

# CITY OF ALBUQUERQUE

Planning Department  
Brennon Williams, Director



Mayor Timothy M. Keller

September 9, 2019

Scott Eddings, PE  
Huitt-Zollers Inc.  
6561 Americas Parkway NE  
Albuquerque, NM 87110

**RE: Ceja Vista Apartment Complex Phase II**  
**9902 Ceja Vista Rd SW**  
**Grading and Drainage Plan**  
**Engineer's Stamp Date: 08/05/19**  
**Hydrology File: P09D002G**

Dear Mr. Eddings:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 08/09/2019, the Grading & Drainage Plan is not approved for action by the DRB on Preliminary Plat and Site Plan for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Since this project is adjacent to, or drains into an Albuquerque Metropolitan Arroyo and Flood Control Authority (AMAFCA) facility, approval by AMAFCA will be need prior to Hydrology approval. Please contact Nicole Friedt P.E, CFM (nfriedt@amafca.org or 505-884-2215).
2. Only an administration fee of \$40 will be required at the time of resubmittal.

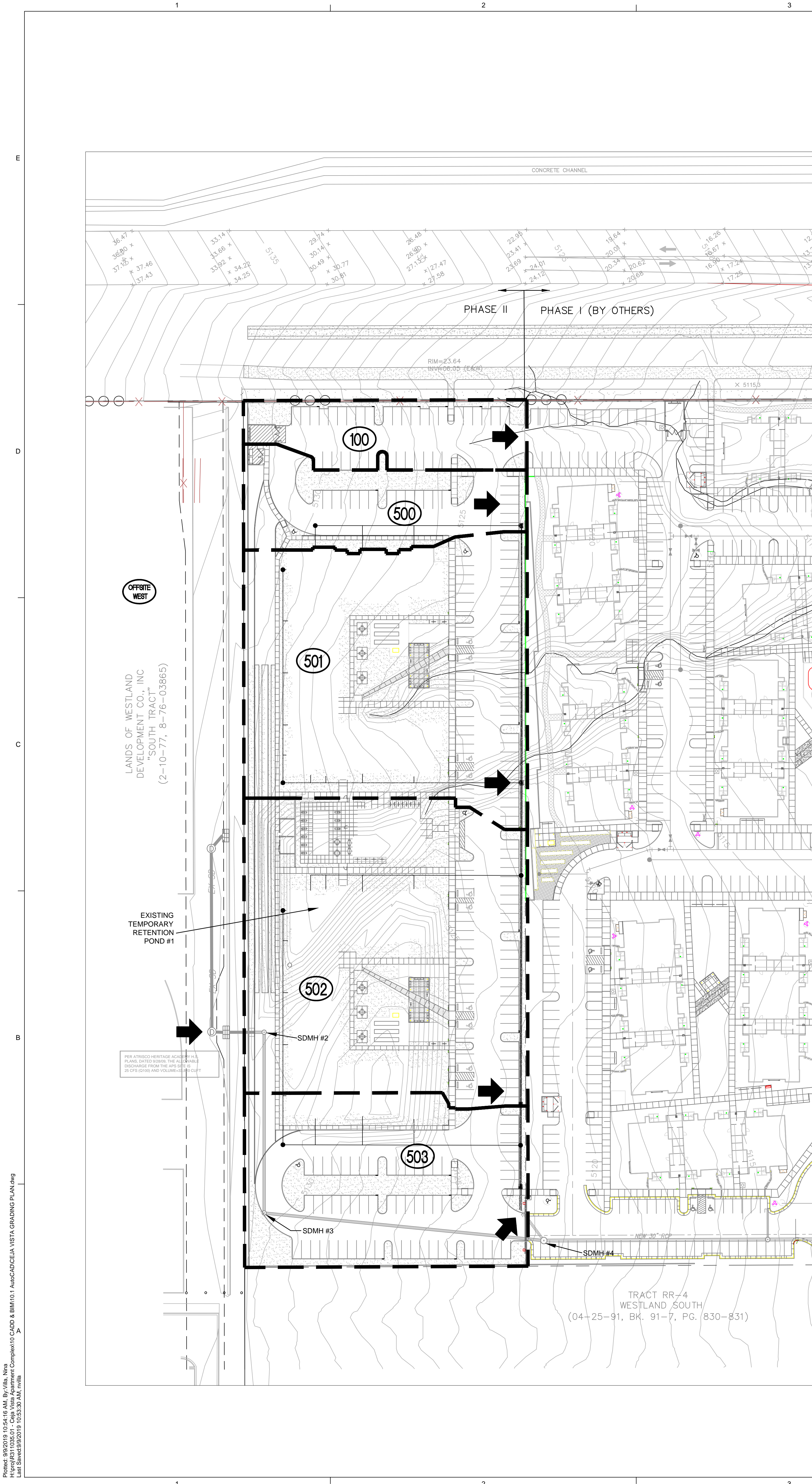
If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

Sincerely,

*Renée C. Brissette*

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





**DRAINAGE PLAN:**

LEGAL DESCRIPTION: TRACT RR3A1 PLAT FOR WESTLAND SOUTH  
SITE AREA: 5.4 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FIRM MAP DATED AUGUST 16, 2012 (MAP NUMBER 35001C0338H) INDICATES THAT THE SITE IS AN AREA OF MINIMAL FLOOD HAZARD (ZONE X).

