

CITY OF ALBUQUERQUE



November 16, 2010

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio—Unit # 03 & #4, 11036 & 11032 Fort Point Lane NE,
Request for Permanent Certificate of Occupancy (C.O.), - Approved
Engineer's Stamp dated: 2-26-07 (K-21/D009H)
Certification dated: 11-16-10**

Dear Mr. Arfman:

Based upon the information provided in your submittal received 11-16-10, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Timothy E. Sims
Plan Checker
Development and Building Services

C: CO Clerk – Katrina Sigala
File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio
DRB #: 1000572 EPC #: _____

ZONE MAP / DRG. FILE #: K-21 / D009H
WORK ORDER #: _____

LEGAL DESCRIPTION: Presidio, Tract C, Condo #3 & #4
CITY ADDRESS: 11036 & 11032 Fort Point Ln NE

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman
PHONE: 268-8828
ZIP CODE: 87108

OWNER: Centex Homes
ADDRESS: 5120 Masthead St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Larry Cantor
PHONE: 341-8547
ZIP CODE: 87109

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc.
ADDRESS: 9384 Valley View Dr. NW
CITY, STATE: Albuquerque, NM

CONTACT: Russ P. Hugg
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST *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

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 APPR.
☐ 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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

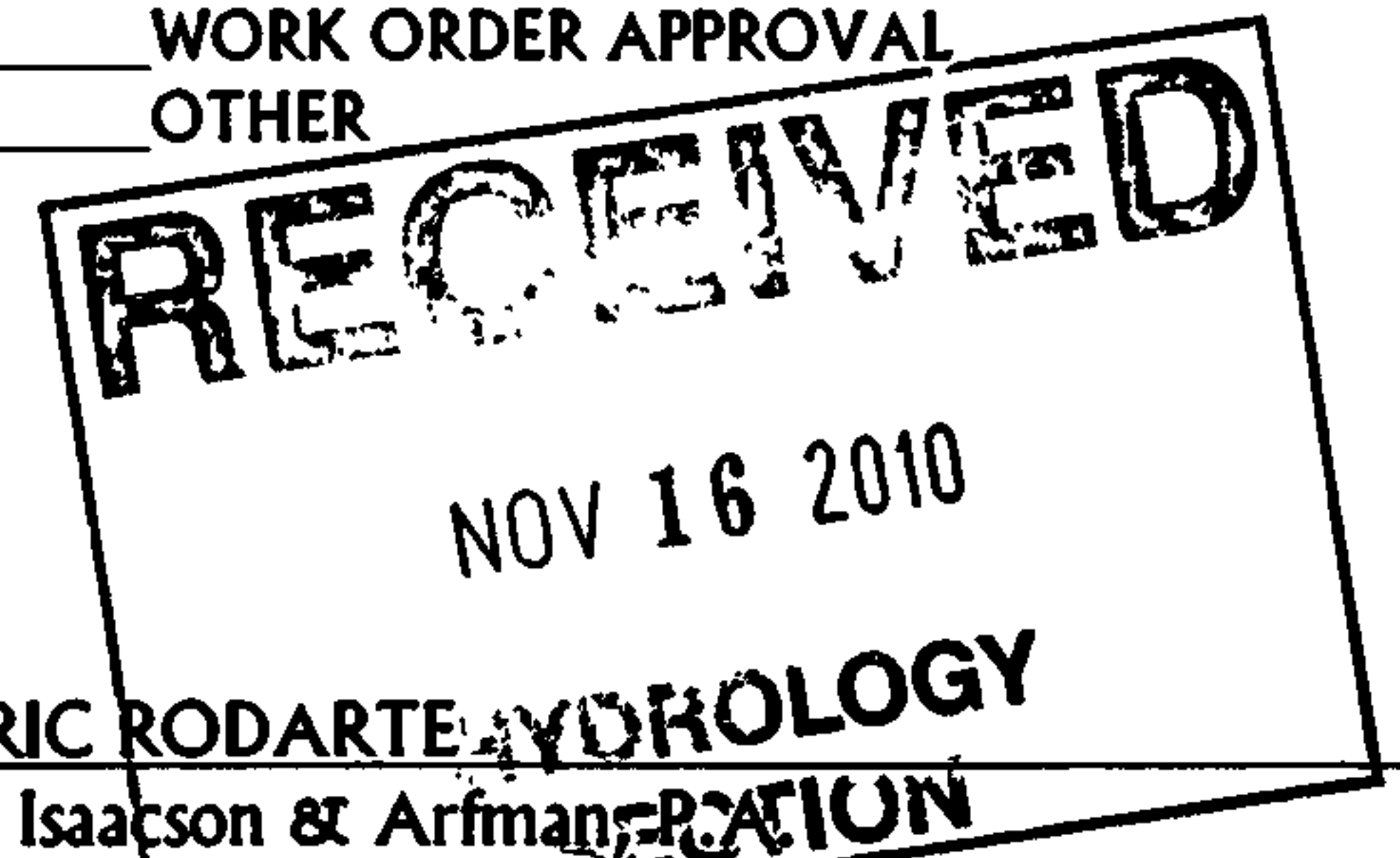
☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: Tuesday, November 16, 2010

BY: RIC RODARTE
for Isaacson & Arfman, P.A.

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 on the following:

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



CITY OF ALBUQUERQUE



December 15, 2010

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio—Unit # 01 & #2, 11044 & 11040 Fort Point Lane NE,
Request for Permanent Certificate of Occupancy (C.O.), - Approved
Engineer's Stamp dated: 2-26-07 (K-21/D009H)
Certification dated: 12-14-10**

Dear Mr. Arfman:

Based upon the information provided in your submittal received 12-14-10, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Timothy E. Sims
Plan Checker
Development and Building Services

C: CO Clerk – Katrina Sigala
File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio
DRB #: 1000572 EPC #: _____

ZONE MAP / DRG. FILE #: K-21 / D009H
WORK ORDER #: _____

LEGAL DESCRIPTION: Presidio, Tract C, Condo #1 & #2
CITY ADDRESS: 11044 & 11040 Fort Point Ln NE

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman
PHONE: 268-8828
ZIP CODE: 87108

OWNER: Centex Homes
ADDRESS: 5120 Masthead St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Larry Cantor
PHONE: 341-8547
ZIP CODE: 87109

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc.
ADDRESS: 9384 Valley View Dr. NW
CITY, STATE: Albuquerque, NM

CONTACT: Russ P. Hugg
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST *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

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 APPR.
☐ 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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

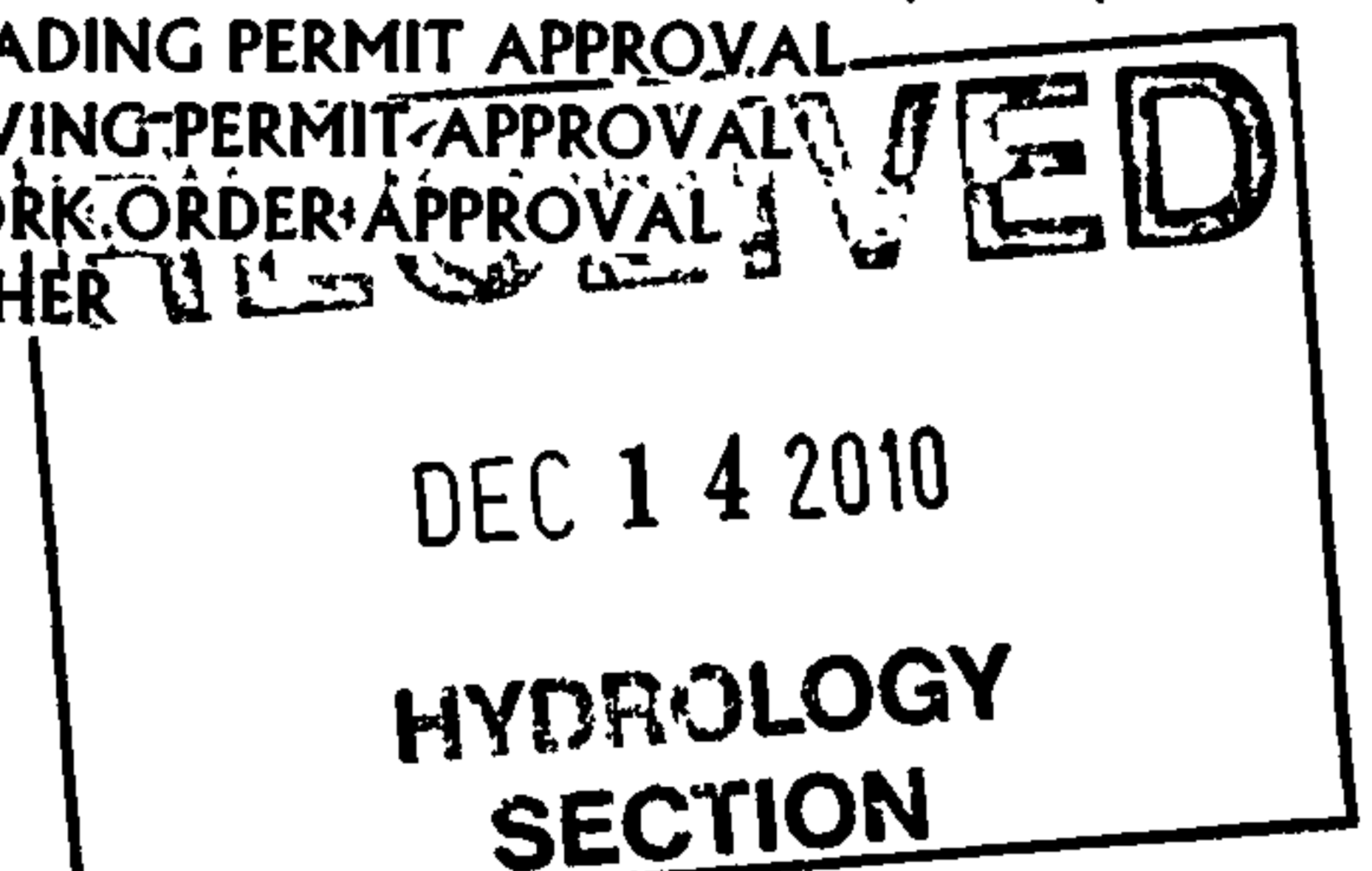
- ☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: Tuesday, December 14, 2010

BY: RIC RODARTE
for Isaacson & Arfman, P.A.

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 on the following:

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



CITY OF ALBUQUERQUE



May 20, 2010

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio—Unit # 05, 11028 Fort Point Lane NE,
Approval of Permanent Certificate of Occupancy (C.O.),
Engineer's Stamp dated 2-26-07 (K-21/D009H)
Certification dated: 5-13-09**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 7-14-10, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

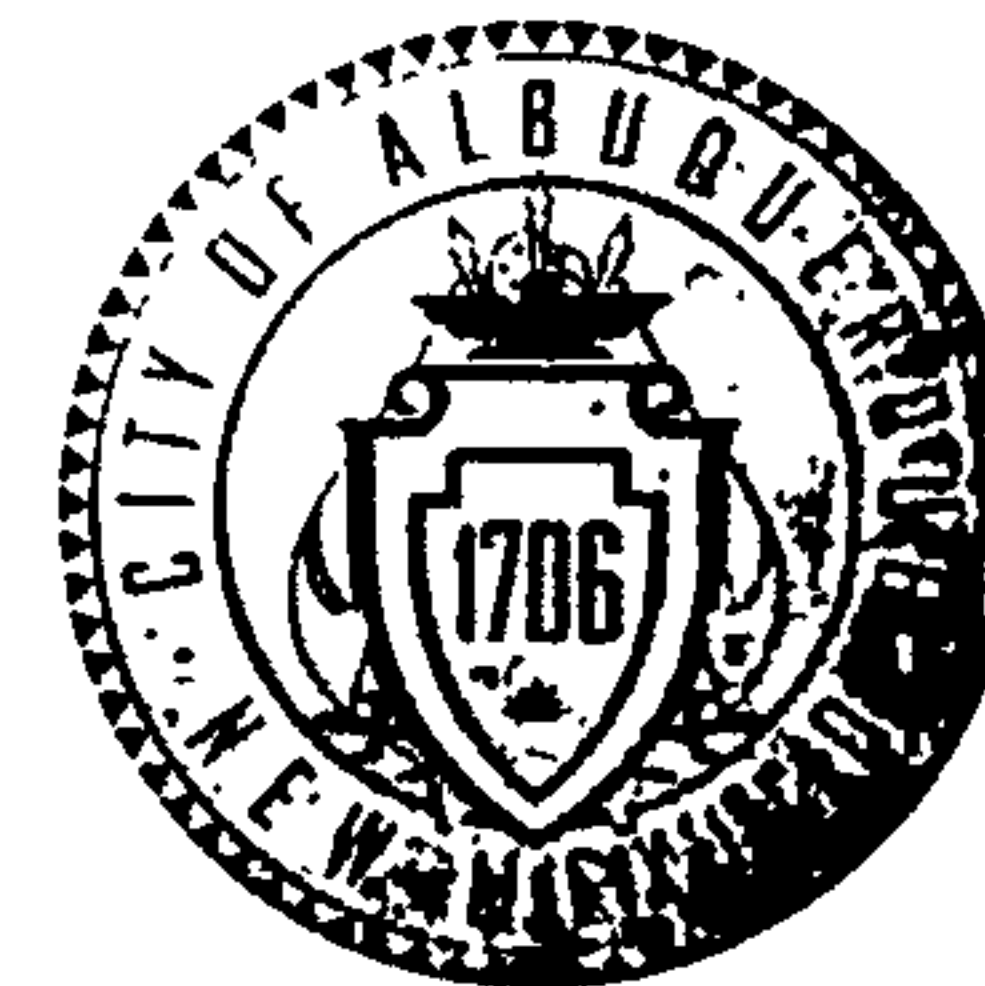
Sincerely,

Timothy E. Sims
Plan Checker
Development and Building Services

www.cabq.gov

C: CO Clerk – Katrina Sigala
File

CITY OF ALBUQUERQUE



July 15, 2009

Asa M. Nilson-Webber, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio Unit 1, Tract J- Replat, Lots 88-95, Grading Plan
Certification & Final Plat Approval, Engineer's Stamp, 06/19/2009,
(K-21/D009H)**

Dear Mrs. Webber,

PO Box 1293

Thank you for providing an Engineer Certification for the Grading/Drainage Plan, received on 7-13-09, for the above referenced plan. It will be placed in the project file.

Albuquerque

This plan is also approved for final plat sign off through DRB.

NM 87103

If you have any questions, I can be contacted at 924-3982.

www.cabq.gov

Sincerely,

Timothy E. Sims
Plan Checker, Planning Dept.-Hydrology
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: The Presidio Unit 1, Tact J Replat ZONE MAP/DRG. FILE # K-21 *100914*
DRB#: 1000572 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract J, The Presidio, Unit 1
CITY ADDRESS: _____

ENGINEERING FIRM: ISAACSON & ARFMAN, PA CONTACT: Asa Nilsson-Weber
ADDRESS: 128 MONROE STREET NE PHONE: 268-8828
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87108

OWNER: Centex Homes CONTACT: Ted Lowe
ADDRESS: 7601 Jefferson Street NE, Suite 180 PHONE: 991-2555
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc. CONTACT: Russ Hugg
ADDRESS: 9384 Valley View Drive NW PHONE: 897-3366
CITY, STATE: Albuquerque, NM ZIP CODE: 87114

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) GRADING
CERT

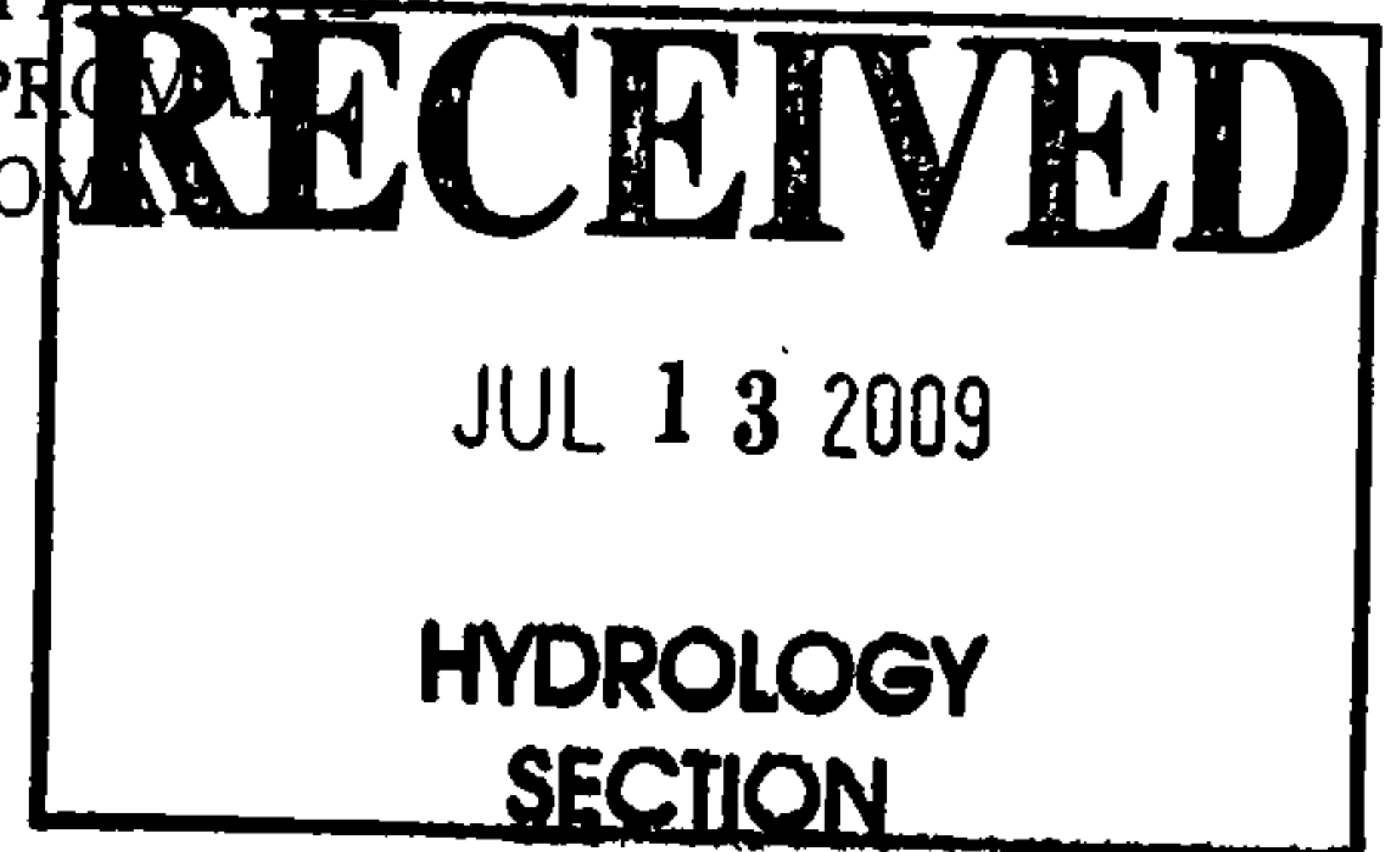
WAS A ~~PRE-DESIGN CONFERENCE~~ sketch plat ATTENDED:

- ☒ YES
☐ NO
☐ COPY PROVIDED

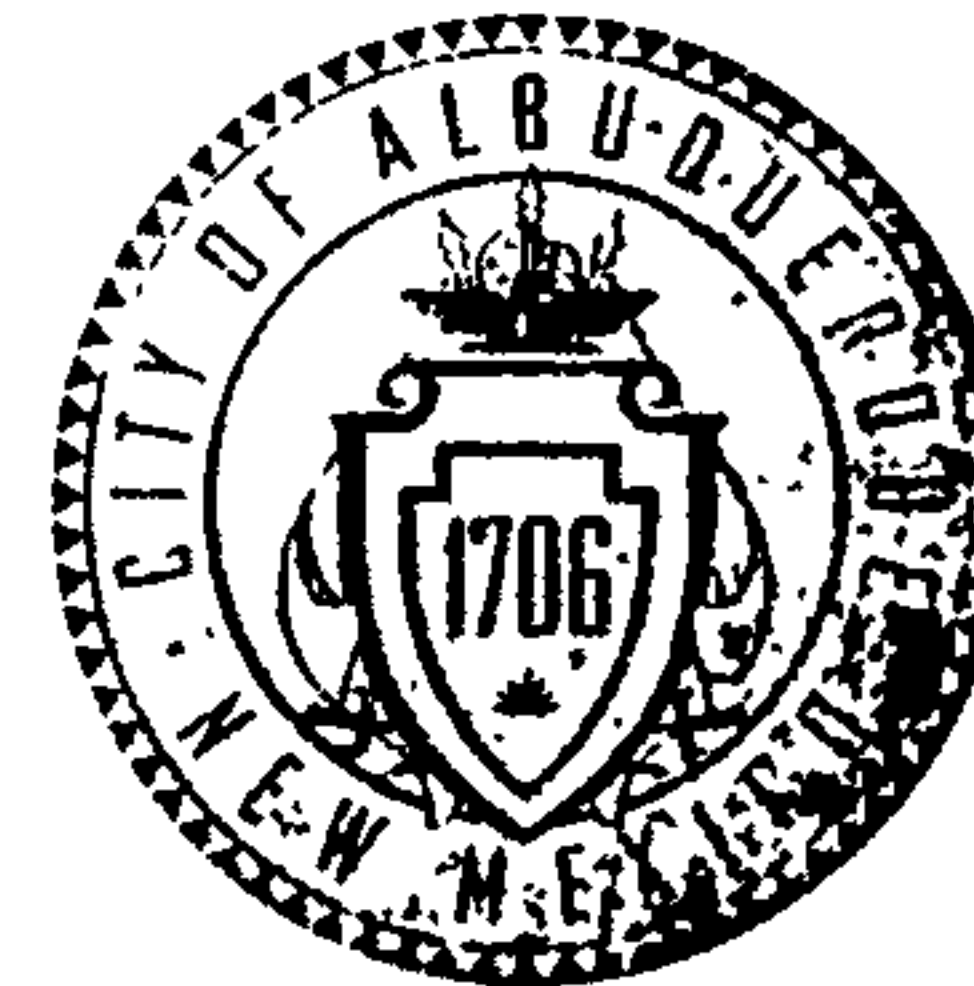
SUBMITTED BY: Asa Nilsson-Weber, PE for Isaacson & Arfman, P.A. DATE: 07.13.09

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.



CITY OF ALBUQUERQUE



May 5, 2008

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio-Club House, 10835 Arguello Trail NE,
Approval of Permanent Certificate of Occupancy (C.O.),
Engineer's Stamp dated 4-04-07 (K-21/D009H)
Certification dated 5-02-08**

Mr. Arfman:

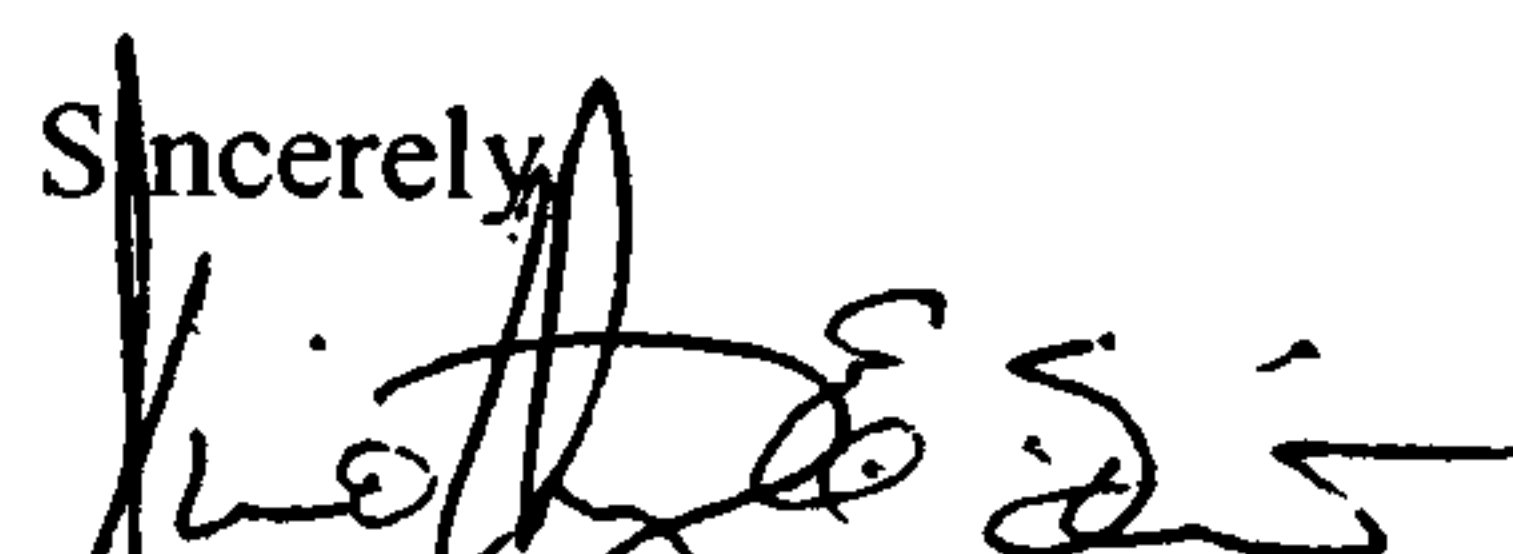
PO Box 1293

Based upon the information provided in your submittal received 5-2-08, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

Sincerely,

Timothy E. Sims

www.cabq.gov

Plan Checker
Development and Building Services

C: CO Clerk – Katrina Sigala
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio - Clubhouse ZONE MAP / DRG. FILE #: K-21/D9H
DRB #: 1000572 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Lots 3, 7, & 8, Lenkurt Properties
CITY ADDRESS: _____

ENGINEERING FIRM: Isaacson & Arfman Engineering, Assoc. CONTACT: Fred C. Arfman
ADDRESS: 128 Monroe St. NE PHONE: 268-8828
CITY, STATE: Albuquerque, NM ZIP CODE: 87108

OWNER: Centex Homes CONTACT: Lisa Donahue
ADDRESS: 4110 Wolcott NE, Suite B PHONE: 923-1826
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc. CONTACT: Russ P. Hugg
ADDRESS: 9384 Valley View Dr. SW PHONE: 897-3366
CITY, STATE: Albuquerque, NM ZIP CODE: 87114

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST *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

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 APPR.
☐ 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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: Friday, May 02, 2008

BY: Fred Arfman

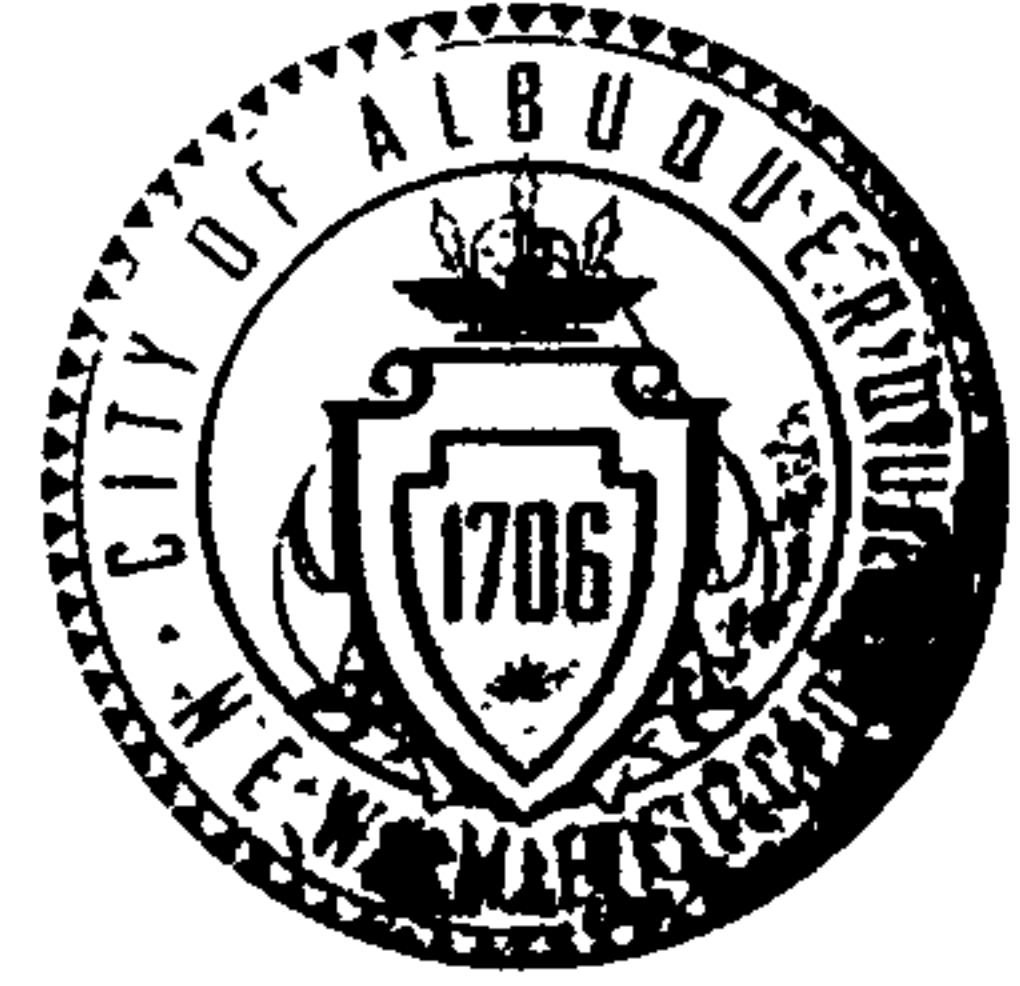
for Isaacson & Arfman, P.A.

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 on the following:

1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five acres and Sector Plans
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3. Drainage Report: Required for subdivisions containing more than ten (10) lots or constituting five acres or more.



CITY OF ALBUQUERQUE



May 1, 2009

Asa M. Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: The Presidio Unit 1 Replat of Tract C Grading Plan
Engineer's Stamp dated 4-17-09 (K21/D009H)**

Dear Ms. Nilsson-Weber,

Based upon the information provided in your submittal received 4-17-09 and phone conversation 4-28-09, in which the grades surrounding the proposed buildings were confirmed as as-built grades, the above referenced plan is approved for platting action by the DRB.

Once that board approves the Grading Plan, please submit a mylar copy for signature in order to obtain a Rough Grading Permit.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cheme P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: file
Brad Bingham

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

CITY OF ALBUQUERQUE



April 21, 2009

Asa M. Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: The Presidio Unit 1 Replat of Tract C Grading Plan
Engineer's Stamp dated 4-17-09 (K21/D009H)**

Dear Ms. Nilsson-Weber,

Based upon the information provided in your submittal received 4-17-09, the above referenced plan cannot be approved for platting action by the DRB until the following comment is addressed:

PO Box 1293

- Fort Pointe Lane and the 20' alley east of this area have already been built. Provide as-built grades in Fort Point Lane, the alley, and in the parking areas north and south of this area.

Albuquerque

If you have any questions, you can contact me at 924-3695.

NM 87103

Sincerely,

Curtis A. Cherne P.E.
Senior Engineer, Planning Dept.
Development and Building Services

www.cabq.gov

C: file
Brad Bingham

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: The Presidio, Unit 1
TRACT C Replat ZONE MAP/DRG. FILE # K-21/D009H
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Exst: Tract C, The Presidio, Unit 1
CITY ADDRESS: _____

ENGINEERING FIRM: ISAACSON & ARFMAN, PA
ADDRESS: 128 MONROE NE
CITY, STATE: ALBUQUERQUE, NM

CONTACT: Asa Nilsson-Weber
PHONE: 268-8828
ZIP CODE: 87108

OWNER: Centex Homes
ADDRESS: 7661 Jefferson St NE Ste 320
CITY, STATE: Albuquerque, NM

CONTACT: Ted Lowe ○
PHONE: 991-2555
ZIP CODE: 87109

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Surv Tek
ADDRESS: 9384 Valley View Dr NW
CITY, STATE: Albuquerque, NM

CONTACT: Russ Hugg
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

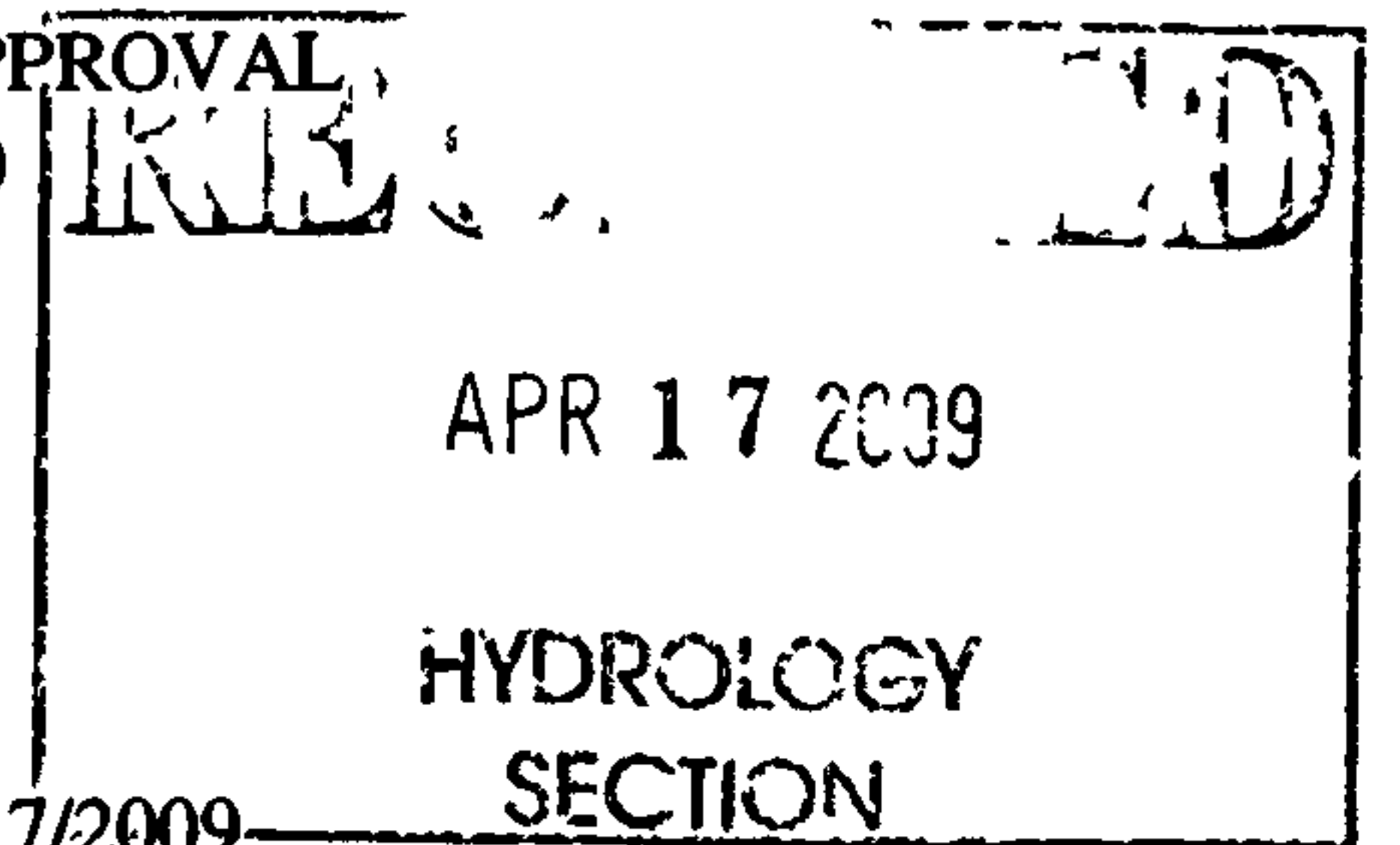
☐ SIA/FINANCIAL GUARANTEE RELEASE
☒ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☒ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM)
☐ CERTIFICATE OF OCCUPANCY (TEMP)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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☐ NO
☐ COPY PROVIDED

SUBMITTED BY: Asa Nilsson-Weber
Isaacson & Arfman, P.A.

DATE: 4/17/2009



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



June 16, 2009

Asa M. Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: The Presidio Unit 1 Replat of Tract J Drainage and Grading Plan
Engineer's Stamp date 6-8-09 (K21/D009H)**

Dear Ms. Nilsson-Weber,

Based upon the information provided in your submittal received 6-8-09, the above referenced plan cannot be approved for platting action by the DRB until the following comments are addressed:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

- All lots are required to be graded to drain to the street or the alley. The inlets on lots 105 and 106 and a portion of the 8" storm drain are to be removed, especially the section of the storm drain that penetrates the curb at the outfall.
- The curb should be replaced at the 8" storm drain outfall and the section of "arch" concrete over the 8" storm drain removed.
- The proposed sidewalk culverts on lots 105 and 106 should not be required since the lots will drain to the street.
- The storm drain easement for the 8" storm drain may impact the homeowner in the future and therefore should be deleted.
- Provide proposed pad grades. The Existing Pad Grades (EPG) can be provided as an existing condition. The pad grades will have to be certified.
- The Grading Plan for Phase 1 should reflect the site with Phase 2 and Phase 3 not proposed or built. So, in the case where Phase 2 and 3 are not built, the grades in and around Phase 1 will be acceptable. Similar for Phase 2.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne P.E.

Senior Engineer, Planning Dept.

Development and Building Services

C: file
Brad Bingham

CITY OF ALBUQUERQUE



July 15, 2009

Asa M. Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: The Presidio Unit 1 Replat of Tract J Drainage and Grading Plan
Engineer's Stamp date 7-13-09 (K21/D009H)**

Dear Ms. Nilsson-Weber,

Based upon the information provided in your submittal received 7-13-09, the above referenced plan is approved for Preliminary Plat action by the DRB and Grading Permit.

A Certification of the grading plan is required for Final Plat approval.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne P.E.
Senior Engineer, Planning Dept.
Development and Building Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

C: file
Brad Bingham

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: The Presidio Unit 1, Tact J Replat ZONE MAP/DRG. FILE # K-21 *10094*
DRB#: 1000572 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract J, The Presidio, Unit 1
CITY ADDRESS: _____

ENGINEERING FIRM: ISAACSON & ARFMAN, PA CONTACT: Asa Nilsson-Weber
ADDRESS: 128 MONROE STREET NE PHONE: 268-8828
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87108

OWNER: Centex Homes CONTACT: Ted Lowe
ADDRESS: 7601 Jefferson Street NE, Suite 180 PHONE: 991-2555
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc. CONTACT: Russ Hugg
ADDRESS: 9384 Valley View Drive NW PHONE: 897-3366
CITY, STATE: Albuquerque, NM ZIP CODE: 87114

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☒ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

☐ SIA/FINANCIAL GUARANTEE RELEASE
☒ PRELIMINARY PLAT APPROVAL
☐ S DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) _____

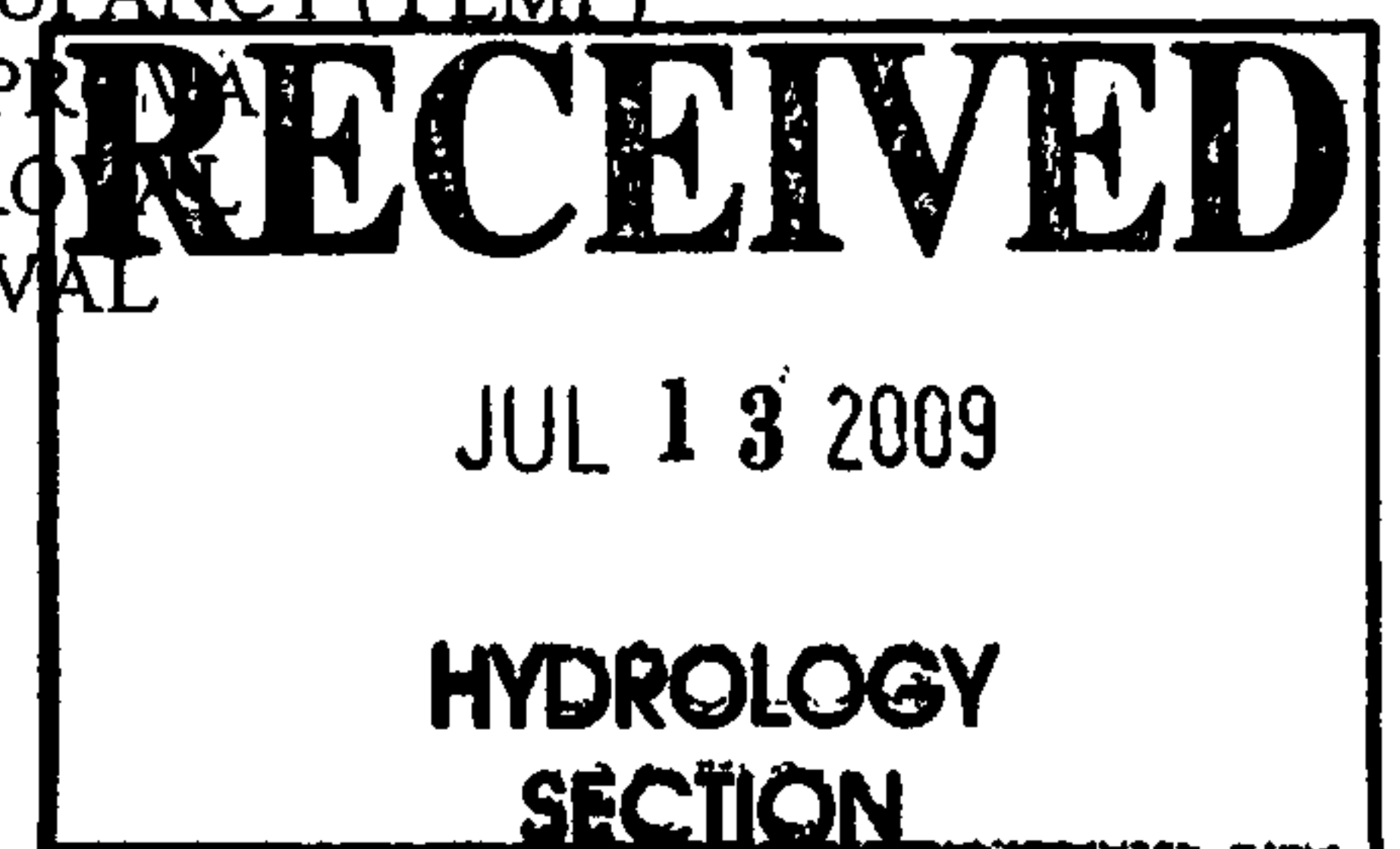
WAS A ~~PRE-DESIGN CONFERENCE~~ *sketch plat* ATTENDED:

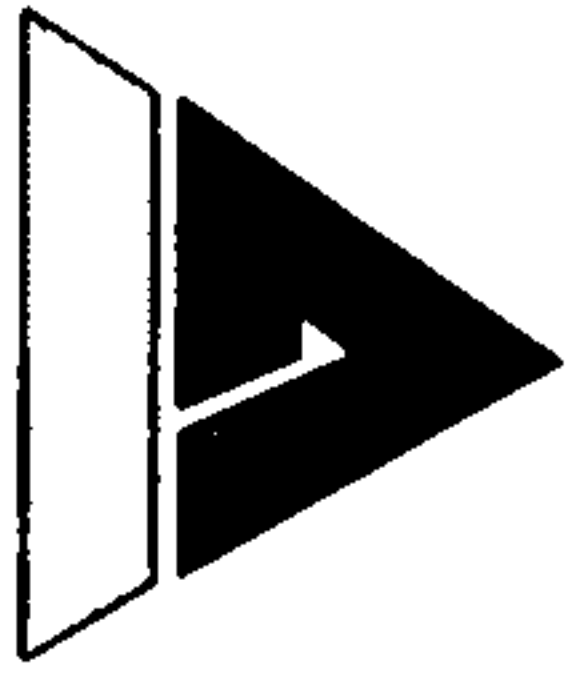
☒ YES
☐ NO
☐ COPY PROVIDED *o*

SUBMITTED BY: Asa Nilsson-Weber DATE: 7/13/09
Asa Nilsson-Weber, PE for Isaacson & Arfman, P A.

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.





