

## HYDROLOGY NOTES

THE PROJECT SITE IS LOCATED ON THE WEST SIDE OF ALBUQUERQUE, AND IS BOUNDED BY SNOW VISTA BLVD TO THE WEST AND SOUTH OF THE SAGE MARKET COMMERCIAL DEVELOPMENT. A DEVELOPED LOT TO THE EAST AND A CONCRETE DRAINAGE CHANNEL TO THE SOUTH. A 33-LOT SINGLE FAMILY RESIDENTIAL SUBDIVISION IS BEING PROPOSED TO BE CONSTRUCTED ON THE 3.76 ACRE PROPERTY. IT WILL HAVE ONE ACCESS ENTRANCE ROAD; ON THE WEST SIDE OF THE PROPERTY. THE SITE IS SHOWN ON ZONE ATLAS PAGE M-9-Z.

THIS SITE IS PART OF THE OVERALL MASTER DRAINAGE PLAN FOR SAGE MARKET PLACE (BY TIERRA WEST STAMPED 9/2005). A PREVIOUS DRAINAGE REPORT WAS WRITTEN FOR THE SAGE RANCH SUBDIVISION (BY TIERRA WEST STAMPED 9/2006). THE SITE IS SUBJECT TO ALL RESTRICTIONS, CONDITIONS, AND REQUIREMENTS AS SET FORTH WITHIN THE PREVIOUSLY STATED DOCUMENTS.

THE SITE IS NOT LOCATED IN A 100YR FLOOD ZONE PER FEMA FIRM MAP 35001C0336H, AUGUST 2012.

## EXISTING CONDITIONS:

THE 3.76 ACRE SITE IS CURRENTLY UNDEVELOPED AND THE FLOW PATTERN FOR THIS AREA IS IN A GENERAL WEST TO EAST DIRECTION. THE EXISTING CHANNEL ALONG THE EASTERN PROPERTY BOUNDARY WAS DESIGNED TO INTERCEPT RUNOFF FROM THE LOTS AND FROM THE CONTROLLED RELEASE POND WITHIN THE COMMERCIAL PROPERTY TO THE NORTH AT A RATE OF 17.49 cfs. THE RUNOFF GENERATED FOR THE 26-LOT RESIDENTIAL PROPERTY IN THE REPORT IS 8.92 cfs. THIS EXISTING CHANNEL CONVEYS ALL RUNOFF THROUGH A 20" DRAINAGE EASEMENT TO THE EXISTING SUN SAGE HILLS SUBDIVISION.

## PROPOSED DEVELOPED CONDITIONS:

THE 100 YR PEAK DISCHARGE GENERATED BY THE SITE IS 15.28 CFS. THE SITE DOES NOT ACCEPT ANY OFFSITE FLOWS.

ALL DEVELOPED FLOWS FROM THE 31-LOT RESIDENTIAL SITE WILL DRAIN INTO SAGE RANCH COURT SW. ALL STREET FLOWS WILL BE COLLECTED BY A 10" CONCRETE RUNDOWN TO A FIRST FLUSH POND LOCATED IN TRACT A. THE POND WILL RESTRICT THE PEAK DISCHARGE OF 8.36 CFS BY 2-4" PVC PIPES TO AN EXISTING CONCRETE CHANNEL ON THE EASTERN PROPERTY LINE OF THE SITE. THE 4" PIPES WILL DISCHARGE 4.18 CFS EACH AT ELEVATION 23.10. WITHIN THE EXISTING CHANNEL THE COMBINED FLOWS FROM THE COMMERCIAL POND AND THE RESIDENTIAL SITE WILL DRAIN TO JENNY COURT. FROM JENNY COURT THE RUNOFF DISCHARGES TO SAPHIRE STREET AT CORRIZ DRIVE. ALL RUNOFF IS THEN INTERCEPTED BY A SERIES OF SEVEN TYPE "C" INLETS AND A 40" WIDE TRANSVERSE DROP INLET.

THE HYDROLOGY WAS CALCULATED PER COA DPM USING AHYMO  $P_{24}=2.60"$  FROM NOAA 14. THE RESULTS ARE SUMMARIZED IN THE HYDROLOGY TABLE ON THIS SHEET.

ACCORDING TO THE SAGE MARKET PLACE DRAINAGE REPORT ALL FLOWS FROM BOTH THE COMMERCIAL AND RESIDENTIAL SITE ARE RESTRICTED TO 17.49 cfs. THE DISCHARGE FROM THE POND ON THE COMMERCIAL SITE IS RESTRICTED TO AN ORIFACE PLATE THAT WAS PREVIOUSLY CONSTRUCTED WITH THE POND. THE DISCHARGE FROM THE RESIDENTIAL PROPERTY WILL BE RESTRICTED TO RELEASE AT 8.12 CFS TO JENNY COURT VIA THE EXISTING 12" CONCRETE CHANNEL. THE TOTAL DISCHARGE OF ALL COMBINED FLOWS FOR THE RESIDENTIAL AND COMMERCIAL SITES WILL STILL REMAIN LESS THAN THE ALLOWABLE 17.49 cfs.