EXISTING DRAINAGE CONDITIONS:

THE SITE HAS NOT BEEN PREVIOUSLY DEVELOPED. THE EXISTING LAND SLOPES FROM WEST TO EAST AT APPROXIMATELY 3%. THE ATRISCO HERITAGE ACADEMY HIGH SCHOOL TO THE WEST OF THE SITE IS ALLOWED TO DISCHARGE ONTO THIS SITE UNTIL A STORM DRAIN CONNECTION OUTFALL IS BUILT. IN THE MEANTIME, THE EXISTING TEMPORARY RETENTION POND #1 WAS BUILT TO MITIGATE THE OFFSITE FLOW FROM THE HIGH SCHOOL SITE.

THIS DRAINAGE PLAN REFERENCES THE "VALLE DE ATRISCO APARTMENT DEVELOPMENT DRAINAGE MANAGEMENT PLAN" BY MARK GOODWIN & ASSOCIATES, DATED SEPTEMBER 2018. THE DRAINAGE MANAGEMENT PLAN COMPLETED HYDROLOGIC AND HYDRAULIC ANALYSIS FOR THIS SITE AND THE ADJACENT CONNECTING SITE TO THE EAST. DEVELOPED FLOWRATES FOR THIS SITE ARE OBTAINED DIRECTLY FROM THE DRAINAGE MANAGEMENT PLAN. IN ADDITION, THE STORM DRAIN SYSTEM DESIGN FOR THIS SITE HAS BEEN DESIGNED WITH THE DRAINAGE MANAGEMENT PLAN.

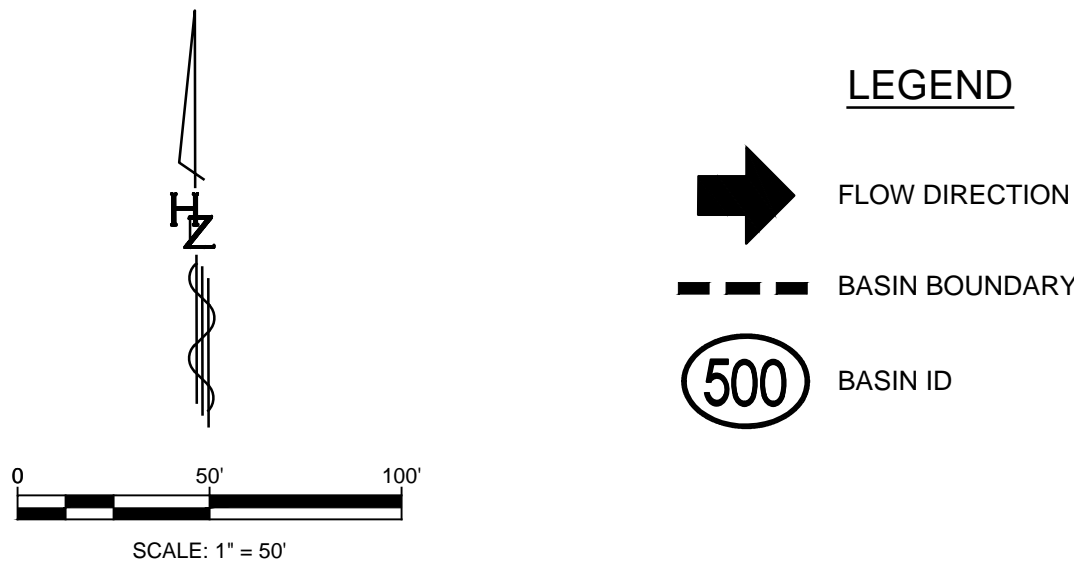
THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE HYDROLOGIC AND HYDRAULIC CRITERIA IN SECTION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL. THE 100-YEAR DESIGN STORM IS USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS.

DEVELOPED DRAINAGE CONDITIONS:

THIS SITE (PHASE II) AND THE ADJACENT CONNECTING SITE TO THE WEST (PHASE I) WILL BE DEVELOPED INTO AN APARTMENT COMPLEX. AS DETERMINED BY THE DRAINAGE MANAGEMENT PLAN, THIS SITE WILL ACCEPT 25 CFS OF OFFSITE FLOW FROM THE HIGH SCHOOL SITE VIA AN ONSITE STORM DRAIN SYSTEM AND PHASE II WILL DISCHARGE ONSITE DEVELOPED FLOW INTO THE STORM DRAIN WHICH CONNECTS TO PHASE I.

FIRST FLUSH VOLUME = 5.4 ACRES (0.34") = 6665 CF  
THIS VOLUME WILL BE PROVIDED BY OFFSITE OUTFALL POND BUILT WITH THE "VALLE DE ATRISCO APARTMENT DEVELOPMENT DRAINAGE MANAGEMENT PLAN".

