

FILE COPY



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

February 6, 1987

Thornton D. Schwenk
Boyle Engineering Corporation
3939-D San Pedro Drive, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR SUNWEST PARKING GARAGE (J-14/E65)
RECEIVED JANUARY 22, 1987

Dear Mr. Schwenk:

The above referenced plan dated January 20, 1987, is approved for building permit. Please be advised that the tie-in to the manhole on Fourth Street is a work order project.

Please attach a copy of this approved plan to both sets of drawings submitted for building permit sign-off.

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

Cordially,

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

CAM/bsj

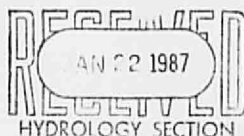
PUBLIC WORKS DEPARTMENT

Walter Nickerson, P.E., City Engineer

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER



Boyle Engineering Corporation

consulting engineers

Suite D
3939 San Pedro, N.E.
Albuquerque, New Mexico 87110

505 / 883-7700

Department of Public Works
P. O. Box 1293
City of Albuquerque
Albuquerque, New Mexico 87103

January 20, 1987
AL-S01-284-60

ATTN: Mr. Carlos Montoya/City-County Floodplain Administrator

RE: REVIEW COMMENTS FOR SUNWEST BANK PARKING GARAGE (J-14/D65)
RECEIVED JANUARY 13, 1987

Dear Carlos:

Following are our written responses to your comments dated January 7, 1987, regarding the referenced Drainage Plan submitted to your office on December 15, 1986. These responses are based on our phone conversations with Bob Hogrefe and Dan Hogan on January 14 and with you on January 15.

1. We understand that PWD policy regarding construction of "Private Drainage Facilities within Public Right of Way" (the S. O. 19 Process) has been in a state of flux during the past four weeks. The connection to the manhole in Fourth Street will now require that we prepare work order drawings for a separate review and approval by the DRC. Bob Hogrefe explained that this review process will not affect release of a Building Permit, if the hydrology design on the Drainage Plan outside the public right-of-way meets with your approval.
2. Flow line elevations appeared on our December submittal, with the exception of values along Lomas Blvd.; these have now been added. Curb heights for all the adjoining streets have also been added to the Plan: Lomas, Roma and Fourth Streets have an 8-in high curb, and Third Street a 6-in curb.
3. A table, stating all the separate flows and describing the many small drainage areas, has been added, including the areas occupied by the existing multi-story office buildings (Tracts A and B) which are not affected by the new parking structure to the north. The separate flows can now be easily added to give the total discharge of 17.1 cfs from the entire 3.778-acre site.
4. Bob Hogrefe stated to me that a downstream capacity analysis would not be required for this location as a result of the low-flow conditions from the roof drains into the manholes in Third

Page 2
Mr. Montoya
January 20, 1987

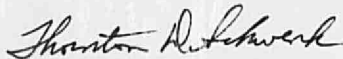
and Fourth Streets. Please see the discussion which has been added to the Drainage Plan regarding his decision.

I hope that this discussion adequately addresses your concerns with the earlier submittal and that the building Permit can be released tomorrow. The contractor has reached his limit on in-ground construction allowed under the Foundation-Only Permit.

Please call me immediately if you are not able to release the new Permit.

Sincerely,

BOYLE ENGINEERING CORPORATION



Thornton D. Schwenk, P.E.
Senior Civil Engineer

cc: Glenn Fellows, SMPC
Vernon Doake, Sunwest Bank

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Sunwest Parking Garage ZONE ATLAS/DWG. FILE #: J-14 - D65
 LEGAL DESCRIPTION: Tracts A, B, C & D, Sunwest Centre (formerly portions of Blocks H & I of the Mandell Business and Residence Addition)
 CITY ADDRESS: 303 Roma, NW

ENGINEERING FIRM: Boyle Engineering Corp. CONTACT: Thornton D. Schwenk
 ADDRESS: 3939-D San Pedro, NE PHONE: 883-7700

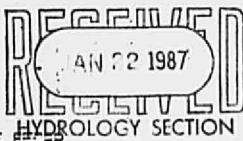
OWNER: Sunwest Bank of Albuquerque CONTACT: Vernon Doake
 ADDRESS: 303 Roma, NW PHONE: 765-2035

