# CITY OF ALBUQUERQUE

August 22, 2016

Richard J. Berry, Mayor

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

**RE: Glendesto Subdivision**
**Grading & Drainage Report/Plan**
**Stamp 8-12-2016 (File: B18D020)**

Dear Ms. Hoelzer:

Based upon the information provided in your submittal received 8-15-2016, the above referenced Grading & Drainage Plan and Report is approved for Preliminary Plat and Grading Permit with the following condition:

1. A valley gutter will be needed across Glendale Avenue for the outlet of surface flows from Lansdowne Ave. as a condition of Work Order approval.

The Grading and Drainage Plan is also approved for Site Plan.

Prior to Pad Certification and/or Release of Financial Guarantee approval, Engineer Certification per the DPM checklist will be required.

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

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

Orig: Drainage file

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

# City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

**Project Title:** Glendesto Subdivision Building Permit #: _____ City Drainage #: B18 / D020

DRB#: 1004472 EPC#: _____ Work Order#: _____

Legal Description: Lot 8-A, Block 25, Tract A, Unit B, N.A.A.

City Address: Glendale Avenue

**Engineering Firm:** MARK GOODWIN AND ASSOCIATES, PA Contact: Diane Hoelzer, PE

Address: PO BOX 90606, ABQ, NM 87199

Phone#: 828-2200 Fax#: _____ E-mail: diane@goodwinengineers.com

**Owner:** Scott Clark (Managing member) Contact: Scott Clrak

Address: _____

Phone#: 883-1414 Fax#: _____ E-mail: scottbrockclark@aol.com

**Architect:** NA Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

**Other Contact:** _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

**DEPARTMENT:**

X HYDROLOGY/ DRAINAGE
_____ TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

**TYPE OF SUBMITTAL:**

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN
X 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 X No

**CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY

X 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
X GRADING PERMIT APPROVAL
_____ SO-19 APPROVAL
_____ PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING
_____ OTHER (SPECIFY) _____

DATE SUBMITTED: August 15, 2016 By: Diane Hoelzer, PE

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COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

*Drainage Management Plan*
*for*
*Glendesto Subdivision*
*(29 lots)*

*Prepared by*
*Mark Goodwin & Associates, P.A.*

***August 2016***

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE,NM 87199
(505) 828-2200 FAX 797-9539

*~ 2012 ACEC/NM Award Winner for Engineering Excellence ~*
*~ 2008 ACEC/NM Award Winner for Engineering Excellence ~*

*August 11, 2016*

*Mr. Abiel Carrillo*
*Hydrology Principal Engineer*
*City of Albuquerque*
*PO Box 1293*
*Albuquerque, NM 87103*

***Re: Glendesto Subdivision – (DRB 1004472) B18-D020***
***Response to Email Comments dated July 19, 2016***

*Mr. Carrillo,*

*Thank you for meeting with me last week to discuss and resolve some of the drainage issues and concerns raised in your email comment letter. In response to your comments:*

1. *The drainage plan has been revised to include a roadside swale along the north side of Glendale Avenue and connecting to a new 36" storm drain in San Pedro through a double D inlet in the bottom of the channel.*

2. *The proposed road section in Glendale and Modesto adjacent to the project site has been changed and is now 24' wide with curb and gutter on the south and west side only. The pavement section adjacent to Lot 10, Block 25 has been eliminated. As discussed and proposed to the DRB Transportation Engineer,* "Eliminate the proposed pavement section adjacent to Lot 10, Block 25 between Glendale and Modesto Avenue. The residence from our proposed subdivision will not likely use this section of roadway. Residence leaving the subdivision to the east, will likely continue on Modesto Avenue to Louisiana Blvd. and residence exiting to the north to Glendale will continue west along Glendale to San Pedro south. Unless there is some other compelling reason to pave this section of roadway that is not part of covering our frontage, I would request this requirement be retracted."

3. Modesto Avenue will be a crowned section only.

4. This will be worked out at DRC.

5. A cut off wall will be added to the construction plans during DRC.

6. The current flows along the south side of Modesto Avenue will continue in the same historic flow pattern through the open corridor along the south property line of the proposed project site.

7. At this time, we are proposing to construct the 36" RCP storm drain in San Pedro and connect to the Glendale roadside swale.

*Please call me if you have any questions or further concerns. I will proceed in the direction as indicated above unless I hear from you otherwise.*

*Sincerely,*

*MARK GOODWIN & ASSOCIATES, PA*

Diane Hoelzer

*Diane Hoelzer, PE*
*Senior Engineer*

*DLH/dlh*
*Attachments*

## Diane Hoelzer

**From:** Carrillo, Abiel X. <acarrillo@cabq.gov>
**Sent:** Tuesday, July 19, 2016 11:32 AM
**To:** Diane Hoelzer
**Subject:** Glendesto Subdivision - B18D020 - Stamp Date 6-17-2016

Diane,

This email is being sent in lieu of a formal letter to help expedite initial submittals. A response to this email is not considered a formal re-submittal.

Based upon the information provided in your submittal received 6-17-2016, the above-referenced Grading and Drainage Plan and Report cannot be approved for Preliminary Plat or Grading Permit until the following comments are addressed/coordinated:

1. Conveying runoff flows along Glendale Ave appears to be acceptable as previously discussed. However there are issues with the conveyance into San Pedro:

    a. It does not seem feasible to continue the swale into San Pedro with a 90-degree turn; flow would be expected to travel at a high velocity at the end of Glendale.

    b. A swale does not seem to fit within the San Pedro Right of Way, without grading into the Sandia Pueblo property and relocating PNM poles. The extruded curb will not be an acceptable barrier, and it would be difficult to maintain.

2. The temporary road and the full roadway sections are proposed with a 1% cross-slope to the north and east, to convey flows to the north side of Glendale. The existing base course roadway is superelevated around the corners to offset the lack of a proper horizontal curve. The design of the road should maintain that superelevation towards the inside of the curve around the bends (and then it can be transitioned to direct drainage from the subdivision to the northside of Glendale Ave.)

3. Clarify the cross-slope/crown section of the Modesto section.

4. Show how the east end of the Glendale pavement transitions to the existing crown section.

5. Provide cut-off walls at the west end of the Glendale Section.

6. Clarify how flows are conveyed from Modesto into the vacated Modesto corridor, or if they are intended to turn north in a swale.

    a. We recommend that a variance is sought for the construction of the full standard curb roadway section to help address comments No. 3. An Estate curb section could accommodate a continuous swale.

After discussing the project with the City Engineer, Transportation Development and AMAFCA, the following options could be considered to resolve many of the comments above:

- Build a retention pond (as shown in the original layout by Isaacson and Arfman) to contain the 6-hour storm (difference between historic and proposed) for the subdivision with an outfall onto Glendale. Then the swale along Glendale and San Pedro can just be redefined with a smaller, more typical soft roadside swale.

- Build the 36" storm drain under San Pedro that is required per the Master Plan.

- Detain flows in the subdivision and release at a controlled rate onto Glendale Ave.

- This one seems harder, but If the elevation of the La Cueva channel allows, figure out a way to develop a penetration into the Channel where the existing rundown exists. At that point, the road easement and the AMAFCA easement appear to touch making it potentially feasible (from an easement aspect).

If you'd like to meet and discuss just let me know.


## Abiel Carrillo, PE, CFM

**Principal Engineer - Hydrology**
**Planning Department**
Development Review Services Division
City of Albuquerque
505-924-3986
acarrillo@cabq.gov
600 2nd Street NW
Albuquerque, NM 87102

# GLENDESTO SUBDIVISION

## Table of Contents

## *I. PROJECT DESCRIPTION*

*The Glendesto subdivision project site covers an area of approximately 7.46 acres. This project encompasses grading and infrastructure construction that will support the development of 29 single family residential lots.*

*The project site is bounded to the south by the Eagle Rock Business Park and a parking lot with a 30 foot wide vacant strip separating the two properties; to the west by the Sandia Memorial Gardens; to the north is Glendale Avenue; to the east is Modesto Avenue and a vacant acre parcel owned by the Sandia Indian Pueblo.*

*The proposed subdivision will connect to Glendale to the north and to Modesto Avenue to the east.*

## *II. DESIGN CRITERIA AND PREVIOUS DEVELOPMENT*

*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 24-hour storm event was analyzed to determine street capacities and sizing of the storm drain system using P(1 hr)=2.10", P(6 hr)=2.50" and the P(24 hr)=2.85". The onsite Land Treatment values used were based on Table A-5, in the DPM. (Refer to Exhibit 1Vicinity Map and Exhibit 2 Existing Drainage Conditions- google earth).*

*The site lies in Zone X as shown on Firm Panel 129, map number 3500120129H, revised August 16, 2012.*

*This project site lies within the* ***North Albuquerque Acres Master Drainage Plan Report*** *(RTI, Inc., October 1998). Excerpts from this report can be found in Appendix C. Under existing drainage conditions, this property is split between the south third (sub basin 116.0) flowing to the west and the northern two-thirds (sub basin 115.0) flowing to the north and west as shown in Figure 3A. In Figure 4A Future Conditions, the south three acres are to flow to the west and the north two acres are to flow down Glendale. Since there isn't a conveyance system in place to intercept any of the runoff from our site, it was decided to take the entire runoff from our project site to Glendale.*

*According to Figure 5A, there is a planned future storm drain in San Pedro extending from Glendale to the La Cueva arroyo channel. At this time, there is only a 6' manhole in San Pedro immediately south of the La Cueva channel that connects to an inlet on the east side of San Pedro which intercepts existing flows from the remnant natural La Cueva arroyo.*

## *III. EXISTING DRAINAGE CONDITIONS*

*Under existing drainage conditions, runoff from the project site is in a general westerly direction. Refer to "Existing Drainage Conditions" Exhibit. Runoff from the north third flows to Glendale through two incised arroyos. The middle third appears to sheet flow directly to the west to the Sandia Memorial Gardens Cemetery. Runoff from the south third flows through the Cemetery through an incised arroyo where it continues across San Pedro and westward.*

*Runoff from a portion of Modesto Avenue continues in a westerly direction down the same southerly arroyo through the Cemetery.*

.

## *IV. DEVELOPED DRAINAGE CONDITIONS*

*Under developed drainage conditions, runoff from the project site will discharge into Glendale Avenue and be intercepted by a hardlined swale running along the north side of Glendale. Runoff in the swale will be intercepted by a proposed Double D inlet that will connect to a new 36" RCP storm drain at the San Pedro intersection. A new 36" storm drain in San Pedro will continue north and tie into the existing storm manhole in San Pedro. Refer to the "Proposed Drainage Conditions" Exhibit. The swale is designed to convey flows from Glendale and the project site.*

1) *A portion of the runoff from "N-S" Modesto Avenue will flow through the existing apron rundown on the La Cueva channel right where Modesto turns west again and becomes Glendale Avenue.*
2) *The south portion of the flows from "W-E" Modesto Avenue will continue westward in the existing historical flow path through the 30 foot wide easement area.*
3) *Flows from the vacant Lot 10, immediately east of our project site will continue in the same general flow path to Glendale Avenue.*
4) *The 30' wide vacant area immediately south of this project site will be regraded to continue runoff in the same historic flow path as before.*

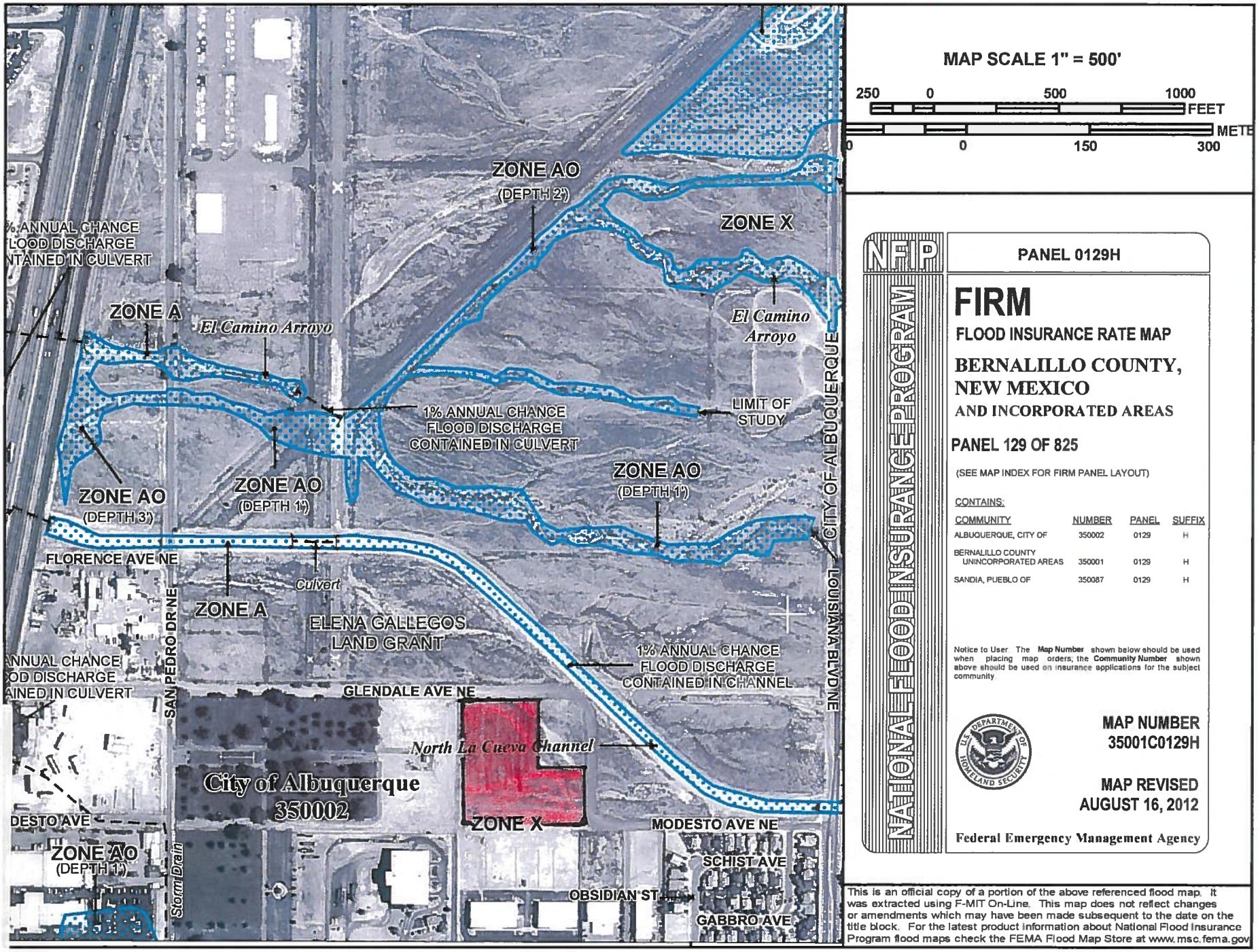
## *V. FIRST FLUSH*

*First flush for the project site will be handled on each individual residential lot. The area between the back of curb and sidewalk will be depressed 6 inches and the front yards will also be depressed by 6" as shown in the standard detail on the grading and drainage plan. First flush calculations can be found in Appendix A Hydrology.*


FIGURE 1 Vicinity Map

ZONE ATLAS B-18


*FIGURE 2 Existing Drainage Conditions*

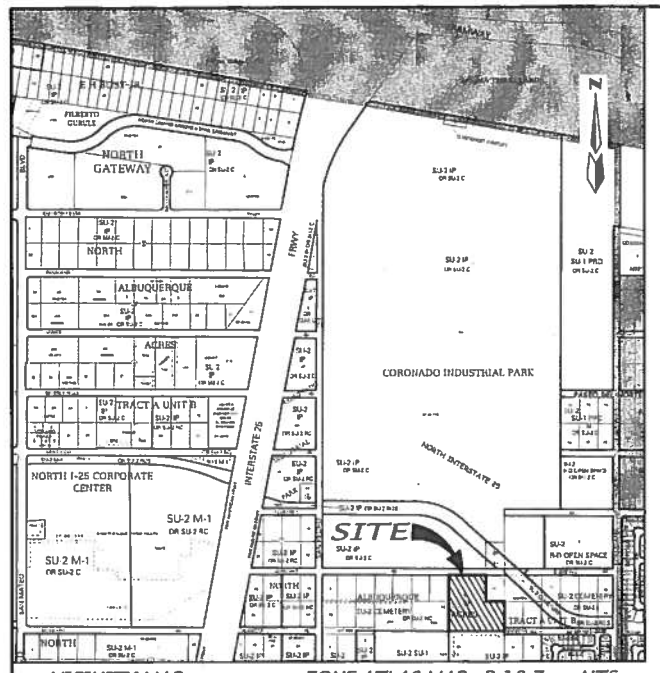



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program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

FIGURE 3 FEMA Map

# PRELIMINARY PLAT
## FOR
# GLENDESTO SUBDIVISION

WITHIN THE
ELENA GALLEGOS GRANT
PROJECTED SECTION 12
TOWNSHIP 11 NORTH, RANGE 3 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
JUNE, 2016




VICINITY MAP ZONE ATLAS MAP: B-18-Z NTS

## PURPOSE OF PLAT

1. SUBDIVIDE LOT 8-A, BLOCK 25, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES. INTO 29 RESIDENTIAL LOTS.
2. DEDICATE PUBLIC RIGHT-OF-WAY AS SHOWN.
3. GRANT NEW EASEMENTS AS SHOWN.