PROJECT MEMORANDUM

7/13/09

TO: Curtis Cherne, Development and Building Services, City of Albuquerque

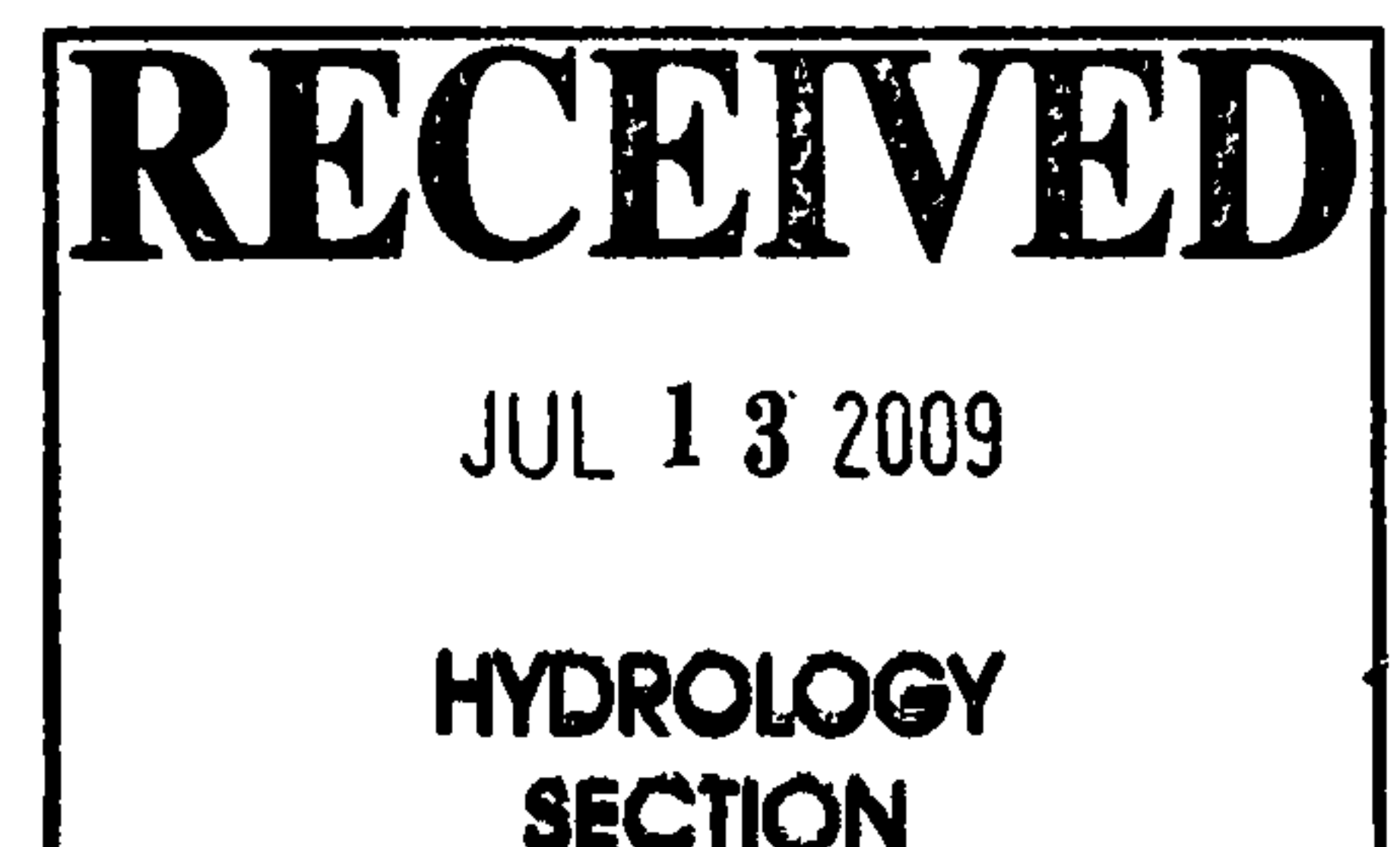
FROM: Åsa Nilsson-Weber, Isaacson & Arfman, P.A.

REF: The Presidio Unit 1 Replat of Tract J
(K21/D009H1) **I&A PROJ NO:** 1720

SUBJ: Revised Grading & Drainage Plan

The following are responses to your comments in your letter dated July 7, 2009

- Note was revised to indicate that the existing storm drain shall be removed (rather than abandoned)
- Flow line elevations for the existing alley were added--lots 101-104 will drain toward the alley.
- Per our phone conversation today, because of the 0' lot line and the street being higher than the lots, the drain is needed. The drain pipes were substituted with a 4" trench drain through the sidewalk. No lots drain toward the front door—there are low points in the sidewalks.
- Pad grade of Lot 96 was corrected (shown 1' too high).



CITY OF ALBUQUERQUE



July 7, 2009

Asa M. Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

Re: The Presidio Unit 1 Replat of Tract J Drainage and Grading Plan
Engineer's Stamp date 6-19-09 (K21/D009H)

Dear Ms. Nilsson-Weber,

Based upon the information provided in your submittal received 6-22-09, the above referenced plan is approved for Preliminary Plat action by the DRB. However, prior to Final Plat approval, the following comments are to be addressed:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

- The existing storm drain should be removed rather than abandoned in place.
- It appears a couple of lots will not drain. The area between Lots 101 and 102 and the area between Lots 103 and 104.
- The front yards of Lots 101 and 102 should drain without requiring 4" drain pipes. ~~In addition, the sidewalks on these lots drain towards the front door.~~
- The Finished Floor elevation of Lot 96 is 0.1 feet below the pad grade. 7-9-09

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: file
Brad Bingham

CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services Section**

May 9, 2008

Fred C. Arfman, P.E.
128 Monroe St. NE
Albuquerque, NM 87108

Re: Certification Submittal for Final Building Certificate of Occupancy for
The Presidio - Clubhouse, [K-21 / D9H]
10835 Arguello Trail NE
Engineer's Stamp Dated 05/09/08

Dear Mr. Arfman:

The TCL / Letter of Certification submitted on May 9, 2008 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,

Milo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio - Clubhouse ZONE MAP / DRG. FILE #: K-21/D9H
 DRB #: 1000572 EPC #: _____ WORK ORDER #: 797481

LEGAL DESCRIPTION: PREVIOUS Lots 3, 7, & 8, Lenkurt Properties, PRESIDIO, UNIT 1
 CITY ADDRESS: 10835 ARGUELLO TRAIL

ENGINEERING FIRM: Isaacson & Arfman Engineering, Assoc. CONTACT: Fred C. Arfman
 ADDRESS: 128 Monroe St. NE PHONE: 268-8828
 CITY, STATE: Albuquerque, NM ZIP CODE: 87108

OWNER: Centex Homes CONTACT: Lisa Donahue
 ADDRESS: 4110 Wolcott NE, Suite B PHONE: 923-1826
 CITY, STATE: Albuquerque, NM ZIP CODE: 87109

ARCHITECT: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc. CONTACT: Russ P. Hugg
 ADDRESS: 9384 Valley View Dr. SW PHONE: 897-3366
 CITY, STATE: Albuquerque, NM ZIP CODE: 87114

CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1ST *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

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 APPR.
- ☐ 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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

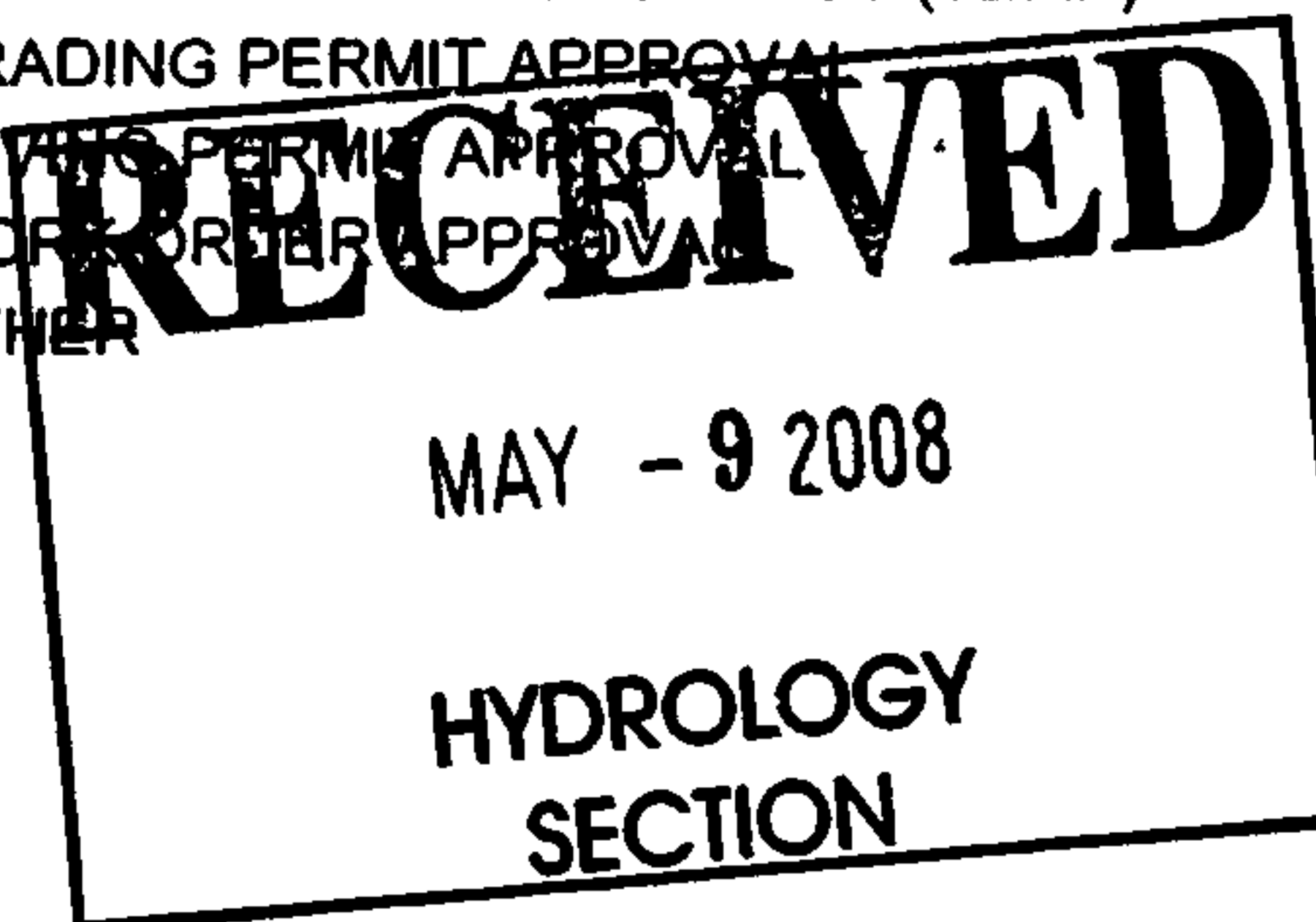
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- ☒ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: Friday, May 09, 2008

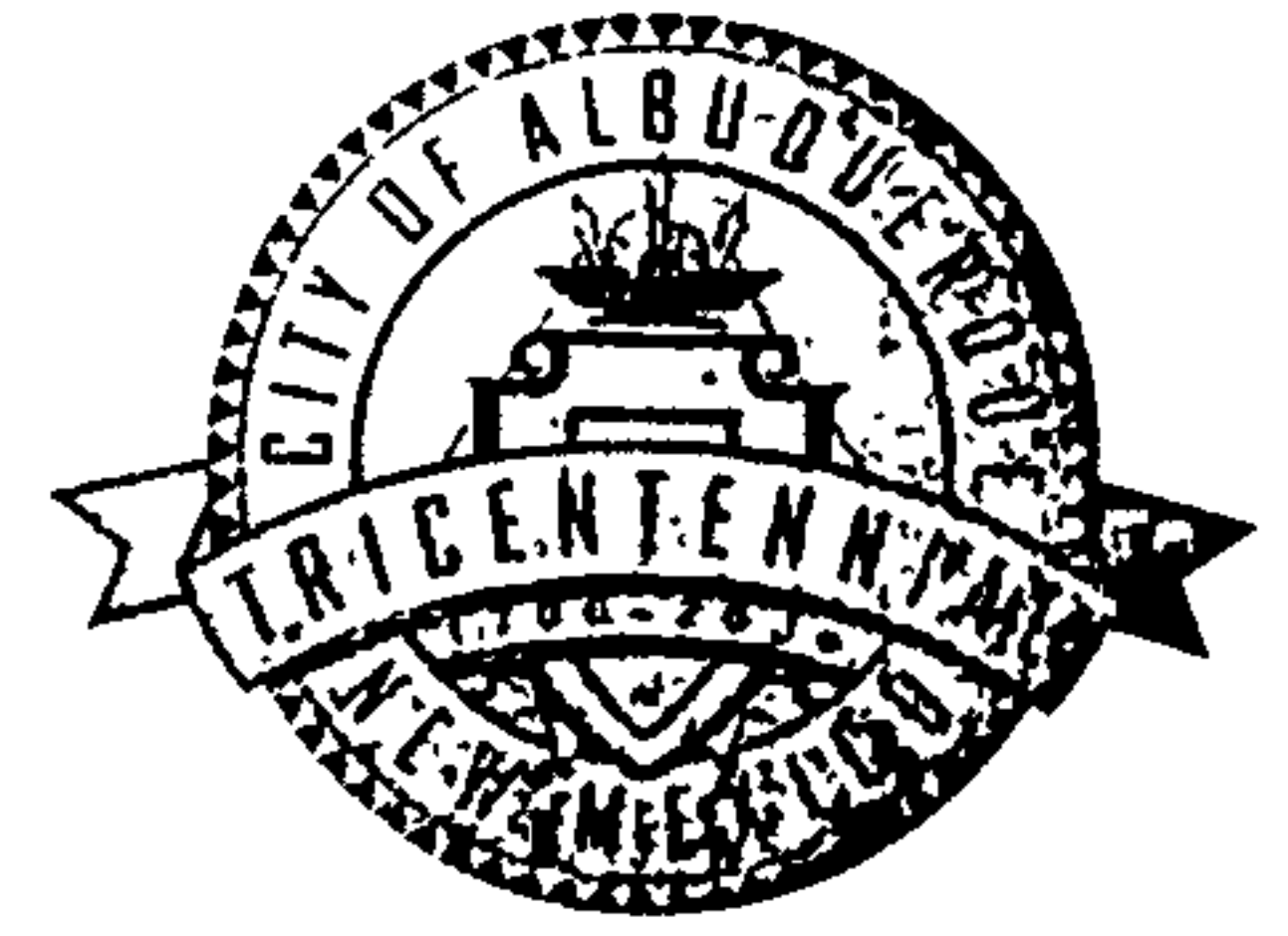
BY: Fred Arfman
 for Isaacson & Arfman, P.A.

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 on the following:

1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five acres and Sector Plans
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CITY OF ALBUQUERQUE



March 14, 2008

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

RE: The Presidio, (K-21/D009H)
Engineers Certification for Release of Financial Guaranty
Engineers Stamp dated ~~11/13/2006~~ 2-26-07
Engineers Certification dated 03/10/2008

Mr. Arfman:

P.O. Box 1293

Based upon the information provided in your Engineer's Certification submittal dated 03/13/2008, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

Albuquerque

If you have any questions, you can contact me at 924-3982.

New Mexico 87103

Sincerely,

Timothy E. Sims
Plan Checker, Planning Dept. - Hydrology
Development and Building Services

www.cabq.gov

C: Marilyn Maldonado, COA# 797481 & 797482
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: THE PRESIDIO ZONE MAP/DRG. FILE # K-21/094
DRB#: 100572 EPC#: _____ WORK ORDER#: 797481 & 797482

LEGAL DESCRIPTION: THE PRESIDIO
CITY ADDRESS: NW QUADRANT, CHICO & MORRIS ST.

ENGINEERING FIRM: Isaacson & Arfman, P.A. CONTACT: Fred C. Arfman, PE
ADDRESS: 128 Monroe Street NE PHONE: 268-8828
CITY, STATE: Albuquerque, NM ZIP CODE: 87108

OWNER: CENTEX HOME CONTACT: TED LOWE
ADDRESS: 5120 MASTHEAD PHONE: 923-1800
CITY, STATE: ABQ. NM ZIP CODE: 87109

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: SURV-TEK CONTACT: ROSS HUGG
ADDRESS: 9384 VALLEY VIEW DR SW PHONE: 897-3366
CITY, STATE: ABQ. NM ZIP CODE: 87114

CONTRACTOR: VICTOR CORP CONTACT: MARK JONES
ADDRESS: P.O. BOX 44275 PHONE: 771-4900
CITY, STATE: PLO RANCHO, NM ZIP CODE: 87174

TYPE OF SUBMITTAL:

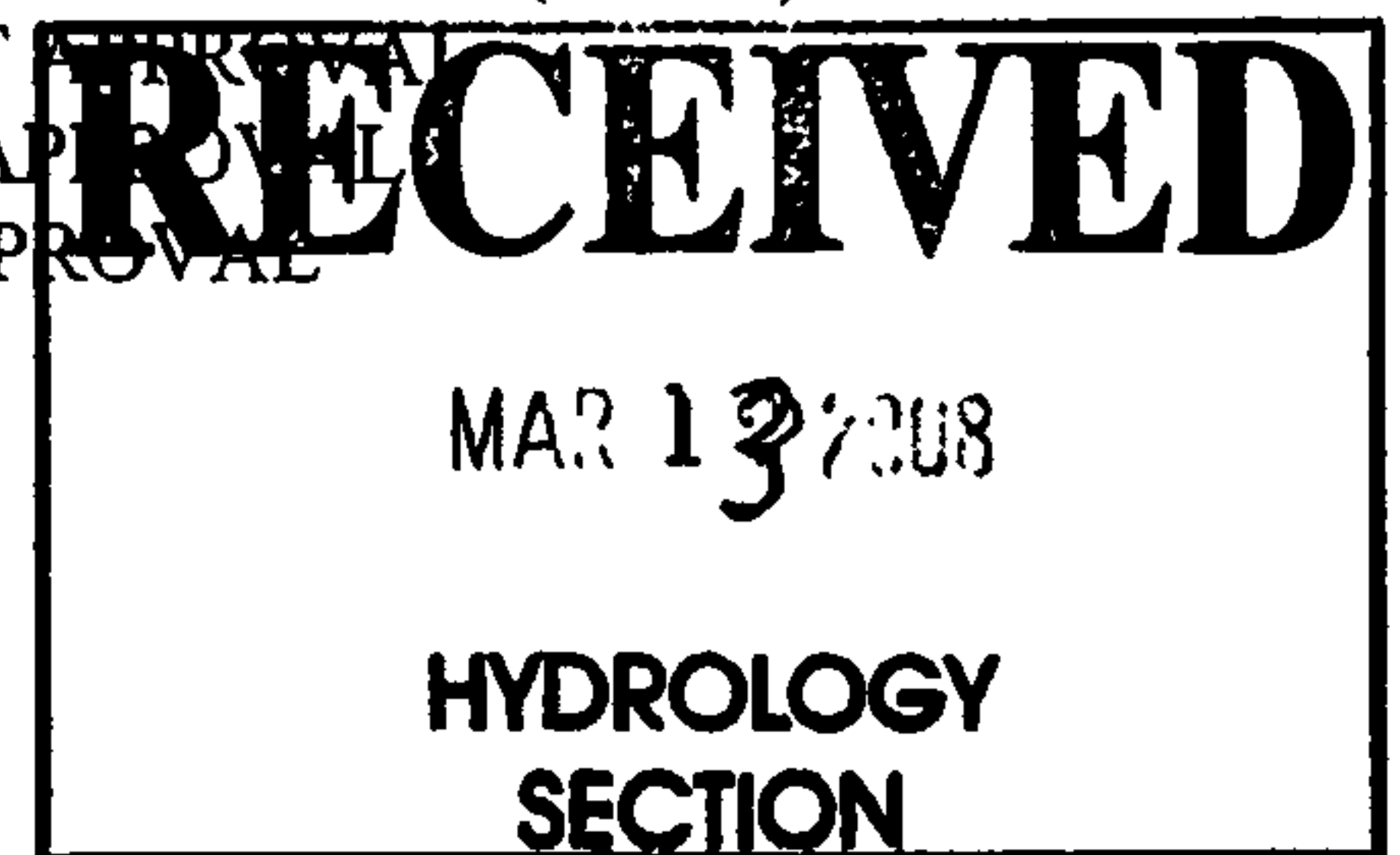
- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☒ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☐ NO
☐ COPY PROVIDED



SUBMITTED BY: FRED C. ARFMAN, P.E. DATE: 03-12-08

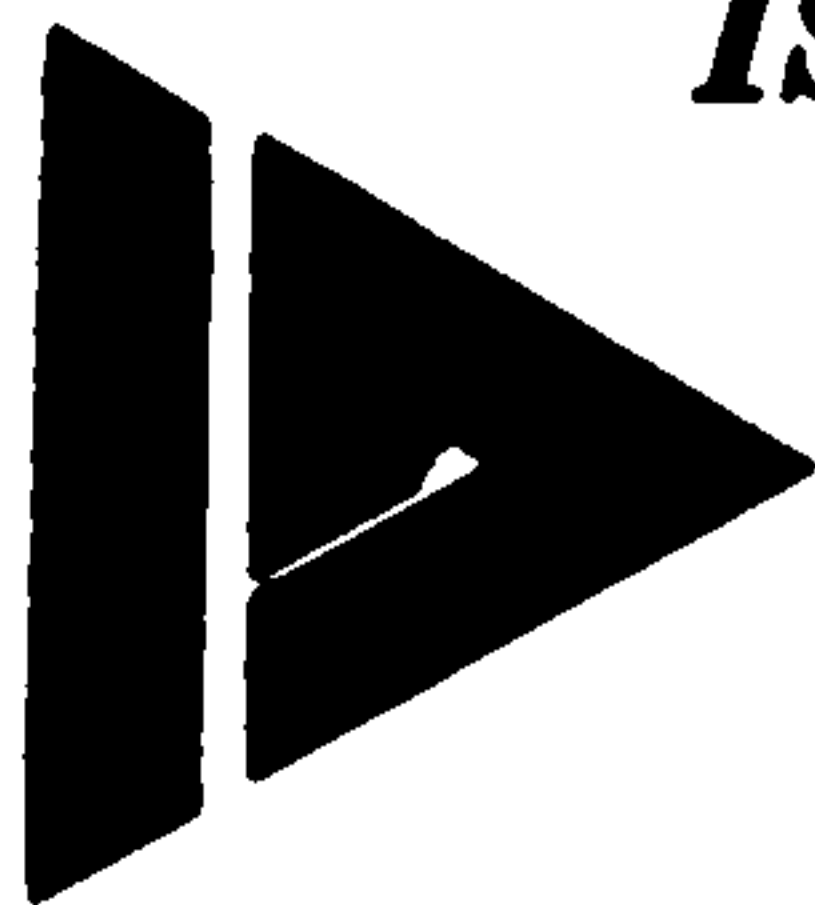
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ISAACSON & ARFMAN, P.A

Consulting Engineering Associates

Albuquerque, NM



CITY OF ALBUQUERQUE



November 15, 2006

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe SE
Albuquerque, NM 87108

Re: The Presidio – Tracts 3, 7, and 8 of the Lenkurt Properties
Engineer's Stamp dated 11-13-06 (K21/D9H)

Dear Mr. Arfman,

Based upon the information provided in your submittal received on November 13, 2006, the above referenced plan is approved for Preliminary Plat action by the DRB.

If you have any questions, you can contact me at 924-3990.

Sincerely,

Jeremy Hoover, P.E.
Senior Engineer
Hydrology Section
Development and Building Services

cc: file K21/D9H

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio
DRB #: 1000572 EPC #: _____

ZONE MAP / DRG. FILE #: K-21/D9H
WORK ORDER #: _____

LEGAL DESCRIPTION: Lots 3, 7, & 8, Lenkurt Properties
CITY ADDRESS: _____

ENGINEERING FIRM: Isaacson & Arfman Engineering, Assoc.
ADDRESS: 128 Monroe St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman
PHONE: 268-8828
ZIP CODE: 87108

OWNER: Centex Homes
ADDRESS: 4110 Wolcott NE, Suite B
CITY, STATE: Albuquerque, NM

CONTACT: Lisa Donahue
PHONE: 923-1826
ZIP CODE: 87109

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc.
ADDRESS: 9384 Valley View Dr. SW
CITY, STATE: Albuquerque, NM

CONTACT: Russ P. Hugg
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

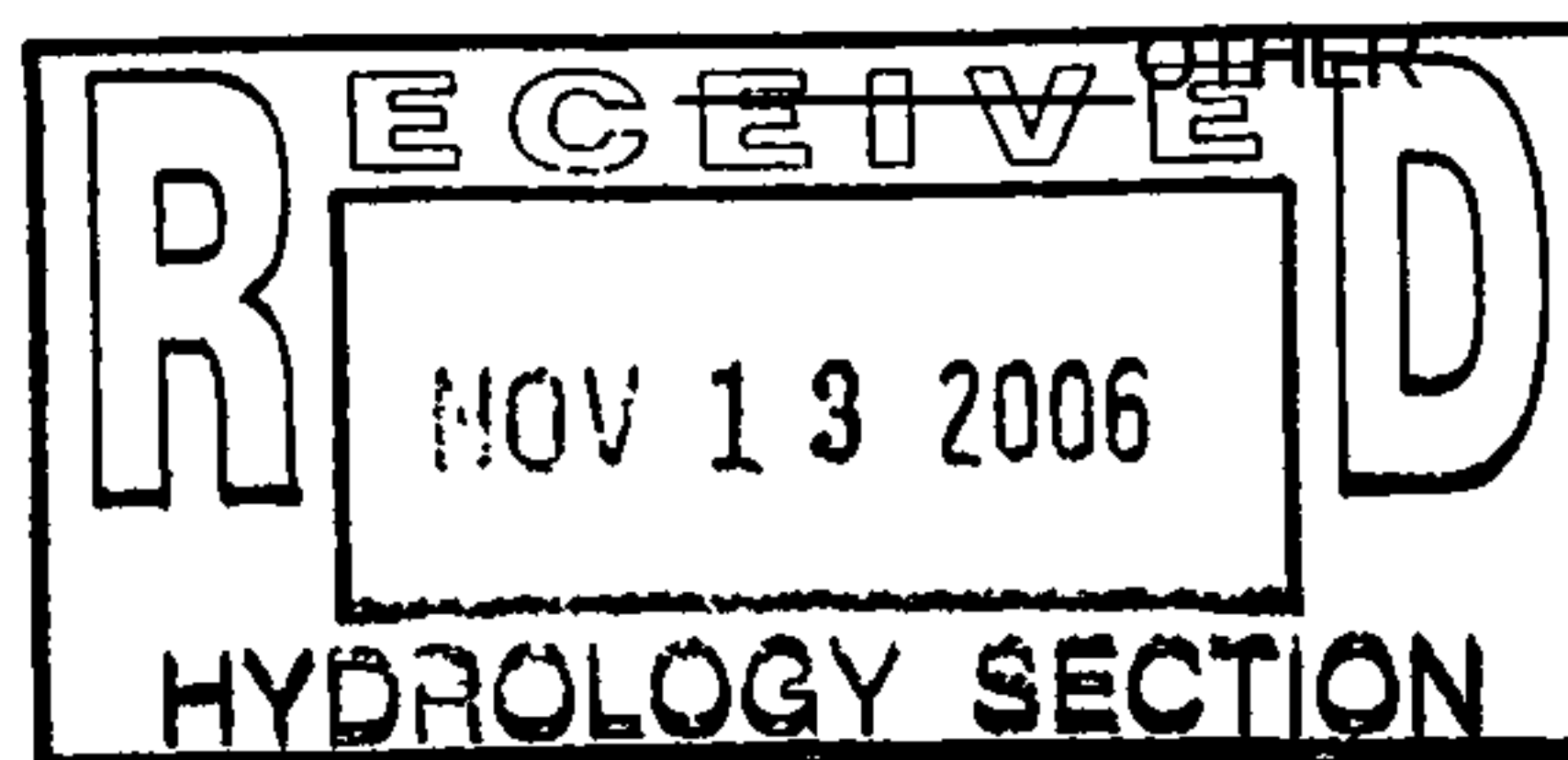
- ☒ DRAINAGE REPORT
☒ DRAINAGE PLAN 1ST *REQUIRES TCL or equal*
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
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☐ CLOMR / LOMR
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☐ ENGINEER'S CERTIFICATION (TCL)
☐ ENGINEER'S CERTIFICATION (DRB APPR, SITE PLAN)
☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
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☐ S. DEV. PLAN FOR BLDG. PERMIT APPR.
☐ SECTOR PLAN APPROVAL
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☐ CERTIFICATE OF OCCUPANCY (PERM)
☐ CERTIFICATE OF OCCUPANCY (TEMP)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☒ NO
☐ COPY PROVIDED



DATE SUBMITTED: Monday, November 13, 2006

BY: Fred C. Arfman
for Isaacson & Arfman, P.A.

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 on the following:

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2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than five acres
3. Drainage Report: Required for subdivisions containing more than ten (10) lots or constituting five acres or more.

**ONE STOP SHOP
CITY OF ALBUQUERQUE PLANNING DEPARTMENT
Development & Building Services**

PAID RECEIPT

APPLICANT NAME _____
AGENT Isaacson & Arfman, P.A.
ADDRESS 128 Monroe St. NE.
PROJECT & APP # Site Development Plan.
PROJECT NAME The Presidio

\$ _____ 441032/3424000 Conflict Management Fee
\$ _____ 441006/4983000 DRB Actions
\$ _____ 441006/4971000 EPC/AA/LUCC Actions & All Appeals
\$ _____ 441018/4971000 Public Notification
\$ 100.00 441006/4983000 DRAINAGE PLAN REVIEW OR TRAFFIC IMPACT STUDY***
() Major/Minor Subdivision (☒) Site Development Plan () Bldg Permit
() Letter of Map Revision () Conditional Letter of Map Revision
() Traffic Impact Study
\$ 100.00 TOTAL AMOUNT DUE

***NOTE: If a subsequent submittal is required, bring a copy of this paid receipt with you to avoid an additional charge.

ISAACSON AND ARFMAN P A 128 MONROE ST NE ALBUQUERQUE, NM 87108-1247 268-8828		16617 95-219/1070 176 1350743997
DATE <u>7/7/05</u>		
PAY TO THE ORDER OF <u>City of Albuquerque</u>		***TOTAL \$ <u>100.00</u> ***
<u>One Hundred & 00/100</u>		City of Albuquerque TREASURY DEPT. DOLLARS
 Wells Fargo Bank, N.A. New Mexico wellsfargo.com		7/7/2005 2:43PM LOC: ANHX RECEIPT# 00045665 WSH 007 TRANSH 0025 Account 441006 Fund 0000 Activity 4983000 TRSLJS MP \$100.00
FOR <u>1446</u> <u>3804</u>		\$100.00 \$100.00 CHANGE \$0.00
⑈00016617⑈ ⑆107002192⑆ 1350743997⑈		



ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

*Thomas O. Isaacson, PE & LS • Fred C. Arfman, PE
Scott M. McGee, PE*

November 13, 2006

Mr. Jeremy Hoover, P.E.
Hydrology Section
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87102

**RE: The Presidio—Revised Drainage Submittal
Drainage File K21-D9H**

Dear Mr. Hoover:

Isaacson & Arfman, P.A., as agents for Centex Homes, are submitting the enclosed Revised Drainage Report for the referenced project. Per Brad Bingham's and your request, the use of the detention pond has been eliminated and all flows from the Presidio are now discharged to the existing 54-inch storm drain. Brad Bingham agreed that the allowable discharge be based on the Cinemark drainage report (264 cfs) rather than the South Eubank Area Storm Drain Analysis (209 cfs), and he would also accept a slight increase in the discharge to the I-40 channel.

The changes in the drainage report include the following:

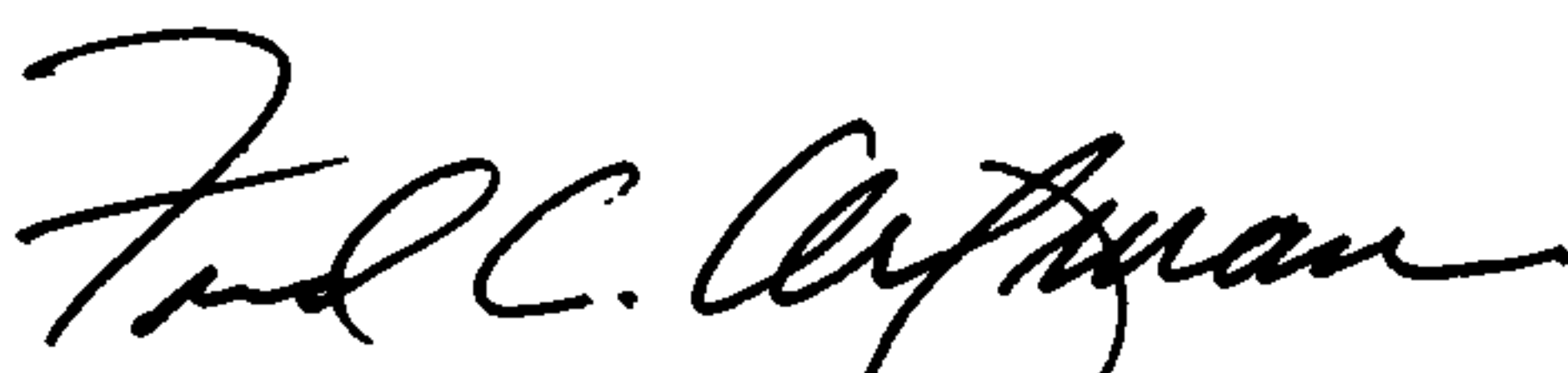
- The storm drains to and from the pond have been eliminated and the flows are now conveyed in a 54-inch pipe west of the site to the existing 54-inch storm drain.
- The AHYMO files were modified with added flow routing through the storm drains and elimination of the pond.
- The grades at the Marina Gate Trail entrance at Morris St. were increased to provide a higher water bar to prevent the offsite flows from entering the site.

After the added flow routing in AHYMO, the total flows discharging to the I-40 channel (including the offsite basin east of Morris St. and the portion of the Wal-Mart Addition that was part of the Lenkurt Properties at the time of the Cinemark report) is 268.2 cfs, which exceeds the allowable discharge by 4.2 cfs, (1.6 percent).

If you have questions or comments regarding this submittal, please call me at 268-8828 or Åsa Nilsson-Weber at (972) 491-9736.

Sincerely,

ISAACSON & ARFMAN


Fred C. Arfman, P.E.

Attachments

128 Monroe St. NE • Albuquerque, NM 87108 • (505) 268-8828 • FAX (505) 268-2632

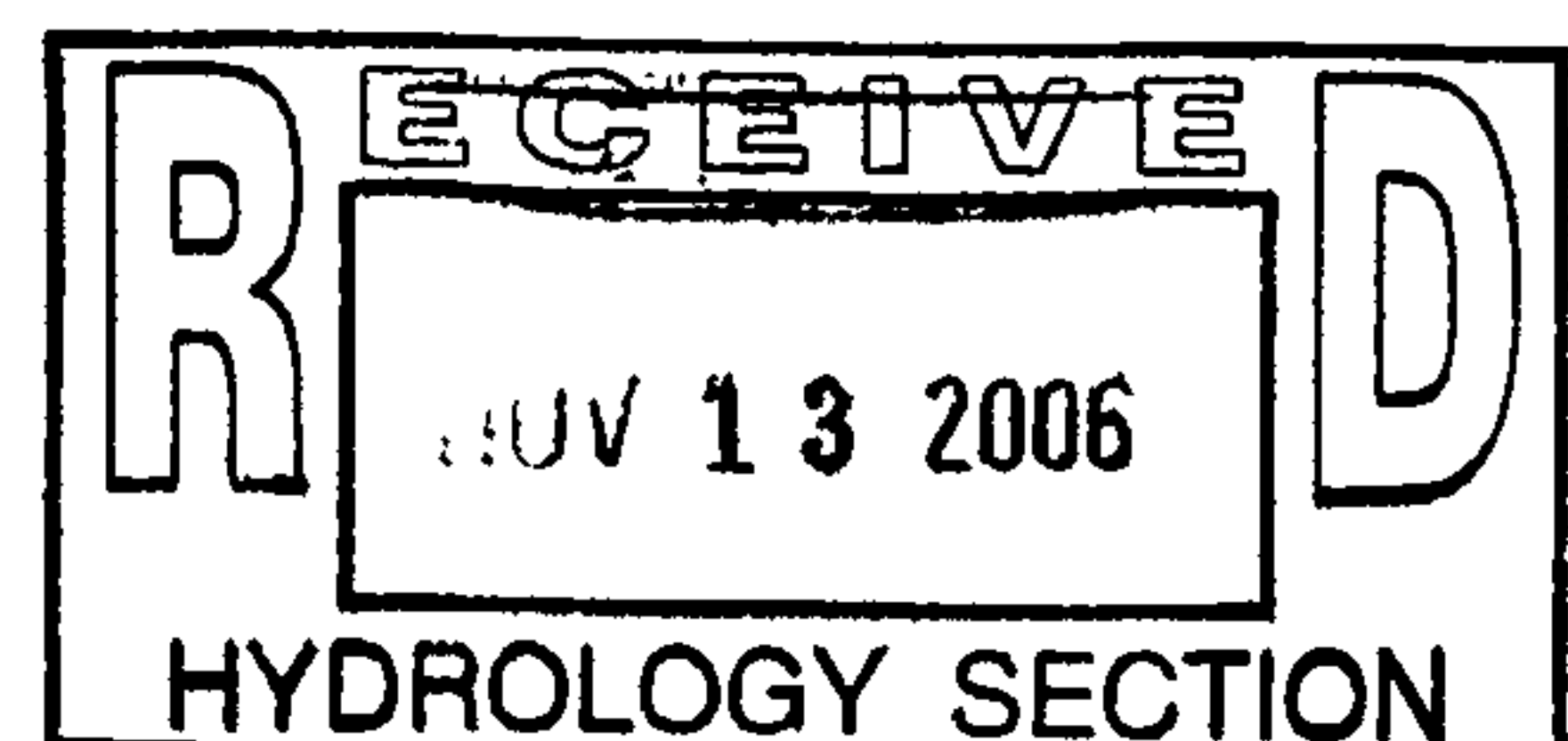
DRAINAGE REPORT

FOR

THE PRESIDIO

**A 256-DWELLING UNIT SINGLE FAMILY
RESIDENTIAL SUBDIVISION**

**ALBUQUERQUE, NEW MEXICO
NOVEMBER 2006**



DRAINAGE REPORT
FOR
THE PRESIDIO
A 256-DWELLING UNIT SINGLE FAMILY
RESIDENTIAL SUBDIVISION
ALBUQUERQUE, NEW MEXICO
NOVEMBER 2006

Prepared by:

ISAACSON & ARFMAN, P.A.
128 Monroe Street NE
Albuquerque, NM 87108
(505) 268-8828



Fred C. Arfman
Fred C. Arfman, PE **11.13.06**
Date

TABLE OF CONTENTS

VICINITY MAP

FLOODPLAIN MAP

- I. PROJECT INFORMATION**
- II. INTRODUCTION**
- III. BACKGROUND OF SITE AND PREVIOUS STUDIES**
- IV. EXISTING CONDITIONS**
- V. PROPOSED CONDITIONS**
- VI. SUMMARY & CONCLUSIONS**

APPENDICES

APPENDIX A: Land Treatments & Basin Areas

- Land Treatment Calculations
- Land Treatment & Basin Area Table
- Motor Court & Private Drain Basin Map

APPENDIX B: Drainage Calculations

- AHYMO Summary & Output Files
- Runoff Calculations for Motor Court-, Private Drain-
& Triplex Rundown Basins (per COA DPM Section 22.2)

APPENDIX C: Street Flow Depth Summary Table

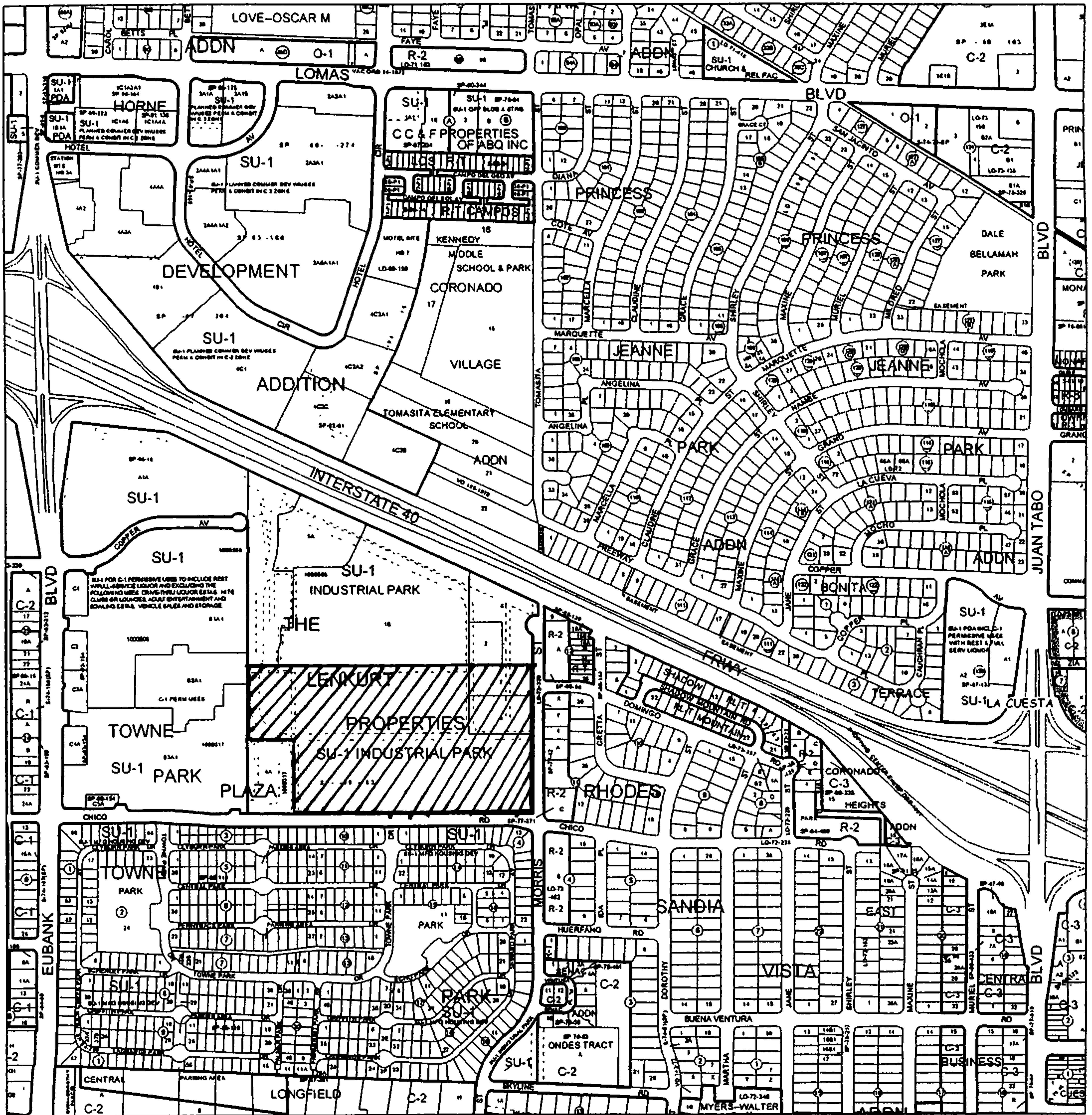
APPENDIX D: Storm Drain Calculations

- Sump Inlet Capacity Calculations
- Storm Drain Calculations (Hydraflow)
- Temporary Inlet Orifice Calculations

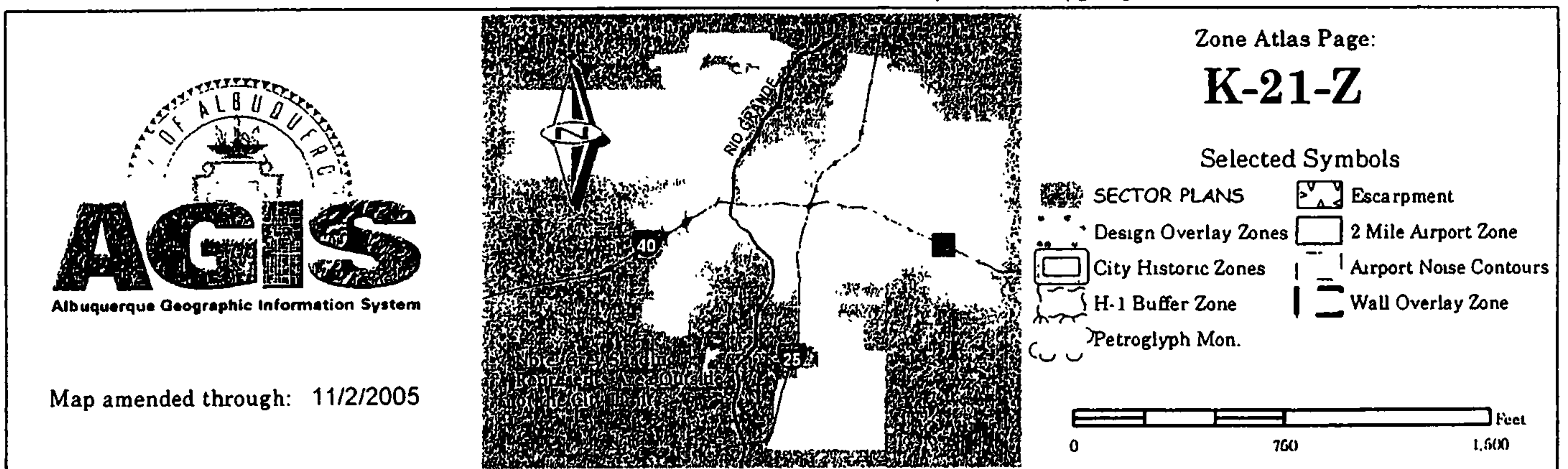
APPENDIX E: Motor Court & Triplex Rundown Capacity Calculations

POCKETS

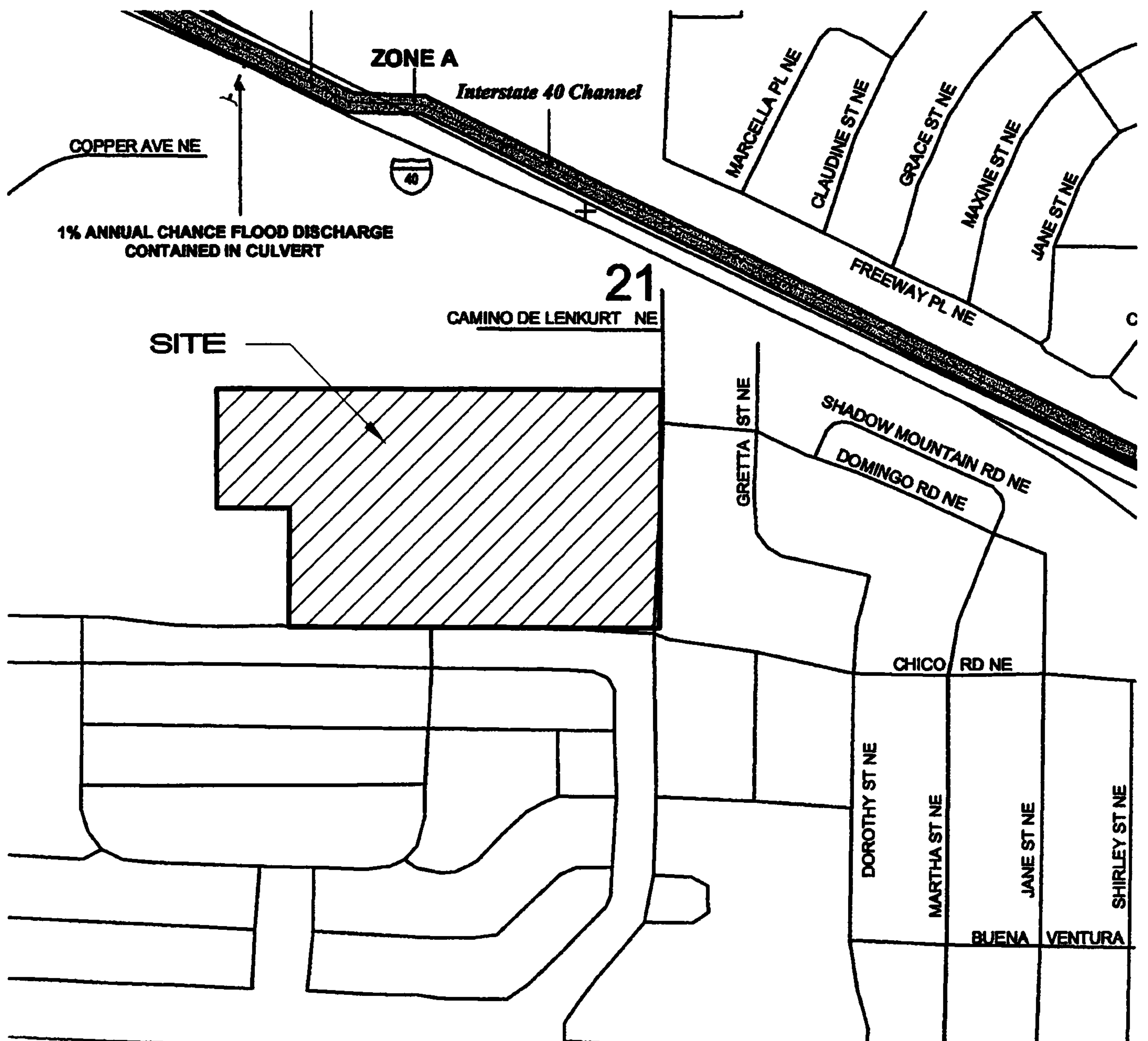
- Grading & Drainage Plan (5 Sheets)**
- Interim Grading Plan (1 sheet)**
- Basin & Storm Drain Plan (2 Sheets)**



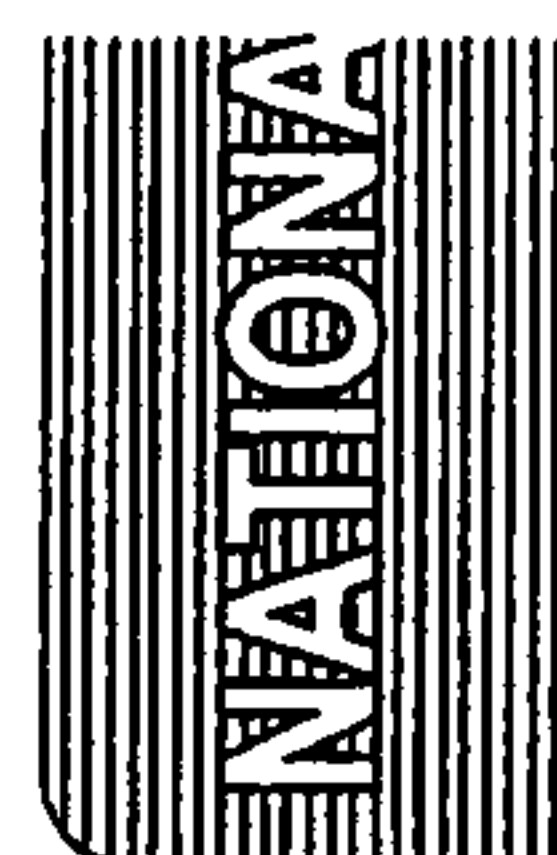
For more current information and more details visit: <http://www.cabq.gov/gis>



FEMA MAP



MAP SCALE 1" = 500'



MAP NUMBER
35001C0359F
MAP REVISED
NOVEMBER 19, 2003

Federal Emergency Management Agency

I. PROJECT INFORMATION

PROPOSED LEGAL DESCRIPTION:

The Presidio

EXISTING LEGAL DESCRIPTION:

Lots 3, 7 & 8, The Lenkurt Properties
(Filed 4/13/99 in Book 99C, Pg. 84)

ENGINEER: Isaacson & Arfman, P.A.
128 Monroe Street NE
Albuquerque, NM 87108
(505) 268-8828
Attn: Fred C. Arfman

SURVEYOR: Surv-Tek, Inc.
(505) 897-3366
Attn: Russ P. Hugg, NMPLS No. 9750

DEVELOPER: Centex Homes
(505) 923-1826
Attn: Lisa Donahue

NUMBER OF PROPOSED DWELLING UNITS: 256

TOTAL AREA: 23.686 Acres

FLOOD PLAIN: Zone X
This site lies outside the 100-year flood (Zone X) based on Firm Map #35001C0359F, dated November 19, 2003

II. INTRODUCTION

The Presidio, Units 1 and 2, will be developed with 87 townhomes (27 duplex units and 11 triplex units) and 2 duplex and 55 triplex condominium units for a total of 256 dwelling units. The proposed site is bounded on the east by Morris St., on the south by Chico Rd., on the west by Towne Park Plaza (Sam's Club and Wal-Mart) and on the north by the old Siemen's manufacturing facility. This report presents drainage recommendations for The Presidio, Units 1 and 2, and for the north portion of the Lenkurt properties which is currently a proposed commercial development.