ARCHITECT: Stevens, Mallory, Pearl & Campbell CONTACT: Glenn Fellows
 ADDRESS: 115 Amherst, SE PHONE: 255-8668

SURVEYOR: Bohannon-Huston, Inc. CONTACT: A. Dwain Weaver, L.S. 6544
 ADDRESS: Courtyard I, 7500 Jefferson, NE PHONE: 823-1000

CONTRACTOR: Summit Construction, Inc. CONTACT: Dave Thomas
 ADDRESS: 900 Hazeldine, SE PHONE: 842-8113 (242-3822 Site)

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY OF CONFERENCE RECORD SHEET PROVIDEDDRB NO. 86-662, V-86-126, 86-650

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT☒ DRAINAGE PLAN *Re-submittal, addressing comments dated 1-7-87*☐ CONCEPTUAL GRADING & DRAINAGE PLAN☐ GRADING PLAN☐ EROSION CONTROL PLAN☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☐ SITE DEVELOPMENT PLAN APPROVAL☒ FINAL PLAT APPROVAL☒ BUILDING PERMIT APPROVAL☐ FOUNDATION PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☐ ROUGH GRADING PERMIT APPROVAL☐ GRADING/PAVING PERMIT APPROVAL☐ OTHER _____ (SPECIFY)

DATE SUBMITTED:

1-20-87

BY:

Thornton D. Schwenk
 Thornton D. Schwenk, P.E.
 Sr. Civil Engineer II

FILE COPY



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 7, 1987

Thornton D. Schwenk
Boyle Engineering Corporation
3939-D San Pedro Drive, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR SUNWEST PARKING GARAGE (J-14/D65) RECEIVED
DECEMBER 10, 1986

Dear Mr. Schwenk:

I have reviewed the referenced plan and forward the following comments:

1. A work order is needed to tie into the Fourth Street manhole. Please check with Bob Hogrefe on the type of storm drain that can be used and its minimum size. The tie into the Third Street 15' RCP also needs to be discussed.
2. Need flow line and top of curb elevations for adjoining streets.
3. I added up the individual discharges on the plan and they did not match the calculation runoff value. Please address the locations of the basins.
4. Please address if the manhole and storm drain on Fourth Street has capacity to accept the sites flows.

If you have any questions regarding my review, please call me at 768-2650.

Cordially,

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

CAM/bsj

AN EQUAL OPPORTUNITY EMPLOYER

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Sunwest Parking Garage ZONE ATLAS/DANG. FILE #: J-14 - D65
 LEGAL DESCRIPTION: Tracts A, B, C & D, Sunwest Centre (formerly portions of blocks H & I of the Mandell Business and Residence Addition)
 CITY ADDRESS: 303 Roma, NW

ENGINEERING FIRM: Boyle Engineering Corp. CONTACT: Thornton D. Schwenk
 ADDRESS: 3939-D San Pedro, NE PHONE: 883-7700

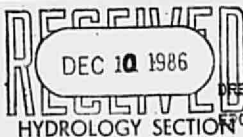
OWNER: Sunwest Bank of Albuquerque CONTACT: Vernon Doake
 ADDRESS: 303 Roma, NW PHONE: 765-2035

ARCHITECT: Stevens, Mallory, Pearl & Campbell CONTACT: Glenn Fellows
 ADDRESS: 115 Amherst, SE PHONE: 255-8668

SURVEYOR: Bohannon-Huston, Inc. CONTACT: A. Dwain Weaver, L.S. 6544
 ADDRESS: Courtyard I, 7500 Jefferson, NE PHONE: 823-1000

CONTRACTOR: Summit Construction, Inc CONTACT: Dave Thomas
 ADDRESS: 900 Hazeldine, SE PHONE: 842-8113 (242-3822 Site)

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY OF CONFERENCE RECAP SHEET PROVIDED 9-12-86DPS NO. 86-662, V-86-126, 86-650