## NOTES

1. BEARINGS ARE GRID BASED ON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE).
2. ALL DISTANCES ARE GROUND DISTANCES.
3. BEARINGS AND DISTANCES IN PARENTHESIS ARE RECORD.
4. BASIS OF BOUNDARY ARE THE FOLLOWING PLATS OF RECORD ENTITLED:

   "NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B", (09-08-2015, 2015C-104)
   "NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B", (04-23-2012, 2012C-045)
   "NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B", (05-07-2002, 2002C-157)
   "NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B", (02-12-1993, 93C-038)
   "NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B", (04-24-1936, D-130)

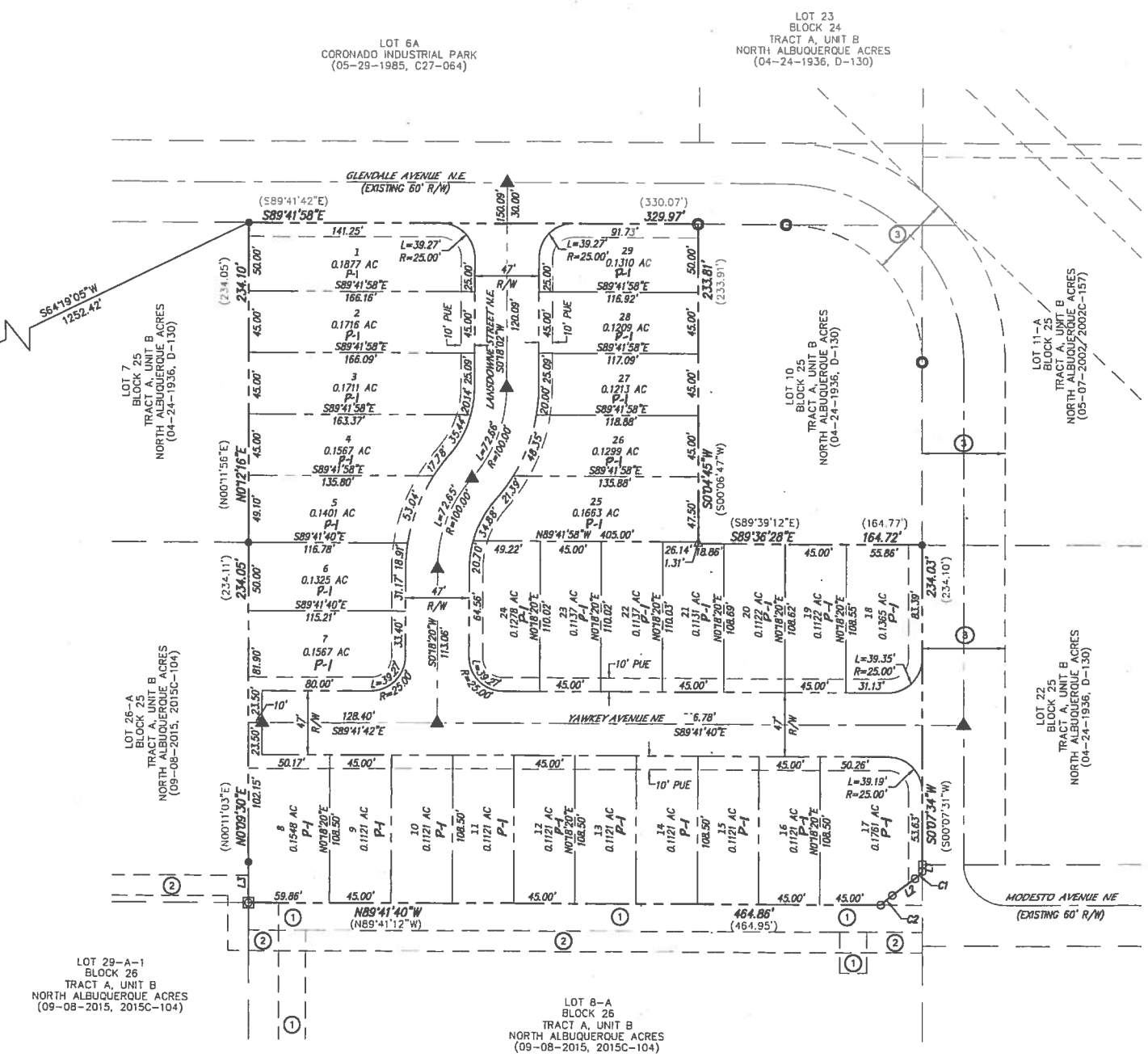
5. FIELD SURVEY PERFORMED IN MAY, 2016.
6. CITY OF ALBUQUERQUE, NEW MEXICO ZONE: SU-2.
7. 100 YEAR FLOOD ZONE DESIGNATION: ZONE X, AS SHOWN ON PANEL 129 OF 825, FLOOD INSURANCE RATE MAP, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, DATED AUGUST 16, 2012. THIS PROPERTY DOES NOT LIE IN THE 100 YEAR FLOOD ZONE.
8. TITLE REPORT: NONE PROVIDED.
9. ALL STREET CENTERLINE MONUMENTATION SHALL BE INSTALLED AT ALL CENTERLINE PC'S, PT'S, ANGLE POINTS, AND STREET INTERSECTIONS AND SHOWN THUS , ▲ WILL BE MARKED BY A FOUR INCH (4") ALUMINUM CAP STAMPED:

   "CITY OF ALBUQUERQUE CENTERLINE MONUMENTATION"
   "DO NOT DISTURB"
   N.M.P.S.#7719

10. MANHOLES WILL BE OFFSET AT ALL POINTS OF CURVATURE, POINTS OF TANGENCY, STREET INTERSECTIONS, AND ALL OTHER ANGLE POINTS TO ALLOW USE OF CENTERLINE MONUMENTATION.

| Curve Table | | | | | |
|---|---|---|---|---|---|
| Curve # | Length | Radius | Delta | Chord Direction | Chord Length |
| C1 | 7.50 | 25.00 | 17.18 | S45° 04' 41"W | 7.47 |
| C2 | 11.03 | 96.00 | 6.58 | S50° 22' 32"W | 11.02 |

| Parcel Line Table | | |
|---|---|---|
| Line # | Length | Direction |
| L1 | 5.12' | S0°05'03"W |
| L2 | 20.86' | S53°40'01"W |
| L3 | 29.85' | N0°12'49"E |




## LEGAL DESCRIPTION

A TRACT OF LAND SITUATE WITHIN THE ELENA GALLEGO GRANT, PROJECTED SECTION 12, TOWNSHIP 11 NORTH, RANGE 3 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING ALL OF LOT 8-A, BLOCK 25, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES, 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 SEPTEMBER 8, 2015, IN PLAT BOOK 2015C, PAGE 104, AND CONTAINING 4.7676 ACRES MORE OR LESS.

## SUBDIVISION DATA

| | |
|---|---|
| GROSS ACREAGE | 4.7676 AC |
| ZONE ATLAS NO. | B-18-Z |
| NO. OF EXISTING LOTS | 1 LOTS |
| NO. OF TRACTS CREATED | 0 TRACTS |
| NO. OF LOTS CREATED | 29 LOTS |
| AREA OF PUBLIC RIGHT-OF-WAY DEDICATED | 0.9250 AC |
| AREA OF RESIDENTIAL | 3.8426 AC |
| ZONING | SU-2 |
| DATE OF SURVEY | MAY, 2016 |

## PROPERTY CORNERS

- ● FOUND 5/8" REBAR WITH 2" ALUMINUM CAP "LS 12651" (TYP.)
- ◎ FOUND 1/2" REBAR WITH CAP "LS 8686" (TYP.)
- □ FOUND 5/8" REBAR
- △ FOUND 5/8" REBAR WITH 3" ALUMINUM CAP "LS 11883" (TYP.)
- ▣ FOUND 5/8" REBAR WITH CAP "LS 11808" (TYP.)
- ○ SET 1/2" REBAR WITH CAP "LS 7719" (TYP.)

## EASEMENTS

1. EXISTING 20' ABCWUA PUBLIC WATERLINE EASEMENT (09-08-2015, 2015C-104)
2. EXISTING 15' NMGC GAS LINE EASEMENT (09-08-2015, 2015C-104)
3. EXISTING 60' COA PERMANENT EASEMENT FOR GLENDALE EXTENSION ROADWAY IMPROVEMENTS (12-21-2001, 2001152060)

## OWNERS

CCG PARTNERSHIP,
A NEW MEXICO GENERAL PARTNERSHIP
ATTN: SCOTT B. CLARK
P.O. BOX 14641 ADDRESS
ALBUQUERQUE, N.M. 87191
(505) 883-1414

## ENGINEERS

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200

## SURVEYOR

ALDRICH LAND SURVEYING.
P.O. BOX 30701
ALBUQUERQUE, N.M. 87190
(505) 884-1990

## SITE BENCHMARK

A.G.R.S. MONUMENT
"10-C18"
ELEVATION=5222.09
(NAVD 1988)

N

50' 25' 0 50' 100'

SCALE: 1" = 50'

Scott B. Clark — 6-15-2016
SCOTT B. CLARK, MANAGING PARTNER (40% OWNER) — DATE
CCG PARTNERSHIP, A NEW MEXICO PARTNERSHIP

Scott B. Clark — 6.15.2016
SCOTT B. CLARK (40% OWNER) — DATE

Pamela M. Clark — 6-15-2016
PAMELA M. CLARK, HIS WIFE (40% OWNER) — DATE

Carlton P. Davenport — 6/15/16
CARLTON P. DAVENPORT (20% OWNER) — DATE

Nancy B. Whiteman-Davenport — 6.15.2016
NANCY B. WHITEMAN-DAVENPORT, HIS WIFE (20% OWNER) — DATE

Loren N. Risenhoover P.S. — 6/16/16
CITY SURVEYOR, CITY OF ALBUQUERQUE, N.M. — DATE

DRB PROJECT No. 1004472

SHEET 1 OF 1

F:\A16JOBS\A16006 Glendesto Subdivision\PLATS\PRELIMINARY PLATS\A16006_PPLAT.dwg, 6/15/2016 10:54:18 AM, SPS

F:\A16JOBS\A16006 Glendesto Subdivision\PLATS\PRELIMINARY PLATS\A16006_PPLAT.dwg, Last saved by Dwayne, 6/10/16

Current DRC
Project Number:_____

**FIGURE 12**

**INFRASTRUCTURE LIST**

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

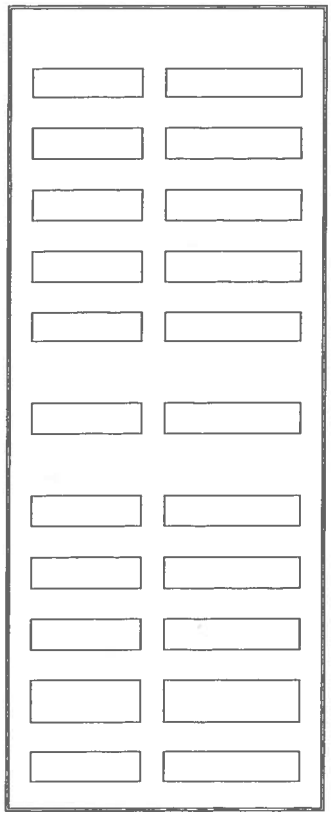
Date Submitted: August 17, 2016
Date Site Plan Approved:_____
Date Preliminary Plat Approved:_____
Date Preliminary Plat Expires:_____
DRB Project No.: 1004472
DRB Application No.: 16DRB 70227

## Glendesto Subdivision
PROPOSED NAME OF PLAT AND/OR SITE DEVELOPMENT PLAN

## Lot 8-A, Block 25, Tract A, Tract B, N.A.A.
EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION

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

| SIA Sequence # | COA DRC Project # | Size | Type of Improvement | Location | From | To | Private Inspector | City Inspector | City Cnst Engineer |
|---|---|---|---|---|---|---|---|---|---|
| | | | **PAVING** | | | | | | |
| | | 26' FF | Res Pvmt | | | | / | / | / |
| | | | G&G (both sides) | Lansdowne St. | Glendale Ave. | Yawkey Ave. | | | |
| | | 4' | Sidewalk (westside) Deferred | Lansdowne St. | Glendale Ave. | Yawkey Ave. | / | / | / |
| | | 4' | Sidewalk (eastside) Deferred | Lansdowne St. | Glendale Ave. | Lot 24 | / | / | / |
| | | 4' | Sidewalk (eastside) | Lansdowne St. | Lot 24 | Yawkey Ave. | / | / | / |
| | | 26' FF | Res Pvmt | Yawkey Ave. | Lot 8 | Modesto Ave. | / | / | / |
| | | | C&G (both sides) | | | | | | |
| | | 4' | Sidewalk (southside) Deferred | Yawkey Ave. | Lot 8 | Modesto Ave. | / | / | / |
| | | 4' | Sidewalk (northside) Deferred | Yawkey Ave. | Lansdowne St. | Modesto Ave. | / | / | / |
| | | 4' | Sidewalk (northside) | Yawkey Ave. | Lansdowne St. | Lot 7 | / | / | / |
| | | | **OFF-SITE PAVING** | | | | | | |
| | | 24' F-E | Perm Pvmt | Glendale Ave. | W. Lot 1 Property Line | E. Lot 29 Property Line | / | / | / |
| | | | C&G (southside) | | | | | | |
| | | 6' | Sidewalk (southside) | Glendale Ave. | W. Lot 1 Property Line | E. Lot 29 Property Line | / | / | / |
| | | 24' F-E | Perm Pvmt | Modesto Ave. | N. Lot 18 | S. Lot 17 | / | / | / |
| | | | C&G (westside) | | | | | | |
| | | 6' | Sidewalk (westside) | Modesto Ave. | N. Lot 18 | S. Lot 17 | / | / | / |
| | | 24' F-E | Temp Pvmt | Modesto Ave. | S. Lot 17 | 24' Existing Pvmt | / | / | / |



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **WATER** | | | | | | | |
| 8" | Waterline | Glendale Ave. | Exist 12" WL San Pedro | E. Lot 29 Prop Line | / | / | / |
| 8" | Waterline | Lansdowne St. | Glendale Ave. | Yawkey Ave. | / | / | / |
| 8" | Waterline | Yawkey Ave. | Lansdowne St. | Modesto Ave. | / | / | / |
| 4" | Waterline | Yawkey Ave. | Lot 8 | Lansdowne St. | / | / | / |
| 8" | Waterline | Modesto Ave. | Yawkey Ave. | Exist 8" WL Modesto Ave. (SW Lot 17) | / | / | / |
| **SANITARY SEWER** | | | | | | | |
| 8" | SAS | Lansdowne St. | Glendale Av. Exist 18" SAS | Yawkey Ave. | / | / | / |
| 8" | SAS | Yawkey Ave. | Lot 8 | Lot 17/18 | / | / | / |
| 8" | SAS | Modesto Ave. | North PL Lot 18 | South PL Lot 17 | / | / | / |
| **DRAINAGE** | | | | | | | |
| Per Design | Roadside Swale | Glendale Ave. | San Pedro Ave. | East PL Lot 29 | / | / | / |
| 36" RCP | Storm Drain | San Pedro Ave. | Glendale Ave. | Existing SD Stub near La Cueva Channel | / | / | / |
| Dble D inlet | Storm Drain | Glendale Ave. | At San Pedro Ave. | | / | / | / |

this listing. The Items listed below are subject to the standard SIA requirements.

| Financially Guaranteed DRC # | Constructed Under DRC # | Size | Type of Improvement | Location | From | To |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

Construction Certification

| Private Inspector P.E. | | City Cnst Engineer |
|---|---|---|
| / | / | / |
| / | / | / |

Approval of Creditable Items:

Impact Fee Admistrator Signature Date

Approval of Creditable Items:

City User Dept. Signature Date

1 Sidewalks to be Deferred per Exhibit
2 Street Lights Per DPM
3 Water Infrastructure includes Valves, Fittings, Valve Boxes, Fire Hydrants, and Appurtenances.
4 Sanitary Sewer includes manholes and service connection to property line
5 Grading & Drainage certification per DPM for releast of SIA & Financial Guaranty's. Financial Guaranty's are not required for grading.

**AGENT / OWNER**

Diane Hoelzer, P.E.
NAME (print)