CEJA VISTA APARTMENT COMPLEX PHASE II BASIN SUMMARY			
BASIN ID	DESCRIPTION OF FLOW DIRECTION	ALLOWABLE Q (CFS)	ACTUAL Q (CFS)
OFFSITE WEST	Allowable discharge from high school site enters onsite storm drain system at SDMH#2	25.00	25.00
100	Onsite basin surface flows east toward Phase I	1.85	1.57
500	Onsite basins surface flow east and are intercepted by drainage inlets into the onsite storm drain system and flows toward SDMH #4	2.55	2.01
501		6.20	6.37
502		6.96	7.23
503		3.76	4.17
TOTAL Q AT SDMH #4 =		44.47	44.77



**Inlet Worksheet (Sump Condition)**

**Objective:** Design a Type C or Type D Inlet in Sump Condition for a 100-year flow

1 Inlet to collect peak flow amount before overtopping headwall.

2 Grate Dimensions

35.5  
18.5

18.5

35.5  
9.0 ft  
4.8 sf

Area of Orifice = 4.8 sf

3 Calculate Orifice and Weir Flow into Grate at Design Depth

Orifice Equation

$Q = 0.6 \times A \times (2 \times g \times h)^{1/2}$

Where

A = 4.8 sq. ft.

g = 32.2 ft/sec

h = 0.5 ft

Therefore

Q = 15.5 cfs

Orifice Equation controls

Grate Capacity = 15.5 cfs

Weir Equation

$Q = 2.65 \times P \times H^{3/2}$

Where

P = 9.0 ft

H = 0.5 ft

Therefore

Q = 16.9 cfs

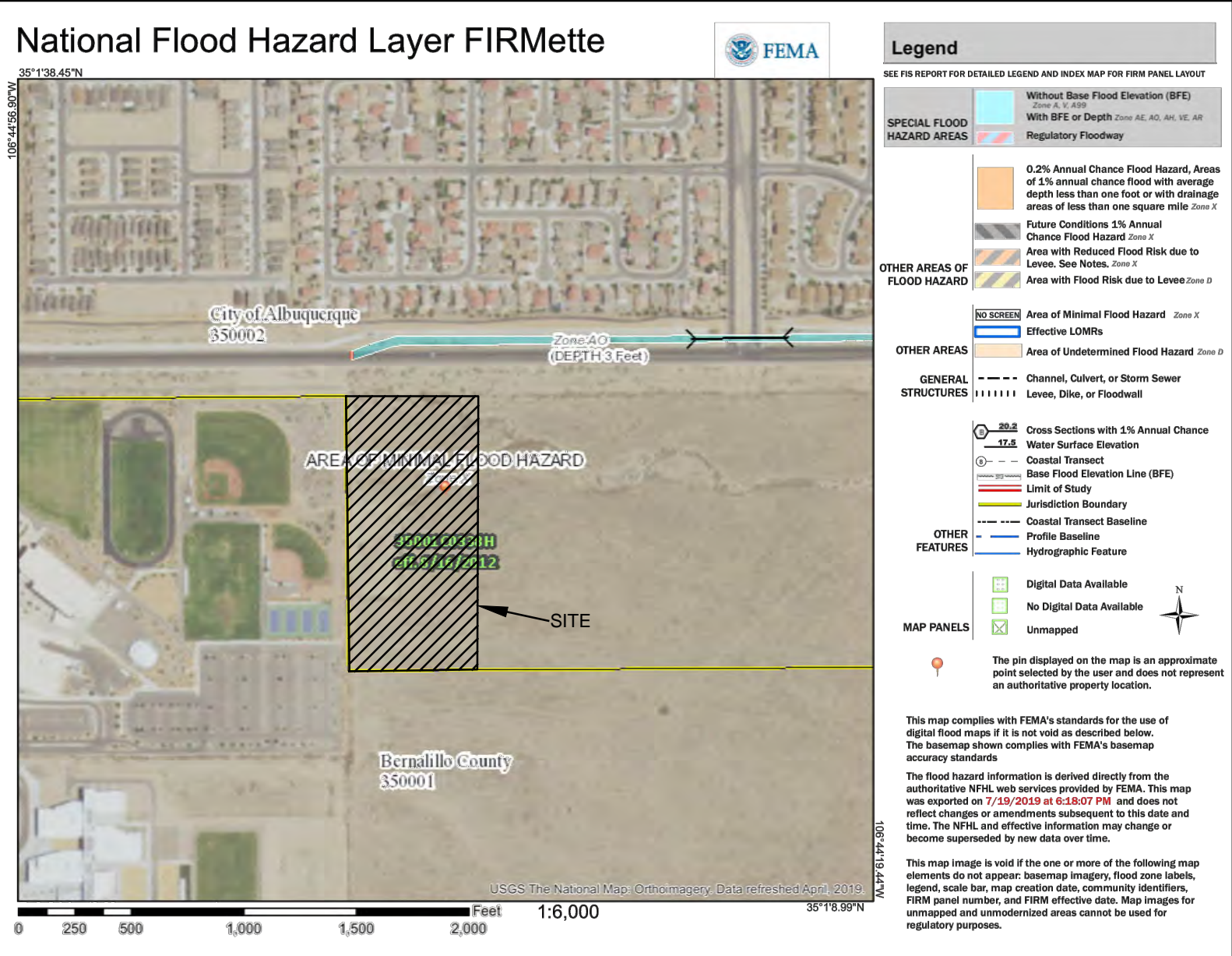
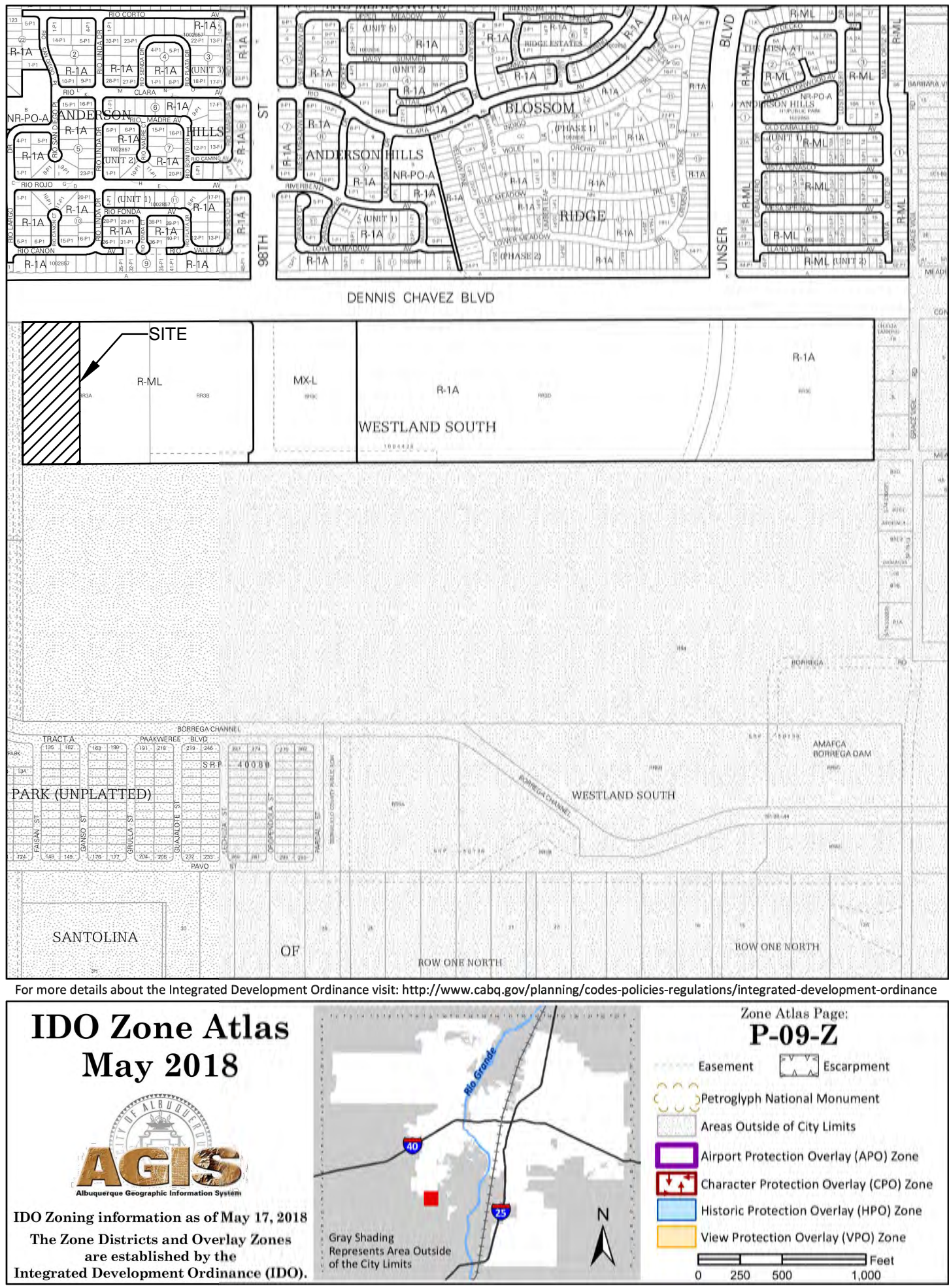
4 Apply 25% Clogging Factor to determine allowable design flow into inlet

15.5 x 0.75 = 12 cfs

Therefore Capacity of Single CID Inlet in Sump Condition = 12 cfs

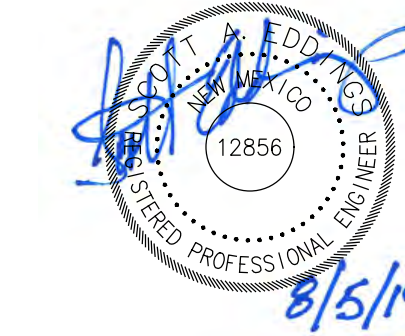
Capacity of Double CID Inlet in Sump Condition = 23 cfs

\*Grate Capacities do not account for curb opening inflow. Therefore, inlet capacities are the same for Type C and Type D inlets.