EFC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☐ SITE DEVELOPMENT PLAN APPROVAL☒ FINAL PLAT APPROVAL☒ BUILDING PERMIT APPROVAL☐ FOUNDATION PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☐ ROUGH GRADING PERMIT APPROVAL☐ GRADING/PAVING PERMIT APPROVAL☐ OTHER _____ (SPECIFY)DATE SUBMITTED: 12-9-86BY: Thornton D. SchwenkThornton D. Schwenk, P.E.
Sr. Civil Engineer II

ck to
process

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

consulting engineers

505 / 883-7700

LETTER OF TRANSMITTAL

TO: HYDROLOGY SECTION / P.W.D. DATE: 12-9-86
CITY OF ALBUQUERQUE RE: SUNWEST BANK
P.O. Box 1293, ALBUQ., NM 87103 PARKING GARAGE DRAINAGE
ATTN: ROGER GREEN B.E.C. PROJECT No. 501-284-60

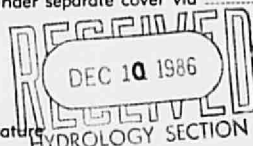
GENTLEMEN:

We are sending you:
the following items:

- ☐ Shop Drawings
- ☐ Design calculations
- ☐ Reproducible Drawings
- ☐ Prints
- ☐ Details
- ☐ Copy of Report

☒ Attached☐ Under separate cover via

- ☐ Addendum
- ☐ Copy of letter
- ☐ Specifications
- ☐ Schedules
- ☐ Descriptive Literature
- ☐



| Item No. | Date | No. Copies | Description |
|----------|---------|------------|--|
| 1 | 12-9-86 | 2 | GRADING & DRAINAGE PLAN |
| 1 | OCT 86 | 1 | SUBDIVISION PLAT - SUNWEST CENTRE |
| 1 | 12-9-86 | 1 | MANNING'S ANALYSIS OF PIPE FLOW IN DRAIN LINES FROM GARAGE DRAINS |
| | | | |
| | | | |
| | | | |

These are transmitted as checked below:

- ☐ For approval
- ☐ Please correct and resubmit
- ☐ Resubmittal not required.
Corrections, if any, are noted.
- ☐ Returned for corrections
- ☐ As Requested
- ☐ Please return
- ☐ For Bids due 19

- ☐ Prints returned after loan to us
- ☐ Resubmit copies for approval
- ☐ Return corrected prints
- ☐ For your use
- ☐ For review and comment
- ☐ copies for distribution
- ☐

REMARKS: WE WOULD LIKE TO HAVE YOUR 2-WK REVIEW COMPLETED
N.L.T. 12-24-86 TO ALLOW ISSUANCE OF A BUILDING PERMIT
TO ALLOW CONSTRUCTION TO CONTINUE ON THIS FAST-TRACK PROJECT.

From:

Shawton L. Schuck

Copies to:

Title:

SR. CIVIL ENGR.

FILE COPY



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 768-7644

November 26, 1986

Thornton Schwenk, P.E.
Boyle Engineering Corporation
3939-D San Pedro, NE
Albuquerque, New Mexico 87110

RE: CONCEPTUAL DRAINAGE PLAN FOR SUNWEST PARKING GARAGE
RECEIVED OCTOBER 16, 1986 FOR SITE DEVELOPMENT PLAN APPROVAL
(J-14/D65)

Dear Thornton:

The above referenced submittal dated October 14, 1986, is approved for Site Development Plan sign-off by the City Engineer.

A detailed Drainage and Grading Plan will be required at time of Building Permit request.

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

Cordially,

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

cc: Glen Fellows

RAG/bsj

PUBLIC WORKS DEPARTMENT

Walter Nickerson, P.E., City Engineer

ENGINEERING GROUP

Telephone (505) 738-2500

AN EQUAL OPPORTUNITY EMPLOYER

FILE COPY



City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

October 24, 1986

Thornton D. Schwenk
Boyle Engineering Corporation
3939-D San Pedro Drive, NE
Albuquerque, New Mexico 87110

RE: CONCEPTUAL DRAINAGE PLAN FOR SUNWEST PARKING GARAGE
(J-14/D&S) RECEIVED OCTOBER 16, 1986

Dear Mr. Schwenk:

The above referenced plan, dated October 14, 1986, is approved for foundation only permit.

Please be advised that the owner is traveling at his own risk. The submittal of a conceptual plan does not give enough detail to indicate future problems and risks. We are, however, sensitive to your fixed time table.