MARK GOODWIN & ASSOCIATES
FIRM

SIGNATURE - date

MAXIMUM TIME ALLOWED TO CONSTRUCT THE IMPROVEMENTS WITHOUT A DRB EXTENSION: N/A

**DEVELOPMENT REVIEW BOARD MEMBER APPROVALS**

DRB CHAIR - date

PARKS & GENERAL SERVICES - date

TRANSPORTATION DEVELOPMENT - date

AMAFCA - date

UTILITY DEVELOPMENT - date

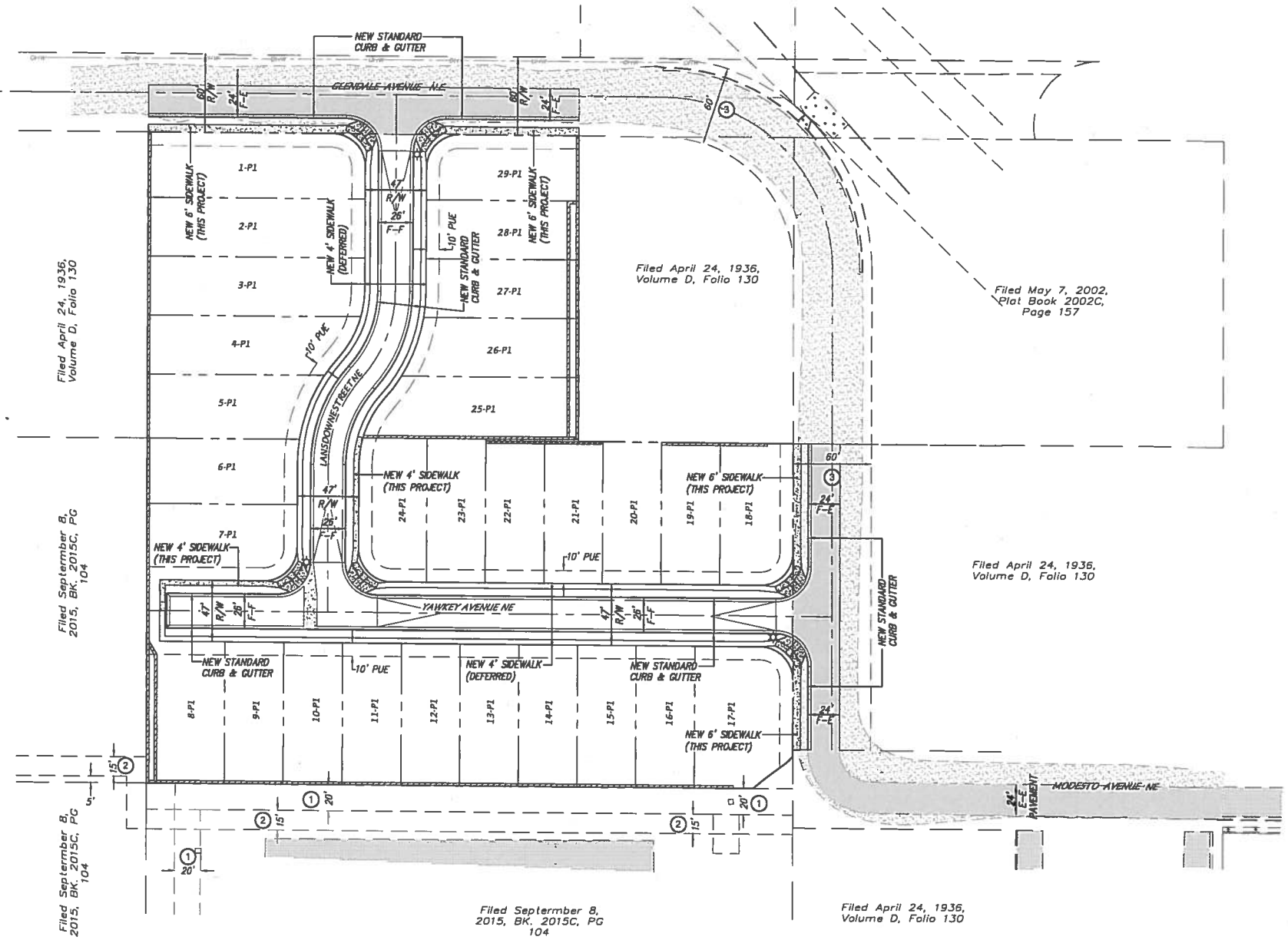
_____ - date

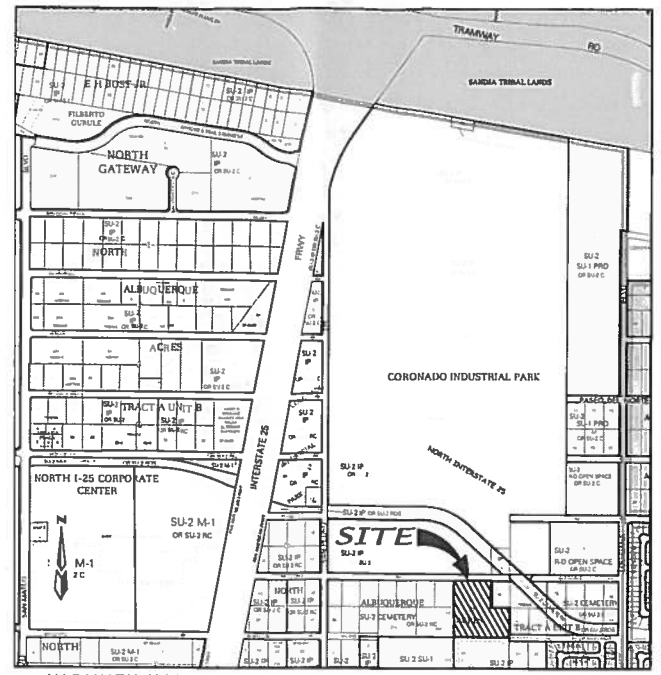
CITY ENGINEER - date

_____ - date

**DESIGN REVIEW COMMITTEE REVISIONS**

| REVISION | DATE | DRC CHAIR | USER DEPARTMENT | AGENT /OWNER |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |




VICINITY MAP ZONE MAP: B-18-Z

LEGEND

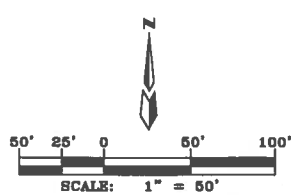
- NEW BOUNDARY LINE
- NEW RIGHT OF WAY LINE
- NEW LOT LINE
- EXISTING ADJOINER LINE
- NEW CENTER LINE
- NEW EASEMENT LINE
- NEW SIDEWALK (THIS PROJECT)– ALL OTHERS DEFERRED
- NEW SIDEWALK (DEFERRED)
- NEW MOUNTABLE ROLL CURB & GUTTER
- NEW STANDARD CURB & GUTTER
- NEW DEPRESSED STANDARD CURB & GUTTER
- CROWN TO NO CROWN TRANSITION
- NEW WHEELCHAIR RAMP WITH TRUNCATED DOME
- NEW STREET LIGHT
- 2 NEW LOT ID
- NEW TEMPORARY PAVEMENT
- NEW 4" A.C. PAVEMENT (2– 2" LIFTS)
- NEW CONCRETE
- EXISTING GRAVEL ROAD

## CONSTRUCTION NOTES

1. ALL SIDEWALKS PER CITY OF ALBUQUERQUE STANDARD DWG #2430.
2. ALL 6' VALLEY GUTTERS PER CITY OF ALBUQUERQUE STANDARD DWG #2420.
3. ALL HANDICAP RAMPS ARE PER CITY OF ALBUQUERQUE STANDARD DWG #2441, CASE II, UNLESS OTHERWISE NOTED, WITH ADA COMPLIANT DETECTABLE WARNING SURFACES TO BE CAST IN PLACE AND REPLACEABLE. SUBMIT SPECIFICATIONS TO ENGINEER PRIOR TO CONSTRUCTION.
4. TRANSITION SECTION FROM FULL CROWN TO NO CROWN TO BE A MINIMUM OF 50 FEET PER CITY OF ALBUQUERQUE STANDARD DWG #2401.
5. TRANSITION FROM MOUNTABLE ROLL CURB AND GUTTER TO STANDARD CURB AND GUTTER SHALL BE 10 FEET WHEN NOT TRANSITIONING AT INTERSECTIONS. TRANSITION FROM MOUNTABLE ROLL CURB TO STANDARD CURB AND GUTTER AT INTERSECTIONS SHALL OCCUR THROUGH THE HC RAMP PER CITY OF ALBUQUERQUE STANDARD DWG #2418.
6. SOIL NOT HAVING THE MINIMUM R-VALUE > 50 FOR STREETS SHALL BE REMOVED TO A DEPTH OF 2 FEET AND REPLACED, BY THE CONTRACTOR, WITH SUITABLE MATERIAL OR A PAVEMENT SECTION SHALL BE DESIGNED BY THE CONSULTANT ACCOMMODATING THE EXISTING R-VALUE PER CITY OF ALBUQUERQUE STANDARD STANDARD SPECIFICATIONS.
7. ALL MOUNTABLE ROLL CURB & GUTTER PER CITY OF ALBUQUERQUE STANDARD DWG #2415A.
8. ALL STANDARD CURB & GUTTER PER CITY OF ALBUQUERQUE STANDARD DWG #2415A.
9. ALL DEPRESSED STANDARD CURB & GUTTER PER CITY OF ALBUQUERQUE STANDARD DWG #2415A.

## EASEMENTS

1. EXISTING 20' ABCWUA PUBLIC WATERLINE EASEMENT (09-08-2015, 2015C-104)
2. EXISTING 15' NMGC GAS LINE EASEMENT (09-08-2015, 2015C-104)
3. EXISTING 60' COA PERMANENT EASEMENT FOR GLENDALE EXTENSION ROADWAY IMPROVEMENTS (12-21-2001, 2001152060)

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AS BUILT INFORMATION

CONTRACTOR
WORK STAKED BY
ASBUILTS SUBMITTED
ACCEPTANCE
VERIFICATION BY
DRAWINGS
CORRECTED BY
MICRO FILM INFORMATION
RECORDED BY
NO

DATE

BENCH MARKS

AGRS Brass Cap stamped "1-C18"
Elevation, in feet (NAVD88)–5322.080

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL

REVISIONS
NO. DATE REMARKS BY

DESIGNED BY DLH DATE 06/16
DRAWN BY DER DATE 06/16
CHECKED BY DMG DATE 06/16

MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

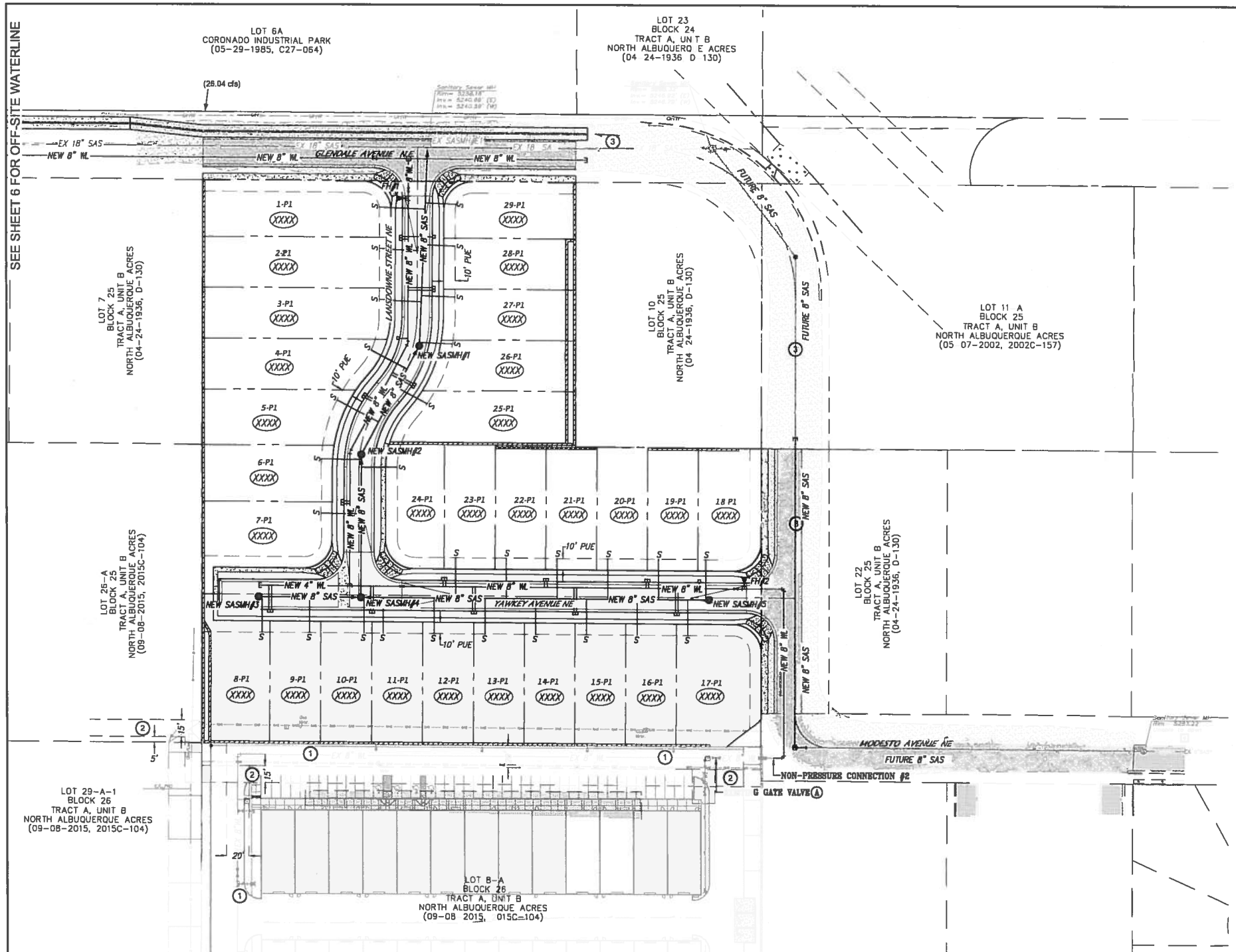
TITLE:
GLENDESTO SUBDIVISION
MASTER PAVING PLAN

| DESIGN REVIEW COMMITTEE | C TY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO -

ZONE MAP NO. B-18-Z

SHEET 1 OF X




EXISTING ELECTRIC TRANSFORMER
EXISTING OVERHEAD ELECTRIC LINE
EXISTING POWER POLE
EXISTING LIGHT POLE
EXISTING TRAFFIC SIGNAL PULLBOX
EXISTING CATV PEDESTAL
EXISTING UTILITY PEDESTAL
EXISTING DROP INLET
EXISTING STORM DRAIN
EXISTING STORM DRAIN MANHOLE
EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER LINE
EXISTING WATER LINE
EXISTING GATE VALVE & BOX
EXISTING FIRE HYDRANT
NEW RIGHT-OF-WAY
NEW CENTERLINE
NEW LOT LINES
NEW EASEMENTS
NEW STORM DRAIN INLET
NEW STORM DRAIN
NEW STORM DRAIN MANHOLE
NEW SANITARY SEWER LINE
NEW SANITARY SEWER MANHOLE
NEW SANITARY SEWER FLOW DIRECTION
NEW SANITARY SEWER SERVICE LINE
NEW WATERLINE
NEW FIRE HYDRANT
NEW GATE VALVE & BOX
NEW WATERLINE TEE
NEW WATERLINE CAP
NEW WATERLINE BEND
NEW WATER METER SERVICES *
NEW STREET LIGHT
NEW LOT ADDRESS

| RESTRAINED JOINT LENGTH FOR TEES (FT.) | | |
|---|---|---|
| PIPE SIZE | RUN | BRANCH |
| 8"x8"x8" | 13' | 3' |
| 8"x8"x6" | 7' | 5' |

| RESTRAINED JOINT LENGTH FOR BENDS, VALVES, DEAD ENDS (FT.) | | | | | |
|---|---|---|---|---|---|
| PIPE SIZE | 90° | 45° | 22.5° | 11.25° | VALVE |
| 12" | 30' | 12' | 6' | 3' | 85' |
| 8" | 22' | 9' | 4' | 2' | 60' |
| 6" | 17' | 7' | 3' | 2' | 46' |
| 4" | 12' | 5' | 2' | 1' | 32' |

LENGTH OF RESTRAINED PIPE ON EACH SIDE OF THE BEND. RESTRAIN BRANCH AT FITTING ONLY MINIMUM ATTACHED PIPE LENGTH, RUN SIDE OF TEE: 10.00 FEET.

| RESTRAINED JOINT LENGTHS FOR REDUCERS (FT.) | | |
|---|---|---|
| PIPE SIZE | LARGE SIDE | SMALL SIDE |
| 12" X 8" | 45' | 68' |
| 8" X 6" | 25' | 33' |

## WATER SHUT-OFF PLAN

1. CONTRACTOR SHALL MAKE SHUT OFF REQUEST ONLINE AT http://abcwua.org/content/view/463/729/.
2. VALVES SHALL ONLY BE OPERATED BY WATER AUTHORITY EMPLOYEES.
3. FOR PRESSURE CONNECTION #1, ON SAN PEDRO, SHUT-OFF GATE VALVES "B", "C" & "D".
4. FOR NON-PRESSURE CONNECTION #2, SHUT-OFF EXISTING GATE VALVE "A".

## NOTES

1. ALL FIRE HYDRANTS ARE 4' BURY UNLESS OTHERWISE SPECIFIED.
2. ALL METER BOXES ADJACENT TO MOUNTABLE CURB SHALL HAVE DUCTILE IRON METER BOX COVER & LID PER ABCWUA STD. DWG 2368; WATER METER BOX PER ABCWUA STD. DWG #2366; WATER SERVICE PER ABCWUA STD. DWG #2362.
3. ALL FIRE HYDRANTS PER ABCWUA STD. 2340.
4. ALL FIRE HYDRANTS TO HAVE A 6" GATE VALVE & BOX PER ABCWUA STD. DWG #2326; CONTRACTOR TO USE POLY COATED CMP FOR VALVE BOXES.
5. CONTRACTOR IS NOT TO INSTALL THE STEPS IN THE SAS MANHOLES.
6. ALL SANITARY SEWER MANHOLES PER ABCWUA STD. DWG #2101, #2107 AND #2109.

N

50' 25' 0 50' 100'

SCALE: 1" = 50'

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AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
WORK INSPECTED BY
ACCEPTANCE BY — DATE
VERIFICATION BY
DRAWINGS — DATE
CORRECTED BY
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS
ACRS Brass Cap stamped "1D-C18"
Elevation, in feet (NAVD88)=5222.080

SURVEY INFORMATION
FIELD NOTES

| NO. | BY | DATE |
|---|---|---|

ENGINEER'S SEAL

| NO. | DATE | REMARKS | BY |
|---|---|---|---|
| | | REVISIONS | |
| | | DESIGN | |
| | | DESIGNED BY DLH | DATE 06/16 |
| | | DRAWN BY DER | DATE 06/16 |
| | | CHECKED BY DMG | DATE 06/16 |

MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
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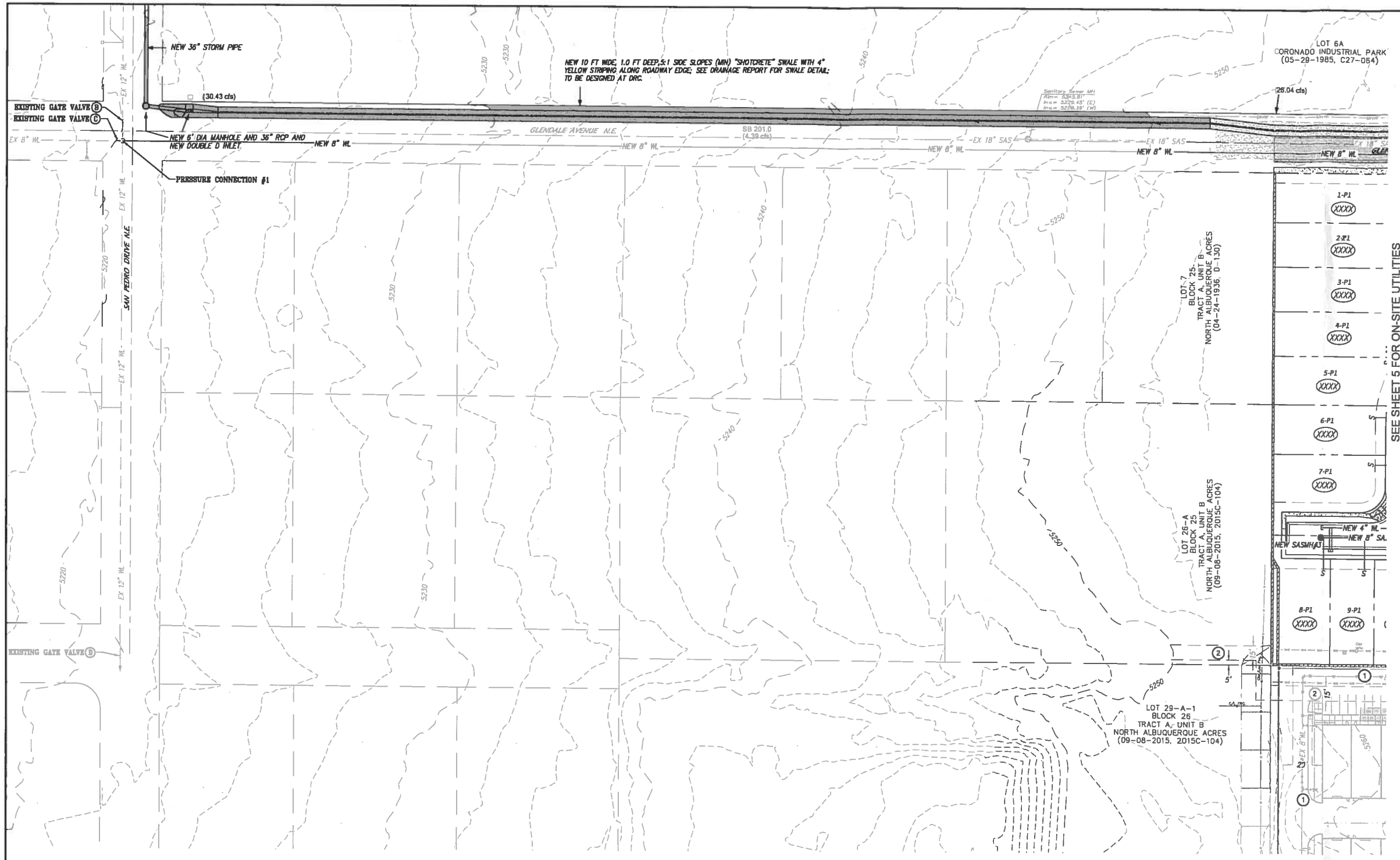
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: GLENDESTO SUBDIVISION MASTER UTILITY PLAN

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO. -
ZONE MAP NO. B-18-Z
SHEET 5 OF 6




N

50' 25' 0 50' 100'

SCALE: 1" = 50'

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SURVEY INFORMATION
FIELD NOTES

| NO. | BY | DATE |
|---|---|---|

BENCH MARKS

AS BUILT INFORMATION

CONTRACTOR

WORK STARTED BY: DATE
WORK COMPLETED: DATE
ACCEPTANCE BY: DATE
FIELD LOCATION BY: DATE
AS-BUILTS BY: DATE
DRAWINGS CORRECTED BY: DATE

MICRO-FILM INFORMATION

RECORDED BY DATE
NO.