III. BACKGROUND OF SITE AND PREVIOUS STUDIES

The following is a summary of previous studies of the proposed site and adjoining sites. The Presidio site, along with the site to the north, is in this section referred to as the "Lenkurt Properties."

Cinemark Drainage Report, by Bohannon Huston, Inc., 1999

This report was prepared for a Cinemark movie theater development (located on the Lenkurt Properties) that did not materialize. At the time of this report, offsite flows of 180 cfs overtopped the curb in Chico Rd. and drained onto the site. A pond for these flows was proposed at the southwest corner of the site, then Lot 4, The Lenkurt Properties. A portion of the onsite flows were also routed through the pond (about 23 cfs). The flows were proposed to drain to the I-40 channel limiting the discharge to 264 cfs (existing rate). The discharge from the south portion of the Lenkurt properties was approximately 72 cfs, from an offsite basin east of Morris, 84 cfs and from the remaining north portion of the Lenkurt properties, 106 cfs.

Drainage Report for Sam's Club East, Store 6672-01, by Tierra West, 2000

The lot intended for ponding in the Cinemark Report was acquired by Sam's Club for a building and parking expansion (re-platted as Lot 4A, Towne Home Plaza). The pond was re-designed narrower and deeper than the original configuration from the Cinemark report, but with the same volume. This pond is in place with an agreement and covenant. The flows from this site (including outflow from the pond) are currently discharged through a temporary 15" PVC pipe to the Copper/Eubank storm drain system.

Drainage Report for Dominion Plaza, by Bohannon Huston, Inc., 2000

The Dominion Plaza was another proposed development for the Lenkurt Properties. This project installed a storm drain to convey the flows from an offsite basin east of Morris St. along with some onsite flows. The storm drain flow shown at Morris is 88 cfs; 84 cfs from the offsite basin and 4 cfs from an onsite basin adjacent to Morris St.

Drainage Report for Wal-Mart 835 Stockroom Addition, by Tierra West, 2001

Wal-Mart acquired a portion of land of the Lenkurt Properties (re-platted as Tract B-1A-1, Towne Park Plaza). A storm drain was built with this project to convey 18.5 cfs from the portion of the Wal-Mart addition (previously a part of the Lenkurt Properties), along with 37.8 cfs overflow from the Copper/Eubank storm drain system and flows from the remainder of the Lenkurt Properties and the offsite basin east of Morris St. to the I-40 Channel in two drainage structures (combined capacity of 295 cfs). The total discharge was 263 cfs (not exceeding the allowable discharge from the original Cinemark report by

Bohannon Huston, Inc.) The storm drain was extended to The Presidio, allowing for a discharge of 120.2 cfs from the remaining Lenkurt properties.

South Eubank Area Storm Drainage Analysis, by Smith Engineering, 1995 & 60% Design Analysis Report for Chico and Morris Storm Drain Diversion Project, by HDR Engineering, Inc., 2002

These studies were performed for the City of Albuquerque and included drainage solutions for alleviating the flooding at Chico Rd. and Morris St. where flows overtopped the curb and entered the proposed site. In 2004, based on these studies the City of Albuquerque installed a cattle guard inlet in Chico Rd. at the intersection with Morris and 96-inch/66-inch storm drains in Morris and along the north property line of the Lenkurt Properties paralleling I-40. The storm drain installed with the Dominion Plaza project was removed and replaced with the new storm drains. These storm drains discharge 620 cfs to the I-40 channel at the northwest corner of the Lenkurt Properties through a manifold of 48-inch storm drains.

The South Eubank Area Storm Drainage Analysis shows a discharge of 209 cfs to the I-40 Channel from the Lenkurt properties including the offsite portion of land east of Morris St.

Basis for this report

The previously submitted reports based the allowable discharge to the I-40 channel on 209 cfs based on the South Eubank Area Storm Drainage Analysis report. Brad Bingham requested that the offsite pond be eliminated and agreed that the Cinemark/Wal-Mart Addition limiting flow rate of 264 cfs be used.

Since the Wal-Mart Addition project (formerly a part of the Lenkurt properties) contributes 18.5 cfs from the portion that was acquired from the original north Lenkurt property, and the offsite basin east of Morris St. contributes 84 cfs, 161.5 cfs will be allowed for the remaining Lenkurt properties for a total of 264 cfs discharge to the I-40 Channel.

IV. EXISTING CONDITIONS

The majority of the proposed Presidio site is undeveloped and covered with native vegetation, except for some asphalt paths with a connection at Chico Rd. (an old proposed entrance). The site drains at slopes of 0.5-3% via earthen ditches connected with culverts to ponding areas at the northwest corner.

V. PROPOSED CONDITIONS

The site will be developed in two units with 87 townhomes (27 duplex units and 11 triplex units) and 2 duplex and 55 triplex condominium units for a total of 256 dwelling units. A clubhouse will be located in Open Space Tract F. The Grading & Drainage Plan for the proposed site is in the pocket at the back of this report. The duplex units will drain to the private streets (Tract PR) in backyard/sideyard swales, and the triplex townhome units will have a concrete rundown conveying the flows to the streets through a cross-lot drainage easement. Motor courts--20-foot wide concrete drives--will serve as access to the triplex condo units that have garage entrances from these motor courts. A portion of the flows from the condo units will drain directly to the street, and a portion will drain to the street via the motor courts. Where the condo units are lower than the street, a private storm drain system will convey the trapped flows either to the street or to the on-site storm drain system.

LAND TREATMENTS

Land treatment percent D was calculated for Basins 1-12 based on AutoCAD areas of impervious improvements, as shown in Appendix A, and the remaining area was split between land treatments B and C. The resulting land treatments are as follows:

Type A	0%
Type B	19%
Type C	19%
Type D	62%

The land treatments for Basins 13-19 were calculated separately and are tabulated in the Basin Area and Land Treatment Table in Appendix A. The offsite basin (OFF-1), which is the north portion of the Lenkurt Properties is a future commercial development with restaurants, an office warehouse, offices and associated parking. A land treatment of 90% Type D was used for this basin per City of Albuquerque DPM Section 22.2, Table A-5. This basin was treated as one single basin with no flow routing.

HYDROLOGY

The 100-year, 6-hour flows were calculated using AHYMO, and the summary and output files are included in Appendix B. The Onsite Basin and Storm Drain Plan in the back pocket shows the flow rates for each basin and at critical analysis points (AP) and tabulates the storm drain flows for each inlet.

Basins 1-3 and 9-16 will discharge 76.5 cfs through a 54-inch storm drain (located in an offsite easement west of the site) connecting to the existing 54-inch storm drain northwest of the site. Basins 4-8 will discharge 11.8 cfs through a 24-inch storm drain

(located in an easement along the north property line) connecting to the existing 54-inch storm drain. The total discharge from the Presidio is 88.3 cfs at AP16 at the northwest corner of the site (86.8 cfs at the I-40 channel after routing). Basin B-18 and B-19 will discharge 1.1 cfs to Chico Rd. and Basin B-17 will discharge 0.6 cfs north on Morris St. The discharge for the north Lenkurt Properties (offsite basin OFF-1) is 88.6 cfs. The AHYMO analysis shows a total discharge of 165.7 cfs from the Presidio and the north Lenkurt properties. Below is a listing of the total discharge to the I-40 channel from the Lenkurt Properties, the Wal-Mart Addition and the offsite basin east of Morris St.

- 165.7 cfs from The Presidio and the North Lenkurt Properties
- 18.5 cfs from the Wal-Mart Addition
- 84.0 cfs from the offsite basin east of Morris St.
- 268.2 cfs total

This exceeds the allowed discharge of 264 cfs by 4.2 cfs, which is acceptable by Brad Bingham. Since the flows from the offsite basin east of Morris St. are now intercepted by the 96"/66" storm drain system, the discharge to the I-40 channel via the two existing outfall structures has been reduced from 263.1 cfs to approximately 166.5 cfs (including the overflow from the Copper/Eubank storm drain system).

STREET CAPACITY

The streets will be private (Tract PR) and will have median curb or, where street capacity is exceeded, standard curb and gutter. Appendix C shows street flow depths at critical analysis points, which are labeled on the Basin and Storm Drain Map in the back pocket.

STORM DRAIN

An on-site storm drain system will convey 88.3 cfs to the existing 54-inch storm drain northwest of the site. The storm drain lines, manholes and inlets are labeled on the Overall Basin and Storm Drain Map in the back pocket to correspond to the Hydraflow Storm Sewer Calculations included in Appendix D. The starting HGL for the storm drain was set at 60.5 which was the approximate HGL shown at the construction plan for the existing manhole north of the site.

Eight on-grade inlets and two sump inlets will capture the on-site flows, as shown on the Basin and Storm Drain Map in the back pocket. The capacity of the on-grade inlets was calculated using Plate 22.3 D-5 from the DPM based on the street flow depths (as shown in Appendix C) at the corresponding analysis points. The HGL is slightly above the grate on Inlet 5, but this connector pipe cannot be upsized because of grade constraints.

Any excess flows would continue to the sump inlets. The capacity for the sump inlets (Inlets #2 & 3) is calculated in Appendix D. In the event the sump inlets would clog, the flows would overtop the curb and flow through wall openings and continue south toward Chico Rd through the existing Sam's Club parking lot without flooding any buildings.

MOTOR COURTS, PRIVATE DRAINS & TRIPLEX RUNDOWNS

Appendix A includes a Basin Map of the major motor courts and private drain basins. The runoff from these areas was calculated per the City of Albuquerque D.P.M. Section 22.2 as shown in Appendix B. Capacity calculations for the concrete motor courts in Basin M-5 and M-7, which are the motor court areas with the greatest amount of flows (4.2 cfs and 3.5 cfs), are included in Appendix E. The garage entrance will have a minimum elevation of 0.3 feet above the motor court flow line at the upstream end, though the elevation is higher at areas of greater flows. The water depths for basins M-5 and M-8 is 0.19-0.18 feet. Since the remaining motor courts have lesser flows, they will also have capacity.

The private drain areas will drain to area drains and a HDPE pipe system. Basin D-1 will discharge 0.3 cfs to the street. Basins D-2, D-3 and D4 will discharge 4.6 cfs to Inlet #2, basin D-5 will discharge 1.8 cfs to Inlet #3, and basin D-6 will discharge 1.0 cfs to Inlet #5. The triplex town home units will convey flows from the backyards to the front through a concrete rundown located in a cross-drainage easement. See Appendix B for runoff calculations and Appendix E for rundown capacity calculations.

INTERIM GRADING

The interim grading plan included in the back pocket shows grading and a temporary inlet detail in the future Unit 2 area. A berm shall be constructed at the northwest corner to elevation 5467.0 to contain the flows from Basin 16 until the private storm drain system is built. Inlet boxes at the Type 'A' inlets 1 and 9 located in Unit 2 will be partially constructed with a temporary concrete cap. A temporary 24-inch orifice opening with rebars will be constructed in the concrete cap at inlet 9 to capture 9.6 cfs of the flows at this location (See Appendix D for temporary orifice calculations). This is the maximum that the storm drain can carry without backing up at Inlet 10. The remainder of the flows at inlet 9 will surface flow in the future street to AP 11 and be captured in Inlet 5.

VI. SUMMARY & CONCLUSIONS

The site will discharge 88.3 cfs to the existing 54-inch storm drain at the northwest corner of the site.

Based on this report it is recommended that the following improvements be constructed (as shown on the Grading Plan and the Basin & Storm Drain Map in the back pockets):

UNIT 1

- Standard or median curb.
- Six on-grade inlets (Inlets 4-8 & 10) and 2 sump inlets (Inlets 2 & 3).
- Two partially built inlet boxes (Inlets 1 & 9) with 24" temporary orifice inlet at Inlet 9.
- Earthen berm at northwest corner of Unit 2.
- 18"-54" storm drains to existing 54-inch storm drain.
- Concrete motor courts.
- Concrete rundowns at triplex town home units.
- Private Inlets & HDPE Pipe at condo units as shown.

UNIT 2

- Standard curb.
- Two on-grade inlets--partially built with Unit 1 (Inlets 1 & 9)
- Concrete motor courts.
- Concrete rundowns at triplex town home units.
- Private Inlets & HDPE Pipe at condo units as shown.

APPENDIX A

Land Treatments & Basin Areas

LAND TREATMENT CALCULATIONS FOR DEVELOPED CONDITIONS

AREAS CALCULATED IN AUTOCAD

PROJECT NAME: THE PRESIDIO
JOB NUMBER: 1446

Impervious Areas Basins 1-12

	<u>Areas</u>
Tract PR Paving	166534 SF
Motor Courts (incl. Driveways)	70629 SF
Sidewalks	34986 SF
Ramadas, Tables, Benches	3697 SF
Clubhouse w/ patios & paved areas	7000 SF
Condos (20*3218.64 SF + 18*3045.31 SF) (smaller area=shorter garage)	119188.38 SF
Triplex Townhomes (incl. Driveways) (11*4683.21 SF)	51515.31 SF
Duplex Townhomes (incl. Driveways) (29*3136.17 SF)	<u>90948.93 SF</u>

Total Impervious Area = **544499 SF**
 = **12.5000 AC**

Total Area B1-B12 = **20.081 AC**

Type 'D' Land Treatment = **62.2 %**
(=14.7326/23.928)

USE TYPE D = 62%

LAND TREATMENT CALCULATIONS FOR DEVELOPED CONDITIONS

*****AREAS CALCULATED IN AUTOCAD*****

PROJECT NAME: THE PRESIDIO
JOB NUMBER: 1446

Land Treatment Areas Basin 13

	<u>Areas</u>
Total Pervious	0.3788 AC
Total Area Basin 13	= 1.453 AC
Type 'D' Land Treatment	= 73.9 %

USE TYPE D =74%

Land Treatment Areas Basin 14

	<u>Areas</u>
Total Pervious	0.1447 AC
Total Area Basin 14	= 0.267 AC
Type 'D' Land Treatment	= 45.8 %

USE TYPE D =46%

BASIN AREA & LAND TREATMENT TABLE

PROJECT NAME: THE PRESIDIO

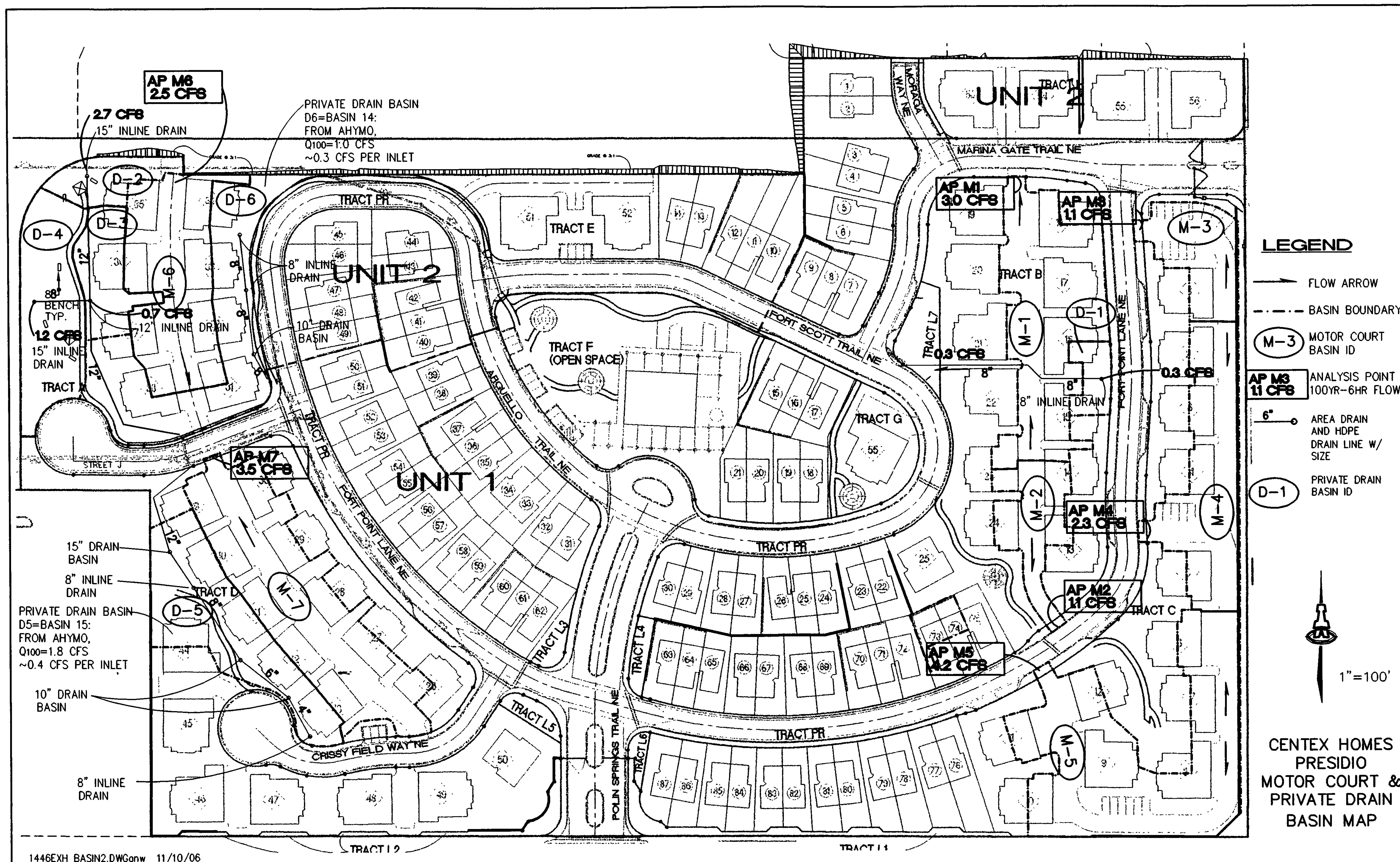
JOB NUMBER: 1446

BASIN ID			LAND TREATMENTS			
	AC	SQ.MI.	A	B	C	D
B1	3.609	0.00564	0	19	19	62
B2	2.710	0.00423	0	19	19	62
B3	1.825	0.00285	0	19	19	62
B4	3.050	0.00477	0	19	19	62
B5	0.947	0.00148	0	19	19	62
B6	1.608	0.00251	0	19	19	62
B7	1.926	0.00301	0	19	19	62
B8	1.596	0.00249	0	19	19	62
B9	1.198	0.00187	0	19	19	62
B10	0.412	0.00064	0	19	19	62
B11	0.377	0.00059	0	19	19	62
B12	0.553	0.00086	0	19	19	62
B13	1.453	0.00227	0	13	13	74
B14	0.267	0.00042	0	27	27	46
B15	0.474	0.00074	0	27	27	46
B16	1.214	0.00190	0	27	27	46
B17	0.174	0.00027	0	26	60	14
B18	0.211	0.00033	0	22	53	25
B19	0.082	0.00013	0	37	38	25