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

Cordially,

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

cc: Vernon Doake

CAM/bsj

PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

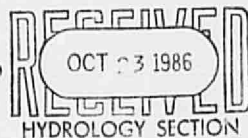
Walter Nickerson, P.E., City Engineer

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

Fred Aguirre -

10/23/86 1530



I have attached letter from
Vernon Doak about permit -

I have foundation permit sign off
by both UBC & ZONING -

and must have permit - (your O.K.)
FRIDAY afternoon at the latest

I can personally assure you that
the owner will proceed with the
replat and will meet your requirements
for drainage -

If we have to wait 2 weeks (end of
appeal period) then we will never get
out of the basement before winter sets
in -

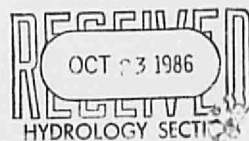
your consideration is most appreciated

Sincerely

Glen H. Feltner AIA

Sunwest Bank of Albuquerque, N.A.
P.O. Box 1344
Albuquerque, New Mexico 87103
Tel. 505-765-2211

Vernon Doak
Vice President



October 23, 1986

**SUNWEST
BANK**

Mike Weix
Acting Chief Building Official
Code Administration Division
City of Albuquerque

We agree to return to the City of Albuquerque the foundation permit for the Sunwest Parking Garage at 600 4th Street, N.W. in the event that an appeal is filed against V-86-126 and/or DRB 86-650.

A handwritten signature in cursive script, appearing to read "Vernon Doak".

Sunwest Bank of Albuquerque, N.A.
Vernon Doak, Vice President

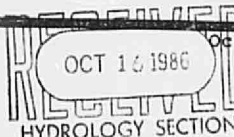
Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

consulting engineers

805 / 883-7700

Department of Public Works
P. O. Box 1293
City of Albuquerque
Albuquerque, New Mexico 87103



October 13, 1986
AL-S01-284-60

ATTN: Mr. Fred Aguirre/Hydrology

RE: SUNWEST BANK PARKING GARAGE, J-14, SEARCH FOR ABANDONED
STORM DRAINS IN VACATED PORTION OF FRUIT AVE., NW

Vacation Ordinance 194-1972 (Case No. V-72-21), vacating Fruit Avenue, NW between Third Street and Fourth Street, became effective on October 11, 1972. Section 2 of that Ordinance stated that the City would reserve that portion of Fruit Avenue "as an easement for public utilities, whether municipally or privately owned, which may be necessary for public use and benefit at the present time or in the future." The Hydrology Section's Drainage Facilities Map for Grid J-14S shows an 8-inch RCP with unknown slope within the vacated alignment.

Because the proposed Sunwest Bank parking garage would straddle this easement, it became necessary to determine the existence of any active utilities in the easement, which would have to be re-located. The easement itself must be vacated through re-platting action.

On September 30, 1986, I met at the site with John Gallegos and Jim McCarty, drainage inspectors from the Operations Division of the Liquid Waste Section, Department of Public Works. John entered two manholes in Third Street (S841 and S842), near the former alignment of Fruit Avenue, and one manhole in Fourth Street (S831), to ascertain the active storm drains in these two streets. His findings are shown on the attached drawings, which are enlargements of portions of a topographic survey conducted by Bohannon-Huston on September 16, 1986.

Conclusions from these site recons are as follows:

1. The 8-inch diameter line shown on the topographic map as a storm drain, based on the Drainage Facilities Map, does not exist between manholes S831 and S841. The Facilities Map apparently is in error.
2. There is an abandoned 8-inch steel gas line in this location which may have been confused for a storm drain.

Mr. Fred Aguirre/Hydrology
October 13, 1986
Page 2

The abandoned gas line has been uncovered by the Bank's contractor (Summit Construction, Inc.) and confirmed as an abandoned line by the Gas Company.

3. The only storm drain which extends west from either of the Third Street manholes is a segment of 15-inch RCP extending 43 feet west from manhole S842. This RCP is capped with a concrete plug at its west end, approximately one foot inside the Bank's property. It appears to be in good condition and its invert elevations make it suitable for use in the site drainage plan.
4. The Fruit Avenue easement may be vacated as there are no active utilities existing or planned in this easement.
5. Several pipe diameters measured by John Gallegos are different than shown on the Facilities Map: 60-inch (vs. 66-inch) diameter south of manhole S842; 18-inch (vs. 12-inch) in Fourth Street.

