped February 18, 2000.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,



John P. Murray, P.E.
Hydrology

c) Whitney Reiersen
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Kim Kemper, P.E.
Kemper-Vaughan Consulting Engineers
3700 Coors Rd., NW Suite C
Albuquerque, NM 87120

July 9, 1999

RE: Traffic Circulation Layout Review for Building Permit
Craig Corporation, INC. (D-18/D044) , Not Stamped

Dear Mr. Kemper:

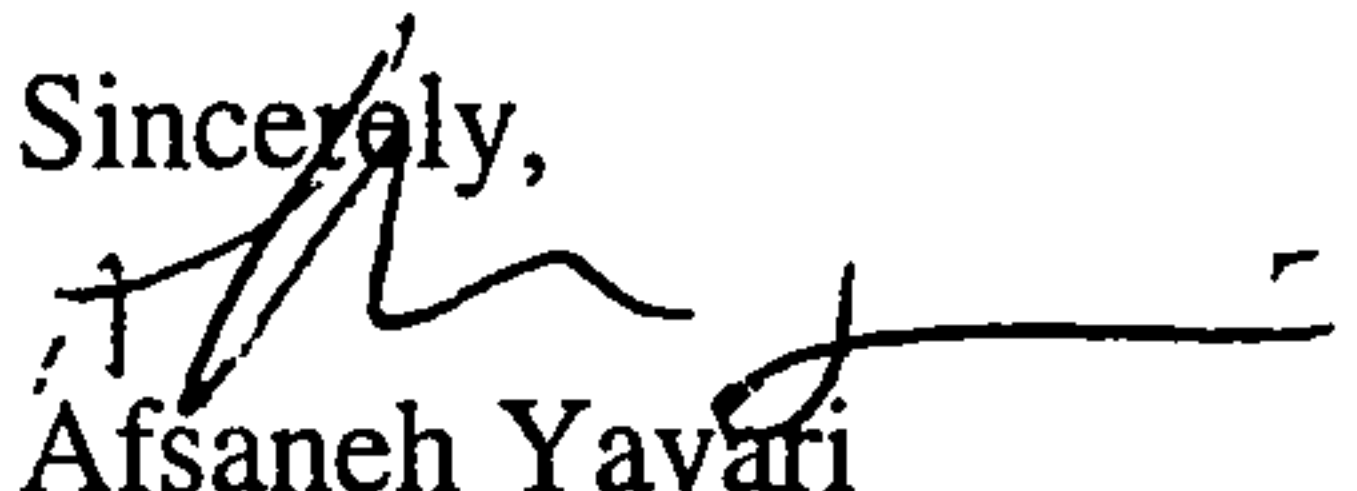
The above referenced Traffic Circulation Layout requires modifications to the site plan prior to review for Building Permit. The comments are indicated in red ink on the attached marked-up site plan.

The engineer's certification required by the Hydrology section needs to include certification that this site was constructed in accordance with the Traffic Circulation Layout (TCL) before C.O. is released.

Please forward the attached marked-up site plan to the Architect, if applicable, and return it with your next submittal. Review for Building Permit will be done upon receipt of the revised site plan, with the attached marked-up site plan.

Please call me at 924-3993 to set up a meeting to discuss this project.

Sincerely,


Afsaneh Yavari
Associate Engineer

Attachments



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 14, 1999

Kim Kemper, P.E.
Kemper-Vaughan
3700 Coors Road NW
Suite C
Albuquerque, NM 87120

RE: CRAIG CORPORATION, INC., NORTH ALBQ ACRES (D18-D44). GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED JUNE 8, 1999.

Dear Mr. Kemper:

Based on the information provided on your June 8, 1999 submittal, the above referenced project is approved for Building Permit. Please add a signature block for City Storm Maintenance.

