



Richard J. Berry, Mayor

October 19, 2017

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM, 87199

RE: Valle de Atrisco Apartment Development
Grading and Drainage Plans and Drainage Management Plan
Stamp Date: 9/29/17
Hydrology File: P09D002D

Dear Ms. Hoelzer:

Based upon the information provided in your submittal received 10/2/17, the Grading and Drainage Plans and Drainage Management Plan **is not** approved for Building Permit and Grading Permit. The following comments need to be addressed for approval of the above referenced project:

1. Since the temporary retention pond is within Bernalillo County jurisdiction, the County will need to approve the Grading and Drainage Plans. Please contact Don Briggs (Bernalillo County) at (505) 848-1511 or at drbriggs@bernco.gov. An approval must be given prior to Hydrology's approval for Building Permit and Grading Permit.
2. During the DRB submittal, an Infrastructure List will be required and an SIA be recorded. If drainage easements are going to be paper easements, then the DRC work order will need to be closed out prior to Certificate of Occupancy. If there is not going to be an approved Infrastructure List, then as a note that states, "Prior to Certificate of Occupancy the public infrastructure must be constructed and accepted by the City." and also list the public infrastructure.
3. Both the Agreement and Covenant and the Public Drainage Easement for the Private Drainage channel and temporary retention pond will have to be recorded prior to Hydrology's approval for Building Permit and Grading Permit.
4. Cross Lot Drainage Easements on both the Plat and the Grading & Drainage Plan specifying the beneficiary and maintenance agreement is required since a portion of Tract RR-3-A-1 drains onto Tract RR-3-A-2.



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Drainage Management Plan:

1. Under Project Description, please mention that Tracts RR-3-A & RR-3-B are part of a bigger master plan which includes Ceja Vista Master Plan approved by Bernalillo County on December 10, 2007. See Appendix D.
2. Please include a drainage basin map showing the off-site drainage area or areas for the school which will drain into the existing retention pond on Tract RR-3-A.
3. The permanent drainage solution in 98th Street & Denis Chavez must be designed and constructed with this project. The temporary retention pond west of 98th Street is not acceptable, permanent infrastructure is required. Please add Drainage Basins and drainage analysis for both 98th Street & Denis Chavez.
4. Please show the Ultimate future drainage solution that removes the temporary retention pond. I believe that there is already a Master Plan for the area, so if this can be used to show just the major drainage trunk line that will ultimately discharge into the Borrega Channel showing the drainage areas and Q_{100} for those areas and the Ultimate future Q_{100} that will discharge into the Borrega Channel. This should also benefit with getting AMAFA's approval.
5. Under Channel Design, it states that a rectangular conveyance channel is designed, however in Appendix A and on Sheet C-104 the calculations are for a trapezoidal channel. Please correct the channel shape.
6. As per the Drainage Ordinance and the DPM, the first flush basins are to handle the water quality from the site runoff and must provide the volume needed onsite. If this cannot be accomplished, then a fee-in-lieu of \$8 per cubic feet may be paid. For this site, the required first flush volume is **8,155.7** cubic feet. So the fee-in-lieu would be **\$65,245.60**. However, it appears that since you are proposing swales within the open space / landscape between the buildings, the required first flush basin can easily be accomplished.
7. Table 1 & Table 2. I am trying to follow the Sub Basin or Sub Basins which drains into each inlet. Please clarify. I cannot follow what inlet Sub Basin 100 is draining into.
8. Temporary Retention Pond on Tract RR-3-A-1. It does not appear that the existing drainage from this site will be captured by the pond. Most of the tract north of the proposed retention pond will be draining directly into the Valle de Atrisco Apartments. If this area is to be regraded, then please show the proposed grades.

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9. Per the DPM Chapter 22 Section 5.I, temporary retention ponds need to be sized based on the 100 year – 10 day storm event and not two (2) times the 100 year -6 hour storm event.
10. Per the DPM Chapter 22 Section 5.I, temporary retention ponds need to have a spillway designed to handle the 100 year -10 day storm event discharge rate.
11. Per the DPM Chapter 22 Section 3.B, please provide the calculation for the 100 year HGL and EGL through the proposed public storm pipe from the proposed outfall to the proposed open channel to the existing inlet which was install by the high school. I know that the storm sewer will be built under a DRC work order; however these calculations must be part of the Drainage Management Plan.
12. Per the DPM Chapter 22 Section 3.E, please provide the capacity calculations for the 10 year and 100 year storm event for both the proposed sections of Ceja Vista Road and 98th Street. I know that the streets will be built under a DRC work order; however these calculations must be part of the Drainage Management Plan.
13. Per the DPM Chapter 22 Section 3.D, please provide the capacity calculations for both the private catch basins and the public catch basins.

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Grading and Drainage Plans:

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1. All Grading and Drainage Plan sheets must be on 24"x36". These Grading and Drainage Plans must be scalable when they are placed in the DRC work order construction plans as reference only.
2. ADA Accessibility Plan is required w/ elevations, slopes along all paths.
3. In general, more detail is needed as to how the proposed grading is going to be tied back into the existing grades especially offsite. Please add proposed finished contours both onsite and offsite to all sheets and limits of grading.
4. Sheet C-101. Please turn off all notes not associated with this sheet. There are several places with retention pond information lettering size is too small.
5. Sheet C-101, C-102, & C-104. Please turn off all non-related future projects in the County. Also please work with the layering. The future project on Tract RR-3-A-1 should not be the same line thickness as the proposed apartment development and proposed public infrastructure. Only show improvements that will actually be constructed prior to Certificate of Occupancy.



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6. Sheet C-101. The permanent drainage solution in 98th Street & Denis Chavez must be designed and constructed with this project. The temporary retention pond west of 98th Street is not acceptable, permanent infrastructure is required. Please add Drainage Basins and drainage analysis for both 98th Street & Denis Chavez.
7. Sheet C-101 & C-102. Please add a note stating "temporary retention pond needs to be complete prior to Hydrology's approval of the Certificate of Occupancy." to the temporary retention pond on Tract RR-3-A-1.
8. Sheet C-101. Please clearly indicate the public infrastructure to be constructed in the DRC work order construction plans. And label "To be constructed under a DRC work order prior to Certificate of Occupancy."
9. Sheet C-101. Please show and label the permanent drainage easement for the off-site temporary retention pond and open channel including recording information.
10. Sheet C-102. Please fix the text height for the notes about the existing temporary retention pond and the proposed temporary retention pond.
11. Sheet C-102. Per the DPM Chapter 22 Section 5.I, temporary retention ponds need to have a spillway designed to handle the 100 year -10 day storm event discharge rate. Please show the location and label the spillway.
12. Sheet C-102. Please add a note stating "temporary retention pond needs to be complete prior to Hydrology's approval of the Certificate of Occupancy."
13. Sheet C-102 & C-103. Please show the limits of the proposed work more clearly. Especially at the edge of the proposed pavement.
14. Sheet C-102 & C-103. Please place all future work on Tract RR-3-A-1 on a lighter line weight. It is currently the same as the proposed work.
15. Sheet C-102 & C-104. Please label the storm sewer that is to be in the DRC work order as "Public" and "(to be constructed under a DRC work order)" and private storm sewer as "Private".
16. Sheet C-102. Please show the public drainage easement and label on both Tract RR-3-A-1 & RR-3-A-2.
17. Sheet C-102 & C-103. Please label all inlets with grate elevations and both in and out flowlines.

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18. Sheet C-102. Please label the storm catch basins at the southeast corner of the tract that is to be in the DRC work order as "Public" and "(to be constructed under a DRC work order)".
19. Sheet C-102. Please label all manholes with rim elevations and both in and out flowlines.
20. Sheet C-101 & C-102. Please label Ceja Vista Road, 98th Street, and Denis Chavez with right-of-way width. Please include spot elevations, slopes, and limits of grading. Please provide Typical sections of roadway for all three.
21. Sheet C-102. At the proposed traffic circle, there is a proposed swale that crosses it. Please provide curb cuts for the drainage and provide the weir calculation for them.
22. Sheet C-102. There appears to be a pipe under the sidewalk or a valley gutter where the proposed drainage crosses from one swale to another. Please label the pipe size or valley gutter.
23. Sheet C-102. The clubhouse finish floor elevation appears to be missing a zero and should read FF 5109.80.
24. Sheet C-102. Please provide a cross section for the sloped area along the western property line.
25. Sheet C-102. Right below the tee intersection of the private storm sewer, there is a wye connection. It appears that a tee connection would work better.
26. Sheet C-102. Just west of the tee intersection of the private storm sewer, there is a catch basin that is not connected to the storm sewer. Please add the connection.
27. Sheet C-102 & C-103. Please provide a cross section for the proposed retaining wall along the west property line. Please in sure that the footer does not cross the property line without written permission from the adjacent property owner.
28. Sheet C-103. Temporary Retention Pond on Tract RR-3-A-1. It does not appear that the existing drainage from this site will be captured by the pond. Most of the tract north of the proposed retention pond will be draining directly into the Valle de Atrisco Apartments. If this area is to be regraded, then please show the proposed grades.

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29. Sheet C-103. Within the open space between “B” buildings, there is a phantom line with the label of “(3”)”. Please explain what this is.
30. Sheet C-103. At the northwest corner of the site where the drainage takes a hard direction south, it appears that the drainage may jump the curb. A catch basin may be required at this location to pick up the drainage. Please check energy depth of surface flow..
31. Sheet C-103. Please show how the grading along the north property line is going to be tied back to the existing grades within Dennis Chavez Boulevard right-of-way. Show grading of site and right-of-way with finished contours, spot elevations, and slopes.
32. Sheet C-103. Please label the bike trail within Dennis Chavez Boulevard right-of-way and include “(to be constructed under a DRC work order)”. Only show improvements that will actually be constructed prior to Certificate of Occupancy.
33. Sheet C-103. At the northeast corner along the north property line, there appears to be missing a retaining wall. Please add this and provide a cross section. Please in sure that the footer does not cross into Dennis Chavez Boulevard right-of-way.
34. Sheet C-104. Per the DPM Chapter 22 Section 5.I, temporary retention ponds need to be sized based on the 100 year – 10 day storm event and not two (2) times the 100 year -6 hour storm event. Please correct the volume.
35. Sheet C-104. Per the DPM Chapter 22 Section 5.I, temporary retention ponds need to have a spillway designed to handle the 100 year -10 day storm event discharge rate. Please add and label the spillway.
36. Sheet C-104. Please add a boundary showing the public infrastructure to be constructed in the DRC work order construction plans. And label “To be constructed under a DRC work order.”
37. Sheet C-104. Please label both Ceja Vista Road and 98th Street along with the right-of-way widths. Please include spot elevations, slopes, and limits of grading.
38. Sheet C-104. Please add and label the Public Drainage Easement for the temporary retention pond and open channel.
39. Sheet C-104. Please include the recording information for both the Agreement and Covenant and the Public Drainage Easement.

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CITY OF ALBUQUERQUE



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40. Sheet C-104. Please show a cross section of the pond with the 100 year-24 hour water surface elevation. Please also provide 1 foot of freeboard.
41. Sheet C-104. Along the concrete channel it states 10:1 max side slopes. However the section of the channel states 3:1 max side slopes. Please clarify.
42. Sheet C-104. Along the concrete channel and the temporary retention pond, please provide more detail as to how the proposed grading is going to be tied back into the existing grades. Please add proposed finished contours and limits of grading.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

PO Box 1293

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

Albuquerque

NM 87103

www.cabq.gov



County of Bernalillo

Case Comments Report

Permit: PWDN2017-0080

Department: PW Development Review

Activity: Engineering Review

Action: Additional Info Required

Note Date: 10/12/2017

Comment: COMMENTS FOR PLAN WITH ENGINEER'S SEAL DATED 9/29/2017

As this project resided predominantly within the City of Albuquerque's jurisdiction this review addresses only the infrastructure located within the unincorporated area.

1) Please confer with the City of Albuquerque regarding the Water Quality Volume calculations. I believe the criteria has changed.

2) I believe the Water Quality Volume should be recalculated using the %D presented in TABLE 1.

3) Under "Channel Design" a rectangular channel is indicated in the text but the dimensions are for a trapezoidal channel.

4) On Sheet C-104 please indicate a designated overflow location for the pond.

5) Place a statement on the plan indicating who will be responsible for maintaining the offsite infrastructure.

6) The proposed drainage easement should be dedicated to Bernalillo County for the off site infrastructure.

To: Don Briggs, BC PWD
From: Nicole Friedt, AMAFCA
Date: October 18, 2017
Re: AMAFCA Comments for PWDN 20170080

PWDN 20170080 – TR RR-3-A Bulk Land Plat Westland South Tracts RR-3-A through RR-3-E, Valle de Atrisco, ZAP P-9

Owner:

Engineer: Mark Goodwin & Associates

1. Provide computations showing how the peak discharge and volumes from the proposed development will be controlled to remain in conformance with those shown in the Amole-Hubbell Drainage Master Plan, dated November 2013 for Basin B213.1? (See attached information for B213.1)
2. If the developer would like free discharge from this site, identify what permanent facilities will be put into place to control flows to those identified in the master plan prior to discharging into the Borrega Channel near the anticipated future Unser Blvd. Crossing? (shown in the attached flow chart as the summary of basins B213.1, B213.2, B213.3, B213.4, and B213.5)

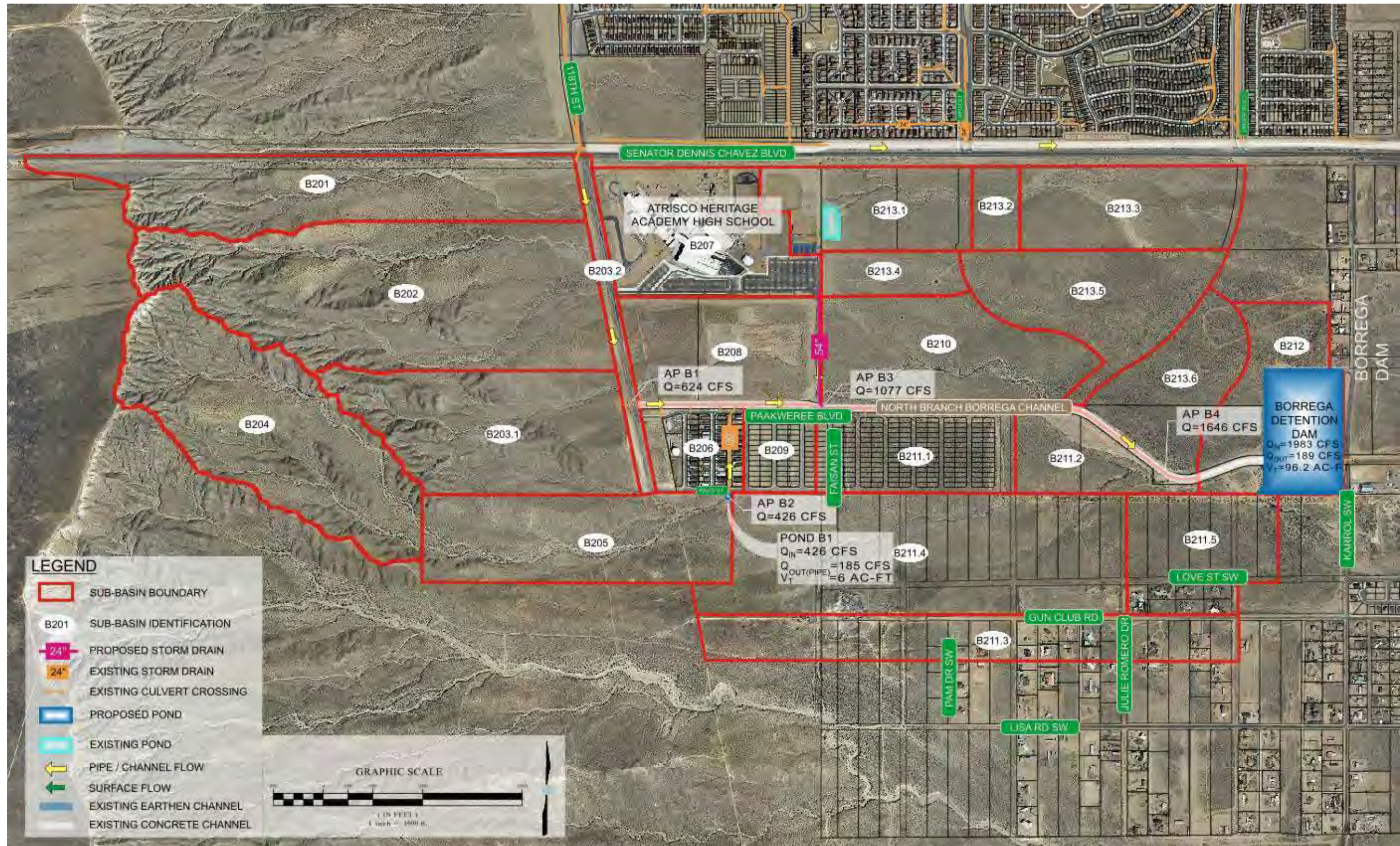


Figure 3-21: Borrega Basin - Proposed Basin Map

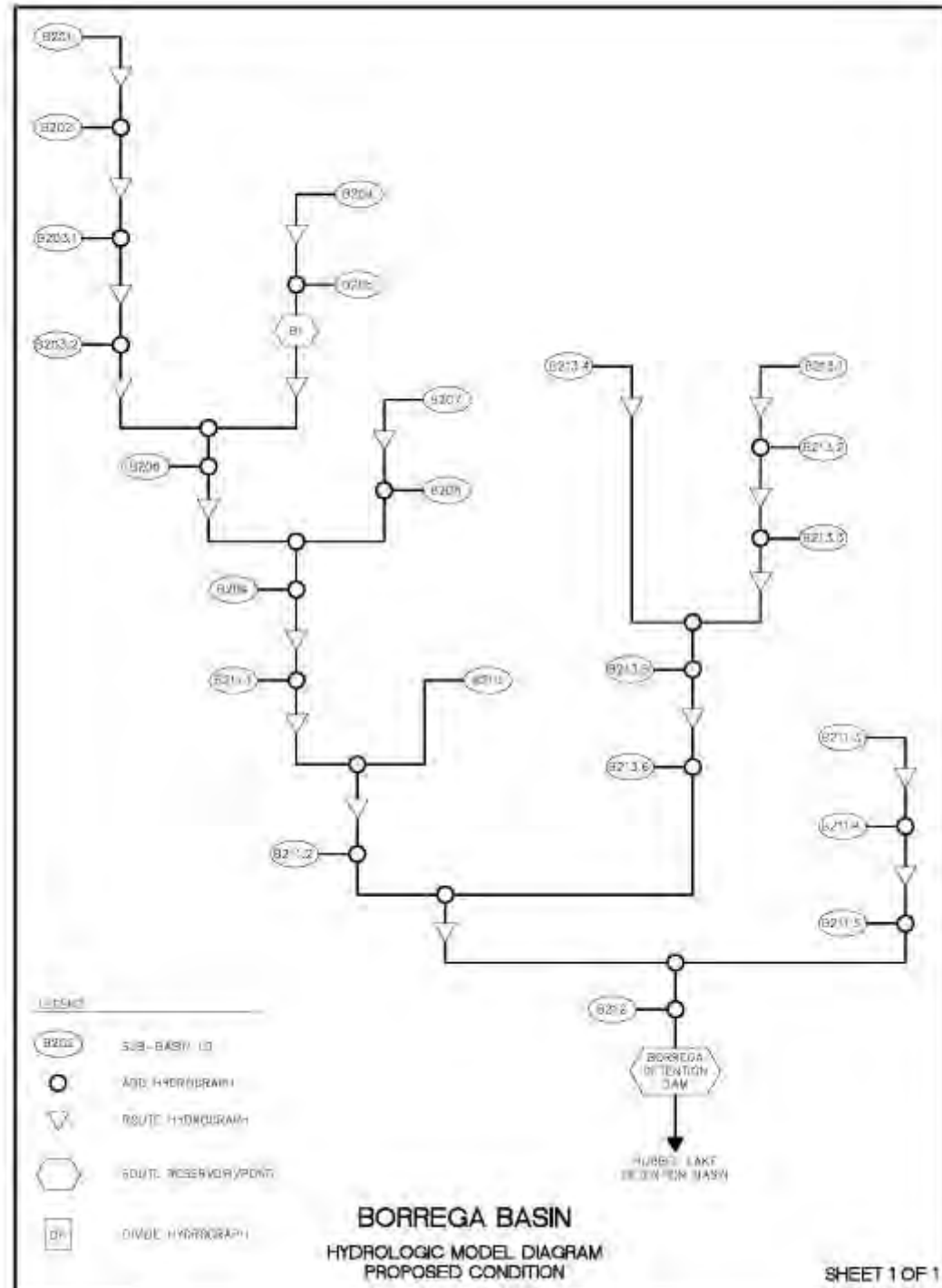


Figure 3-22: Borrega Basin - Proposed Hydrologic Model Diagram

Sub-Basin	Area (ac)	$Q_{100\text{yr-6hr}}$ (cfs)	$V_{100\text{yr-24hr}}$ (ac-ft)
B201	117	205.48	7.629
B202	144	304.29	9.163
B203.1	71	144.97	4.336
B203.2	13	34.05	1.160
B204	151	339.36	9.813
B205	68	116.11	3.857
B206	18	70.27	2.783
B207	55	185.81	7.946
B208	48	169.09	6.820
B209	34	109.34	3.572
B210	61	206.54	8.703
B211.1	39	144.26	5.323
B211.2	24	85.41	3.445
B211.3	31	92.71	3.498
B211.4	114	322.23	13.693
B211.5	32	117.91	4.478
B212	52	151.47	5.366
B213.1	39	55.50	2.107
B213.2	9	35.00	1.329
B213.3	43	155.41	6.092
B213.4	15	55.50	2.107
B213.5	50	172.15	7.170
B213.6	37	138.74	5.269



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Valle De Atrisco Apartment Development **Building Permit #:** _____ **City Drainage #:** P09 / D
DRB#: 1004428 **EPC#:** _____ **Work Order#:** _____
Legal Description: portion of Tract RR-3-A, Westland South
City Address: 10001 Ceja Vista Road SW, Albuquerque, NM

Engineering Firm: MARK GOODWIN & ASSOCIATES PA **Contact:** DIANE HOELZER, PE
Address: PO BOX 90606, ABQ, NM 87199
Phone#: 828-2200 **Fax#:** _____ **E-mail:** diane@goodwinengineers.com

Owner: DBG Properties LLC **Contact:** Todd Coleman
Address: 2164 West Park Place, Portland, OR 97205-1125
Phone#: 505-269-7481 **Fax#:** _____ **E-mail:** todd@dbgpropertiesllc.com

Architect: Dekker parish Sabatini **Contact:** Jennifer Facio
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: N/A **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

- ☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ OTHER (SPECIFY) _____

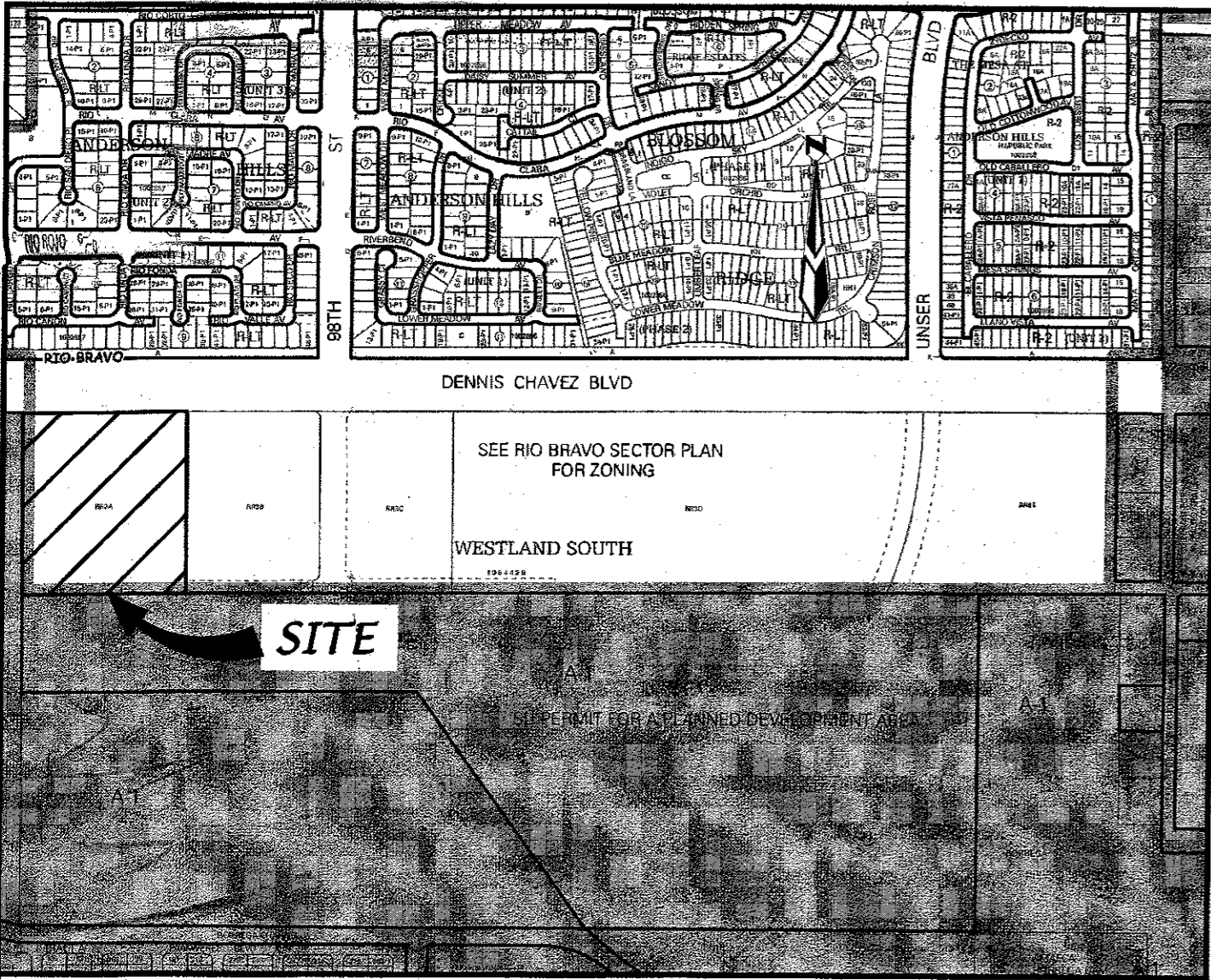
IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☒ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR
- ☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

DATE SUBMITTED: 9-29-17 **By:** DIANE HOELZER, PE

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____



VICINITY MAP **ZONE ATLAS MAP: P-09-Z NTS**
SUBDIVISION DATA

GROSS ACREAGE 14.8637 AC
ZONE ATLAS NO. P-09-Z
NO. OF EXISTING TRACTS 1 TRACT
NO. OF TRACTS CREATED 2 TRACTS
DATE OF SURVEY NOV, 2004
MILES OF FULL WIDTH STREETS CREATED 0.00 MILES
AREA OF PUBLIC RIGHT-OF-WAY DEDICATED 0.000 AC

FREE CONSENT AND DEDICATION

THE SUBDIVISION HEREON DESCRIBED IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNER(S) AND/OR PROPRIETOR(S) THEREOF AND SAID OWNER(S) AND/OR PROPRIETOR(S) DO HEREBY GRANT: ALL ACCESS, UTILITY AND DRAINAGE EASEMENTS SHOWN HEREON INCLUDING THE RIGHT TO CONSTRUCT, OPERATE, INSPECT, AND MAINTAIN FACILITIES THEREIN; AND ALL PUBLIC UTILITY EASEMENTS SHOWN HEREON FOR THE COMMON AND JOINT USE OF GAS, ELECTRICAL POWER AND COMMUNICATION SERVICES FOR BURIED DISTRIBUTION LINES, CONDUITS, AND PIPES FOR UNDERGROUND UTILITIES WHERE SHOWN OR INDICATED, AND INCLUDING THE RIGHT OF INGRESS AND EGRESS FOR CONSTRUCTION AND MAINTENANCE, AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS. SAID OWNER(S) AND/OR PROPRIETOR(S) DO HEREBY CONSENT TO ALL OF THE FOREGOING AND DO HEREBY CERTIFY THAT THIS SUBDIVISION IS THEIR FREE ACT AND DEED. SAID OWNERS(S) WARRANT THAT THEY HOLD AMONG THEM COMPLETE AND INDEFEASIBLE TITLE IN FEE SIMPLE TO THE LAND SUBDIVIDED.