Please call John Gallegos (291-6214) or myself if you wish to confirm or discuss any of these findings.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer II

xc: Glenn Fellows; Stevens, Mallory, Pearl & Campbell
Richard Dineen, Chairman, DRB
John Gallegos, Operations Division

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Sunwest Parking Garage ZONE ATLAS/DRNG. FILE #: J-14/D65
 LEGAL DESCRIPTION: Blk H, Lots 1-4, portions of Lots 5-12, Blk I, Lots 1-12, 22, 24, Mandel Business and Residence Addition
 CITY ADDRESS: 303 Roma, NW
 ENGINEERING FIRM: Boyle Engineering Corp. CONTACT: Thornton D. Schwenk
 ADDRESS: 3939-D San Pedro, NE PHONE: 883-7700
 OWNER: Sunwest Bank of Albuquerque CONTACT: Vernon Doake
 ADDRESS: 303 Roma, NW PHONE: 765-2035
 ARCHITECT: Stevens, Mallory, Pearl & Campbell CONTACT: Glenn Fellows
 ADDRESS: 115 Amherst, SE PHONE: 255-8668
 SURVEYOR: Bohannon-Huston, Inc. CONTACT: A. Dwain Weaver, L.S. 6544
 ADDRESS: Courtyard I, 7500 Jefferson, NE PHONE: 823-1000
 CONTRACTOR: Summit Construction, Inc CONTACT: Dave Thomas
 ADDRESS: 900 Hazeldine, SE PHONE: 842-8113

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY OF CONFERENCE RECORD PROVIDED 9-12-86

OCT 16 1986

DRG NO. 86-662, V-86-126SHEET NO. PROJ. NO.

TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☒ SITE DEVELOPMENT PLAN APPROVAL☐ FINAL PLAT APPROVAL☐ BUILDING PERMIT APPROVAL☒ FOUNDATION PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☐ ROUGH GRADING PERMIT APPROVAL☐ GRADING/PAVING PERMIT APPROVAL☐ OTHER (SPECIFY)DATE SUBMITTED: 10-10-86BY: Thornton D. SchwenkThornton D. Schwenk, P.E.
Civil Engineer II

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: 1-14 DATE: 9/12/86 @ 11:00

PLANNING DIVISION NOS: EPC: DRB:

SUBJECT: Southwest Bank Parking Garage

STREET ADDRESS (IF KNOWN):

SUBDIVISION NAME: Blk I & H of Mandell's Business & Residence Addition

APPROVAL REQUESTED:

| | |
|--|---|
| <input type="checkbox"/> PRELIMINARY PLAT | <input type="checkbox"/> FINAL PLAT |
| <input type="checkbox"/> SITE DEVELOPMENT PLAN | <input checked="" type="checkbox"/> BUILDING PERMIT |
| <input type="checkbox"/> OTHER | <input type="checkbox"/> ROUGH GRADING |

WHO

REPRESENTING

ATTENDANCE:

Tyler J. Johnson
Billy G. Smith

Public Engineering
Hydrology

FINDINGS:

- Recommend replat to clean-up into one tract.
- Discharge shall be determined by analysis of down stream capacity.
- The existing site is currently developed and is an impervious parking lot for the bank.
- The proposed development will not change the current drainage pattern or the imperviousness to any significant degree.

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

SIGNED:

TITLE:

DATE:

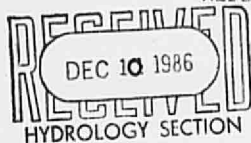
SIGNED:

TITLE:

DATE:

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL

BOYLE ENGINEERING CORPORATION
3939-D SAN PEDRO DRIVE, N.E.
ALBUQUERQUE, NEW MEXICO 87110
505 / 883-7700



INPUT DATA

| n | Q (cfs) | S (ft/ft) | Diam (ft) | K, Fractional Depth of Flow |
|-------|------------|--------------|--------------|--------------------------------|
| .0150 | .9100 | .05160 | 1.0000 | Unknown |

OUTPUT DATA

| Q (cfs) | V (fps) | A (sq ft) | R (ft) | S (ft/ft) | n | Diam (ft) | K | Depth (ft) | Crit Depth (ft) |
|------------|------------|--------------|-----------|--------------|-------|--------------|------|---------------|--------------------|
| .910 | 6.160 | .148 | .13 | .05160 | .0150 | 1.000 | .243 | .243 | .400 |

12" RCP FROM CATCH BASIN
IN PARKING LOT

Do you desire another analysis using new data ?Y

Enter the line number for data being changed, or
type "10" to continue; "11" to terminate. ?