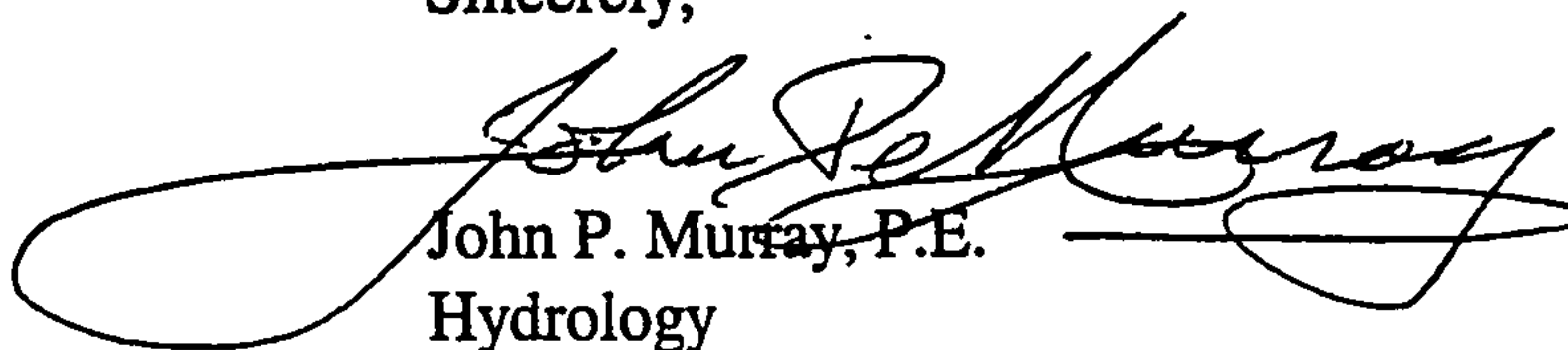
Transportation has reviewed the T.C.L. Please continue to coordinate the G&D Plan with it.

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

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be Required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,


John P. Murray, P.E.
Hydrology

✓c: File

CALCULATIONS: AREA = 4.00 ac.

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

| | | | |
|-------------|----------|------|---------|
| TREATMENT A | 0.66 in. | 1.87 | cfs/ac. |
| TREATMENT B | 0.92 in. | 2.60 | cfs/ac. |
| TREATMENT C | 1.29 in. | 3.45 | cfs/ac. |
| TREATMENT D | 2.36 in. | 5.02 | cfs/ac. |

EXISTING CONDITIONS:

AREA

| | |
|-------------|----------|
| TREATMENT A | 0.00 ac. |
| TREATMENT B | 0.00 ac. |
| TREATMENT C | 4.00 ac. |
| TREATMENT D | 0.00 ac. |

PROPOSED CONDITIONS:

AREA

| |
|----------|
| 0.00 ac. |
| 0.52 ac. |
| 0.00 ac. |
| 3.48 ac. |

EXISTING EXCESS PRECIPITATION:

$$\begin{aligned}\text{Weighted E} &= (0.66)(0.00) + (0.92)(0.00) + (1.29)(4.00) + (2.36)(0.00) / 4.00 \text{ ac.} \\ &= 1.29 \text{ in.} \\ \text{V100-360} &= (1.29)(4.00) / 12 = 0.430000 \text{ ac-ft} = 18731 \text{ cf}\end{aligned}$$

EXISTING PEAK DISCHARGE:

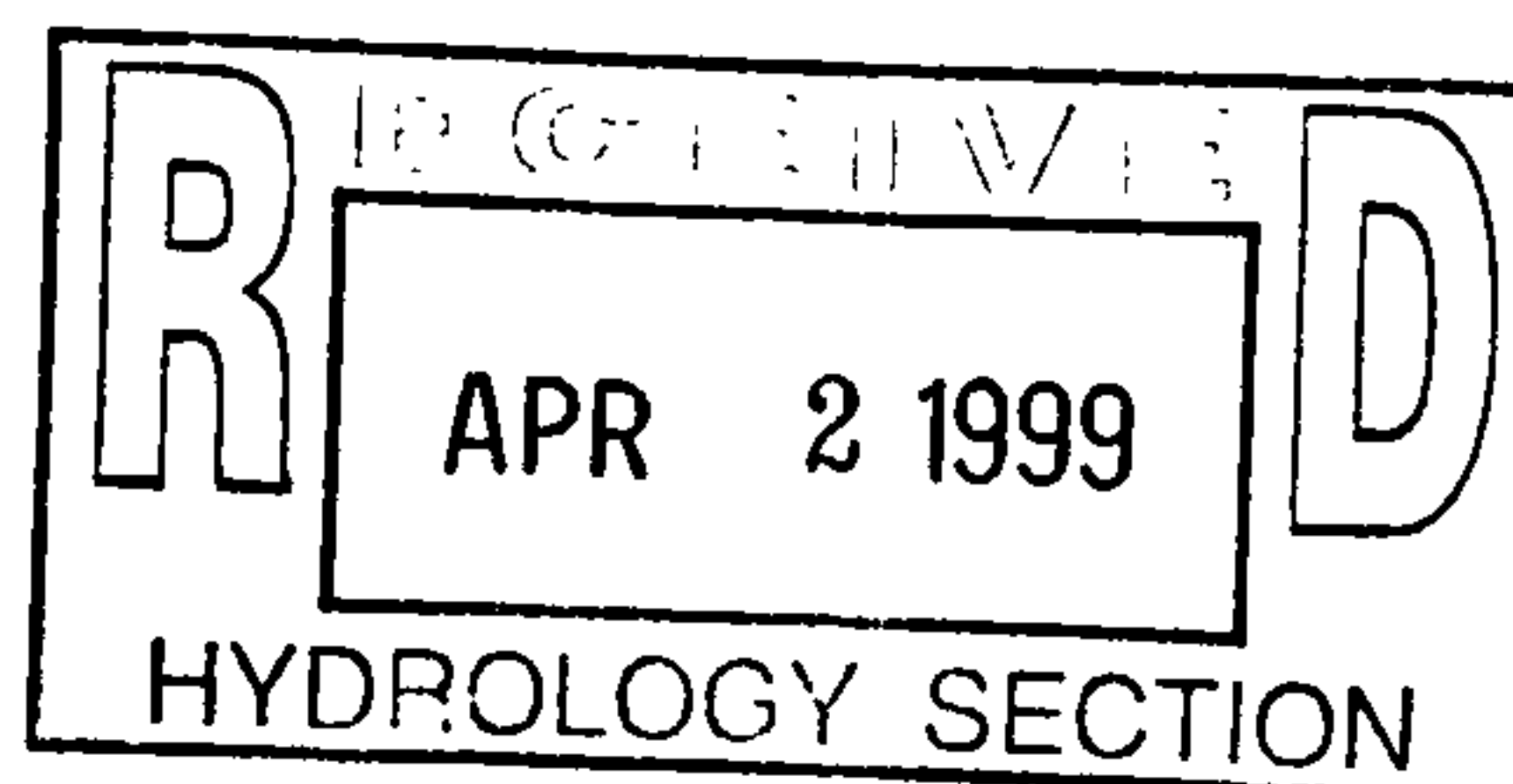
$$Q100 = (1.87)(0.00) + (2.60)(0.00) + (3.45)(4.00) + (5.02)(0.00) = 13.80 \text{ cfs}$$

PROPOSED EXCESS PRECIPITATION:

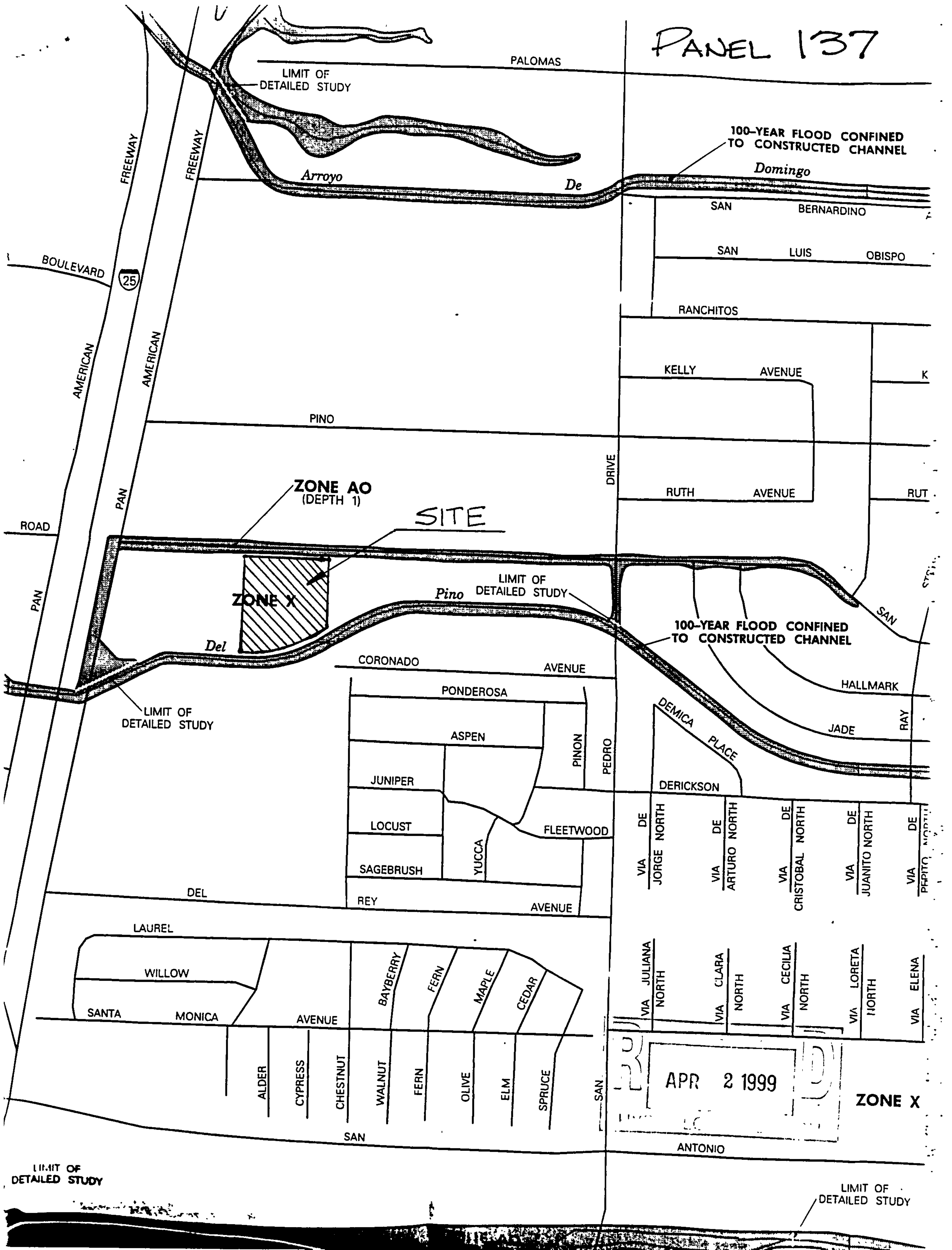
$$\begin{aligned}\text{Weighted E} &= (0.66)(0.00) + (0.92)(0.52) + (1.29)(0.00) + (2.36)(3.48) / 4.00 \text{ ac.} \\ &= 2.17 \text{ in.} \\ \text{V100-360} &= (2.17)(4.00) / 12.0 = 0.724267 \text{ ac-ft} = 31549 \text{ cf} \\ \text{V100-1440} &= (0.72) + (3.48)(3.10 - 2.60) / 12 = 0.869267 \text{ ac-ft} = 37865 \text{ cf} \\ \text{V100-10day} &= (0.72) + (3.48)(4.90 - 2.60) / 12 = 1.391267 \text{ ac-ft} = 60604 \text{ cf}\end{aligned}$$

PROPOSED PEAK DISCHARGE:

$$Q100 = (1.87)(0.00) + (2.60)(0.52) + (3.45)(0.00) + (5.02)(3.48) = 18.82 \text{ cfs}$$



PANEL 137



SAN FRANCISCO OFFICE/WAREHOUSE

GRADING PLAN & DRAINAGE PLAN

February 18, 2000

Prepared for:

Craig Corporation, Inc.