ACHS Brass Cap stamped "10-C18" Elevation, in feet (NAVD88)=5322.080

ENGINEER'S SEAL

| NO. | DATE | REMARKS |
|---|---|---|
| REVISIONS | | |

DESIGNED BY DJH DATE 06/16
DRAWN BY DER DATE 06/16
CHECKED BY DMG DATE 06/16

dmg
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

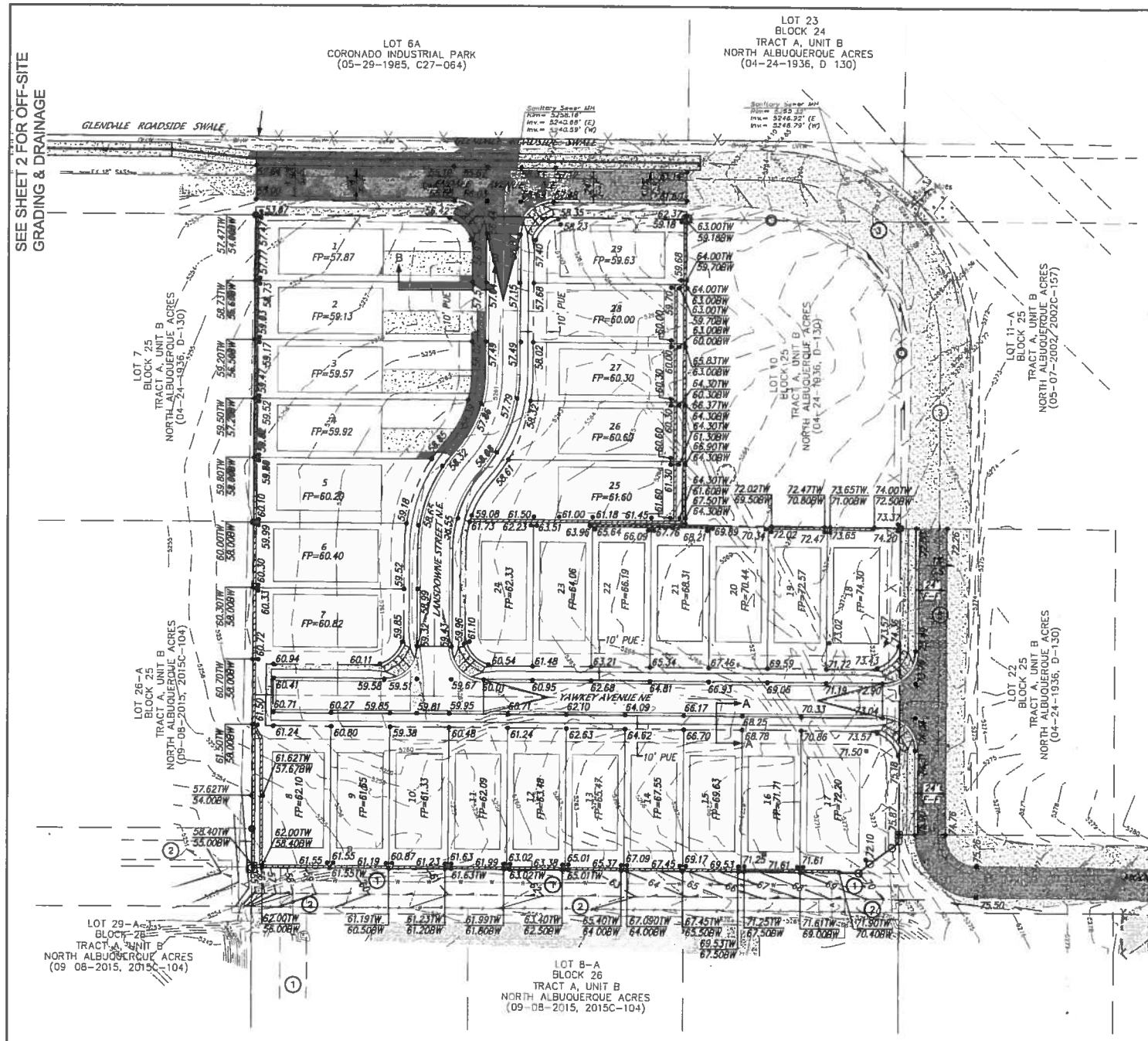
TITLE:
GLENDESTO SUBDIVISION
MASTER UTILITY PLAN

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO. -

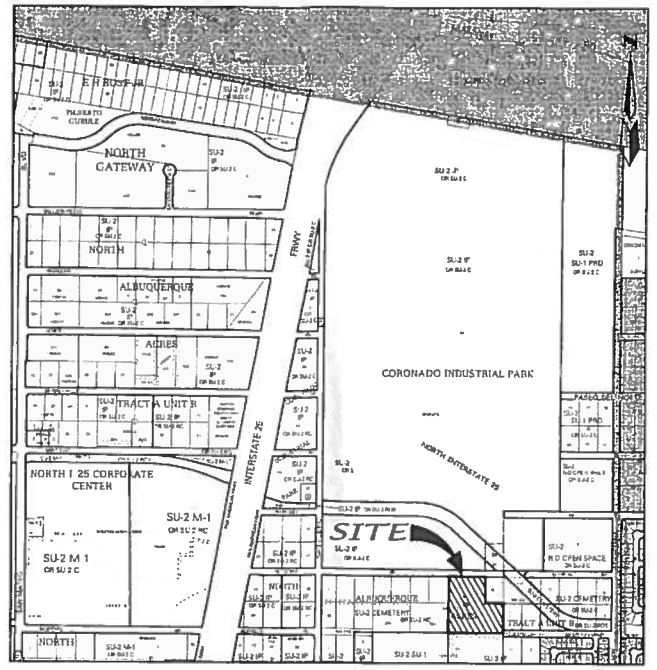
ZONE MAP NO. B-18-Z

SHEET 5B OF 6




## LEGEND

- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING SPOT ELEVATION
- EXISTING TOP CURB/FLOWLINE ELEVATION
- EXISTING ASPHALT PAVEMENT
- EXISTING ELECTRIC TRANSFORMER
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL PULLBOX
- EXISTING TELEPHONE MANHOLE
- EXISTING CATV PEDESTAL
- EXISTING STORM DRAIN MANHOLE
- NEW STANDARD CURB & GUTTER
- NEW RIGHT-OF-WAY
- NEW CENTERLINE
- NEW LOT LINES
- NEW EASEMENTS
- 69.53TW / 68.25BW — NEW TOP OF WALL ELEVATION / NEW BOTTOM OF WALL ELEVATION
- -81.77 — NEW SPOT ELEVATIONS
- NEW FLOW DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL (SEE NOTE 9)
- NEW GARDEN WALL
- 24" RCP — NEW STORM DRAIN




VICINITY MAP (NTS)

ZONE ATLAS MAP B-18

## EASEMENTS

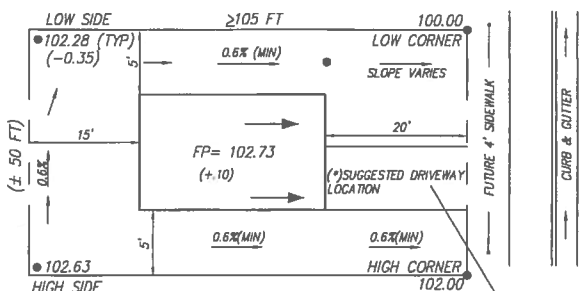
1. EXISTING 20' ABCWUA PUBLIC WATERLINE EASEMENT (09-08-2015, 2015C-104)
2. EXISTING 15' NMGC GAS LINE EASEMENT (09-08-2015, 2015C-104)
3. EXISTING 60' COA PERMANENT EASEMENT FOR GLENDALE EXTENSION ROADWAY IMPROVEMENTS (12-21-2001, 2001152060)

## LEGAL DESCRIPTION

A TRACT OF LAND SITUATE WITHIN THE ELENA GALLEGO GRANT, PROJECTED SECTION 12, TOWNSHIP 11 NORTH, RANGE 3 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING ALL OF LOT 8-A, BLOCK 25, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES, 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 SEPTEMBER 8, 2015, IN PLAT BOOK 2015C, PAGE 104, AND CONTAINING 4.7676 ACRES MORE OR LESS.

## NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.
6. SITE DOES NOT LIE IN A 100 YEAR FLOOD ZONE.
7. ALL SITE WALLS SHALL CONFORM TO THE GENERAL HEIGHT AND DESIGN REGULATIONS CONTAINED IN SECTION 14-16-3-19 OF THE CITY ZONING CODE.
8. COMBINATION GARDEN WALL/RETAINING WALL CANNOT EXCEED 8 FEET. IF THE RETAINING WALL IS GREATER THAN 4 FEET, THE DEVELOPER CAN ADD 3:1 SLOPES IN BACKYARD OR A SECOND RETAINING WALL OFFSET FROM THE FIRST ONE.

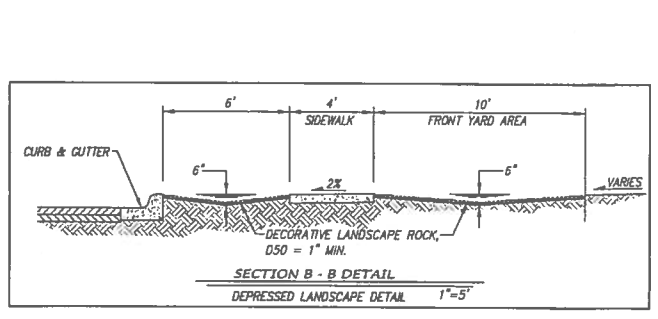



TYPICAL LOT LAYOUT PLAN

N.T.S.

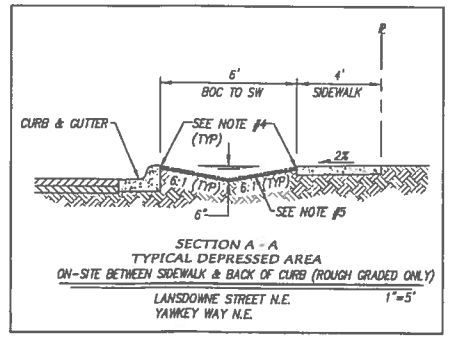
(*) SPECIAL NOTE FOR DRIVEWAYS

ON ALL LOTS WHERE FINISHED PAD IS > 2.0 FEET HIGHER THAN LOW CORNER OF LOT, DRIVEWAY SHOULD BE CONSTRUCTED ON HIGH SIDE OF PAD/LOT. THIS WILL HELP MINIMIZE THE STEEPNESS OF DRIVEWAY SLOPE.




SECTION B - B DETAIL

DEPRESSED LANDSCAPE DETAIL 1"=5'

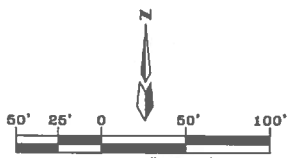



SECTION A - A
TYPICAL DEPRESSED AREA
ON-SITE BETWEEN SIDEWALK & BACK OF CURB (ROUGH GRADED ONLY)

LANSDOWNE STREET N.E.
YAWKEY WAY N.E.
1"=5'

## LANDSCAPE BUFFER NOTES:

1. Swale to be 6" deep when the distance between back of curb and sidewalk is 5 feet.
2. Swale to be 1" deeper than the distance in feet between the back of curb and the sidewalk for landscape buffers different than 5 feet wide
3. For wide landscape buffers, greater than 10 feet, the maximum depth is 10 inches.
4. Final grade of dirt to be 1 to 2 inches below top of curb and top of sidewalk grade.
5. Surface between back of curb and sidewalk to be covered with gravel mulch (minimum ¾") cobbles or rip-rap. Do not fill entire swale
6. A check dam will be required for swales on steeper longitudinal slopes and longer sections. The engineer will determine the location.
7. Landscape fabric is recommended, but not required, between the dirt and the stone. If landscape fabric is to be used it is to be permeable.
8. Detail is to be built for all new construction. In the case where the sidewalk is existing and the landscape buffer is improved with landscaping and/or some form of erosion protection, this requirement does not apply.

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\\DMG-SVR02\Oce PlotWave 500 - WPD2



AS BUILT INFORMATION

BENCH MARKS

CONTRACTOR — DATE

WORK STAKED BY — DATE

ACRES Brass Cap stamped "10-C18" — ACCEPT CE B — DATE

Elevation, in feet (NAVD88)=5322.080 — FIELD VERIFICATION BY — DATE

DRAWING BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE

NO.

SURVEY INFORMATION

FIELD NOTES

| NO. | BY | DATE |
|---|---|---|
| | | |

ENGINEER'S SEAL

NEW MEXICO 11987 REGISTERED PROFESSIONAL ENGINEER — 8-10-16

| NO. | BY | DATE |
|---|---|---|
| A | DLH | 05/16 |

DESIGNED BY DLH — DRAWN BY DER — CHECKED BY DMG — DATE 05/16

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

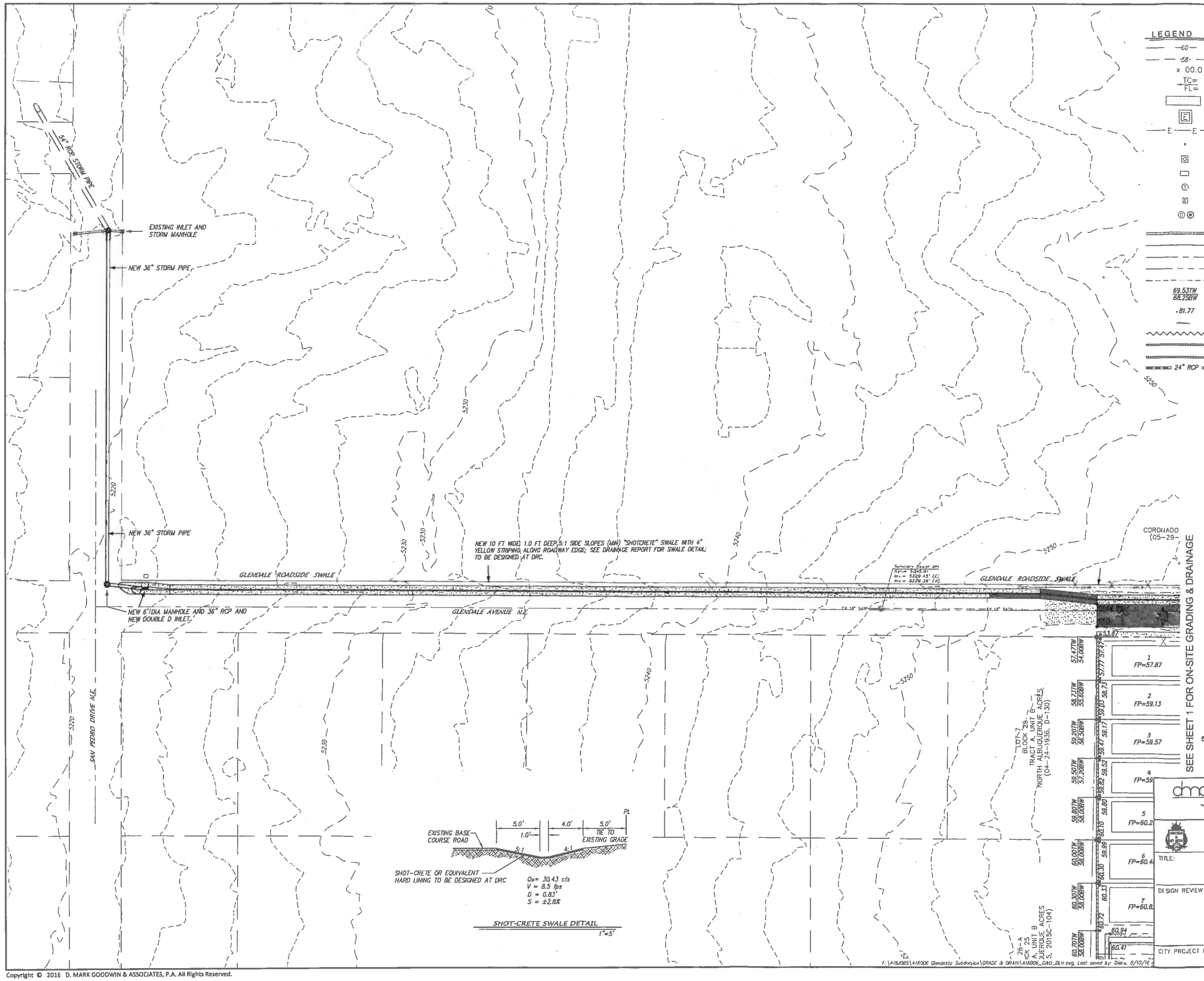
T E

GLENDESTO SUBDIVISION
GRADING & DRAINAGE PLAN

DESIGN R M W OMM E — I Y EN IN R A VAL — LAST DESIGN UPDATE — MO./DAY/YR. — MO./DAY/YR.

NE MAP NO. B-18-Z

SHEET 1 OF 2




## LEGEND

- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING SPOT ELEVATION
- EXISTING TOP CURB/FLOWLINE ELEVATI
- EXISTING ASPHALT PAVEMENT
- EXISTING ELECTRIC TRANSFORMER
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL PULLBOX
- EXISTING TELEPHONE MANHOLE
- EXISTING CATV PEDESTAL
- EXISTING STORM DRAIN MANHOLE
- NEW STANDARD CURB & GUTTER
- NEW RIGHT-OF-WAY
- NEW CENTERLINE
- NEW LOT LINES
- NEW EASEMENTS
- NEW TOP OF WALL ELEVATION / NEW BOTTOM OF WALL ELEVATION
- NEW SPOT ELEVATIONS
- NEW FLOW DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL (SEE NOTE 9)
- NEW GARDEN WALL
- NEW STORM DRAIN

AS BUILT INFORMATION

CONTRACTOR

WORK STAKED BY / DATE

INSPECTION BY / DATE

AS-BUILTS BY / DATE

FIELD VERIFICATION BY / DATE

DRAWINGS CORRECTED BY / DATE

MICRO-FILM INFORMATION

RECORDED BY / DATE

NO.

