



October 27, 2017

Philip Clark
Clark Consulting Engineers
19 Ryan Road
Edgewood, NM 87015

RE: **Signal Village Condos**
Grading Plan
Engineer's Stamp Date 10/03/17
Hydrology File: C20D077

Dear Mr. Clark:

Based on the information provided in the submittal received on 10/04/2017 the above-referenced Grading Plan cannot be approved for Preliminary Plat, Building Permit, or Grading Permit until the following are addressed:

1. According to the La Cueva Sector Development Plan the maximum density is 5 du/(net)ac. Excluding the access easement, this site has about 0.6 acres net. So only 3 dwellings is allowed. Please provide written verification from the zoning administrator that the proposed use is allowed.
2. Is this Condos or Townhouses? The title block says Condos, but the level of information shown indicates a subdivision. If the property is subdivided then the grades on the approved G&D plan must be constructed and verified by an Engineer's Certification prior to allowing Building Permits on the individual lots. If this G&D Plan is for a subdivision then delete the word "Condo" from the title and indicate "Preliminary Plat Approval" instead of "Building Permit Approval" on the DTIS form. But if it is a Condo, the building footprints, floor elevations, patios, porches, sidewalks, driveways, etc. must be shown on the Grading Plan prior to approval for Building Permit, then the Engineer's Certification will be required prior to Certificate of Occupancy.
3. A plat must be approved by the DRB to dedicate the public right of way. An approved G&D Plan will be required prior to the City Engineer's approval of the Preliminary Plat and the Infrastructure List. Then an SIA must be recorded prior to City Engineer signature on the Final Plat.
4. Frontage improvements will be required on Ventura St. and Alameda Blvd. that must be shown on the G&D plan. Typical sections must be shown on the G&D Plan for all roads both onsite and offsite. The sections and the plans should show both the full

planned width and the portion to be constructed with this project, along with any temporary transitions at the ends.

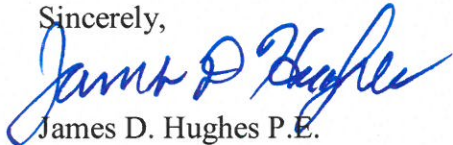
5. Upstream offsite flows enter this site near the intersection of Alameda Blvd. and Ventura St. Analysis of that drainage must be included in this project demonstrating compliance with the DPM. A basin map is required showing existing contours, topography or aerial photo, flow arrows, and slopes. The receiving facilities must be designed for developed conditions in the upstream offsite watershed. Storm drain may be required if surface drainage capacity is exceeded.
6. Improvements may also be required about 500' east of Ventura on Alameda to prevent split flow at that arroyo crossing. Analysis of existing conditions at that crossing is required and should be based on a detailed topographic survey and analysis to insure that no split can occur that might impact this development.
7. Typical sections are required at all retaining walls at the point of maximum retainage showing existing ground, proposed grades, lot lines, and dimensions. Wall footers must not encroach into public right of way or adjacent properties without a written agreement from the adjacent land owner.
8. First Flush pond details are required. The basins draining to each pond must be identified on a basin map and the required volume calculated for each basin. Then grading details, plans, and sections must be included on the G&D Plan along with volume calculations for each pond. A fee in lieu of construction may be paid to the City for any deficit in the required volume. The first flush volume from all impervious surfaces must be accounted for including new streets.
9. What is a "Monolithic Pad"? Is it a concrete slab or is it a dirt pad?
10. The location of the FEMA floodplain and related information is not shown accurately on this G&D Plan or on other recent plans, Signal Point and 9000 Alameda. FEMA's location must be accurately shown on this plan and a note should be added referring to the effective date and FEMA file number. The FEMA thalweg and sections should also be shown.
11. Fill in the flood plain, if applicable after floodplain location correction above, must be justified by hydraulic analysis demonstrating no increase in the adjacent flood plain elevation. The analysis must include HEC-RAS models of the "Duplicate Effective", "Corrected Effective", and "Revised" flood plains, beginning with the model acquired from FEMA thru a data request.
12. Lateral migration of the arroyo must be anticipated. Development is encouraged to stay outside of the Prudent Limit. Any development within the Prudent Limit must be protected from potential lateral migration of the arroyo to the depth of scour calculated in accordance with the "Sediment and Erosion Design Guide". Parallel flow may be assumed over most of the length of the scour wall, but perpendicular flow must be anticipated at the upstream end.
13. A plan and profile of the La Cueva arroyo is required showing stationing along the FEMA thalweg and station information for the proposed floodplain improvements.