BOYLE ENGINEERING CORPORATION
 3939-D SAN PEDRO DRIVE, N.E.
 ALBUQUERQUE, NEW MEXICO 87110
 505 / 883-7700

INPUT DATA

| n | Q (cfs) | S (ft/ft) | Diam (ft) | K, Fractional Depth of Flow |
|-------|------------|--------------|--------------|--------------------------------|
| .0150 | 3.2500 | .00610 | 1.2500 | Unknown |

OUTPUT DATA

| Q (cfs) | V (fps) | A (sq ft) | R (ft) | S (ft/ft) | n | Diam (ft) | K | Depth (ft) | Crit Depth (ft) |
|------------|------------|--------------|-----------|--------------|-------|--------------|------|---------------|--------------------|
| 3.250 | 3.903 | .833 | .358 | .00610 | .0150 | 1.250 | .642 | .803 | .726 |

15" RCP N. OF TEE, MID WAY ALONG

EAST EXTERIOR FACE OF GARAGE.

Do you desire another analysis using new data ?Y

BOYLE ENGINEERING CORPORATION
 3939-D SAN PEDRO DRIVE, N.E.
 ALBUQUERQUE, NEW MEXICO 87110
 505 / 883-7700

INPUT DATA

| n | Q (cfs) | S (ft/ft) | Diam (ft) | K, Fractional Depth of Flow |
|-------|------------|--------------|--------------|--------------------------------|
| .0150 | 4.1900 | .00610 | 1.2500 | Unknown |

OUTPUT DATA

| Q (cfs) | V (fps) | A (sq ft) | R (ft) | S (ft/ft) | n | Diam (ft) | K | Depth (ft) | Crit Depth (ft) |
|------------|------------|--------------|-----------|--------------|-------|--------------|------|---------------|--------------------|
| 4.190 | 4.057 | 1.033 | .380 | .00610 | .0150 | 1.250 | .784 | .981 ✓ | .829 |

NEW 15" RCP CONNECTING TO

EXISTING 15" RCP FROM 3RD ST. MANHOLE

Do you desire another analysis using new data ?N

BOYLE ENGINEERING CORPORATION
 3939-D SAN PEDRO DRIVE, N.E.
 ALBUQUERQUE, NEW MEXICO 87110
 505 / 883-7700

INPUT DATA

| n | Q (cfs) | S (ft/ft) | Diam (ft) | K, Fractional Depth of Flow |
|-------|------------|--------------|--------------|--------------------------------|
| .0150 | .9300 | .03200 | .6670 | Unknown |

OUTPUT DATA

| Q (cfs) | V (fps) | A (sq ft) | R (ft) | S (ft/ft) | n | Diam (ft) | K | Depth (ft) | Crit Depth (ft) |
|------------|------------|--------------|-----------|--------------|-------|--------------|------|---------------|--------------------|
| .930 | 5.359 | .174 | .166 | .03200 | .0150 | .667 | .497 | .332 | .457 |