BENCH MARKS

AGRS Brass Cap, stamped "10-C18"
Elevation, in feet (NAVD88)=5322.089

SURVEY INFORMATION

FIELD NOTES

| NO. | BY | DATE |
|---|---|---|

ENGINEER'S SEAL

DANIEL HOELZER — NEW MEXICO — 11-2-16 — LICENSED PROFESSIONAL ENGINEER

| NO. | DATE | REMARKS | BY |
|---|---|---|---|
| | | REVISIONS | |
| | | DESIGN | |
| DESIGNED BY | | DLH | 05/16 |
| DRAWN BY | | DER | 05/16 |
| CHECKED BY | | DMG | 05/16 |


dmg
MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
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OFFICE (505) 828-2200, FAX (505) 797-9539


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE:

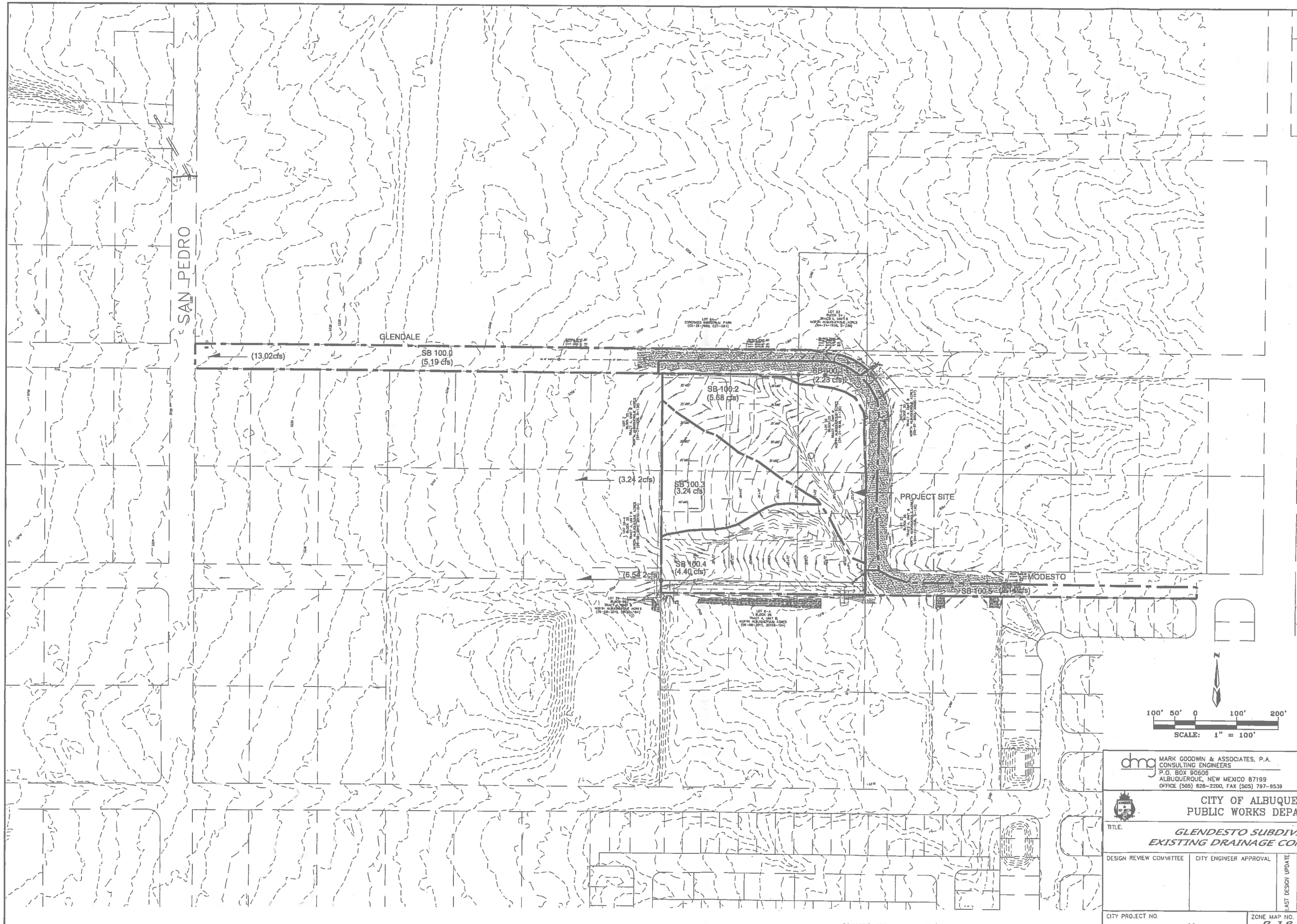
# GLENDESTO SUBDIVISION GRADING & DRAINAGE PLAN

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO. .

ZONE MAP NO. B-18-Z

SHEET 2 OF 2




AS BUILT INFORMATION

CONTRACTOR
WORK STAKED BY — DATE
INSPECTORS — DATE
FIELD CHANGES BY
VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS

AGRS Brass Cap stamped "10-C18"
Elevation, in feet (NAVD88)=5322.090

SURVEY INFORMATION
FIELD NOTES

| NO. | BY | DATE |
|---|---|---|

ENGINEER'S SEAL
DANIEL ROESLER — NEW MEXICO — 17697 — REGISTERED PROFESSIONAL ENGINEER
8-12-16

| NO. | DATE | REMARKS | BY |
|---|---|---|---|
| | | REVISIONS | |
| | | DESIGN | 05/16 |
| | | DESIGNED BY DLH | DATE 05/16 |
| | | DRAWN BY DER | DATE 05/16 |
| | | CHECKED BY DMG | DATE |


dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

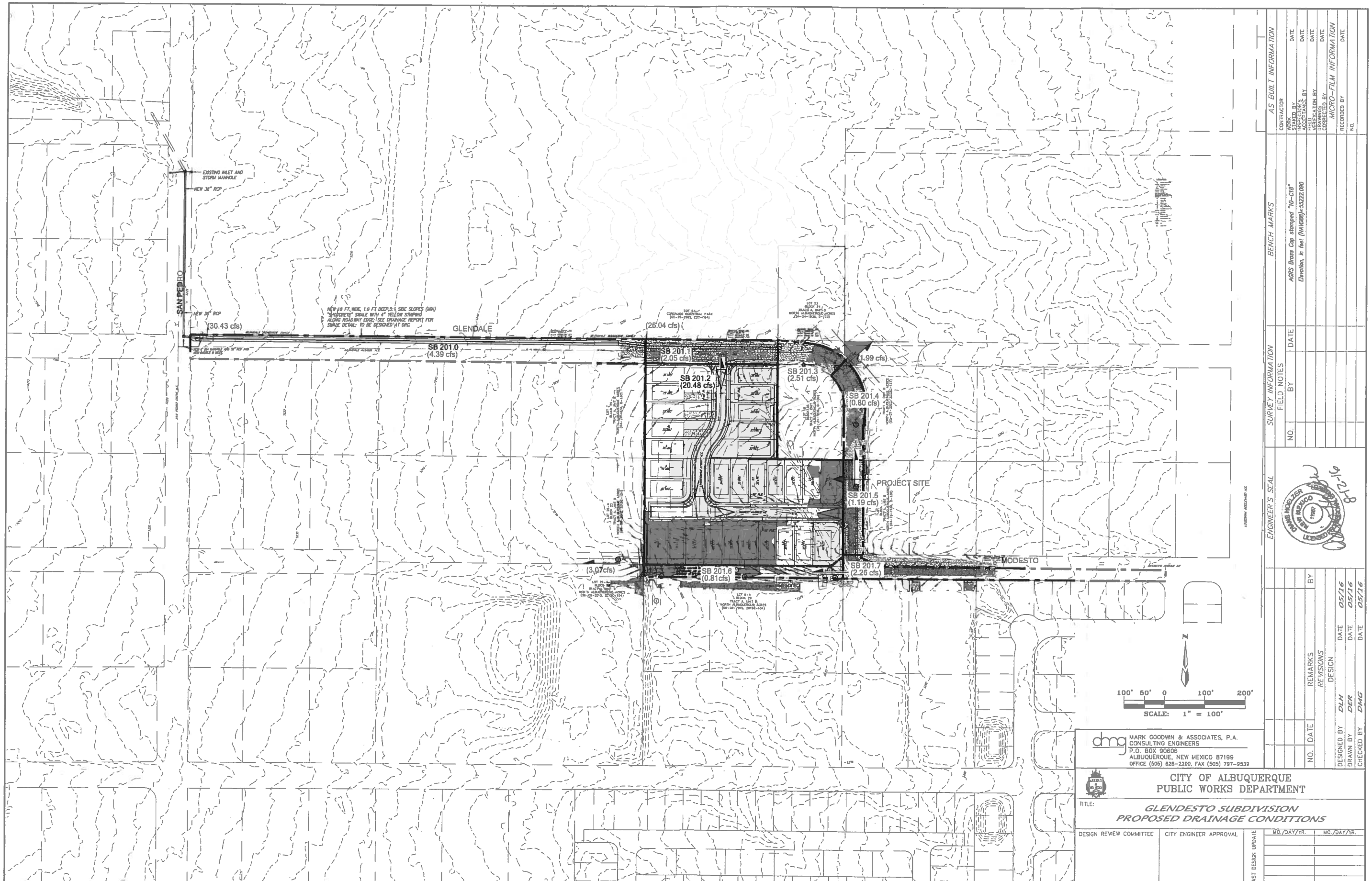
TITLE:
# GLENDESTO SUBDIVISION
# EXISTING DRAINAGE CONDITIONS

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO. --
ZONE MAP NO. B-18-Z
SHEET OF

F:\A16\DBS\A16006 Glendesto Subdivision\GRADE & DRAIN\A16006_GBC_DLH.dwg, Last saved by: Diane, 6/14/16

\\DMG-SVR02\Oce PrintWare 500 - WPD2




AS BUILT INFORMATION

| | |
|---|---|
| CONTRACTOR | |
| KNOWLES LTD. | DATE |
| STAKED BY | |
| INSPECTION BY | DATE |
| FIELD VERIFICATION BY | DATE |
| DRAWINGS COMPLETED BY | DATE |

MICRO-FILM INFORMATION

RECORDED BY DATE

NO.

BENCH MARKS

AGRS Brass Cap stamped "10-C18" Elevation, in feet (NAVD88)=5322.080

SURVEY INFORMATION

FIELD NOTES

| NO. | BY | DATE |
|---|---|---|

ENGINEER'S SEAL

NEW MEXICO 11989 REGISTERED PROFESSIONAL ENGINEER

5-31-2018

| NO. | DATE | REMARKS |
|---|---|---|
| | | REVISIONS |
| | | DESIGN |

| | BY | DATE |
|---|---|---|
| DESIGNED BY | DLH | 05/16 |
| DRAWN BY | DER | 05/16 |
| CHECKED BY | DMG | 05/16 |

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: GLENDESTO SUBDIVISION
PROPOSED DRAINAGE CONDITIONS

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO. -

ZONE MAP NO. B-18-Z

SHEET OF

F:\A16\A195\A15006 Glendesto Subdivision\GRADE & DRAIN\A15006_GRD_ELH.dwg, Last saved by Diane, 6/14/16

# *APPENDIX A - HYDROLOGY*

## EXISTING DRAINAGE CONDITIONS – SUMMARY TABLE

```
AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4)                    - Ver. S4.01a, Rel: 01a      RUN DATE (MON/DAY/YR) =06/15/2016
INPUT FILE = C:\Program Files (x86)\AHYMO-S4\GLENEX.DAT                                USER NO.= M-GoodwinNMSiteA90075759

                                FROM  TO                    PEAK        RUNOFF              TIME TO    CFS       PAGE =   1
                     HYDROGRAPH   ID   ID         AREA      DISCHARGE   VOLUME      RUNOFF    PEAK      PER
COMMAND        IDENTIFICATION     NO.  NO.      (SQ MI)     (CFS)       (AC-FT)     (INCHES)  (HOURS)   ACRE      NOTATION

*S*********************************************************
*S                   GLENDESTO SUBDIVISION
*S                   100 YEAR 24 HOUR STORM EVENT
*S
*S                   FILE: GLENEX.DAT
*S                   LAST REVISED: 6-15-16
*S                   NOAA ATLAS 2, VOL IV ZONE B-18
START                                                                                                  TIME=      0.00
LOCATION                        NEW MEXICO
RAINFALL  TYPE= 2 NOAA 14                                                                              RAIN24=    2.850
*S*********************************************************
*S  EXSTING DRAINAGE CONDITIONS
COMPUTE NM HYD        100.00   -     1       0.00289        5.19       0.152      0.98842    1.532    2.806 PER IMP=    0.00
COMPUTE NM HYD        100.10   -     1       0.00124        2.23       0.065      0.98842    1.532    2.813 PER IMP=    0.00
COMPUTE NM HYD        100.20   -     1       0.00388        5.68       0.170      0.82168    1.532    2.287 PER IMP=    0.00
COMPUTE NM HYD        100.30   -     1       0.00221        3.24       0.097      0.82168    1.532    2.290 PER IMP=    0.00
COMPUTE NM HYD        100.40   -     1       0.00301        4.40       0.132      0.82168    1.532    2.288 PER IMP=    0.00
COMPUTE NM HYD        100.50   -     1       0.00092        2.14       0.078      1.60396    1.532    3.649 PER IMP=   40.00
FINISH
```

# EXISTING DRAINAGE CONDITIONS

```
*S*********************************************************
*S                    GLENDESTO SUBDIVISION
*S                    100 YEAR 24 HOUR STORM EVENT
*S
*S                    FILE: GLENEX.DAT
*S                    LAST REVISED: 6-15-16
*S                    NOAA ATLAS 2, VOL IV ZONE B-18
START                 TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-6
LOCATION              NEW MEXICO
RAINFALL              TYPE=2 RAIN QUARTER=0.0
                      RAIN ONE=2.10 IN RAIN SIX=2.50 IN
                      RAIN DAY=2.85 IN DT=0.0333 HRS
*S*********************************************************
*S  EXSTING DRAINAGE CONDITIONS
*** ********************
*** SUB BASIN 100.0
*** ********************
COMPUTE NM HYD        ID=1  HYD NO=100.0 AREA= 0.002888 SQ MI
                      PER A=20  PER B=80  PER C=0  PER D=0
                      TP=-.1333 HR  MASS RAIN=-1
PRINT HYD             ID=1 CODE=1
*** ********************
*** SUB BASIN 100.1
*** ********************
COMPUTE NM HYD        ID=1  HYD NO=100.1 AREA= 0.001236 SQ MI
                      PER A=20  PER B=80  PER C=0  PER D=0
                      TP=-.1333 HR  MASS RAIN=-1
PRINT HYD             ID=1 CODE=1
*** ********************
*** SUB BASIN 100.2
*** ********************
COMPUTE NM HYD        ID=1  HYD NO=100.2 AREA= 0.003884 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
*** ********************
*** SUB BASIN 100.3
*** ********************
COMPUTE NM HYD        ID=1  HYD NO=100.3 AREA= 0.002210 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
*** ********************
*** SUB BASIN 100.4
*** ********************
COMPUTE NM HYD        ID=1  HYD NO=100.4 AREA= 0.003007 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
*** ********************
*** SUB BASIN 100.5
*** ********************
COMPUTE NM HYD        ID=1  HYD NO=100.5 AREA= 0.000915 SQ MI
                      PER A=25  PER B=35  PER C=0  PER D=40
                      TP=-.1333 HR  MASS RAIN=-1
PRINT HYD             ID=1 CODE=1
FINISH
```

## PROPOSED CONDITIONS

```
AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4)                    - Ver. S4.01a, Rel: 01a      RUN DATE (MON/DAY/YR) =08/10/2016
  INPUT FILE = C:\Program Files (x86)\AHYMO-S4\glenp6.dat                                USER NO.= M-GoodwinNMSiteA90075759

                                FROM  TO                    PEAK         RUNOFF              TIME TO    CFS       PAGE =    1
                     HYDROGRAPH   ID    ID        AREA      DISCHARGE     VOLUME      RUNOFF    PEAK      PER
  COMMAND        IDENTIFICATION   NO.   NO.     (SQ MI)     (CFS)       (AC-FT)    (INCHES)  (HOURS)   ACRE      NOTATION

  *S*********************************************************
  *S                   GLENDESTO SUBDIVISION
  *S                   PROPOSED DRAINAGE CONDITIONS
  *S                   100 YEAR 24 HOUR STORM EVENT
  *S                   FILE: GLENP6.DAT
  *S                   LAST REVISED: 8-8-16
  *S                   NOAA ATLAS 2, VOL IV ZONE B-18
  START                                                                                                  TIME=      0.00
  LOCATION                        NEW MEXICO
  RAINFALL  TYPE= 1 NOAA 14                                                                              RAIN6=     2.500
  *S*********************************************************
  *S  PROPOSED DRAINAGE CONDITIONS
  COMPUTE NM HYD        201.00   -     1       0.00244       4.39       0.129      0.98842    1.532    2.807 PER IMP=    0.00
  COMPUTE NM HYD        201.10   -     1       0.00071       2.05       0.073      1.91043    1.532    4.505 PER IMP=   72.00
  COMPUTE NM HYD        201.20   -     1       0.00744      20.48       0.707      1.78078    1.532    4.299 PER IMP=   57.00
  *s*****************************************************************
  *s* ROUTE THRU ONSISTE POND
  *s*****************************************************************
  ROUTE RESERVOIR      POND.12    1   12       0.00744      10.24       0.437      1.10157    1.698    2.150 AC-FT=     0.424
  COMPUTE NM HYD        201.30   -     1       0.00162       2.51       0.075      0.86460    1.532    2.426 PER IMP=    0.00
  COMPUTE NM HYD        201.40   -     1       0.00044       0.80       0.023      0.98842    1.532    2.837 PER IMP=    0.00
  COMPUTE NM HYD        201.50   -     1       0.00041       1.19       0.042      1.91043    1.532    4.538 PER IMP=   72.00
  COMPUTE NM HYD        201.60   -     1       0.00055       0.81       0.024      0.82168    1.532    2.312 PER IMP=    0.00
  COMPUTE NM HYD        201.70   -     1       0.00091       2.26       0.075      1.54680    1.532    3.890 PER IMP=   40.00
  COMPUTE NM HYD        201.20   -     1       0.00744      10.88       0.326      0.82168    1.532    2.285 PER IMP=    0.00
  FINISH
```