The profile and a typical section should show the scour depth measured from the existing arroyo invert elevation, and 2' of freeboard above the 100-year base flood elevations.

14. All calculations must be contained in a bound report with an engineer's stamp and signature.
15. A separate floodplain permit must be obtained from Rude Rael at rrael@cabq.gov prior to any work in the floodplain.
16. An approved ESC Plan is required for this project, and an ESC Permit is required prior to any land disturbance on this site due to the close proximity to the floodplain.

If you have any questions, I can be contacted at 924-3986 or jhughes@cabq.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "James D. Hughes".

James D. Hughes P.E.
Principal Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 1/2016)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: CLARK CONSULTING ENGINEERS **Contact:** Philip Clark

Address: 19 Ryan Road Edgewood, NM 87015

Phone#: 281.2444 **Fax#:** _____ **E-mail:** CCEalbq@aol.com

Other Contact: _____ **Contact:** _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

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

TYPE OF SUBMITTAL:

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

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ GRADING/ESC PERMIT APPROVAL
- ☐ 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
- ☐ SO-19 APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ GRADING/ PAD CERTIFICATION
- ☐ WORK ORDER APPROVAL
- ☐ CLOMR/LOMR

PRE-DESIGN MEETING?

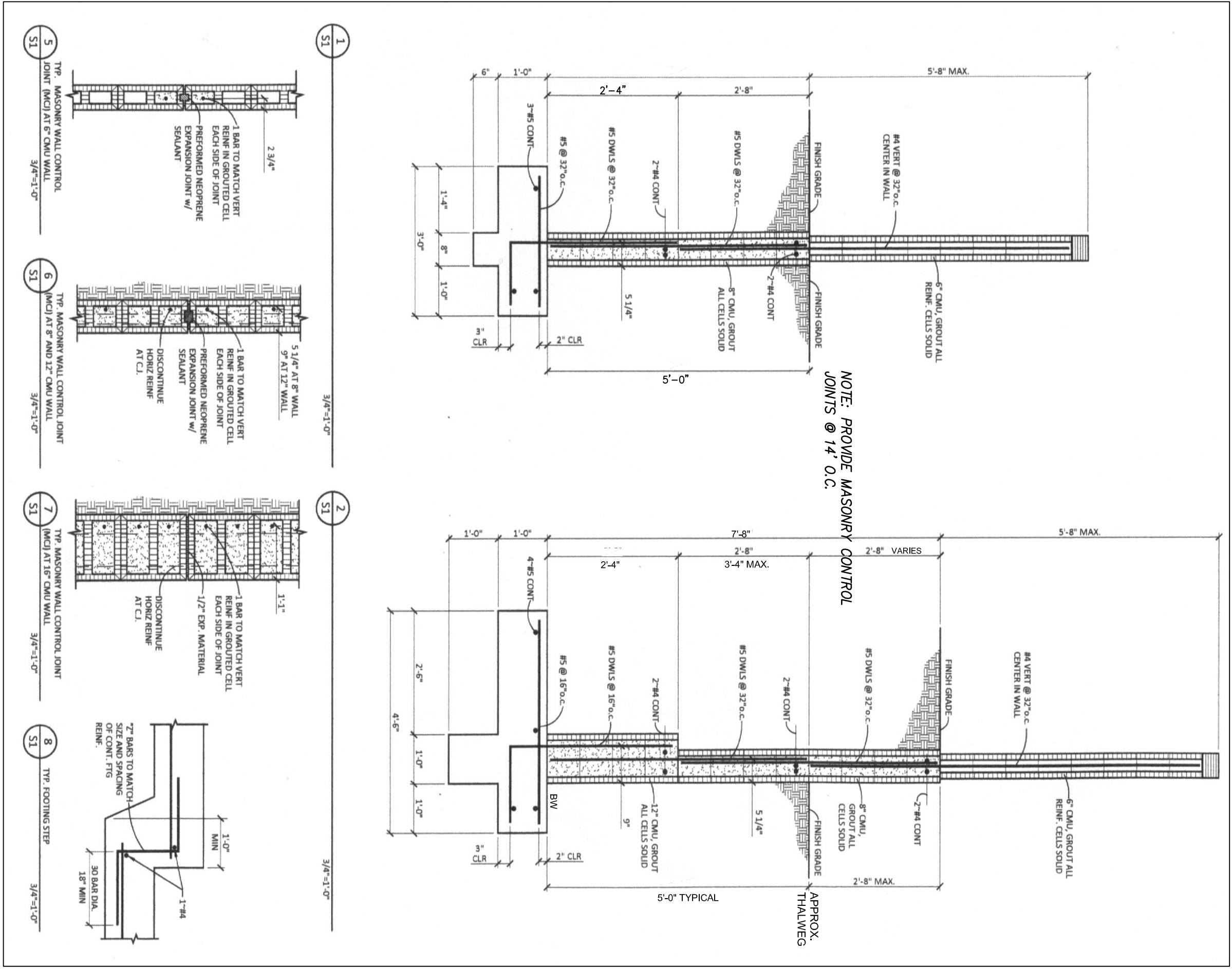
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ **ELECTRONIC SUBMITTAL RECEIVED:** _____