**HUITT-ZOLIARS**

333 Rio Rancho Drive NE, Ste. 101  
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505-892-5141  
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SEAL

PROJECT

**CEJA VISTA**  
10 001 CEJA VISTA ROAD SW  
ALBUQUERQUE, NM 87121

**100% DESIGN  
DEVELOPMENT**

REVISIONS

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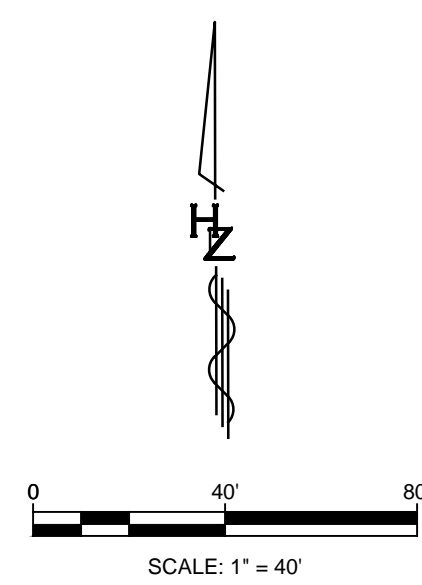
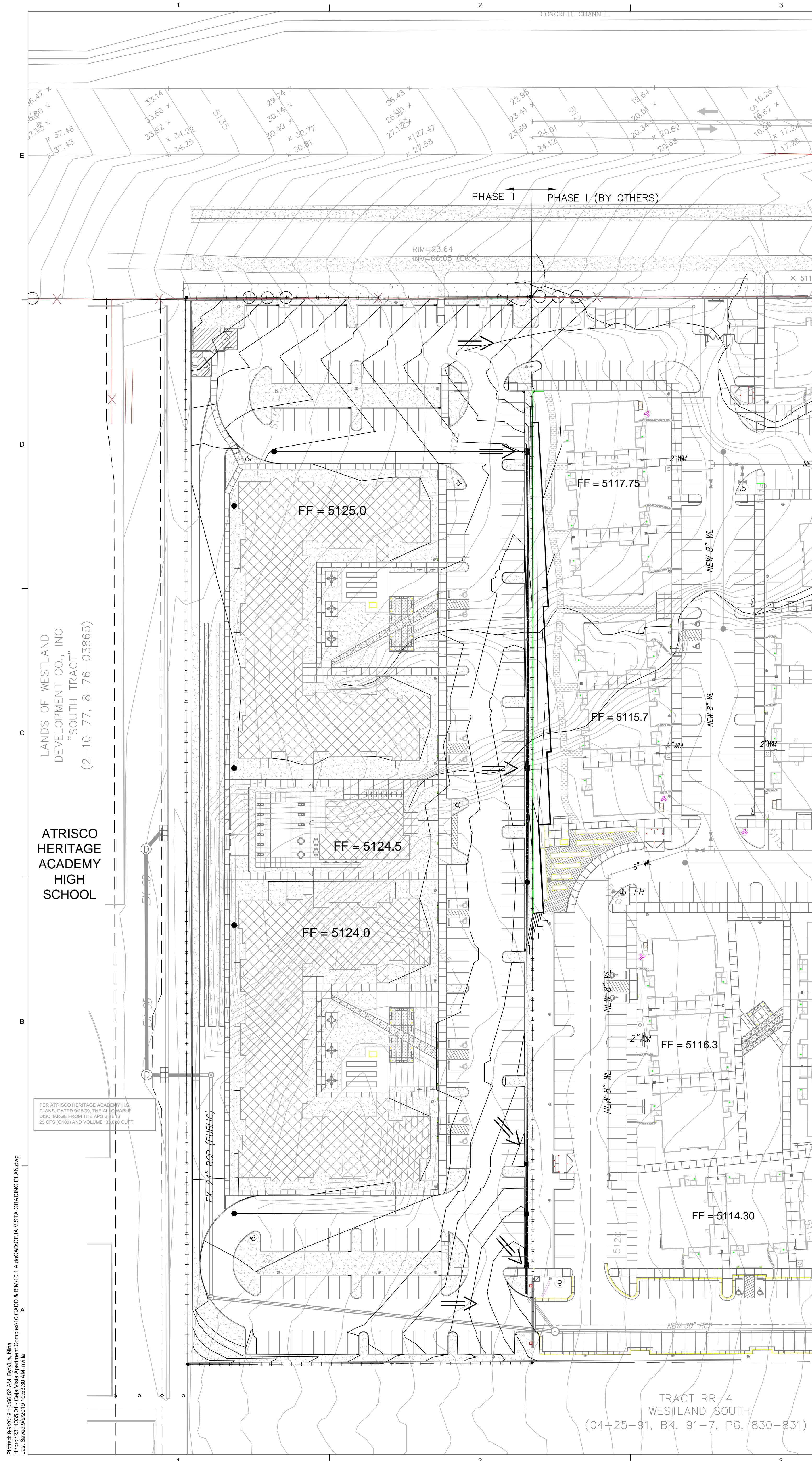
DRAWN BY NV  
REVIEWED BY SE  
DATE 09/04/2019  
PROJECT NO 19-0019