8401 Jefferson ST., N.E.

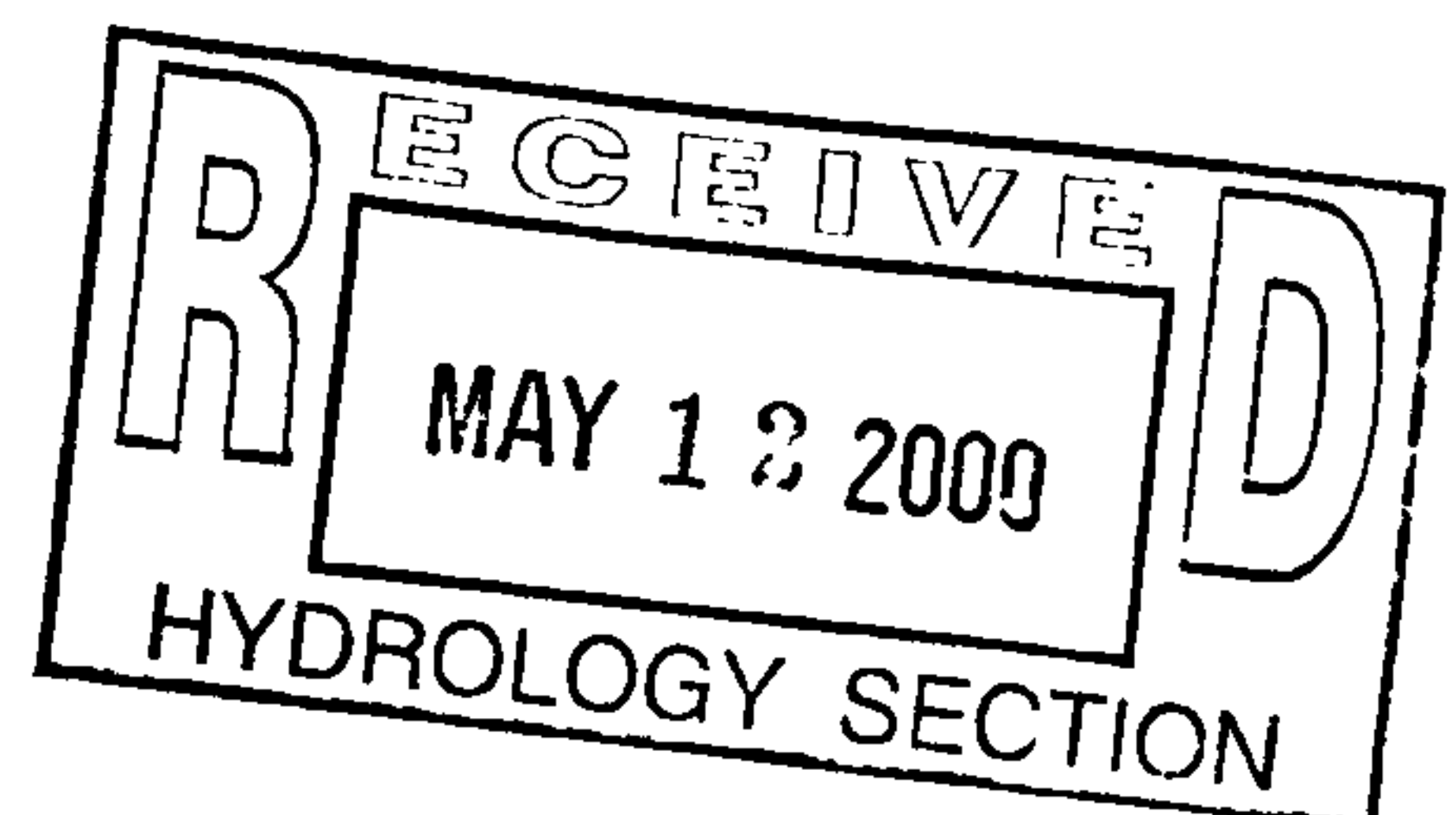
Albuquerque, New Mexico 87113

Prepared by:

KEMPER-VAUGHAN CONSULTING ENGINEERS

3700 Coors Road NW

Albuquerque, New Mexico 87120



LEGAL DESCRIPTION:

Tract Y-A-2, Block 6, Tract A, Unit A, North Albuquerque Acres

FLOOD BOUNDARY:

Attached is a copy of Panel 137 of the FIRM map. As shown, this site is adjacent to but not within a designated flood hazard area.