8" PVC INTO 4TH ST. MANHOLE

Do you desire another analysis using new data ?N

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



PROJECT LOCATION

LOCATION MAP

SCALE 1:300

FROM ZONE ATLAS
MAPS J-14 & K-14

The City Engineer
No. 8739
12-12-81

NOTICE TO CONTRACTOR

J14-D65

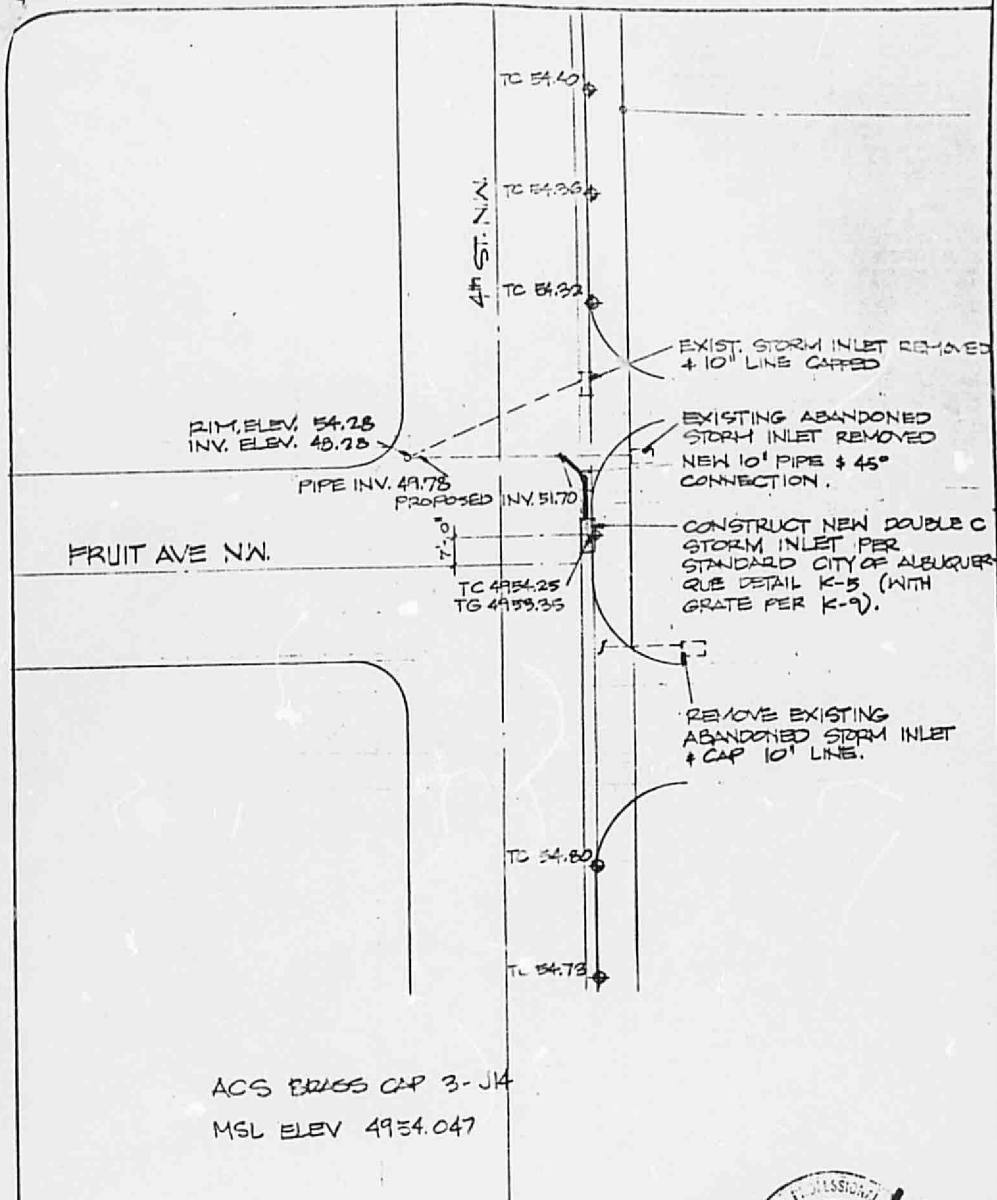
1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with "Contract Documents for City-Wide Utilities and Cash Paving No. 21"
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to ARTERIAL street use.

C-158

| APPROVALS | NAME | DATE | TITLE: |
|---------------|-------------------------|----------|-------------------------|
| A.C.E./DESIGN | <i>Michael</i> | 12/10/81 | INSTALL STORM INLET |
| INSPECTOR | <i>Robert R. Valdez</i> | 1/30/82 | 500 4TH ST. N.W. |
| A.C.E./FIELD | <i>W. McNamara</i> | 1/31/82 | PERMIT NO. SHEET 1 OF 2 |
| | | | MAP NO. J-14 |

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



STORM INLET PLAN

SCALE: 1"=30'-0"



| APPROVALS | NAME | DATE | TITLE: |
|---------------|--------------------------|----------|---------------------|
| A.C.E./DESIGN | <i>Choleak</i> | 12/1/83 | INSTALL STORM INLET |
| INSPECTOR | <i>Edward B. Vallejo</i> | 11/30/84 | 500 4TH STREET N.W. |
| A.C.E./FIELD | <i>W. J. M. M. M.</i> | 1/31/84 | PERMIT NO. |
| | | | SHEET 2 OF 2 |
| | | | MAP NO. J-14 |