TOTAL 23.686 0.03701

BASIN ID			LAND TREATMENTS			
	AC	SQ.MI.	A	B	C	D
OFF-1*	18.999	0.02969	0	5	5	90

*NORTH PORTION OF THE LENKURT PROPERTIES
FUTURE COMMERCIAL DEVELOPMENT



APPENDIX B

Drainage Calculations

1
1

RUN DATE (MON/DAY/YR) =11/09/2006
USER NO. = AHYMO-S-9702dIsa-Arfman2

```
TIME=          .00
RAIN6=        2.560
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COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 2 NOTATION
COMPUTE NM HYD	119 00	-	19	.00013	.30	.009	1.36100	1.500	3.650	PER IMP= 25.00
*S BASIN OFF-1 (REMAINING NORTH LENKURT PROPERTIES)										
COMPUTE NM HYD	120.00	-	20	.02969	88.58	3.460	2.18485	1.500	4.662	PER IMP= 90.00
*S ROUTE FLOWS FROM B1 THROUGH 26' F-F STREET										
ROUTE MCUNGE	300.00	1	30	.00564	14.77	.550	1.82947	1.533	4.092	CCODE = .2
*S ADD BASIN B2 TO ROUTED FLOWS										
*S * * * AP2 * * *										
ADD HYD	310.00	2&30	31	.00987	25.47	.963	1.82927	1.533	4.033	
*S ADD BASIN B3--FLOWS AT INLET 7										
*S * * * AP3 * * *										
ADD HYD	320.00	3&31	32	.01272	32.69	1.241	1.82923	1.533	4.016	
*S DIVIDE FLOW--14.0 CFS TO INLETS 6&7, REMAINDER IN STREET										
DIVIDE HYD	330.PIPE	32	33	.00987	14.00	.963	1.82923	1.433	2.217	
	340.STREET	and	34	.00285	18.69	.278	1.82923	1.533	10.237	
*S										
*S ROUTE FLOWS THROUGH 26' F-F STREET										
ROUTE MCUNGE	350.00	34	35	.00285	18.38	.280	1.84106	1.567	10.067	CCODE = .2
*S ADD BASIN B9 TO ROUTED FLOWS										
*S * * * AP4 * * *										
ADD HYD	360.00	9&35	36	.00472	22.53	.463	1.83619	1.567	7.454	
*S DIVIDE FLOW--6.2 CFS TO INLET 8, REMAINDER IN STREET										
DIVIDE HYD	480.PIPE	36	48	.00263	6.20	.257	1.83619	1.500	3.688	
	490.STREET	and	49	.00210	16.33	.205	1.83619	1.567	12.174	
*S ROUTE FLOWS FROM BASIN B4 THROUGH 28' F-F STREET										
ROUTE MCUNGE	370.00	4	37	.00477	12.42	.465	1.82938	1.533	4.070	CCODE = .2
*S ADD BASIN B5 TO ROUTED FLOWS										
*S * * * AP6 * * *										
ADD HYD	380 00	5&37	38	.00625	16.31	.610	1.82922	1.500	4.078	
*S ROUTE FLOWS THROUGH 28' F-F STREET										
ROUTE MCUNGE	190.00	38	19	.00625	16.13	.608	1.82462	1.567	4.032	CCODE = .1
*S ROUTE FLOWS FROM BASIN B6 THROUGH 28' F-F STREET										
ROUTE MCUNGE	390.00	6	39	.00251	6.61	.245	1.82941	1.533	4.115	CCODE = .2
*S ADD BASIN B7--TOTAL FLOWS AT INLET 10										
*S * * * AP7 * * *										
ADD HYD	400.00	7&39	40	.00552	14.23	.539	1.82915	1.533	4.029	
*S DIVIDE FLOW--4.4 CFS TO INLET 10, REMAINDER IN STREET										
DIVIDE HYD	410.PIPE	40	41	.00367	4.40	.358	1.82915	1.400	1.874	
	420.STREET	and	42	.00185	9.83	.181	1.82915	1.533	8.295	
*S ADD BASIN B8 AND FLOWS FROM STREET 'E'										
*S --TOTAL FLOWS AT INLET 9										
*S * * * AP8 * * *										
ADD HYD	430.00	8&42	43	.00434	16.14	.424	1.82911	1.533	5.808	
ADD HYD	440.00	19&43	44	.01059	31.33	1.032	1.82642	1.533	4.621	
*S DIVIDE FLOW--7.4 CFS TO INLET 9, REMAINDER IN STREET										
DIVIDE HYD	450.PIPE	44	45	.00602	7.40	.586	1.82642	1.400	1.921	
	460.STREET	and	46	.00457	23.93	.445	1.82642	1.533	8.175	
*S ADD BASIN B10										
*S * * * AP9 * * *										
ADD HYD	470.00	10&46	47	.00521	25.56	.508	1.82671	1.533	7.662	
*S ROUTE FLOWS THROUGH 26' F-F STREET										
ROUTE MCUNGE	500.00	47	50	.00521	25.31	.508	1.82589	1.567	7.588	CCODE = .2
*S ADD BASIN B11--TOTAL FLOWS AT INLET 1										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 3 NOTATION
*S	* * * AP10 * * *									
ADD HYD	510.00	11&50	51	.00580	26.63	.565	1.82609	1.567	7.172	
*S	DIVIDE FLOWS--6.0 CFS TO INLET 1, REMAINDER IN STREET									
DIVIDE HYD	520.PE	51	52	.00258	6.00	.251	1.82609	1.467	3.640	
	530.STREET	and	53	.00323	20.63	.314	1.82609	1.567	9.990	
*S	ROUTE FLOWS THROUGH 26' F-F STREET									
ROUTE MCUNGE	540.00	53	54	.00323	20.41	.312	1.81415	1.567	9.881	CCODE = .1
*S	ADD BASIN B12--TOTAL FLOWS AT INLET 5									
*S	* * * AP11 * * *									
ADD HYD	550.00	12&54	55	.00409	22.33	.396	1.81713	1.567	8.535	
*S	DIVIDE FLOWS--4.2 CFS TO INLET 5, REMAINDER IN STREET									
DIVIDE HYD	560.PE	55	56	.00158	4.20	.153	1.81713	1.500	4.149	
	570.STREET	and	57	.00251	18.13	.243	1.81713	1.567	11.304	
*S	ADD FLOWS AT INLET 4									
*S	* * * AP12 * * *									
ADD HYD	580.00	49&57	58	.00460	34.46	.448	1.82581	1.567	11.700	
*S	DIVIDE FLOWS--7.4 CFS TO INLET 4, REMAINDER IN STREET									
DIVIDE HYD	590.PE	58	59	.00152	7.40	.148	1.82581	1.500	7.619	
	600.STREET	and	60	.00308	27.06	.300	1.82581	1.567	13.709	
*S	ADD BASIN B13									
*S	TOTAL STREET FLOW AT SUMP INLETS 2 & 3									
*S	* * * AP13 * * *									
ADD HYD	610.00	13&60	61	.00535	32.33	.540	1.89182	1.567	9.436	
*S	ADD BASINS 15 & 16 & 14(CONDO SD CONNECTING TO INLETS)									
ADD HYD	640.00	15&16	64	.00264	6.48	.229	1.62575	1.500	3.833	
ADD HYD	650.00	14&64	65	.00306	7.52	.265	1.62570	1.500	3.839	
ADD HYD	660.00	61&65	66	.00841	38.71	.806	1.79503	1.567	7.189	
*S	ADD PIPE FLOW AT MH 4 BY SUMP INLETS 2 & 3									
*S	* * * AP14 * * *									
ADD HYD	670.00	33&48	67	.01249	20.20	1.220	1.83070	1.500	2.526	
ADD HYD	680.00	52&67	68	.01507	26.20	1.471	1.82991	1.500	2.717	
ADD HYD	690.00	56&68	69	.01665	30.40	1.624	1.82869	1.500	2.853	
ADD HYD	700.00	59&69	70	.01817	37.80	1.772	1.82845	1.500	3.251	
ADD HYD	710.00	66&70	71	.02658	76.51	2.577	1.81788	1.567	4.497	
*S	ADD PIPE FLOW AT MH 7									
*S	* * * AP15 * * *									
ADD HYD	730.00	41&45	73	.00969	11.80	.944	1.82745	1.400	1.903	
*S	ADD FLOWS AT MH 4 & MH 7									
*S	TOTAL FLOWS LEAVING SITE AT EXST 54-INCH SD									
*S	* * * AP16 * * *									
ADD HYD	740.00	71&73	74	.03627	88.31	3.521	1.82043	1.567	3.804	
*S	ROUTE FLOWS IN 54-IN SD TO I-40 CHANNEL									
ROUTE	750.00	74	75	.03627	86.81	3.521	1.82045	1.567	3.740	
*S	ADD BASIN OFF-1 (NORTH LENKURT PROPERTY) AND BASIN B-17 AND									
*S	FLOWS FROM THE PRESIDIO									
ADD HYD	750.00	17&20	76	.02996	89.18	3.478	2.17669	1.500	4.651	
ADD HYD	760.00	75&76	77	.06623	165.67	7.000	1.98160	1.533	3.909	
FINISH										

AHYMO PROGRAM (AHYMO_97) - Version: 1997.02d
 RUN DATE (MON/DAY/YR) = 11/09/2006
 START TIME (HR:MIN:SEC) = 17:03:27 USER NO.= AHYMO-S-9702dIsa-Arfman2
 INPUT FILE = 1446P.DAT

*S*****
 *S PRESIDIO
 *S DEVELOPED CONDITIONS
 *S 100-YR, 6-HR STORM
 *S 1446P.DAT
 *S NOVEMBER, 2006
 *S BY ASA NILSSON-WEBER
 *S ISAACSON & ARFMAN, P.A.

*S*****
 START RAINFALL BEGINS AT 0.0 HRS
 RAINFALL TYPE=1 RAIN QUARTER=0 RAIN ONE=2.07
 RAIN SIX=2.56 RAIN DAY=3.15 DT=0.03333HR
 COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
 DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0032	.0065	.0098	.0132	.0166	.0202
.0238	.0275	.0313	.0352	.0392	.0433	.0475
.0519	.0563	.0609	.0656	.0705	.0756	.0808
.0862	.0918	.0976	.1037	.1100	.1166	.1235
.1308	.1385	.1465	.1523	.1584	.1649	.1790
.2104	.2587	.3281	.4229	.5474	.7062	.9040
1.1453	1.3693	1.4629	1.5419	1.6121	1.6760	1.7348
1.7895	1.8405	1.8884	1.9334	1.9759	2.0160	2.0540
2.0900	2.1241	2.1565	2.1872	2.2164	2.2239	2.2309
2.2376	2.2440	2.2502	2.2561	2.2618	2.2673	2.2727
2.2779	2.2829	2.2878	2.2926	2.2973	2.3018	2.3062
2.3106	2.3148	2.3190	2.3230	2.3270	2.3309	2.3347
2.3385	2.3422	2.3458	2.3494	2.3529	2.3563	2.3597
2.3631	2.3664	2.3696	2.3728	2.3760	2.3791	2.3822
2.3852	2.3882	2.3912	2.3941	2.3970	2.3998	2.4026
2.4054	2.4082	2.4109	2.4136	2.4163	2.4189	2.4215
2.4241	2.4267	2.4292	2.4317	2.4342	2.4366	2.4391
2.4415	2.4439	2.4463	2.4486	2.4510	2.4533	2.4556
2.4578	2.4601	2.4623	2.4645	2.4667	2.4689	2.4711
2.4732	2.4754	2.4775	2.4796	2.4817	2.4837	2.4858
2.4878	2.4899	2.4919	2.4939	2.4959	2.4978	2.4998
2.5018	2.5037	2.5056	2.5075	2.5094	2.5113	2.5132
2.5150	2.5169	2.5187	2.5206	2.5224	2.5242	2.5260
2.5278	2.5296	2.5313	2.5331	2.5348	2.5366	2.5383
2.5400	2.5417	2.5434	2.5451	2.5468	2.5485	2.5501
2.5518	2.5535	2.5551	2.5567	2.5584	2.5600	

*
 *S BASIN B1
 *S * * * AP1 * * *
 COMPUTE NM HYD ID=1 HYD NO=101 AREA=0.00564 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1
 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 13.806 CFS UNIT VOLUME = .9985 B = 526.28 P60 = 2.0700
 AREA = .003497 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 5.6247 CFS UNIT VOLUME = .9980 B = 349.84 P60 = 2.0700
 AREA = .002143 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.00

RUNOFF VOLUME = 1.82919 INCHES = .5502 ACRE-FEET
 PEAK DISCHARGE RATE = 14.89 CFS AT 1.500 HOURS BASIN AREA = .0056 SQ. MI.

*S BASIN B2
 COMPUTE NM HYD ID=2 HYD NO=102 AREA=0.00423 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1
 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 10.354 CFS UNIT VOLUME = .9982 B = 526.28 P60 = 2.0700
 AREA = .002623 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 4.2186 CFS UNIT VOLUME = .9973 B = 349.84 P60 = 2.0700
 AREA = .001607 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 PRINT HYD ID=2 CODE=1
 PARTIAL HYDROGRAPH 102.00

RUNOFF VOLUME = 1.82919 INCHES = .4127 ACRE-FEET
 PEAK DISCHARGE RATE = 11.17 CFS AT 1.500 HOURS BASIN AREA = .0042 SQ. MI.

*S BASIN B3

COMPUTE NM HYD ID=3 HYD NO=103 AREA=0.00285 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1
 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 6.9762 CFS UNIT VOLUME = .9978 B = 526.28 P60 = 2.0700
 AREA = .001767 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 2.8423 CFS UNIT VOLUME = .9959 B = 349.84 P60 = 2.0700
 AREA = .001083 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 PRINT HYD ID=3 CODE=1
 PARTIAL HYDROGRAPH 103.00

RUNOFF VOLUME = 1.82919 INCHES = .2780 ACRE-FEET
 PEAK DISCHARGE RATE = 7.53 CFS AT 1.500 HOURS BASIN AREA = .0029 SQ. MI.

*S BASIN B4

*S * * * AP5 * * *
 COMPUTE NM HYD ID=4 HYD NO=104 AREA=0.00477 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1
 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 11.676 CFS UNIT VOLUME = .9984 B = 526.28 P60 = 2.0700
 AREA = .002957 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 4.7571 CFS UNIT VOLUME = .9976 B = 349.84 P60 = 2.0700
 AREA = .001813 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 PRINT HYD ID=4 CODE=1
 PARTIAL HYDROGRAPH 104.00

RUNOFF VOLUME = 1.82919 INCHES = .4653 ACRE-FEET
 PEAK DISCHARGE RATE = 12.60 CFS AT 1.500 HOURS BASIN AREA = .0048 SQ. MI.

*S BASIN B5

COMPUTE NM HYD ID=5 HYD NO=105 AREA=0.00148 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1
 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 3.6227 CFS UNIT VOLUME = .9961 B = 526.28 P60 = 2.0700
 AREA = .000918 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 1.4760 CFS UNIT VOLUME = .9917 B = 349.84 P60 = 2.0700
 AREA = .000562 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 PRINT HYD ID=5 CODE=1
 PARTIAL HYDROGRAPH 105.00

RUNOFF VOLUME = 1.82919 INCHES = .1444 ACRE-FEET
 PEAK DISCHARGE RATE = 3.92 CFS AT 1.500 HOURS BASIN AREA = .0015 SQ. MI.

*S BASIN B6

COMPUTE NM HYD ID=6 HYD NO=106 AREA=0.00251 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1
 K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 6.1440 CFS UNIT VOLUME = .9976 B = 526.28 P60 = 2.0700
 AREA = .001556 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589

UNIT PEAK = 2.5032 CFS UNIT VOLUME = .9949 B = 349.84 P60 = 2.0700
 AREA = .000954 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
 PRINT HYD ID=6 CODE=1

PARTIAL HYDROGRAPH 106.00

RUNOFF VOLUME = 1.82919 INCHES = .2449 ACRE-FEET
 PEAK DISCHARGE RATE = 6.64 CFS AT 1.500 HOURS BASIN AREA = .0025 SQ. MI.

*S BASIN B7

COMPUTE NM HYD ID=7 HYD NO=107 AREA=0.00301 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 7.3679 CFS UNIT VOLUME = .9978 B = 526.28 P60 = 2.0700
 AREA = .001866 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 3.0019 CFS UNIT VOLUME = .9959 B = 349.84 P60 = 2.0700
 AREA = .001144 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=7 CODE=1

PARTIAL HYDROGRAPH 107.00

RUNOFF VOLUME = 1.82919 INCHES = .2936 ACRE-FEET
 PEAK DISCHARGE RATE = 7.96 CFS AT 1.500 HOURS BASIN AREA = .0030 SQ. MI.

*S BASIN B8

COMPUTE NM HYD ID=8 HYD NO=108 AREA=0.00249 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 6.0950 CFS UNIT VOLUME = .9976 B = 526.28 P60 = 2.0700
 AREA = .001544 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 2.4833 CFS UNIT VOLUME = .9949 B = 349.84 P60 = 2.0700
 AREA = .000946 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=8 CODE=1

PARTIAL HYDROGRAPH 108.00

RUNOFF VOLUME = 1.82919 INCHES = .2429 ACRE-FEET
 PEAK DISCHARGE RATE = 6.58 CFS AT 1.500 HOURS BASIN AREA = .0025 SQ. MI.

*S BASIN B9

COMPUTE NM HYD ID=9 HYD NO=109 AREA=0.00187 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 4.5774 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 2.0700
 AREA = .001159 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 1.8649 CFS UNIT VOLUME = .9932 B = 349.84 P60 = 2.0700
 AREA = .000711 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=9 CODE=1

PARTIAL HYDROGRAPH 109.00

RUNOFF VOLUME = 1.82919 INCHES = .1824 ACRE-FEET
 PEAK DISCHARGE RATE = 4.95 CFS AT 1.500 HOURS BASIN AREA = .0019 SQ. MI.

*S BASIN B10

COMPUTE NM HYD ID=10 HYD NO=110 AREA=0.00064 SQ MI
 PER A=0 PER B=19 PER C=19 PER D=62
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 1.5666 CFS UNIT VOLUME = .9922 B = 526.28 P60 = 2.0700
 AREA = .000397 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 63827 CFS UNIT VOLUME = .9804 B = 349.84 P60 = 2.0700
 AREA = .000243 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
PRINT HYD ID=10 CODE=1

PARTIAL HYDROGRAPH 110.00

RUNOFF VOLUME = 1.82919 INCHES = .0624 ACRE-FEET
PEAK DISCHARGE RATE = 1.71 CFS AT 1.500 HOURS BASIN AREA = .0006 SQ. MI.

*S BASIN B11

COMPUTE NM HYD ID=11 HYD NO=111 AREA=0.00059 SQ MI
PER A=0 PER B=19 PER C=19 PER D=62
TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 1.4442 CFS UNIT VOLUME = .9911 B = 526.28 P60 = 2.0700
AREA = .000366 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
UNIT PEAK = .58840 CFS UNIT VOLUME = .9785 B = 349.84 P60 = 2.0700
AREA = .000224 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=11 CODE=1

PARTIAL HYDROGRAPH 111.00

RUNOFF VOLUME = 1.82919 INCHES = .0576 ACRE-FEET
PEAK DISCHARGE RATE = 1.57 CFS AT 1.500 HOURS BASIN AREA = .0006 SQ. MI.

*S BASIN B12

COMPUTE NM HYD ID=12 HYD NO=112 AREA=0.00086 SQ MI
PER A=0 PER B=19 PER C=19 PER D=62
TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 2.1051 CFS UNIT VOLUME = .9941 B = 526.28 P60 = 2.0700
AREA = .000533 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
UNIT PEAK = .85767 CFS UNIT VOLUME = .9852 B = 349.84 P60 = 2.0700
AREA = .000327 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=12 CODE=1

PARTIAL HYDROGRAPH 112.00

RUNOFF VOLUME = 1.82919 INCHES = .0839 ACRE-FEET
PEAK DISCHARGE RATE = 2.29 CFS AT 1.500 HOURS BASIN AREA = .0009 SQ. MI.

*S BASIN B13

COMPUTE NM HYD ID=13 HYD NO=113 AREA=0.00227 SQ MI
PER A=0 PER B=13 PER C=13 PER D=74
TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 6.6319 CFS UNIT VOLUME = .9976 B = 526.28 P60 = 2.0700
AREA = .001680 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
UNIT PEAK = 1.5490 CFS UNIT VOLUME = .9917 B = 349.84 P60 = 2.0700
AREA = .000590 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=13 CODE=1

PARTIAL HYDROGRAPH 113.00

RUNOFF VOLUME = 1.98161 INCHES = .2399 ACRE-FEET
PEAK DISCHARGE RATE = 6.34 CFS AT 1.500 HOURS BASIN AREA = .0023 SQ. MI.

*S BASIN B14

COMPUTE NM HYD ID=14 HYD NO=114 AREA=0.00042 SQ MI
PER A=0 PER B=27 PER C=27 PER D=46
TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = .76276 CFS UNIT VOLUME = .9840 B = 526.28 P60 = 2.0700
AREA = .000193 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
UNIT PEAK = .59523 CFS UNIT VOLUME = .9785 B = 349.84 P60 = 2.0700
AREA = .000227 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=14 CODE=1

PARTIAL HYDROGRAPH 114.00

RUNOFF VOLUME = 1.62595 INCHES = .0364 ACRE-FEET
 PEAK DISCHARGE RATE = 1.04 CFS AT 1.500 HOURS BASIN AREA = .0004 SQ. MI.

*S BASIN B15

COMPUTE NM HYD ID=15 HYD NO=115 AREA=0.00074 SQ MI

PER A=0 PER B=27 PER C=27 PER D=46

TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420

UNIT PEAK = 1.3439 CFS UNIT VOLUME = .9911 B = 526.28 P60 = 2.0700

AREA = .000340 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589

UNIT PEAK = 1.0487 CFS UNIT VOLUME = .9878 B = 349.84 P60 = 2.0700

AREA = .000400 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=15 CODE=1

PARTIAL HYDROGRAPH 115.00

RUNOFF VOLUME = 1.62595 INCHES = .0642 ACRE-FEET
 PEAK DISCHARGE RATE = 1.82 CFS AT 1.500 HOURS BASIN AREA = .0007 SQ. MI.

*S BASIN B16

COMPUTE NM HYD ID=16 HYD NO=116 AREA=0.00190 SQ MI

PER A=0 PER B=27 PER C=27 PER D=46

TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420

UNIT PEAK = 3.4506 CFS UNIT VOLUME = .9961 B = 526.28 P60 = 2.0700

AREA = .000874 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589

UNIT PEAK = 2.6927 CFS UNIT VOLUME = .9954 B = 349.84 P60 = 2.0700

AREA = .001026 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=16 CODE=1

PARTIAL HYDROGRAPH 116.00

RUNOFF VOLUME = 1.62595 INCHES = .1648 ACRE-FEET
 PEAK DISCHARGE RATE = 4.65 CFS AT 1.500 HOURS BASIN AREA = .0019 SQ. MI.

*S BASIN B17 (FLOWS TO MORRIS)

COMPUTE NM HYD ID=17 HYD NO=117 AREA=0.00027 SQ MI

PER A=0 PER B=26 PER C=60 PER D=14

TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420

UNIT PEAK = .14924 CFS UNIT VOLUME = .9169 B = 526.28 P60 = 2.0700

AREA = .000038 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .115587HR TP = .133300HR K/TP RATIO = .867118 SHAPE CONSTANT, N = 4.098134

UNIT PEAK = .62999 CFS UNIT VOLUME = .9789 B = 361.66 P60 = 2.0700

AREA = .000232 SQ MI IA = .39535 INCHES INF = .95698 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=17 CODE=1

PARTIAL HYDROGRAPH 117.00

RUNOFF VOLUME = 1.28167 INCHES = .0185 ACRE-FEET
 PEAK DISCHARGE RATE = .60 CFS AT 1.500 HOURS BASIN AREA = .0003 SQ. MI.

*S BASIN B18 (FLOWS TO CHICO)

COMPUTE NM HYD ID=18 HYD NO=118 AREA=0.00033 SQ MI

PER A=0 PER B=22 PER C=53 PER D=25

TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420

UNIT PEAK = .32571 CFS UNIT VOLUME = .9664 B = 526.28 P60 = 2.0700

AREA = .000083 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .115365HR TP = .133300HR K/TP RATIO = .865452 SHAPE CONSTANT, N = 4.106655

UNIT PEAK = .67254 CFS UNIT VOLUME = .9810 B = 362.22 P60 = 2.0700

AREA = .000248 SQ MI IA = .39400 INCHES INF = .95320 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=18 CODE=1

PARTIAL HYDROGRAPH 118.00

RUNOFF VOLUME = 1.41603 INCHES = .0249 ACRE-FEET
 PEAK DISCHARGE RATE = .76 CFS AT 1.500 HOURS BASIN AREA = .0003 SQ. MI.

*S BASIN B19 (FLOWS TO CHICO)

COMPUTE NM HYD ID=19 HYD NO=119 AREA=0.00013 SQ MI
 PER A=0 PER B=37 PER C=38 PER D=25
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = .12831 CFS UNIT VOLUME = .9033 B = 526.28 P60 = 2.0700
 AREA = .000033 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120303HR TP = .133300HR K/TP RATIO = .902494 SHAPE CONSTANT, N = 3.926283
 UNIT PEAK = .25617 CFS UNIT VOLUME = .9502 B = 350.22 P60 = 2.0700
 AREA = .000098 SQ MI IA = .42400 INCHES INF = 1.03720 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=19 CODE=1

PARTIAL HYDROGRAPH 119.00

RUNOFF VOLUME = 1.36100 INCHES = .0094 ACRE-FEET
 PEAK DISCHARGE RATE = .30 CFS AT 1.500 HOURS BASIN AREA = .0001 SQ. MI.

*S BASIN OFF-1 (REMAINING NORTH LENKURT PROPERTIES)

COMPUTE NM HYD ID=20 HYD NO=120 AREA=0.02969 SQ MI
 PER A=0 PER B=5 PER C=5 PER D=90
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 105.50 CFS UNIT VOLUME = .9993 B = 526.28 P60 = 2.0700
 AREA = .026721 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .120467HR TP = .133300HR K/TP RATIO = .903729 SHAPE CONSTANT, N = 3.920589
 UNIT PEAK = 7 7920 CFS UNIT VOLUME = .9988 B = 349.84 P60 = 2.0700
 AREA = .002969 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=20 CODE=1

PARTIAL HYDROGRAPH 120.00

RUNOFF VOLUME = 2.18485 INCHES = 3.4596 ACRE-FEET
 PEAK DISCHARGE RATE = 88.58 CFS AT 1.500 HOURS BASIN AREA = .0297 SQ. MI.

*
 *

*S ROUTE FLOWS FROM B1 THROUGH 26' F-F STREET

COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1
 MIN ELEV=0.00 MAX ELEV=0.72
 CH SLP=0.005 FP SLP=0.005
 N=0.017 SEG DIST=32
 DIST ELEV
 0 0.72
 2.9 0.67
 3.0 0.00
 16.0 0.26
 29.0 0.00
 29.1 0.67
 32.0 0.72

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.04	.07	.03	3.80
.08	.29	.20	7.60
.11	.65	.59	11.40
.15	1.15	1.26	15.20
.19	1.80	2.29	19.00
.23	2.59	3.72	22.80
.27	3.53	5.68	26.08
.30	4.52	8.55	26.09
.34	5.50	11.88	26.10
.38	6.49	15.61	26.11
.42	7.48	19.74	26.12
.45	8.47	24.23	26.14
.49	9.46	29.08	26.15
.53	10.46	34.27	26.16
.57	11.45	39.78	26.17
.61	12.44	45.60	26.18
.64	13.43	51.73	26.19

.68 14.43 56.33 27.60
 .72 15.56 58.09 32.00
 ROUTE MCUNGE ID=30 HYD NO=300 INFLOW ID=1
 DT=0.0 HR LENGTH=550 FT
 NS=0 SLOPE=0.005

INFLOW END= 206 TABLE PTS= 20
 DT= 033330 QMED= 7 45 CKMED= 2 9096
 WIDTH MED= 26.09 NREACH= 3 DX= 183.33

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	0	.482	0	1.53	.20	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.04	.1	0	.352	3.8	1.52	.43	.994	.006	.994	.000	.006	.0	.999	.000	.001
.08	.3	.2	.222	7.6	1.50	.69	.981	.019	.981	.000	.019	.1	.989	.000	.011
.11	.6	.6	.169	11.4	1.47	.90	.962	.038	.962	.000	.038	.4	.973	.000	.027
.15	1.2	1.3	.140	15.2	1.48	1.09	.968	.061	.940	.014	.046	.9	.952	.006	.042
.19	1.8	2.3	.120	19.0	1.71	1.27	1.118	.077	.930	.089	-.019	1.7	.933	.048	.019
.23	2.6	3.7	.107	22.8	1.96	1.43	1.281	.091	.923	.157	-.080	3.0	.924	.117	-.041
.27	3.5	5.7	.095	26.1	2.42	1.61	1.581	.098	.927	.254	-.180	4.7	.921	.194	-.115
.30	4.5	8.6	.081	26.1	3.14	1.89	2.055	.114	.928	.369	-.297	7.1	.933	.335	-.267
.34	5.5	11.9	.071	26.1	3.57	2.16	2.338	.139	.920	.425	-.345	10.2	.924	.399	-.323
.38	6.5	15.6	.064	26.1	3.98	2.40	2.603	.164	.913	.469	-.382	13.7	.916	.448	-.365
.42	7.5	19.7	.058	26.1	4.36	2.64	2.852	.189	.906	.505	-.412	17.6	.910	.488	-.398
.45	8.5	24.2	.053	26.1	4.72	2.86	3.089	.214	.900	.535	-.436	21.9	.903	.521	-.424
.49	9.5	29.1	.050	26.1	5.07	3.07	3.315	.240	.895	.561	-.456	26.6	.898	.549	-.446
.53	10.5	34.3	.047	26.2	5.40	3.28	3.532	.265	.890	.583	-.473	31.6	.892	.572	-.465
.57	11.4	39.8	.044	26.2	5.72	3.48	3.741	.290	.885	.602	-.487	37.0	.887	.593	-.480
.61	12.4	45.6	.042	26.2	6.02	3.67	3.943	.315	.880	.620	-.500	42.7	.882	.611	-.494