OWNER'S ACKNOWLEDGMENT:

OWNER: CEJA VISTA LLC

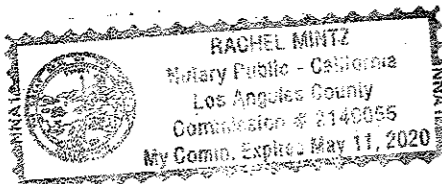

MARK PANANIDES, MANAGING MEMBER

8/3/17
DATE

State of California
County of Los Angeles

On August 3, 2017 before me, Rachel Mintz, Notary Public
Date
personally appeared Mark Pananides
Here Insert Name and Title of the Officer
Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature 
Signature of Notary Public

LEGAL DESCRIPTION

A TRACT OF LAND WITHIN THE TOWN OF ATRISCO GRANT, PROJECTED SECTION 9, TOWNSHIP 9 NORTH, RANGE 2 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO BEING ALL OF TRACTS RR-3-A, WESTLAND SOUTH 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 NOVEMBER 14, 2005, BK. 2005C, PG. 365 AND CONTAINING 14.8637 ACRES MORE OR LESS.

PURPOSE OF PLAT

1. TO SUBDIVIDE TRACT RR-3-A WESTLAND SOUTH, INTO 2 TRACTS AS SHOWN HEREON.
2. GRANT NEW EASEMENTS AS SHOWN HEREON.

NOTES

1. BEARINGS ARE NEW MEXICO STATE PLANE GRID BEARINGS (CENTRAL ZONE).
2. DISTANCES ARE GROUND DISTANCES.
3. BEARINGS AND DISTANCES IN PARENTHESIS ARE RECORD.
4. BASIS OF BOUNDARY ARE THE FOLLOWING PLATS AND DOCUMENTS OF RECORD ENTITLED:
"LANDS OF CECELIA LANNING", (10-24-79, B17-42)
"LAND OF DAMACIO APODACA", (11-08-74, A5-116)
"LAND OF DAMACIO APODACA", (01-08-79, A7-6)
"WESTLAND, TRACT RR-5", (03-04-93, 93C-58)
"LANDS OF WESTLAND DEV. CO. INC, SOUTH TRACT", (02-10-77, CASE 8-76-03865)
"PAKKREWEE", (01-29-01, 01C-38)
"RIGHT OF WAY MAP (SD-4008 (208)", (05-09-94)
RECORDS OF BERNALILLO COUNTY, NEW MEXICO.
5. DATE OF SURVEY: NOVEMBER, 2004.
6. TITLE REPORT: FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO.04-1048776-B-VG (EFFECTIVE DATE: OCTOBER 7, 2004.)
7. ADDRESS OF PROPERTY: NONE PROVIDED.
8. CITY OF ALBUQUERQUE, NEW MEXICO ZONE: R-2. THIS PROPERTY LIES WITHIN ZONE (AO) AND (A) SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD AND ZONE (X) AS SHOWN ON PANEL 338 OF 825, FLOOD INSURANCE RATE MAP, CITY OF ALBUQUERQUE, BERNALILLO COUNTY NEW MEXICO, DATED SEPTEMBER 20, 1996.
9. THESE TRACTS ARE AFFECTED BY A RIGHT-OF-WAY EASEMENT TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, FILED MAY 17, 1930 RECORDED IN BOOK 112, PAGE 290, SAID EASEMENT AMENDED BY A MODIFICATION EASEMENT, FILED FEBRUARY 13, 1973 RECORDED IN BOOK MISC. 298, PAGE 635, SAID EASEMENT ASSIGNED TO THE MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY BY ASSIGNMENT FILED DECEMBER 19, 1977, RECORDED IN BOOK MISC. 575, PAGE 928 ALL BEING RECORDS OF BERNALILLO COUNTY, NEW MEXICO.

DISCLAIMER

IN APPROVING THIS PLAT, PUBLIC SERVICE COMPANY OF NEW MEXICO (PNM), NEW MEXICO GAS COMPANY (NMGC) AND QWEST CORPORATION DBA CENTURYLINK QC DID NOT CONDUCT A TITLE SEARCH OF THE PROPERTIES SHOWN HEREON. CONSEQUENTLY, PNM NMGC AND CENTURY LINK DO NOT WAIVE OR RELEASE ANY EASEMENT OR EASEMENT RIGHTS, WHICH MAY HAVE BEEN GRANTED BY PRIOR PLAT, REPLAT OR OTHER DOCUMENT, AND WHICH ARE NOT SHOWN ON THIS PLAT.

"NOTICE OF SUBDIVISION PLAT VARIANCE"
TRACTS RR-3-A-1 THROUGH RR-3-A-2, WESTLAND SOUTH
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

THE PLAT FOR TRACTS RR-3-A-1 THROUGH RR-3-A-2, WESTLAND SOUTH, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, HAS BEEN GRANTED A VARIANCE OR WAIVER FROM CERTAIN SUBDIVISION REQUIREMENTS PURSUANT TO SECTION 7 OF THE CITY OF ALBUQUERQUE SUBDIVISION ORDINANCE.

FUTURE SUBDIVISION OF LANDS WITHIN THIS PLAT, ZONING SITE DEVELOPMENT PLAN APPROVALS, AND DEVELOPMENT PERMITS MAY BE CONDITIONED UPON DEDICATION OF RIGHTS-OF-WAY AND EASEMENTS, AND/OR UPON INFRASTRUCTURE IMPROVEMENTS BY THE OWNER OF WATER, SANITARY SEWER, STREETS, DRAINAGE, GRADING AND PARKS IN ACCORDANCE WITH CURRENT RESOLUTIONS, ORDINANCES AND POLICIES IN EFFECT AT THE TIME FOR ANY SPECIFIC PROPOSAL.

THE CITY AND AMAFCA (WITH REFERENCE TO DRAINAGE) MAY REQUIRE AND/OR PERMIT EASEMENTS TO BE ADDED, MODIFIED OR REMOVED WHEN FUTURE PLATS AND/OR SITE DEVELOPMENT PLANS ARE APPROVED.

BY ITS APPROVAL OF THIS SUBDIVISION, THE CITY MAKES NO REPRESENTATION OR WARRANTIES AS TO AVAILABILITY OF UTILITIES, OR FINAL APPROVAL OF ALL REQUIREMENTS INCLUDING (BUT NOT LIMITED TO) THE FOLLOWING ITEMS: WATER AND SANITARY SEWER AVAILABILITY; FUTURE STREET DEDICATIONS AND/OR IMPROVEMENTS; AND EXCAVATION, FILLING OR GRADING REQUIREMENTS. ANY PERSON INTENDING DEVELOPMENT OF LANDS WITHIN THIS SUBDIVISION IS CAUTIONED TO INVESTIGATE THE STATUS OF THESE ITEMS.

AT SUCH TIME AS ALL SUCH CONDITIONS HAVE BEEN SATISFACTORILY MET, THE CITY ENGINEER SHALL APPROVE A RECORDABLE DOCUMENT, REMOVING SUCH CONDITIONS FROM ALL OR FROM A PORTION OF THE AREA WITHIN THE SUBJECT SUBDIVISION.

BULK PLAT
TRACTS RR-3-A-1 THROUGH RR-3-A-2
WESTLAND SOUTH

WITHIN THE
TOWN OF ATRISCO GRANT
PROJECTED SECTION 9
TOWNSHIP 9 NORTH, RANGE 2 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
JULY, 2017

PROJECT NUMBER: **1004428**

APPLICATION NUMBER:

PLAT APPROVAL

UTILITY APPROVALS:


PUBLIC SERVICE COMPANY OF NEW MEXICO

9-13-17


NEW MEXICO GAS COMPANY

9/13/17

QWEST CORPORATION DBA CENTURYLINK QC

COMCAST DBA XFINITY

9/13/17

CITY APPROVALS:


CITY SURVEYOR

P.S.

9/13/17

REAL PROPERTY DIVISION

TRAFFIC ENGINEERING, TRANSPORTATION DIVISION

ALBUQUERQUE-BERNALILLO COUNTY WATER UTILITY AUTHORITY

PARKS AND RECREATION DEPARTMENT

AMAFCA

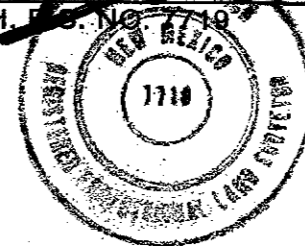
CITY ENGINEER

DRB CHAIRPERSON, PLANNING DEPARTMENT

SURVEYOR'S CERTIFICATION

"I, TIMOTHY ALDRICH, A DULY QUALIFIED REGISTERED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THIS PLAT AND DESCRIPTION WERE PREPARED BY ME OR UNDER MY SUPERVISION, SHOWS ALL EASEMENTS AS SHOWN ON THE PLAT OF RECORD OR MADE KNOWN TO ME BY THE OWNERS AND/OR PROPRIETORS OF THE SUBDIVISION SHOWN HEREON, UTILITY COMPANIES AND OTHER PARTIES EXPRESSING AN INTEREST AND MEETS THE MINIMUM REQUIREMENTS FOR MONUMENTATION AND SURVEYS OF THE ALBUQUERQUE SUBDIVISION ORDINANCE, AND FURTHER MEETS THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF."


TIMOTHY ALDRICH, 1718
DATE 08/22/17



A17005-F-PLAT.dwg	Drawn: SPS	Checked: TA	Sheet 1 of 2
Scale: AS SHOWN	Date: 7/3/2017	Job: A17005	

NEW EASEMENTS

- NEW PUBLIC WATER LINE EASEMENT GRANTED TO A.B.C.W.U.A. WITH THIS PLAT.
- NEW PUBLIC DRAINAGE EASEMENT GRANTED TO THE CITY OF ALBUQUERQUE WITH THIS PLAT.
- NEW PRIVATE ACCESS EASEMENT GRANTED TO TRACT RR-3-A-1 WITH THIS PLAT.

Parcel Line Table

Line #	Direction	Length
L1	S89°44'31"W	20.18'
L2	S45°15'29"E	14.14'
L3	S89°46'21"W	21.07'
L4	S0°00'00"E	29.14'
L5	S0°15'29"E	34.11'
L6	S89°49'05"W	29.52'
L7	N90°00'00"E	30.84'
L8	S71°55'14"W	64.45'
L9	N90°00'00"E	20.41'
L10	N90°00'00"E	33.00'
L11	N90°00'00"W	49.00'
L12	S0°00'00"W	1.63'
L13	N90°00'00"E	33.02'
L14	N90°00'00"W	3.13'
L15	S0°00'00"E	52.15'
L16	N0°00'00"E	33.01'
L17	S90°00'00"E	53.00'
L18	N45°00'04"E	28.92'
L19	N0°00'00"E	53.05'
L20	N90°00'00"W	35.00'
L22	S74°19'30"E	10.35'
L23	N90°00'00"E	52.49'
L24	S81°06'34"E	14.72'
L25	N90°00'00"E	30.00'
L27	N0°10'48"W	10.00'

Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
1	16.85	118.00	8.18	S86° 10' 02"E	16.84
2	26.84	28.00	54.93	S39° 49' 29"E	25.83
3	155.75	56.00	159.35	N87° 59' 10"W	110.19
4	31.00	28.00	63.43	N44° 01' 48"E	29.44
5	17.61	28.82	35.00	N67° 29' 00"W	17.33
6	69.01	56.00	70.61	S85° 01' 48"E	64.73
7	14.70	28.00	30.08	S74° 42' 11"W	14.53
8	30.04	150.00	11.47	N84° 31' 17"W	29.99
9	30.04	150.00	11.47	S84° 31' 17"E	29.99

DENNIS CHAVEZ BOULEVARD
(R/W VARIES)

ACCESS CONTROL LINE
(TYP.)

TRACT 2
A.P.S. SOUTHWEST MESA
EDUCATION CORRIDOR COMPLEX
(03/15/11, 2011C-20)

TRACT RR-3-A-1
5.4236 Ac.

TRACT RR-3-A-2
9.4401 Ac.

TRACT RR-4
WESTLAND SOUTH
(UNPLATTED)

AGRS MONUMENT
"TRANS"
Y=1,471,885.503 U.S. SURVEY FT.
X=1,495,145.466 U.S. SURVEY FT.
C-G=0.999683154
Δα=-00°16'43.33"
CENTRAL ZONE
(NAD 1983)
ELEVATION=5121.089
NAVD88 U.S. SURVEY FT.

BULK PLAT
**TRACTS RR-3-A-1 THROUGH RR-3-A-2
WESTLAND SOUTH**
WITHIN THE
TOWN OF ATRISCO GRANT
PROJECTED SECTION 9
TOWNSHIP 9 NORTH, RANGE 2 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
JULY, 2017

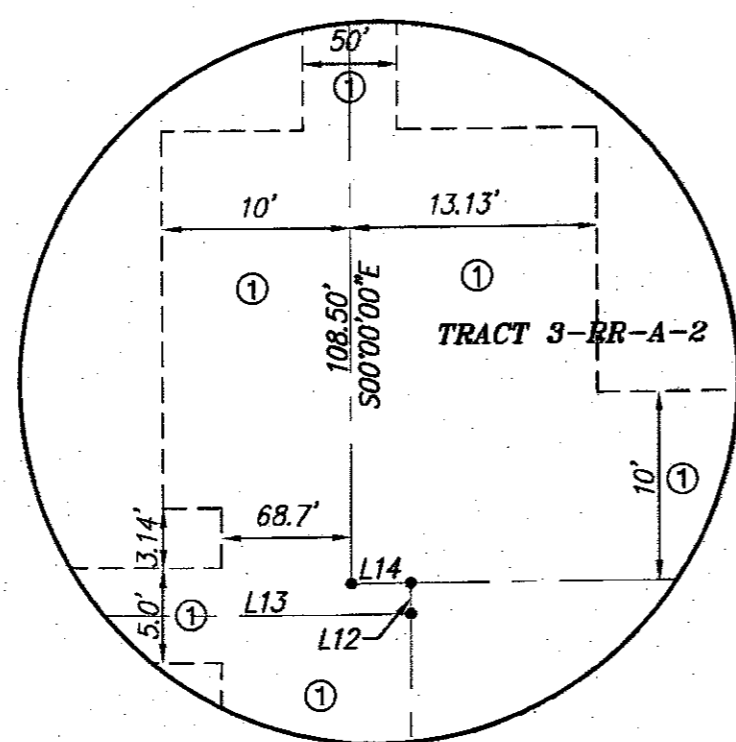
WESTLAND SOUTH
"TRACT RR-3-B"
(11-14-05, 2005C-365)

EXIST. 124' PUBLIC ACCESS, DRAINAGE, PUBLIC
SANITARY SEWER & WATER LINE EASEMENTS
(11-14-05, 2005C-365)

EXIST. 60' PUBLIC ACCESS, DRAINAGE, PUBLIC
SANITARY SEWER & WATER LINE EASEMENTS
(11-14-05, 2005C-365)

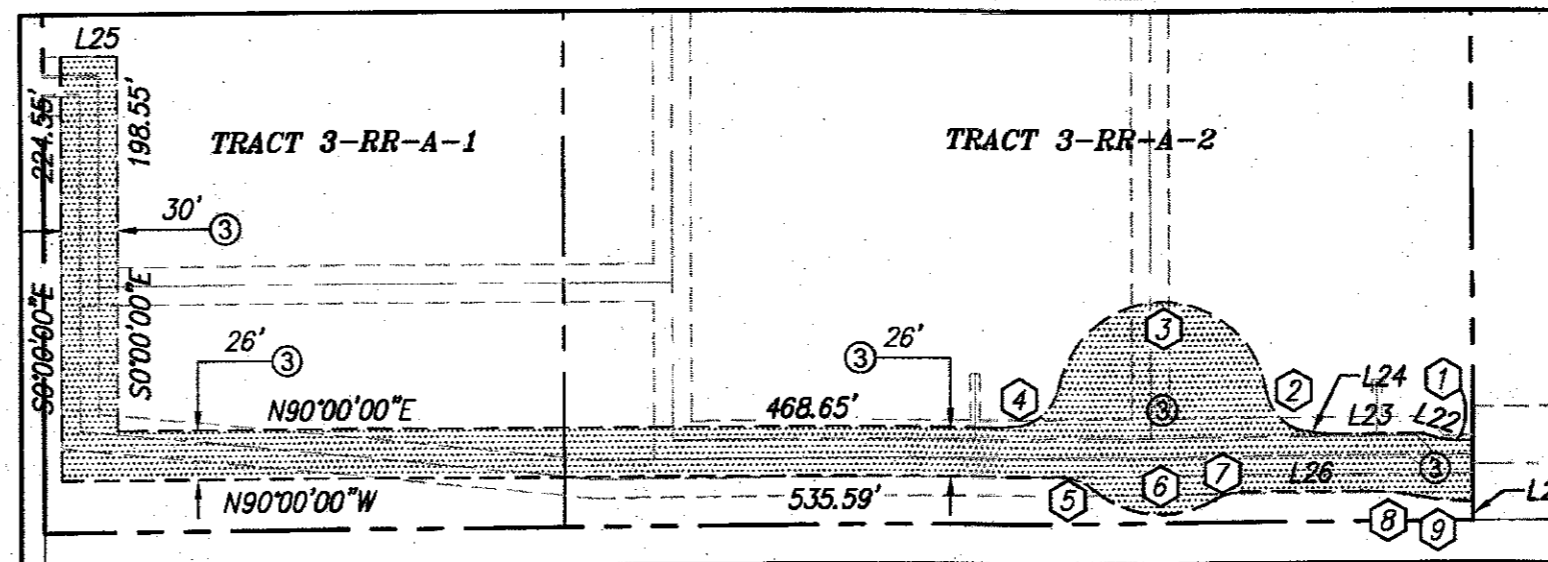
EXIST. 70' PUBLIC ACCESS, DRAINAGE,
PUBLIC SANITARY SEWER & WATER
LINE EASEMENTS
(11-14-05, 2005C-365)

AGRS MONUMENT
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Y=1,462,500.31 U.S. SURVEY FT.
X=1,500,979.613 U.S. SURVEY FT.
C-G=0.99968997
Δα=-00°16'02.11"
CENTRAL ZONE
(NAD 1983)
ELEVATION=4938.411
(NAVD88) U.S. SURVEY FT.



DETAIL A
NEW PUBLIC WATERLINE EASEMENT - (1)

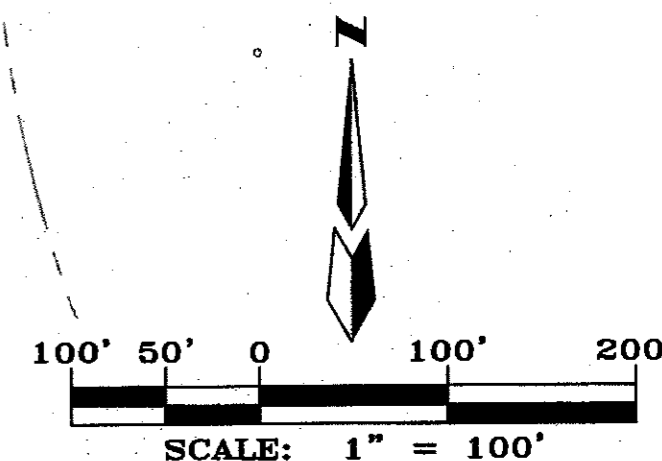
SCALE: 1" = 10'



NEW PRIVATE ACCESS EASEMENT - (3)

SCALE: 1" = 100'

A17005-F-PLAT.dwg	Drawn: SPS	Checked: TA	Sheet 2 of 2
Scale: AS SHOWN	Date: 7/3/2017	Job: A17005	



PROPERTY CORNERS

- FND 5/8" REBAR WITH CAP "ALS LS 7719"

NOTE: BEARINGS AND DISTANCES
ARE FIELD AND RECORD

Valle De Atrisco Apartment Development
Drainage Management Plan

Prepared by
Mark Goodwin & Associates, P.A.

September 2017



Valle De Atrisco Apartment Development

Table of Contents

I.	PROJECT DESCRIPTION
II	DESIGN CRITERIA AND PREVIOUS REPORTS
III.	EXISTING DRAINAGE CONDITIONS
IV.	DEVELOPED DRAINAGE CONDITIONS
V.	FIRST FLUSH RETENTION
FIGURE 1	Vicinity Map
FIGURE 2	Aerial Google Earth Map
FIGURE 3	FIRM Panel 35001C0119G (September 26, 2008)
FIGURE 4	Sub Basin Boundary Exhibit (Overview C101)
FIGURE 5	Temporary Pond – Tract RR-3-A-1 (westside)
FIGURE 6	Temporary Pond – Tract RR-3-B (eastside)
TABLE 1	Summary of Hydrology Parameters and AHYMO Results
TABLE 2	Summary of Storm Drain System

11x17 copies of Pockets:

C101 Grading and Drainage Plan Overview
C102 Grading and Drainage Plan-South
C103 Grading and Drainage Plan-North
C104 Grading and Drainage Plan-Offsite Pond
Bulk Land Plat
Erosion Sediment Control Plan (2 sheets, not in pocket)

APPENDIX A

First Flush Pond Calculations and Design
Valle De Atrisco Temporary Offsite Channel to Pond-Phase I
Valle De Atrisco Temporary Offsite Channel to Pond- Future Flows
Table 4 Offsite Retention Pond Volume Calculations

APPENDIX B

Table 3 Roof Drain Calculations and Exhibit
AHYMO Printouts

APPENDIX C

Atrisco Heritage Academy High School As built Grading Plan (by Others)

APPENDIX D

Ceja Vista Master Plan – Bernalillo County Approval- Special Use (Offsite Pond)

POCKETS:

C101 Grading and Drainage Plan Overview
C102 Grading and Drainage Plan-South
C103 Grading and Drainage Plan-North
C104 Grading and Drainage Plan-Offsite Pond
Bulk Land Plat

I. PROJECT DESCRIPTION

The proposed Valle De Atrisco Apartment development is located east of the Atrisco Heritage Academy High school, south of Dennis Chavez Boulevard and west of the proposed south extension of 98th street. Access to the property will be from Ceja Vista Road and 98th street. The project site covers an area of approximately 9.44 acres and will consists of 10 building structures with 24 units in each for a total of 240 apartment units. The project is in for building permit approval now. As soon as the drainage management plan is approved, infrastructure construction plan will soon be submitted for required approvals as well.

II. DESIGN CRITERIA AND PREVIOUS REPORTS

The design criteria used in this report was in accordance with Section 22.2 Hydrology of the Development Process Manual, Volume 2, Design Criteria, January 1993 edition. The 100-year 6-hour storm event was analyzed to determine flow to be conveyed within the roadways using $P(1\text{-hr})=1.87"$, $P(6\text{-hr})=2.22"$. The onsite Land Treatment D value is based on the total impervious areas for sidewalks, roadway and buildings. First Flush volumes were calculated using 0.34 inches of precipitation over the new impervious areas (70%), which is the latest "design criteria" used by the City of Albuquerque.

As part of the construction of the Atrisco Heritage Academy High School (AHAHS), a storm drain along their east boundary was constructed and discharges into a temporary retention pond located in the western part of the existing Tract RR-3-A (soon to be divided and known as Tract RR-3-A-1). This pond will need to remain in place until the proposed public storm drain, temporary channel and new offsite retention pond are constructed and is able to convey the Academy's offsite flow to the new retention pond as shown on sheet C101 Overview. The design discharge from the school site was determined to be 24 cfs.

The project site is in FEMA flood zone X as shown on FIRM Panel 338 of 825, map number 35001C0338H, August 16, 2012 (Figure 3).

III. EXISTING DRAINAGE CONDITIONS

Under existing drainage conditions, onsite runoff is conveyed as overland surface flow in an easterly direction. There is a remnant arroyo that runs through the middle of the project that has been severed through the construction of the AHAH school, Dennis Chavez Road and the Anderson Heights Subdivision.

No offsite flows enter the project site from the north, south or east. As mentioned previously, the AHAH school has a storm drain outfall that discharges into a temporary pond on the west side of Tract RR-3-A (AKA future Tract RR-3-A-1). This pond will remain in place until the public storm drain and downstream drainage facilities are constructed as designed.

IV. DEVELOPED DRAINAGE CONDITIONS

GENERAL

The peak 100 year discharge for developed conditions from this project site was calculated to be 37.5 cfs. The overall drainage for the project is from west to east and north to south and will be conveyed as surface flow in the roadways before being intercepted by several Type D inlets and then conveyed to an offsite pond through a storm drain / open channel system. Refer to C101 Grading and Drainage Plan Overview for details on the sub basins, inlets and storm drain layout. Table 1 and Table 2 give summaries of hydrology and storm drain design, respectively.

The storm drain is designed to convey the ultimate developed condition flows for all contributing sub basins which includes the Valle De Atrisco apartment development, the Atrisco Heritage Academy H.S., Tract RR-3-A-1, Tract RR-3-B, 98th street and Ceja Vista Road. In conjunction with the development of this project, 98th street and Ceja Vista Roads will be constructed along with all the necessary underlying utilities. The peak flow at the outfall to the temporary channel in the future 98th street ROW is 142 cfs. The storm drain at this time is sized using Mannings equation. At the time the DRC plans are prepared for construction of Ceja Vista Road and 98th street, the storm drain will be analyzed in more detailed when accurate slopes are determined.

TRACT RR-3-A-1

After the public storm drain system is constructed and the outfall discharge from the AHAH school site is intercepted and conveyed to the temporary offsite pond as shown in C101 Overview, the retention pond on Tract RR-3-A-1 can be filled in and replaced by a smaller retention pond sized to retain 2 times the 100 year storm volume for the undeveloped flow conditions for Tract RR-3-A-1. This pond is to remain until future development of Tract RR-3-A-1. (Refer to C101 Overview Plan, Table 1 and Figure 5 for details: supporting AHYMO print outs in appendix).