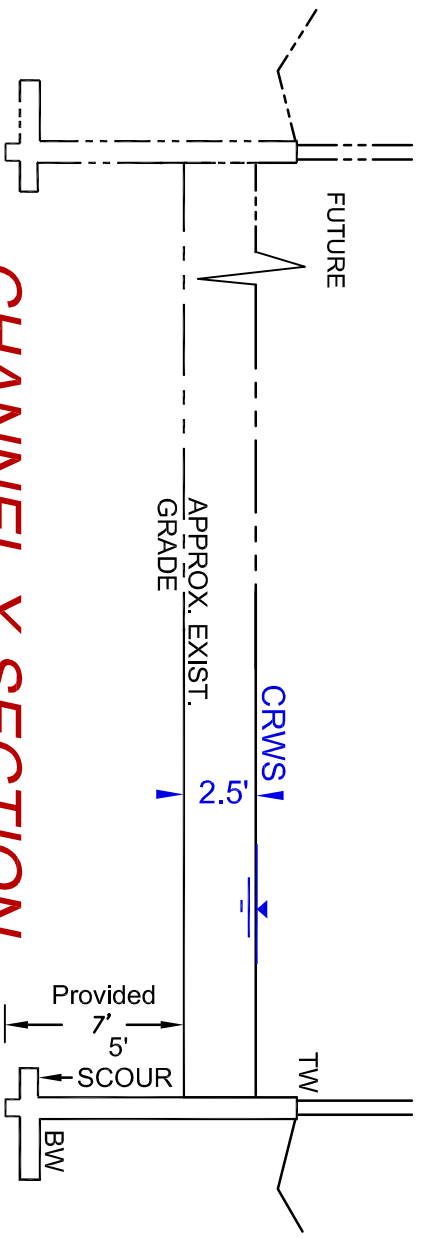
FEE RECEIVED: _____



REINFORCED CONCRETE MASONRY / SCOUR WALL

NO SCALE

CHANNEL X-SECTION



DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2. HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO. UNIFORM DISCHARGE VOLUME = PEAK DISCHARGE NOTES FOR SMALL WATERSHEDS. P100 = 2.60 inches Zone 3. DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