.64	13.4	51.7	.040	26.2	6.45	3.85	4.169	.339	.841	.597	-.438	48.6	.878	.627	-.505
.68	14.4	56.3	.039	27.6	6.86	3.90	4.403	.363	.610	.464	-.074	54.0	.781	.549	-.330
.72	15.6	58.1	.041	32.0	7.27	3.73	4.646	.386	.190	.395	.415	57.2	.198	.406	.397

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 10 TIMES. AVERAGE NUMBER ITERATIONS = 1.0608

Equations solved using the Ponce correction to C2
 PRINT HYD ID=30 CODE=1

HYDROGRAPH FROM AREA 300.00

RUNOFF VOLUME = 1.82947 INCHES = .5503 ACRE-FEET
 PEAK DISCHARGE RATE = 14.77 CFS AT 1.533 HOURS BASIN AREA = .0056 SQ. MI.

*S ADD BASIN B2 TO ROUTED FLOWS

*S * * * AP2 * * *

ADD HYD ID=31 HYD NO=310 ID I=2 ID II=30

PRINT HYD ID=31 CODE=1

HYDROGRAPH FROM AREA 310.00

RUNOFF VOLUME = 1.82927 INCHES = .9629 ACRE-FEET
 PEAK DISCHARGE RATE = 25.47 CFS AT 1.533 HOURS BASIN AREA = .0099 SQ. MI.

*S ADD BASIN B3--FLOWS AT INLET 7

*S * * * AP3 * * *

ADD HYD ID=32 HYD NO=320 ID I=3 ID II=31

PRINT HYD ID=32 CODE=1

HYDROGRAPH FROM AREA 320.00

RUNOFF VOLUME = 1.82923 INCHES = 1.2409 ACRE-FEET
 PEAK DISCHARGE RATE = 32.69 CFS AT 1.533 HOURS BASIN AREA = .0127 SQ. MI.

*S DIVIDE FLOW--14.0 CFS TO INLETS 6&7, REMAINDER IN STREET

DIVIDE HYD ID=32 Q=14.0 ID I=33 HYD NO=330.PE
 ID II=34 HYD NO=340.STREET

PRINT HYD ID=33 CODE=1

HYDROGRAPH FROM AREA 330.PE

RUNOFF VOLUME = 1.82923 INCHES = .9626 ACRE-FEET
 PEAK DISCHARGE RATE = 14.00 CFS AT 1.433 HOURS BASIN AREA = .0099 SQ. MI.

PRINT HYD ID=34 CODE=1

HYDROGRAPH FROM AREA 340.STREET

RUNOFF VOLUME = 1.82923 INCHES = .2783 ACRE-FEET
 PEAK DISCHARGE RATE = 18.69 CFS AT 1.533 HOURS BASIN AREA = .0029 SQ. MI.

*S

*S ROUTE FLOWS THROUGH 26'F-F STREET

COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1
 MIN ELEV=0.00 MAX ELEV=0.72
 CH SLP=0.005 FP SLP=0.005
 N=0.017 SEG DIST=32
 DIST ELEV

0 0.72
2.9 0.67
3.0 0.00
16.0 0.26
29.0 0.00
29.1 0.67
32.0 0.72

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.04	.07	.03	3.80
.08	.29	.20	7.60
.11	.65	.59	11.40
.15	1.15	1.26	15.20
.19	1.80	2.29	19.00
.23	2.59	3.72	22.80
.27	3.53	5.68	26.08
.30	4.52	8.55	26.09
.34	5.50	11.88	26.10
.38	6.49	15.61	26.11
.42	7.48	19.74	26.12
.45	8.47	24.23	26.14
.49	9.46	29.08	26.15
.53	10.46	34.27	26.16
.57	11.45	39.78	26.17
.61	12.44	45.60	26.18
.64	13.43	51.73	26.19
.68	14.43	56.33	27.60
.72	15.56	58.09	32.00

ROUTE MCUNGE ID=35 HYD NO=350 INFLOW ID=34
DT=0.0 HR LENGTH=360 FT
NS=0 SLOPE=0.005

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
00	0	.0	.315	.0	1.50	.20	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
04	1	.0	.230	3.8	1.49	.43	.994	.006	.994	.000	.006	.0	.999	.000	.001
08	.3	.2	.145	7.6	1.47	.69	.980	.020	.980	.000	.020	.1	.989	.000	.011
11	.6	.6	.111	11.4	1.44	.90	.960	.040	.960	.000	.040	.4	.972	.000	.028
15	1.2	1.3	.091	15.2	1.48	1.09	.985	.062	.939	.023	.038	.9	.951	.011	.039
19	1.8	2.3	.079	19.0	1.71	1.27	1.139	.078	.929	.098	-.027	1.7	.932	.058	.010
23	2.6	3.7	.070	22.8	1.96	1.43	1.305	.093	.923	.166	-.089	3.0	.924	.126	-.050
.27	3.5	5.7	.062	26.1	2.42	1.61	1.610	.100	.926	.262	-.188	4.7	.920	.203	-.123
30	4.5	8.6	.053	26.1	3.14	1.89	2.093	.116	.928	.377	-.305	7.1	.932	.343	-.275
.34	5.5	11.9	.046	26.1	3.57	2.16	2.382	.141	.920	.432	-.352	10.2	.924	.406	-.330
.38	6.5	15.6	.042	26.1	3.98	2.40	2.651	.167	.912	.476	-.389	13.7	.916	.455	-.371
.42	7.5	19.7	.038	26.1	4.36	2.64	2.905	.193	.906	.512	-.418	17.6	.909	.495	-.404
.45	8.5	24.2	.035	26.1	4.72	2.86	3.146	.218	.900	.542	-.442	21.9	.903	.527	-.430
.49	9.5	29.1	.033	26.1	5.07	3.07	3.377	.244	.894	.567	-.462	26.6	.897	.555	-.452
.53	10.5	34.3	.031	26.2	5.40	3.28	3.598	.270	.889	.589	-.478	31.6	.892	.579	-.470
57	11.4	39.8	.029	26.2	5.72	3.48	3.810	.295	.884	.608	-.493	37.0	.887	.599	-.486
61	12.4	45.6	.027	26.2	6.02	3.67	4.016	.321	.880	.625	-.505	42.7	.882	.617	-.499
64	13.4	51.7	.026	26.2	5.45	3.85	3.635	.402	.840	.603	-.443	48.6	.877	.633	-.510
.68	14.4	56.3	.026	27.6	3.06	3.90	2.040	.741	.608	.471	-.079	54.0	.780	.556	-.336
72	15.6	58.1	.027	32.0	1.48	3.73	.986	1.364	.186	.403	.411	57.2	.193	.413	.393

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 4 OCCURRED 4 TIMES. AVERAGE NUMBER ITERATIONS = 1.0386

Equations solved using the Ponce correction to C2
PRINT HYD ID=35 CODE=1

HYDROGRAPH FROM AREA 350.00

RUNOFF VOLUME = 1.84106 INCHES = 2801 ACRE-FEET
PEAK DISCHARGE RATE = 18.38 CFS AT 1.567 HOURS BASIN AREA = .0029 SQ. MI

*S ADD BASIN B9 TO ROUTED FLOWS
*S * * * AP4 * * *
ADD HYD ID=36 HYD NO=360 ID I=9 ID II=35
PRINT HYD ID=36 CODE=1

HYDROGRAPH FROM AREA 360.00

RUNOFF VOLUME = 1.83619 INCHES = .4625 ACRE-FEET
PEAK DISCHARGE RATE = 22.53 CFS AT 1.567 HOURS BASIN AREA = .0047 SQ. MI.

*S DIVIDE FLOW--6.2 CFS TO INLET 8, REMAINDER IN STREET
DIVIDE HYD ID=36 Q=6.2 ID I=48 HYD NO=480.PEPE
ID II=49 HYD NO=490.STREET
PRINT HYD ID=48 CODE=1

HYDROGRAPH FROM AREA 480.PIPE

RUNOFF VOLUME = 1.83619 INCHES = .2573 ACRE-FEET
 PEAK DISCHARGE RATE = 6.20 CFS AT 1.500 HOURS BASIN AREA = .0026 SQ. MI.

PRINT HYD ID=49 CODE=1

HYDROGRAPH FROM AREA 490.STREET

RUNOFF VOLUME = 1.83619 INCHES = .2053 ACRE-FEET
 PEAK DISCHARGE RATE = 16.33 CFS AT 1.567 HOURS BASIN AREA = .0021 SQ. MI.

*S ROUTE FLOWS FROM BASIN B4 THROUGH 28' F-F STREET

COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1
 MIN ELEV=0.00 MAX ELEV=0.72
 CH SLP=0.006 FP SLP=0.006
 N=0.017 SEG DIST=34
 DIST ELEV
 0 0.72
 2.9 0.67
 3.0 0.00
 17.0 0.28
 31.0 0.00
 31.1 0.67
 34.0 0.72

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.04	.07	.03	3.80
.08	.29	.22	7.60
.11	.65	.64	11.40
.15	1.15	1.38	15.20
.19	1.80	2.50	19.00
.23	2.59	4.07	22.80
.27	3.53	6.14	26.61
.30	4.58	9.15	28.09
.34	5.65	12.94	28.10
.38	6.71	17.22	28.11
.42	7.78	21.98	28.12
.45	8.84	27.17	28.14
.49	9.91	32.80	28.15
.53	10.98	38.82	28.16
.57	12.04	45.23	28.17
.61	13.11	52.02	28.18
.64	14.18	59.17	28.19
.68	15.26	64.72	29.60
.72	16.46	67.21	34.00

ROUTE MCUNGE ID=37 HYD NO=370 INFLOW ID=4
 DT=0.0 HR LENGTH=160 FT
 NS=0 SLOPE=0.006

INFLOW END= 205

TABLE PTS= 20

DT= .033330

QMED= 6.30

CKMED= 2.8528

WIDTH MED=

26.68

NREACH= 1

DX=

160.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	0	.0	.128	.0	1.33	.22	1 000	000	1.000	.000	.000	0	1 000	.000	000
.04	1	0	.093	3 8	1.32	.48	993	007	993	000	.007	0	999	000	.001
.08	3	2	.059	7 6	1.30	.76	977	023	977	000	023	1	987	.000	013
.11	6	.6	.045	11 4	1.35	.99	1.011	043	.958	026	016	4	969	011	.020
.15	1 2	1.4	.037	15.2	1 62	1 20	1.214	.058	949	.120	- .069	1.0	.951	.068	-.019
.19	1 8	2 5	.032	19.0	1.87	1 39	1 403	.073	941	.192	-.133	1.9	.943	153	- .096
.23	2.6	4.1	.028	22.8	2.11	1.57	1 581	.088	.934	.251	-.185	3.2	.936	219	- 155
.27	3.5	6.1	.026	26.6	2.49	1.74	1 867	.097	.935	.325	-.260	5 1	.930	273	- 203
.30	4.6	9 1	.022	28.1	3.18	2.00	2.384	.107	.939	.427	- 366	7 6	.939	389	- 328
.34	5.6	12.9	.019	28.1	3.80	2.29	2 847	.126	.936	.497	- 433	11.0	.940	.471	- 411
.38	6.7	17.2	.017	28.1	4.25	2.57	3.186	.150	.931	.539	-.469	15.0	.933	519	- .452
.42	7.8	22.0	.016	28.1	4.67	2.83	3.504	.174	.926	.573	-.498	19 5	.928	556	- 485
.45	8.8	27.2	.014	28.1	5 08	3.07	3 807	.198	.921	.600	-.521	24.5	.923	.587	-.510
.49	9.9	32 8	.013	28 1	5.46	3.31	4.096	.222	.916	.624	-.540	29.9	.919	.613	-.531
.53	11.0	38.8	.013	28.2	5.83	3.54	4 372	.246	.912	.644	- 556	35 8	.914	.634	-.549
.57	12.0	45 2	.012	28 2	6.19	3.76	4 638	.270	.908	.662	- 570	42 0	.910	.653	- 563
.61	13 1	52 0	.011	28 2	6 53	3.97	4.895	.295	.905	.677	- 582	48 6	.907	.669	- 576
.64	14 2	59.2	.011	28.2	6 00	4 17	4.497	.365	.876	.659	-.534	55 6	.903	.684	- 587
.68	15 3	64 7	.010	29 6	3 61	4 24	2 707	.631	.709	.539	-.248	61 9	.832	.618	- 450
.72	16.5	67 2	.011	34 0	1.96	4.08	1.466	1 053	.402	.432	.167	66.0	.415	.443	.142

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 3 TIMES. AVERAGE NUMBER ITERATIONS =

1.0660

Equations solved using the Ponce correction to C2

PRINT HYD ID=37 CODE=1

HYDROGRAPH FROM AREA 370.00

RUNOFF VOLUME = 1.82938 INCHES = .4654 ACRE-FEET
 PEAK DISCHARGE RATE = 12.42 CFS AT 1.533 HOURS BASIN AREA = .0048 SQ. MI.

*S ADD BASIN B5 TO ROUTED FLOWS

*S * * * AP6 * * *

ADD HYD ID=38 HYD NO=380 ID I=5 ID II=37

PRINT HYD ID=38 CODE=1

HYDROGRAPH FROM AREA 380.00

RUNOFF VOLUME = 1.82922 INCHES = .6097 ACRE-FEET
 PEAK DISCHARGE RATE = 16.31 CFS AT 1.500 HOURS BASIN AREA = .0063 SQ. MI.

*S ROUTE FLOWS THROUGH 28' F-F STREET

COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1

MIN ELEV=0 00 MAX ELEV=0.72

CH SLP=0.005 FP SLP=0.006

N=0 017 SEG DIST=34

DIST ELEV

0 0.72

2.9 0.67

3.0 0.00

17.0 0.28

31.0 0.00

31.1 0.67

34.0 0.72

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.04	.07	.03	3.80
.08	.29	.22	7.60
.11	.65	.64	11.40
.15	1.15	1.38	15.20
.19	1.80	2.50	19.00
.23	2.59	4.07	22.80
.27	3.53	6.14	26.61
.30	4.58	9.15	28.09
.34	5.65	12.94	28.10
.38	6.71	17.22	28.11
.42	7.78	21.98	28.12
.45	8.84	27.17	28.14
.49	9.91	32.80	28.15
.53	10.98	38.82	28.16
.57	12.04	45.23	28.17
.61	13.11	52.02	28.18
.64	14.18	59.17	28.19
.68	15.26	64.72	29.60
.72	16.46	67.21	34.00

ROUTE MCUNGE ID=19 HYD NO=190 INFLOW ID=38
 DT=0.0 HR LENGTH=300 FT
 NS=0 SLOPE=0.006

INFLOW END= 207

TABLE PTS= 20

DT= .033330

QMED= 8.16

CKMED= 2.8528

WIDTH MED=

27.60

NREACH= 2

DX= 150.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	0	.240	.0	1.25	.22	1 000	000	1.000	.000	000	.0	1.000	.000	000
.04	.1	0	.175	3.8	1.24	.48	.992	.008	.992	.000	.008	0	.999	000	001
.08	3	2	.110	7.6	1.22	.76	.974	.026	.974	.000	.026	1	.985	000	015
.11	6	.6	.084	11.4	1 35	.99	1 078	.046	.956	.059	-.015	4	.966	.025	.008
.15	1 2	1 4	.070	15.2	1.62	1.20	1.295	.062	.947	.152	-.099	1.0	.950	.100	-.050
.19	1.8	2 5	.060	19 0	1.87	1.39	1 497	.078	.939	.223	-.163	1 9	.941	.185	-.126
.23	2.6	4 1	.053	22.8	2.11	1 57	1.686	.094	.932	.281	-.213	3.2	.934	.250	-.184
.27	3 5	6 1	.048	26 6	2.49	1.74	1.992	.103	.933	.354	-.287	5.1	.928	.303	-.231
.30	4 6	9.1	.042	28.1	3.18	2.00	2.543	.114	.938	.453	-.391	7.6	.938	.416	-.354
.34	5 6	12.9	.036	28.1	3 80	2 29	3.037	.135	.935	.521	-.456	11 0	.939	.496	-.435
.38	6.7	17 2	.032	28 1	4.25	2.57	3.398	.160	.930	.561	-.491	15.0	.932	.542	-.475
.42	7.8	22.0	.029	28 1	4.67	2.83	3.738	.186	.925	.594	-.518	19 5	.927	.578	-.505
.45	8.8	27 2	.027	28.1	5 08	3 07	4 061	.211	.920	.621	-.540	24 5	.922	.608	-.530
.49	9.9	32 8	.025	28.1	5.46	3.31	4 369	.237	.915	.643	-.559	29 9	.918	.632	-.550
.53	11 0	38 8	.024	28.2	5.83	3.54	4 664	.263	.911	.663	-.574	35.8	.913	.653	-.567
.57	12 0	45.2	.022	28 2	6.19	3.76	4 948	.288	.907	.679	-.587	42.0	.909	.671	-.581
.61	13 1	52.0	.021	28 2	6.53	3 97	5 221	.314	.904	.694	-.598	48.6	.906	.687	-.593
.64	14 2	59.2	.020	28.2	6.00	4.17	4 797	.389	.874	.677	-.551	55.6	.902	.701	-.603
.68	15.3	64.7	.020	29.6	3.61	4.24	2.887	.673	.705	.561	-.266	61.9	.830	.638	-.468
.72	16.5	67.2	.020	34.0	1 96	4.08	1.564	1.123	.391	.458	.152	66.0	.404	.469	.127

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 6 TIMES AVERAGE NUMBER ITERATIONS = 1.0677

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
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.00	0	.0	240	.0	1.25	22	1.000	.000	1.000	.000	.000	0	1.000	.000	.000
.04	1	0	.175	3.8	1.24	.48	.992	.008	.992	.000	.008	0	.999	.000	.001
.08	.3	2	.110	7.6	1.22	.76	.974	.026	.974	.000	.026	1	.985	.000	.015
.11	6	6	.084	11.4	1.31	.99	1.048	.048	.954	.046	.000	4	.966	.020	.015
.15	1.2	1.4	.070	15.2	1.34	1.20	1.075	.075	.930	.070	.000	1.0	.942	.058	.000
.19	1.8	2.5	.060	19.0	1.38	1.39	1.106	.106	.904	.096	.000	1.9	.917	.083	.000
.23	2.6	4.1	.053	22.8	1.42	1.57	1.139	.139	.878	.122	.000	3.2	.890	.110	.000
.27	3.5	6.1	.048	26.6	1.47	1.74	1.175	.175	.851	.149	.000	5.1	.864	.136	.000
.30	4.6	9.1	.042	28.1	1.54	2.00	1.234	.234	.810	.190	.000	7.6	.830	.170	.000
.34	5.6	12.9	.036	28.1	1.64	2.29	1.312	.312	.762	.238	.000	11.0	.786	.214	.000
.38	6.7	17.2	.032	28.1	1.74	2.57	1.391	.391	.719	.281	.000	15.0	.740	.260	.000
.42	7.8	22.0	.029	28.1	1.84	2.83	1.472	.472	.679	.321	.000	19.5	.699	.301	.000
.45	8.8	27.2	.027	28.1	1.94	3.07	1.553	.553	.644	.356	.000	24.5	.661	.339	.000
.49	9.9	32.8	.025	28.1	2.04	3.31	1.634	.634	.612	.388	.000	29.9	.628	.372	.000
.53	11.0	38.8	.024	28.2	2.14	3.54	1.715	.715	.583	.417	.000	35.8	.597	.403	.000
.57	12.0	45.2	.022	28.2	2.24	3.76	1.795	.795	.557	.443	.000	42.0	.570	.430	.000
.61	13.1	52.0	.021	28.2	2.34	3.97	1.875	.875	.533	.467	.000	48.6	.545	.455	.000
.64	14.2	59.2	.020	28.2	2.44	4.17	1.954	.954	.512	.488	.000	55.6	.522	.478	.000
.68	15.3	64.7	.020	29.6	2.48	4.24	1.981	.981	.505	.495	.000	61.9	.508	.492	.000
.72	16.5	67.2	.020	34.0	1.96	4.08	1.564	1.123	.391	.458	.152	66.0	.404	.469	.127

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 2 OCCURRED 65 TIMES. AVERAGE NUMBER ITERATIONS = 1.0564

Equations solved with two passes: first using the Ponce correction to C1, second using the Fread correction to C1, C2 and C3

PRINT HYD ID=19 CODE=1

PARTIAL HYDROGRAPH 190.00

RUNOFF VOLUME = 1.82462 INCHES = .6082 ACRE-FEET
 PEAK DISCHARGE RATE = 16.13 CFS AT 1.567 HOURS BASIN AREA = .0063 SQ. MI.

*S ROUTE FLOWS FROM BASIN B6 THROUGH 28' F-F STREET

COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1
 MIN ELEV=0.00 MAX ELEV=0.72
 CH SLP=0.005 FP SLP=0.005
 N=0.017 SEG DIST=34
 DIST ELEV
 0 0.72
 2.9 0.67
 3.0 0.00
 17.0 0.28
 31.0 0.00
 31.1 0.67
 34.0 0.72

RATING CURVE VALLEY SECTION 1.0			
WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.04	.07	.03	3.80
.08	.29	.20	7.60
.11	.65	.59	11.40
.15	1.15	1.26	15.20
.19	1.80	2.29	19.00
.23	2.59	3.72	22.80
.27	3.53	5.61	26.61
.30	4.58	8.35	28.09
.34	5.65	11.81	28.10
.38	6.71	15.72	28.11
.42	7.78	20.06	28.12
.45	8.84	24.81	28.14
.49	9.91	29.94	28.15
.53	10.98	35.44	28.16
.57	12.04	41.29	28.17
.61	13.11	47.49	28.18
.64	14.18	54.01	28.19
.68	15.26	59.08	29.60
.72	16.46	61.35	34.00

ROUTE MCUNGE ID=39 HYD NO=390 INFLOW ID=6
 DT=0.0 HR LENGTH=350 FT
 NS=0 SLOPE=0.005

INFLOW END= 201		TABLE PTS= 20													
DT= .033330	QMED= 3.32	CKMED= 1.8069													
WIDTH MED= 21.74	NREACH= 3	DX= 116.67													
DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME (HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	0	.0	307	.0	.97	.20	1.000	.000	1.000	.000	.000	0	1.000	.000	.000
.04	1	0	224	3.8	.96	.43	.985	.015	.985	.000	.015	.0	.998	.000	.002
.08	3	2	.141	7.6	.96	.69	.986	.047	.954	.016	.030	.1	.974	.006	.020
.11	6	6	108	11.4	1.23	.90	1.266	.072	.939	.144	-.083	.4	.942	.072	-.014
.15	1.2	1.3	.089	15.2	1.48	1.09	1.520	.096	.926	.236	-.162	.9	.930	.186	-.115
.19	1.8	2.3	.077	19.0	1.71	1.27	1.757	.121	.916	.305	-.221	1.7	.919	.268	-.187
.23	2.6	3.7	.068	22.8	1.92	1.43	1.979	.145	.907	.360	-.267	3.0	.910	.331	-.240

.27	3.5	5 6	.061	26.6	2.27	1.59	2.338	.159	.909	.428	-.337	4.6	.901	.381	- 282
.30	4.6	8.4	.053	28.1	2.90	1.82	2.985	.176	.916	.519	- 435	6 9	.916	485	- 401
.34	5.6	11 8	.046	28.1	3.47	2.09	3.564	208	.913	.581	- 494	10.0	.917	.558	- 475
.38	6.7	15 7	.042	28 1	3 88	2 34	3.988	247	.906	.618	- 524	13.7	.909	.601	- 510
42	7 8	20 1	.038	28 1	4 27	2 58	4 387	287	.899	.648	- 546	17 8	.902	.634	- 536
45	8 8	24 8	.035	28.1	4.63	2 81	4.766	326	.893	.672	- 565	22 4	.896	.660	- 556
49	9 9	29.9	.032	28 1	4 99	3 02	5.128	.366	.887	.692	- 579	27 3	.890	.682	- 572
53	11 0	35.4	.030	28.2	5.32	3 23	5.474	.405	.882	.709	- 591	32 6	.885	.701	- 586
57	12 0	41.3	.028	28.2	5.65	3 43	5.807	.445	.877	.724	- 601	38 3	.880	.717	- 597
61	13 1	47 5	.027	28 2	5.96	3.62	6.128	.485	.873	.737	- 610	44 3	.875	.731	- 606
64	14 2	54 0	.026	28 2	5.47	3.81	5.630	.600	.834	.723	- 557	50.7	.870	.743	- 614
.68	15.3	59 1	.025	29 6	3.29	3.87	3.389	1 038	.617	.631	- 249	56.5	.776	.691	- 468
.72	16.5	61 4	.026	34 0	1.79	3.73	1.836	1.733	.241	.562	.196	60.2	.257	.571	172

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 3 TIMES. AVERAGE NUMBER ITERATIONS =

1.0561

Equations solved using the Ponce correction to C2

PRINT HYD ID=39 CODE=1

HYDROGRAPH FROM AREA 390.00

RUNOFF VOLUME = 1.82941 INCHES = .2449 ACRE-FEET
 PEAK DISCHARGE RATE = 6.61 CFS AT 1.533 HOURS BASIN AREA = .0025 SQ. MI.

*S ADD BASIN B7--TOTAL FLOWS AT INLET 10

*S * * * AP7 * * *

ADD HYD ID=40 HYD NO=400 ID I=7 ID II=39

PRINT HYD ID=40 CODE=1

HYDROGRAPH FROM AREA 400.00

RUNOFF VOLUME = 1.82915 INCHES = .5385 ACRE-FEET
 PEAK DISCHARGE RATE = 14.23 CFS AT 1.533 HOURS BASIN AREA = .0055 SQ. MI.

*S DIVIDE FLOW--4.4 CFS TO INLET 10, REMAINDER IN STREET

DIVIDE HYD ID=40 Q=4.4 ID I=41 HYD NO=410.PIPE
 ID II=42 HYD NO=420.STREET

PRINT HYD ID=41 CODE=1

HYDROGRAPH FROM AREA 410.PIPE

RUNOFF VOLUME = 1.82915 INCHES = .3578 ACRE-FEET
 PEAK DISCHARGE RATE = 4.40 CFS AT 1.400 HOURS BASIN AREA = .0037 SQ. MI

PRINT HYD ID=42 CODE=1

HYDROGRAPH FROM AREA 420.STREET

RUNOFF VOLUME = 1.82915 INCHES = .1807 ACRE-FEET
 PEAK DISCHARGE RATE = 9.83 CFS AT 1.533 HOURS BASIN AREA = .0019 SQ. MI.

*S ADD BASIN B8 AND FLOWS FROM STREET 'E'

*S --TOTAL FLOWS AT INLET 9

*S * * * AP8 * * *

ADD HYD ID=43 HYD NO=430 ID I=8 ID II=42

PRINT HYD ID=43 CODE=1

HYDROGRAPH FROM AREA 430.00

RUNOFF VOLUME = 1.82911 INCHES = .4236 ACRE-FEET
 PEAK DISCHARGE RATE = 16.14 CFS AT 1.533 HOURS BASIN AREA = .0043 SQ. MI.

ADD HYD ID=44 HYD NO=440 ID I=19 ID II=43

PRINT HYD ID=44 CODE=1

HYDROGRAPH FROM AREA 440.00

RUNOFF VOLUME = 1.82642 INCHES = 1.0318 ACRE-FEET
 PEAK DISCHARGE RATE = 31.33 CFS AT 1.533 HOURS BASIN AREA = .0106 SQ. MI.

*S DIVIDE FLOW--7.4 CFS TO INLET 9, REMAINDER IN STREET

DIVIDE HYD ID=44 Q=7.4 ID I=45 HYD NO=450.PIPE
 ID II=46 HYD NO=460.STREET

PRINT HYD ID=45 CODE=1

HYDROGRAPH FROM AREA 450.PIPE

RUNOFF VOLUME = 1.82642 INCHES = .5863 ACRE-FEET
 PEAK DISCHARGE RATE = 7.40 CFS AT 1.400 HOURS BASIN AREA = .0060 SQ. MI.

PRINT HYD ID=46 CODE=1

HYDROGRAPH FROM AREA 460.STREET

RUNOFF VOLUME = 1.82642 INCHES = .4454 ACRE-FEET
 PEAK DISCHARGE RATE = 23.93 CFS AT 1.533 HOURS BASIN AREA = .0046 SQ. MI.

*S ADD BASIN B10

*S * * * AP9 * * *

ADD HYD ID=47 HYD NO=470 ID I=10 ID II=46
PRINT HYD ID=47 CODE=1

HYDROGRAPH FROM AREA 470.00

RUNOFF VOLUME = 1.82671 INCHES = .5078 ACRE-FEET
PEAK DISCHARGE RATE = 25.56 CFS AT 1.533 HOURS BASIN AREA = .0052 SQ. MI

*S ROUTE FLOWS THROUGH 26' F-F STREET
COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1

MIN ELEV=0.00 MAX ELEV=0.72

CH SLP=0.005 FP SLP=0.005

N=0.017 SEG DIST=32

DIST ELEV

0 0.72

2.9 0.67

3.0 0.00

16.0 0.26

29.0 0.00

29.1 0.67

32.0 0.72

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.04	.07	.03	3.80
.08	.29	.20	7.60
.11	.65	.59	11.40
.15	1.15	1.26	15.20
.19	1.80	2.29	19.00
.23	2.59	3.72	22.80
.27	3.53	5.68	26.08
.30	4.52	8.55	26.09
.34	5.50	11.88	26.10
.38	6.49	15.61	26.11
.42	7.48	19.74	26.12
.45	8.47	24.23	26.14
.49	9.46	29.08	26.15
.53	10.46	34.27	26.16
.57	11.45	39.78	26.17
.61	12.44	45.60	26.18
.64	13.43	51.73	26.19
.68	14.43	56.33	27.60
.72	15.56	58.09	32.00

ROUTE MCUNGE ID=50 HYD NO=500 INFLOW ID=47
DT=0.0 HR LENGTH=235 FT
NS=0 SLOPE=0.005

INFLOW END= 192

TABLE PTS= 20

DT= .033330

QMED= 12.78

CKMED= 3.7768

WIDTH MED=

26.10

NREACH= 1

DX= 235.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	0	0	.206	.0	1.96	.20	1.000	.000	1.000	.000	.000	0	1.000	.000	.000
.04	1	.0	.150	3.8	1.95	.43	.996	.004	.996	.000	.004	.0	.999	.000	.001
.08	.3	2	.095	7.6	1.94	.69	.989	.011	.989	.000	.011	.1	.993	.000	.007
.11	6	6	.072	11.4	1.91	.90	.977	.023	.977	.000	.023	4	.984	.000	.016
.15	12	1.3	.060	15.2	1.89	1.09	.963	.037	.963	.000	.037	9	.971	.000	.029
.19	18	2.3	.051	19.0	1.85	1.27	.945	.055	.945	.000	.055	17	.954	.000	.046
.23	26	3.7	.046	22.8	1.96	1.43	1.000	.071	.932	.034	.034	3.0	.938	.016	.045
.27	35	5.7	.041	26.1	2.42	1.61	1.233	.077	.934	.134	-.068	4.7	.929	.072	-.001
.30	45	8.6	.034	26.1	3.14	1.89	1.603	.089	.934	.257	-.191	7.1	.938	.220	-.159
.34	55	11.9	.030	26.1	3.57	2.16	1.824	.108	.926	.318	-.244	10.2	.930	.289	-.219
.38	65	15.6	.027	26.1	3.98	2.40	2.030	.128	.919	.367	-.286	13.7	.922	.344	-.266
.42	75	19.7	.025	26.1	4.36	2.64	2.225	.148	.913	.407	-.319	17.6	.916	.388	-.303
.45	85	24.2	.023	26.1	4.72	2.86	2.410	.167	.907	.441	-.347	21.9	.909	.425	-.334
.49	95	29.1	.021	26.1	5.07	3.07	2.587	.187	.901	.470	-.371	26.6	.904	.456	-.360
.53	105	34.3	.020	26.2	5.40	3.28	2.756	.207	.896	.495	-.391	31.6	.898	.483	-.381
.57	114	39.8	.019	26.2	5.72	3.48	2.919	.226	.891	.517	-.408	37.0	.893	.507	-.400
.61	124	45.6	.018	26.2	6.02	3.67	3.076	.246	.886	.537	-.423	42.7	.888	.528	-.416
.64	134	51.7	.017	26.2	6.45	3.85	3.285	.308	.849	.511	-.361	48.6	.884	.546	-.430
.68	144	56.3	.017	27.6	6.06	3.90	1.562	.568	.637	.361	.002	54.0	.794	.457	-.251
.72	15.6	58.1	.017	32.0	1.48	3.73	.755	1.045	.254	.286	.461	57.2	.260	.297	.443

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 4 OCCURRED 1 TIMES. AVERAGE NUMBER ITERATIONS =

1.0503

Equations solved using the Ponce correction to C2

PRINT HYD

ID=50 CODE=1

OUTFLOW HYDROGRAPH RESERVOIR 500.00

RUNOFF VOLUME = 1.82589 INCHES = .5076 ACRE-FEET
PEAK DISCHARGE RATE = 25.31 CFS AT 1.567 HOURS BASIN AREA = .0052 SQ. MI.

*S ADD BASIN B11--TOTAL FLOWS AT INLET 1

*S * * * AP10 * * *

ADD HYD ID=51 HYD NO=510 ID I=11 ID II=50

PRINT HYD ID=51 CODE=1

OUTFLOW HYDROGRAPH RESERVOIR 510.00

RUNOFF VOLUME = 1.82609 INCHES = .5651 ACRE-FEET

PEAK DISCHARGE RATE = 26.63 CFS AT 1.567 HOURS BASIN AREA = .0058 SQ. MI.

*S DIVIDE FLOWS--6.0 CFS TO INLET 1, REMAINDER IN STREET

DIVIDE HYD ID=51 Q=6.0 ID I=52 HYD NO=520.PEPE

ID II=53 HYD NO=530.STREET

PRINT HYD ID=52 CODE=1

HYDROGRAPH FROM AREA 520.PEPE

RUNOFF VOLUME = 1.82609 INCHES = .2508 ACRE-FEET

PEAK DISCHARGE RATE = 6.00 CFS AT 1.467 HOURS BASIN AREA = .0026 SQ MI.

PRINT HYD ID=53 CODE=1

HYDROGRAPH FROM AREA 530.STREET

RUNOFF VOLUME = 1.82609 INCHES = .3143 ACRE-FEET

PEAK DISCHARGE RATE = 20.63 CFS AT 1.567 HOURS BASIN AREA = .0032 SQ. MI.

*S ROUTE FLOWS THROUGH 26' F-F STREET

COMPUTE RATING CURVE CID=1 VS NO=1 NO SEGS=1

MIN ELEV=0.00 MAX ELEV=0.72

CH SLP=0.005 FP SLP=0.005

N=0.017 SEG DIST=32

DIST ELEV

0 0.72

2 9 0.67

3 0 0.00

16.0 0.26

29.0 0.00

29.1 0.67

32.0 0.72

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.04	.07	.03	3.80
.08	.29	.20	7.60
.11	.65	.59	11.40
.15	1.15	1.26	15.20
.19	1.80	2.29	19.00
.23	2.59	3.72	22.80
.27	3.53	5.68	26.08
.30	4.52	8.55	26.09
.34	5.50	11.88	26.10
.38	6.49	15.61	26.11
.42	7.48	19.74	26.12
.45	8.47	24.23	26.14
.49	9.46	29.08	26.15