TRACT RR-3-B

Some of the excess dirt from the project site will be used to fill in the existing arroyo in Tract RR-3-B as shown on the overall C101 plan. Details for permission to do this are being worked out between the owners.

A temporary retention pond along the east side of Tract RR-3-B has been sized to retain 2 times the 100 year storm volume for the undeveloped flow conditions. This will pond will serve two purposes: 1.) to prevent sediment erosion due to grading activity from being conveyed eastward and 2.) when construction of 98th street begins, it will also serve to keep sediment erosion and runoff from entering the public ROW during and after construction. A "Temporary Blanket Grading and Access Easement" is being sought and prepared by the owner of Tract RR-3-B for the owner and developer of Valle De Atrisco (Tract RR-3-A-2).

CHANNEL DESIGN

As shown on C104 offsite retention pond, the rectangular conveyance channel is designed to convey the future ultimate discharge flow which was calculated to be 142 cfs. At a slope of 0.5%, the flow depth is approximately 2 feet deep. The channel will be 4 feet deep with 3:1 side slopes and have hard lined protection to be detailed during the DRC design phase.

V. FIRST FLUSH RETENTION

The required first flush retention volume for this project was calculated to be 8,155.7 cubic feet. The calculations can be found in Appendix A. This volume will be conveyed to the offsite retention pond. Although this retention pond is temporary at this time, until the future storm drain is designed, the first flush volume from this site will require that a portion of this pond will be the permanent solution for retention. This is shown clearly in sheet C101 Overview.

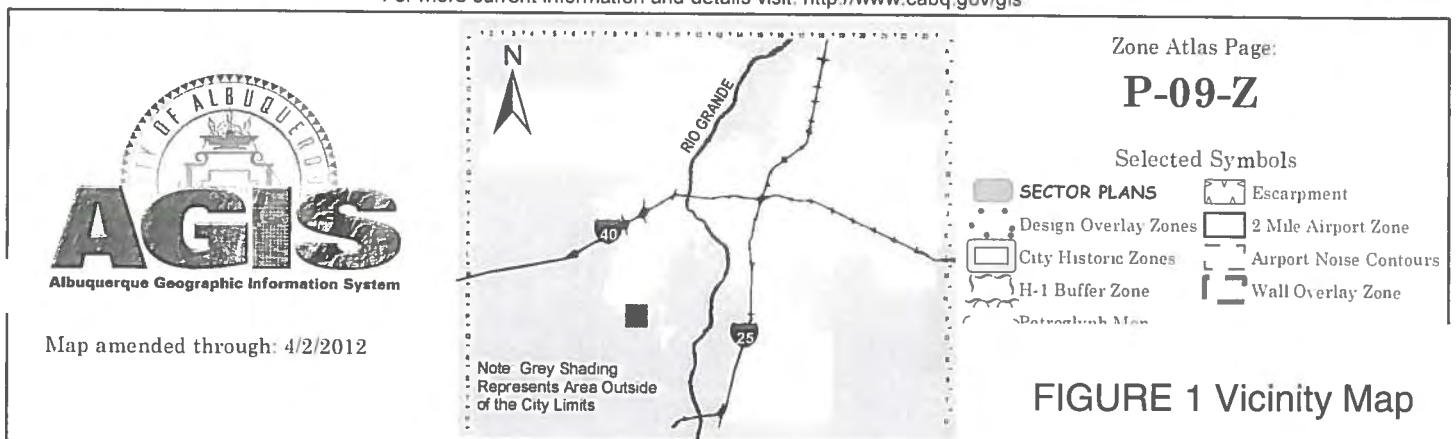
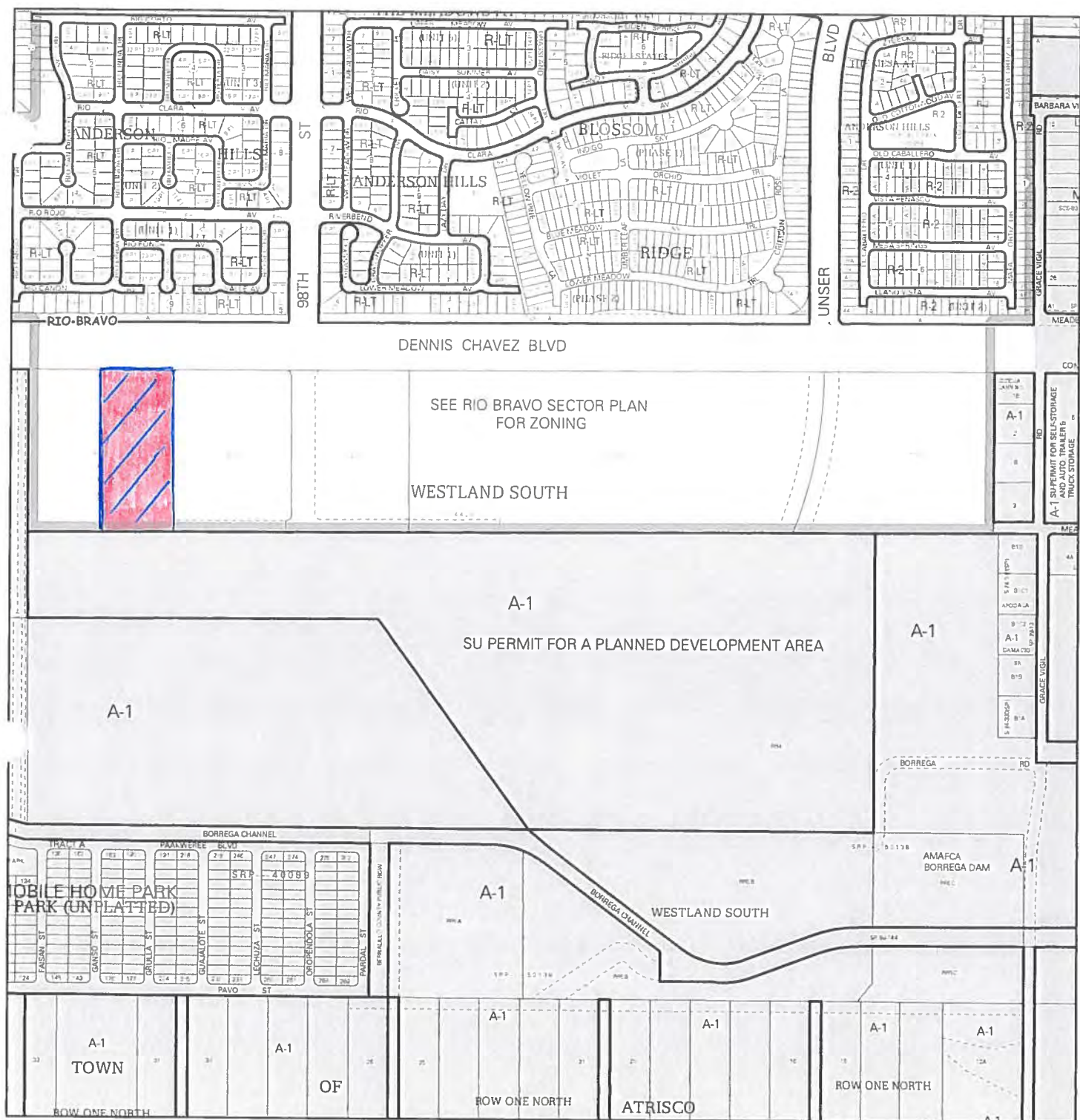




FIGURE 2 Aerial Google Earth Map

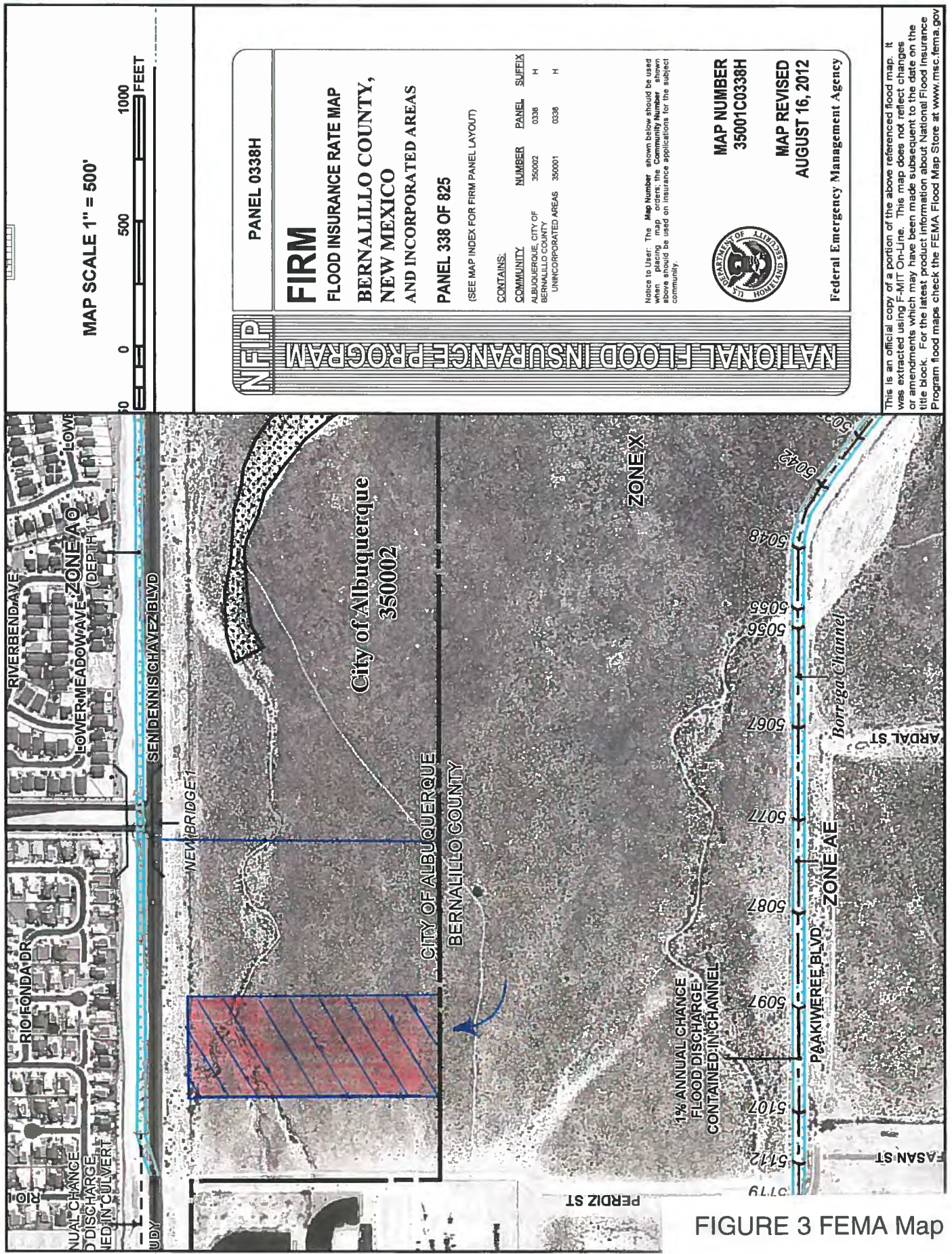


FIGURE 3 FEMA Map

NFIP

PANEL 0338H

FIRM

FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY,
NEW MEXICO

AND INCORPORATED AREAS

PANEL 338 OF 825

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ALBUQUERQUE CITY OF	350002	0338	H
BERNALILLO COUNTY			
UNINCORPORATED AREAS	350001	0338	H

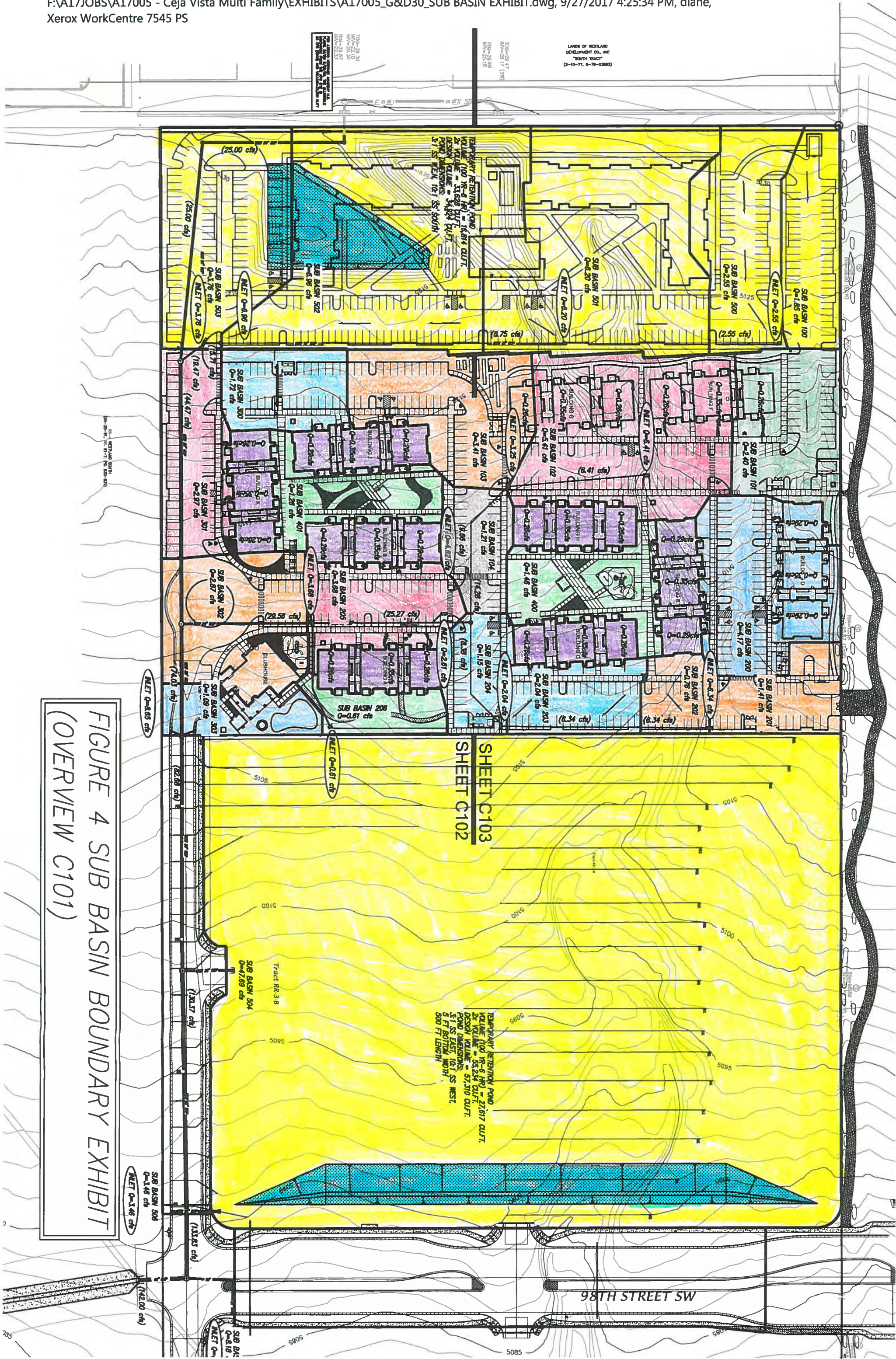
MAP NUMBER
35001C0338H

MAP REVISED
AUGUST 16, 2012

Federal Emergency Management Agency

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown below should be used on insurance applications for the subject community.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



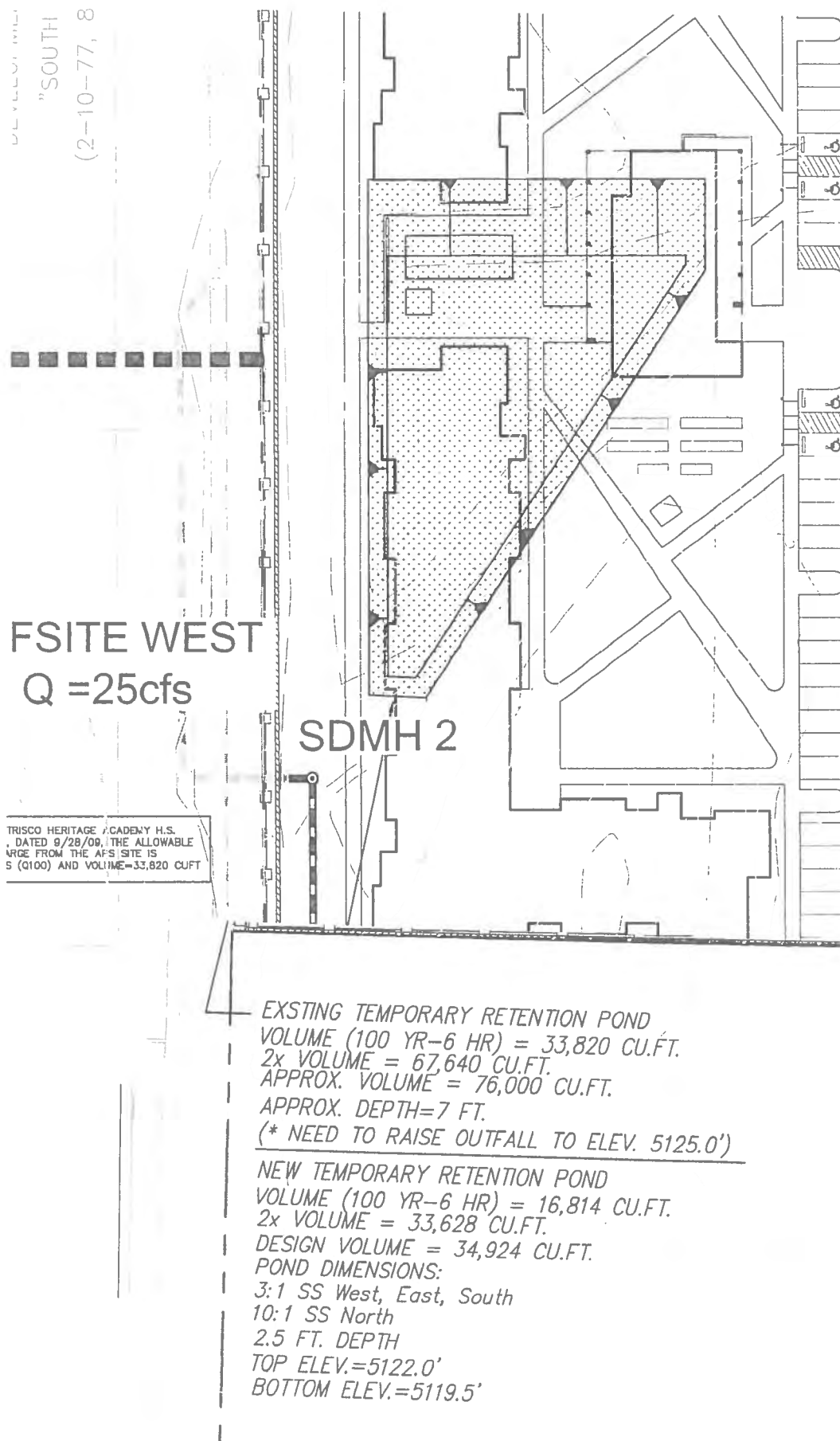


FIGURE 5 Temporary Retention Pond Tract RR-3-A-1

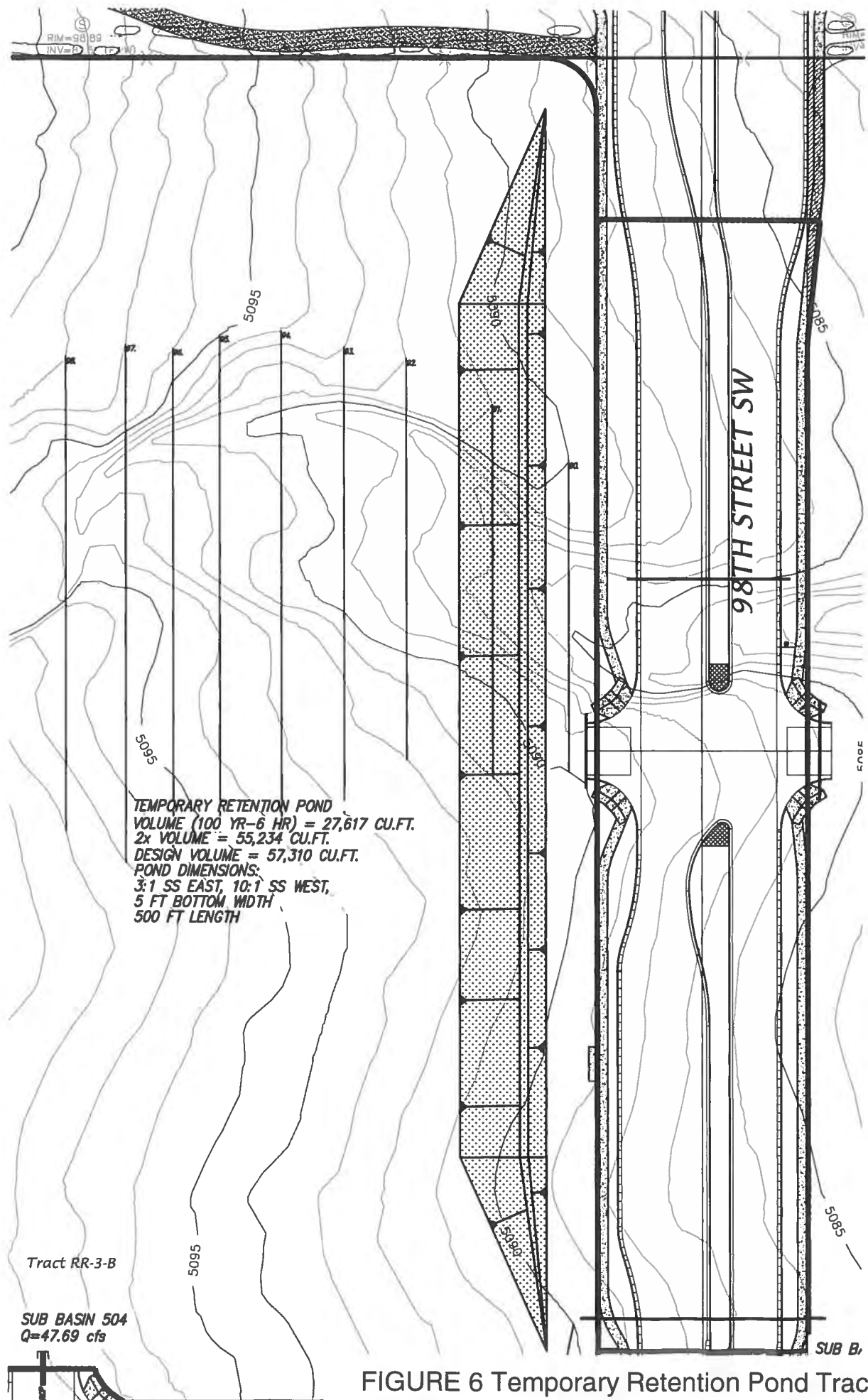


FIGURE 6 Temporary Retention Pond Tract RR-3-B

TABLE 1

Summary of Hydrology Parameters and AHYMO Results														AHYMO Precip Values:				Temp
Valle De Atrisco Apartment Development Project														P(60) 1.87"				Ret. Pond
Sub Basin	Area	Area	Area	Land Treatment Values				100 Year-6 Hour Storm			P(6) 2.22"			Volume				
ID	sq.ft	acre	sq.mi.	A	B	C	D	Discharge	Volume	Volume	P(24) 2.70"			Cu.Ft.				
ONSITE SUB BASINS - DEVELOPED																		
101	26,166.9	0.60	0.000939	0.0	15.0	15.0	70.0	2.40	0.084	3,659	Onsite Drive and Bldgs			3,659				
102	49,719.7	1.14	0.001783	0.0	15.0	15.0	70.0	4.54	0.159	6,926	Onsite Drive and Bldgs			6,926				
103	30,235.1	0.69	0.001085	0.0	15.0	15.0	70.0	2.77	0.097	4,225	Onsite Drive and Bldgs			4,225				
104	12,293.4	0.28	0.000441	0.0	7.5	7.5	85.0	1.21	0.043	1,873	Onsite Drive and Bldgs			1,873				
400	19,457.0	0.45	0.000698	0.0	36.5	36.5	27.0	1.46	0.046	2,004	Onsite Park			2,004				
200	34,699.3	0.80	0.001245	0.0	12.5	12.5	75.0	3.24	0.114	4,966	Onsite Drive and Bldgs			4,966				
201	14,663.7	0.34	0.000526	0.0	10.0	10.0	80.0	1.41	0.050	2,178	Onsite Drive and Bldgs			2,178				
202	8,162.4	0.19	0.000293	0.0	15.0	15.0	70.0	0.76	0.026	1,133	Onsite Drive and Bldgs			1,133				
203	12,103.3	0.28	0.000434	0.0	10.0	10.0	80.0	1.17	0.041	1,786	Onsite Drive and Bldgs			1,786				
204	11,471.5	0.26	0.000411	0.0	5.0	5.0	90.0	1.15	0.041	1,786	Onsite Drive and Bldgs			1,786				
205	19,783.0	0.45	0.000710	0.0	15.0	15.0	70.0	1.82	0.063	2,744	Onsite Drive and Bldgs			2,744				
206	9,412.6	0.22	0.000338	0.0	50.0	50.0	0.0	0.61	0.017	741	Trail Open Area			741				
401	16,594.7	0.38	0.000595	0.0	36.0	36.0	28.0	1.26	0.039	1,699	Onsite Park			1,699				
300	15,900.6	0.37	0.000570	0.0	18.0	18.0	64.0	1.43	0.049	2,134	Onsite Drive and Bldgs			2,134				
301	21,947.3	0.50	0.000787	0.0	10.0	10.0	80.0	2.10	0.074	3,223	Onsite Drive and Bldgs			3,223				
302	30,640.1	0.70	0.001099	0.0	12.5	12.5	75.0	2.87	0.101	4,400	Onsite Drive and Bldgs			4,400				
303	11,266.0	0.26	0.000404	0.0	10.0	10.0	80.0	1.09	0.038	1,655	Pool Clubhouse Road			1,655				
ROOF	59,264.0	7.91	0.012358	0.0	0.0	0.0	100.0	6.27	0.248	10,803	Roof			10,803				
SUM	403,780.6	15.82	0.024716					37.56	1.330	57,935	Total Site							
OFFSITE SUBBASINS - DEVELOPED														Location				
100	19,355.0	0.44	0.000694	0.0	10.0	10.0	80.0	1.85	0.066	2,875	Tract RR-3-A-1							
500	29,097.0	0.67	0.001044	0.0	10.0	10.0	80.0	2.55	0.087	3,790	Tract RR-3-A-1							
501	70,956.6	1.63	0.002545	0.0	20.0	20.0	60.0	6.20	0.213	9,278	Tract RR-3-A-1							
502	79,615.0	1.83	0.002856	0.0	20.0	20.0	60.0	6.96	0.239	10,411	Tract RR-3-A-1							
503	41,090.0	0.94	0.001474	0.0	15.0	15.0	70.0	3.76	0.131	5,706	Tract RR-3-A-1							
504	523,556.0	12.02	0.018780	0.0	15.0	15.0	70.0	47.69	1.673	72,876	Tract RR-3-B							
505	86,044.0	1.98	0.003086	0.0	10.0	10.0	80.0	8.18	0.292	12,720	98th Street		12,720					
506	36,242.0	0.83	0.001300	0.0	10.0	10.0	80.0	3.46	0.123	5,358	Ceja Vista Road (west)		5,358					
OFFSITE SUBBASINS - EXISTING														Location				
500	29,097.0	0.67	0.001044	0.0	100.0	0.0	0.0	1.63	0.047	2,047	Tract RR-3-A-1							
501	70,956.6	1.63	0.002545	0.0	100.0	0.0	0.0	3.96	0.114	4,966	Tract RR-3-A-1							
502	79,615.0	1.83	0.002856	0.0	100.0	0.0	0.0	4.44	0.128	5,576	Tract RR-3-A-1							
503	41,090.0	0.94	0.001474	0.0	100.0	0.0	0.0	2.3	0.066	2,875	Tract RR-3-A-1		15,464					
504	523,556.0	12.02	0.018780	100.0	0.0	0.0	0.0	20.92	0.634	27,617	Tract RR-3-B		27,617					
														Bldg End Type A				
														Bldg Middle Type A				
														Bldg End Type B				
														Bldg Middle Type B				