# PROPOSED CONDITIONS

```
      AHYMO PROGRAM (AHYMO-S4)                    - Version: S4.01a - Rel: 01a
           RUN DATE (MON/DAY/YR) = 08/10/2016
           START TIME (HR:MIN:SEC) = 14:17:12     USER NO.= M-GoodwinNMSiteA90075759
           INPUT FILE = C:\Program Files (x86)\AHYMO-S4\glenp6.dat

*S*************************************************************
*S                    GLENDESTO SUBDIVISION
*S                    PROPOSED DRAINAGE CONDITIONS
*S                    100 YEAR 24 HOUR STORM EVENT
*S                    FILE: GLENP6.DAT
*S                    LAST REVISED: 8-8-16
*S                    NOAA ATLAS 2, VOL IV ZONE B-18
START                 TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-6
LOCATION              NEW MEXICO
     State of New Mexico soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
           A            0.65                  1.67
           B            0.50                  1.25
           C            0.35                  0.83
           D            0.10                  0.04

RAINFALL              TYPE=1 RAIN QUARTER=0.0
                      RAIN ONE=2.10 IN RAIN SIX=2.50 IN
                      RAIN DAY=2.85 IN DT=0.0333 HRS

               6-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM & AZ) - D1
               DT =   0.033300 HOURS       END TIME =     5.994000 HOURS
                 0.0000  0.0018  0.0036  0.0054  0.0074  0.0094  0.0116
                 0.0138  0.0161  0.0186  0.0212  0.0265  0.0319  0.0377
                 0.0438  0.0499  0.0565  0.0631  0.0699  0.0769  0.0839
                 0.0912  0.0985  0.1063  0.1145  0.1227  0.1320  0.1413
                 0.1558  0.1760  0.1962  0.2231  0.2502  0.2824  0.3203
                 0.3582  0.4145  0.4714  0.5475  0.6458  0.7441  0.9994
                 1.2612  1.4697  1.6149  1.7600  1.8362  1.9091  1.9698
                 2.0158  2.0617  2.0943  2.1261  2.1541  2.1775  2.2008
                 2.2187  2.2364  2.2501  2.2588  2.2675  2.2753  2.2831
                 2.2902  2.2966  2.3029  2.3088  2.3146  2.3204  2.3260
                 2.3316  2.3345  2.3372  2.3399  2.3425  2.3451  2.3475
                 2.3499  2.3523  2.3547  2.3570  2.3593  2.3616  2.3638
                 2.3660  2.3681  2.3702  2.3723  2.3743  2.3763  2.3784
                 2.3803  2.3822  2.3841  2.3860  2.3878  2.3897  2.3915
                 2.3933  2.3950  2.3967  2.3984  2.4001  2.4018  2.4035
                 2.4051  2.4068  2.4084  2.4100  2.4116  2.4132  2.4147
                 2.4163  2.4178  2.4193  2.4209  2.4224  2.4239  2.4253
                 2.4268  2.4283  2.4297  2.4311  2.4326  2.4340  2.4354
                 2.4368  2.4381  2.4395  2.4409  2.4422  2.4436  2.4449


*S*************************************************************
*S  PROPOSED DRAINAGE CONDITIONS
*** ********************
```

```
*** ********************
*** SUB BASINS 201.0
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.0 AREA= 0.002442 SQ MI
                     PER A=20  PER B=80  PER C=0  PER D=0
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.138116HR    TP =  0.133300HR    K/TP RATIO =  1.036128     SHAPE CONSTANT, N =  3.406848
     UNIT PEAK =   5.7427    CFS   UNIT VOLUME =   0.9977       B =   313.47      P60 = 2.1000
     AREA =     0.002442 SQ MI    IA =   0.53000 INCHES    INF =   1.33400 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   201.00


    RUNOFF VOLUME =     0.98842 INCHES     =       0.1287 ACRE-FEET
    PEAK DISCHARGE RATE =       4.39 CFS  AT   1.532 HOURS   BASIN AREA =  0.0024 SQ. MI.



*** ********************
*** SUB BASINS 201.1
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.1 AREA= 0.000712 SQ MI
                     PER A=0  PER B=28  PER C=0  PER D=72
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   2.0239    CFS   UNIT VOLUME =   0.9941       B =   526.28      P60 = 2.1000
     AREA =     0.000513 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300


     K =  0.133173HR    TP =  0.133300HR    K/TP RATIO =  0.999050     SHAPE CONSTANT, N =  3.533543
     UNIT PEAK =  0.48273    CFS   UNIT VOLUME =   0.9712       B =   322.78      P60 = 2.1000
     AREA =     0.000199 SQ MI    IA =   0.50000 INCHES    INF =   1.25000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   201.10


    RUNOFF VOLUME =     1.91043 INCHES     =       0.0725 ACRE-FEET
    PEAK DISCHARGE RATE =       2.05 CFS  AT   1.532 HOURS   BASIN AREA =  0.0007 SQ. MI.



*** ********************
*** SUB BASINS 201.2
*** ONSISTE SUB BASIN
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.2 AREA= 0.007444 SQ MI
                     PER A=0  PER B=21.5  PER C=21.5  PER D=57
                     TP=-.1333 HR  MASS RAIN=-1
```

```
     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   16.752    CFS   UNIT VOLUME =   0.9986       B =   526.28      P60 = 2.1000
     AREA =     0.004243 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300


     K =  0.120817HR    TP =  0.133300HR    K/TP RATIO =  0.906356     SHAPE CONSTANT, N =  3.908407
     UNIT PEAK =   8.3810    CFS   UNIT VOLUME =   0.9989       B =   349.02      P60 = 2.1000
     AREA =     0.003201 SQ MI    IA =   0.42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   201.20


    RUNOFF VOLUME =     1.78078 INCHES     =       0.7070 ACRE-FEET
    PEAK DISCHARGE RATE =      20.48 CFS  AT   1.532 HOURS   BASIN AREA =  0.0074 SQ. MI.



*s**************************************************************************
*s* ROUTE THRU ONSISTE POND
*s**************************************************************************
ROUTE RESERVOIR      ID=12  HYD=POND.12   INFLOW=1   CODE=24
                     OUTFLOW(CFS)   STORAGE(ACFT)     ELEV(FT)
                     0.00              0.0000          49.0
                     0.01              0.36049         54.5
                     10.88             0.4279          55.0

  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

    TIME      INFLOW    ELEV      VOLUME    OUTFLOW
    (HRS)     (CFS)     (FEET)    (AC-FT)   (CFS)

     0.00       0.00     49.00      0.000      0.00
     0.80       0.03     49.00      0.000      0.00
     1.60      16.81     54.67      0.383      3.60
     2.40       0.74     54.54      0.366      0.94
     3.20       0.08     54.50      0.361      0.09
     4.00       0.05     54.50      0.361      0.05
     4.80       0.05     54.50      0.361      0.05
     5.59       0.07     54.50      0.361      0.07
     6.39       0.01     54.50      0.361      0.01

 PEAK DISCHARGE =       10.245 CFS - PEAK OCCURS AT HOUR    1.70
 MAXIMUM WATER SURFACE ELEVATION =       54.971
 MAXIMUM STORAGE =        0.4240 AC-FT      INCREMENTAL TIME=    0.033300HRS

PRINT HYD            ID=12 CODE=50

                                  HYDROGRAPH FROM AREA POND.12

0.0
      25.974       0.0         52.614       0.0         79.254       0.0         105.894       0.0         132.534       0.0
```

```
    RUNOFF VOLUME =     1.10157 INCHES      =       0.4373 ACRE-FEET
    PEAK DISCHARGE RATE =      10.24 CFS  AT   1.698 HOURS   BASIN AREA =  0.0074 SQ. MI.


*** ********************
*** SUB BASINS 201.3
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.3 AREA= 0.001617 SQ MI
                     PER A=78  PER B=22  PER C=0  PER D=0
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.152449HR    TP =  0.133300HR    K/TP RATIO =  1.143653     SHAPE CONSTANT, N =  3.096457
     UNIT PEAK =   3.5130    CFS   UNIT VOLUME =   0.9958       B =   289.60      P60 = 2.1000
     AREA =     0.001617 SQ MI    IA =   0.61700 INCHES    INF =   1.57760 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   201.30


    RUNOFF VOLUME =     0.86460 INCHES      =       0.0746 ACRE-FEET
    PEAK DISCHARGE RATE =       2.51 CFS  AT   1.532 HOURS   BASIN AREA =  0.0016 SQ. MI.


*** ********************
*** SUB BASINS 201.4
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.4 AREA= 0.000439 SQ MI
                     PER A=20  PER B=80  PER C=0  PER D=0
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.138116HR    TP =  0.133300HR    K/TP RATIO =  1.036128     SHAPE CONSTANT, N =  3.406848
     UNIT PEAK =   1.0324    CFS   UNIT VOLUME =   0.9869       B =   313.47      P60 = 2.1000
     AREA =     0.000439 SQ MI    IA =   0.53000 INCHES    INF =   1.33400 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   201.40


    RUNOFF VOLUME =     0.98842 INCHES      =       0.0231 ACRE-FEET
    PEAK DISCHARGE RATE =       0.80 CFS  AT   1.532 HOURS   BASIN AREA =  0.0004 SQ. MI.


*** ********************
*** SUB BASINS 201.5
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.5 AREA= 0.000409 SQ MI
                     PER A=0  PER B=28 PER C=0  PER D=72
                     TP=-.1333 HR  MASS RAIN=-1
```

```
     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   1.1626    CFS   UNIT VOLUME =   0.9896       B =   526.28      P60 = 2.1000
     AREA =     0.000294 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300


     K =  0.133173HR    TP =  0.133300HR    K/TP RATIO =  0.999050     SHAPE CONSTANT, N =  3.533543
     UNIT PEAK =  0.27730    CFS   UNIT VOLUME =   0.9522       B =   322.78      P60 = 2.1000
     AREA =     0.000115 SQ MI    IA =   0.50000 INCHES    INF =   1.25000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   201.50


    RUNOFF VOLUME =     1.91043 INCHES     =       0.0417 ACRE-FEET
    PEAK DISCHARGE RATE =       1.19 CFS  AT   1.532 HOURS   BASIN AREA =  0.0004 SQ. MI.



*** ********************
*** SUB BASINS 201.6
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.6 AREA= 0.000545 SQ MI
                     PER A=100  PER B=0  PER C=0  PER D=0
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.157886HR    TP =  0.133300HR    K/TP RATIO =  1.184438     SHAPE CONSTANT, N =  2.996859
     UNIT PEAK =   1.1512    CFS   UNIT VOLUME =   0.9873       B =   281.57      P60 = 2.1000
     AREA =     0.000545 SQ MI    IA =   0.65000 INCHES    INF =   1.67000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                  PARTIAL HYDROGRAPH   201.60


    RUNOFF VOLUME =     0.82168 INCHES     =       0.0239 ACRE-FEET
    PEAK DISCHARGE RATE =       0.81 CFS  AT   1.532 HOURS   BASIN AREA =  0.0005 SQ. MI.



*** ********************
*** SUB BASINS 201.7
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.7 AREA= 0.000909 SQ MI
                     PER A=25  PER B=0  PER C=35  PER D=40
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE CONSTANT, N =  7.106428
     UNIT PEAK =   1.4355    CFS   UNIT VOLUME =   0.9910       B =   526.28      P60 = 2.1000
     AREA =     0.000364 SQ MI    IA =   0.10000 INCHES    INF =   0.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300


     K =  0.129055HR    TP =  0.133300HR    K/TP RATIO =  0.968152     SHAPE CONSTANT, N =  3.648501
```

```
     UNIT PEAK =    1.3544     CFS    UNIT VOLUME =    0.9899        B =    331.02       P60 = 2.1000
     AREA =      0.000545 SQ MI     IA =    0.47500 INCHES     INF =    1.18000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                   PARTIAL HYDROGRAPH   201.70


    RUNOFF VOLUME =      1.54680 INCHES      =        0.0750 ACRE-FEET
    PEAK DISCHARGE RATE =        2.26 CFS  AT   1.532 HOURS   BASIN AREA =  0.0009 SQ. MI.



*** ************************************************************
*** EXISTING CONDITIONS FOR THE ONSITE PROJECT AREA
*** ************************************************************
*** SUB BASINS 100.2
*** ONSISTE SUB BASIN
*** ********************
COMPUTE NM HYD       ID=1  HYD NO=201.2 AREA= 0.007444 SQ MI
                     PER A=100  PER B=0  PER C=0  PER D=0
                     TP=-.1333 HR  MASS RAIN=-1

     K =  0.157886HR    TP =  0.133300HR    K/TP RATIO =  1.184438     SHAPE CONSTANT, N =  2.996859
     UNIT PEAK =   15.724     CFS   UNIT VOLUME =   0.9989        B =   281.57       P60 = 2.1000
     AREA =      0.007444 SQ MI     IA =   0.65000 INCHES     INF =   1.67000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  0.033300

PRINT HYD            ID=1 CODE=1

                                   PARTIAL HYDROGRAPH   201.20


    RUNOFF VOLUME =      0.82168 INCHES      =        0.3262 ACRE-FEET
    PEAK DISCHARGE RATE =       10.88 CFS  AT   1.532 HOURS   BASIN AREA =  0.0074 SQ. MI.



FINISH

    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 14:17:12
```

# *APPENDIX B - HYDRAULICS*

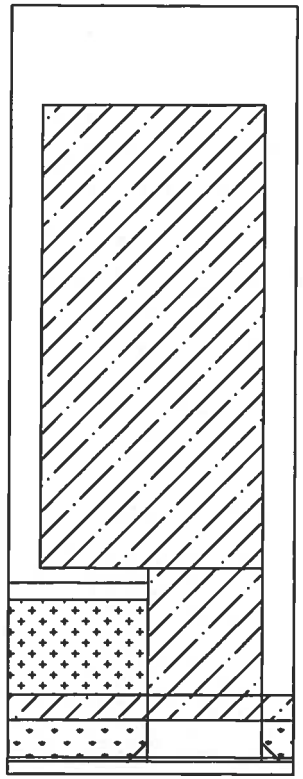
## IMPERVIOUS AREA

PAD AREA
2555 SF
FF=72 CF

DRIVEWAY
360 SF
FF=10.2 CF

SIDEWALK
180 SF
FF=5.1 CF

(first flush = SFx 0.34"/12")



## DEPRESSED AREA PROVIDED

Concept: Depressed areas are provided to capture the first flush from impervious areas on each individual lot. These depressed areas will be landscaped with rock or grass which will allow drainage to pass through retaining some volume but in some cases will not retain all the flow in the volume provided in this calculation because varying street slopes will effectively reduce the amount of runoff that can be interecepted and retained on any given individual lot.

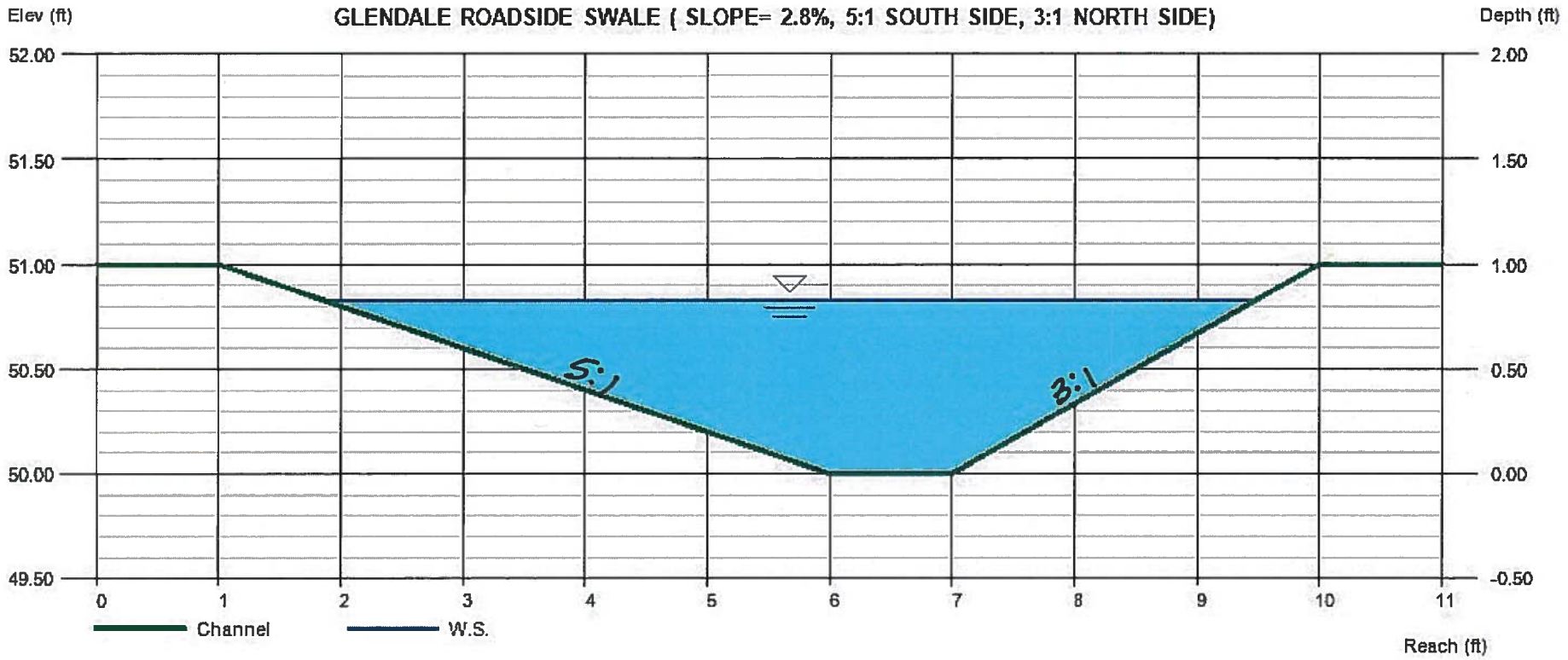
front yard volume=
(19' x 15' x 0.5')/2=
71.25 CF

Curb-sdwk volume=
(19'x5.88'x0.5')/2=
27.9 CF

# GLENDESTO SUBDIVISION

## FIRST FLUSH CALCULATIONS FOR TYPICAL LOT

(scale 1 inch=30 feet)




| Depth | Q | Area | Veloc | Wp | Yc | TopWidth | Energy |
|---|---|---|---|---|---|---|---|
| (ft) | (cfs) | (sqft) | (ft/s) | (ft) | (ft) | (ft) | (ft) |
| 0.83 | 30.43 | 3.586 | 8.49 | 7.86 | 1.00 | 7.64 | 1.95 |