.53	10.46	34.27	26.16
.57	11.45	39.78	26.17
.61	12.44	45.60	26.18
.64	13.43	51.73	26.19
.68	14.43	56.33	27.60
.72	15.56	58.09	32.00

ROUTE MCUNGE ID=54 HYD NO=540 INFLOW ID=53

DT=0.0 HR LENGTH=180 FT

NS=0 SLOPE=0.005

INFLOW END= 54

TABLE PTS= 20

DT= .033330

QMED= 10.32 CKMED= 3.3592

WIDTH MED=

26.10

NREACH= 1

DX= 180.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
00	0	.0	158	.0	1.50	.20	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
04	1	.0	115	3.8	1.49	.43	.994	.006	.994	.000	.006	.0	.999	.000	.001
08	3	2	073	7.6	1.47	.69	.980	.020	.980	.000	.020	1	.989	.000	.011
.11	.6	6	.055	11.4	1.44	.90	.960	.040	.960	.000	.040	.4	.972	.000	.028
15	1.2	1.3	.046	15.2	1.48	1.09	.985	.062	.939	.023	.038	.9	.951	.011	.039
19	1.8	2.3	.039	19.0	1.71	1.27	1.139	.078	.929	.098	-.027	1.7	.932	.058	.010
.23	2.6	3.7	.035	22.8	1.96	1.43	1.305	.093	.923	.166	-.089	3.0	.924	.126	-.050
.27	3.5	5.7	.031	26.1	2.42	1.61	1.610	.100	.926	.262	-.188	4.7	.920	.203	-.123
30	4.5	8.6	.026	26.1	3.14	1.89	2.093	.116	.928	.377	-.305	7.1	.932	.343	-.275
34	5.5	11.9	.023	26.1	3.57	2.16	2.382	.141	.920	.432	-.352	10.2	.924	.406	-.330
.38	6.5	15.6	.021	26.1	3.98	2.40	2.651	.167	.912	.476	-.389	13.7	.916	.455	-.371

42	7.5	19.7	0.19	26.1	4.36	2.64	2.905	.193	906	.512	-.418	17.6	.909	495	-.404
.45	8.5	24.2	.017	26.1	4.72	2.86	3.146	.218	900	.542	-.442	21.9	.903	527	-.430
.49	9.5	29.1	.016	26.1	5.07	3.07	3.377	.244	894	.567	-.462	26.6	.897	.555	-.452
.53	10.5	34.3	.015	26.2	5.40	3.28	3.598	.270	.889	.589	-.478	31.6	.892	579	-.470
.57	11.4	39.8	.014	26.2	5.72	3.48	3.810	.295	.884	.608	-.493	37.0	.887	.599	-.486
.61	12.4	45.6	.014	26.2	6.02	3.67	4.016	.321	.880	.625	-.505	42.7	.882	.617	-.499
.64	13.4	51.7	.013	26.2	5.45	3.85	3.635	.402	.840	.603	-.443	48.6	.877	.633	-.510
.68	14.4	56.3	.013	27.6	3.06	3.90	2.040	.741	.608	.471	-.079	54.0	.780	.556	-.336
.72	15.6	58.1	.013	32.0	1.48	3.73	.986	1.364	186	.403	.411	57.2	.193	.413	393
MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 4 OCCURRED 2 TIMES AVERAGE NUMBER ITERATIONS = 1.0396															
DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	CK (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	0	158	.0	1.50	20	1.000	.000	1.000	.000	.000	0	1.000	.000	.000
.04	.1	0	115	3.8	1.49	.43	.994	.006	.994	.000	.006	.0	.999	.000	.001
.08	.3	2	.073	7.6	1.47	.69	.980	.020	.980	.000	.020	.1	.989	.000	.011
.11	.6	.6	.055	11.4	1.44	.90	.960	.040	.960	.000	.040	.4	.972	.000	.028
.15	1.2	1.3	.046	15.2	1.48	1.09	.985	.062	.939	.023	.038	.9	.951	.011	.039
.19	1.8	2.3	.039	19.0	1.62	1.27	1.082	.082	.924	.076	.000	1.7	.932	.058	.010
.23	2.6	3.7	.035	22.8	1.66	1.43	1.109	.109	.902	.098	.000	3.0	.913	.087	.000
.27	3.5	5.7	.031	26.1	1.71	1.61	1.141	.141	.876	.124	.000	4.7	.889	.111	.000
.30	4.5	8.6	.026	26.1	1.80	1.89	1.202	.202	.832	.168	.000	7.1	.854	.146	.000
.34	5.5	11.9	.023	26.1	1.90	2.16	1.266	.266	.790	.210	.000	10.2	.811	.189	.000
.38	6.5	15.6	.021	26.1	2.00	2.40	1.332	.332	.751	.249	.000	13.7	.770	.230	.000
.42	7.5	19.7	.019	26.1	2.10	2.64	1.400	.400	.714	.286	.000	17.6	.732	.268	.000
.45	8.5	24.2	.017	26.1	2.20	2.86	1.468	.468	.681	.319	.000	21.9	.697	.303	.000
.49	9.5	29.1	.016	26.1	2.30	3.07	1.536	.536	.651	.349	.000	26.6	.666	.334	.000
.53	10.5	34.3	.015	26.2	2.41	3.28	1.605	.605	.623	.377	.000	31.6	.637	.363	.000
.57	11.4	39.8	.014	26.2	2.51	3.48	1.673	.673	.598	.402	.000	37.0	.610	.390	.000
.61	12.4	45.6	.014	26.2	2.61	3.67	1.741	.741	.574	.426	.000	42.7	.586	.414	.000
.64	13.4	51.7	.013	26.2	2.71	3.85	1.809	.809	.553	.447	.000	48.6	.563	.437	.000
.68	14.4	56.3	.013	27.6	2.74	3.90	1.827	.827	.547	.453	.000	54.0	.550	.450	.000
.72	15.6	58.1	.013	32.0	1.48	3.73	.986	1.364	186	.403	.411	57.2	.193	.413	393

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 3 OCCURRED 3 TIMES. AVERAGE NUMBER ITERATIONS =

1 0270

Equations solved with two passes: first using the Ponce correction to C1, second using the Fread correction to C1, C2 and C3

PRINT HYD

ID=54 CODE=1

OUTFLOW HYDROGRAPH RESERVOIR 540.00

RUNOFF VOLUME = 1.81415 INCHES = .3122 ACRE-FEET

PEAK DISCHARGE RATE = 20.41 CFS AT 1.567 HOURS BASIN AREA = .0032 SQ. MI.

*S ADD BASIN B12--TOTAL FLOWS AT INLET 5

*S * * * AP11 * * *

ADD HYD ID=55 HYD NO=550 ID I=12 ID II=54

PRINT HYD ID=55 CODE=1

OUTFLOW HYDROGRAPH RESERVOIR 550.00

RUNOFF VOLUME = 1.81713 INCHES = .3961 ACRE-FEET

PEAK DISCHARGE RATE = 22.33 CFS AT 1.567 HOURS BASIN AREA = .0041 SQ. MI.

*S DIVIDE FLOWS--4.2 CFS TO INLET 5, REMAINDER IN STREET

DIVIDE HYD ID=55 Q=4.2 ID I=56 HYD NO=560.PEPE

ID II=57 HYD NO=570.STREET

PRINT HYD ID=56 CODE=1

HYDROGRAPH FROM AREA 560.PEPE

RUNOFF VOLUME = 1.81713 INCHES = .1533 ACRE-FEET

PEAK DISCHARGE RATE = 4.20 CFS AT 1.500 HOURS BASIN AREA = .0016 SQ. MI.

PRINT HYD ID=57 CODE=1

HYDROGRAPH FROM AREA 570.STREET

RUNOFF VOLUME = 1.81713 INCHES = .2428 ACRE-FEET

PEAK DISCHARGE RATE = 18.13 CFS AT 1.567 HOURS BASIN AREA = .0025 SQ. MI.

*S ADD FLOWS AT INLET 4

*S * * * AP12 * * *

ADD HYD ID=58 HYD NO=580 ID I=49 ID II=57

PRINT HYD ID=58 CODE=1

OUTFLOW HYDROGRAPH RESERVOIR 580.00

RUNOFF VOLUME = 1.82581 INCHES = .4481 ACRE-FEET

PEAK DISCHARGE RATE = 34.46 CFS AT 1.567 HOURS BASIN AREA = .0046 SQ. MI.

*S DIVIDE FLOWS--7.4 CFS TO INLET 4, REMAINDER IN STREET

DIVIDE HYD ID=58 Q=7.4 ID I=59 HYD NO=590.PEPE

ID II=60 HYD NO=600.STREET

PRINT HYD ID=59 CODE=1

HYDROGRAPH FROM AREA 590.PEPE

RUNOFF VOLUME = 1.82581 INCHES = .1478 ACRE-FEET

PEAK DISCHARGE RATE = 7.40 CFS AT 1.500 HOURS BASIN AREA = .0015 SQ. MI.
 PRINT HYD ID=60 CODE=1
 HYDROGRAPH FROM AREA 600.00
 RUNOFF VOLUME = 1.82581 INCHES = .3003 ACRE-FEET
 PEAK DISCHARGE RATE = 27.06 CFS AT 1.567 HOURS BASIN AREA = .0031 SQ. MI.
 *S ADD BASIN B13
 *S TOTAL STREET FLOW AT SUMP INLETS 2 & 3
 *S * * * AP13 * * *
 ADD HYD ID=61 HYD NO=610 ID I=13 ID II=60
 PRINT HYD ID=61 CODE=1
 HYDROGRAPH FROM AREA 610.00
 RUNOFF VOLUME = 1.89182 INCHES = .5402 ACRE-FEET
 PEAK DISCHARGE RATE = 32.33 CFS AT 1.567 HOURS BASIN AREA = .0054 SQ. MI.
 *S ADD BASINS 15 & 16 & 14 (CONDO SD CONNECTING TO INLETS)
 ADD HYD ID=64 HYD NO=640 ID I=15 ID II=16
 PRINT HYD ID=64 CODE=1
 HYDROGRAPH FROM AREA 640.00
 RUNOFF VOLUME = 1.62575 INCHES = .2289 ACRE-FEET
 PEAK DISCHARGE RATE = 6.48 CFS AT 1.500 HOURS BASIN AREA = .0026 SQ. MI.
 ADD HYD ID=65 HYD NO=650 ID I=14 ID II=64
 PRINT HYD ID=65 CODE=1
 HYDROGRAPH FROM AREA 650.00
 RUNOFF VOLUME = 1.62570 INCHES = .2653 ACRE-FEET
 PEAK DISCHARGE RATE = 7.52 CFS AT 1.500 HOURS BASIN AREA = .0031 SQ. MI.
 ADD HYD ID=66 HYD NO=660 ID I=61 ID II=65
 PRINT HYD ID=66 CODE=1
 HYDROGRAPH FROM AREA 660.00
 RUNOFF VOLUME = 1.79503 INCHES = .8055 ACRE-FEET
 PEAK DISCHARGE RATE = 38.71 CFS AT 1.567 HOURS BASIN AREA = .0084 SQ. MI.
 *S ADD PIPE FLOW AT MH 4 BY SUMP INLETS 2 & 3
 *S * * * AP14 * * *
 ADD HYD ID=67 HYD NO=670 ID I=33 ID II=48
 PRINT HYD ID=67 CODE=1
 HYDROGRAPH FROM AREA 670.00
 RUNOFF VOLUME = 1.83070 INCHES = 1.2199 ACRE-FEET
 PEAK DISCHARGE RATE = 20.20 CFS AT 1.500 HOURS BASIN AREA = .0125 SQ. MI.
 ADD HYD ID=68 HYD NO=680 ID I=52 ID II=67
 PRINT HYD ID=68 CODE=1
 HYDROGRAPH FROM AREA 680.00
 RUNOFF VOLUME = 1.82991 INCHES = 1.4707 ACRE-FEET
 PEAK DISCHARGE RATE = 26.20 CFS AT 1.500 HOURS BASIN AREA = .0151 SQ. MI.
 ADD HYD ID=69 HYD NO=690 ID I=56 ID II=68
 PRINT HYD ID=69 CODE=1
 HYDROGRAPH FROM AREA 690.00
 RUNOFF VOLUME = 1.82869 INCHES = 1.6240 ACRE-FEET
 PEAK DISCHARGE RATE = 30.40 CFS AT 1.500 HOURS BASIN AREA = .0167 SQ. MI.
 ADD HYD ID=70 HYD NO=700 ID I=59 ID II=69
 PRINT HYD ID=70 CODE=1
 HYDROGRAPH FROM AREA 700.00
 RUNOFF VOLUME = 1.82845 INCHES = 1.7718 ACRE-FEET
 PEAK DISCHARGE RATE = 37.80 CFS AT 1.500 HOURS BASIN AREA = .0182 SQ. MI.
 ADD HYD ID=71 HYD NO=710 ID I=66 ID II=70
 PRINT HYD ID=71 CODE=1
 HYDROGRAPH FROM AREA 710.00
 RUNOFF VOLUME = 1.81788 INCHES = 2.5773 ACRE-FEET
 PEAK DISCHARGE RATE = 76.51 CFS AT 1.567 HOURS BASIN AREA = .0266 SQ. MI.
 *S ADD PIPE FLOW AT MH 7

*S * * * AP15 * * *
 ADD HYD ID=73 HYD NO=730 ID I=41 ID II=45
 PRINT HYD ID=73 CODE=1

HYDROGRAPH FROM AREA 730.00

RUNOFF VOLUME = 1.82745 INCHES = .9442 ACRE-FEET
 PEAK DISCHARGE RATE = 11.80 CFS AT 1.400 HOURS BASIN AREA = .0097 SQ. MI.

*S ADD FLOWS AT MH 4 & MH 7
 *S TOTAL FLOWS LEAVING SITE AT EXST 54-INCH SD
 *S * * * AP16 * * *
 ADD HYD ID=74 HYD NO=740 ID I=71 ID II=73
 PRINT HYD ID=74 CODE=1

HYDROGRAPH FROM AREA 740.00

RUNOFF VOLUME = 1.82043 INCHES = 3.5214 ACRE-FEET
 PEAK DISCHARGE RATE = 88.31 CFS AT 1.567 HOURS BASIN AREA = .0363 SQ. MI.

*S ROUTE FLOWS IN 54-IN SD TO I-40 CHANNEL
 COMPUTE RATING CURVE CID=1 VS NO=1 CODE=-1 SLOPE=0.0058
 DIA=4.5 FT N=0.013

RATING CURVE PIPE SECTION 1.0			
WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	MAX WIDTH FT
.00	.00	.00	.00
.23	.32	.79	2.00
.47	.88	3.41	2.75
.70	1.59	7.93	3.27
.94	2.40	14.26	3.66
1.17	3.30	22.26	3.95
1.41	4.25	31.76	4.17
1.64	5.25	42.56	4.33
1.88	6.28	54.41	4.44
2.11	7.32	67.08	4.49
2.35	8.38	80.28	4.50
2.58	9.43	93.72	4.50
2.81	10.46	107.08	4.50
3.05	11.47	120.02	4.50
3.28	12.43	132.13	4.50
3.52	13.34	142.98	4.50
3.75	14.17	151.99	4.50
3.99	14.90	158.45	4.50
4.22	15.50	161.10	4.50
4.50	15.90	161.10	4.50

COMPUTE TRAVEL TIME ID=75 REACH NO=1 NO VS=1 L=900 FT SLP=0.0058

TRAVEL TIME TABLE

REACH= 1.0			
WATER DEPTH FEET	AVERAGE AREA SQ. FT.	FLOW RATE CFS	TRAVEL TIME HRS
.235	.316	.79	.1006
.469	.880	3.41	.0645
.704	1.588	7.93	.0501
.938	2.402	14.26	.0421
1.173	3.296	22.26	.0370
1.407	4.249	31.76	.0334
1.641	5.248	42.56	.0308
1.876	6.277	54.41	.0288
2.111	7.325	67.08	.0273
2.345	8.380	80.28	.0261
2.579	9.430	93.72	.0252
2.814	10.463	107.08	.0244
3.049	11.468	120.02	.0239
3.283	12.432	132.13	.0235
3.518	13.338	142.98	.0233
3.752	14.169	151.99	.0233
3.987	14.900	158.45	.0235
4.221	15.495	161.10	.0240
4.500	15.904	161.10	.0247

ROUTE ID=75 HYD NO=750 INFLOW ID=74 DT=0.0
 PRINT HYD ID=75 CODE=1

HYDROGRAPH FROM AREA 750.00

RUNOFF VOLUME = 1.82045 INCHES = 3.5214 ACRE-FEET
 PEAK DISCHARGE RATE = 86.81 CFS AT 1.567 HOURS BASIN AREA = .0363 SQ. MI.

*S ADD BASIN OFF-1 (NORTH LENKURT PROPERTY) AND BASIN B-17 AND

*S FLOWS FROM THE PRESIDIO

ADD HYD ID=76 HYD NO=750 ID I=17 ID II=20

PRINT HYD ID=76 CODE=1

HYDROGRAPH FROM AREA 750.00

RUNOFF VOLUME = 2.17669 INCHES = 3.4780 ACRE-FEET

PEAK DISCHARGE RATE = 89.18 CFS AT 1.500 HOURS BASIN AREA = .0300 SQ. MI.

ADD HYD ID=77 HYD NO=760 ID I=75 ID II=76

PRINT HYD ID=77 CODE=1

HYDROGRAPH FROM AREA 760.00

RUNOFF VOLUME = 1.98160 INCHES = 6.9995 ACRE-FEET

PEAK DISCHARGE RATE = 165.67 CFS AT 1.533 HOURS BASIN AREA = .0662 SQ. MI.

FINISH

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 17:03:27

RUNOFF CALCULATIONS FOR DEVELOPED CONDITIONS (Q_{100})

100-YEAR, 6-HOUR STORM

Per the City of Albuquerque D.P.M. Section 22.2

PROJECT NAME: PRESIDIO

JOB NUMBER: 1446

MOTOR COURT, PRIVATE DRAIN &
TRIPLEX RUNDOWN BASINS

PRECIP ZONE	Q_{100} RUNOFF RATES (cfs/Ac)			
	A	B	C	D
1	1.29	2.03	2.87	4.37
2	1.56	2.28	3.14	4.70
3	1.87	2.60	3.45	5.02
4	2.20	2.92	3.73	5.25

% LAND TREATMENTS				
	TREAT TYPE 1	TREAT TYPE 2	TREAT TYPE 3	TREAT TYPE 4
A	0	0	0	0
B	5	10	47	23
C	5	10	47	23
D	90	80	6	54
S% =	100	100	100	100

PRECIPITATION ZONE:

3

TREATMENT TYPE 1							
BASIN #	LAND TREATMENT AREAS (Ac)					Q ₁₀₀ (cfs)	REMARKS
	A _{TOTAL}	A _A	A _B	A _C	A _D		
M1	0.629	0	0.03	0.03	0.57	3.0	MOTOR COURT
M2	0.224	0	0.01	0.01	0.20	1.1	MOTOR COURT
M3	0.236	0	0.01	0.01	0.21	1.1	MOTOR COURT
M4	0.473	0	0.02	0.02	0.43	2.3	MOTOR COURT
M6	0.520	0	0.03	0.03	0.47	2.5	MOTOR COURT

TREATMENT TYPE 2							
BASIN #	LAND TREATMENT AREAS (Ac)					Q ₁₀₀ (cfs)	REMARKS
	A _{TOTAL}	A _A	A _B	A _C	A _D		
M5	0.902	0	0.09	0.09	0.72	4.2	MOTOR COURT
M7	0.758	0	0.08	0.08	0.61	3.5	MOTOR COURT

TREATMENT TYPE 3							
BASIN #	LAND TREATMENT AREAS (Ac)					Q ₁₀₀ (cfs)	REMARKS
	A _{TOTAL}	A _A	A _B	A _C	A _D		
D4	0.389	0	0.18	0.18	0.02	1.2	PRIVATE DRAIN AREA

TREATMENT TYPE 4							
BASIN #	LAND TREATMENT AREAS (Ac)					Q ₁₀₀ (cfs)	REMARKS
	A _{TOTAL}	A _A	A _B	A _C	A _D		
RD	0.057462	0	0.01	0.01	0.03	0.2	TRIPLEX TOWNHOMES RUNDOWN
D1	0.077709	0	0.02	0.02	0.04	0.3	PRIVATE DRAIN AREA
D2	0.6532	0	0.15	0.15	0.35	2.7	PRIVATE DRAIN AREA
D3	0.182818	0	0.04	0.04	0.10	0.7	PRIVATE DRAIN AREA

APPENDIX C

Street Flow Depth Summary Table

STREET FLOW DEPTH SUMMARY

JOB NO. 1446

STREET	LOCATION	STREET WIDTH	CURB TYPE	SLOPE (ft/ft)	Q ₁₀₀ (cfs)	DEPTH (ft)
FORT POINT LN	AP1	26' F-F	MDN	0.0050	14.5	0.45
FORT POINT LN	AP2	26' F-F	STD	0.0400	25.5	0.34
FORT POINT LN	AP3--INLETS 6&7	26' F-F	STD	0.0050	32.7	0.55
FORT POINT LN	AP4--INLET 8	26' F-F	STD	0.0050	22.5	0.52
MARINA GATE TRAIL	AP5	26' F-F	MDN	0.0050	12.6	0.43
FORT SCOTT TRAIL	AP6	28' F-F	MDN	0.0060	16.3	0.45
ARGUELLO TRAIL	AP7--INLET 10	26' F-F	MDN	0.0050	14.2	0.45
ARGUELLO TRAIL	AP8--INLET 9	26' F-F	STD	0.0050	31.3	0.59
ARGUELLO TRAIL	AP9	26' F-F	STD	0.0050	25.5	0.55
FORT POINT LANE	AP10--INLET 1	26' F-F	STD	0.0050	26.6	0.51
FORT POINT LANE	AP11--INLET 5	26' F-F	STD	0.0150	22.3	0.39
J	AP12--INLET 4	25' F-F	STD	0.0069	34.5	0.58
J	AP 13--INLETS 2 & 3	25' F-F	STD	0.0050	31.9	0.60

APPENDIX D

Storm Drain Calculations

SUMP INLET CALCULATIONS

GRATE OPEN AREA:

(per COA std dwg #2220, single grate)

$$\text{GROSS AREA FOR ONE GRATE} = (25 \text{ in}/12)(40 \text{ in}/12) = 6.94 \text{ SF}$$

$$\text{LESS BEARING BARS} = (0.5 \text{ in}/12)(3.33 \text{ ft})(13) = 1.80 \text{ SF}$$

$$\text{LESS CROSS BARS} = (0.5 \text{ in}/12)(7)[(25 \text{ in}/12)-(13)(0.5 \text{ in}/12)] = 0.45 \text{ SF}$$

$$\text{NET GRATE OPEN AREA} = 4.69 \text{ SF}$$

$$\text{GRATE OPEN AREA (assuming 50\% clogging factor)} = 2.35 \text{ SF}$$

ORIFICE EQUATION:

$$Q = CA(2gh)^{1/2}$$

Where:

$$C = 0.67$$

$$A = 2.35 \text{ ft}^2$$

$$g = 32.2 \text{ ft/sec}^2$$

h = height of the water surface above the grate

CAPACITY CALCULATIONS:

INLET # 2 & 3

LOCATION: AP 13

$$h = 0.60 \text{ ft}$$

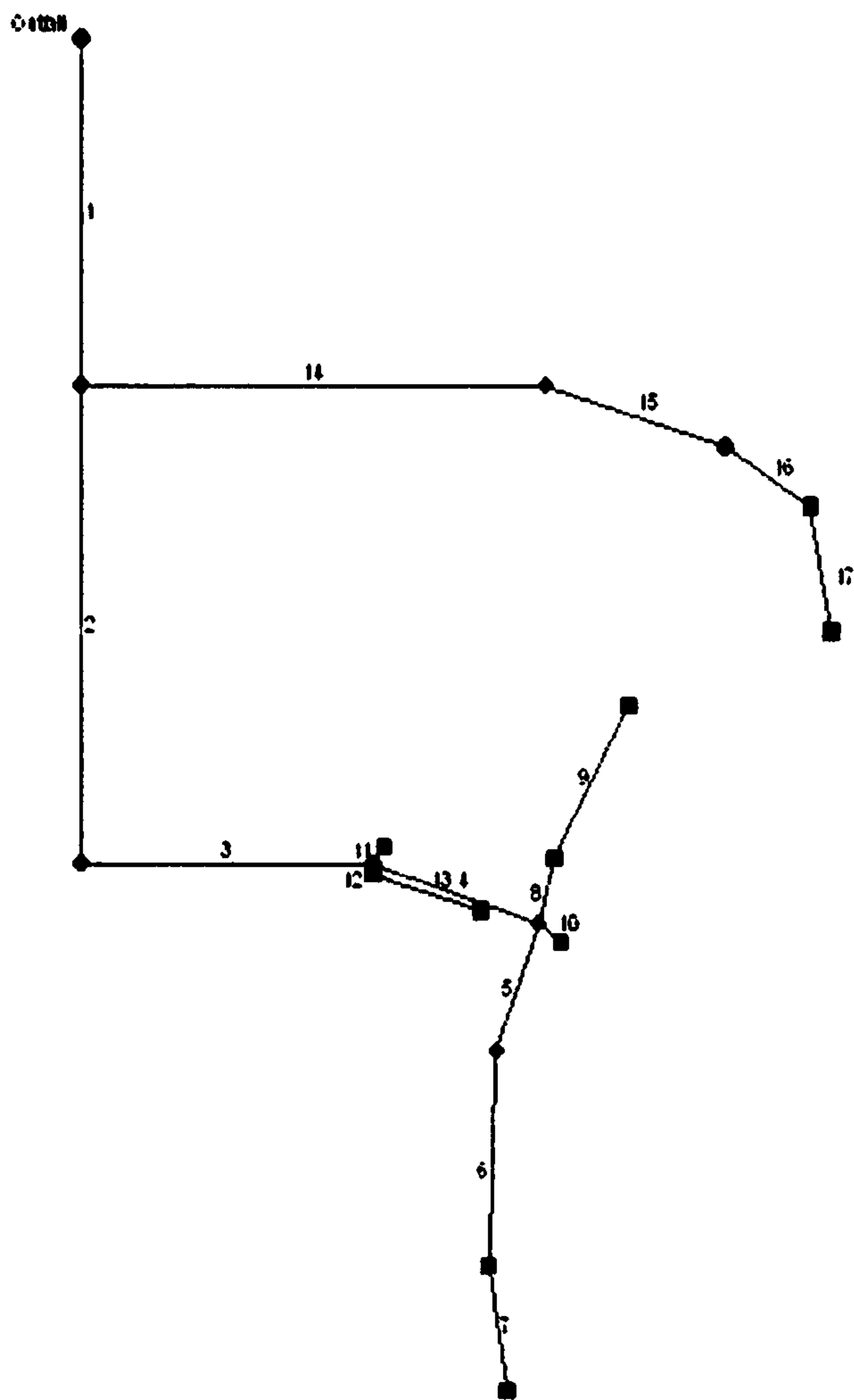
$$Q_{(\text{capacity})} = 9.77 \text{ cfs}$$

$$\text{REQUIRED } Q = 16.7 \text{ cfs}^*$$

$$\text{NUMBER OF GRATES REQUIRED} = \underline{\underline{2}}$$

*AP 13--32.3 cfs street flow=16.7 cfs per inlet

Hydraflow Plan View



Storm Sewer Summary Report

Page 1

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	Dns line No.
1	EXMH-MH2	88.30	54 c	238.0	5455.12	5456.50	0.580	5460.50	5460.96	0.48	End
2	MH2-MH3	76.50	54 c	326.8	5456.60	5458.98	0.728	5461.44	5461.68	0.92	1
3	MH3-MH4	76.50	42 c	219.2	5459.08	5460.49	0.643	5462.60	5463.70	1.07	2
4	MH4-MH5	31.40	30 c	131.5	5460.79	5462.04	0.951	5464.76*	5465.54*	0.64	3
5	MH5-MH6	14.00	24 c	93.0	5462.14	5462.51	0.397	5466.17*	5466.53*	0.14	4
6	MH6-INLET6	14.00	24 c	146.9	5462.61	5463.20	0.402	5466.67*	5467.23*	0.22	5
7	INLET6-INLET 7	7.00	18 c	86.0	5463.40	5463.74	0.396	5467.45*	5467.83*	0.24	6
8	MH5-INLET5	11.20	24 c	46.5	5462.14	5462.33	0.409	5466.17*	5466.29*	0.14	4
9	INLET5-INLET1	6.00	24 c	118.2	5462.53	5463.00	0.398	5466.42*	5466.51*	0.06	8
10	MH5-INLET8	6.20	24 c	20.5	5462.14	5462.30	0.779	5466.17*	5466.19*	0.06	4
11	MH4-INLET2	18.90	30 c	14.3	5460.59	5460.69	0.700	5464.76*	5464.79*	0.23	3
12	MH4-INLET3	26.20	30 c	7.2	5460.59	5460.69	1.390	5464.76*	5464.79*	0.55	3
13	INLET3-INLET4	7.40	24 c	85.4	5461.10	5461.80	0.819	5465.35*	5465.44*	0.09	12
14	MH2-MH7	11.80	24 c	349.1	5456.60	5460.79	1.200	5461.44	5462.35	0.14	1
15	MH7-MH8	11.80	24 c	141.4	5460.89	5461.46	0.403	5462.49	5462.88	0.17	14
16	MH8-INLET9	11.80	18 c	75.3	5461.56	5461.86	0.398	5463.06*	5464.01*	0.76	15
17	INLET9-INLET10	4.40	18 c	86.5	5462.06	5462.41	0.405	5464.77*	5464.93*	0.10	16
Project File: 1446.stm						Number of lines: 17			Run Date: 11-09-2006		
NOTES: c = circular; e = elliptical; b = box; Return period = 100 Yrs.; * Indicates surcharge condition.											

Storm Sewer Tabulation

Page 1

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Lne	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End	238.0	0.00	0.00	0.00	0.00	0.00	0.0	3.2	0.0	88.30	149.7	5.56	54	0.58	5456.50	5455.12	5460.96	5460.50	5464.20	5461.67	EXMH-MH2
2	1	326.8	0.00	0.00	0.00	0.00	0.00	0.0	2.1	0.0	76.50	167.8	6.25	54	0.73	5458.98	5456.60	5461.68	5461.44	5464.80	5464.20	MH2-MH3
3	2	219.2	0.00	0.00	0.00	0.00	0.00	0.0	1.6	0.0	76.50	80.69	8.12	42	0.64	5460.49	5459.08	5463.70	5462.60	5465.90	5464.80	MH3-MH4
4	3	131.5	0.00	0.00	0.00	0.00	0.00	0.0	1.3	0.0	31.40	39.99	6.40	30	0.95	5462.04	5460.79	5465.54	5464.76	5466.37	5465.90	MH4-MH5
5	4	93.0	0.00	0.00	0.00	0.00	0.00	0.0	0.9	0.0	14.00	14.26	4.46	24	0.40	5462.51	5462.14	5466.53	5466.17	5467.20	5466.37	MH5-MH6
6	5	146.9	0.00	0.00	0.00	0.00	0.00	0.0	0.4	0.0	14.00	14.34	4.46	24	0.40	5463.20	5462.61	5467.23	5466.67	5467.58	5467.20	MH6-INLET6
7	6	86.0	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	7.00	6.61	3.96	18	0.40	5463.74	5463.40	5467.83	5467.45	5468.17	5467.58	INLET6-INLET 7
8	4	46.5	0.00	0.00	0.00	0.00	0.00	0.0	1.0	0.0	11.20	14.46	3.57	24	0.41	5462.33	5462.14	5466.29	5466.17	5466.03	5466.37	MH5-INLET5
9	8	118.2	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	6.00	14.26	1.91	24	0.40	5463.00	5462.53	5466.51	5466.42	5467.03	5466.03	INLET5-INLET1
10	4	20.5	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	6.20	19.96	1.97	24	0.78	5462.30	5462.14	5466.19	5466.17	5466.43	5466.37	MH5-INLET8
11	3	14.3	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	18.90	34.31	3.85	30	0.70	5460.69	5460.59	5464.79	5464.76	5465.44	5465.90	MH4-INLET2
12	3	7.2	0.00	0.00	0.00	0.00	0.00	0.0	0.6	0.0	26.20	48.36	5.34	30	1.39	5460.69	5460.59	5464.79	5464.76	5465.44	5465.90	MH4-INLET3
13	12	85.4	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	7.40	20.47	2.36	24	0.82	5461.80	5461.10	5465.44	5465.35	5466.78	5465.44	INLET3-INLET4
14	1	349.1	0.00	0.00	0.00	0.00	0.00	0.0	1.4	0.0	11.80	24.78	4.12	24	1.20	5460.79	5456.60	5462.35	5461.44	5467.08	5464.20	MH2-MH7
15	14	141.4	0.00	0.00	0.00	0.00	0.00	0.0	0.8	0.0	11.80	14.36	4.67	24	0.40	5461.46	5460.89	5462.88	5462.49	5468.64	5467.08	MH7-MH8
16	15	75.3	0.00	0.00	0.00	0.00	0.00	0.0	0.6	0.0	11.80	6.63	6.68	18	0.40	5461.86	5461.56	5464.01	5463.06	5468.55	5468.64	MH8-INLET9
17	16	86.5	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	4.40	6.68	2.49	18	0.40	5462.41	5462.06	5464.93	5464.77	5468.97	5468.55	INLET9-INLET10
Project File: 1446.stm																Number of lines: 17				Run Date: 11-09-2006		
NOTES: Intensity = 127.16 / (Inlet time + 17.80) ^ 0.82; Return period = 100 Yrs.																						

THE PRESIDIO

Interim Orifice Calculations @ Inlet #9

Partially built inlet box with concrete plate & orifice

Future top of grate= 68.54
Inlet box built to elev= 66.5
Overflow elev= 68.5

Orifice Diameter=24"

$Q = CA(2gH)^{.5}$
 $Q = (C(\pi D^2/4)/(2gH))^{.5}$
 $D = (4Q/(*\pi C(2gH)^{.5})^{.5}$

Q = flow rate
C = orifice coefficient 0.67

H = depth at orifice
A = area of orifice opening
D = orifice diameter

D=	2.00	ft =	24.0 in.
A=	3.14	ft	

Flowrate (Q) at increments of Water Depth		
Water Surface Elevation	Depth--H (ft)	Flowrate--Q (cfs)
5468.5	2	23.9
5466.5	0	0.0

60% REDUCTION FOR
CLOGGING AND REBAR: TOTAL= 9.6 CFS

APPENDIX E

Motor Court and Triplex Rundown Capacity Calculations

MOTOR COURT BASIN M-5

Given Input Data:

Shape Trapezoidal
Solving for Depth of Flow
Flowrate 4.2000 cfs
Slope 0.0100 ft/ft
Manning's n 0.0130
Height 0.3000 ft
Bottom width 0.0000 ft
Left slope 0.0200 ft/ft (V/H)
Right slope 0.0200 ft/ft (V/H)

Computed Results:

Depth 0.1884 ft
Velocity 2.3663 fps
Full Flowrate 14.5197 cfs
Flow area 1.7749 ft²
Flow perimeter 18.8448 ft
Hydraulic radius 0.0942 ft
Top width 18.8411 ft
Area 4.5000 ft²
Perimeter 30.0060 ft
Percent full 62.8036 %

Critical Information

Critical depth 0.2130 ft
Critical slope 0.0052 ft/ft
Critical velocity 1.8512 fps
Critical area 2.2688 ft²
Critical perimeter 21.3061 ft
Critical hydraulic radius 0.1065 ft
Critical top width 21.3018 ft
Specific energy 0.2754 ft
Minimum energy 0.3195 ft
Froude number 1.3592
Flow condition Supercritical

MOTOR COURT BASIN M-7

Channel Calculator

Given Input Data:

Shape Trapezoidal
Solving for Depth of Flow
Flowrate 3.5000 cfs
Slope 0.0080 ft/ft
Manning's n 0.0130
Height 0.3000 ft
Bottom width 0.0000 ft
Left slope 0.0200 ft/ft (V/H)
Right slope 0.0200 ft/ft (V/H)

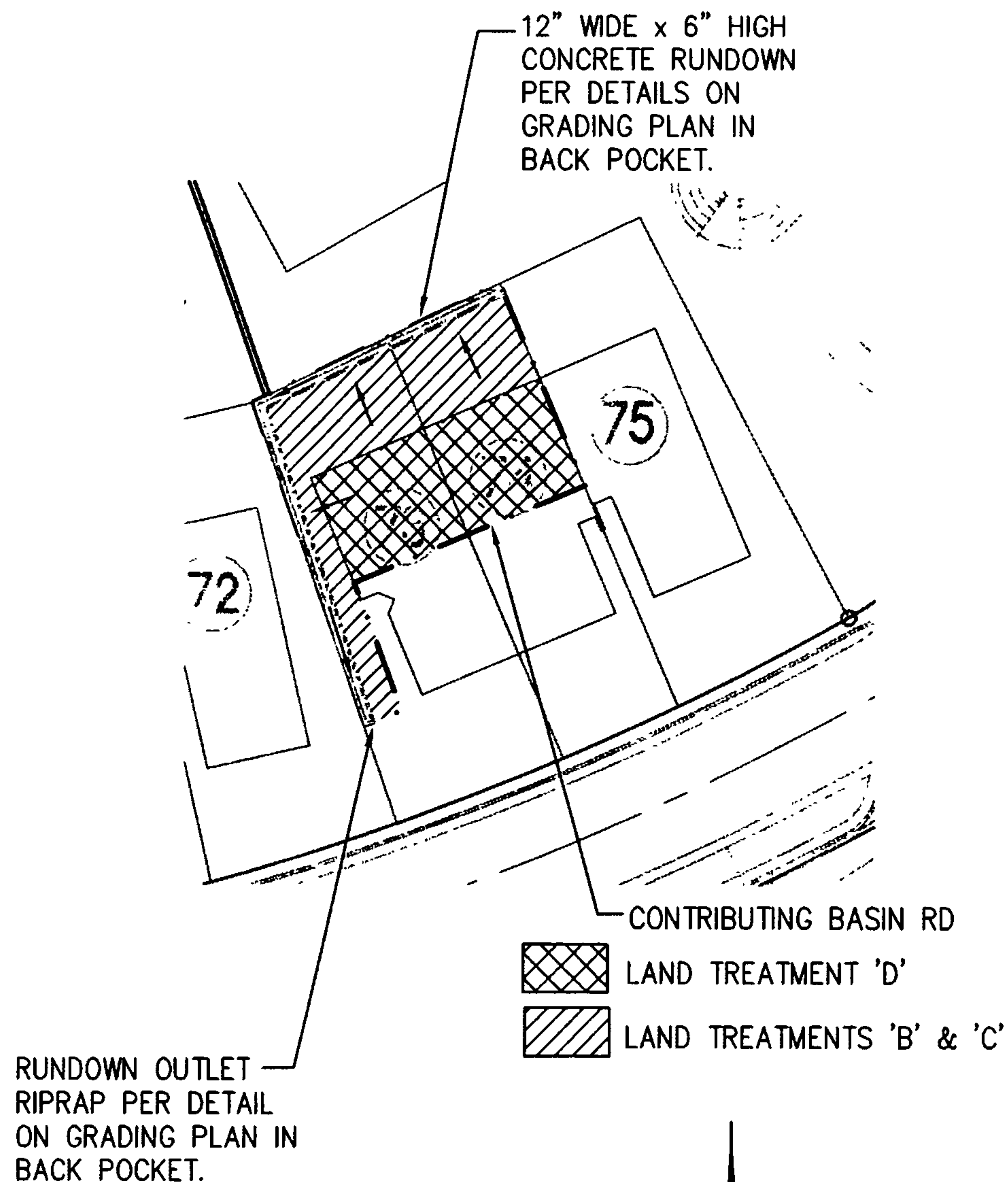
Computed Results:

Depth 0.1835 ft
Velocity 2.0794 fps
Full Flowrate 12.9868 cfs
Flow area 1.6832 ft²
Flow perimeter 18.3514 ft
Hydraulic radius 0.0917 ft
Top width 18.3478 ft
Area 4.5000 ft²
Perimeter 30.0060 ft
Percent full 61.1592 %

Critical Information

Critical depth 0.1980 ft
Critical slope 0.0053 ft/ft
Critical velocity 1.7849 fps
Critical area 1.9609 ft²
Critical perimeter 19.8076 ft
Critical hydraulic radius 0.0990 ft
Critical top width 19.8036 ft
Specific energy 0.2507 ft
Minimum energy 0.2971 ft
Froude number 1.2103
Flow condition Supercritical

:ACTIVE\LD4\1446\dwg\1446EXH BASIN2.dwg, 10/17/2006 4:33:08 PM



TYPICAL TRIPLEX DETAIL
1"=40'



Channel Calculator

Given Input Data:

Shape	Rectangular
Solving for	Depth of Flow
Flowrate	0.2000 cfs
Slope	0.0100 ft/ft
Manning's n	0.0130
Height	0.5000 ft
Bottom width	1.0000 ft

Computed Results:

Depth	0.0946 ft
Velocity	2.1143 fps
Full Flowrate	2.2682 cfs
Flow area	0.0946 ft ²
Flow perimeter	1.1892 ft
Hydraulic radius	0.0795 ft
Top width	1.0000 ft
Area	0.5000 ft ²
Perimeter	2.0000 ft
Percent full	18.9192 %

Critical Information

Critical depth	0.1075 ft
Critical slope	0.0067 ft/ft
Critical velocity	1.8600 fps
Critical area	0.1075 ft ²
Critical perimeter	1.2151 ft
Critical hydraulic radius	0.0885 ft
Critical top width	1.0000 ft
Specific energy	0.1641 ft
Minimum energy	0.1613 ft
Froude number	1.2119
Flow condition	Supercritical

**CENTEX HOMES
PRESIDIO
CONCRETE RUNDOWN
AT TRIPLEX TOWNHOMES**

CITY OF ALBUQUERQUE



May 20, 2010

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

bb

11016

**Re: The Presidio—Unit # 08, 11024 Fort Point Lane NE,
Approval of Permanent Certificate of Occupancy (C.O.),
Engineer's Stamp dated 2-26-07 (K-21/D009H)
Certification dated: 5-19-09**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 5-20-10, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

Sincerely,

Timothy E. Sims
Plan Checker
Development and Building Services

www.cabq.gov