76,013

Summary of Storm Drain System

Valle De Atrisco Apartment Development Project										
Summary of Storm Inlets				Summary of Storm Drainage Pipe						
INLET ID	INLET TYPE	Q(100) cfs	Ownership	Storm Upstr ID	Storm Downstr ID	Interim Q(100) cfs	Future Q(100) cfs	Pipe Size (inches)	Pipe Material	Ownership
A	Double D	6.41	Private	A	B	6.41	6.41	18	HDPE	Private
B	Double D	5.41	Private	B	E	9.66	9.66	24	HDPE	Private
C	Double D	6.34	Private	C	D	6.34	6.34	18	HDPE	Private
D	Single D	2.04	Private	D	SDMH 1	8.34	8.34	18	HDPE	Private
E	Single D	4.62	Private	E	SDMH 1	14.28	14.28	24	HDPE	Private
F	Single D	2.61	Private	SDMH 1	F	22.66	22.66	24	HDPE	Private
G	Single D	3.68	Private	F	G	25.27	25.27	24	HDPE	Private
H	Single D	0.61	Private	H	G	0.61	0.61	8	HDPE	Private
I	(2) Single A	8.65	Private	G	SDMH 5	29.56	29.56	30	HDPE	Private
Offsite - by Others										
J	(2) Single A	3.46	Public	Qwest	SDMH 2	25.00	25.00	24	RCP	Public
K	(2) Single A	8.18	Public	SDMH 2	SDMH 3	25.00	25.00	24	RCP	Public
				SDMH 3	SDMH 4	25.00	25.00	24	RCP	Public
				SDMH 4	SDMH 5	25.00	*44.47	30	RCP	Public
				SDMH 5	SDMH 6	54.56	*74.03	36	RCP	Public
				SDMH 6	SDMH 7	63.21	*82.68	36	RCP	Public
				SDMH 7	SDMH 8	63.21	*130.37	42	RCP	Public
				SDMH 8	SDMH 9	66.67	*133.83	42	RCP	Public
				SDMH 9	OUTFALL	74.85	*142.00	42	RCP	Public
Note (*) Ultimate future storm flows includes developed conditions for Tract RR-3-B and and Tract RR-3-A-1.										
Storm drain sizes are designed for the future ultimate drainage conditions.										
f:/17005/Projects/Drainage/Table 2 Summary of Storm										
9/27/2017										

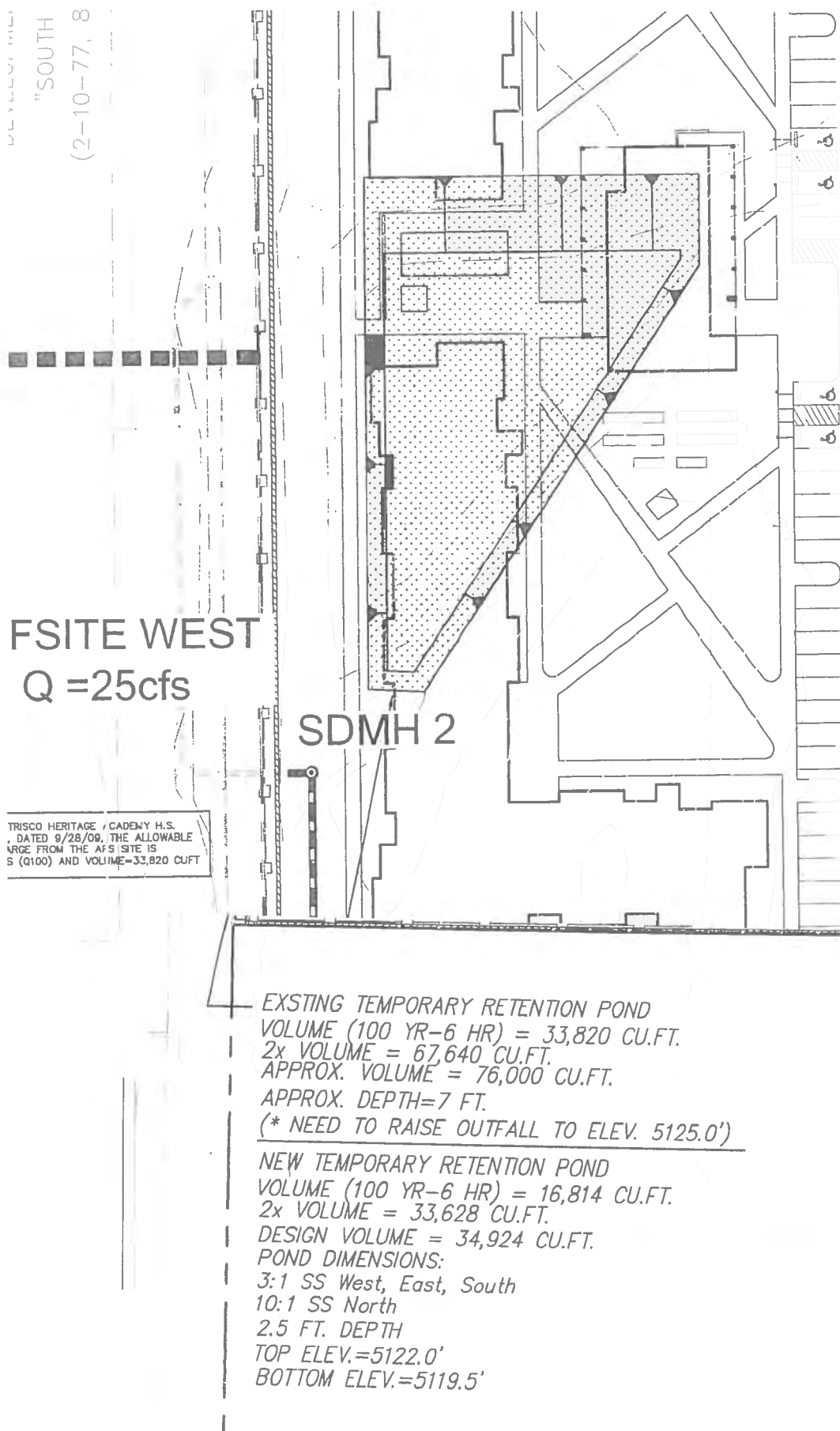
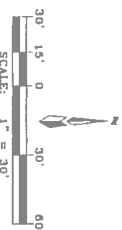


FIGURE 5 Temporary Retention Pond Tract RR-3-A-1





JEFFERSON NE SUITE 100
ALEXANDRIE, NH 37104
7601
505.761.9700 / DPSDESIGN.ORG

505 101.9/00 / DPSLES GN UKU

UFAA GCOMM & ASSOCIATES
 CONSULTING ENGINEERS
 P.O. BOX 96375
 ALBUQUERQUE, N.M. 87132-0096
 312-674-0128 FAX 312-674-7971

CIVIL ENGINEER DAVID MCCELZER P.E.

PROJECT

VALLE DE ATRISCO
10001 Ceja Vista Road
ALBUQUERQUE, NEW MEXICO

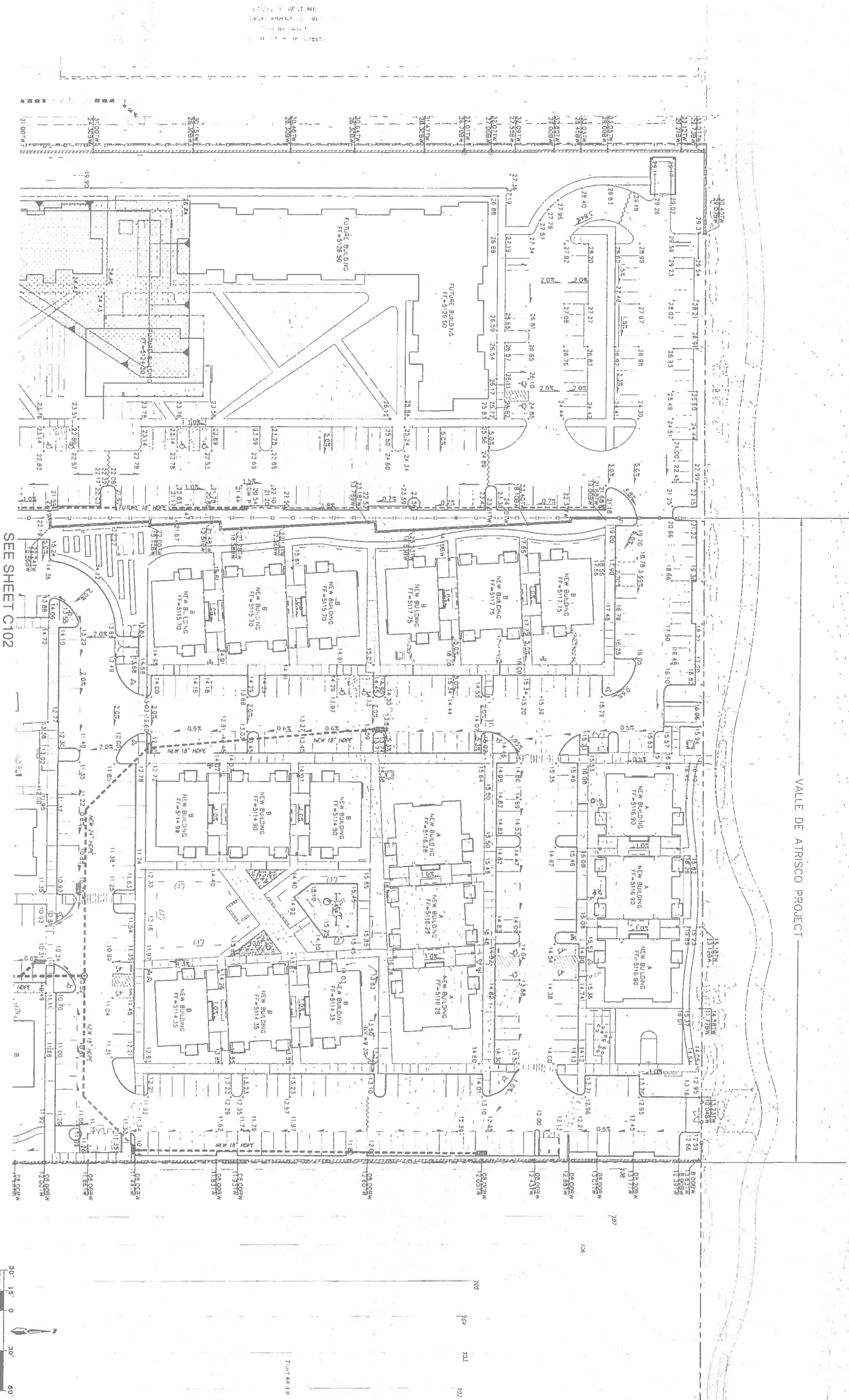
PERMIT SET
Documents

DRAWN BY	
REVIEWED BY	
DATE	08/31/2017
PROJECT NO	17-0017
DRAWING NAME	

GRADING & DRAINAGE
PLAN - SOUTH

SHEET NO.

C102



DENNIS CHAVEZ BOULEVARD

VALLE DE ATRISCO PROJECT

DEKKER
PERICH
SABATINI

ARCHITECTURE / DESIGN / INSPIRATION

7601 JEFFERSON AVE. SUITE 100
ALBUQUERQUE, NM 87106
505.761.9700 / OFSDESIGN.ORG

MARK COOK, INC. & ASSOCIATES P.A.
CONCRETE ENGINEERS
P.O. BOX 80136
ALBUQUERQUE, NEW MEXICO 87103
DR. (505) 628-2200 FAX (505) 781-1519

CIVIL ENGINEER DALE HOELZER PE

PROJECT

VALLE DE ATRISCO
10001 Ceja Vista Road
ALBUQUERQUE, NEW MEXICO

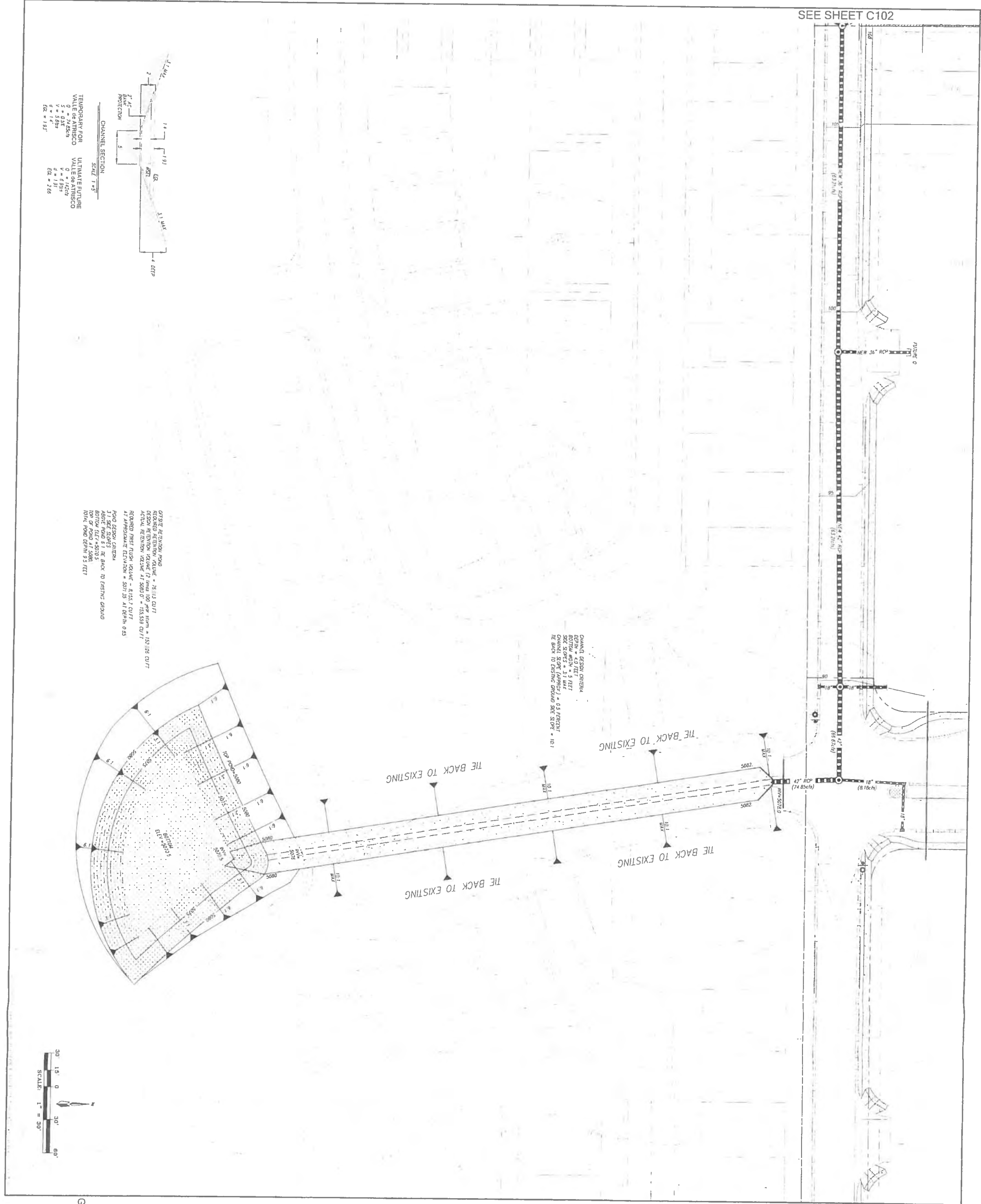
PERMIT SET
Documents

REVISIONS
 ▼▼▼▼▼▼▼▼

GRADING & DRAINAGE
PLAN - NORTH

SHEET NO

C103



ARCHITECTURAL / DESIGN / INSPIRATION

DEKKER
PERICH
SABATINI

7601 JEFFERSON HILL, SUITE 103
ALBUQUERQUE, NM 87109
505.761.9700 / DPO5015@GMAIL.COM

dmg
DANIEL M. GOSWAMI, AIA, LEED AP
3000 UNIVERSITY AVENUE, SUITE 200
ALBUQUERQUE, NM 87102
505.263.1234 / DPO5015@GMAIL.COM

CIVIL ENGINEER DANIEL HOLZNER, S.E.

PROJECT
VALLE DE ATRISCO
10001 CEJA VISTA ROAD
ALBUQUERQUE, NEW MEXICO

VALLE DE ATRISCO
10001 Ceja Vista Road
ALBUQUERQUE, NEW MEXICO

PERMIT SET
Documents

REVISIONS
A
B
C
D
E

DRAWN BY
REVIEWED BY
DATE
PROJECT NO
DRAWING NAME

GRADING & DRAINAGE

PLAN

OFF-SITE POND

SHEET NO

C104

A TRACT OF LAND WITHIN THE TOWN OF ATRISCO GRANT, PROJECTED SECTION 9, TOWNSHIP 9 NORTH, RANGE 2 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO BEING ALL OF TRACTS RR-3-A, WESTLAND SOUTH 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 NOVEMBER 14, 2005, BK. 2005C, PG. 365 AND CONTAINING 14.8637 ACRES MORE OR LESS.

1. TO SUBDIVIDE TRACT RR-3-A WESTLAND SOUTH, INTO 2 TRACTS AS SHOWN HEREON.

2. GRANT NEW EASEMENTS AS SHOWN HEREON.

1. BEARINGS ARE NEW MEXICO STATE PLANE GRID BEARINGS (CENTRAL ZONE)

2. DISTANCES ARE GROUND DISTANCES.
3. BEARINGS AND DISTANCES IN PARENTHESIS ARE RECORD
4. BASIS OF BOUNDARY ARE THE FOLLOWING PLATS AND DOCUMENTS OF RECORD
ENTITLED:
"LANDS OF CECILIA LANNING"; (01-24-78, B 17-42)
"LANDS OF CECILIA LANNING"; (01-24-78, B 17-42)
"LAND OF DAMICIO APODACA"; (01-08-78, A 2-61)
"WESTLAND, TRACT RR-5, 03-04-83, 93C-58)
"WESTLAND OF WESTLAND DEV. CO. INC. SOUTH TRACT", (02-10-77, CASE 8-78-03865)
"PANKREWEE"; (01-29-91, 01C-38)
"RIGHT OF WAY MAP (SD-4068 (208)"; (05-09-84)
RECORDS OF BERNALILLO COUNTY, NEW MEXICO.
5. DATE OF SURVEY: NOVEMBER, 2004.

GROSS ACREAGE.	14.8637 AC
ZONE ATLAS NO.	P-09-Z
NO. OF EXISTING TRACTS.	1 TRACT
NO. OF TRACTS CREATED	2 TRACTS
DATE OF SURVEY	NOV. 2004
MILES OF FULL WIDTH STREETS CREATED	0.00 MILES
AREA OF PUBLIC RIGHT-OF-WAY DEDICATED	0.00 AC

THE SUBDIVISION HEREON DESCRIBED IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED COVENANTOR(S) PROPRIETOR(S) THEREOF AND SAID OWNER(S) AND/OR PROPRIETOR(S) DO HEREBY GRANT, ALLOW, PERMIT, UTILITY AND DRAINAGE EASEMENTS HEREON INCLUDING: THE RIGHT TO CONSTRUCT, OPERATE, INSPECT AND MAINTAIN FACILITIES THEREIN; THE RIGHT TO UTILIZE EASEMENTS SHOWN HEREON FOR THE COMMON AND JOINT USE OF GAS, ELECTRICITY, TELEPHONE, CABLE, TELEVISION, WATER, SEWER, AND DISTRIBUTION LINES, CONDUITS, AND PIPES FOR UNDERGROUND UTILITIES WHEED AND/OR OTHERWISE INDICATED, AND INCLUDING THE RIGHT OF INGRESS AND EGRESS FOR CONSTRUCTION AND MAINTENANCE, AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS. SAID OWNER(S) AND/OR PROPRIETOR(S) DO HEREBY CONSENT TO ALL EASEMENTS AND RIGHTS OF INGRESS AND EGRESS FOR THE PURPOSES OF THE CONTRACT AND DEED. SAID OWNER(S) WARRANT THAT THE SUBDIVISION IS THEIR FREE, COMPLETE AND INDEFEASIBLE TITLE IN FEE SIMPLE TO THE LAND SUBDIVIDED.

OWNER: CEJA VISTA LLC

State of California
County of Los Angeles 1
On August 3, 2017 before me, Robert M. Ortiz, Notary Public
Date Mark Panatier
personally appeared Mark Panatier
Name(s) of Signer(s)
DATE
8/3/17
MARK PANATIER, MANAGING MEMBER

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) I have subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature _____

Signature of Notary Public

"1. TIMOTHY ALDRICH, A DULY QUALIFIED REGISTERED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE SURVEY AND DESCRIPTION WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION, SHOWS A CORRECT AND ACCURATE RECORD OF THE LAND AND INTERESTS THEREON, AND THAT THE SURVEY WAS MADE KNOWN TO ME BY THE OWNERS AND/OR PROPRIETORS OF THE SUBDIVISION SHOWN HEREON, UTILITY COMPANIES AND OTHER PARTIES EXPRESSING AN INTEREST AND MEETS THE MINIMUM REQUIREMENTS FOR THE ALBUQUERQUE SUBDIVISION MONUMENTATION AND SURVEYS OF THE MINIMUM STANDARDS FOR LAND MONUMENTATION, AND FURTHER MEETS THE MINIMUM STANDARDS FOR LAND MONUMENTATION, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF."

TIMOTHY ALDRICH, SS. NO. 7799

A17005-F-PLAT.dwg	Drawn: SPS	Checked: TA	Sheet 1 of 2
Scale: AS SHOWN	Date: 7/3/2017	Job: A17005	

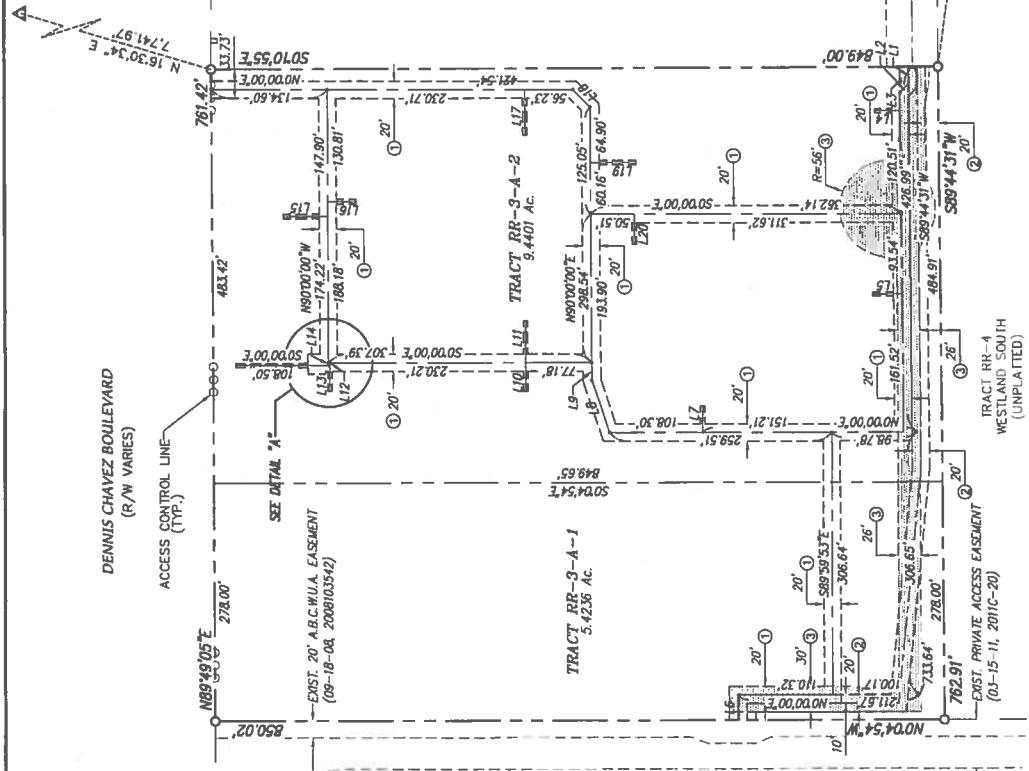
**TRACTS RR-3-A-1 THROUGH RR-3-A-2
WESTLAND SOUTH**

BULK PLAT

WITHIN THE
TOWN OF ATRISCO GRANT
PROJECTED SECTION 9
TOWNSHIP 9 NORTH, RANGE 2 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

JULY 2017

AGRS MONUMENT
"TRANS"
Y=1,471,885.503 U.S. SURVEY FT.
X=1,495,145.466 U.S. SURVEY FT.
G=0.999883154
A=0.001643333
CENTRAL ZONE
(NAD 1983)
ELEVATION=5211.089
NAD88 U.S. SURVEY FT.



NEW EASEMENTS

1. NEW PUBLIC WATER LINE EASEMENT
GRANTED TO A.B.C. W.L.A. WITH THIS PLAT.

2. NEW PUBLIC DRAINAGE EASEMENT
GRANTED TO THE CITY OF ALBUQUERQUE
WITH THIS PLAT.

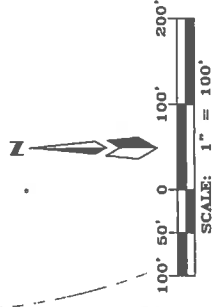
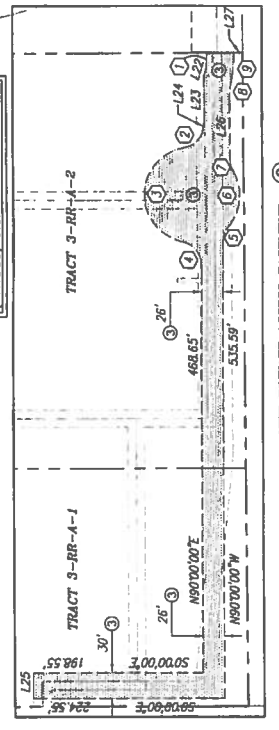
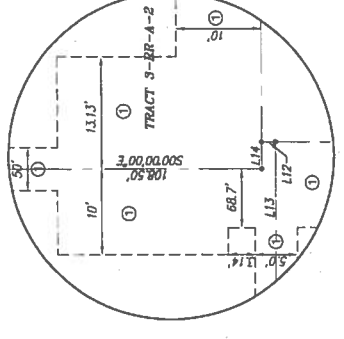
3. NEW PRIVATE ACCESS EASEMENT GRANTED
TO TRACT RR-3-A-1 WITH THIS PLAT.