DRAWING NAME  
Drainage Plan

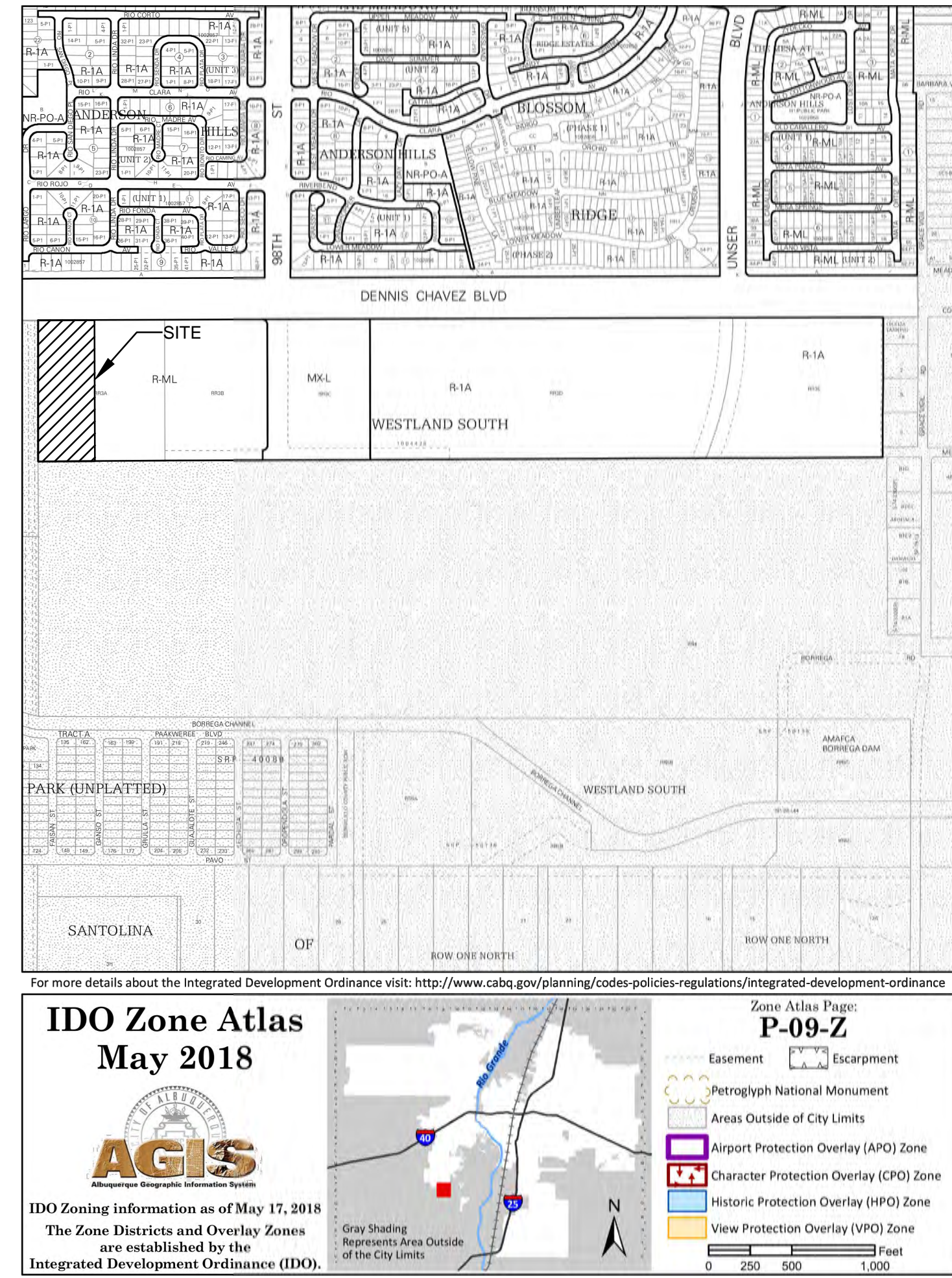
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**C104**





- LEGEND**
- DISCHARGE LOCATION
  - FLOW DIRECTION
  - LIMITS OF DISTURBANCE
  - HIGH POINT

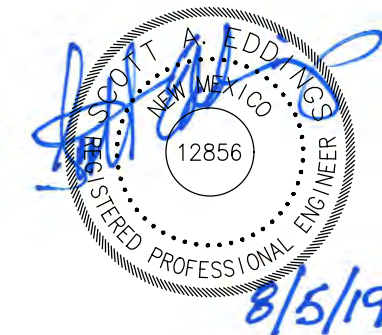


**EROSION SEDIMENT CONTROL PLAN**  
SHALL BE SUBMITTED UNDER SEPARATE COVER

**GENERAL NOTES**

- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE TO RESOLVE THE CONFLICT WITH A MINIMUM AMOUNT OF DELAY.
- ALL WORK ON THIS PLAN SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE LOCATION ONLY, AND LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OWNER OR FROM EXISTING PLANS, AND THIS INFORMATION MAY BE INCOMPLETE, OR OBSOLETE AT THE TIME OF CONSTRUCTION. THE ENGINEER HAS NOT UNDERTAKEN ANY FIELD VERIFICATION OF THESE LOCATIONS. LINE SIZES OR MATERIAL TYPE, MAKES NO REPRESENTATION THEREOF, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE OR UNDERGROUND INSTALLATION IN OR NEAR THE AREA IN ADVANCE OF AND DURING ANY EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES AND UNDERGROUND FACILITIES. IN PLANNING AND CONDUCTING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH ALL STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- THE CONTRACTOR SHALL INSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND BY WETTING THE SOIL TO KEEP IT FROM BLOWING.
- THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY CITY OF ALBUQUERQUE FOR THE COMPLETION OF THE WORK PRIOR TO BEGINNING CONSTRUCTION.