DRAINAGE PLAN:

This submittal is a revision to a grading and drainage plan submitted for building permit originally submitted and approved in June 1999, City file D18-D44.

During the construction of this facility the site was revised to include dock-high access to the proposed buildings at two separate locations (northern units). The location of this dock access is shown on the revised grading plan. To accommodate this revision it required that the site grading be revised and that sumps be installed to permit the evacuation of storm waters. The overall drainage scheme to drain the site to the existing channel side inlet at the southwest corner of the property has not changed. Further, the pre- and post development calculations for the entire site have not been revised. The result of the requirement for the sump areas will actually minimally reduce the peak rate of discharge from the site; however, the area affected are so small they do not practically impact the overall calculation.

CALCULATIONS:

Attached are calculations analyzing both the existing and developed conditions for the total site as well as calculations for those areas contributing to the sump areas. All calculations are in accordance with City of Albuquerque DPM, Section 22.2

Note that the grading plan provides that the sump area will breach through the drive lanes should a pump failure occur to avoid flooding of any building. Further, the sump pumps are automated to provide for operation at any time of day. The maximum depth of standing water should a pump failure occur would be 1.7 ft.

Attached are copies of the proposed pump specification and the pump curve. Plotted on the pump curve are two(2) system curves which represent how the pump will operate in this installation (depending on the surface water elevation). The total "sump area" represents approximately 1,900 cf. (volumes in excess of 1,900 cf. will breach the "sump area" and surface flow to the site outfall). The proposed pump will evacuate this volume in approximately 2 hours and 25 minutes.

CALCULATIONS: AREA = 4.03 ac. CRAIG CORPORATION INC. TOTAL SITE

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

| | | | |
|-------------|----------|------|---------|
| TREATMENT A | 0.66 in. | 1.87 | cfs/ac. |
| TREATMENT B | 0.92 in. | 2.60 | cfs/ac. |
| TREATMENT C | 1.29 in. | 3.45 | cfs/ac. |
| TREATMENT D | 2.36 in. | 5.02 | cfs/ac. |

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

| | AREA | AREA |
|-------------|----------|----------|
| TREATMENT A | 0.00 ac. | 0.00 ac. |
| TREATMENT B | 0.00 ac. | 0.29 ac. |
| TREATMENT C | 4.03 ac. | 0.00 ac. |
| TREATMENT D | 0.00 ac. | 3.74 ac. |

EXISTING EXCESS PRECIPITATION:

$$\begin{aligned} \text{Weighted E} &= (0.66) \times (0.00) + (0.92) \times (0.00) + (1.29) \times (4.03) + (2.36) \times (0.00) / 4.03 \text{ ac.} \\ &= 1.29 \text{ in.} \\ \text{V100-360} &= (1.29) \times (4.03) / 12 = 0.433225 \text{ ac-ft} = 18871 \text{ cf} \end{aligned}$$

EXISTING PEAK DISCHARGE:

$$\text{Q100} = (1.87) \times (0.00) + (2.60) \times (0.00) + (3.45) \times (4.03) + (5.02) \times (0.00) = 13.90 \text{ cfs}$$

PROPOSED EXCESS PRECIPITATION:

$$\begin{aligned} \text{Weighted E} &= (0.66) \times (0.00) + (0.92) \times (0.29) + (1.29) \times (0.00) + (2.36) \times (3.74) / 4.03 \text{ ac.} \\ &= 2.26 \text{ in.} \\ \text{V100-360} &= (2.26) \times (4.03) / 12.0 = 0.757767 \text{ ac-ft} = 33008 \text{ cf} \\ \text{V100-1440} &= (0.76) + (3.74) \times (3.10 - 2.60) / 12 = 0.913600 \text{ ac-ft} = 39796 \text{ cf} \\ \text{V100-10day} &= (0.76) + (3.74) \times (4.90 - 2.60) / 12 = 1.474600 \text{ ac-ft} = 64234 \text{ cf} \end{aligned}$$

PROPOSED PEAK DISCHARGE:

$$\text{Q100} = (1.87) \times (0.00) + (2.60) \times (0.29) + (3.45) \times (0.00) + (5.02) \times (3.74) = 19.53 \text{ cfs}$$

NOTE: 1. As shown on Panel 137 this site does not lie within a designated 100-yr flood hazard area.
2. AMAFCA has advised that the channel at the rear of the property is not within their jurisdiction.
As such a signature block for AMAFCA has not been included.