Parcel Line Table

Line #	Direction	Length
L1	S89°44'31"W	20.18'
L2	S45°15'29"E	14.14'
L3	S89°46'21"W	21.07'
L4	S0°00'00"E	29.14'
L5	S0°15'29"E	34.11'
L6	S89°49'05"W	29.52'
L7	S90°00'00"E	30.84'
L8	S71°55'14"W	64.45'
L9	N90°00'00"E	20.41'
L10	N90°00'00"E	33.00'
L11	N90°00'00"W	49.00'
L12	S0°00'00"W	1.63'
L13	N90°00'00"E	33.02'
L14	N90°00'00"W	3.13'
L15	S0°00'00"E	52.15'
L16	N0°00'00"E	33.01'
L17	S90°00'00"E	53.00'
L18	N45°00'04"E	28.92'
L19	N0°00'00"E	53.05'
L20	N90°00'00"W	35.00'
L22	S74°19'30"E	10.35'
L23	N90°00'00"E	52.49'
L24	S81°06'34"E	14.72'
L25	N90°00'00"E	30.00'
L27	N0°10'48"W	10.00'

Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
1	16.85	118.00	8.18	S86°10'02"E	16.84
2	26.84	28.00	54.93	S39°49'29"E	25.83
3	155.75	56.00	159.35	N87°59'10"W	110.19
4	31.00	28.00	63.43	N44°01'48"E	29.44
5	17.61	28.00	35.00	N67°29'00"W	17.33
6	69.01	56.00	70.61	S85°01'48"E	64.73
7	14.70	28.00	30.08	S74°42'11"W	14.53
8	30.04	150.00	11.47	N84°31'17"W	29.99
9	30.04	150.00	11.47	S84°31'17"E	29.99



PROPERTY CORNERS
O FND 5/8" REBAR WITH
CAP "ALS LS 7719"

NOTE: BEARINGS AND DISTANCES
ARE FIELD AND RECORD

SCALE: 1" = 10'

SCALE: 1" = 100'

APPENDIX A

First Flush Pond Calculations and Design

Valle De Atrisco Temporary Offsite Channel to Pond-Phase I

Valle De Atrisco Temporary Offsite Channel to Pond- Future Flows

Table 4 Offsite Retention Pond Volume Calculations

Valle De Atrisco Development

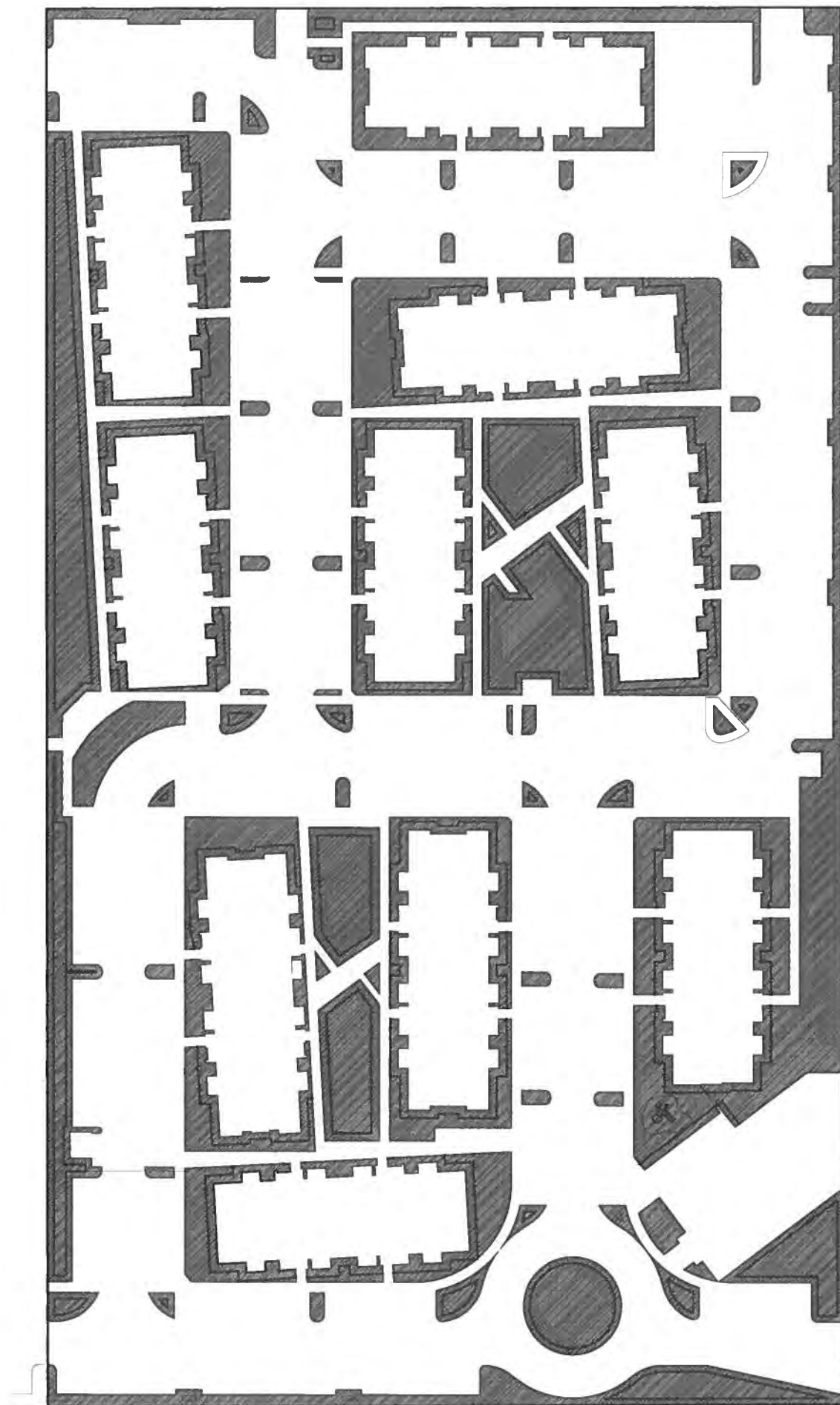
First Flush Calculation

Project Site Area: 411,210 SF

Land Treatment Impervious: 70%

Calculations: $(.34") \times (0.70) \times (411,210 \text{ SF}) = \underline{\underline{8,155.7 \text{ cu.ft.}}}$

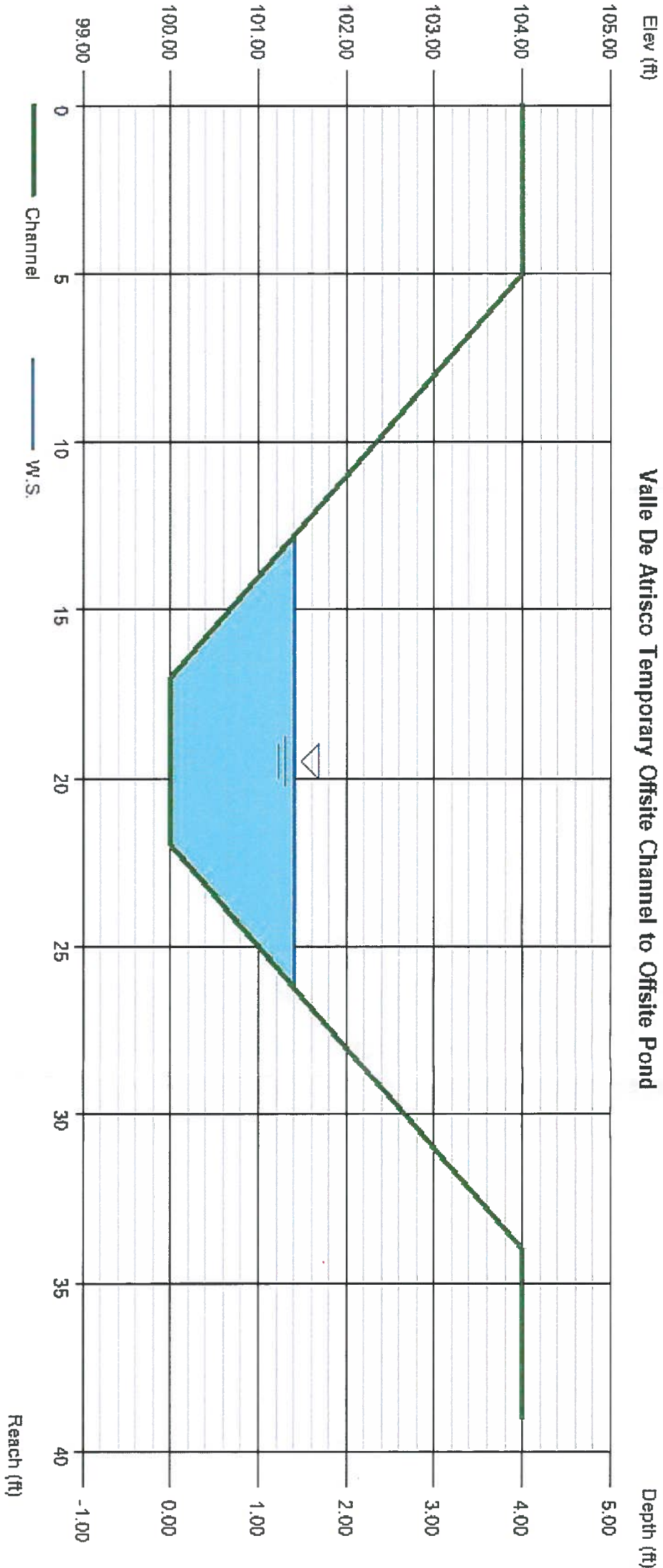
This is the amount of additional storage in the offsite pond that shall remain for infiltration or evaporation even after the future storm drain outfall is extended to the ultimate discharge location in the south east area.



Valle De Atrisco Open Space Area

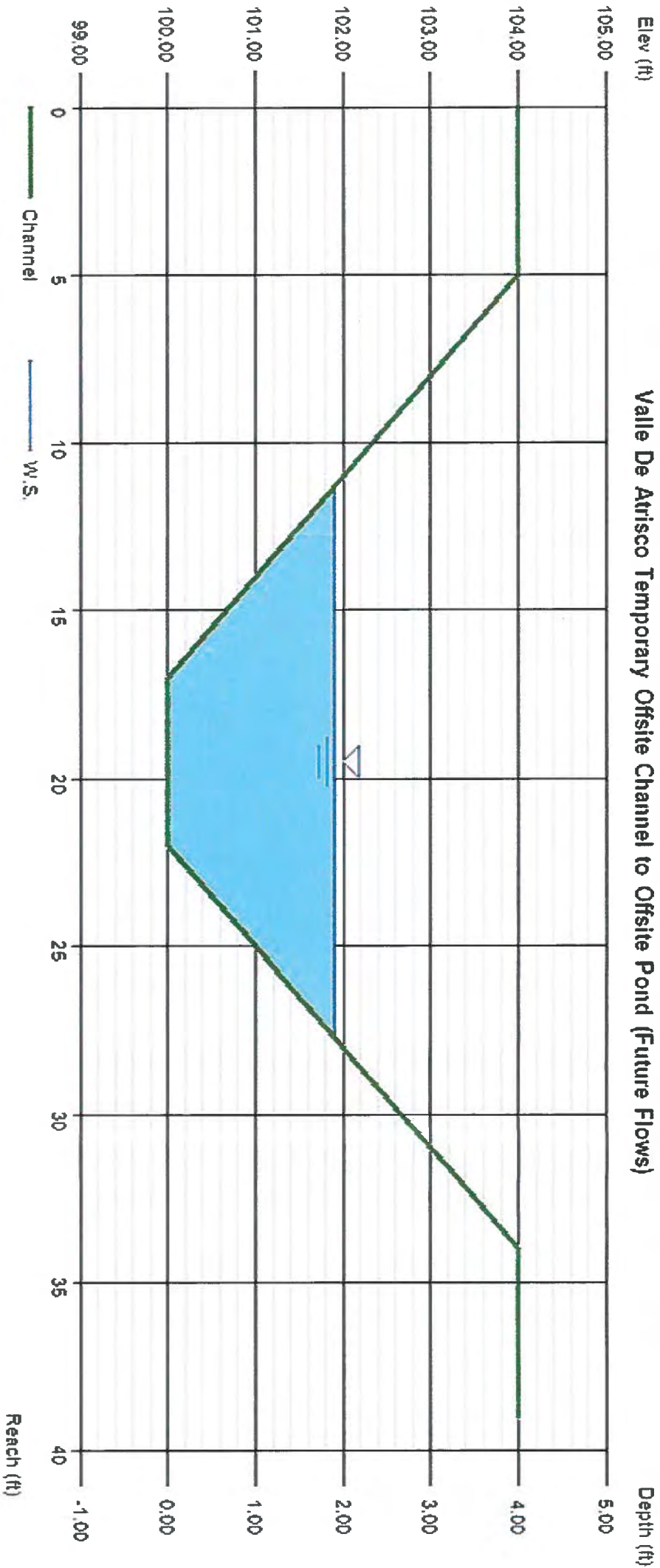
Item	Input
Section Type =	Trapezoidal
Blm Width (ft)	5.00
Side Slope, z:1 =	3.00, 3.00
Tot Depth (ft) =	4.00
Inv Elev(ft) =	100.00
Slope (%) =	0.50
n-value =	0.017
Compute by =	Known Q
Q (cfs) =	74.85

Run



Depth	Q	Area	Veloc	Wp	Yc	TopWidth	Energy
(ft)	(cfs)	(sqft)	(ft/s)	(ft)	(ft)	(ft)	(ft)
1.40	74.85	12.88	5.81	13.85	1.44	13.40	1.93

Item	Input
Section Type = Trapezoidal	
Bin Width (ft)	5.00
Side Slope, z:1 =	3.00, 3.00
Tot Depth (ft) =	4.00
Inv Elev(ft) =	100.00
Slope (%) =	0.50
n-value =	0.017
Compute by =	Known Q
Q (cfs) =	142.00
<div>Run</div>	



Depth	Q	Area	Veloc	Wp	Yc	Topwidth	Energy
(ft)	(cfs)	(sqft)	(ft/s)	(ft)	(ft)	(ft)	(ft)
1.91	142.0	20.49	6.93	17.08	2.01	16.46	2.66

TABLE 4

Offsite Retention Pond Volume Calculations			
Valle De Atrisco Apartment Development			
Elevation	Area		Accum.
(feet)	(sq.ft.)	(cu.ft.)	(cu.ft.)
5070.5	9,499.20		
5071	10,121.10	4,904.25	4,904.25
5071.35	10,575.30	3,621.58	8,525.83
5072	11,418.80	7,146.33	15,672.16
5073	12,778.20	12,092.13	27,764.29
5074	14,227.90	13,496.56	41,260.85
5075	15,735.30	14,975.28	56,236.13
5076	17,309.90	16,516.34	72,752.47
5077	18,951.10	18,124.31	90,876.78
5078	20,658.40	19,798.61	110,675.39
5079	22,431.60	21,538.92	132,214.31
5080	24,270.20	23,344.87	155,559.18
	approximate elevation for first flush volume		

f:/17005/drainage/Table 4 Offsite Retention Pond Volume

9/29/2017

APPENDIX B

Table 3 Roof Drain Calculations and Exhibit AHYMO Printouts

TABLE 3

Summary of Roof Drainage				
Valle De Atrisco Apartment Project Development				
	Area	Area	Q100	VOLUME
	sq ft.	sq.miles	cfs	AC.FT
Bldg A				
End	2777	0.00009961	0.29	0.013
Middle	3330	0.00011945	0.35	0.01
End	2777	0.00009961	0.29	0.013
	Total Each Bldg A		0.93	0.036
	Total 3 Bldgs		2.79	0.108
Bldg B				
End	2410	0.00008645	0.26	0.013
Middle	3333	0.00011955	0.35	0.009
End	2410	0.00008645	0.26	0.013
	Total Each Bldg B		0.87	0.035
	Total 4 Bldgs		3.48	0.140

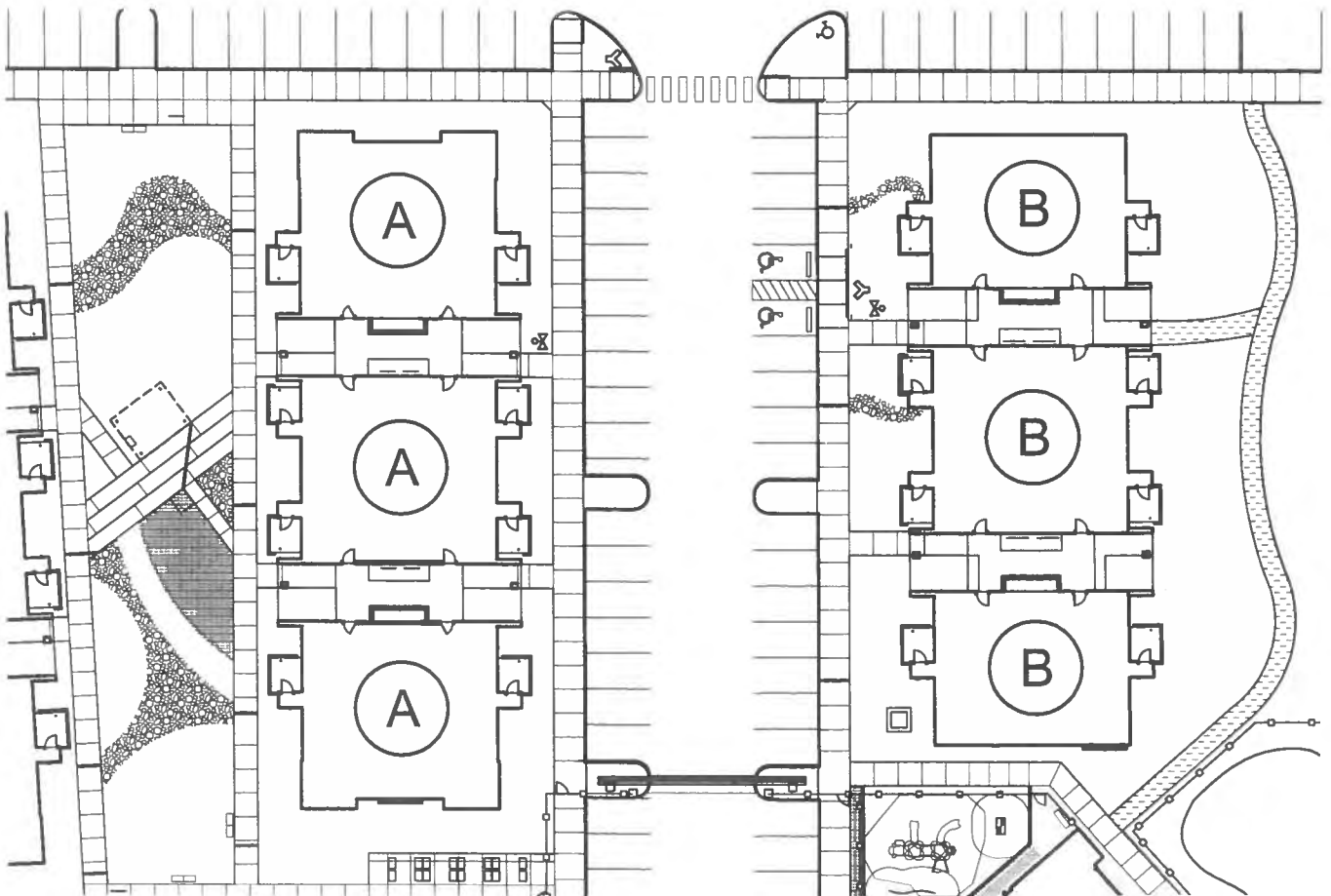
Total additional from Roof Drainage 7 Units = 6.27 cfs	= 0.248 Ac.Ft.
---	-----------------------

There are two basic types of buildings that are identified as Building A or B.

The 100 yr 6 hr discharge from each building was calculated, accounted for and incorporated into the storm drain design.

f:/17005/Projects/Drainage/Table 3 Summary of Roof Drainage

9/27/2017



COMMAND	HYDROGRAPH	FROM TO	AREA	PEAK DISCHARGE	RUNOFF VOLUME	TIME TO PEAK	CFS PER ACRE	PAGE =
IDENTIFICATION	ID	ID	(SQ MI.)	(CFS)	(AC-FT)	(HOURS)		2
IDENTIFICATION	NO. - NO.							NOTATION

```
START                                TIME= 0.00
```

```
LOCATION          NEW MEXICO
*****
*S*****
*S***** FILE: VATRISCO.DAT REV: 8-29-17 DLH
*s***** ZONE ATLAS
*S*****
*S*****
*S*****
*S*****
*S*****
    *S      100 YEAR 6 HOUR STORM EVENT
*S*****
*S*****
*S*****
RAINFALL TYPE= 1 NOAA 14
```

RAINFALL	TYPE= 1 NOAA 14	RAIN6= 2.220
----------	-----------------	--------------

*S	DEVELOPED CONDITIONS
*S	ONSITE

```

*****
*S SUB BASIN 100 (Tract RR 3-A-1)
*S AREA= 0.44 ACRES
*****
*S COMPUTE NM HYD 100.00 - 1 0.00069
*****

```

* S
SUB BASIN 101
* S
AREA = 0.60 ACRES

```

COMPUTE NM HYD      101.00    -   1     0.0094      2.40      0.084      1.67065      1.500      3.994 PER IMP= 70.00
*****

```

* S SUB BASIN 102
* S AREA= 1.14 ACRES

```

COMPUTE NM HYD      102.00    -    1    0.00178      4.54      0.159      1.67065      1.500      3.980 PER IMP= 70.00
* S*****

```

*S SUB BASIN 103
*S AREA= 0.69 ACRES

```
*S*****
```

COMPUTE NM HYD	103.00	-	1	0.00109	2.77	0.097	1.67065	1.500	3.989 PER IMP=	70.00
----------------	--------	---	---	---------	------	-------	---------	-------	----------------	-------

* S SUB BASIN 104
* S AREA= 0.28 ACRES

```

*****
**S*****
*****
COMPUTE NM HYD      104.00      -      1      0.0004      1.21      0.043      1.82279      1.500      4.283 PER IMF= 85.00
*****

```

*S SUB BASIN 400 NORTH COURT YARD
*S AREA= 0.447 ACRES

*S*****					
COMPUTE NM HYD	400.00	-	1	0.00070	1.46
				0.046	1.23452
				1.500	3.277 PER IMP= 27.00

SUB BASIN 200
*5

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 =
*S	AREA= 0.80 ACRES									2
*S*****										
COMPUTE NM HYD	200.00 -	1		0.00125	3.24	0.114	1.72136	1.500	4.072 PER IMP=	75.00
*S*****										
*S	SUB BASIN 201									
*S	AREA= 0.34 ACRES									
*S*****										
COMPUTE NM HYD	201.00 -	1		0.00053	1.41	0.050	1.77207	1.500	4.186 PER IMP=	80.00
*S*****										
*S	SUB BASIN 202									
*S	AREA= 0.19 ACRES									
*S*****										
COMPUTE NM HYD	202.00 -	1		0.00029	0.76	0.026	1.67065	1.500	4.055 PER IMP=	70.00
*S*****										
*S	SUB BASIN 203									
*S	AREA= 0.28 ACRES									
*S*****										
COMPUTE NM HYD	203.00 -	1		0.00043	1.17	0.041	1.77207	1.500	4.196 PER IMP=	80.00
*S*****										
*S	SUB BASIN 204									
*S	AREA= 0.26 ACRES									
*S*****										
COMPUTE NM HYD	204.00 -	1		0.00041	1.15	0.041	1.87350	1.500	4.371 PER IMP=	90.00
*S*****										
*S	SUB BASIN 205									
*S	AREA= 0.457 ACRES									
*S*****										
COMPUTE NM HYD	205.00 -	1		0.00071	1.82	0.063	1.67065	1.500	4.002 PER IMP=	70.00
*S*****										
*S	SUB BASIN 206									
*S	AREA= 0.22 ACRES									
*S*****										
COMPUTE NM HYD	206.00 -	1		0.00034	0.61	0.017	0.96067	1.500	2.821 PER IMP=	0.00
*S*****										
*S	SUB BASIN 401 SOUTH COURT YARD									
*S	AREA= 0.380 ACRES									
*S*****										
COMPUTE NM HYD	401.00 -	1		0.00060	1.26	0.039	1.24466	1.500	3.300 PER IMP=	28.00
*S*****										
*S	SUB BASIN 300									
*S	AREA= 0.37 ACRES									
*S*****										
COMPUTE NM HYD	300.00 -	1		0.00057	1.43	0.049	1.60979	1.500	3.912 PER IMP=	64.00
*S*****										
*S	SUB BASIN 301									
*S	AREA= 0.50 ACRES									
*S*****										
COMPUTE NM HYD	301.00 -	1		0.00079	2.10	0.074	1.77207	1.500	4.168 PER IMP=	80.00
*S*****										
*S	SUB BASIN 302									

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 =
*S	AREA= 0.70 ACRES									2
*S*****										
COMPUTE NM HYD	302.00	-	1	0.00110	2.87	0.101	1.72136	1.500	4.074	PER IMP= 75.00
*S*****										
*S	SUB BASIN 303									
*S	AREA= 0.26 ACRES									
*S*****										
COMPUTE NM HYD	303.00	-	1	0.00040	1.09	0.038	1.77207	1.500	4.201	PER IMP= 80.00
*S*****										
*S*****										
*S*****										
*S*****										
*S	TOTAL SITE 123.4									
*S	AREA= 9.44 ACRES									
*S*****										
COMPUTE NM HYD	123.40	-	1	0.01475	37.46	1.314	1.67065	1.500	3.968	PER IMP= 70.00
*S*****										
*S	DEVELOPED CONDITIONS									
*S	OFFSITE									
*S*****										
*S	SUB BASIN 500									
*S	AREA= 0.67 ACRES									
*S	TRACT RR-3-A-1 WEST PROPERTY									
*S*****										
COMPUTE NM HYD	500.00	-	1	0.00104	2.55	0.087	1.56922	1.500	3.821	PER IMP= 60.00
*S*****										
*S*****										
*S	SUB BASIN 501									
*S	AREA= 1.63 ACRES									
*S	TRACT RR-3-A-1 WEST PROPERTY									
*S*****										
COMPUTE NM HYD	501.00	-	1	0.00255	6.20	0.213	1.56922	1.500	3.807	PER IMP= 60.00
*S*****										
*S	SUB BASIN 502									
*S	AREA= 1.83 ACRES									
*S	TRACT RR-3-A-1 WEST PROPERTY									
*S*****										
COMPUTE NM HYD	502.00	-	1	0.00286	6.96	0.239	1.56922	1.500	3.806	PER IMP= 60.00
*S*****										
*S	SUB BASIN 503									
*S	AREA= 0.94 ACRES									
*S	TRACT RR-3-B WEST PROPERTY									
*S*****										
*S*****										
COMPUTE NM HYD	503.00	-	1	0.00147	3.76	0.131	1.67065	1.500	3.983	PER IMP= 70.00
*S*****										