C: CO Clerk – Katrina Sigala
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio
DRB #: 1000572 EPC #: _____

ZONE MAP / DRG. FILE #: K-21 / 2009H
WORK ORDER #: _____

LEGAL DESCRIPTION: Presidio, Tract C, Condo #8
CITY ADDRESS: _____

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman
PHONE: 268-8828
ZIP CODE: 87108

OWNER: Centex Homes
ADDRESS: 5120 Masthead St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Peter Steen
PHONE: 341-8547
ZIP CODE: 87109

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc.
ADDRESS: 9384 Valley View Dr. NW
CITY, STATE: Albuquerque, NM

CONTACT: Russ P. Hugg
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST *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

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 APPR.
☐ 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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: Wednesday, May 19, 2010

BY: _____
for Isaacson & Arfman, P.A.

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 on the following:

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

CITY OF ALBUQUERQUE



March 19, 2010

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio—Unit # 06, 11024 Fort Point Lane NE,
Approval of Permanent Certificate of Occupancy (C.O.),
Engineer's Stamp dated 2-26-07 (K-21/D009H)
Certification dated: 3-19-09**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 3-19-10, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

Sincerely,

Timothy E. Sims
Plan Checker
Development and Building Services

www.cabq.gov

C: CO Clerk – Katrina Sigala
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: PRESIDIO ZONE MAP/DRG. FILE # K-21/09H
DRB#: 1000572 EPC#: _____ WORK ORDER#: 797481

LEGAL DESCRIPTION: PRESIDIO UNIT ONE, COND UNIT NO. 4
CITY ADDRESS: 11024 FORT POINT LANE, NE

ENGINEERING FIRM: Isaacson & Arfman, P.A. CONTACT: Fred C. Arfman, PE
ADDRESS: 128 Monroe Street NE PHONE: 268-8828
CITY, STATE: Albuquerque, NM ZIP CODE: 87108

OWNER: CENTER HOMES CONTACT: PETER STEEN
ADDRESS: 7601 JEFFERSON NE #320 PHONE: 761-9606
CITY, STATE: ABQ., NM ZIP CODE: 87109

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

SURVEYOR: SURV-TEK, INC. CONTACT: RUSS HUGG
ADDRESS: 9384 VALLEY VIEW DR. PHONE: 897-3366
CITY, STATE: ABQ., NM ZIP CODE: 87119

CONTRACTOR: CENTER HOMES / SUNDANCE HILLS CONTACT: PETER STEEN
ADDRESS: 7601 JEFFERSON NE #320 PHONE: 761-9606
CITY, STATE: ABQ. NM ZIP CODE: 87109

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) _____

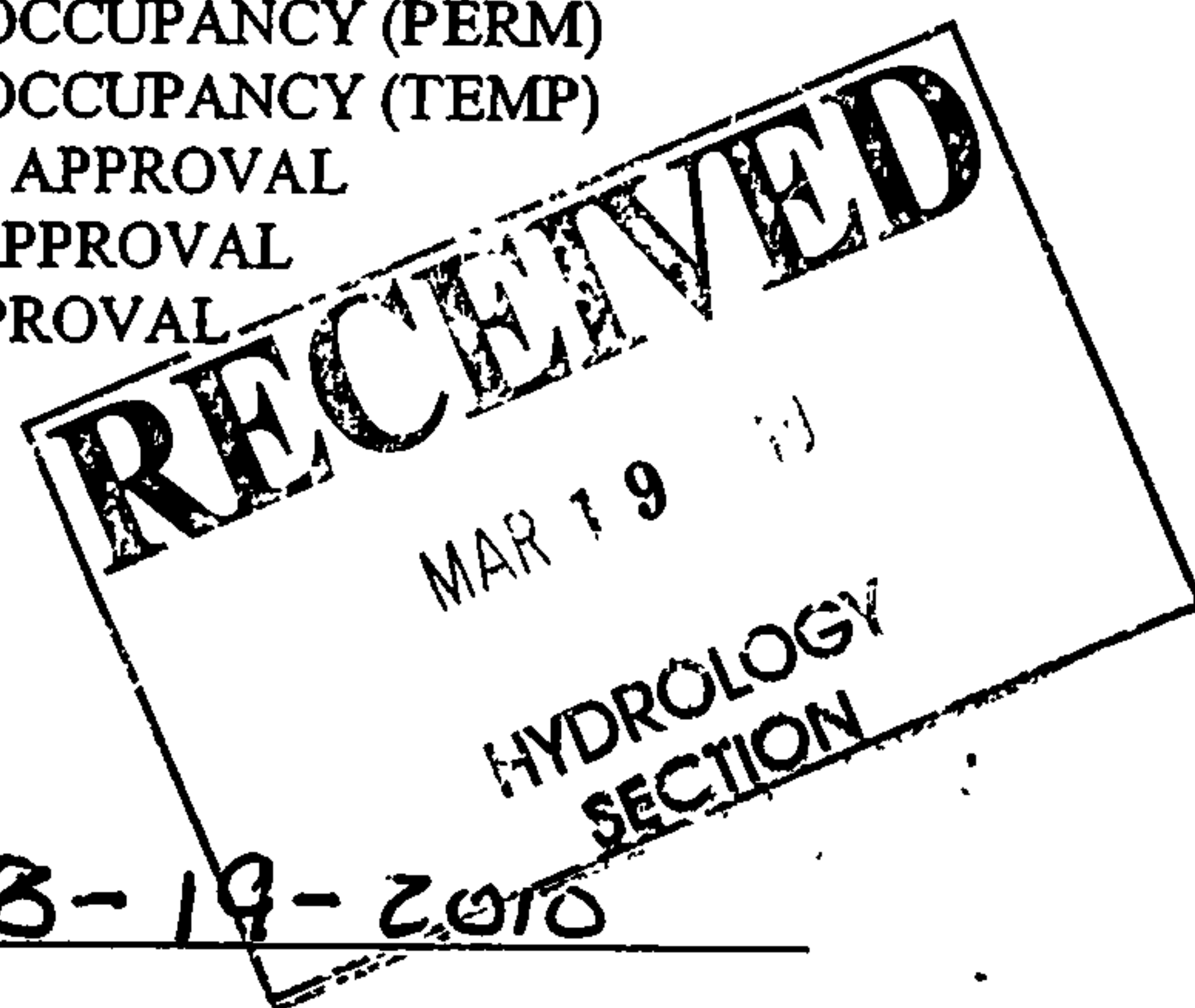
WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☐ NO
☐ COPY PROVIDED

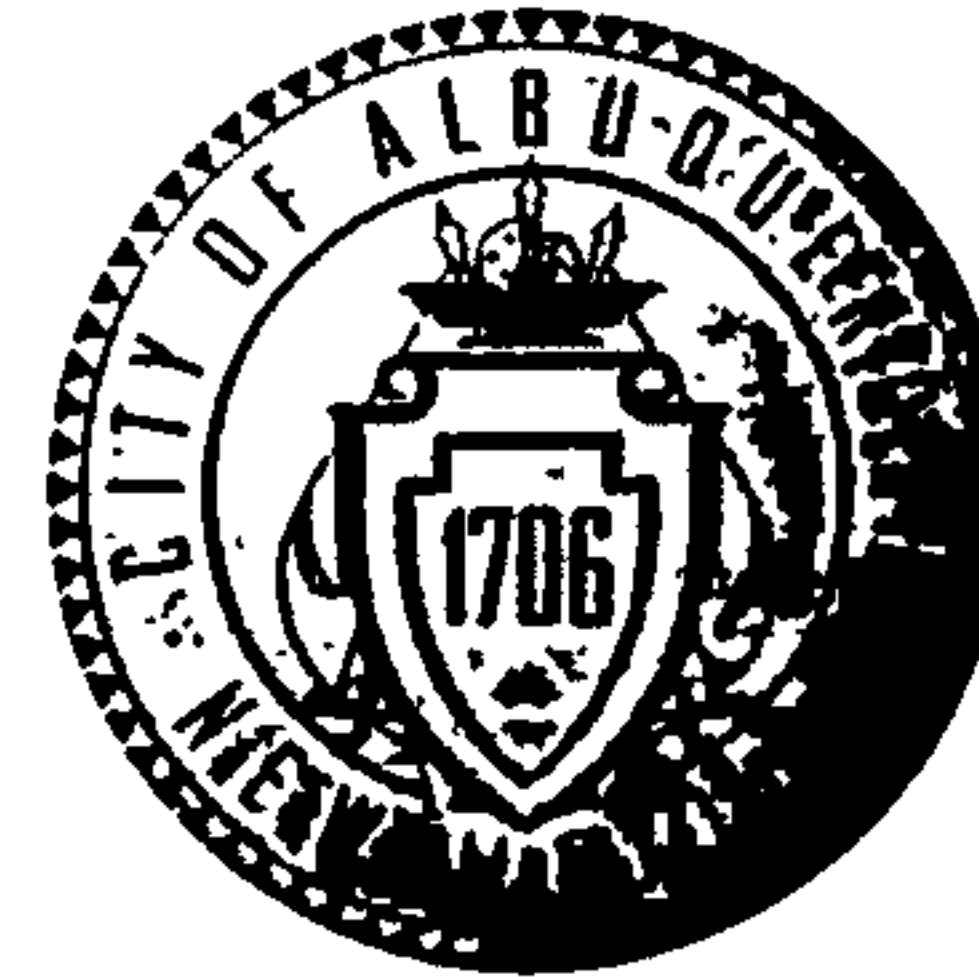
SUBMITTED BY: FRED C. ARFMAN, PE DATE: 03-19-2010

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.



CITY OF ALBUQUERQUE



October 27, 2009

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio—Units 09 & 12, 11004 & 11012 Fort Point Lane NE,
Approval of Permanent Certificate of Occupancy (C.O.),
Engineer's Stamp dated 2-26-07 (K-21/D009H)
Certification dated: 10-27-09**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 10-27-09, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

Sincerely,

Timothy E. Sims

Plan Checker

Development and Building Services

www.cabq.gov

C: CO Clerk – Katrina Sigala
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: PRESIDIO ZONE MAP/DRG. FILE # K-21/D9H
DRB# 1000572 EPC#: _____ WORK ORDER#: 797481

LEGAL DESCRIPTION: PRESIDIO, UNIT ONE, UNITS 9 & 12
CITY ADDRESS: 11004 & 11012 ABQ FORT POINTE LANE NE

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe Street NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman, PE
PHONE: 268-8828
ZIP CODE: 87108

OWNER: CENTEX HOMES
ADDRESS: 7601 JEFFERSON NE #320
CITY, STATE: ABQ., NM

CONTACT: BRET BAILEY
PHONE: 761-9606
ZIP CODE: 87109

ARCHITECT: N/A
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: SURY-TEK, INC.
ADDRESS: 9384 VALLEY VIEW DR.
CITY, STATE: ABQ. NM

CONTACT: RUSS HUGG
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: CENTEX HOMES/SUNDANCE MECH
ADDRESS: 7601 JEFFERSON NE #320
CITY, STATE: ABQ. NM

CONTACT: TED LOWE
PHONE: 761-9606
ZIP CODE: 87109

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

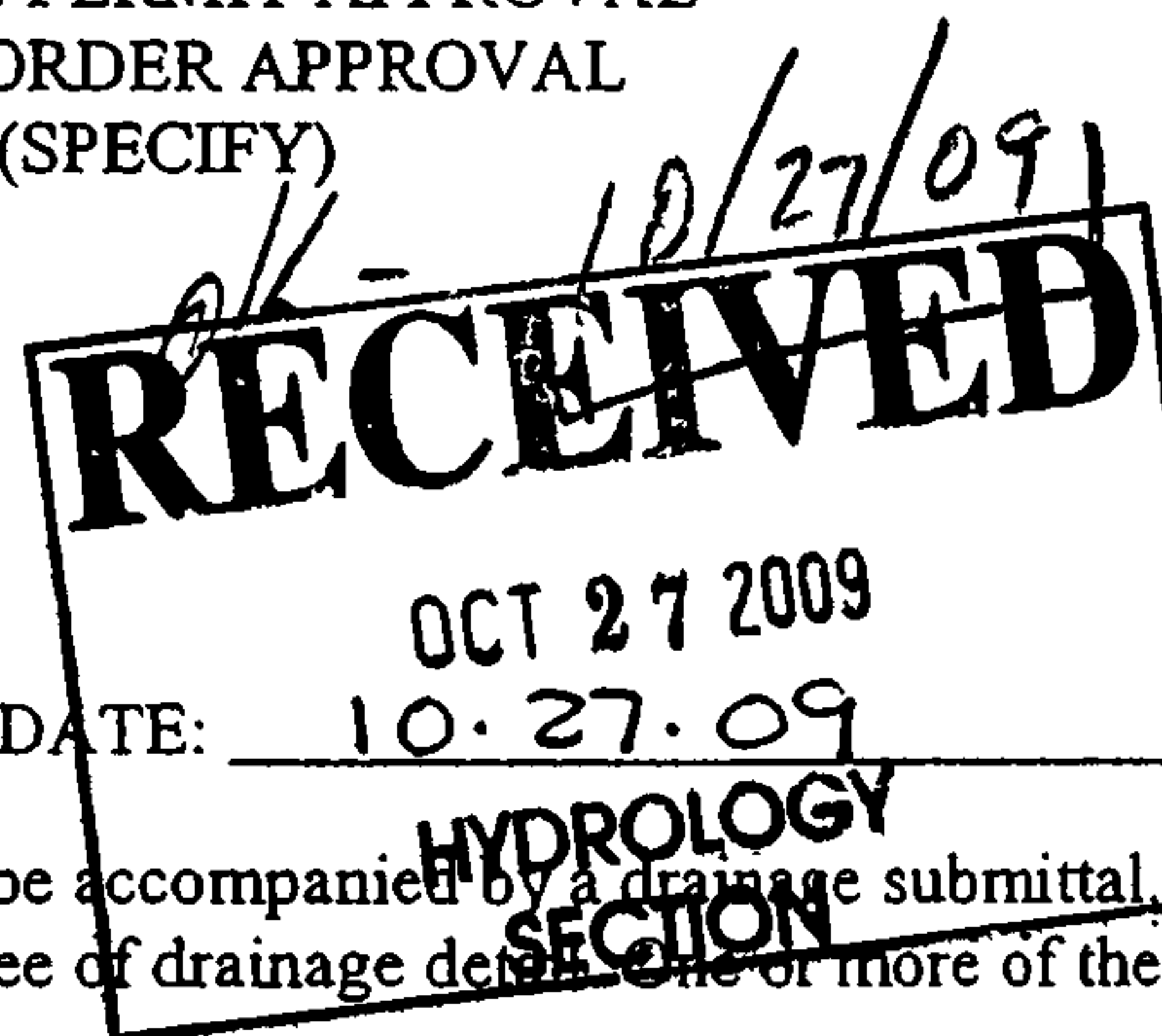
- ☐ YES
☐ NO
☐ COPY PROVIDED

SUBMITTED BY: FRED C. ARFMAN, P.E.
FOR: ISAACSON & ARFMAN, P.A.

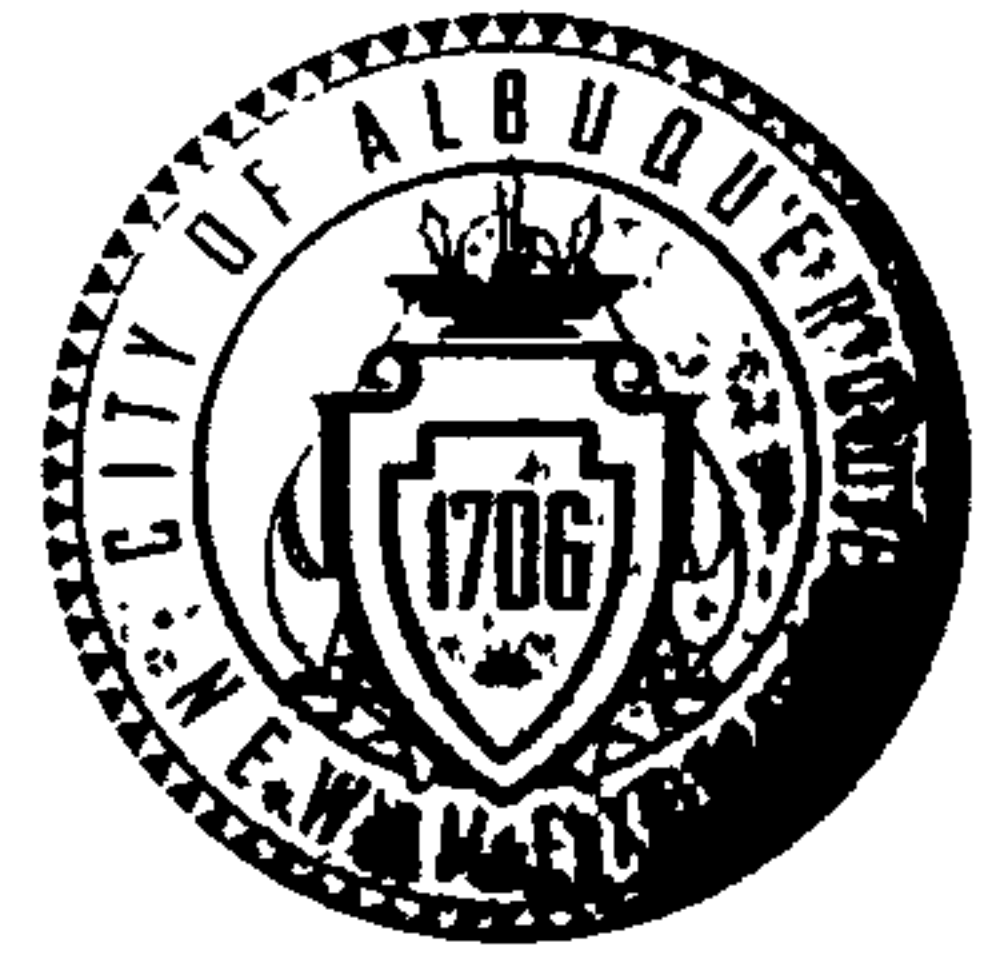
DATE: 10.27.09

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.



CITY OF ALBUQUERQUE



April 30, 2010

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

BB
11020

**Re: The Presidio—Unit # 07, ~~11024~~ Fort Point Lane NE,
Approval of Permanent Certificate of Occupancy (C.O.),
Engineer's Stamp dated 2-26-07 (K-21/D009H)
Certification dated: 4-29-09**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 4-30-10, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

Sincerely,

Timothy E. Sims
Plan Checker
Development and Building Services

www.cabq.gov

C: CO Clerk – Katrina Sigala
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio
DRB #: 1000572 EPC #: _____

ZONE MAP / DRG. FILE #: K-21 / D009H
WORK ORDER #: _____

LEGAL DESCRIPTION: Presidio, Tract C, Condo #7
CITY ADDRESS: _____

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman
PHONE: 268-8828
ZIP CODE: 87108

OWNER: Centex Homes
ADDRESS: 5120 Masthead St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Peter Steen
PHONE: 341-8547
ZIP CODE: 87109

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc.
ADDRESS: 9384 Valley View Dr. NW
CITY, STATE: Albuquerque, NM

CONTACT: Russ P. Hugg
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST *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

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 APPR.
☐ 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

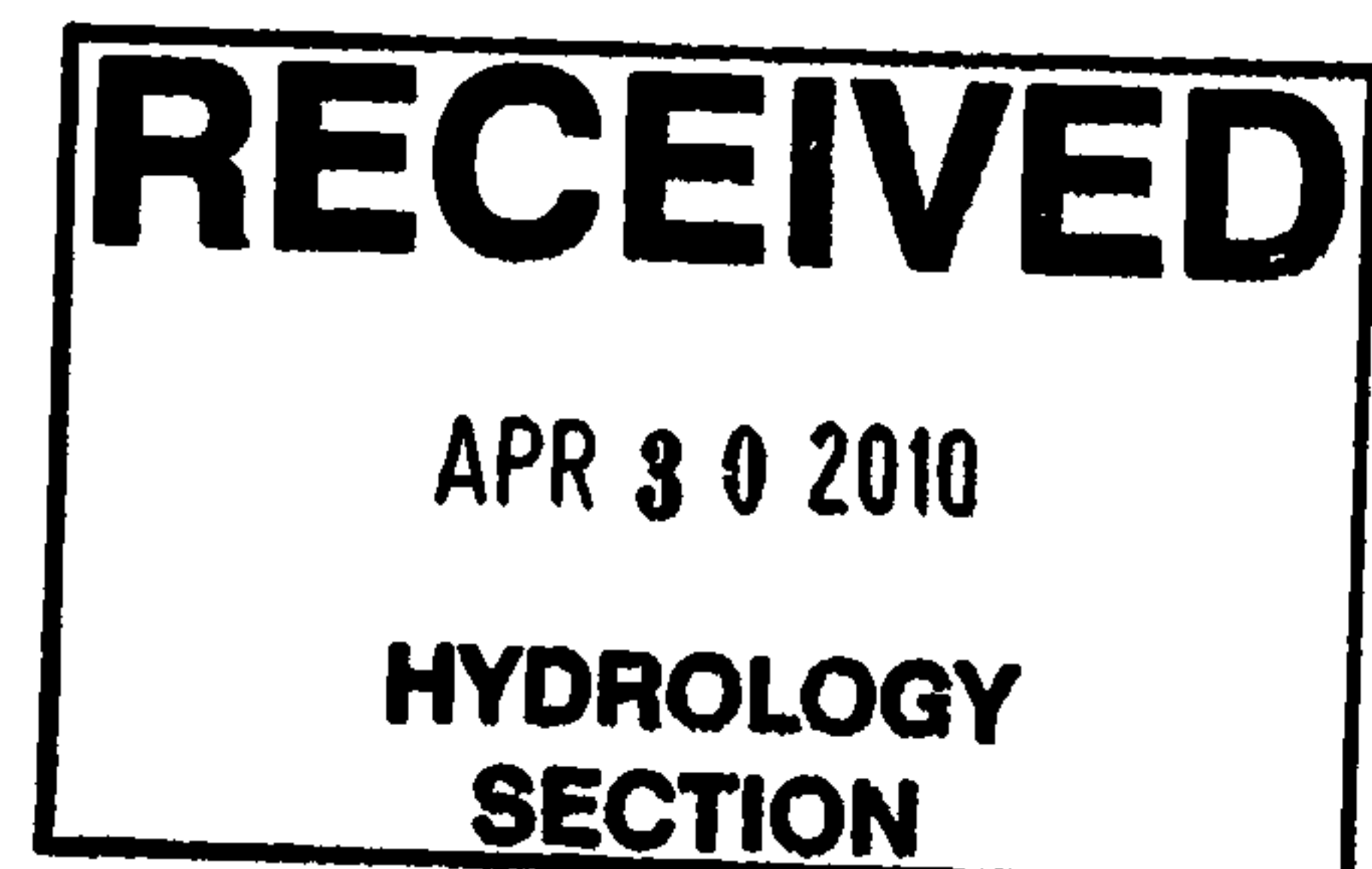
WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: Thursday, April 29, 2010 BY: _____
for Isaacson & Arfman, P.A.

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 on the following:

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



CITY OF ALBUQUERQUE



June 19, 2008

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: Units 10 and 11 The Presidio, 11008 and 11000 Fort Point Ln NE
(K21-D009H),
Permanent Certificate of Occupancy – Transportation
Certification dated 5-22-08**

Dear Mr. Arfman,

P.O. Box 1293

Based upon the information provided in your submittal received 5-22-08, the above referenced certification is approved for release of **permanent Certificate of Occupancy by Transportation Development**.

Albuquerque

If you have any questions, you can contact me at 924-3991.

New Mexico 87103

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

www.cabq.gov

C: CO Clerk
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: PRESIDIO ZONE MAP/DRG. FILE # K-21/D9H
DRB#: 1000572 EPC#: _____ WORK ORDER#: 797481

LEGAL DESCRIPTION: PRESIDIO, UNIT ONE (ALL CONDO UNITS)
CITY ADDRESS: _____

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe Street NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman, PE
PHONE: 268-8828
ZIP CODE: 87108

OWNER: CENTEX HOMES
ADDRESS: 7601 JEFFERSON NE #320
CITY, STATE: ABQ., NM

CONTACT: BRET BAILEY
PHONE: 761-9606
ZIP CODE: 87109

ARCHITECT: N/A
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: SURY-TEK, INC.
ADDRESS: 9384 VALLEY VIEW DR.
CITY, STATE: ABQ. NM

CONTACT: RUSS HUGG
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: CENTEX HOMES/SUNDANCE MECH
ADDRESS: 7601 JEFFERSON NE #320
CITY, STATE: ABQ. NM

CONTACT: TED LOWE
PHONE: 761-9606
ZIP CODE: 87109

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☒ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) _____

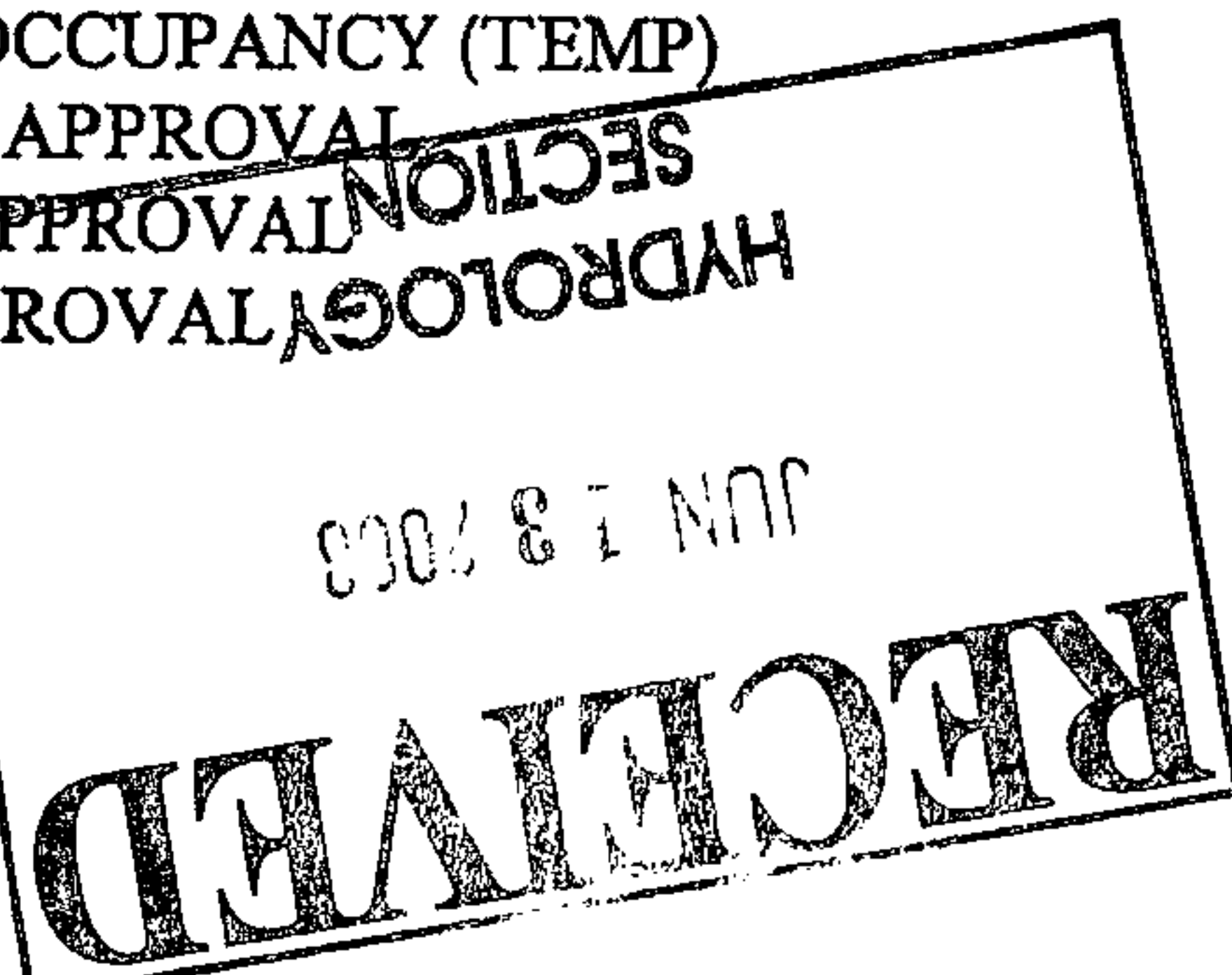
WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☐ NO
☐ COPY PROVIDED

SUBMITTED BY: FRED C. ARFMAN, P.E. DATE: 06-13-08
FOR: ISAACSON & ARFMAN, P.A.

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.



CITY OF ALBUQUERQUE

May 7, 2008



CERTIFICATE OF COMPLETION AND ACCEPTANCE

Robert C. Prewitt
Centex Homes
7601 Jefferson St. NE
Ste 320
Albuquerque, NM 87109

RE: Presidio, Unit 1
Project Number: 797481

Dear Mr. Prewitt:

This is to certify that the City of Albuquerque accepts the construction of the infrastructure provided in the Work Order Construction Plans, City project number 797481. The work was completed pursuant to the required public infrastructure listed in the Subdivision Improvements Agreement (SIA) Procedure B, between Las Ventanas Limited and the City of Albuquerque executed on March 20, 2007.

Having satisfied the requirements referenced above, the SIA and any associated Financial Guaranty, held by the City, can now be released. The indemnity and hold harmless provisions of the SIA in favor of the City shall remain in effect. The contractor's warranty period will begin May 7, 2008 and is effective for a period of one (1) year.

Please be advised this Certificate of Completion and Acceptance shall only become effective upon final plat approval and filing in the Bernalillo County Clerk's office.

Should you have any questions or issues regarding this project, please contact me at (505) 924-3996.

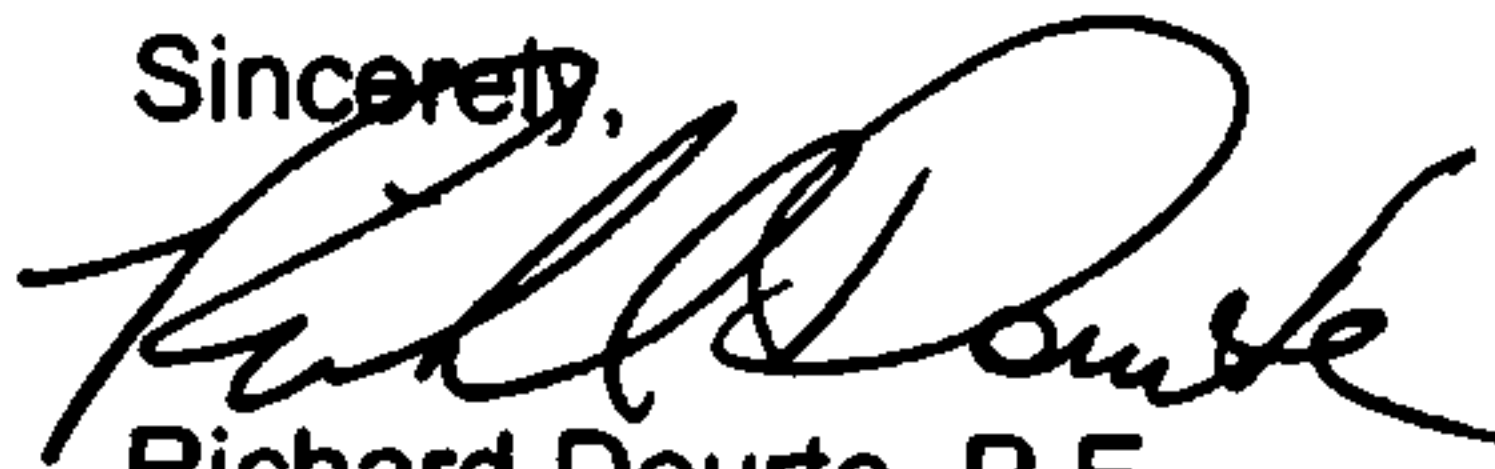
PO Box 1293

Albuquerque

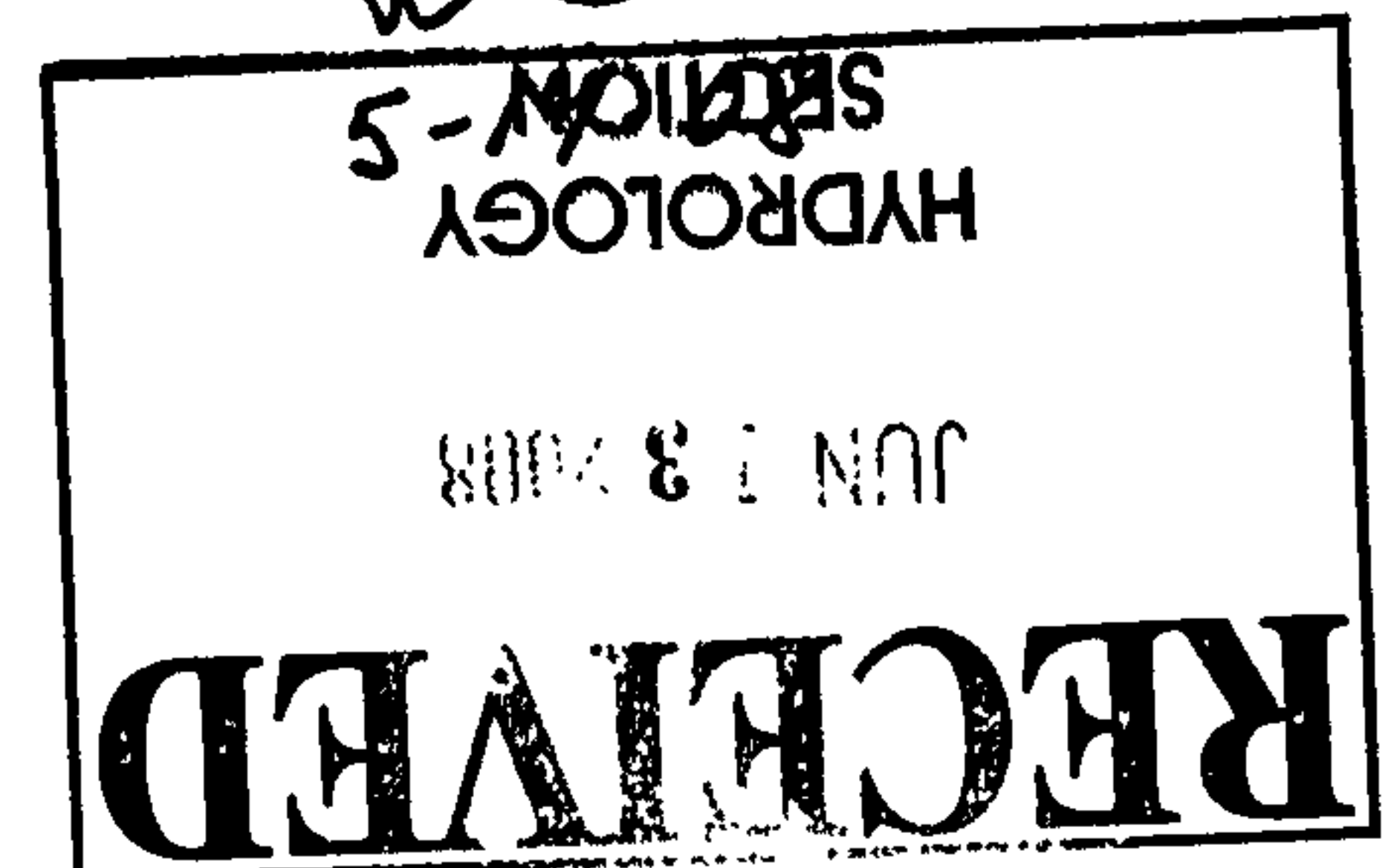
NM 87103

www.cabq.gov

Sincerely,


Richard Dourte, P.E.
City Engineer
Development & Building Services
Planning Department

cc: CITY OF ALBUQUERQUE (e-mail)
SUNDANCE MECHANICAL (e-mail)
Isaacson & Arfman (e-mail)
Vincent Paul, DMD Maps & Records (e-mail)
Barbara A. Romero, DMD Street Maintenance (e-mail)
Paul Baca, DMD Street Maintenance (e-mail)
SIA File, City Project Number 797481



CITY OF ALBUQUERQUE



May 27, 2008

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

**Re: Units 10 and 11 The Presidio, 11008 and 11000 Fort Point Ln NE
(K21-D009H),
30 Day Temporary Certificate of Occupancy – Transportation
Certification dated 5-22-08**

Dear Mr. Arfman,

PO Box 1293

Based upon the information provided in your submittal received 5-22-08, the above referenced certification is approved for release of **30-day temporary Certificate of Occupancy by Transportation Development.**

Albuquerque

If you have any questions, you can contact me at 924-3991.

NM 87103

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

www.cabq.gov

C: CO Clerk
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: PRESIDIO ZONE MAP/DRG. FILE # K-21/D9H
DRB#: 1000572 EPC#: _____ WORK ORDER#: 797481

LEGAL DESCRIPTION: PRESIDIO, UNIT ONE
CITY ADDRESS: _____

ENGINEERING FIRM: Isaacson & Arfman, P.A.
ADDRESS: 128 Monroe Street NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman, PE
PHONE: 268-8828 x108
ZIP CODE: 87108

OWNER: CENTEX HOMES
ADDRESS: 7601 JEFFERSON NE #320
CITY, STATE: ABQ. NM

CONTACT: TED LOWE
PHONE: 991-2555
ZIP CODE: 87109

ARCHITECT: N/A
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: SURYTEK, INC
ADDRESS: 9384 VALLEY VIEW DR.
CITY, STATE: ABQ. NM

CONTACT: ROSS HUGG
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: CENTEX HOMES
ADDRESS: (SEE ABOVE)
CITY, STATE: _____

CONTACT: TED LOWE
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:

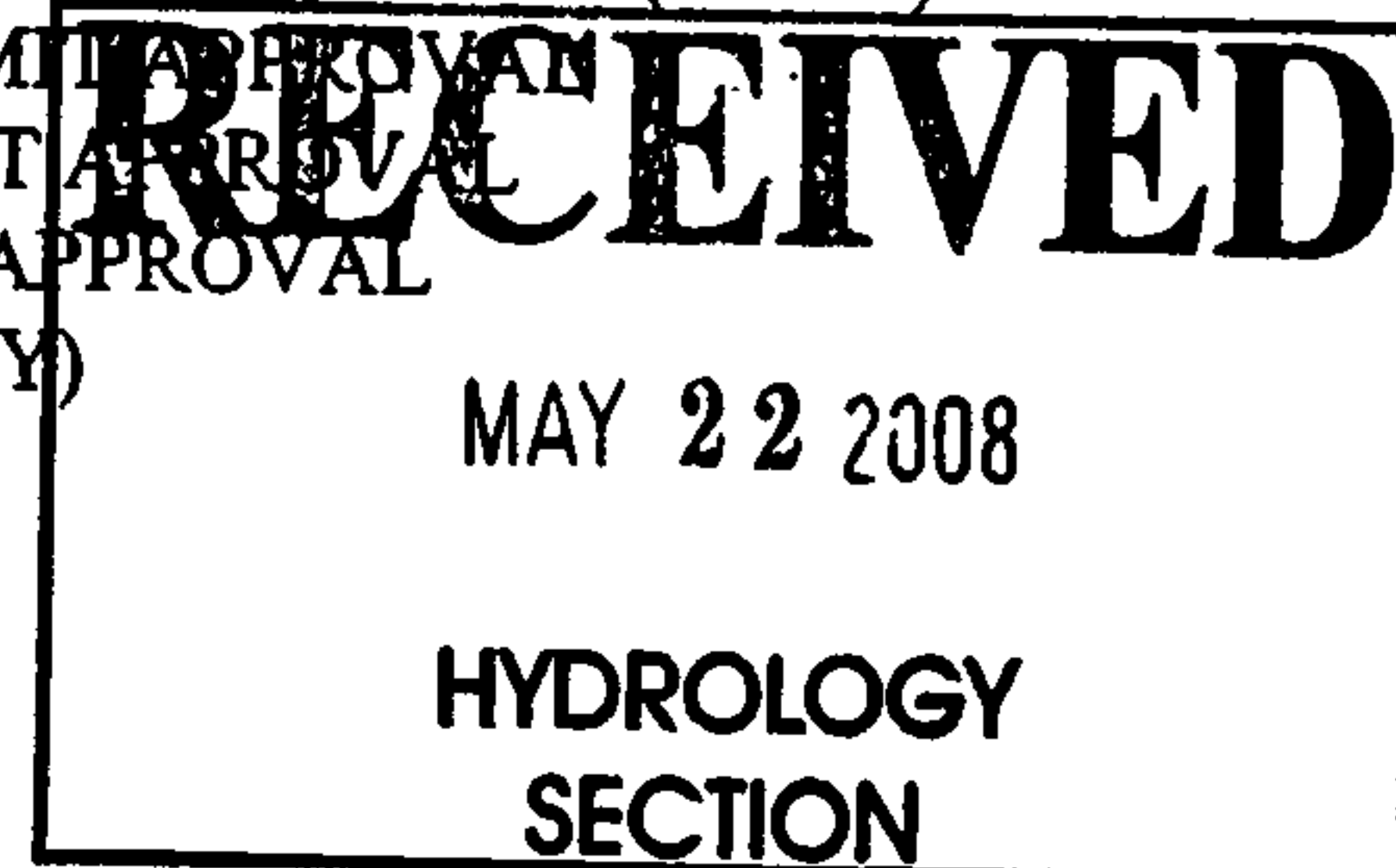
- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☒ TRAFFIC CIRCULATION LAYOUT
☒ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☐ NO
☐ COPY PROVIDED



SUBMITTED BY: FRED C. ARFMAN DATE: 05-22-08
FOR: ISAACSON & ARFMAN, PA

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

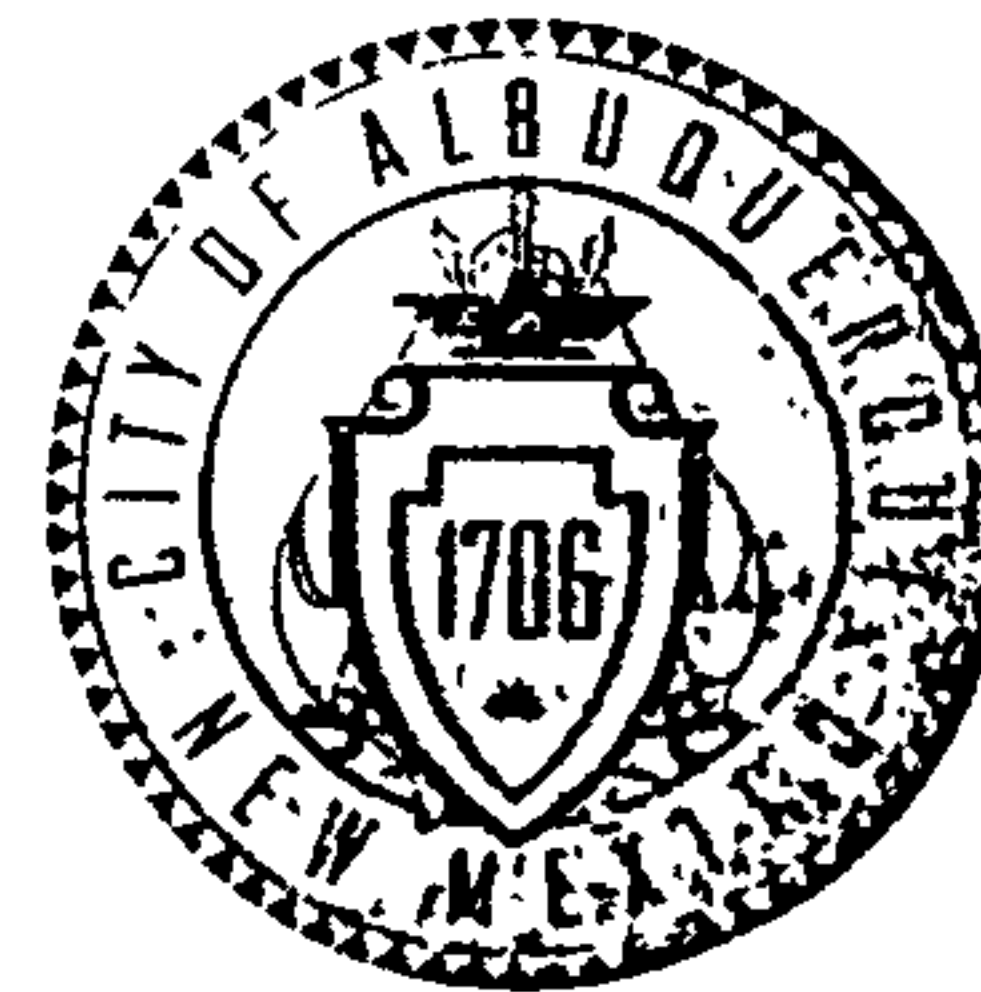
1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for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

Need CD for Units 10, 11
11000, 11008 Fort Point CN NE

What do the circled areas indicate?
801x
do all the pavement in place?

11000, 11008

CITY OF ALBUQUERQUE



May 5, 2008

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street N.E.
Albuquerque, NM 87108

**Re: The Presidio-Condo 10 & 11, 11000 & 11008 Fort Point Lane NE,
Approval of Permanent Certificate of Occupancy (C.O.),
Engineer's Stamp dated 2-26-07 (K-21/D009H)
Certification dated: 3-10-08 & 5-13-08**

Mr. Arfman:

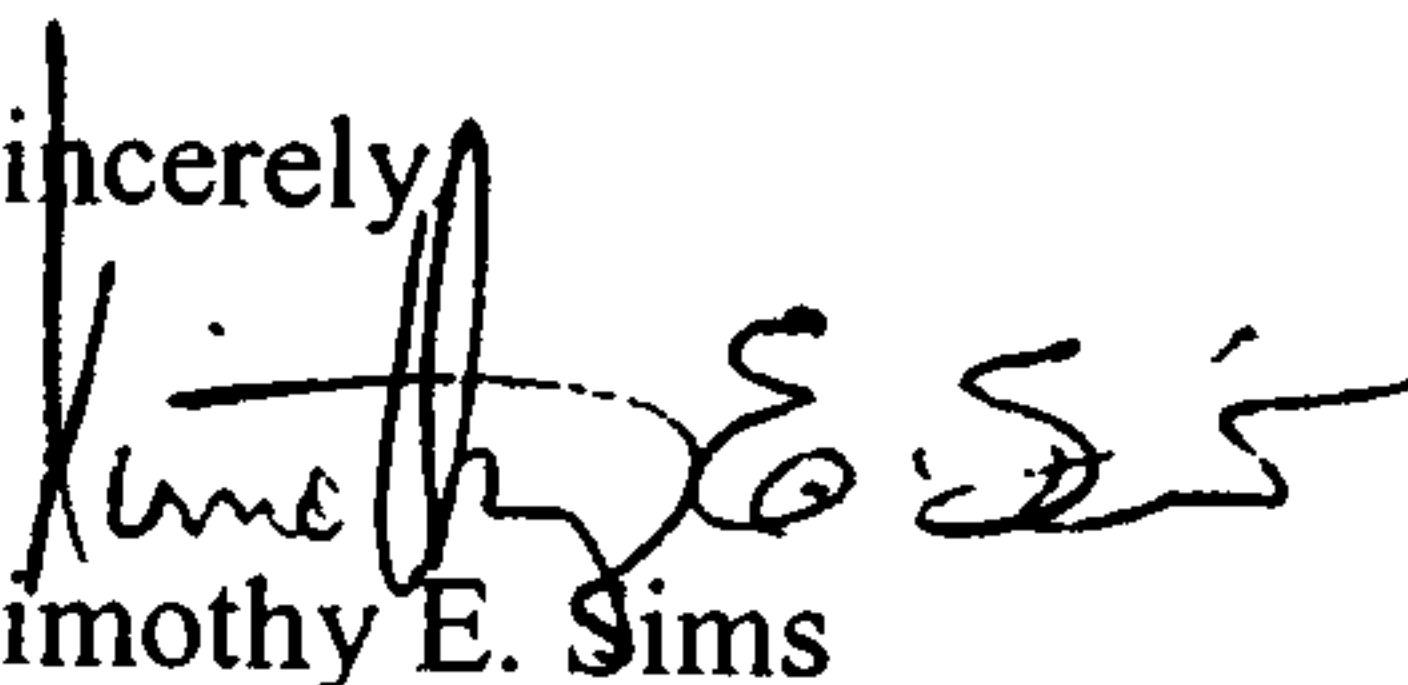
PO Box 1293

Based upon the information provided in your submittal received 5-13-08, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

Sincerely,


Timothy E. Sims
Plan Checker
Development and Building Services

www.cabq.gov

C: CO Clerk – Katrina Sigala
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: PRESIDIO ZONE MAP/DRG. FILE # K-21/D9H
DRB#: 1000572 EPC#: _____ WORK ORDER#: 797481

LEGAL DESCRIPTION: PRESIDIO, UNIT ONE
CITY ADDRESS: 11000 FORT POINT LN. (CONDO 10); 11008 FORT POINT LN (CONDO 11)

ENGINEERING FIRM: Isaacson & Arfman, P.A. CONTACT: Fred C. Arfman, PE
ADDRESS: 128 Monroe Street NE PHONE: 268-8828
CITY, STATE: Albuquerque, NM ZIP CODE: 87108

OWNER: CENTEX HOMES CONTACT: TED LOWE
ADDRESS: 7601 JEFFERSON NE #320 PHONE: 991-2555
CITY, STATE: ABQ. NM ZIP CODE: 87109

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

SURVEYOR: SURYTEK, INC CONTACT: ROSS HUGG
ADDRESS: 9384 VALLEY VIEW DR. PHONE: 897-3366
CITY, STATE: ABQ. NM ZIP CODE: 87114

CONTRACTOR: CENTEX HOMES CONTACT: _____
ADDRESS: (SEE ABOVE) PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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) _____

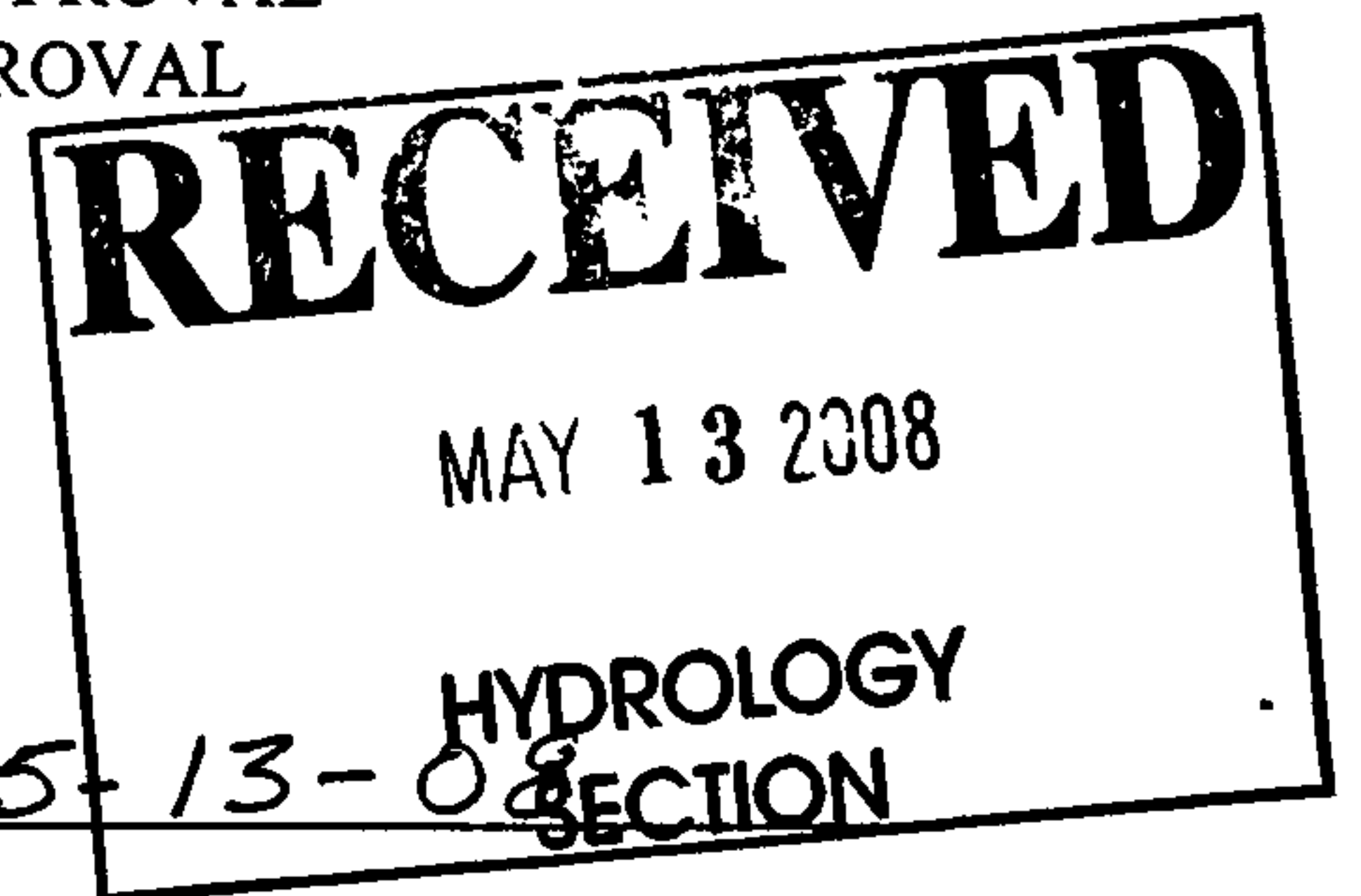
WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☐ NO
☐ COPY PROVIDED

SUBMITTED BY: FRED C. ARFMAN DATE: 05-13-08
FOR: ISAACSON & ARFMAN, PA

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.



7/11/14
646981

AGREEMENT AND COVENANT

12-14-02

This Agreement and Covenant, between the City of Albuquerque, New Mexico ("City") and Sam's East, Inc., an Arkansas Corporation, ("User") is made in Albuquerque, New Mexico and is entered into as of the date of recording this Agreement with the Bernalillo County Clerk.

1. Recital. The User is the owner of certain real property ("User's Property") located at Chico and Eubank, in Albuquerque, New Mexico, and more particularly described as: (give legal description and filing information)

Lot 4, The Lenkurt Properties filed for record on 4/13/99 in Vol. 99C, Fol. 84C records of Bernalillo County Clerk, Bernalillo County, New Mexico.

The City is the owner of a certain, easement ("City's Property") in the vicinity of, contiguous to, abutting or within User's Property, and more particularly described as:

SEE ATTACHED EXHIBIT "A"

The User wishes to construct upon, improve or repair and to maintain the following "Improvement" on the City's Property (or already has done so):

A sketch of the proposed or existing Improvement is attached as Exhibit A and made a part of this Agreement.

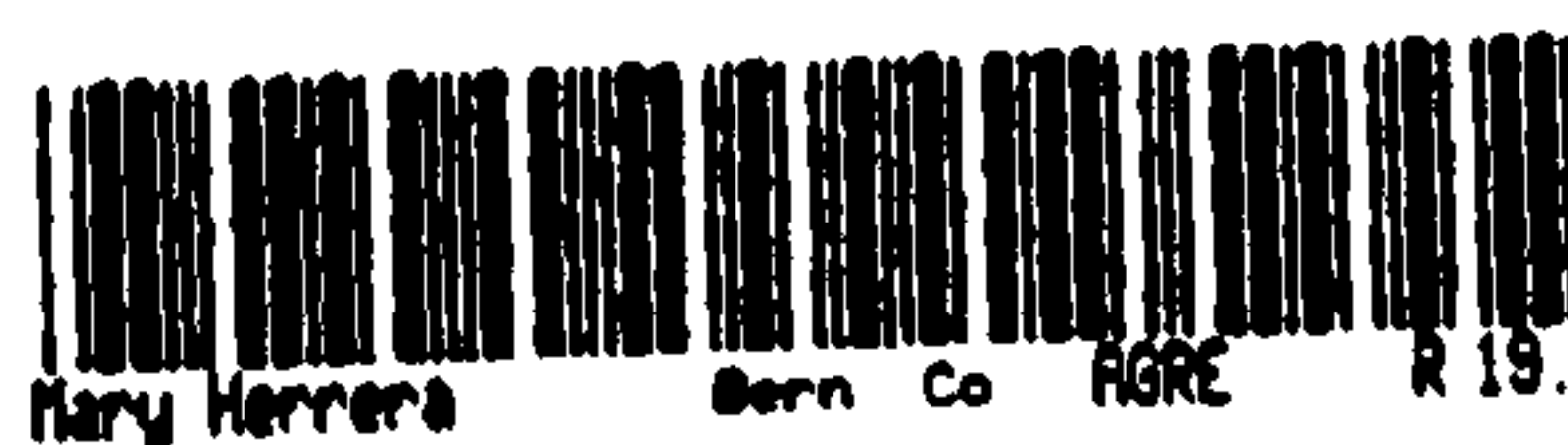
The City agrees to permit the Improvement to exist on the City's Property provided the User complies with the terms of this Agreement.

2. City Use of City's Property and City Liability. The City has the right to enter upon the City's Property at any time and perform whatever inspection, installation, maintenance, repair, modification or removal ("Work") it deems appropriate without liability to the User, so long as the work does not unreasonably interfere with the operation of the Improvement.

3. User's Responsibility for Improvement. The User will be solely responsible for constructing, maintaining, repairing and, if required, removing the Improvement, all in accordance with standards required by the City as per the approved Grading and Drainage Plan K21/D09F on file at the City Engineer's office. The User will be solely responsible for paying all related costs. The User will not permit the Improvement to constitute a hazard to the health or safety of the general public. The User will not interfere with the purpose of the City's Easement or to interfere with the City's use of the City's Property. The User will conform with all applicable laws, ordinances and regulations.

4. Demand for Repair, Modification or Removal. The City may send written notice ("Notice") to

-1-



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Page: 1 of 7
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the User requiring the User to repair, modify or remove the Improvement within 30 days ("Deadline") or such longer period of time if reasonably required and the User will comply promptly with the requirements of the Notice. The User will perform all required work by the Deadline, at User's sole expense.

5. Failure to Perform by User and Emergency Work by City. If the User fails to comply with the terms of the Notice by the Deadline stated, or, if the City determines that an emergency condition exists, the City may perform the work itself. The City then may assess the User for the cost of the work and for any other expenses or damages which result from User's failure to perform. The User agrees promptly to pay the City the amount assessed. If the User fails to pay the City within thirty (30) days after the City gives the User written notice of the amount due, the City may impose a lien against User's Property for the total resulting amount.

6. Cancellation of Agreement and Release of Covenant. Upon prior written approval of the City Engineer, this Agreement may be canceled and User's covenants released by the City by the City's mailing to the User notice of the City's intention to record a Cancellation and Release with the Bernalillo County Clerk. The Cancellation and Release will be effective thirty (30) days after the date of mailing the notice to the User unless a later date is stated in the notice or the Cancellation and Release. After the effective date, the City will record the Cancellation and Release with the Bernalillo County Clerk.

7. Condemnation. If any part of the User's Property is ever condemned by the City, the User will forego all claims to compensation for any portion of User's structure which encroaches on City Property and for severance damage to the remaining portion of User's structure on User's Property.

8. Assessment. Nothing in this Agreement shall be construed to relieve the User, his heirs, assigns and successors from an assessment against User's Property for improvements to the City Property under a duly authorized and approved Special Assessment District. The parties specifically agree that the value of the Improvement will not reduce the amount assessed by the City.

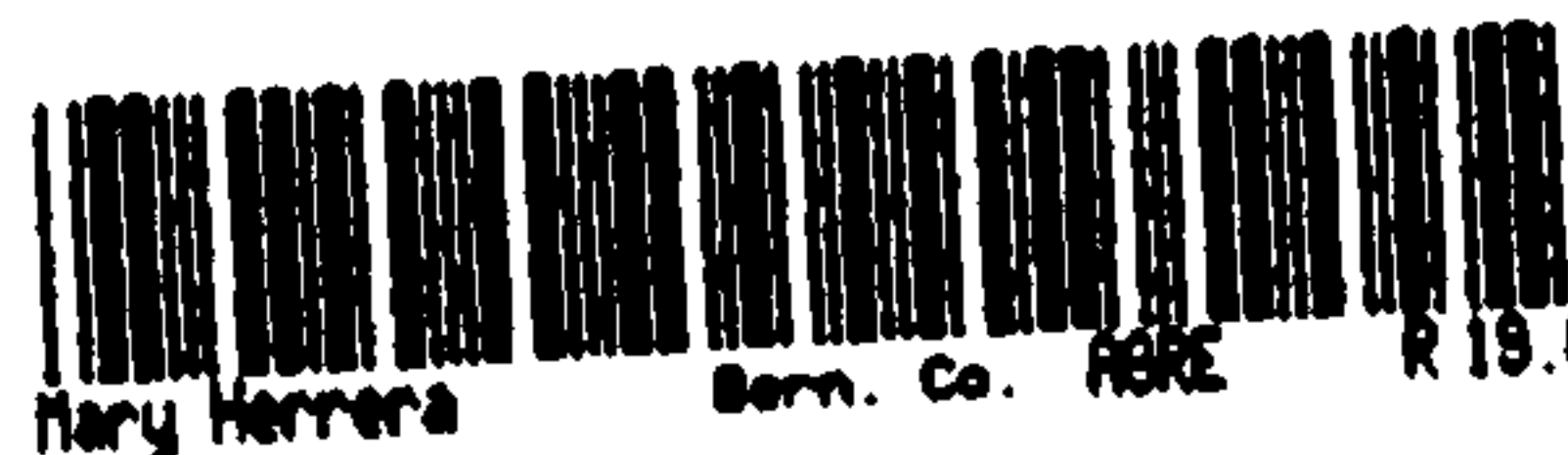
9. Notice. For purposes of giving formal written notice to the User, User's address is:

Sam's East, Inc.
2001 S.E. 10th Street
Bentonville, AR 72712-6489
Attn: Randy Crossno

with copy to:
Tierra West LLC
Attn: Ron Bohannon
8509 Jefferson NE
Albuquerque, NM 87113

Notice may be given to the User either in person or by mailing the notice by regular U.S. mail, postage

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paid. Notice will be considered to have been received by the User within 3 days after the notice is mailed if there is no actual evidence of receipt. The User may change User's address by giving written notice of the change by certified mail, return receipt requested, to the City Engineer at P.O. Box 1293, Albuquerque, New Mexico 87103.

10. Indemnification. The User agrees to defend, indemnify and hold harmless the City, its officials, agents and employees from and against any and all claims, actions, suits or proceedings of any kind brought against said parties as a result of User's use of the City's Property. To the extent, if at all, Section 56-7-1 NMSA 1978 is applicable to this Agreement, this Agreement to indemnify will not extend to liability, claims, damages, losses or expenses, including attorney's fees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the indemnitee, or the agents or employees of the indemnitee; or (2) the giving of or the failure to give direction or instructions by the indemnitee, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

11. Term. This Agreement shall continue until revoked by the City pursuant to Section 7 above.

12. Binding on User's Property. The covenants and obligations of the User set forth herein shall be binding on User, his heirs assigns and successors and on User's Property and constitute covenants running with User's Property until released by the City.

13. Entire Agreement. This Agreement contains the entire agreement of the parties and supersedes any and all other agreements or understandings, oral or written, whether previous to the execution hereof or contemporaneous herewith.

14. Changes of Agreement. Changes to this Agreement are not binding unless made in writing, signed by both parties.

15. Construction and Severability. If any part of this Agreement is held to be invalid or unenforceable, the remainder of the Agreement will remain valid and enforceable if the remainder is reasonably capable of completion.

16. Captions. The captions to the sections or paragraphs of this Agreement are not part of this Agreement and will not affect the meaning or construction of any of its provisions.

CITY OF ALBUQUERQUE:

USER: Sam's East, Inc., an Arkansas corp.

By: [Signature]
Chief Administrative Officer

By: [Signature]
Title: Assistant Vice President

Dated: 1-9-01

Dated: 10-13-00

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Approved as to legal terms only
by [Signature]
Wal-Mart Legal Team
Date: 10-13-00

APPROVED:

[Signature]
Director, Public Works Dept 12/14/00

Reviewed by:

[Signature] 12/14/00
City Engineer
11/14/00

CITY'S ACKNOWLEDGMENT

STATE OF NEW MEXICO)

COUNTY OF BERNALILLO) ss

This instrument was acknowledged before me on December 14, 2000, by Fred J. Aguirre, Chief Administrative Officer for the City of Albuquerque, a New Mexico municipal corporation, on behalf of the corporation.

[Signature]
Notary Public

My Commission Expires:

11-15-2003

USER'S ACKNOWLEDGMENT

STATE OF ARKANSAS)

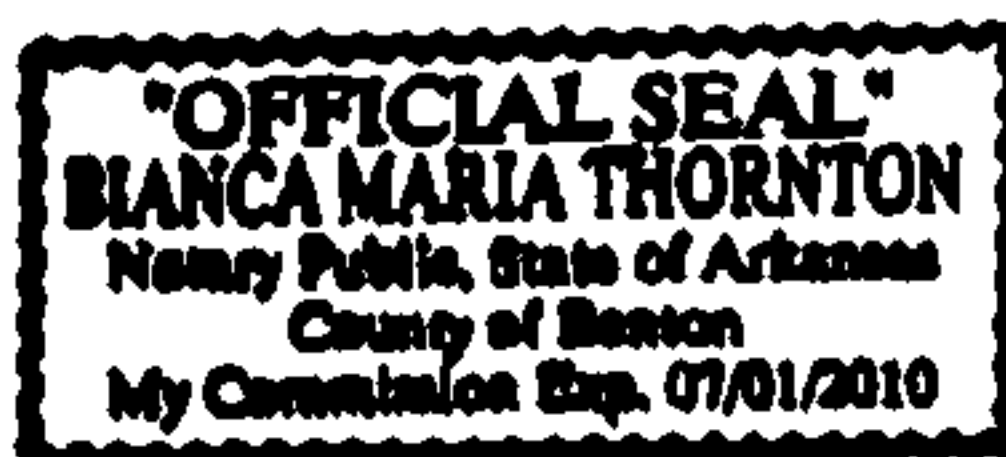
COUNTY OF BENTONVILLE) ss.

This instrument was acknowledged before me on Oct. 13, 2000, by ROBERT M. BEDARD ASST. V. PRES., on behalf of SAM'S EAST, INC.