CALCULATIONS: AREA = 0.15 ac.

CRAIG CORPORATION INC. EAST SUMP AREA

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

| | | | |
|-------------|----------|------|---------|
| TREATMENT A | 0.66 in. | 1.87 | cfs/ac. |
| TREATMENT B | 0.92 in. | 2.60 | cfs/ac. |
| TREATMENT C | 1.29 in. | 3.45 | cfs/ac. |
| TREATMENT D | 2.36 in. | 5.02 | cfs/ac. |

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

| | AREA | AREA |
|-------------|----------|----------|
| TREATMENT A | 0.00 ac. | 0.00 ac. |
| TREATMENT B | 0.00 ac. | 0.00 ac. |
| TREATMENT C | 0.15 ac. | 0.00 ac. |
| TREATMENT D | 0.00 ac. | 0.15 ac. |

EXISTING EXCESS PRECIPITATION:

$$\begin{aligned}\text{Weighted E} &= (0.66) \times (0.00) + (0.92) \times (0.00) + (1.29) \times (0.15) + (2.36) \times (0.00) / 0.15 \text{ ac.} \\ &= 1.29 \text{ in.} \\ \text{V100-360} &= (1.29) \times (0.15) / 12 = 0.016125 \text{ ac-ft} = 702 \text{ cf}\end{aligned}$$

EXISTING PEAK DISCHARGE:

$$Q100 = (1.87) \times (0.00) + (2.60) \times (0.00) + (3.45) \times (0.15) + (5.02) \times (0.00) = 0.52 \text{ cfs}$$

PROPOSED EXCESS PRECIPITATION:

$$\begin{aligned}\text{Weighted E} &= (0.66) \times (0.00) + (0.92) \times (0.00) + (1.29) \times (0.00) + (2.36) \times (0.15) / 0.15 \text{ ac.} \\ &= 2.36 \text{ in.} \\ \text{V100-360} &= (2.36) \times (0.15) / 12.0 = 0.029500 \text{ ac-ft} = 1285 \text{ cf} \\ \text{V100-1440} &= (0.03) + (0.15) \times (3.10 - 2.60) / 12 = 0.035750 \text{ ac-ft} = 1557 \text{ cf} \\ \text{V100-10day} &= (0.03) + (0.15) \times (4.90 - 2.60) / 12 = 0.058250 \text{ ac-ft} = 2537 \text{ cf}\end{aligned}$$

PROPOSED PEAK DISCHARGE:

$$Q100 = (1.87) \times (0.00) + (2.60) \times (0.00) + (3.45) \times (0.00) + (5.02) \times (0.15) = 0.75 \text{ cfs}$$

CALCULATIONS: AREA = 0.14 ac.

CRAIG CORPORATION INC. WEST SUMP AREA

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

| | | | |
|-------------|----------|------|---------|
| TREATMENT A | 0.66 in. | 1.87 | cfs/ac. |
| TREATMENT B | 0.92 in. | 2.60 | cfs/ac. |
| TREATMENT C | 1.29 in. | 3.45 | cfs/ac. |
| TREATMENT D | 2.36 in. | 5.02 | cfs/ac. |

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

| | AREA | AREA |
|-------------|----------|----------|
| TREATMENT A | 0.00 ac. | 0.00 ac. |
| TREATMENT B | 0.00 ac. | 0.00 ac. |
| TREATMENT C | 0.14 ac. | 0.00 ac. |
| TREATMENT D | 0.00 ac. | 0.14 ac. |

EXISTING EXCESS PRECIPITATION:

Weighted E = $(0.66) \times (0.00) + (0.92) \times (0.00) + (1.29) \times (0.14) + (2.36) \times (0.00) / 0.14 \text{ ac.}$
= 1.29 in.
 $V_{100-360} = (1.29) \times (0.14) / 12 = 0.015050 \text{ ac-ft} = 656 \text{ cf}$

EXISTING PEAK DISCHARGE:

$Q_{100} = (1.87) \times (0.00) + (2.60) \times (0.00) + (3.45) \times (0.14) + (5.02) \times (0.00) = 0.48 \text{ cfs}$

PROPOSED EXCESS PRECIPITATION:

Weighted E = $(0.66) \times (0.00) + (0.92) \times (0.00) + (1.29) \times (0.00) + (2.36) \times (0.14) / 0.14 \text{ ac.}$
= 2.36 in.