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
*S	SUB BASIN 504										
*S	AREA= 12.02 ACRES										
*S	TRACT RR-3-B EASTSIDE APTS										
*S	COMPUTE NM HYD	504.00	- 1	0.01878	47.69	1.673	1.67065	1.500	3.968 PER IMP=	70.00	
*S	SUB BASIN 505										
*S	AREA= 1.98 ACRES										
*S	98TH STREET										
*S	COMPUTE NM HYD	505.00	- 1	0.00309	8.18	0.292	1.77207	1.500	4.143 PER IMP=	80.00	
*S	SUB BASIN 506										
*S	AREA= 0.83 ACRES										
*S	CEJA VISTA ROAD										
*S	COMPUTE NM HYD	506.00	- 1	0.00130	3.46	0.123	1.77207	1.500	4.154 PER IMP=	80.00	
*S	EXISTING CONDITIONS										
*S	OFFSITE										
*S	SUB BASIN 500										
*S	AREA= 0.67 ACRES										
*S	TRACT RR-3-A-1 WEST PROPERTY										
*S	COMPUTE NM HYD	500.00	- 1	0.00104	1.63	0.047	0.84256	1.500	2.439 PER IMP=	0.00	
*S	SUB BASIN 501										
*S	AREA= 1.63 ACRES										
*S	TRACT RR-3-A-1 WEST PROPERTY										
*S	COMPUTE NM HYD	501.00	- 1	0.00255	3.96	0.114	0.84256	1.500	2.432 PER IMP=	0.00	
*S	SUB BASIN 502										
*S	AREA= 1.83 ACRES										
*S	TRACT RR-3-A-1 WEST PROPERTY										
*S	COMPUTE NM HYD	502.00	- 1	0.00286	4.44	0.128	0.84256	1.500	2.431 PER IMP=	0.00	
*S	SUB BASIN 503										
*S	AREA= 0.94 ACRES										
*S	TRACT RR-3-B WEST PROPERTY										
*S	COMPUTE NM HYD	503.00	- 1	0.00147	2.30	0.066	0.84256	1.500	2.435 PER IMP=	0.00	
*S	SUB BASIN 504										
*S	AREA= 12.02 ACRES										