***GLENDESTO SUBDIVISION***

***CALCULATIONS FOR INLET AT END OF SWALE***
***(SAN PEDRO)***

*Capacity is measured using the orifice equation: Q= c x a x((2xgxH)**.5)*

*FOR SINGLE TYPE D INLET*

*Assume 2 feet of head: Q = (0.6) x (**4.56 sq.ft.**) x ((2 x 32.4 x 2 ft)**0.5) = 31.15 cfs*

*FOR DOUBLE TYPE D INLET*

*Assume 2 feet of head Q = (0.6) x (**9.12 sq.ft.**) x ((2 x 32.4 x 2 ft)**0.5) = 62.30 cfs*

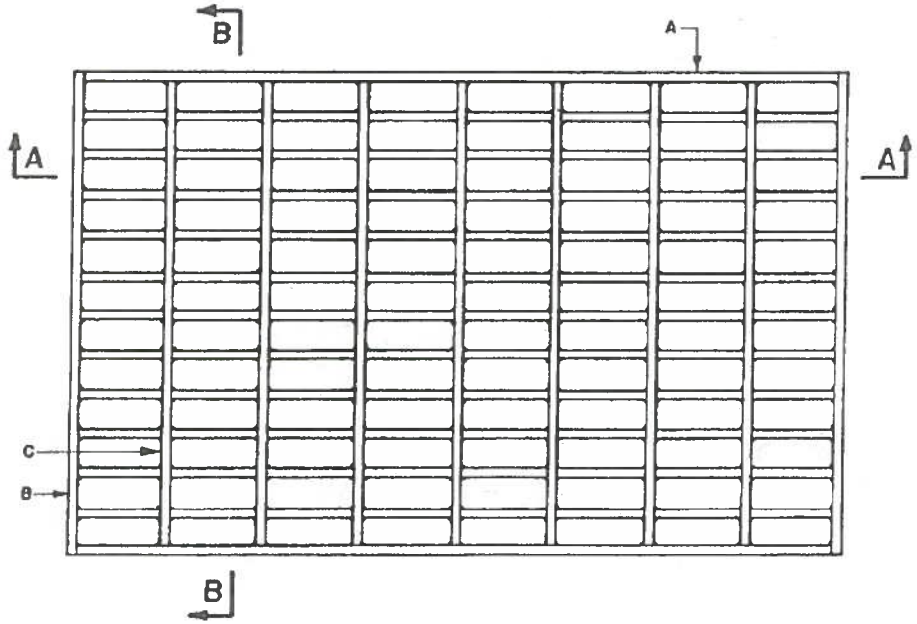
***The 100 year flow to the sump in San Pedro is 30.43 cfs.***

***Assume a 50% clogging factor ~ Use a double D Inlet.***

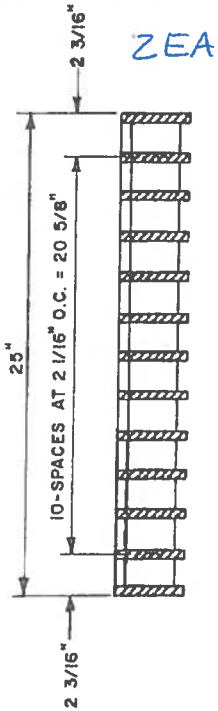
Note: Refer to Standard drawing **2220 DRAINAGE STORM INLET ALBUQUERQUE GRATE**

**REVISED 8-12-16**

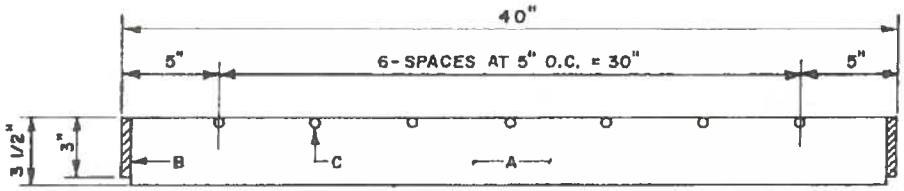
40" - 4.5" = 35.5"
25" - 6.5" = 18.5"
656.75 sq in (OPENING)
= 4.56 sq. ft (OPENING) = 1 EA.
2 EA = 9.12 sq. ft.




PLAN




SECTION B-B




SECTION A-A

## GENERAL NOTES:

1. ALL BARS SHALL BE STRUCTURAL GRADE STEEL, GRADE A36.
2. THE GRATE SHALL BE WELDED WITH 1/8" FILLET WELD AROUND BOTH SIDES OF CROSS BARS, 1/4". FILLET WELD BOTH SIDES OF BEARING BARS TO END BARS.
3. AFTER CLEANING SURFACE OF SCALE, RUST, OILS, ETC., PAINT GRATE WITH ONE SHOP COAT RED OXIDE, TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69).
4. TOP OF CROSS BARS SHALL BE FLUSH WITH TOP OF GRATE.
5. GRIND WELDS FLUSH WITH BEARING BARS.
6. WHEN INSTALLED IN FRAME, PUSH TIGHT TO ONE SIDE, OTHER SIDE SHALL HAVE 1/2" MAX. OPENING. SPACERS WELDED TO FRAME MAY BE USED IF REQUIRED TO KEEP 1/2" SPACE OR LESS.

## CONSTRUCTION NOTES:

A. BEARING BARS, (13) 1/2" X 3 1/2" X 39".

B. END BARS, (2) 1/2" X 3" X 25".

C. CROSS BARS, (7) 1/2" DIA. X 24.

REVISIONS

CITY OF ALBUQUERQUE

DRAINAGE
STORM INLET
ALBUQUERQUE GRATE

DWG. 2220

AUG. 1986

# *APPENDIX C – FINAL N.A.A. MASTER DRAINAGE PLAN*

ID 299

# FINAL
# NORTH ALBUQUERQUE ACRES
# MASTER DRAINAGE PLAN

**Prepared For:**

**City of Albuquerque**

**Prepared By:**


Resource Technology, Inc.

*ENGINEERS AND ENVIRONMENTAL SCIENTISTS*
*1720-B Randolph Road SE, Albuquerque, NM 87106*
*Telephone (505) 243-7300*
*Fax (505) 243-7400*
*rti@nmia.com*


**October 1998**

N

1000 0 500 1000

( IN FEET )

## LEGEND

107.1 SUBBASIN DESIGNATION

SUBBASIN BOUNDARY

EXISTING PLATTING

EXISTING ARROYO FLOW PATH

AP 107.29 2756 cfs ANALYSIS POINT AND EXISTING CONDITION FLOW RATE

* FLOW RATE NOT BULKED FOR SEDIMENT

# 2 POTENTIAL AVULSION LOCATION

MUNICIPAL LIMITS

NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN

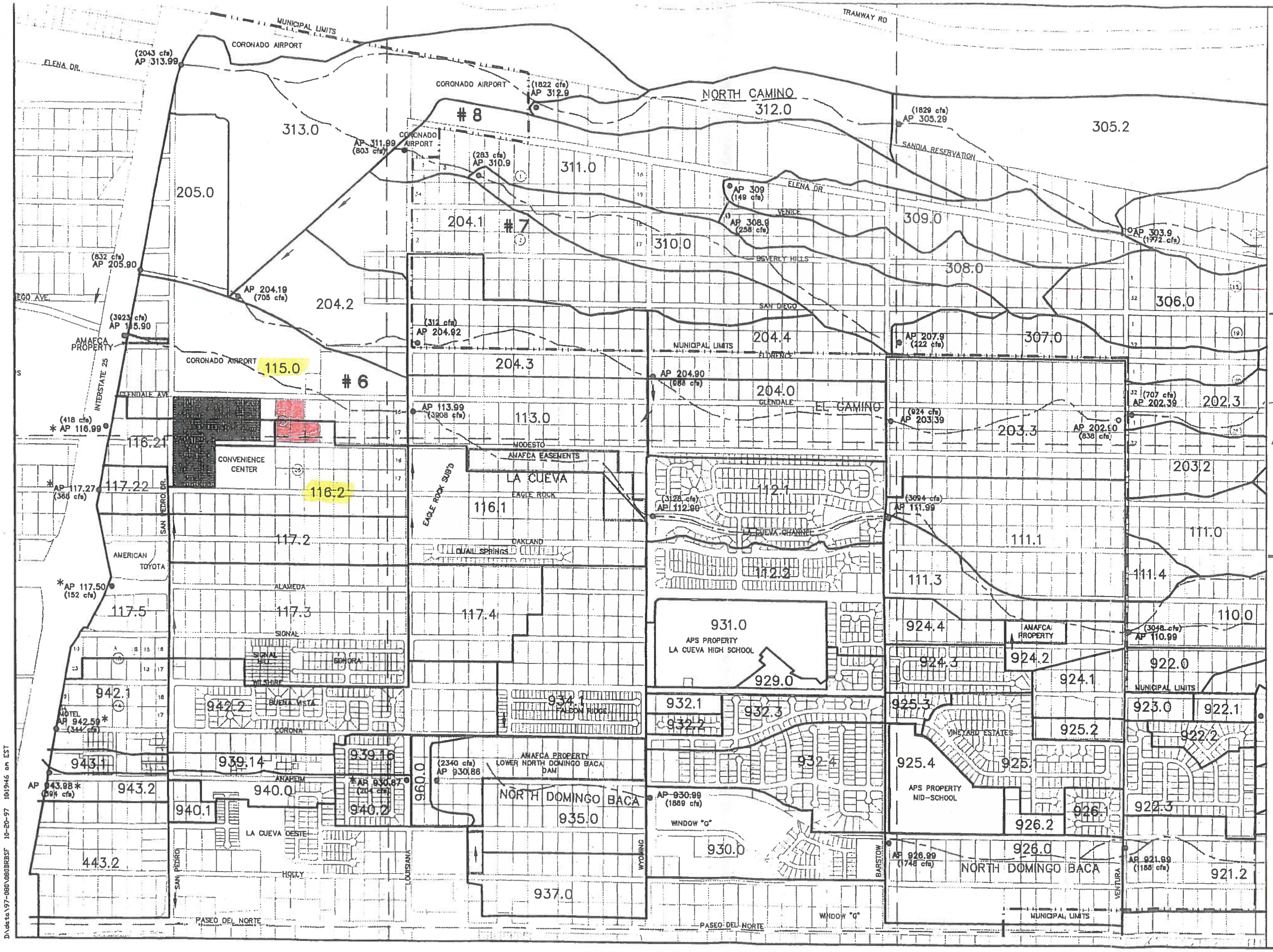
**EXISTING CONDITION**

FIGURE 3A

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT

CITY OF Albuquerque

Resource Technology, Inc.
Civil Engineering
Environmental Sciences
Water Resources
Landscape Architecture
Planning
1720 - B Randolph Road SE
Albuquerque, New Mexico 87106
E-mail: rti@nmia.com
Telephone: (505) 243-7300
Facsimile: (505) 243-7400




NORTH ALBUQUERQUE ACRES
MASTER DRAINAGE PLAN

**FUTURE CONDITION**

FIGURE 4A

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

City of Albuquerque


Resource Technology, Inc.
Civil Engineering
Environmental Sciences
Water Resources
Landscape Architecture
Planning
1720 – B Randolph Road SE
Albuquerque, New Mexico 87 06
E-mail: rti@rtinm.com
Telephone: (505) 243-7300
Facsimile: (505) 243-7400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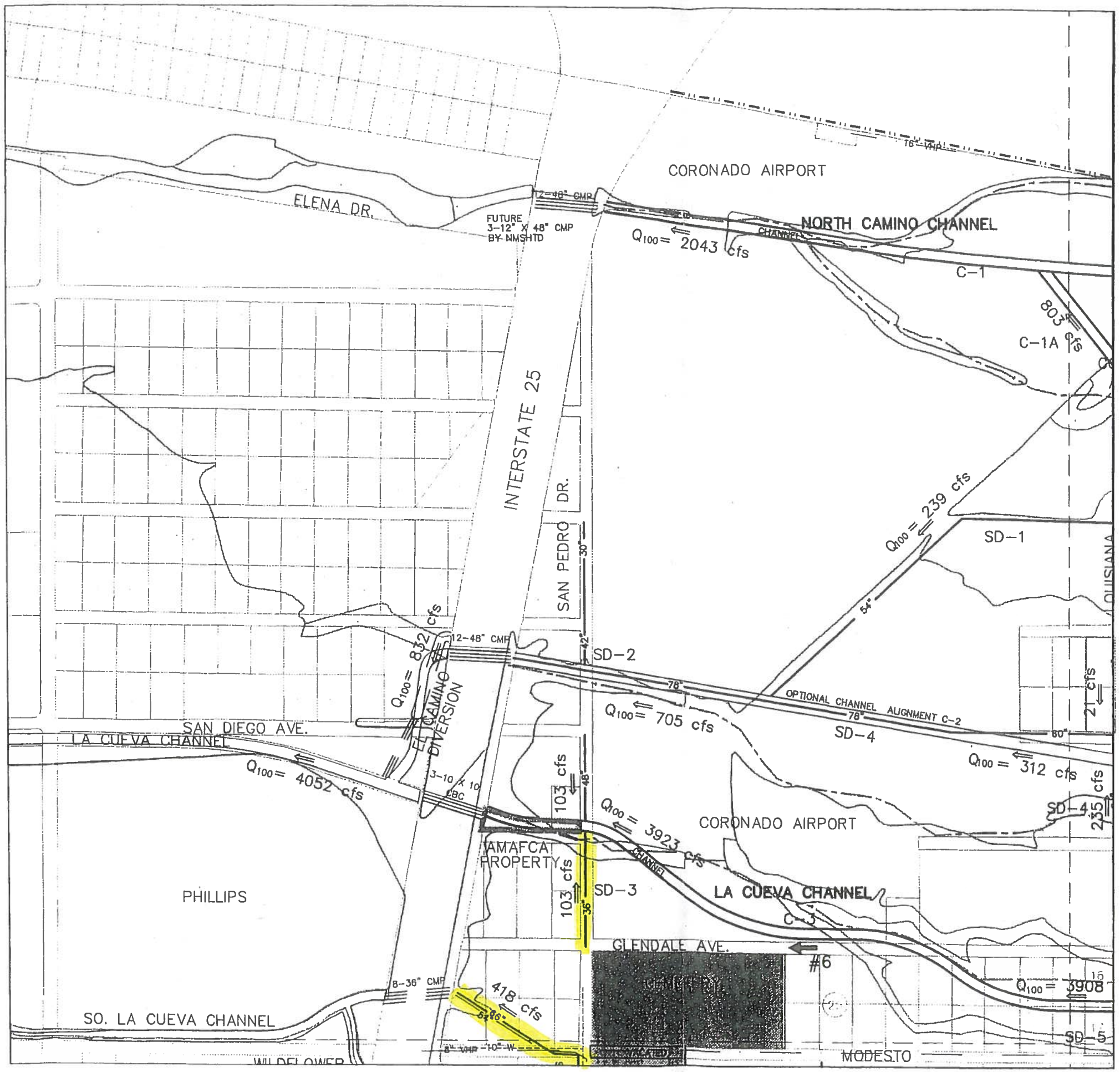


N

500 0 250 500

( IN FEET )

## LEGEND

- MUNICIPAL LIMITS
- EXISTING PLATTING
- EXISTING ARROYO FLOW PATH
- 10" W — EXISTING WATER LINE
- 10" SAS — EXISTING SANITARY SEWER
- 12" VHP — EXISTING GAS LINE
- 78" — EXISTING STORM DRAIN
- 54" — PROPOSED STORM DRAIN
- CHANNEL — PROPOSED CHANNEL
- PROPOSED STRUCTURE OR ROAD
- PROPOSED DIKE
- #5 AV-5 — POTENTIAL AVULSION

NOTE:
All flow rates shown are future condition 100-year.

NORTH ALBUQUERQUE ACRES
MASTER DRAINAGE PLAN

**STORM DRAIN FACILITIES**
**B-18**

FIGURE 5A

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

CITY OF Albuquerque

Resource Technology, Inc.
Civil Engineering
Environmental Sciences
Water Resources
Landscape Architecture
Planning
1720 - B Randolph Road SE
Albuquerque, New Mexico 87106
E-mail: rti@nmia.com
Telephone: (505) 243-7300
Facsimile: (505) 243-7400