[Signature]
Notary Public

My Commission Expires:

7-1-2010



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4



Mary Herrera

Bern. Co. AGRE

R 19.00

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EXHIBIT "A"
PJ 1072

LEGAL DESCRIPTION

An Easement situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, lying within Lot 4, The Lankurt Properties as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico on April 13, 1999 in Volume 99C, Folio 84, and being more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor number 9750 using plat bearings and ground distances as follows:

BEGINNING at the Southwest corner of the easement herein described, whence the Southwest corner of said Lot 4, The Lankurt Properties bears S 84°11'34" W, 94.90 feet; Thence,

N 00°14'29" E, 44.64 feet to a point; Thence,

N 90°00'00" E, 45.84 feet to a point of curvature; Thence,

Northeasterly, 39.27 feet along the arc of a curve to the left (said curve having a radius of 25.00 feet, a central angle of 90°00'00" and a chord which bears N 45°00'00" E, 35.36 feet) to a point of tangency; Thence,

N 00°00'00" E, 277.14 feet to a point of curvature; Thence,

Northeasterly, 25.00 feet along the arc of a curve to the right (said curve having a radius of 15.00 feet, a central angle of 95°30'30" and a chord which bears N 47°45'15" E, 22.21 feet) to a point of tangency; Thence,

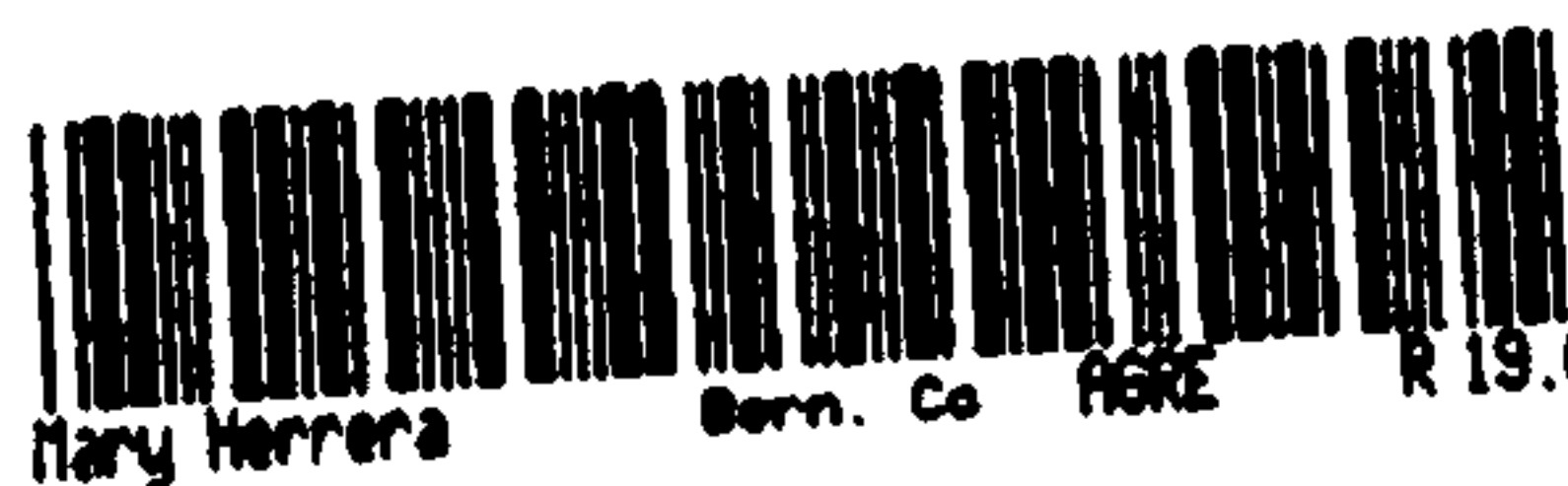
S 84°29'30" E, 24.84 feet to a point of curvature; Thence,

Southeasterly, 19.54 feet along the arc of a curve to the right (said curve having a radius of 15.00 feet, a central angle of 74°38'38" and a chord which bears S 47°10'11" E, 18.19 feet) to a point of tangency; Thence,

S 00°14'29" W, 283.42 feet to the Southeast corner of the easement herein described; Thence,

N 89°45'31" W, 135.47 feet to the point of beginning of the easement herein described.

Said easement contains 0.6024 acres, more or less.



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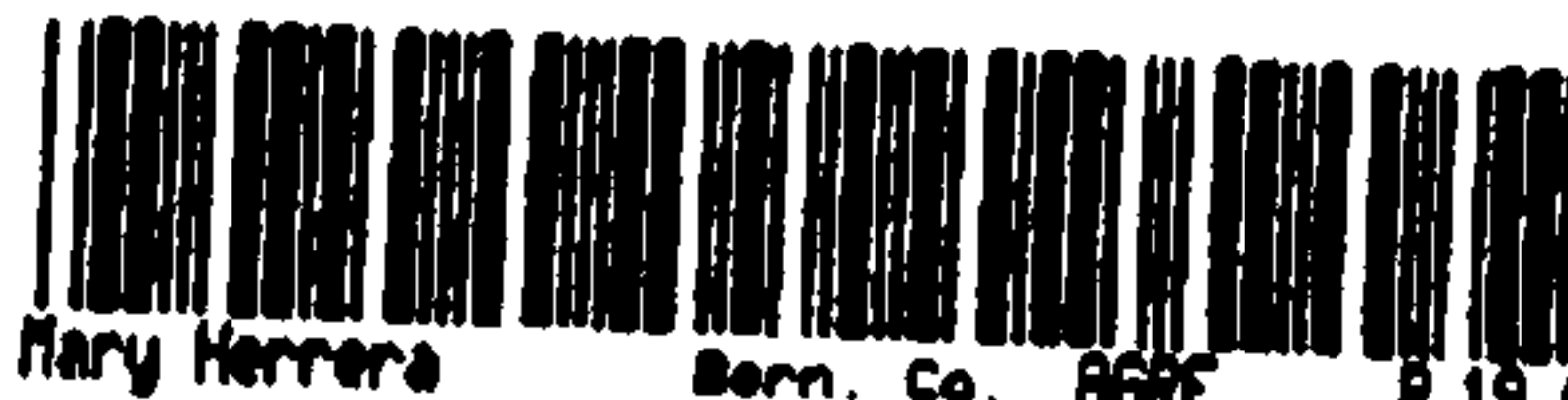
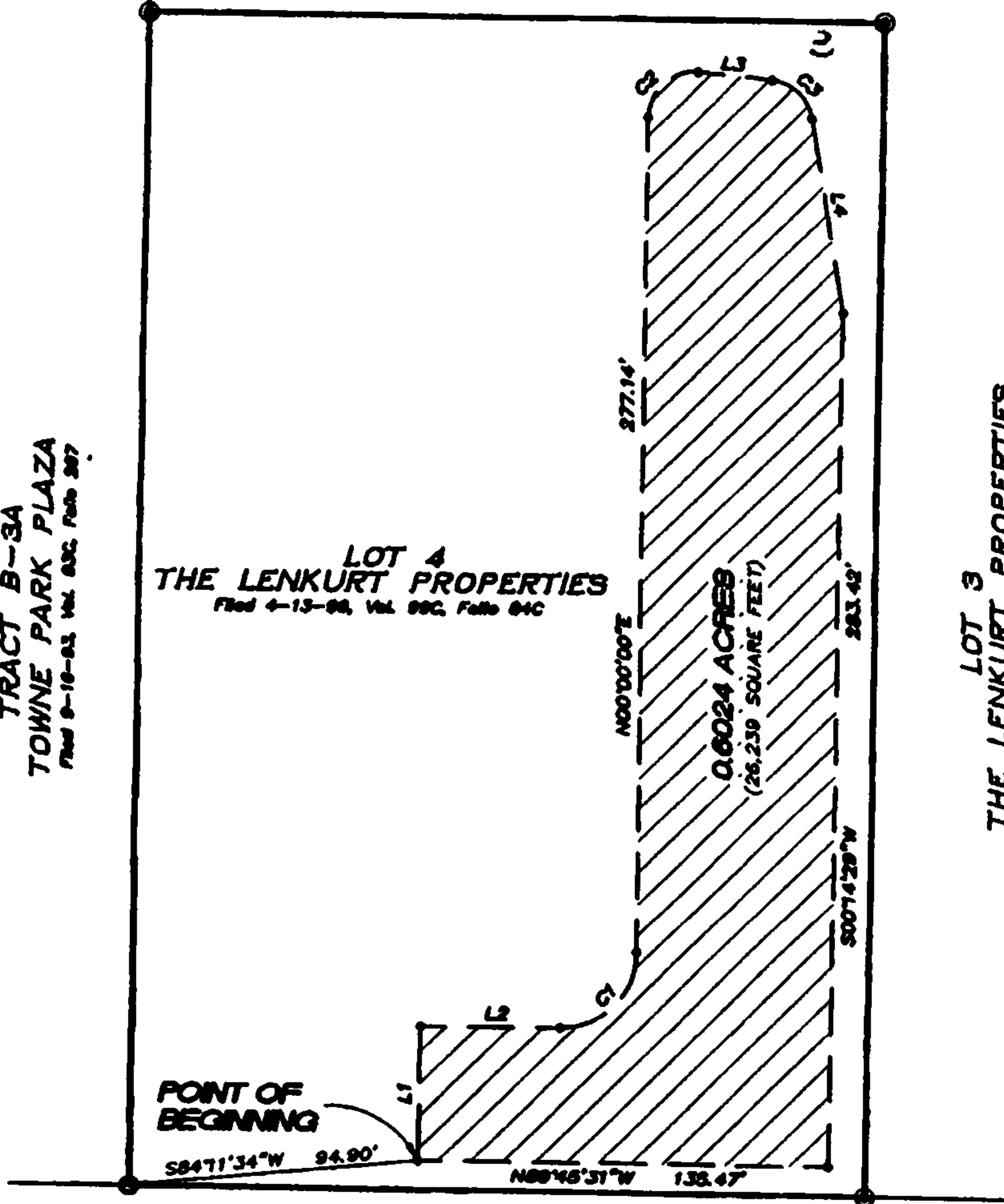
LOT 3
THE LENKURT PROPERTIES
Filed 4-13-88, Vol. 89C, Folio 84C

EXHIBIT 11
PJ. 2 of 3

TRACT B-3A
TOWNE PARK PLAZA
Filed 8-16-83, Vol. 89C, Folio 287

LOT 4
THE LENKURT PROPERTIES
Filed 4-13-88, Vol. 89C, Folio 84C

LOT 3
THE LENKURT PROPERTIES
Filed 4-13-88, Vol. 89C, Folio 84C



Mary Herrera

Bern. Co. AGRE

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Scale 1" = 60'

LINE TABLE

LINE	DIRECTION	DISTANCE
L1	N00°14'29"E	24.84'
L2	N00°00'00"E	28.84'
L3	S84°11'34"W	94.80'
L4	S00°14'29"W	283.43'

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	18.00'	38.37'	23.00'	38.37'	N00°14'29"E	80°00'00"
C2	18.00'	28.80'	18.83'	28.80'	N00°00'00"E	90°00'00"
C3	18.00'	18.84'	11.44'	18.84'	S84°11'34"W	74°39'39"

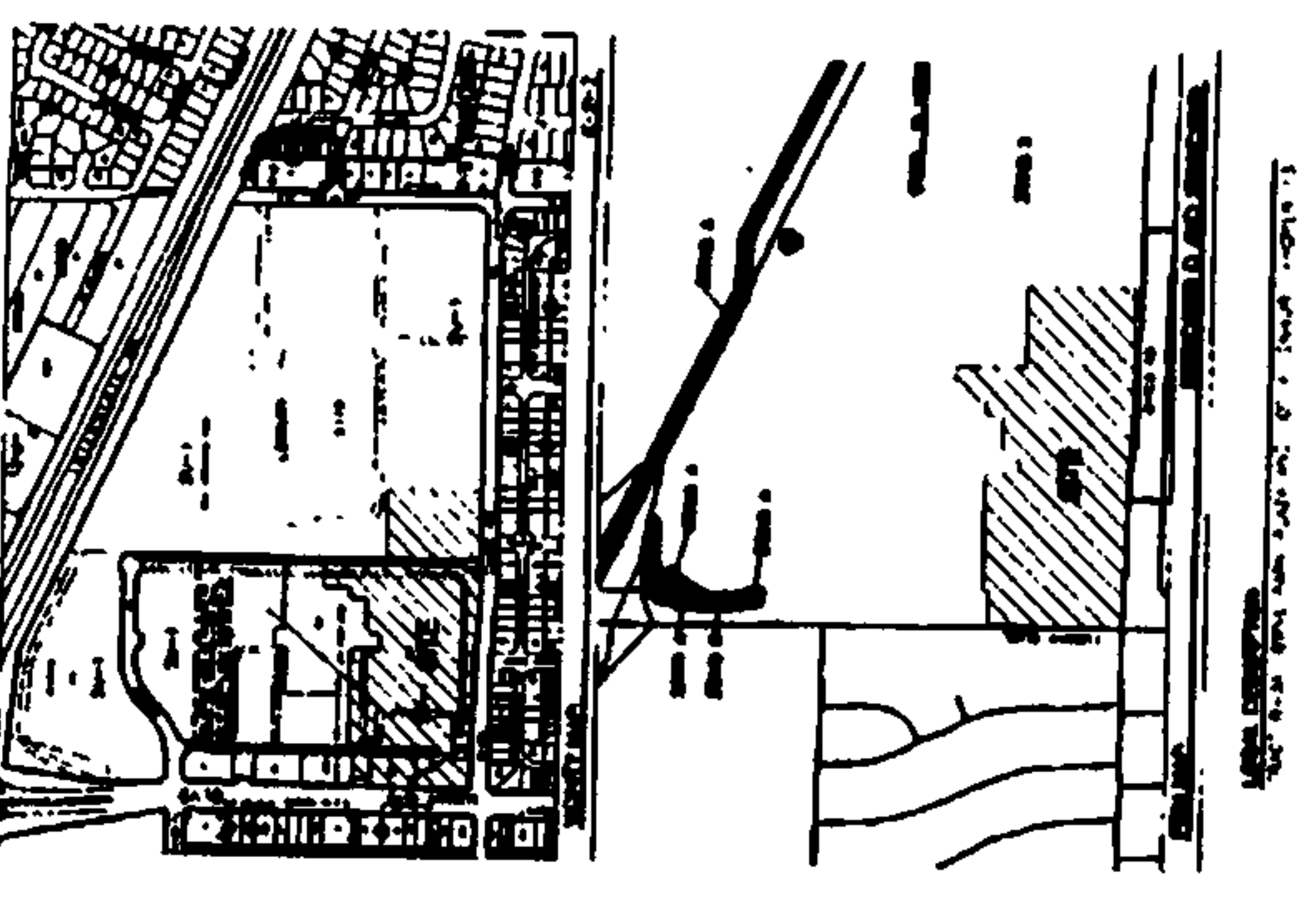
SURV • TEK, INC.

Consulting Surveyors

6649 Paradise Blvd. N.E. Albuquerque, New Mexico 87114

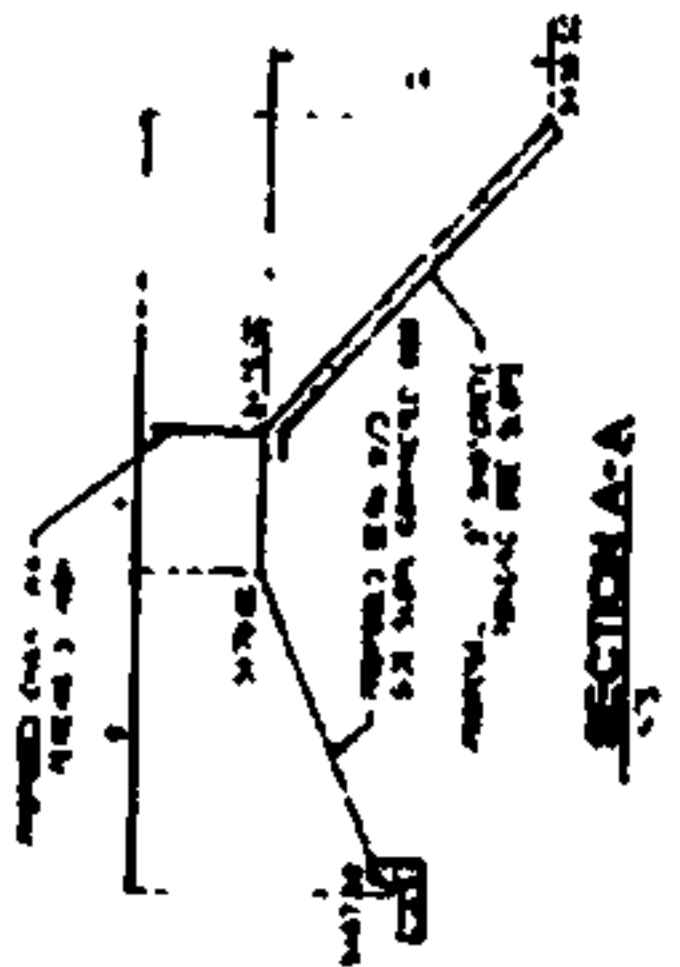
Phone: 505-897-3366

Fax: 505-897-3377



NOTES TO CONSTRUCTION

1. ALL EXISTING UTILITIES SHOWN ON THIS PLAN ARE TO REMAIN UNLESS OTHERWISE NOTED.
2. ALL NEW UTILITIES SHOWN ON THIS PLAN ARE TO BE INSTALLED AS SHOWN.
3. ALL EXISTING UTILITIES TO BE REMOVED ARE TO BE REMOVED AS SHOWN.
4. ALL EXISTING UTILITIES TO BE RELOCATED ARE TO BE RELOCATED AS SHOWN.
5. ALL EXISTING UTILITIES TO BE RELOCATED ARE TO BE RELOCATED AS SHOWN.
6. ALL EXISTING UTILITIES TO BE RELOCATED ARE TO BE RELOCATED AS SHOWN.
7. ALL EXISTING UTILITIES TO BE RELOCATED ARE TO BE RELOCATED AS SHOWN.
8. ALL EXISTING UTILITIES TO BE RELOCATED ARE TO BE RELOCATED AS SHOWN.
9. ALL EXISTING UTILITIES TO BE RELOCATED ARE TO BE RELOCATED AS SHOWN.
10. ALL EXISTING UTILITIES TO BE RELOCATED ARE TO BE RELOCATED AS SHOWN.



LEGEND

- EXISTING CURB
- NEW CURB
- EXISTING SIDEWALK
- NEW SIDEWALK
- EXISTING DRIVE
- NEW DRIVE
- EXISTING ROAD
- NEW ROAD

CAUTION

DO NOT CROSS THE ROAD OR DRIVEWAY AT ANY POINT.

**ALBUQUERQUE SAM'S
EXPANSION NO. 8872**

**CONCEPTUAL GRADING
AND DRAINAGE PLAN**

DATE: 01/16/2001

BY: [Signature]

SCALE: 1" = 10'

SHEET 5

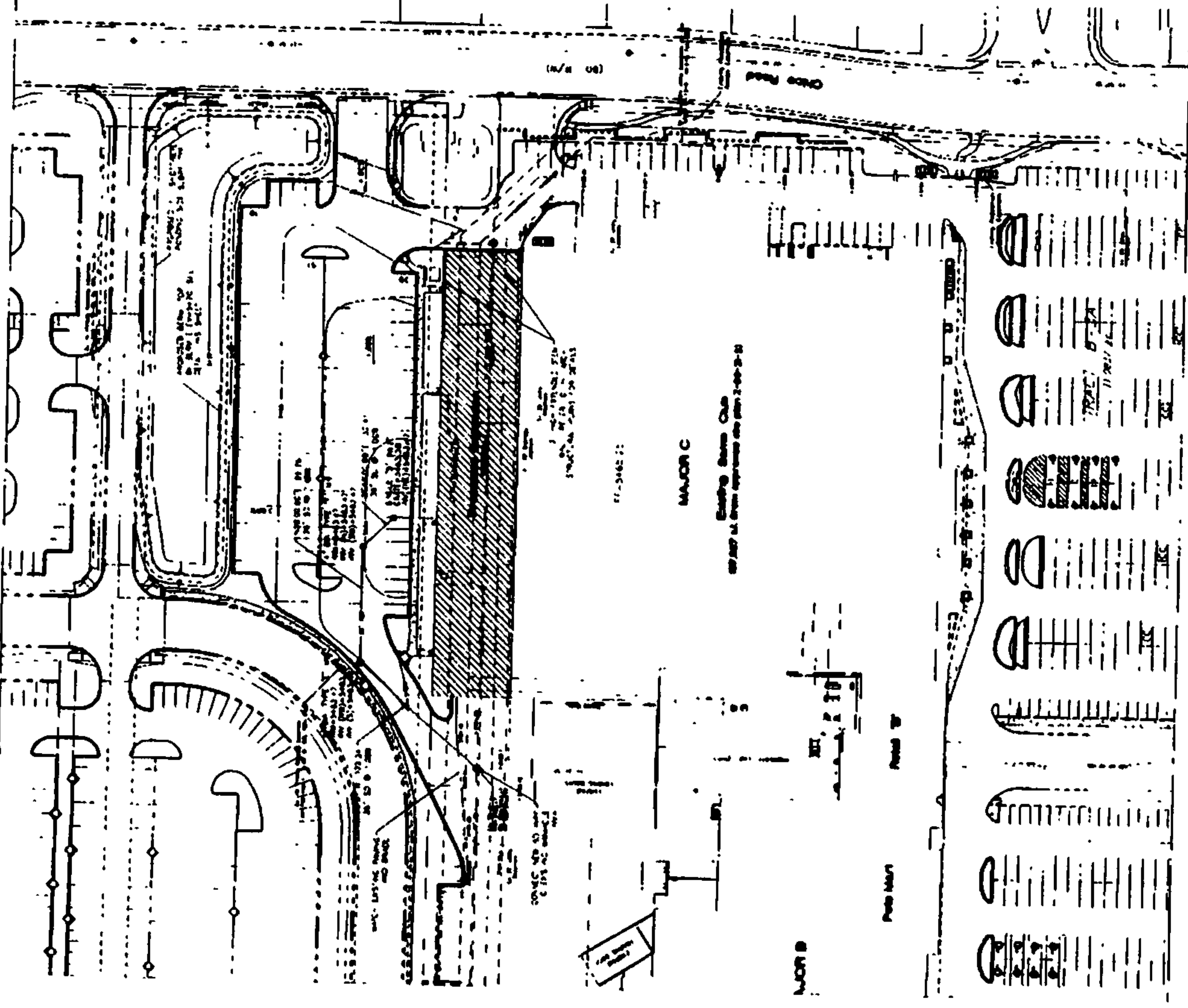


GRAPHIC SCALE

0 10 20 30 40

1" = 10'

EXHIBIT "A" PAGE 3 OF 3



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BL-01A BL-001A

Mary Herrera

Born Co. Road

10' 00'

Current DRC
Project Number _____

ORIGINAL

FIGURE 12

INFRASTRUCTURE LIST

(Rev 9-20-05)

EXHIBIT "A"

**TO SUBDIVISION IMPROVEMENTS AGREEMENT
DEVELOPMENT REVIEW BOARD (D.R.B.) REQUIRED INFRASTRUCTURE LIST**

**THE PRESIDIO, UNIT1
PROPOSED NAME OF PLAT**

**Lots 3, 7 & 8, The Lenkurt Properties
EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION**

Date Submitted: August 18, 2006
Date Site Plan Approved: 8-23-06
Date Preliminary Plat Approved: 08-23-06
Date Preliminary Plat Expires: 08-23-07
DRB Project No.: 1000572
DRB Application No.: 06 DRB-01038

Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development. This Listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non-essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of project acceptance and close out by the City.

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private Inspector	P.E.	City Cnst Engineer
		52' F-F	Residential paving w/ medians	Marina Gate Trail	Morris Street	Fort Point Lane	/	/	/
		25' F-F	Residential paving including parking areas	Marina Gate Trail	Fort Point Lane	Fort Scott Trail	/	/	/
		28' F-F	Residential paving	Fort Scott Trail	Marina Gate Trail	Lot 9	/	/	/
		28' F-F	Residential paving including parking areas	Arguello Trail	Manna Gate Trail	Lot 37	/	/	/
		25' F-F	Residential paving including parking areas	Fort Point Lane	Marina Gate Trail	Lot 75	/	/	/
		65' F-F	Residential paving w/ medians	Polin Springs Trail	Chico Road	Fort Point Lane	/	/	/
		60' F-F	Residential paving w/ medians	Polin Springs Trail	Fort Point Lane	Arguello Trail	/	/	/

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private Inspector	P.E.	City Cnst Engineer
		25' F-F	Residential paving including parking areas	Crissy Field Way	Fort Point Lane	West end	/	/	/
		150'	East-bound left-turn lane striping	Chico Rd	At Polin Springs Trail Entrance to Site		/	/	/
		26' F-F	Residential paving	Fort Point Lane	Lot 75	Lot 50	/	/	/
							/	/	/
		Std	Curb & gutter	Chico Road	~ 96 feet at existing entrance		/	/	/
		Std	Curb & gutter	Moms St	~ 80 feet replacement of laydown curb		/	/	/
			Curb & gutter (2)	Marina Gate Trail	Morris Street	Fort Scott Trail	/	/	/
			Curb & gutter (2)	Fort Scott Trail	Marina Gate Trail	Lot 9	/	/	/
			Curb & gutter (2)	Arguello Trail	Marina Gate Trail	Lot 37	/	/	/
			Curb & gutter (2)	Fort Point Lane	Marina Gate Trail	Lot 50	/	/	/
			Curb & gutter (2)	Polin Springs Trail	Chico Road	Arguello Trail	/	/	/
			Curb & gutter (2)	Crissy Field Way	Fort Point Lane	West end	/	/	/
		7	S-bound Rt-turn lane	Lomas	E-b Lomas	S-b Eubank	/	/	/
		7	E-bound Lt-turn lane (Striping removal)	Eubank	S-b Eubank	E-b ~~Eubank~~ Chico	/	/	/

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private		City Cnst Engineer
							Inspector	P.E.	
		6'	Concrete sidewalk south and east sides only	Marina Gate Trail	Morris Street	Fort Scott Trail	/	/	/
		6'	Concrete sidewalk (deferred) south side only	Fort Scott Trail	Marina Gate Trail	Lot 15	/	/	/
		6'	Concrete sidewalk east side only	Arguello Trail	Fort Scott Trail East end	~80' east of Lot 20	/	/	/
		6'	Concrete sidewalk south & west side only	Arguello Trail	Fort Scott Trail East end	Lot 19	/	/	/
		6'	Concrete sidewalk (deferred) north side only	Arguello Trail	Lot 19	Lot 16	/	/	/
		6'	Concrete sidewalk north and east sides only	Arguello Trail	Lot 16	Lot 37	/	/	/
		6'	Concrete sidewalk west & north sides only	Fort Point Lane	Marina Gate Trail	~50' east of Lot 75	/	/	/
		6'	Concrete sidewalk south side only	Fort Point Lane	~50' east of Lot 75	Lot 76	/	/	/
		6'	Concrete sidewalk (deferred) south side only	Fort Point Lane	Lot 76	Polin Springs Trail	/	/	/
		6'	Concrete sidewalk south side only	Fort Point Lane	Polin Springs Trail	Crissy Field Way	/	/	/
		6'	Concrete sidewalk west side only	Fort Point Lane	Crissy Field Way	Lot 50	/	/	/
		6'	Concrete sidewalk west side only	Polin Springs Trail	Chico Road	Fort Point Lane	/	/	/
		4'	Concrete sidewalk east side	Polin Springs Trail	Fort Point Lane	Arguello Trail	/	/	/
		6'	Concrete sidewalk west side	Polin Springs Trail	Fort Point Lane	Arguello Trail	/	/	/

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private Inspector	P.E.	City Cnst Engineer
		4'	Concrete sidewalk north side only	Crissy Field Way	Fort Point Lane	West end	/	/	/
		4'	Concrete sidewalk	Chico Road	~ 96 feet at existing entrance		/	/	/
		6'	Concrete sidewalk west side only	Morris St	Southeast Property Comer	Marina Gate Trail	/	/	/
							/	/	/
							/	/	/
		8"	Waterline	Marina Gate Trail	Morris Street Exst 10" WL	Fort Scott Trail	/	/	/
		8"	Waterline	Fort Scott Trail	Marina Gate Trail	Arguello Trail	/	/	/
		6"	Waterline	Arguello Trail	Marina Gate Trail	Fort Scott Trail	/	/	/
		8"	Waterline	Arguello Trail	Fort Scott Trail	Fort Point Lane	/	/	/
		6"	Waterline	Easement Tract D	North tract line	Crissy Field Way	/	/	/
		8"	Waterline	Fort Point Lane	Marina Gate Trail	Arguello Trail	/	/	/
		8"	Waterline	Polin Springs Trail	Chico Road Exst 6" WL	Fort Point Lane	/	/	/
		6"	Waterline	Crissy Field Way	Fort Point Lane	West end	/	/	/

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private		City Cnst Engineer
							Inspector	P.E.	
		6"	Waterline	South Easement Tract D	Crissy Field Way	Chico Road Exst 6" WL	/	/	/
		6"	Waterline	Easement Tract C	Fort Point Lane	Fort Point Lane	/	/	/
			Water meters for landscaping				/	/	/
							/	/	/
							/	/	/
		8"	Sanitary Sewer	Marina Gate Trail	~ 70' west of Fort Point Lane	Fort Scott Trail	/	/	/
		8"	Sanitary Sewer	Fort Scott Trail	Marina Gate Trail	Arguello Trail	/	/	/
		8"	Sanitary Sewer	Arguello Trail	Fort Scott Trail	West End Exst 8" SAS	/	/	/
		8"	Sanitary Sewer	East Easement Tract D	Arguello Trail	~ 130' north of Crissy Field Way	/	/	/
		8"	Sanitary Sewer	Fort Point Lane	~ 150' south of Marina Gate Trail	Arguello Trail	/	/	/
		8"	Sanitary Sewer	Crissy Field Way	Fort Point Lane	West end	/	/	/
		8"	Sanitary Sewer	Easements Tract C	Fort Point Lane	Fort Point Lane	/	/	/
							/	/	/

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private Inspector	P.E.	City Cnst Engineer
		18"-36"	Storm Drain	Fort Point Lane	Lot 50	Crissy Field Way	/	/	/
		48"	Storm Drain	Tract A	Fort Point Lane	Pond (1)	/	/	/
		18"-24"	Storm Drain	Tract A	Pond (1)	NW corner Tr. A Exst 54" SD	/	/	/
							/	/	/
		1'	concrete backyard rundown	private easement	Lot 8	Lot 9	/	/	/
		1'	concrete backyard rundown	private easement	Lot 14	Lot 15	/	/	/
		1'	concrete backyard rundown	private easement	Lot 23	Lot 24	/	/	/
		1'	concrete backyard rundown	private easement	Lot 34	Lot 35	/	/	/
		1'	concrete backyard rundown	private easement	Lot 60	Lot 61	/	/	/
		1'	concrete backyard rundown	private easement	Lot 63	Lot 64	/	/	/
		1'	concrete backyard rundown	private easement	Lot 70	Lot 71	/	/	/
		1'	concrete backyard rundown	private easement	Lot 73	Lot 74	/	/	/

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private Inspector	P.E.	City Cnst Engineer
		4"-12"	Private PVC drain	Tract D	Crissy Field Way	North tract line	/	/	/
		4"	Private PVC drain	Tract B	Fort Scott Trail/ Marina Gate Trail	~240' east	/	/	/
							/	/	/
							/	/	/
							/	/	/
			Perimeter walls	Along public right-of-way			/	/	/

(rev 9-20-05)

The items listed below are on the CCIP and approved for Impact Fee credits. Signatures from the Impact Fee Administrator and the City User Department is required prior to DRB approval of this listing. The items listed below are subject to the standard SIA requirements.

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification		
							Private Inspector	P.E.	City Cnst Engineer
							/	/	/
							/	/	/
							/	/	/
							/	/	/
							/	/	/
							/	/	/
Approval of Creditable Items:							Approval of Creditable Items:		
Impact Fee Administrator Signature Date							City User Dept. Signature Date		

(rev 9-20-05)

NOTES

If the site is located in a floodplain, then the financial guarantee will not be released until the LOMR is approved by FEMA.
Street lights per City requirements.

- 1 Agreement and Covenant—filed 1-16-01, in Bk A14, Pg 291
- 2 Curb & gutter on both sides, unless otherwise noted. Type to be determined at final DRC.
- 3 Grading and Drainage Certification required per DPM (prior to release of financial guarantees) to include private retaining walls as defined on the approved grading plan.
- 4 All water to include fire hydrants, valves, and appurtenances per DPM.
- 5 Storm drain includes inlets and connector pipes. Storm drain sizes are subject to change per final DRC determination
- 6 10 5-foot landscape buffer adjacent to Morris St. Landscape Maintenance Agreement.
- 7 Items may be removed based on final TIS negotiation with City of Albuquerque. 8. Signage per DRC

AGENT / OWNER

Fred C. Arfman

NAME (print)

Isaacson & Arfman, P.A.

FIRM

Chia Wilson-Weber 8/23/06

SIGNATURE - date

DEVELOPMENT REVIEW BOARD MEMBER APPROVALS

Andrew G. Miller 8-23-06

DRB CHAIR - date

Christina Sandomal 8/23/06

PARKS & GENERAL RECREATION - date

Jeffrey S. Miller 8-27-06

TRANSPORTATION DEVELOPMENT - date

Roger L. Dean 8/23/06

UTILITY DEVELOPMENT - date

Bradley A. Bingham 8/23/06

CITY ENGINEER - date

AMAFCA - date

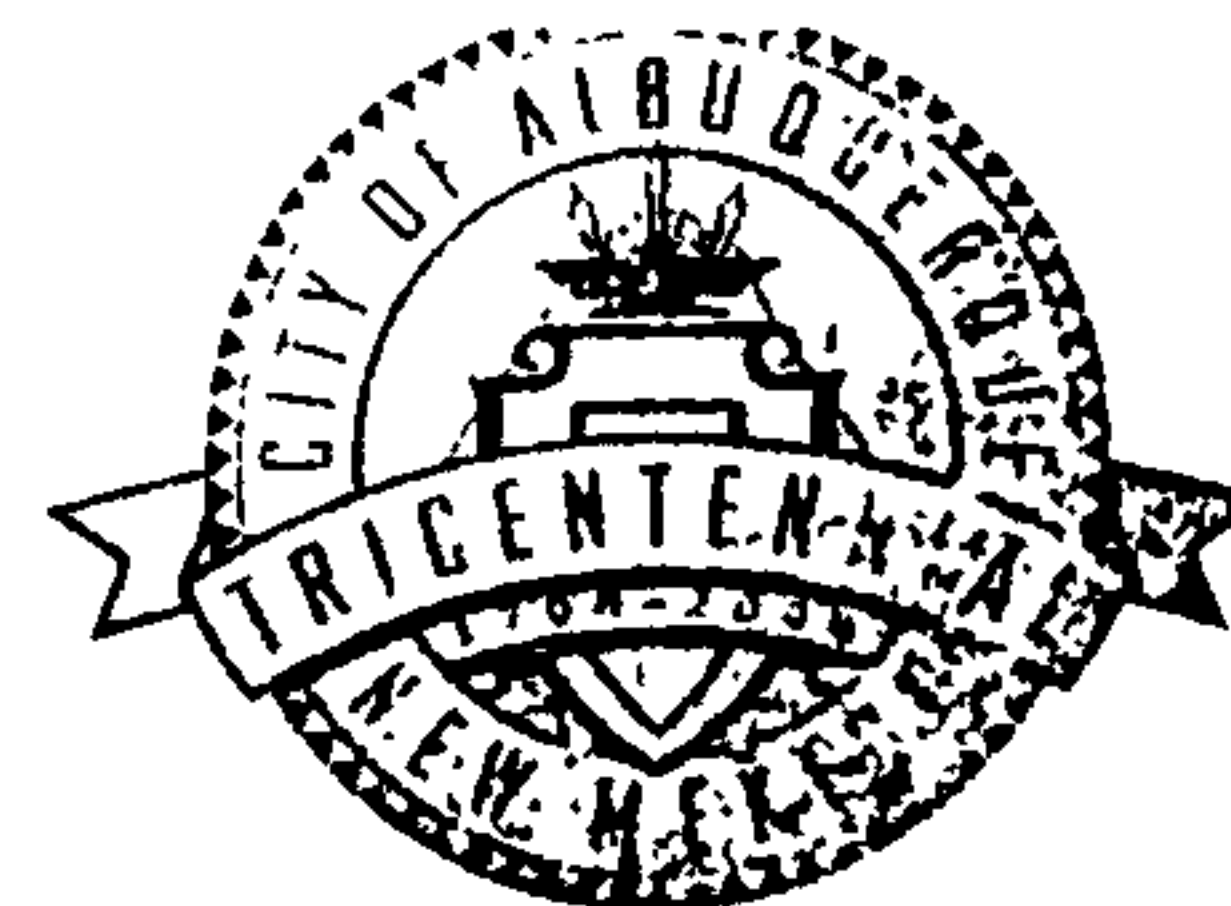
- date

- date

DESIGN REVIEW COMMITTEE REVISIONS

REVISION	DATE	DRC CHAIR	USER DEPARTMENT	AGENT / OWNER

CITY OF ALBUQUERQUE



November 8, 2006

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe SE
Albuquerque, NM 87108

Re: The Presidio – Tracts 3, 7, and 8 of the Lenkurt Properties
Engineer's Stamp dated 10-18-06 (K21/D9H)

Dear Mr. Arfman,

Based on the information contained in your submittal received on October 18, 2006, the grading plan set forth in the above referenced plan is generally acceptable. However, it is my understanding that, due to the recent storm drain improvements in Morris, the offsite flows across the subject property from the east have been mitigated.

Because the 96-inch, Morris storm drain now intercepts the offsite flows, the retention of water within the pond southwest of your site is no longer necessary. Please modify your proposed storm drain layout to convey your runoff into the western 54 / 60 – inch collection system without the use of the pond.

If you have any questions, you can contact me at 924-3990.

Sincerely,

Jeremy Hoover, P.E.
Senior Engineer
Hydrology Section
Development and Building Services

cc: file K21/D9H

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: The Presidio
DRB #: 1000572 EPC #: _____

ZONE MAP / DRG. FILE #: K-21/D94
WORK ORDER #: _____

LEGAL DESCRIPTION: Lots 3, 7, & 8, Lenkurt Properties
CITY ADDRESS: _____

ENGINEERING FIRM: Isaacson & Arfman Engineering, Assoc.
ADDRESS: 128 Monroe St. NE
CITY, STATE: Albuquerque, NM

CONTACT: Fred C. Arfman
PHONE: 268-8828
ZIP CODE: 87108

OWNER: Centex Homes
ADDRESS: 4110 Wolcott NE, Suite B
CITY, STATE: Albuquerque, NM

CONTACT: Lisa Donahue
PHONE: 923-1826
ZIP CODE: 87109

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Surv-Tek, Inc.
ADDRESS: 9384 Valley View Dr. SW
CITY, STATE: Albuquerque, NM

CONTACT: Russ P. Hugg
PHONE: 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☒ DRAINAGE REPORT
☒ DRAINAGE PLAN ^{1ST} *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

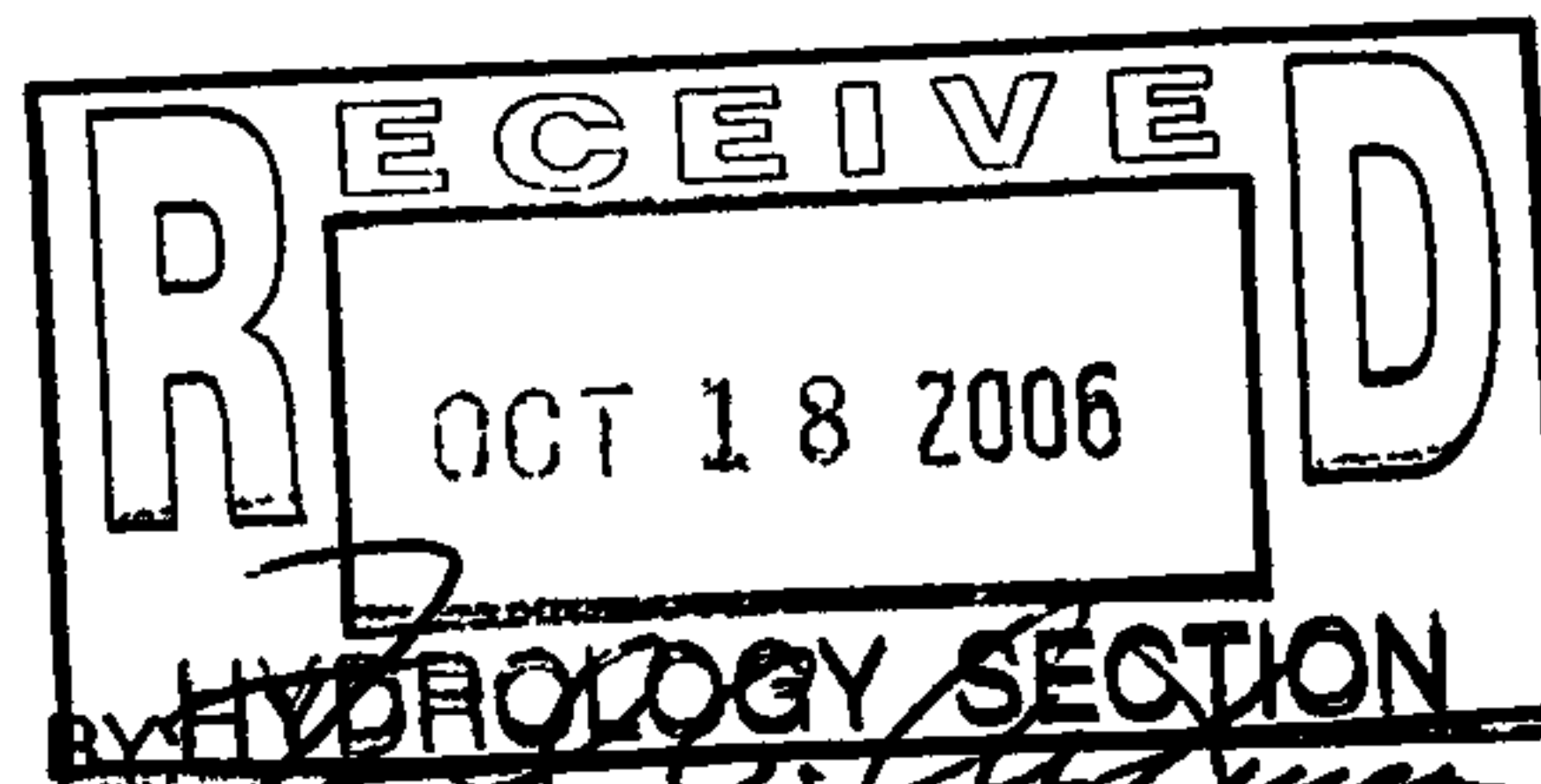
CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
☒ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPR.
☐ 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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: Tuesday, October 17, 2006



for Isaacson & Arfman, P.A.

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 on the following:

1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five acres and Sector Plans
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3. Drainage Report: Required for subdivisions containing more than ten (10) lots or constituting five acres or more.



ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

*Thomas O. Isaacson, PE & LS • Fred C. Arfman, PE
Scott M. McGee, PE*

October 18, 2006

Mr. Jeremy Hoover, P.E.
Hydrology Section
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87102

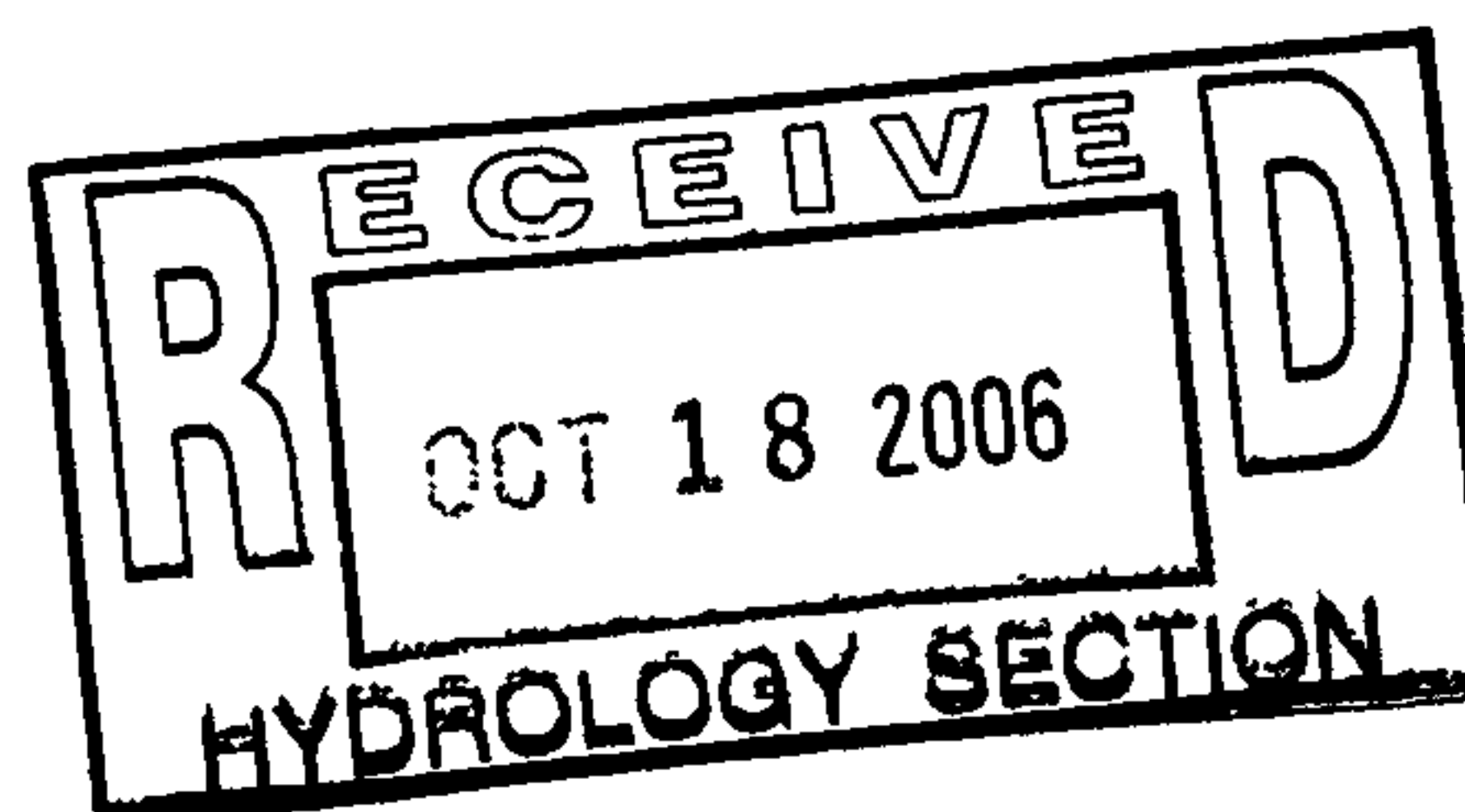
**RE: The Presidio—Revised Drainage Submittal
Drainage File K21-D9H**

Dear Mr. Hoover:

Isaacson & Arfman, P.A., as agents for Centex Homes, are submitting the enclosed Revised Drainage Report for the referenced project. The reason for the resubmittal is to reflect site layout changes because of a pending land exchange between Centex Homes and the owner of the property to the north. An amended site plan has been submitted to EPC. The number of dwelling units remains unchanged. Since the last drainage submittal, the site has been split into two units, and Unit 1 was approved at DRB for preliminary plat in August, 2006.

The changes in the drainage report include the following:

- Grading and storm drain changes because of revised site layout. The roadway connection at the northwest corner was eliminated, and a cul-de-sac adjacent to the existing pond was added.
- The previously submitted report stated that offsite flows from a basin east of Morris St. totaled 106 cfs. However, this flowrate included 4 cfs from an onsite basin adjacent to Morris St. along with 18 cfs from the north Lenkurt Property. This report reflects the corrected flowrate from the offsite basin of 84 cfs. Therefore, the outflow from the pond was increased.

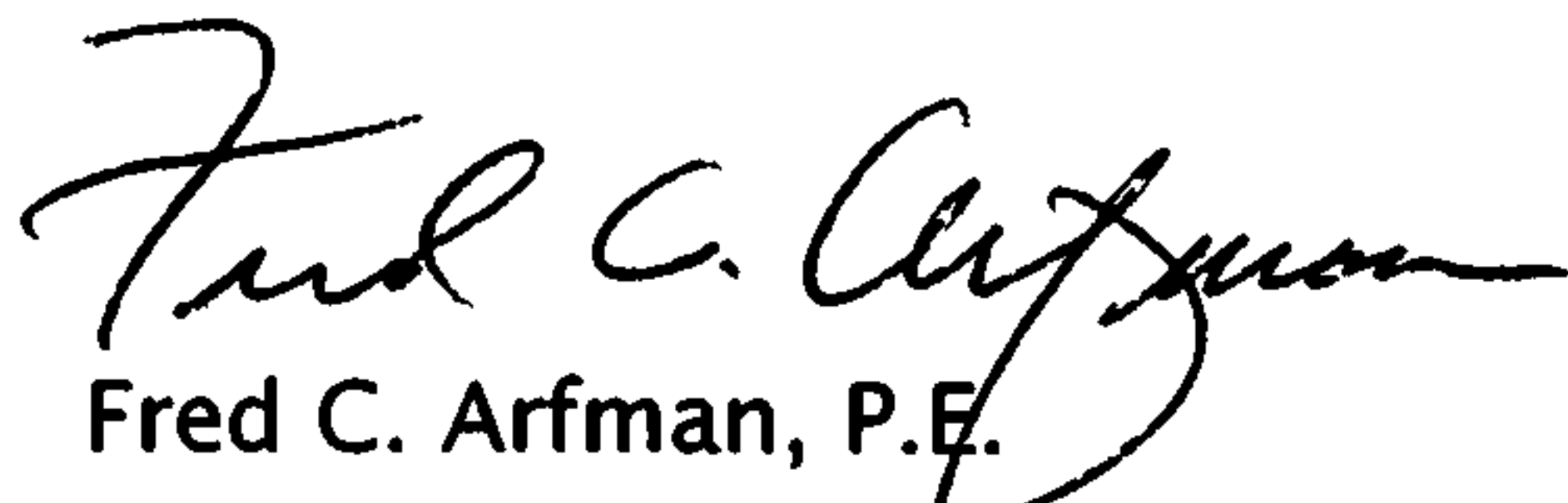


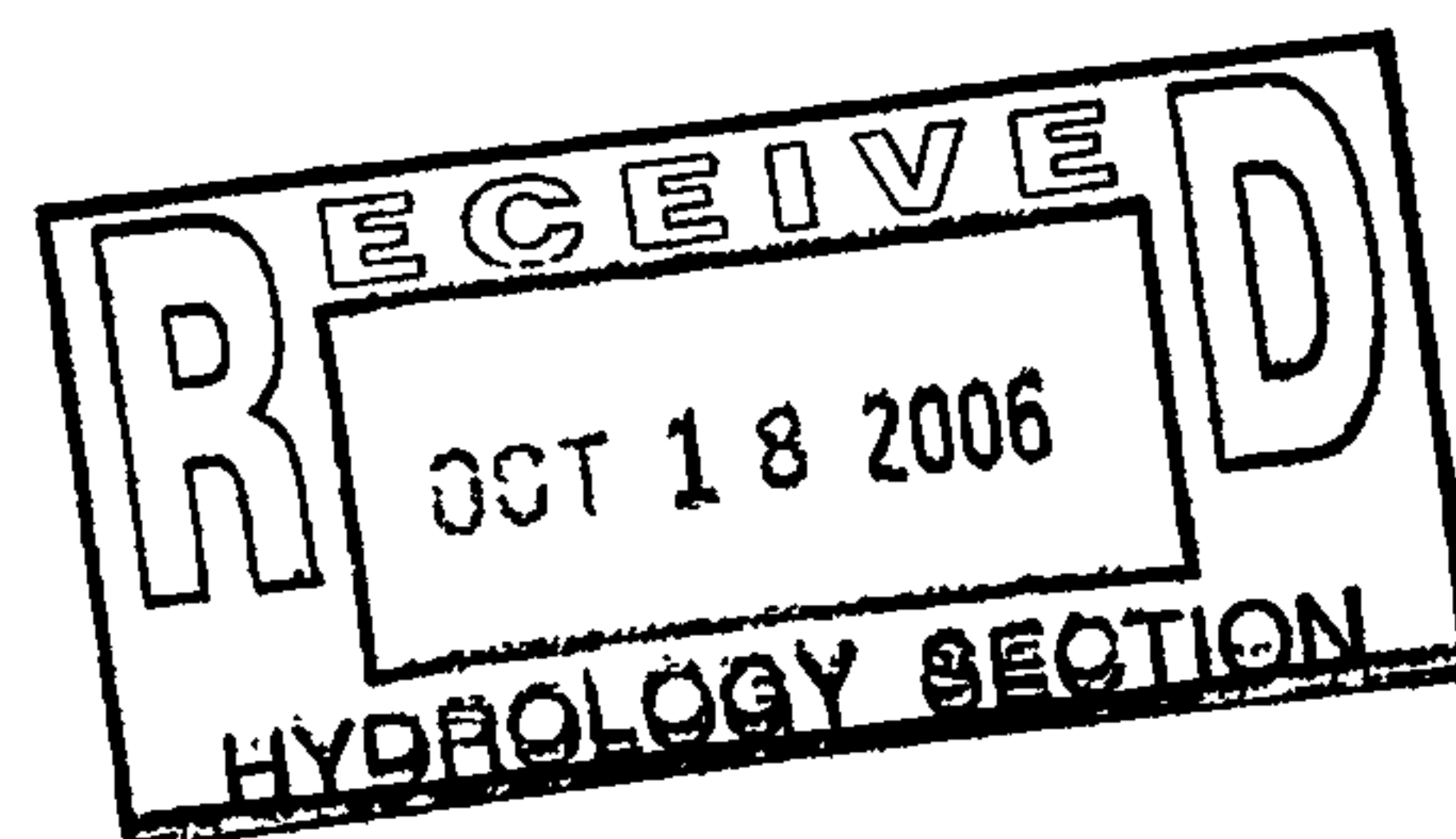
Mr. Jeremy Hoover, P.E.
October 18, 2006
Page 2

- The AHYMO in the previous report was based on the 100-year, 24-hour storm to show that the pond would drain within 24 hours. This AHYMO is based on the 100-year, 6-hour storm, which reflects slightly higher peak flow rates. With the increased outflow, the pond will now drain in ~11 hours.
- An interim grading plan has been added to show temporary grading and drainage improvements to handle the flows from Unit 2 before this unit is constructed. These improvements include a temporary orifice inlet and a berm at the northwest corner of the unit 2 area.

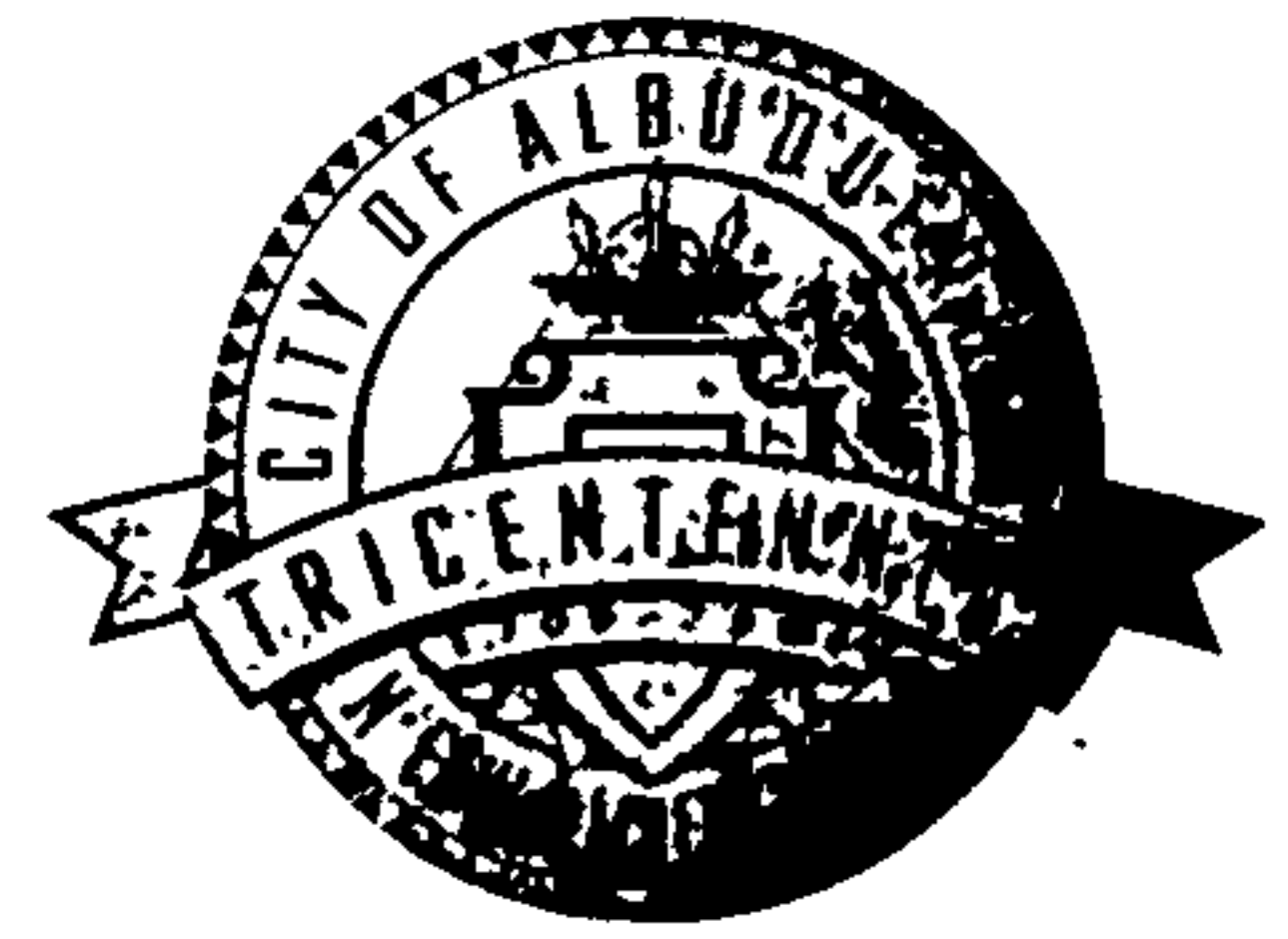
If you have questions or comments regarding this submittal, please call me at 268-8828 or Åsa Nilsson-Weber at (972) 491-9736.

Sincerely,
ISAACSON & ARFMAN


Fred C. Arfman, P.E.
Attachments



CITY OF ALBUQUERQUE



July 31, 2006

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe SE
Albuquerque, NM 87108

Re: The Presidio – Tracts 3, 7, and 8 of the Lenkurt Properties
Engineer's Stamp dated 7-17-06 (K21/D9H)

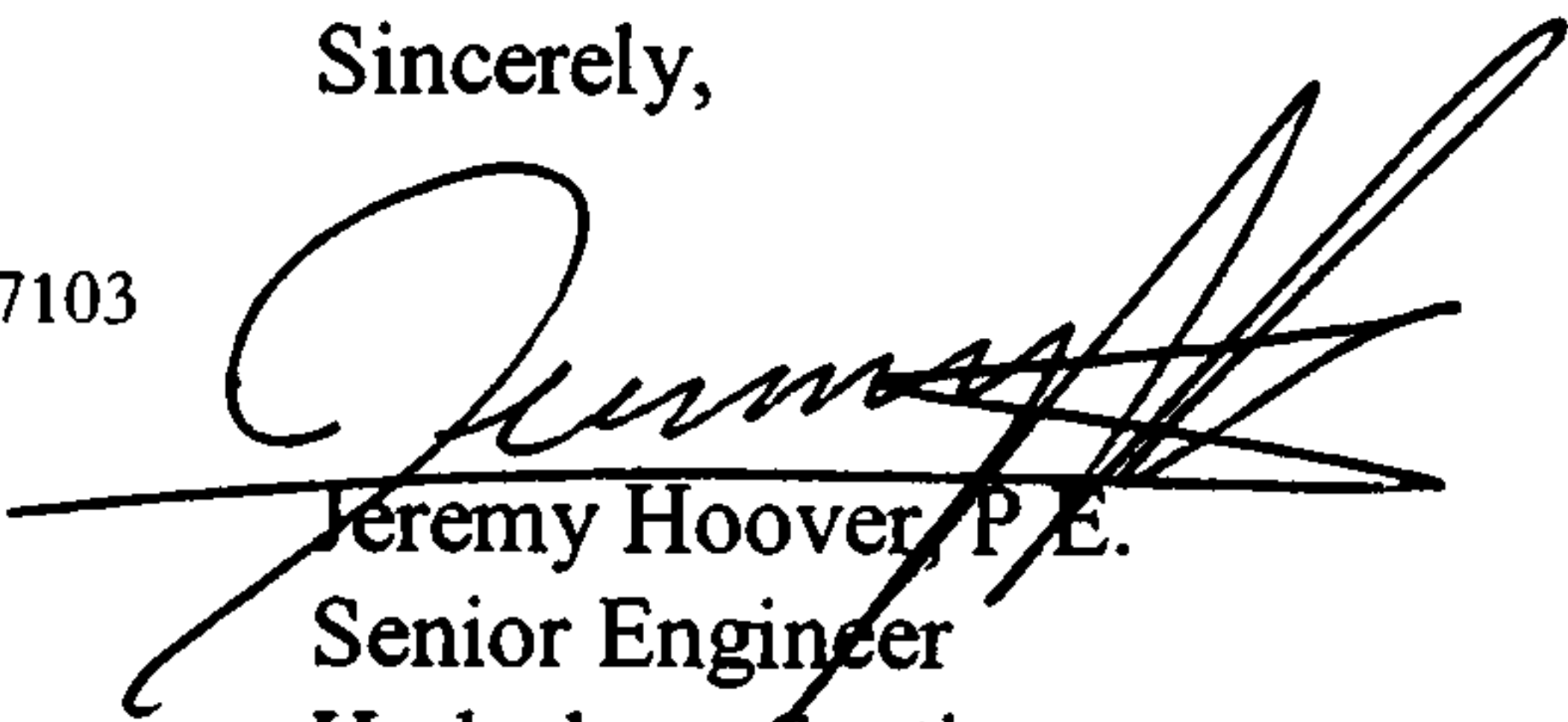
Dear Mr. Arfman,

Based upon the information provided in your submittal received on July 21, 2006, the above referenced plan is approved for Preliminary Plat action by the DRB. However, a copy of the easement granting access to the existing pond must be submitted for inclusion in the drainage report. Also, any existing and proposed easements must be shown on the plan prior to DRB approval.

Please be advised that, although all new storm drain infrastructure must be constructed to City standards, ownership will remain private and therefore maintenance will be by a homeowner's association. Due to the relatively large side-slope grade, access to the pond is an issue. Also, the pond was not constructed to City standards and will therefore remain privately owned and maintained.

If you have any questions, you can contact me at 924-3990.

Sincerely,


Jeremy Hoover, P.E.
Senior Engineer
Hydrology Section
Development and Building Services

cc: file K21/D9H

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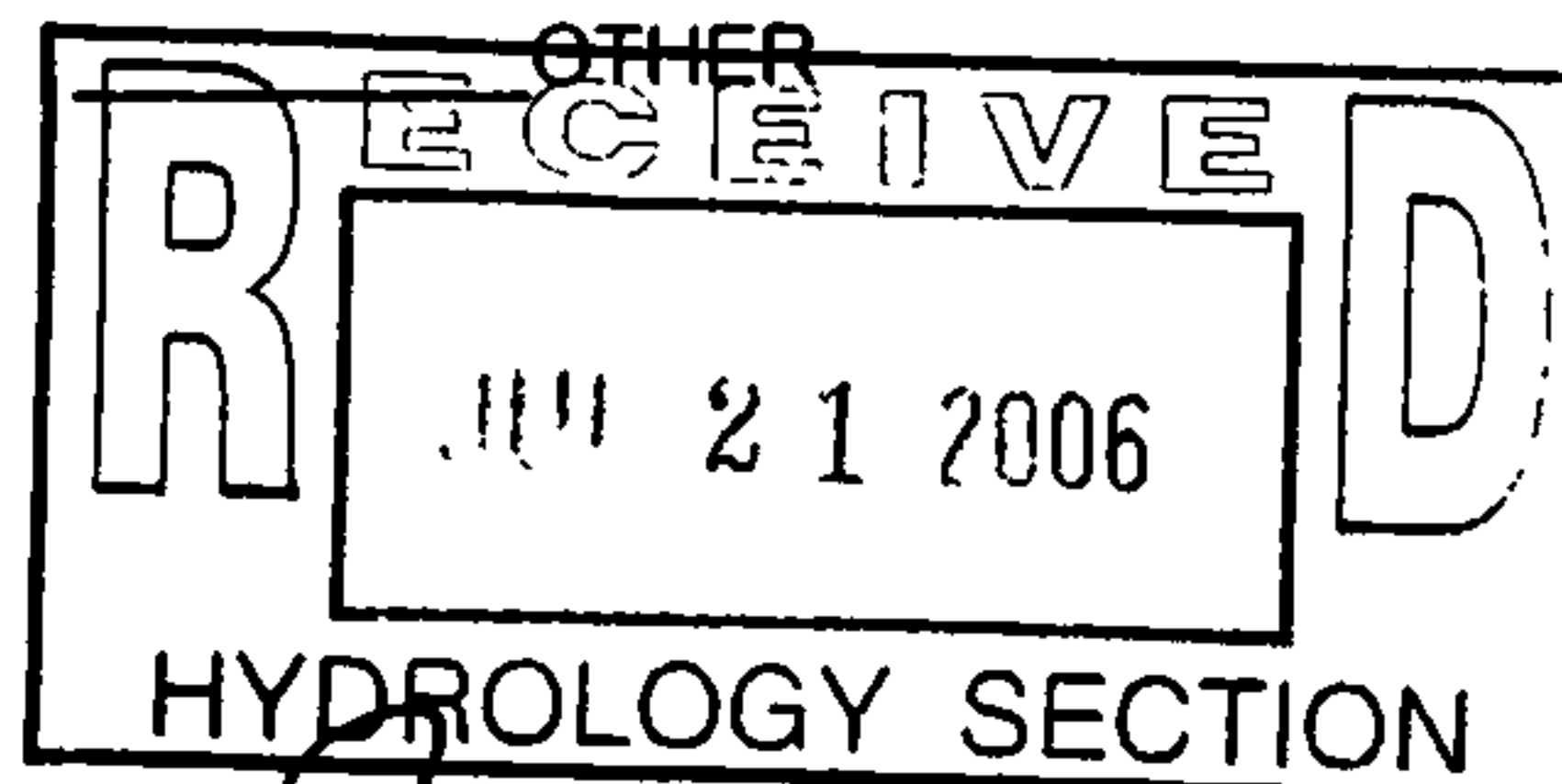
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☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☒ NO
☐ COPY PROVIDED



DATE SUBMITTED: Monday, July 17, 2006

BY: Fred C. Arfman
for Isaacson & Arfman, P.A.

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 on the following:

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CITY OF ALBUQUERQUE



January 30, 2007

Fred C. Arfman, P.E.
Isaacson and Arfman, P.A.
128 Monroe NE
Albuquerque, NM 87108

Re: The Presidio Clubhouse, Engineer's Stamp Dated 1-10-07, (K21/D9H)

Dear Mr. Arfman,

Based upon the information provided in your submittal received on January 11, 2007, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions or need additional information, feel free to contact me at 924-3990.

Sincerely,

Jeremy Hoover, P.E.
Senior Engineer
Hydrology Section
Development and Building Services

cc: file (K21/D9H)

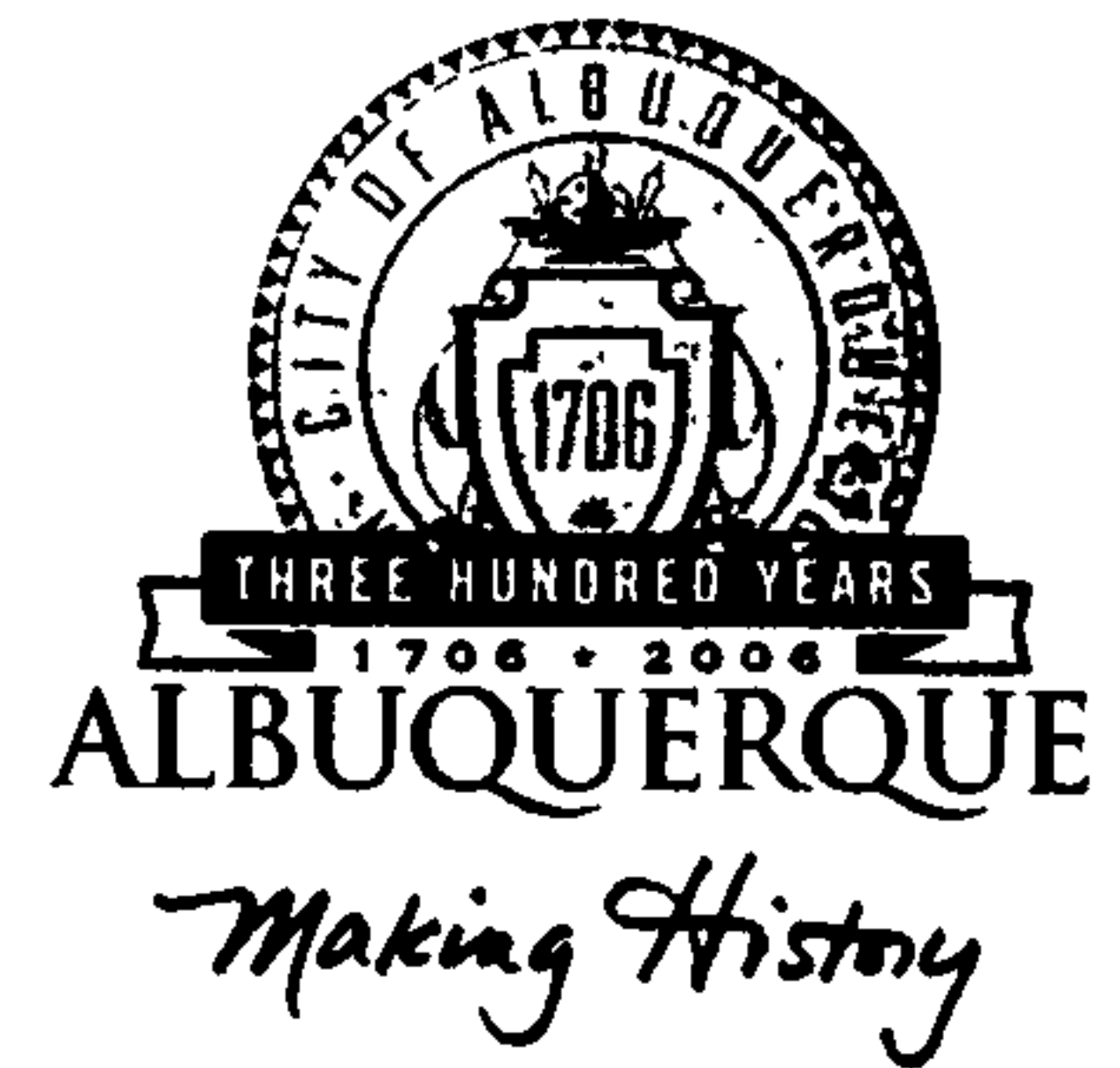
P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE



August 1, 2005

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

Re: The Presidio, Site Development Plan (K21-D9H)

Dear Mr. Arfman,

Based upon the information provided in your submittal received 7-07-05, the above referenced plan cannot be approved for Site Development Plan for Building Permit until the following comments are addressed:

P.O. Box 1293

Albuquerque

New Mexico 87103

1. The site development plan must be stamped, signed, and dated by a licensed engineer in the state of New Mexico.
2. Provide As-Built information for the outfall areas. Define the capacity and existing flow for each outfall.
3. Our records indicate that public storm drain is located on this site. Please check the plat for this area, and show all easements.
4. The proposed drainage plan does not resemble the master plan for this area (see Hydrology File K21/D009). Please provide a history of the site, and explain the reasoning for any discrepancies from the master plan.

If you have any questions, you can contact me at 924-3981.

www.cabq.gov

Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: file