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 =
TRACT RR-3-B VACANT LAND										
*S	*****									2
COMPUTE NM HYD	504.00	-	1	0.01878	20.92	0.634	0.63296	1.550	1.740	PER IMP= 0.00
*S	*****									
*S	*****									
VALLE DE ASTRISCO ROOF DRAINAGE										
*S	*****									
*S	*****									
*S	BUILDING TYPE A									
*S	END SECTION									
*S	AREA= 2777 SQFT									
*S	*****									
COMPUTE NM HYD	100.ROOFEND	-	1	0.00010	0.29	0.010	1.97492	1.500	4.588	PER IMP= 100.00
*S	*****									
*S	MIDDLE SECTION									
*S	AREA= 3330 SQFT									
*S	*****									
COMPUTE NM HYD	100.ROOFMID	-	1	0.00012	0.35	0.013	1.97492	1.500	4.564	PER IMP= 100.00
*S	*****									
*S	BUILDING TYPE B									
HYDROGRAPH IDENTIFICATION										
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 =
*S	END SECTION									4
*S	AREA= 2410 SQFT									
*S	*****									
COMPUTE NM HYD	200.ROOFEND	-	1	0.00009	0.26	0.009	1.97492	1.500	4.617	PER IMP= 100.00
*S	*****									
*S	BUILDING TYPE B									
*S	MIDDLE SECTION									
*S	AREA= 3333 SQFT									
*S	*****									
COMPUTE NM HYD	200.ROOFMID	-	1	0.00012	0.35	0.013	1.97492	1.500	4.564	PER IMP= 100.00
FINISH										

```

START                TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-6
LOCATION              NEW MEXICO
*S*****
*S***** FILE: VATRISCO.DAT REV: 8-29-17 DLH
*S***** ZONE ATLAS
*S*****
*S*****
*S                100 YEAR 6 HOUR STORM EVENT
*S*****
*S*****
RAINFALL            TYPE=1 RAIN QUARTER=0.0
                   RAIN ONE=1.87 IN RAIN SIX=2.22 IN
                   RAIN DAY=2.70 IN DT=0.05 HRS
*S*****
*S
*S                DEVELOPED CONDITIONS
*S                ONSITE
*S
*S*****
*S                SUB BASIN 100 (Tract RR 3-A-1)
*S                AREA= 0.44 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=100. AREA= 0.000694 SQ MI
                   PER A=0  PER B=10  PER C=10  PER D=80
                   TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S                SUB BASIN 101
*S                AREA= 0.60 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=101. AREA= 0.000939 SQ MI
                   PER A=0  PER B=15  PER C=15  PER D=70
                   TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S                SUB BASIN 102
*S                AREA= 1.14 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=102. AREA= 0.001783 SQ MI
                   PER A=0  PER B=15  PER C=15  PER D=70
                   TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S                SUB BASIN 103
*S                AREA= 0.69 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=103. AREA= 0.001085 SQ MI
                   PER A=0  PER B=15  PER C=15  PER D=70
                   TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S                SUB BASIN 104
*S                AREA= 0.28 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=104. AREA= 0.000441 SQ MI
                   PER A=0  PER B=7.5  PER C=7.5  PER D=85
                   TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S                SUB BASIN 400 NORTH COURT YARD
*S                AREA= 0.447 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=400. AREA= 0.000698 SQ MI
                   PER A=0  PER B=36.5  PER C=36.5  PER D=27
                   TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S                SUB BASIN 200
*S                AREA= 0.80 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=200. AREA= 0.001245 SQ MI
                   PER A=0  PER B=12.5  PER C=12.5  PER D=75
                   TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****

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*S          SUB BASIN 201
*S          AREA= 0.34 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=201. AREA= 0.000526 SQ MI
                        PER A=0  PER B=10  PER C=10  PER D=80
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 202
*S          AREA= 0.19 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=202. AREA= 0.000293 SQ MI
                        PER A=0  PER B=15  PER C=15  PER D=70
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 203
*S          AREA= 0.28 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=203. AREA= 0.000434 SQ MI
                        PER A=0  PER B=10  PER C=10  PER D=80
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 204
*S          AREA= 0.26 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=204. AREA= 0.000411 SQ MI
                        PER A=0  PER B=5   PER C=5   PER D=90
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 205
*S          AREA= 0.457 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=205. AREA= 0.000710 SQ MI
                        PER A=0  PER B=15  PER C=15  PER D=70
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 206
*S          AREA= 0.22 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=206. AREA= 0.000338 SQ MI
                        PER A=0  PER B=50  PER C=50  PER D=0
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 401 SOUTH COURT YARD
*S          AREA= 0.380 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=401. AREA= 0.000595 SQ MI
                        PER A=0  PER B=36  PER C=36  PER D=28
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 300
*S          AREA= 0.37 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=300. AREA= 0.000570 SQ MI
                        PER A=0  PER B=18  PER C=18  PER D=64
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 301
*S          AREA= 0.50 ACRES
*S*****
COMPUTE NM HYD          ID=1  HYD NO=301. AREA= 0.000787 SQ MI
                        PER A=0  PER B=10  PER C=10  PER D=80
                        TP=-.1333 HR  MASS RAIN=-1
PRINT HYD              ID=1 CODE=1
*S*****
*S          SUB BASIN 302
*S          AREA= 0.70 ACRES
*S*****

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COMPUTE NM HYD      ID=1  HYD NO=302. AREA= 0.001099 SQ MI
                    PER A=0  PER B=12.5  PER C=12.5  PER D=75
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S      SUB BASIN 303
*S      AREA= 0.26 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=303. AREA= 0.000404 SQ MI
                    PER A=0  PER B=10  PER C=10  PER D=80
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S*****
*S*****
*S      TOTAL SITE 123.4
*S      AREA= 9.44 ACRES
*S*****
COMPUTE NM HYD      ID=1  HYD NO=123.4 AREA= 0.014750 SQ MI
                    PER A=0  PER B=15  PER C=15  PER D=70
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S      DEVELOPED CONDITIONS
*S      OFFSITE
*S*****
*S      SUB BASIN 500
*S      AREA= 0.67 ACRES
*S      TRACT RR-3-A-1 WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=500. AREA= 0.001044 SQ MI
                    PER A=0  PER B=20  PER C=20  PER D=60
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S*****
*S      SUB BASIN 501
*S      AREA= 1.63 ACRES
*S      TRACT RR-3-A-1 WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=501. AREA= 0.002545 SQ MI
                    PER A=0  PER B=20  PER C=20  PER D=60
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S      SUB BASIN 502
*S      AREA= 1.83 ACRES
*S      TRACT RR-3-A-1 WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=502. AREA= 0.002856 SQ MI
                    PER A=0  PER B=20  PER C=20  PER D=60
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S      SUB BASIN 503
*S      AREA= 0.94 ACRES
*S      TRACT RR-3-B WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=503. AREA= 0.001474 SQ MI
                    PER A=0  PER B=15  PER C=15  PER D=70
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S      SUB BASIN 504
*S      AREA= 12.02 ACRES
*S      TRACT RR-3-B EASTSIDE APTS
*S*****
COMPUTE NM HYD      ID=1  HYD NO=504. AREA= 0.018780 SQ MI
                    PER A=0  PER B=15  PER C=15  PER D=70
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1  CODE=1
*S*****
*S      SUB BASIN 505

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*S          AREA= 1.98 ACRES
*S          98TH STREET
*S*****
COMPUTE NM HYD      ID=1  HYD NO=505. AREA= 0.003086 SQ MI
                    PER A=0  PER B=10  PER C=10  PER D=80
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S          SUB BASIN 506
*S          AREA= 0.83 ACRES
*S          CEJA VISTA ROAD
*S*****
COMPUTE NM HYD      ID=1  HYD NO=506. AREA= 0.001300 SQ MI
                    PER A=0  PER B=10  PER C=10  PER D=80
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S
*S          EXISTING CONDITIONS
*S          OFFSITE
*S
*S*****
*S          SUB BASIN 500
*S          AREA= 0.67 ACRES
*S          TRACT RR-3-A-1 WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=500. AREA= 0.001044 SQ MI
                    PER A=0  PER B=100  PER C=0  PER D=0
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S*****
*S          SUB BASIN 501
*S          AREA= 1.63 ACRES
*S          TRACT RR-3-A-1 WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=501. AREA= 0.002545 SQ MI
                    PER A=0  PER B=100  PER C=0  PER D=0
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S*****
*S          SUB BASIN 502
*S          AREA= 1.83 ACRES
*S          TRACT RR-3-A-1 WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=502. AREA= 0.002856 SQ MI
                    PER A=0  PER B=100  PER C=0  PER D=0
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S*****
*S          SUB BASIN 503
*S          AREA= 0.94 ACRES
*S          TRACT RR-3-B WEST PROPERTY
*S*****
COMPUTE NM HYD      ID=1  HYD NO=503. AREA= 0.001474 SQ MI
                    PER A=0  PER B=100  PER C=0  PER D=0
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S*****
*S*****
*S          SUB BASIN 504
*S          AREA= 12.02 ACRES
*S          TRACT RR-3-B VACANT LAND
*S*****
COMPUTE NM HYD      ID=1  HYD NO=504. AREA= 0.018780 SQ MI
                    PER A=100  PER B=0  PER C=0  PER D=0
                    TP=-.1333 HR  MASS RAIN=-1
PRINT HYD           ID=1 CODE=1
*S *****
*S
*S          VALLE DE ASTRISCO ROOF DRAINAGE
*S
*S*****
*S          BUILDING TYPE A
*S          END SECTION
*S          AREA= 2777 SQFT

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```

*S*****
COMPUTE NM HYD      ID=1  HYD NO=100.ROOFEND AREA= 0.00009961 SQ MI
                    PER A=0  PER B=0  PER C=0  PER D=100
                    TP=-.1333 HR  MASS RAIN=-1

PRINT HYD           ID=1 CODE=1
*S*****
*S      BUILDING TYPE A
*S      MIDDLE SECTION
*S      AREA= 3330 SQFT
*S*****
COMPUTE NM HYD      ID=1  HYD NO=100.ROOFMID AREA= 0.00011945 SQ MI
                    PER A=0  PER B=0  PER C=0  PER D=100
                    TP=-.1333 HR  MASS RAIN=-1

PRINT HYD           ID=1 CODE=1
*S*****
*S      BUILDING TYPE B
*S      END SECTION
*S      AREA= 2410 SQFT
*S*****
COMPUTE NM HYD      ID=1  HYD NO=200.ROOFEND AREA= 0.00008645 SQ MI
                    PER A=0  PER B=0  PER C=0  PER D=100
                    TP=-.1333 HR  MASS RAIN=-1

PRINT HYD           ID=1 CODE=1
*S*****
*S      BUILDING TYPE B
*S      MIDDLE SECTION
*S      AREA= 3333 SQFT
*S*****
COMPUTE NM HYD      ID=1  HYD NO=200.ROOFMID AREA= 0.00011955 SQ MI
                    PER A=0  PER B=0  PER C=0  PER D=100
                    TP=-.1333 HR  MASS RAIN=-1

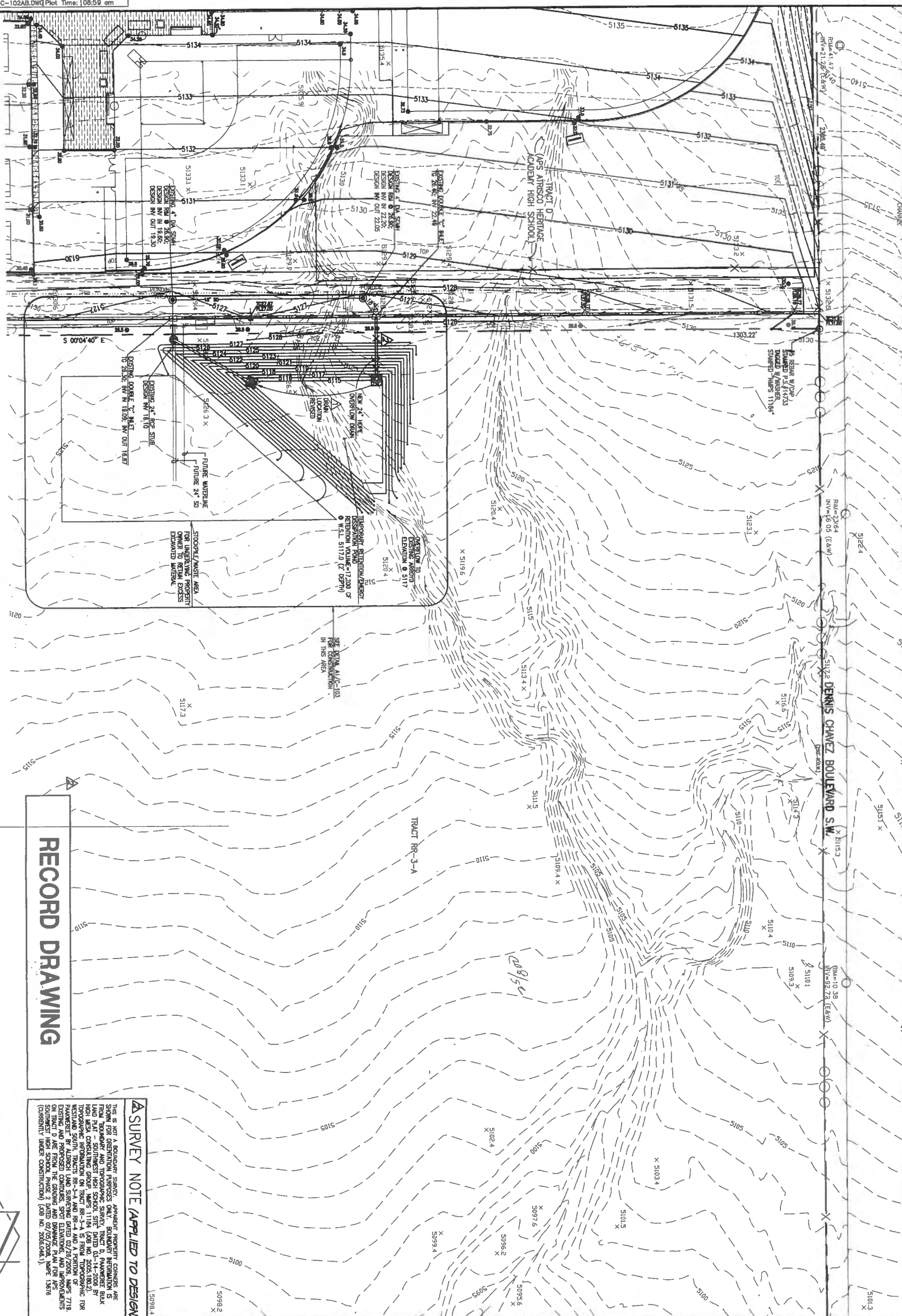
PRINT HYD           ID=1 CODE=1
FINISH

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APPENDIX C

*Atrisco Heritage Academy High School As built Grading Plan
(by Others)*

OFFSITE GRADING PLAN



RECORD DRAWING

A SURVEY NOTE (APPLIED TO DESIGN

THIS IS A PRELIMINARY SURVEY. APPROPRIATE PRELIMINARY CONSIDERATIONS ARE SHOWN FOR ORIENTATION PURPOSES ONLY. BOUNDARY INFORMATION IS FROM BOUNDARY AND TOPOGRAPHIC SURVEYS. TRACT D, PLANNED BLK. 1, TRACTS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827,

[illegible]

GRADING SITE PLAN
APS ATRISCO HERITAGE ACADEMY HIGH SCHOOL
TEMPORARY OFFSITE POND

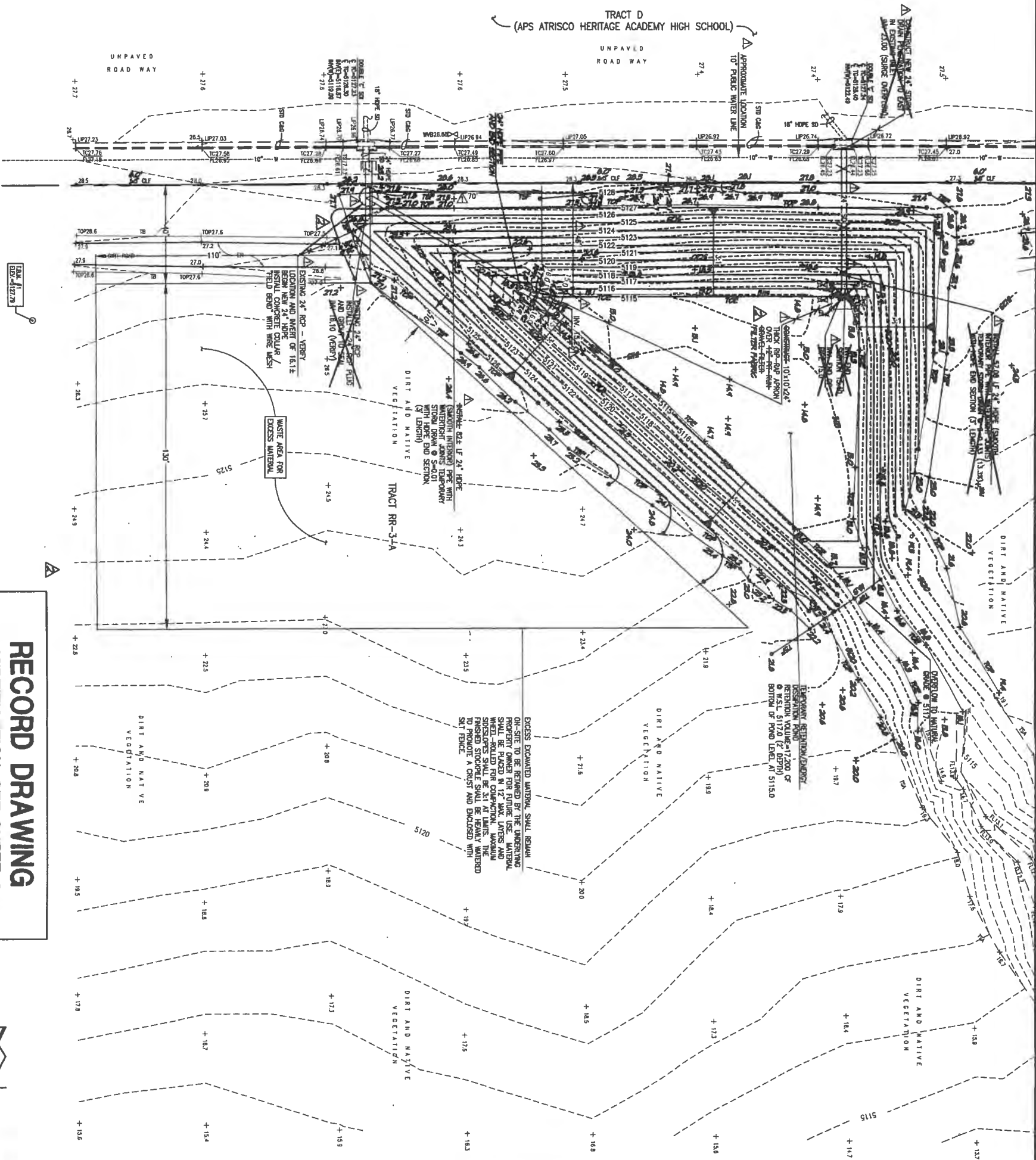


**HIGH
MESA**
Consulting Group

6010-B MIDWAY PARK BLVD. NE
ALBUQUERQUE, NEW MEXICO 87109
PHONE: 505.345.4250 FAX: 505.345.4254
www.highmesacg.com

A1
SCALE: 1" = 20'
CONSTRUCTION DETAIL

RECORD DRAWING
FOR CERTIFICATION, SEE SHEET C-101



LEGEND

- SSA BOTTOM OF SLOPE (ARROW)
- SSA DRAIN AND GUTTER
- SSA CENTERLINE
- SSA CHAIN LINK FENCE
- SSA EDGE OF DIRT ROAD
- SSA HIGH DENSITY POLYETHYLENE PIPE
- SSA INVERT
- SSA TOP OF CLOS
- SSA STORM DRAIN ALLET
- SSA TOP OF BERM
- SSA TOP OF GRADE
- SSA TOP OF SLOPE
- SSA TOP OF SLOPE (ARROW)
- SSA WATER VALVE BOX
- SSA WBS
- SSA 5125 - EXISTING CONTOUR
- SSA 5125 - PROPOSED SLOPE
- SSA 5125 - DESIGN SPOT ELEVATION
- SSA 5125 - PROPOSED SLOPE
- SSA 5125 - DESIGN SPOT ELEVATION

A SURVEY NOTE
(APPLIED TO DESIGN)

A RECORD DRAWING LEGEND

A RECORD DRAWING SURVEY NOTE

A RECORD DRAWING SURVEY NOTE

PERMISSION FOR OFFSITE GRADING AND STORM DRAIN OUTLET

PERMISSION GRANTED WITH LETTER AGREEMENT

REVISIONS			
NO.	DATE	BY	REVISIONS
1	08/09	G.M.	REVISED DESIGN
2	09/09	G.M.	RECORD DRAWING AND CERTIFICATION
PROJECT NO. 2008.188.1			
DESIGNED BY JLP/DWH/PLA/AY/A			
DRAWN BY JLP/DWH/PLA/AY/A			
APPROVED BY G.M.			
SHEET TITLE			

CONSTRUCTION DETAIL
APS ATRISCO HERITAGE ACADEMY HIGH SCHOOL
TEMPORARY OFFSITE POND



HIGH MESA
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APPENDIX D

*Ceja Vista Master Plan- Bernalillo County Approval
Special Use (Offsite Pond)*



County of Bernalillo
Zoning, Building & Planning Department

111 Union Square St SE • Suite 100 • Albuquerque, NM 87102 • (505) 314-0350 • Fax (505) 314-0480

NOTIFICATION OF DECISION
COUNTY PLANNING COMMISSION

December 10, 2007

Albuquerque Rio Bravo Partners
6330 Riverside Plaza Lane, Suite 220,
Albuquerque, NM 87120

SUBJECT: FILE NO: CSU-70048

LEGAL DESCRIPTION: Consensus Planning, agent for Albuquerque Rio Bravo Partners, requests approval of a Special Use Permit for a Planned Development Area for Tract RR4, Section 9, T9N R2E, located south of Dennis Chavez Boulevard, north of the Borrega Channel, between Grace Vigil Road and Perdiz Street, zoned A-1, and containing approximately 106 acres. (P-9)