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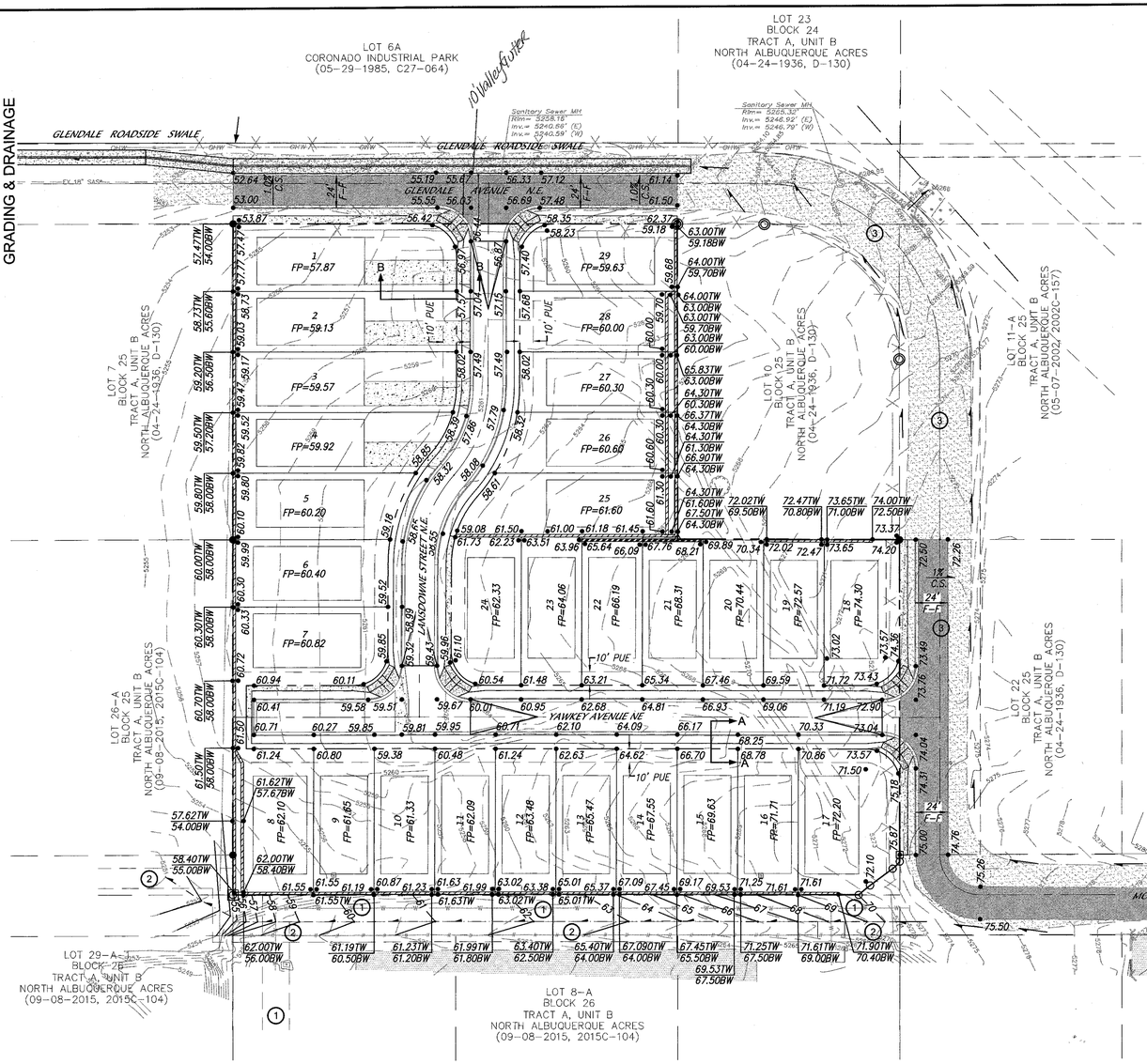
| TABLE A-9<br><br>LA CUEVA ARROYO FUTURE CONDITIONS | | | | | |
|---|---|---|---|---|---|
| **Sub-basin** | **Area (sq. mi.)** | **10-yr Vol (ac-ft)** | **10-yr Qp (cfs)** | **100-yr Vol (ac-ft)** | **100-yr Qp (cfs)** |
| 110.0 | .1634 | 5.774 | 138.24 | 11.738 | 275.61 |
| 111.0 | .0533 | 1.823 | 57.02 | 3.739 | 108.83 |
| 111.1 | .0500 | 2.054 | 57.41 | 7.699 | 195.97 |
| 111.3 | .0420 | 2.498 | 64.56 | 4.348 | 107.90 |
| 111.4 | .0141 | 0.482 | 15.09 | 0.989 | 28.80 |
| 112.1 | .0894 | 5.152 | 129.98 | 8.942 | 219.11 |
| 112.2 | .0826 | 4.760 | 120.22 | 8.262 | 202.31 |
| 113.0 | .1000 | 6.393 | 159.65 | 10.797 | 262.65 |
| 115.0 | .1202 | 7.581 | 189.15 | 12.750 | 312.21 |
| 116.1 | .1028 | 6.570 | 164.05 | 11.100 | 270.05 |
| 116.2 | .0719 | 4.529 | 113.32 | 7.629 | 185.54 |
| 116.21 | .0344 | 1.682 | 45.58 | 3.024 | 79.13 |
| 117.2 | .0500 | 2.788 | 72.23 | 4.836 | 121.61 |
| 117.22 | .0156 | 1.108 | 27.22 | 1.820 | 43.06 |
| 117.3 | .1172 | 6.536 | 167.85 | 11.336 | 286.33 |
| 117.4 | .0512 | 3.225 | 80.83 | 5.432 | 132.07 |
| 117.5 | .0550 | 3.907 | 95.92 | 6.417 | 151.76 |

**TABLE A-2 (cont.)**

**LA CUEVA ARROYO SUB-BASIN CHARACTERISTICS**

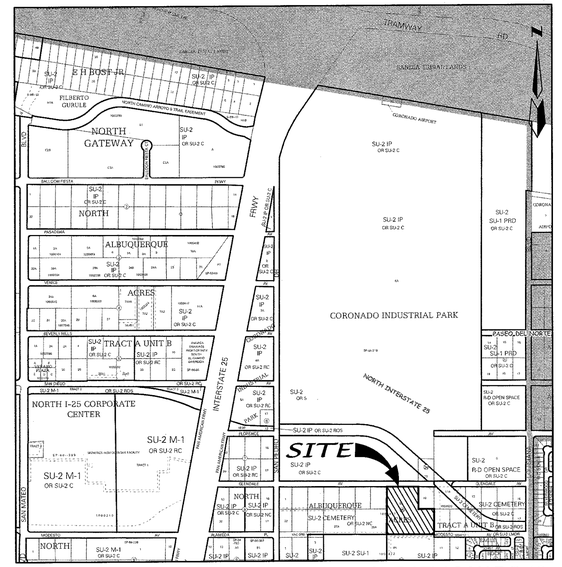
| Basin ID | Hydrologic Condition | Basin Area ($mi^2$) | Land Treatment (%) | | | | TP (hrs) |
|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | |
| 113* | Existing | .1136 | 80 | 0 | 15 | 5 | .133 |
| | Future | .1000 | 0 | 25 | 15 | 60 | .133 |
| 115* | Existing | .1337 | 80 | 0 | 15 | 5 | .133 |
| | Future | .1202 | 0 | 26 | 12 | 62 | .133 |
| 116* | Existing | .1309 | 80 | 0 | 5 | 15 | .133 |
| 116.1 | Future | .1000 | 0 | 25 | 15 | 50 | .133 |
| 116.2 | Future | .0719 | 0 | 25 | 15 | 50 | .133 |
| 116.21 | Future | .0344 | 0 | 40 | 20 | 40 | .133 |
| 117.2* | Existing | .1391 | 73 | 0 | 7 | 20 | .22 |
| | Future | .0500 | 0 | 34 | 16 | 50 | .133 |
| 117.21* | Existing | .0234 | 0 | 34 | 16 | 50 | .133 |
| 117.22* | Future | .0156 | 0 | 20 | 10 | 70 | .133 |
| 117.3* | Existing | .0863 | 65 | 5 | 15 | 15 | .133 |
| | Future | .1172 | 0 | 34 | 16 | 50 | .133 |
| 117.31* | Existing | .0250 | 0 | 34 | 16 | 50 | .133 |
| 117.32* | Existing | .0090 | 0 | 34 | 16 | 50 | .133 |
| 117.4* | Existing | .0750 | 85 | 0 | 5 | 10 | .133 |
| | Future | .0512 | 0 | 25 | 15 | 60 | .133 |
| 117.5* | Existing | .0550 | 0 | 10 | 20 | 70 | .133 |
| | Future | .0550 | 0 | 10 | 20 | 70 | .133 |
| 118 | Existing | .0649 | 0 | 20 | 10 | 70 | .133 |
| | Future | .0649 | 0 | 20 | 10 | 70 | .133 |
| 118.1 | Existing | .0306 | 75 | 5 | 10 | 10 | .133 |
| | Future | .0306 | 0 | 20 | 30 | 50 | .133 |
| 119 | Existing | .0549 | 0 | 20 | 10 | 70 | .133 |
| | Future | .0549 | 0 | 20 | 10 | 70 | .133 |
| 120 | Existing | .0268 | 50 | 0 | 0 | 50 | .133 |
| | Future | .0268 | 0 | 20 | 10 | 70 | .133 |
| 121 | Existing | .0489 | 80 | 0 | 15 | 5 | .133 |
| | Future | .0489 | 0 | 20 | 10 | 70 | .133 |

*Modified for COA NAA MDP 9/97




## LEGEND

- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING SPOT ELEVATION
- EXISTING TOP CURB/FLOWLINE ELEVATION
- EXISTING ASPHALT PAVEMENT
- EXISTING ELECTRIC TRANSFORMER
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL PULLBOX
- EXISTING TELEPHONE MANHOLE
- EXISTING CATV PEDESTAL
- EXISTING STORM DRAIN MANHOLE
- NEW STANDARD CURB & GUTTER
- NEW RIGHT-OF-WAY
- NEW CENTERLINE
- NEW LOT LINES
- NEW EASEMENTS
- NEW TOP OF WALL ELEVATION / NEW BOTTOM OF WALL ELEVATION
- NEW SPOT ELEVATIONS
- NEW FLOW DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL (SEE NOTE 9)
- NEW GARDEN WALL
- NEW STORM DRAIN




VICINITY MAP (NTS)

ZONE ATLAS MAP B-18

## EASEMENTS

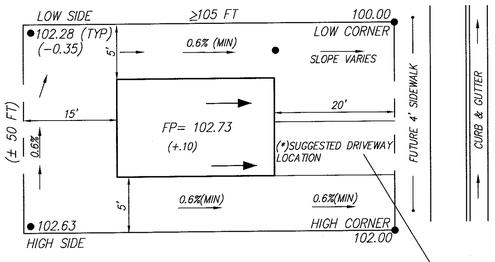
1. EXISTING 20' ABCWUA PUBLIC WATERLINE EASEMENT (09-08-2015, 2015C-104)
2. EXISTING 15' NMGC GAS LINE EASEMENT (09-08-2015, 2015C-104)
3. EXISTING 60' COA PERMANENT EASEMENT FOR GLENDALE EXTENSION ROADWAY IMPROVEMENTS (12-21-2001, 2001152060)

## LEGAL DESCRIPTION

A TRACT OF LAND SITUATE WITHIN THE ELENA GALLEGO GRANT, PROJECTED SECTION 12, TOWNSHIP 11 NORTH, RANGE 3 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING ALL OF LOT 8-A, BLOCK 25, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES, 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 SEPTEMBER 8, 2015, IN PLAT BOOK 2015C, PAGE 104, AND CONTAINING 4.7676 ACRES MORE OR LESS.

## NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.
6. SITE DOES NOT LIE IN A 100 YEAR FLOOD ZONE.
7. ALL SITE WALLS SHALL CONFORM TO THE GENERAL HEIGHT AND DESIGN REGULATIONS CONTAINED IN SECTION 14-16-3-19 OF THE CITY ZONING CODE.
8. COMBINATION GARDEN WALL/RETAINING WALL CANNOT EXCEED 8 FEET. IF THE RETAINING WALL IS GREATER THAN 4 FEET, THE DEVELOPER CAN ADD 3:1 SLOPES IN BACKYARD OR A SECOND RETAINING WALL OFFSET FROM THE FIRST ONE.

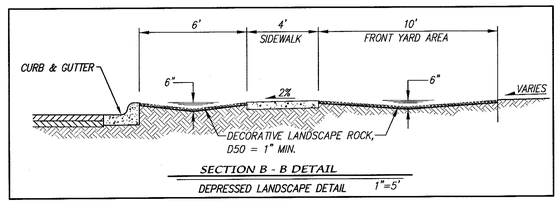



TYPICAL LOT LAYOUT PLAN

N.T.S.

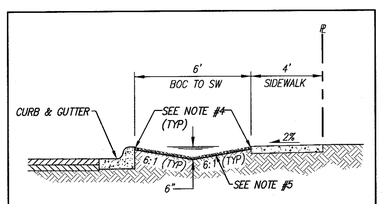
**(*) SPECIAL NOTE FOR DRIVEWAYS**

ON ALL LOTS WHERE FINISHED PAD IS > 2.0 FEET HIGHER THAN LOW CORNER OF LOT, DRIVEWAY SHOULD BE CONSTRUCTED ON HIGH SIDE OF PAD/LOT. THIS WILL HELP MINIMIZE THE STEEPNESS OF DRIVEWAY SLOPE.




SECTION B - B DETAIL

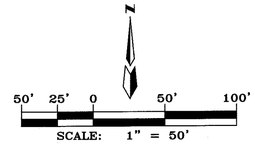
DEPRESSED LANDSCAPE DETAIL 1"=5'




SECTION A - A
TYPICAL DEPRESSED AREA
ON-SITE BETWEEN SIDEWALK & BACK OF CURB (ROUGH GRADED ONLY)
LANSDOWNE STREET N.E.
YAWKEY WAY N.E.
1"=5'

## LANDSCAPE BUFFER NOTES:

1. Swale to be 6" deep when the distance between back of curb and the sidewalk is 5 feet.
2. Swale to be 1" deeper than the distance in feet between the back of curb and the sidewalk for landscape buffers different than 5 feet wide.
3. For wide landscape buffers, greater than 10 feet, the maximum depth is 10 inches.
4. Final grade of dirt to be 1 to 2 inches below top of curb and top of sidewalk grade.
5. Surface between back of curb and sidewalk to be covered with gravel mulch (minimum ¾"), cobbles or rip-rap. Do not fill entire swale.
6. A check dam will be required for swales on steeper longitudinal slopes and longer sections. The engineer will determine the location.
7. Landscape fabric is recommended, but not required, between the dirt and the stone. If landscape fabric is to be used it is to be permeable.
8. Detail is to be built for all new construction. In the case where the sidewalk is existing and the landscape buffer is improved with landscaping and/or some form of erosion protection, this requirement does not apply.

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SURVEY INFORMATION — FIELD NOTES — NO. — BY — DATE

BENCH MARKS — AS BUILT INFORMATION — CONTRACTOR

AGRS Brass Cap stamped "10-C18"
Elevation, in feet (NAVD88)=5522.080

WORK STAKED BY — DATE
INSPECTION BY — DATE
AS-BUILTS BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

ENGINEER'S SEAL
FRANK HOELZER
NEW MEXICO
11887
REGISTERED PROFESSIONAL ENGINEER
8/10/16

| NO. | DATE | REMARKS / REVISIONS | BY |
|---|---|---|---|
| | | DESIGN | |
| | | DESIGNED BY DLH | 05/16 |
| | | DRAWN BY DER | 05/16 |
| | | CHECKED BY DMG | 05/16 |


MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: GLENDESTO SUBDIVISION
GRADING & DRAINAGE PLAN

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO. · | ZONE MAP NO. B-18-Z | SHEET 1 OF 2



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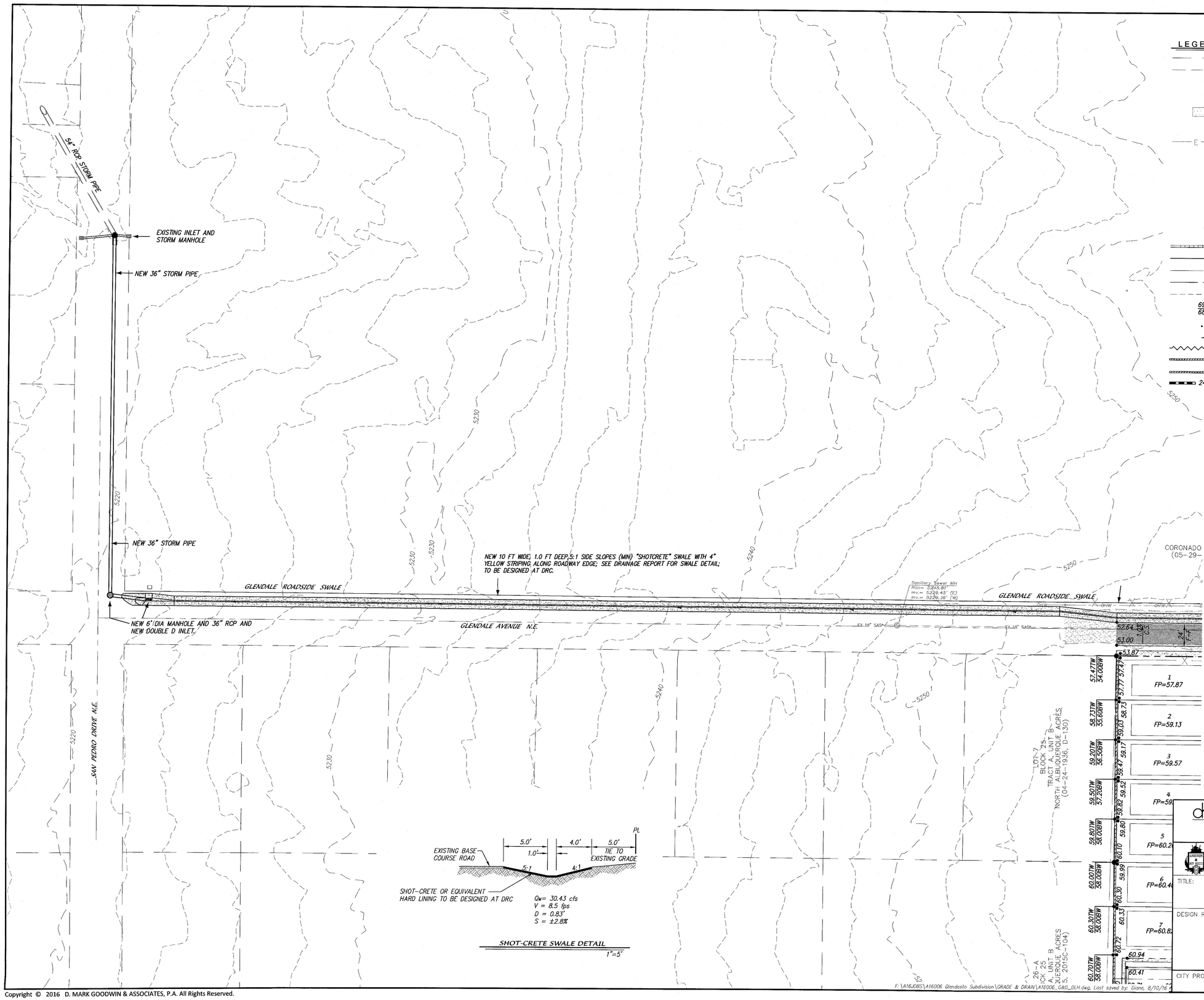


SURVEY INFORMATION
FIELD NOTES

| NO. | BY | DATE |
|---|---|---|

BENCH MARKS
ACPC Bross Cap stamped "10-C18"
Elevation, in feet (NAVD88)=5222.080

AS BUILT INFORMATION
CONTRACTOR

| | DATE |
|---|---|
| WORK STAKED BY | |
| INSPECTION & ACCEPTANCE BY | |
| FIELD VERIFICATION BY | |
| DRAWINGS CORRECTED BY | |

MICRO-FILM INFORMATION
RECORDED BY
NO. DATE

ENGINEER'S SEAL
DANIEL HOELZER
NEW MEXICO
17801
REGISTERED PROFESSIONAL ENGINEER
5-12-16

| NO. | REMARKS | BY | DATE |
|---|---|---|---|
| | REVISIONS DESIGN | | |
| | DESIGNED BY DLH | | 05/16 |
| | DRAWN BY DER | | 05/16 |
| | CHECKED BY DMG | | 05/16 |


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CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE:
# GLENDESTO SUBDIVISION GRADING & DRAINAGE PLAN

| DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR. |
|---|---|---|---|---|
| | | | | |

CITY PROJECT NO. -
ZONE MAP NO. B-18-Z
SHEET 2 OF 2

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