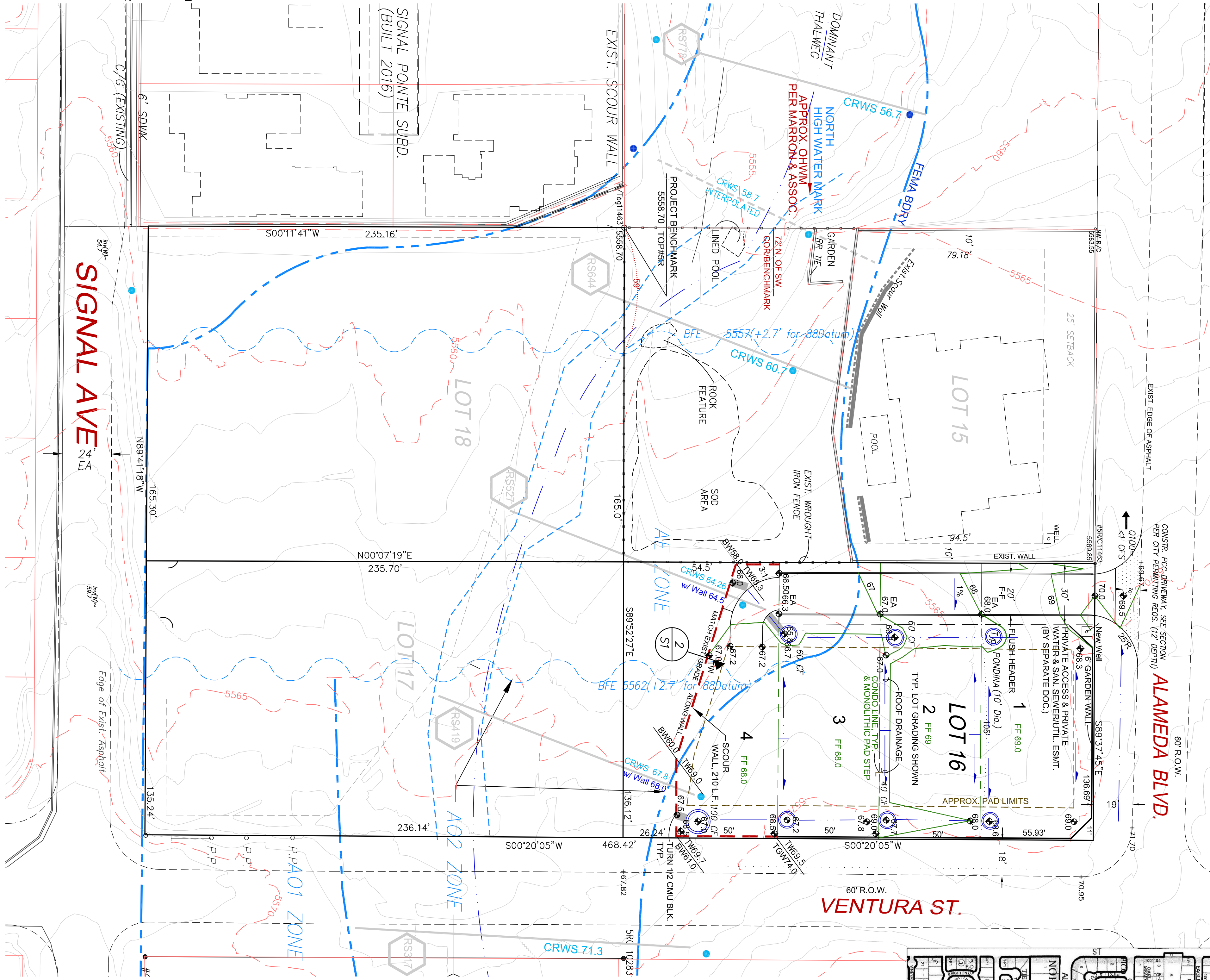
HISTORIC CONDITIONS
PROJECT AREA = 0.73 ACRES, WHERE EXCESS PRECIP. "Weighted" = 0.68 in. [0.010] PEAK DISCHARGE: 0100 = 1.4 CFS [0.4] WHERE UNIT PEAK DISCHARGE: $X = 1.9$ CFS/AC. [0.60] THEREFORE: VOLUME 100 = 1748 CF [503]

DEVELOPED CONDITIONS
DISCHARGE FOR STUDY AREA
AREA TREATMENT Q Peak E
UNDEVELOPED 0.11 AC. (15%) A 1.87(0.58) 0.66(0.19)
LANDSCAPING 0.10 AC. (14%) B 2.60(1.19) 0.92(0.36)
COMPACTED SOIL & Slopes > 0.18 AC. (24%) C 3.49(2.00) 1.29(0.62)
ROOF - PAVEMENT 0.34 AC. (47%) D 5.02(3.39) 2.36(1.50)
THEREFORE: $E_{weighted} = 1.59$ in. [x.x] & VOLUME 100 = 4107 CF
0100 = x.x CFS
UNIT DISCHARGE = 2.8 CFS/0.73 AC. = 3.8 CFS/AC.