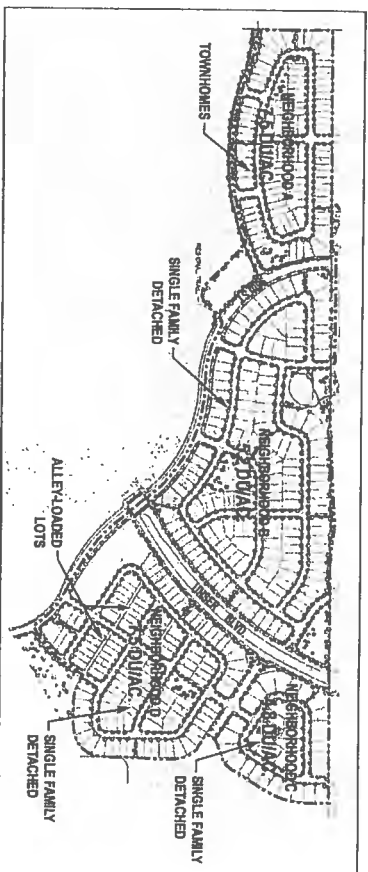
ACTION: RECOMMEND TO THE BOARD OF COUNTY COMMISSIONERS APPROVAL OF A SPECIAL USE PERMIT FOR A PLANNED DEVELOPMENT AREA

To Whom It May Concern:

At the December 5, 2007 public hearing, the County Planning Commission approved the request for a Special Use Permit for a Planned Development Area for Tract RR4, Section 9, T9N R2E, located south of Dennis Chavez Boulevard, north of the Borrega Channel, between Grace Vigil Road and Perdiz Street, zoned A-1, and containing approximately 106 acres. The decision was based on the following Findings and subject to the following Conditions.

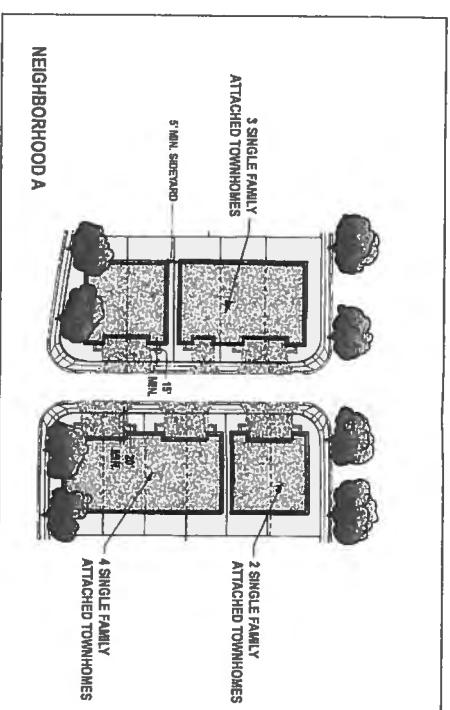
Findings:

1. This is request for a Special Use Permit for a Planned Development Area for Tract RR4, Section 9, T9N R2E, located south of Dennis Chavez Boulevard, north of the Borrega Channel, between Grace Vigil Road and Perdiz Street, zoned A-1, and containing approximately 106 acres.
2. This request is consistent with the Ceja Vista Master Plan.
3. The property is within the Developing Urban Area as designated by the Albuquerque/Bernalillo County Comprehensive Plan.



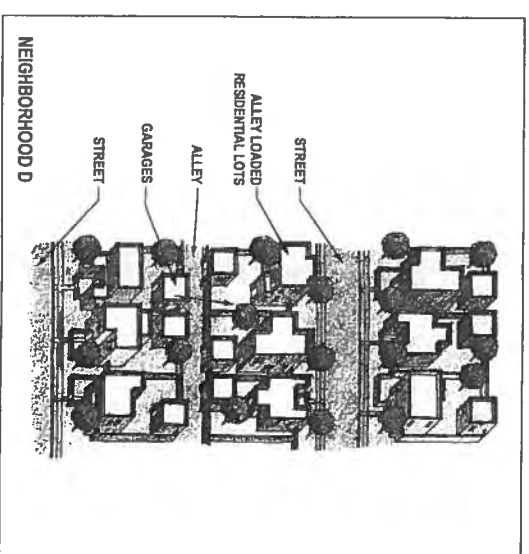
MASTER PLAN PRINCIPLES

- Vary Neighborhood Densities; Phase 2 Maintains an Overall Gross Density of 4.2 DU/AC.
- Vary Housing Products



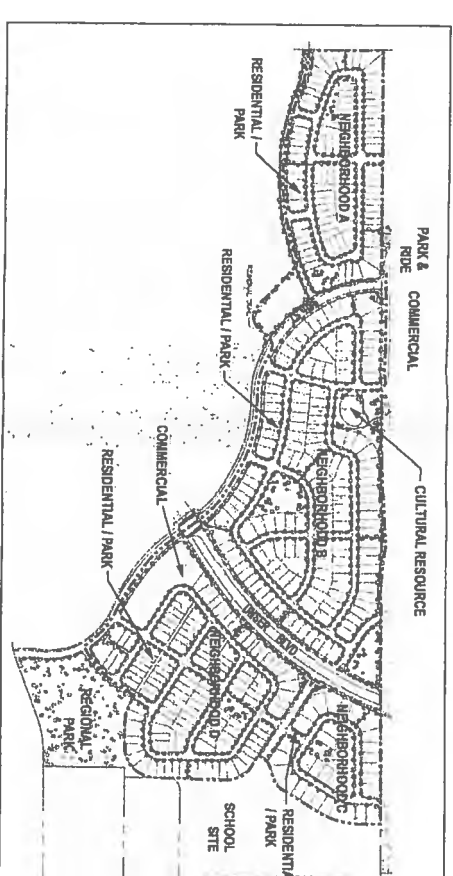
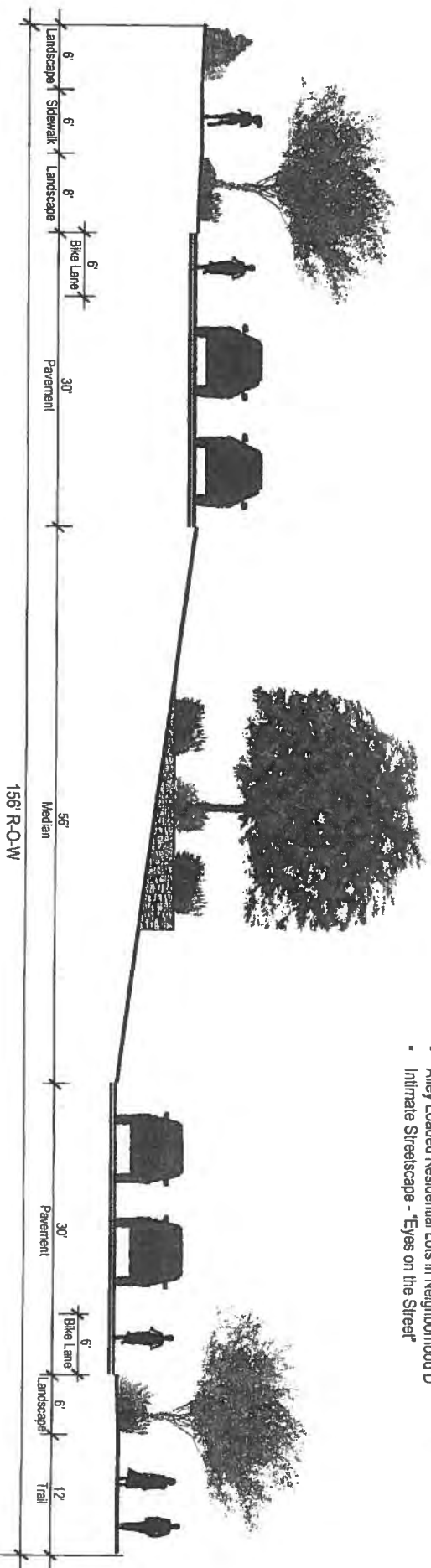
MASTER PLAN DEVELOPMENT STANDARDS

- Typical Setbacks for Townhomes in Neighborhood A
- Varied Number of Attached Units



MASTER PLAN DEVELOPMENT STANDARDS

- Alley Loaded Residential Lots in Neighborhood D
- Intimate Streetscape - "Eyes on the Street"



MASTER PLAN PRINCIPLES

- Mixed Use
- Conveniently Located Commercial Nodes, Additional Commercial in Phases 1 and 3
- Protection of Cultural Resource
- Park and Ride Facility to North Along 98th Street

Ceja Vista

Phase 2

Master Plan Conformance

Prepared for:

Albuquerque Rio Bravo Partners
6330 Riverside Plaza Lane NW, Suite 220
Albuquerque, NM 87120

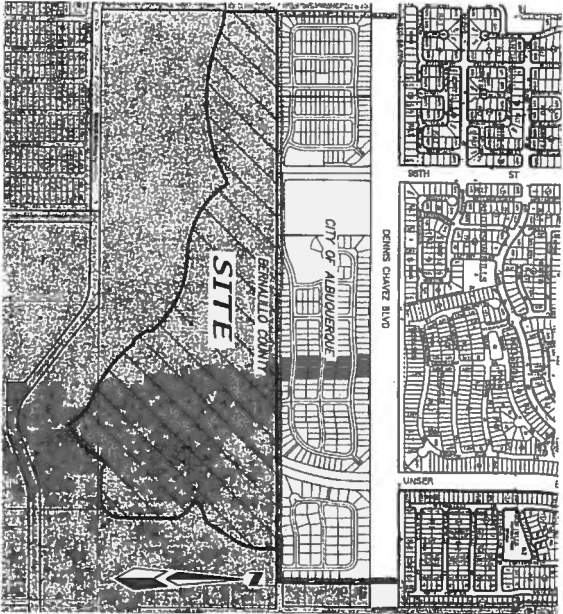
Prepared by:

Consensus Planning, Inc.
302 Eighth Street NW
Albuquerque, NM 87102

Mark Goodwin & Associates, PA

P.O. Box 90606

Albuquerque, NM 87199



VICINITY MAP

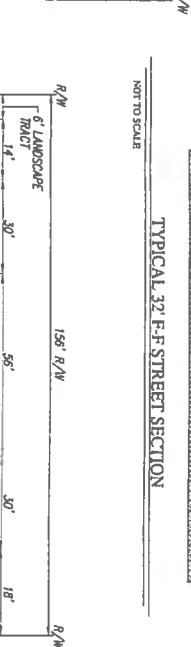
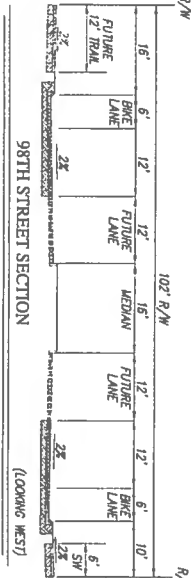
ZONE ATLAS P-9 Z SCALE: 1"=750'

LEGAL DESCRIPTION

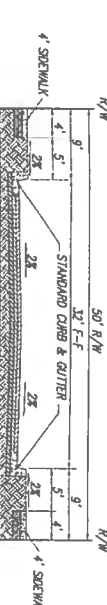
A TRACT OF LAND SITUATE WITHIN THE TOWN OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING A PORTION OF WESTLAND SOUTH TRACT RR-4 (CREATED UNDER PATENT FILED AUGUST 21, 1905 IN BOOK 35, PAGE 91)

GENERAL NOTES

- PRESENT ZONING: A-1
- PROPOSED ZONING: A-1 WITH SPECIAL USE PERMIT FOR PLANNED DEVELOPMENT AREAS CONTAINING A MAXIMUM OF 422 RESIDENTIAL UNITS AND 1 COMMERCIAL SITE ALLOWING C-H USES. COMMERCIAL SITE SHALL BE DEVELOPED ONLY IN ACCORDANCE WITH A SITE SPECIFIC SPECIAL USE PERMIT TO BE OBTAINED BY OTHERS AT A FUTURE TIME.
- 1) ALL PARKS SHOWN HEREON ARE PRIVATE AREAS TO BE CREATED AS SEPARATE TRACTS WITH ACCESS RIGHTS GRANTED TO THE PUBLIC AND TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
 - 2) ALL RESIDENTS SHALL OBTAIN INDIVIDUAL RESIDENTIAL REFUSE SERVICE FROM THE DESIGNATION COUNTY REFUSE SERVICE PROVIDER.
 - 3) MAXIMUM BUILDING HEIGHT SHALL BE 28 FEET, EXCEPT THAT NON-RESIDENTIAL BUILDINGS CAN BE UP TO 35 HIGH.
 - 4) OFF-STREET PARKING SHALL BE ONE PARKING SPACE FOR EACH BALROOM OR FRACITION THEREOF PROVIDED IN THE DWELLING, BUT NO LESS THAN TWO SPACES PER DWELLING.
 - 5) LANDSCAPING LOCATED IN FRONT OF DWELLINGS SHALL BE MAINTAINED BY THE HOMEOWNER.
 - 6) THIS PROPERTY IS TO BE SERVED BY A.B.C.W.U.A. WATER AND SEWER.
 - 7) LIGHTING SHALL BE SITE SPECIFIC AND COMPLIANT WITH MASTER PLAN.
 - 8) THE FRONT YARD SETBACK FOR DWELLINGS AND GARAGES SHALL NOT BE LESS THAN 20 FEET EXCEPT WHEN LOCATED ALONG THE STREET, WHICH CASE THIS IS NO LESS THAN 10 FEET. SIDE YARDS SHALL NOT BE LESS THAN 15 FEET EXCEPT FOR DETACHED GARAGES. IN NO CASE IT MAY BE 0 FEET. THE SIDE YARD SETBACKS FOR DWELLINGS SHALL NOT BE LESS THAN 5 FEET, EXCEPT FOR SIDE YARDS THAT ARE ADJACENT TO ROADSIDEWAYS, IN WHICH CASE IT SHALL NOT BE LESS THAN 10 FEET. ZERO LOT LINES ARE PERMITTED, PROVIDED THERE IS 10 FEET OF SEPARATION BETWEEN DWELLING UNITS.
 - 9) INTERSECTIONS WITH UNSER BLVD SHALL BE RIGHT-IN, RIGHT-OUT, EXCEPT AT 98TH STREET.



UNSER BLVD. STREET SECTION (LOOKING NORTH)

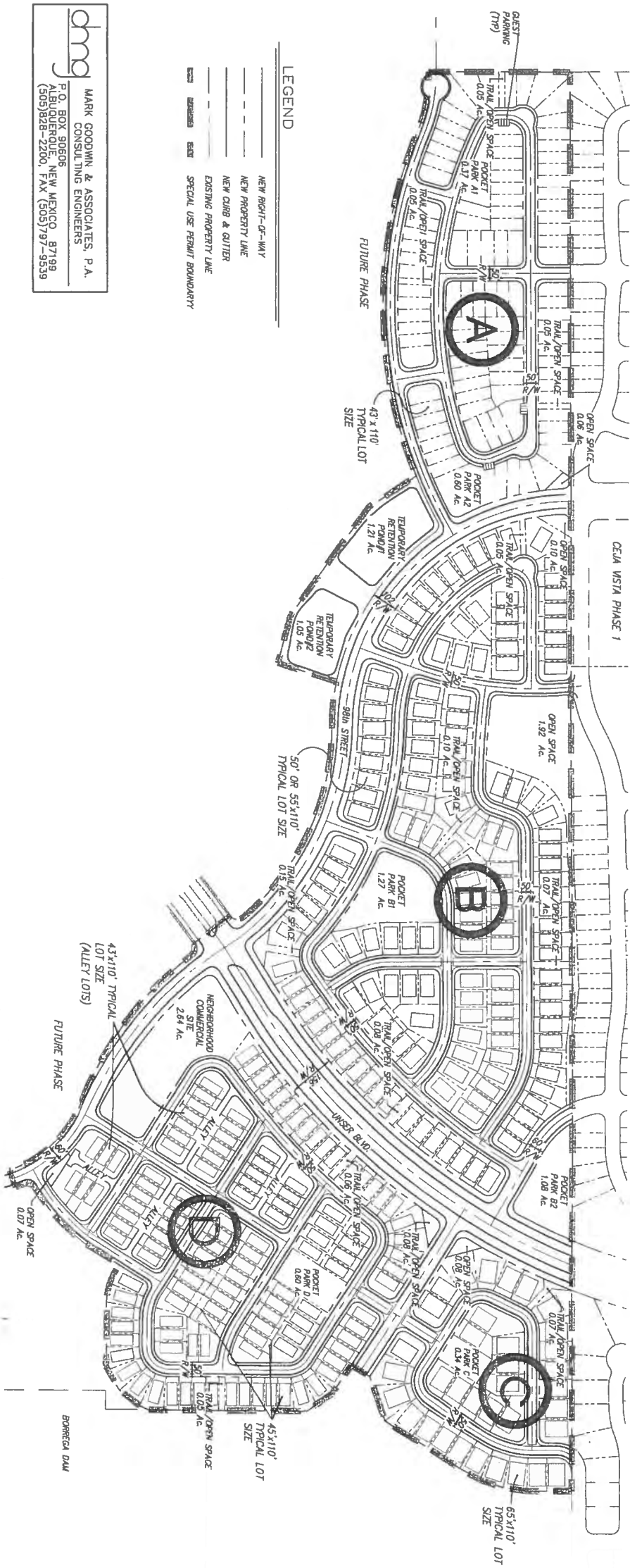


NEIGHBORHOODS



Ceja Vista Phase II Area Calculations									
	Neighborhood A	Neighborhood B	Neighborhood C	Neighborhood D					
Neighborhood Area	18.69 acres	43.44 acres	10.82 acres	28.03 acres					
Road Area	5.22 acres	13.52 acres	3.24 acres	8.82 acres					
Net Site Area	13.47 acres	29.92 acres	7.58 acres	19.21 acres					
Park Areas/OS	1.18 acres	4.82 acres	0.49 acres	0.85 acres					
Dwelling Units	101 DU	156 DU	36 DU	128 DU					
Net Density	7.5 DU/acre	5.2 DU/acre	4.8 DU/acre	7.5 DU/acre					
Gross Site Area=	88.87 acres				Total Park /	7.35ac.	Commercial		
Net Site Area=	68.07 acres				Open Space=		Area (Net)		
Total DU=	422						2.84ac.		
Net Density=	6.2 DU/acre								

NET OF COMMERCIAL AREA



Ceja Vista Phase 2

Site Development Plan

Prepared for:
Albuquerque Rio Bravo Partners
6330 Riverside Plaza Lane NW, Suite 220
Albuquerque, NM 87120

Prepared by:
Consensus Planning, Inc.
302 Eighth Street NW
Albuquerque, NM 87102

Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87189

Scale: 1" = 200'

100 0 200 400

October 22, 2007 SHEET 3 of 7

MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87189
(505) 825-2200, FAX (505) 797-9539

50'

1

2

3

LANDS OF CECILIA LANNING

MEADE AV

(*)B)ID

B1C1

B1C2

(*)B)IB

(*)B)IA

DAM

A.M.A.F.C.A.

BORRERO CHANNEL

DENNIS CHAVEZ BLVD.

See Sheet 5 for Park Details/A2

See Sheet 5 for Park Details/C5

See Sheet 5 for Park Details/D1

A

B

C

Symbol	Scientific Name	Common Name	Size	Mature Size	Water Use
Tree	Deciduous Canopy Tree				
	Gleditsia triacanthos		2 1/2' B&B	40' ht. x 40' spr.	Medium
	Honey Locust				
	Platanus chinensis		2 1/2' B&B	40' ht. x 40' spr.	Medium
	Chinese Platanus				
	Ulmus parvifolia		2 1/2' B&B	40' ht. x 30' spr.	Medium
	Lace Bark Elm				
	Medium Deciduous Tree				
	Cotinus coggygria		2 1/2' B&B	25' ht. x 25' spr.	Medium
	Smoke Tree				
	Koeleria paniculata		2 1/2' B&B	25' ht. x 25' spr.	Medium
	Goldenrain Tree				
	Ornamental Deciduous Tree				
	Chilopsis linearis 'Luc. Ham.'		24" Box, 7 ft. min. (Multi-Trunk)	15' ht. x 20' spr.	Low +
	Desert Willow		2" Cal.	30' ht. x 30' spr.	Medium
	Chililapa				
	Vitis agnus-castus		24" Box, 7 ft. min.	15' ht. x 20' spr.	Medium
	Chaste Tree (Vine)				

Scientific Name	Common Name	Size	Mature Size	Water Use
<i>Artemisia filifolia</i>	Sand Sage	1-Gal.	4' ht. x 4' spr.	Low
<i>Eriogonum fasciculatum</i>	'Aguirre'	1-Gal.	2' ht. x 2' spr.	Low
<i>Turpinia bicolor</i>	Bush	1-Gal.	4' ht. x 4' spr.	Low
<i>Faulstichia paradoxa</i>	Apetite Pine	1-Gal.	3' ht. x 3' spr.	Medium
<i>Hesperaloe parviflora</i>	Red Yucca	1-Gal.	2' ht. x 6' spr.	Low +
<i>Juniperus sabina</i>	Buffalo Juniper (female)	1-Gal.	4' ht. x 5' spr.	Medium
<i>Pterocarya atriplicifolia</i>	Russian Sage	1-Gal.	3' ht. x 3' spr.	Low +
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	1-Gal.	4' ht. x 4' spr.	Low +
<i>Rhus trilobata</i>	Three-leaf Sumac	1-Gal.	3' ht. x 3' spr.	Low +
<i>Salvia greggii</i>	Cherry Sage	1-Gal.	3' ht. x 3' spr.	Medium

All shrub planting areas shall be top dressed with a combination of Santa Fe Brown Crusher Fines, 7/8" Santa Fe Brown Rock Mulch, and 2" - 4" Santa Ana Tan Cobble.

A tuling submersible irrigation system will be used to irrigate turf areas and tree, shrub, and groundcover planting areas. Points of connection for the irrigation system shall be field verified. In all cases, adequate backflow prevention assemblies shall be provided.

Maintenance of the landscaping and irrigation system, including those areas within the public R.O.W., shall be the responsibility of the Ceja Vista Homeowner's Association.

1. Tree locations are schematic and may vary based on actual field conditions. Tree density and location shall comply with applicable Bernalillo County ordinances.

2. All landscape areas, including buffer strips adjacent to major streets, shall contain live vegetative material covering at least 75% of the area.
3. Provision of high water use turf shall be limited to the park areas. All landscaping shall be in compliance with the County's Water Conservation Ordinance.

Ceja Vista

Phase 2

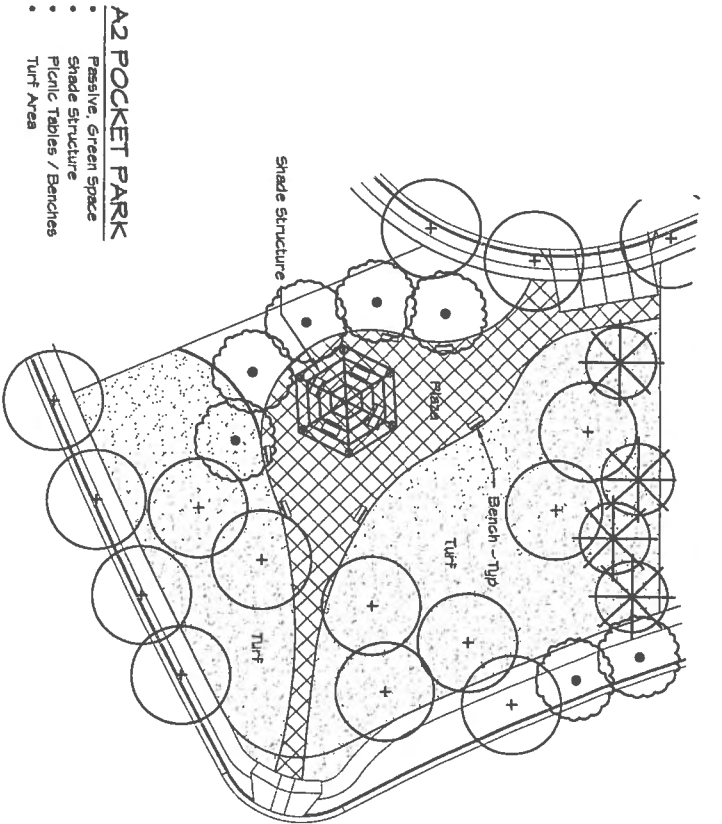
Prepared for:
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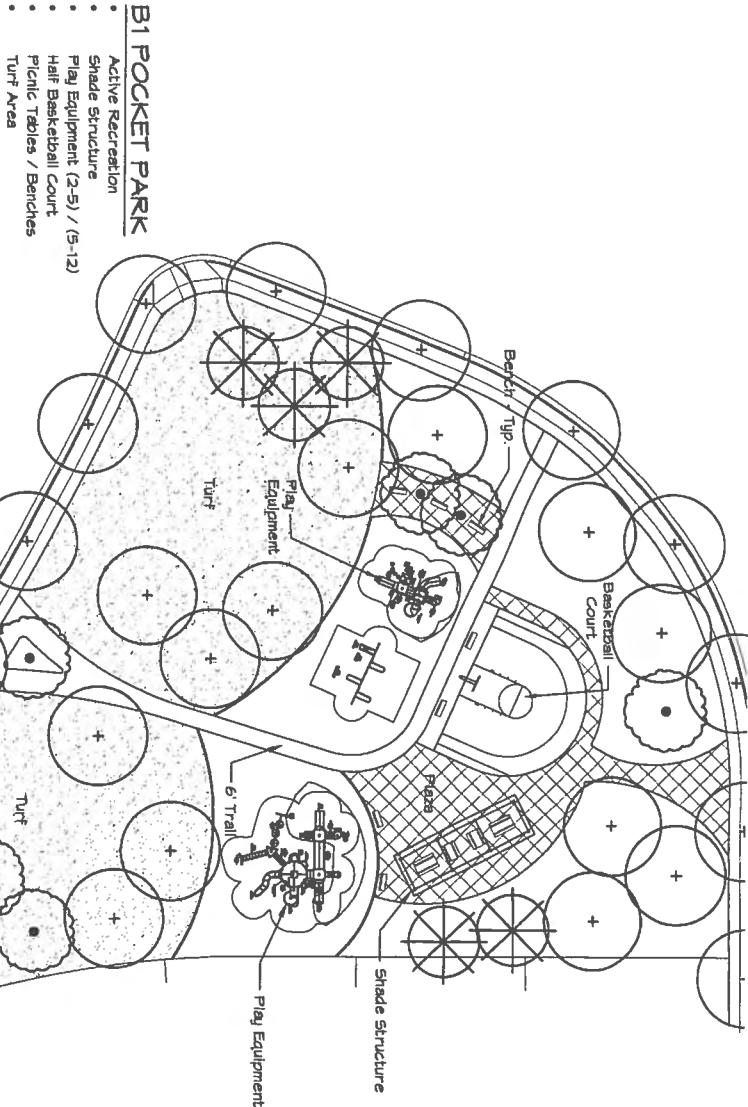
Mark Goodwin & Associates, PA
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Albuquerque, NM 87189

October 22, 2007

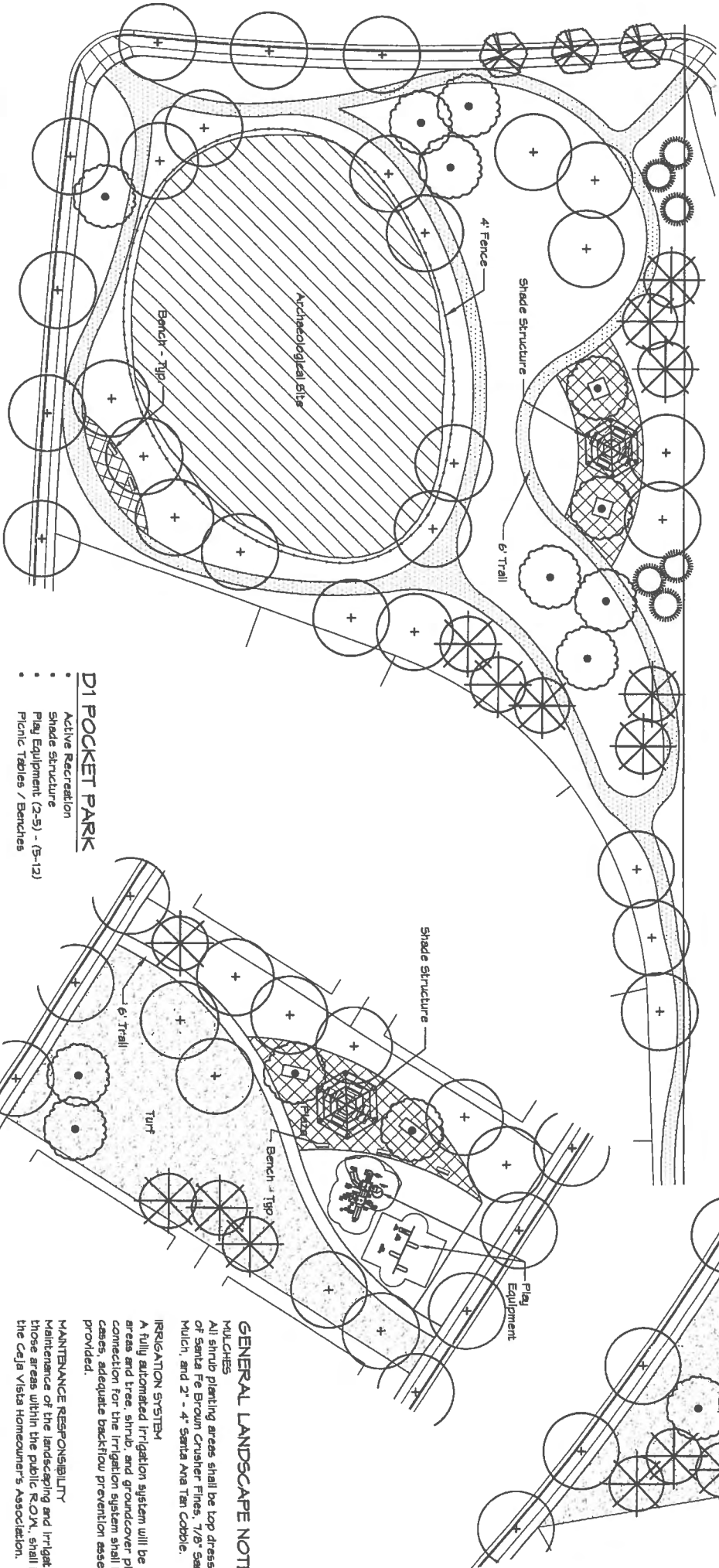
SHEET 4 of 7



- A2 POCKET PARK**
- Passive, Green Space
 - Shade Structure
 - Picnic Tables / Benches
 - Turf Area



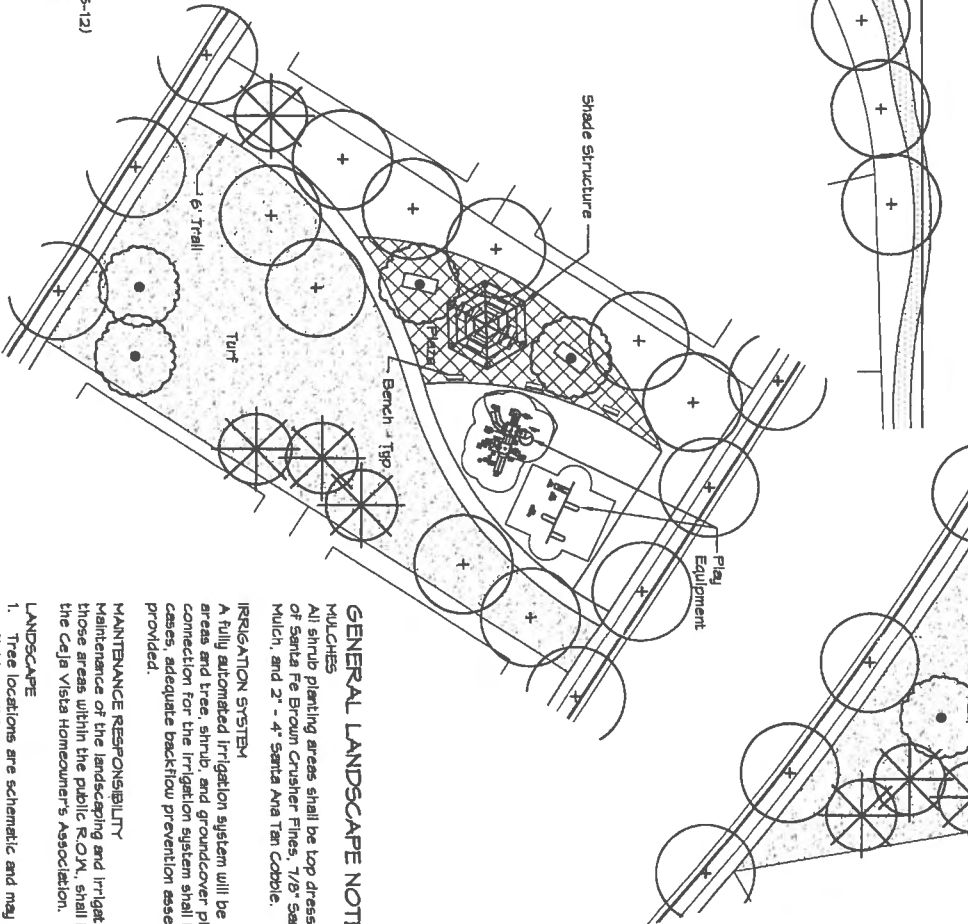
- B1 POCKET PARK**
- Active Recreation
 - Shade Structure
 - Play Equipment (2-5) / (5-12)
 - Half Basketball Court
 - Picnic Tables / Benches
 - Turf Area



- D1 POCKET PARK**
- Active Recreation
 - Shade Structure
 - Play Equipment (2-5) - (5-12)
 - Picnic Tables / Benches

OPEN SPACE - ARCHAEOLOGICAL SITE

- Passive, Green Space
- Shade Structure
- Picnic Tables / Benches
- Native Turf
- Trails



- D1 POCKET PARK**
- Active Recreation
 - Shade Structure
 - Play Equipment (2-5) - (5-12)
 - Picnic Tables / Benches

GENERAL LANDSCAPE NOTES:

MULCHES
All shrub planting areas shall be top dressed with a combination of Santa Fe Brown Crusher Fines, 7/8" Santa Fe Brown Rock Mulch, and 2" - 4" Santa Ana Tan Cobble.

IRRIGATION SYSTEM
A fully automated irrigation system will be used to irrigate turf areas and trees, shrub, and groundcover planting areas. Points of connection for the irrigation system shall be field verified. In all cases, adequate backflow prevention assemblies shall be provided.

MAINTENANCE RESPONSIBILITY
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LANDSCAPE

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	Honey Locust	2 1/2' B4B	40' ht. x 40' spr.	Medium
	Pistacia chinensis	2 1/2' B4B	40' ht. x 30' spr.	Medium
	Chinese Pistache	2 1/2' B4B	40' ht. x 30' spr.	Medium
	Ulmus parvifolia	2 1/2' B4B	40' ht. x 30' spr.	Medium
	Lace Bark Elm	2 1/2' B4B	40' ht. x 30' spr.	Medium
	Medium Deciduous Tree	2 1/2' B4B	25' ht. x 25' spr.	Medium
	Coccinus coccinifera	2 1/2' B4B	25' ht. x 25' spr.	Medium
	Smoketree	2 1/2' B4B	25' ht. x 25' spr.	Medium
	Koeleria paniculata	2 1/2' B4B	25' ht. x 25' spr.	Medium
	Goldenrain Tree	2 1/2' B4B	25' ht. x 25' spr.	Medium
	Ornamental Deciduous Tree	2 1/2' B4B	25' ht. x 25' spr.	Medium
	Chilopsis linearis 'Luc. Ham.'	24' Box, 7' ht.	15' ht. x 20' spr.	Low +
	Desert Willow	2' Cell.	30' ht. x 30' spr.	Medium
	Chilopsis baskinensis	24' Box, 7' ht.	15' ht. x 20' spr.	Medium
	Vitex agnus-castus	24' Box, 7' ht.	15' ht. x 20' spr.	Medium
	Chaste Tree (Vitex)	24' Box, 7' ht.	15' ht. x 20' spr.	Medium
	Large Evergreen Tree	24' Box, 7' ht.	15' ht. x 20' spr.	Medium
	Pinus nigra	7' ht. B4B	35' ht. x 25' spr.	Medium
	Austrian Pine	7' ht. B4B	35' ht. x 25' spr.	Medium
	Quercus emoryi	7' ht. B4B	20' ht. x 25' spr.	Medium
	Emory Oak	7' ht. B4B	20' ht. x 25' spr.	Medium
	Medium/Small Evergreen Tree	7' ht. B4B	20' ht. x 25' spr.	Medium
	Cercocarpus ledifolius	3 Gal.	12' ht. x 8' spr.	Low +
	Mountain Mahogany	3 Gal.	8' ht. x 8' spr.	Low +
	Juniperus chinensis Blue Point	3 Gal.	8' ht. x 8' spr.	Low +
	Blue Point Juniper	3 Gal.	8' ht. x 8' spr.	Low +
	Juniperus monosperma	7' ht. B4B	15' ht. x 15' spr.	Low +
	One Seed Juniper	7' ht. B4B	15' ht. x 15' spr.	Low +
	Quercus turbinella	3 Gal.	6' ht. x 10' spr.	Medium
	Turbinella Oak	3 Gal.	6' ht. x 10' spr.	Medium

- Crusher Fines Trail
- Turfgrass Seed - Park Blend

Keyed Map



Ceja Vista Phase 2

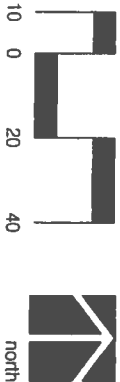
Pocket Park Details

Prepared for:
Albuquerque Rio Bravo Partners
6330 Riverside Plaza Lane NW, Suite 220
Albuquerque, NM 87120

Prepared by:
Consensus Planning, Inc.
302 Eighth Street NW
Albuquerque, NM 87102

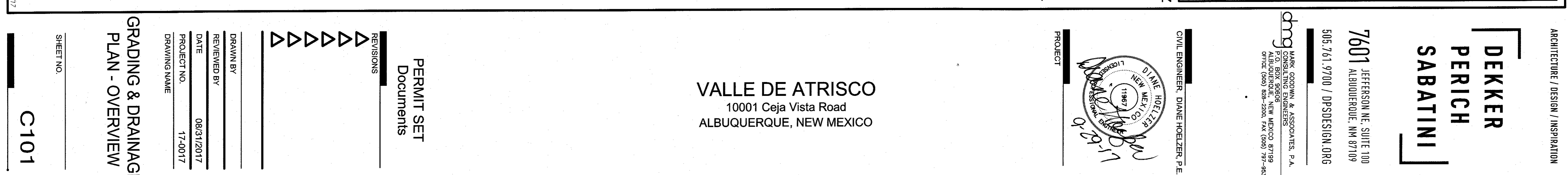
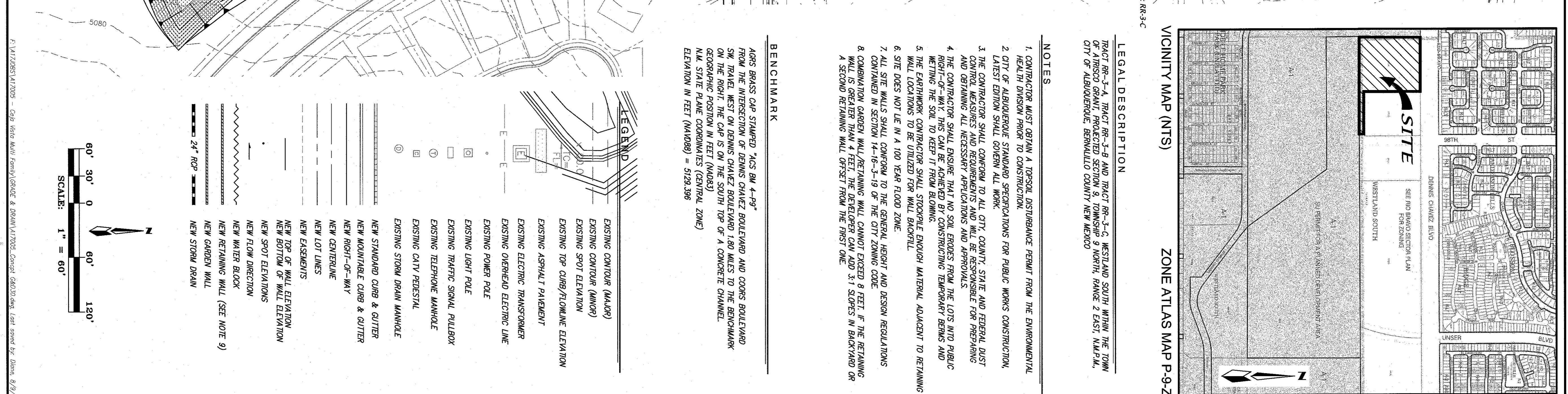
Mark Goodwin & Associates, PA
P.O. Box 90806
Albuquerque, NM 87189

Scale: 1" = 20'



October 22, 2007

SHEET 5 of 7

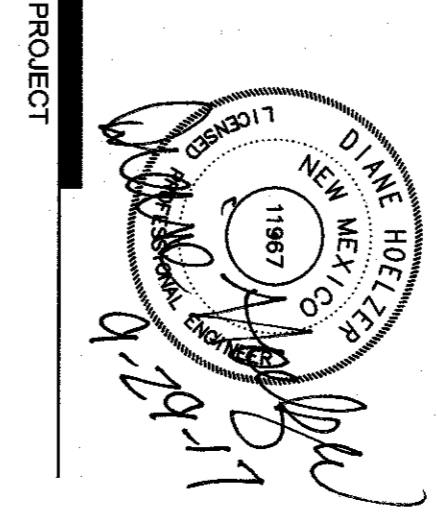


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CIVIL ENGINEER, DANIEL HOLTZNER, P.E.



PROJECT

VALLE DE ATRISCO
10001 Ceja Vista Road
ALBUQUERQUE, NEW MEXICO

PERMIT SET
Documents

REVISIONS
△△△△△

DRAWN BY
REVIEWED BY
DATE 08/31/2017
PROJECT NO. 17-0017
DRAWING NAME

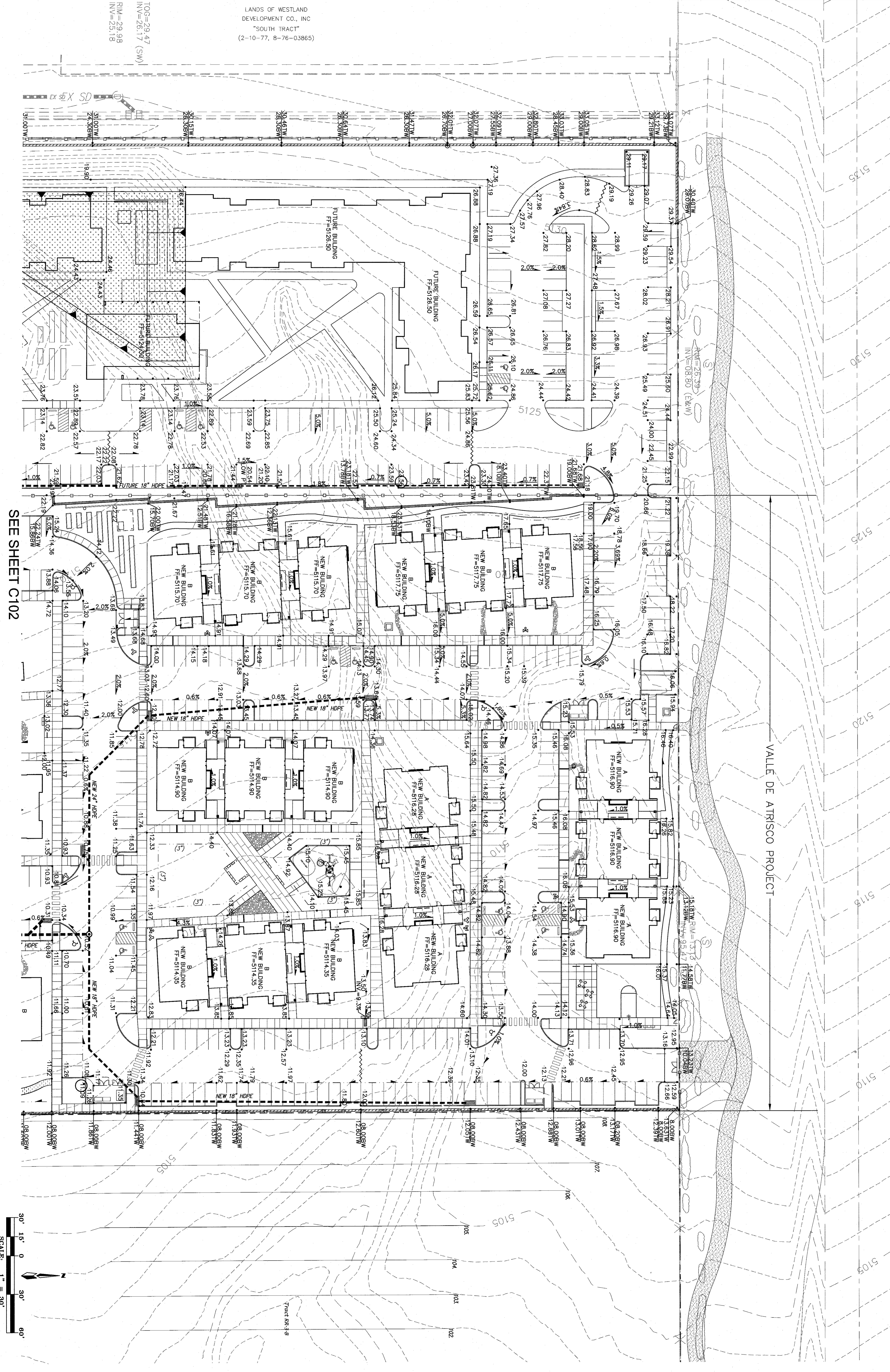
GRADING & DRAINAGE
PLAN - NORTH

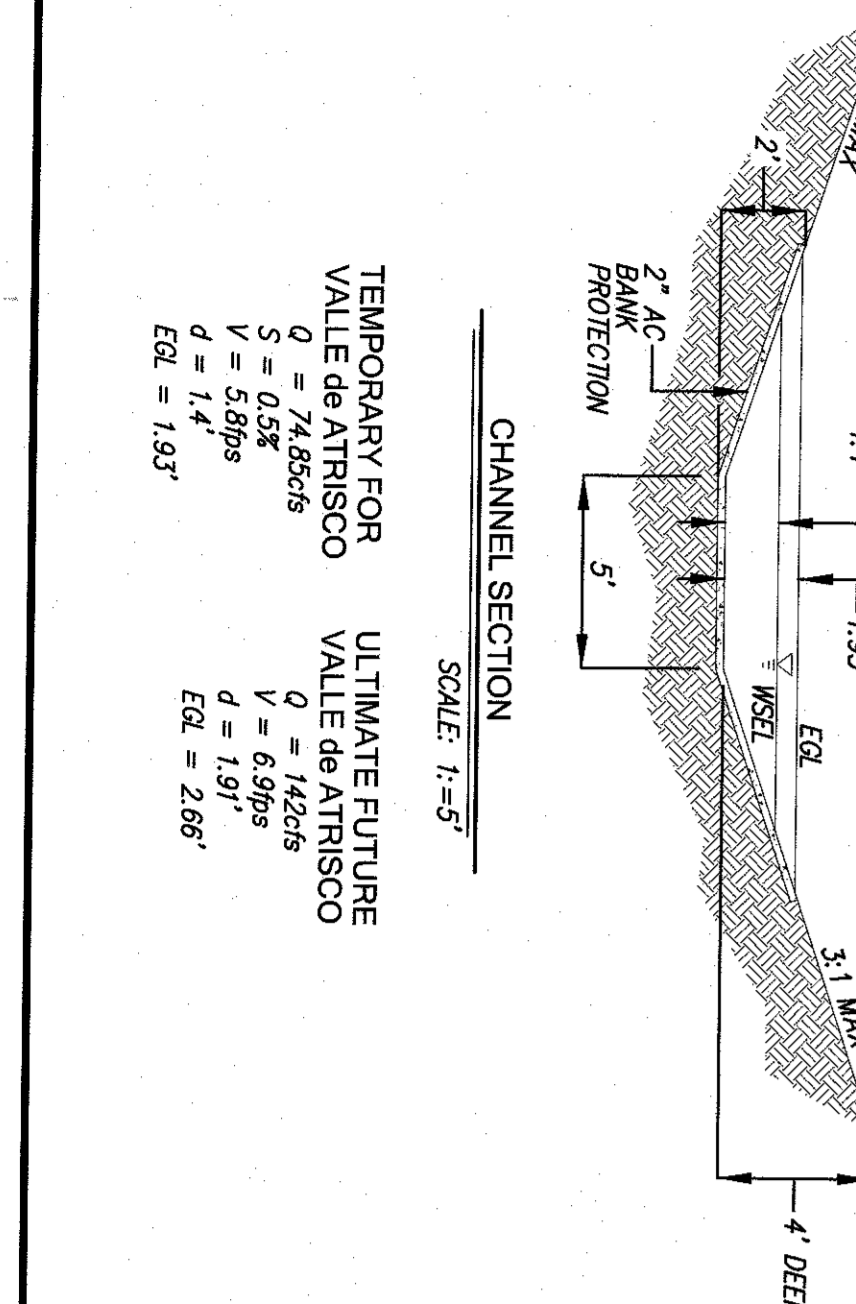
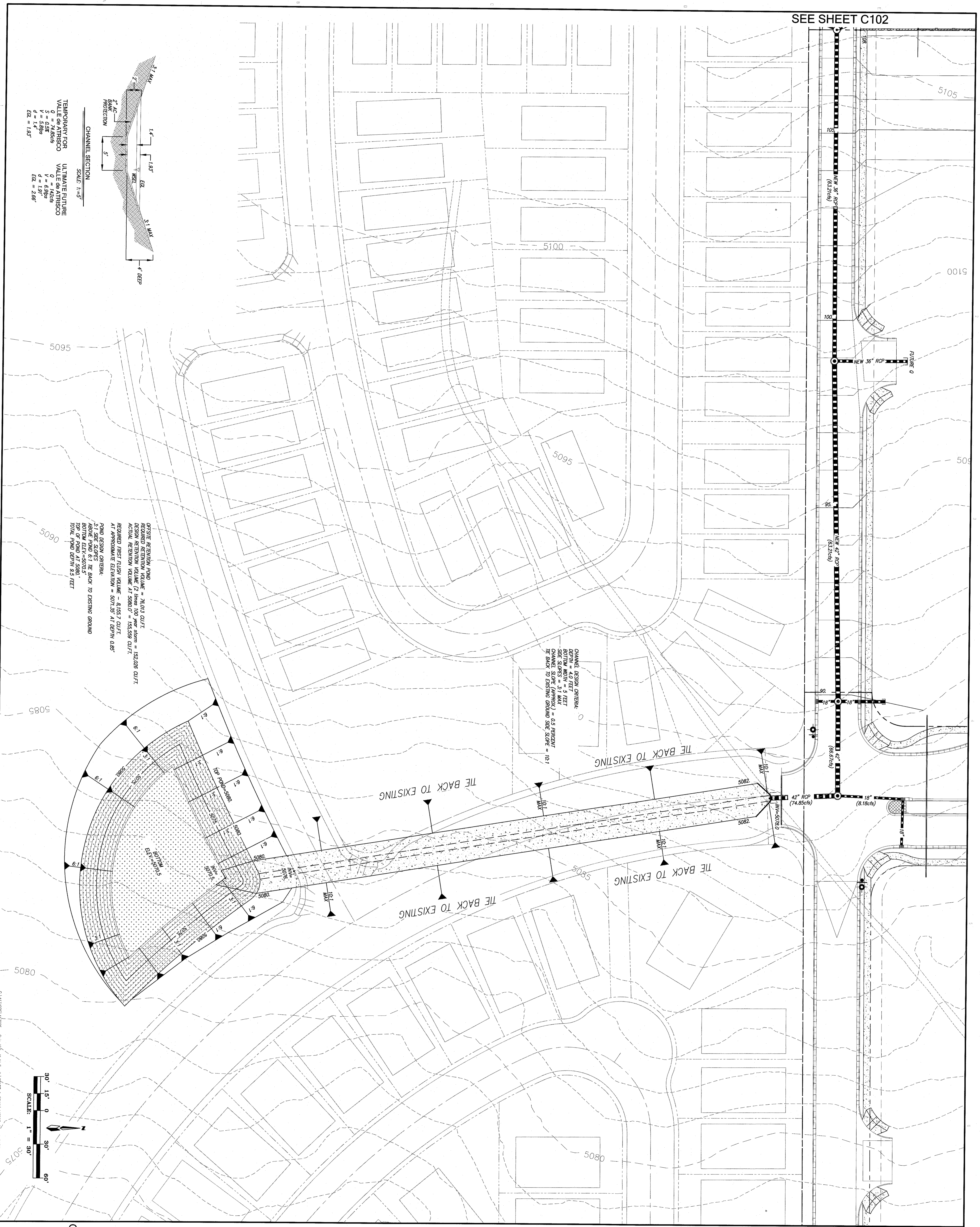
SHEET NO.

C103

DENNIS CHAVEZ BOULEVARD

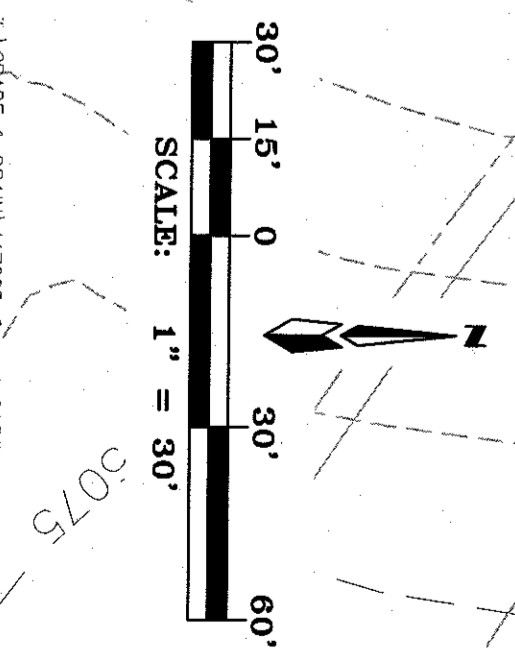
VALLE DE ATRISCO PROJECT





ON-SITE RETENTION POND
REQUIRED RETENTION VOLUME = 76,013 CU.FT.
ACTUAL RETENTION VOLUME (12 HOUR 10 year storm) = 152,026 CU.FT.
REQUIRED FIRST FLUSH VOLUME = 8,155.7 CU.FT.
ACTUAL RETENTION VOLUME AT 5080.0 = 153,569 CU.FT.
AT APPROXIMATE ELEVATION = 5071.35 AT DEPTH 0.85'
POND DESIGN CRITERIA:
3:1 SIDE SLOPES THE BACK TO EXISTING GROUND
BOTTOM ELEV = 5070.5
TOTAL POND DEPTH 9.5 FEET

CHANNEL DESIGN CRITERIA:
DEPTH = 4.0 FEET
BOTTOM WIDTH = 5 FEET
SIDE SLOPES = 3:1
CHANNEL SLOPE (APPROX) = 0.5 PERCENT
THE BACK TO EXISTING GROUND SIDE SLOPE = 10:1



ARCHITECTURE / DESIGN / INSPIRATION

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ALBUQUERQUE, NEW MEXICO

PERMIT SET
Documents
REVISIONS
DRAWN BY
REVIEWED BY
DATE
PROJECT NO.
DRAWING NAME

GRADING & DRAINAGE
PLAN
OFF-SITE POND
SHEET NO.
C104