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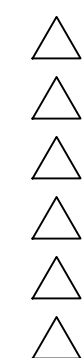
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**100% DESIGN  
DEVELOPMENT**

REVISIONS



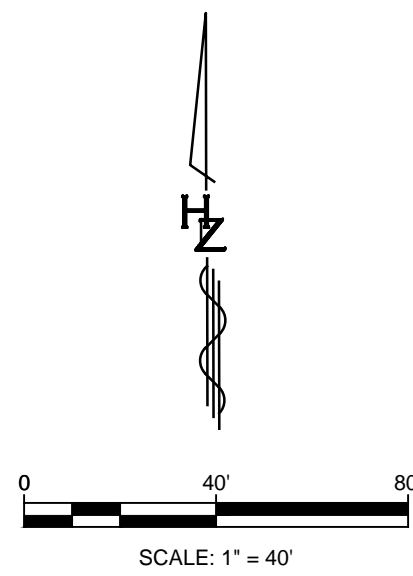
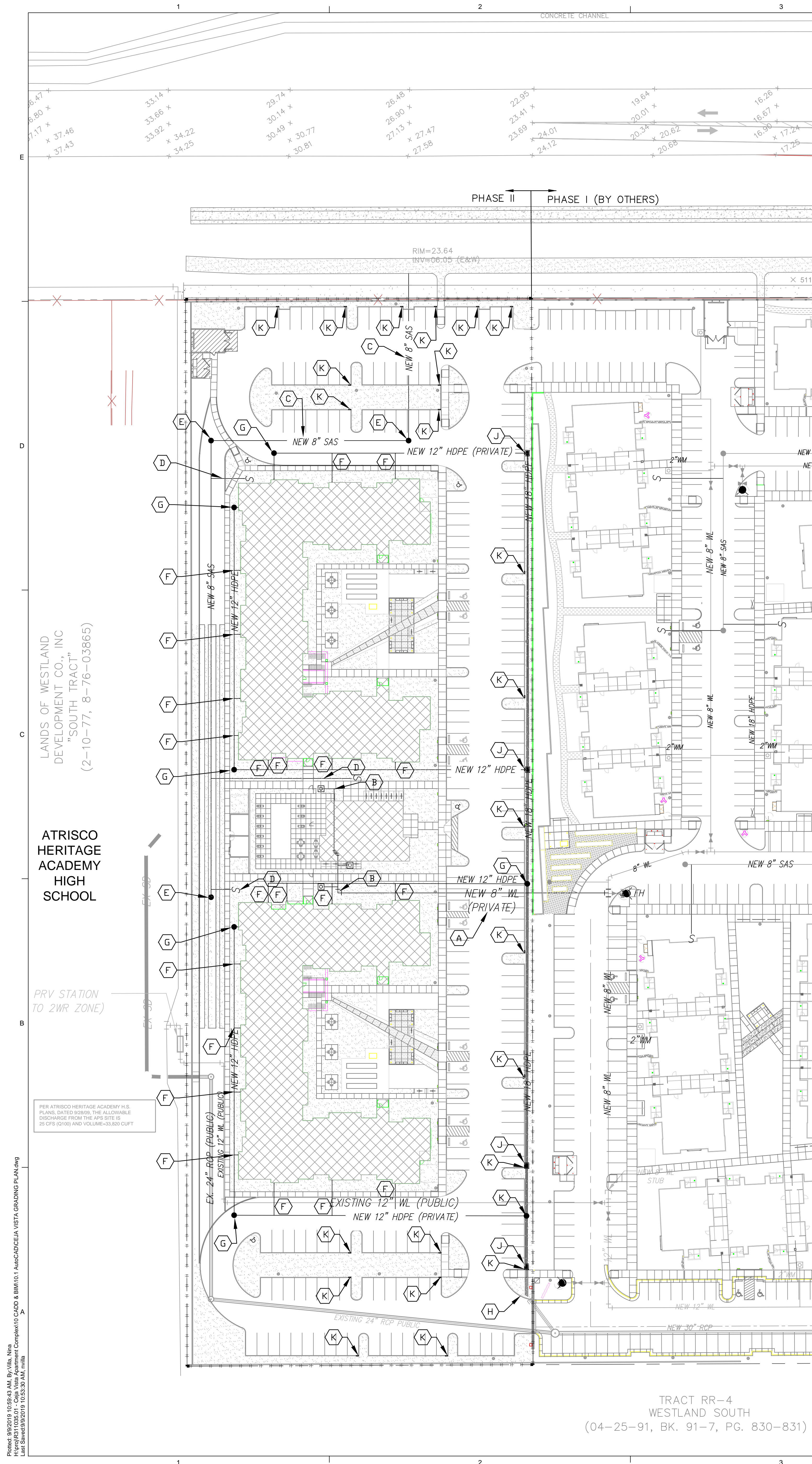
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REVIEWED BY **SE**  
DATE 09/04/2019  
PROJECT NO 19-0019