CALC. 1ST FLUSH, SMO = 0.6" Per Table 2 Water Qual. Storm
0.34 x IMPERVIOUS AREA, TOTAL = 0.34 x 12 x 0.34 AC (3580)
= 420 CF
UPSTREAM ANALYSIS - (SEE HEC-RAS WATER SURFACE MODELS OF LA CUEVA,
ON FILE WITH CITY HYDROLOGIST (Ref: C-200D5) (REVISED 11.8.12)
PER RFI STUDY, 0100 = 3090 CFS AT VENTURA ST. (SEE LOMR2012)
AND HEC-RAS MODELS DATED MAY 2015 FOR SIGNAL POINTE, AND
HEC-RAS MODELS DATED 5/21/17, AND SEPT. 2017

LEGEND

- +24.0 EXIST. SPOT ELEVATION
- 10 EXIST. CONTOUR
- 24.0 NEW SPOT ELEVATION
- 12 NEW CONTOUR
- EXIST. CURB & GUTTER
- NEW SWALE
- NEW P.C.C. CONCRETE
- NEW RIPRAP, 6" BURY TYPE VVL, 4' WIDE
- TOP OF WALL, RETAINING
- TOP OF GARDEN WALL
- BOTTOM ELEV. OF SCOUR WALL
- BOTT. OF KEY (SEE S1 DETAILS)
- BASE FLOOD ELEVATION (SEE FEMA REVISED MAP NOV. 08, 2012)
- FLOWLINE
- EXIST. GRADE
- SUBGRADE
- FINISH FLOOR/FORM
- HEC-RAS RIVER STA. CRITICAL WATER SURFACE ELEV. DATED MAY 2017



ALAMEDA BLVD.

VENTURA ST.

VICINITY MAP

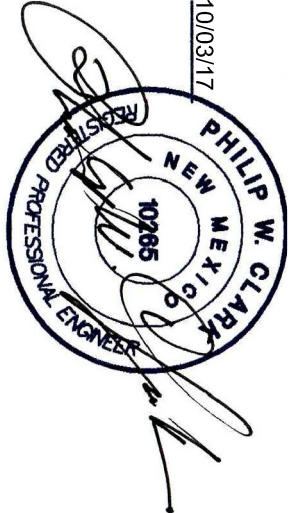
ZONE C-20

NOTES

- ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, W/9 UPDATES.
- ANY EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED FOR ANY EXCAVATION/CONSTRUCTION WORK. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT ARE ENTERED THE RIGHT-OF-WAYS DURING CONSTRUCTION.
- AREAS DISTURBED DUE TO CONSTRUCTION SHALL BE RESTORED PER CITY OF ALBUQ. SPEC. 1012 NATIVE SEED MIX.
- MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL CONDITION, UNLESS NOTED OTHERWISE.

PROJECT DATA

LEGAL DESCRIPTION
LOT 16, BLOCK 4, TRACT 3, UNIT 3
NORTH ALBUQUERQUE ACRES, ALBUQUERQUE, NEW MEXICO
PROJECT BENCHMARK - See Plan, NW COR.
THE BASIS OF ELEVATIONS FOR THIS SURVEY IS ACS BENCHMARK 7-019, ELEVATION OF WHICH IS 5485.72. BENCHMARK IS LOCATED AT THE INTERSECTION OF BARSTOW ST. AND WOODSTOCK AVE.
TOPOGRAPHIC DESIGN SURVEY
CONDUCTED BY CLARK CONSULTING ENGINEERS FROM DESIGN SURVEY BY PHILIP TURNER P.S. DATED 10/2014, UPDATED FROM AIRBORN LAND SURVEYING FIELD SURVEY, DATED 1/2017, INCLUDING SUPPLEMENTAL SURVEY.



Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Tel: (505) 281-2444 Cell: (505) 284-6042

LOT 16, BLK. 4, TR. 3, UNIT 3
SIGNAL VILLAGE CONDOS
Grading & Drainage Plan
WITH HEC-RAS & USAOE OHWM

DESIGNED BY: PWC	DRAWN BY: CCE	JOB# S9 Vill. Condos	SHEET
CHECKED BY: PWC	DATE: SEPT2017	FILE # 0/0	1 OF 1