$V_{100-360} = (2.36) \times (0.14) / 12.0 = 0.027533 \text{ ac-ft} = 1199 \text{ cf}$

$V_{100-1440} = (0.03) + (0.14) \times (3.10 - 2.60) / 12 = 0.033367 \text{ ac-ft} = 1453 \text{ cf}$

$V_{100-10\text{day}} = (0.03) + (0.14) \times (4.90 - 2.60) / 12 = 0.054367 \text{ ac-ft} = 2368 \text{ cf}$

PROPOSED PEAK DISCHARGE:

$Q_{100} = (1.87) \times (0.00) + (2.60) \times (0.00) + (3.45) \times (0.00) + (5.02) \times (0.14) = 0.70 \text{ cfs}$

CALCULATIONS: AREA = 4.03 ac.

CRAIG CORPORATION INC. 6/8/99

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

| | | | |
|-------------|----------|------|---------|
| TREATMENT A | 0.66 in. | 1.87 | cfs/ac. |
| TREATMENT B | 0.92 in. | 2.60 | cfs/ac. |
| TREATMENT C | 1.29 in. | 3.45 | cfs/ac. |
| TREATMENT D | 2.36 in. | 5.02 | cfs/ac. |

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

| | AREA | AREA |
|-------------|----------|----------|
| TREATMENT A | 0.00 ac. | 0.00 ac. |
| TREATMENT B | 0.00 ac. | 0.29 ac. |
| TREATMENT C | 4.03 ac. | 0.00 ac. |
| TREATMENT D | 0.00 ac. | 3.74 ac. |

EXISTING EXCESS PRECIPITATION:

$$\begin{aligned}\text{Weighted E} &= (0.66) \times (0.00) + (0.92) \times (0.00) + (1.29) \times (4.03) + (2.36) \times (0.00) / 4.03 \text{ ac.} \\ &= 1.29 \text{ in.} \\ \text{V100-360} &= (1.29) \times (4.03) / 12 = 0.433225 \text{ ac-ft} = 18871 \text{ cf}\end{aligned}$$

EXISTING PEAK DISCHARGE:

$$Q100 = (1.87) \times (0.00) + (2.60) \times (0.00) + (3.45) \times (4.03) + (5.02) \times (0.00) = 13.90 \text{ cfs}$$

PROPOSED EXCESS PRECIPITATION:

$$\begin{aligned}\text{Weighted E} &= (0.66) \times (0.00) + (0.92) \times (0.29) + (1.29) \times (0.00) + (2.36) \times (3.74) / 4.03 \text{ ac.} \\ &= 2.26 \text{ in.} \\ \text{V100-360} &= (2.26) \times (4.03) / 12.0 = 0.757767 \text{ ac-ft} = 33008 \text{ cf}\end{aligned}$$

$$\text{V100-1440} = (0.76) + (3.74) \times (3.10 - 2.60) / 12 = 0.913600 \text{ ac-ft} = 39796 \text{ cf}$$

$$\text{V100-10day} = (0.76) + (3.74) \times (4.90 - 2.60) / 12 = 1.474600 \text{ ac-ft} = 64234 \text{ cf}$$

PROPOSED PEAK DISCHARGE:

$$Q100 = (1.87) \times (0.00) + (2.60) \times (0.29) + (3.45) \times (0.00) + (5.02) \times (3.74) = 19.53 \text{ cfs}$$

NOTE: 1. As shown on Panel 137 this site does not lie within a designated 100-yr flood hazard area.
2. AMAFCA has advised that the channel at the rear of the property is not within their jurisdiction.
As su