DRAWING NAME  
**Grading Plan**

SHEET NO

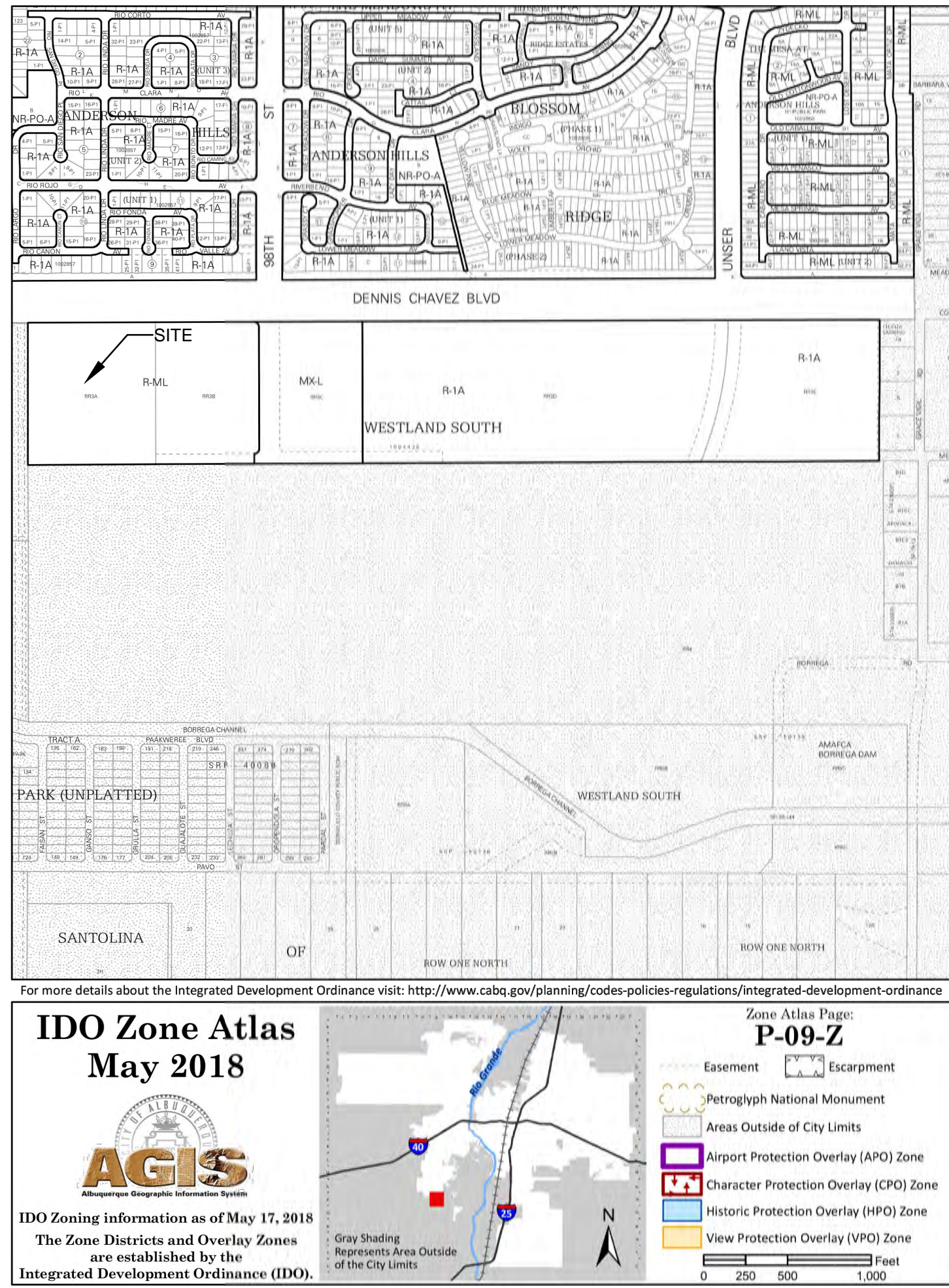
**C105**





### KEYED NOTES

- (A) INSTALL 8" C-900 CL 150 PVC WATER LINE
- (B) INSTALL 1-8" x 90" DI (MJ) BEND W/RESTRAINTS
- (C) INSTALL 8" SDR-35 PVC SEWER LINE
- (D) INSTALL 1 - 8" SANITARY SEWER WYE WITH SINGLE CLEANOUT
- (E) INSTALL 4' SAS MANHOLE PER NMAPWA STD. DWG. 2101
- (F) INSTALL 1 - 12" x 6" HDPE TEE WITH SINGLE CLEANOUT
- (G) INSTALL 4' SD MANHOLE PER NMAPWA STD. DWG. 2101
- (H) INSTALL TRIPLE GRATE TYPE C STORM INLET PER NMAPWA STD. DWG. 2205
- (J) INSTALL DOUBLE GRATE TYPE D STORM INLET PER NMAPWA STD. DWG. 2206
- (K) INSTALL 2' WIDE CURB OPENING



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**100% DESIGN  
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REVISIONS

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DRAWN BY **NV**  
REVIEWED BY **SE**  
DATE **09/04/2019**  
PROJECT NO **19-0019**

DRAWING NAME  
**Utility Plan**

SHEET NO

**C106**