## BASIN DATA

BASIN ID	% D	% C	AREA	Q(100)	VOLUME
100	77.0	23.0	3.76 AC.	15.28 cfs	.6407 AC-FT

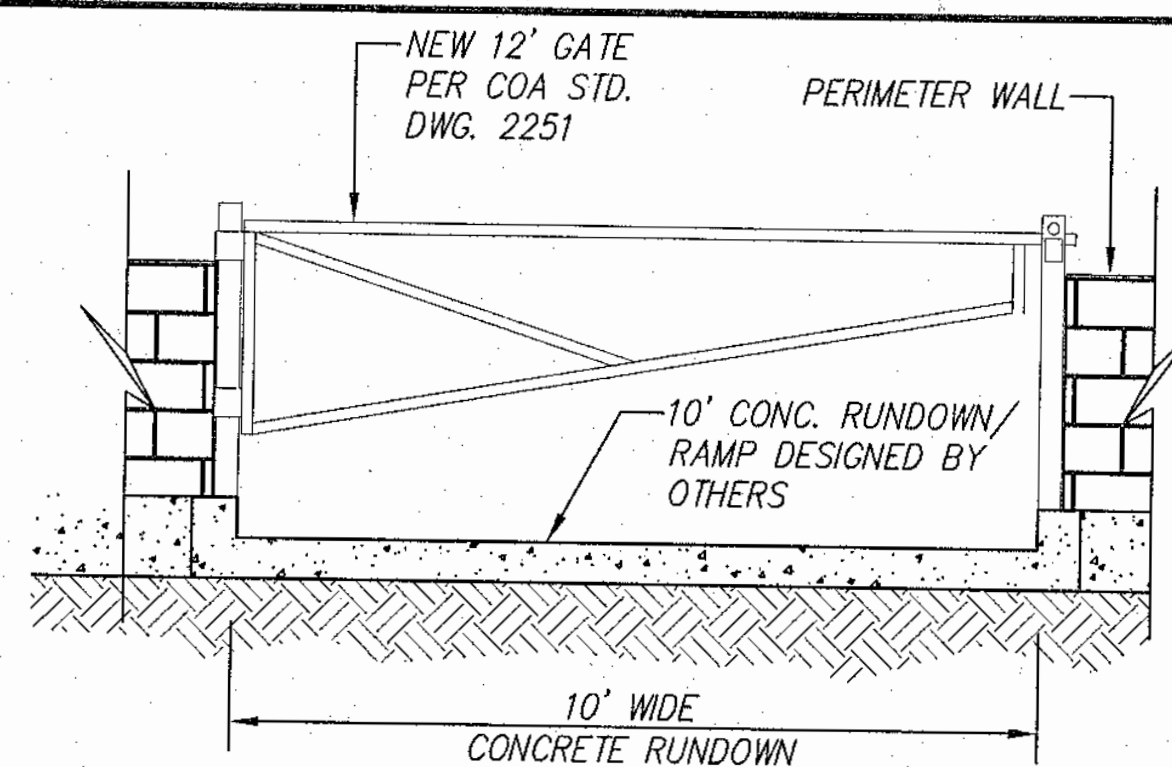
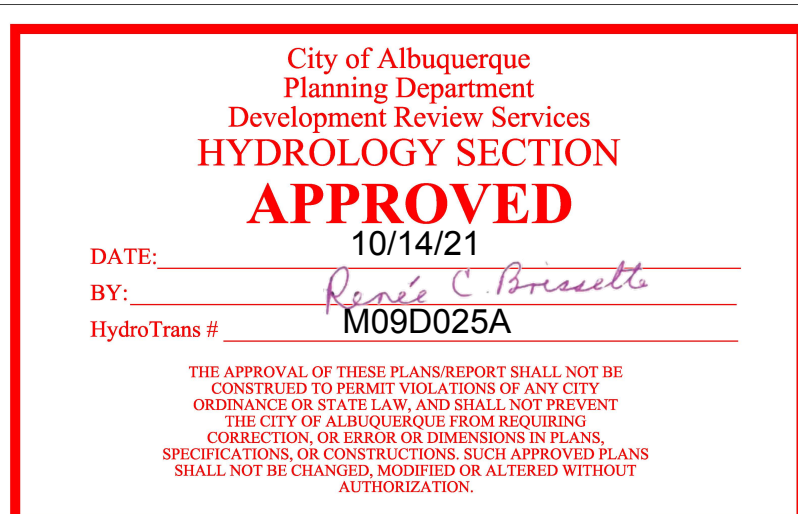
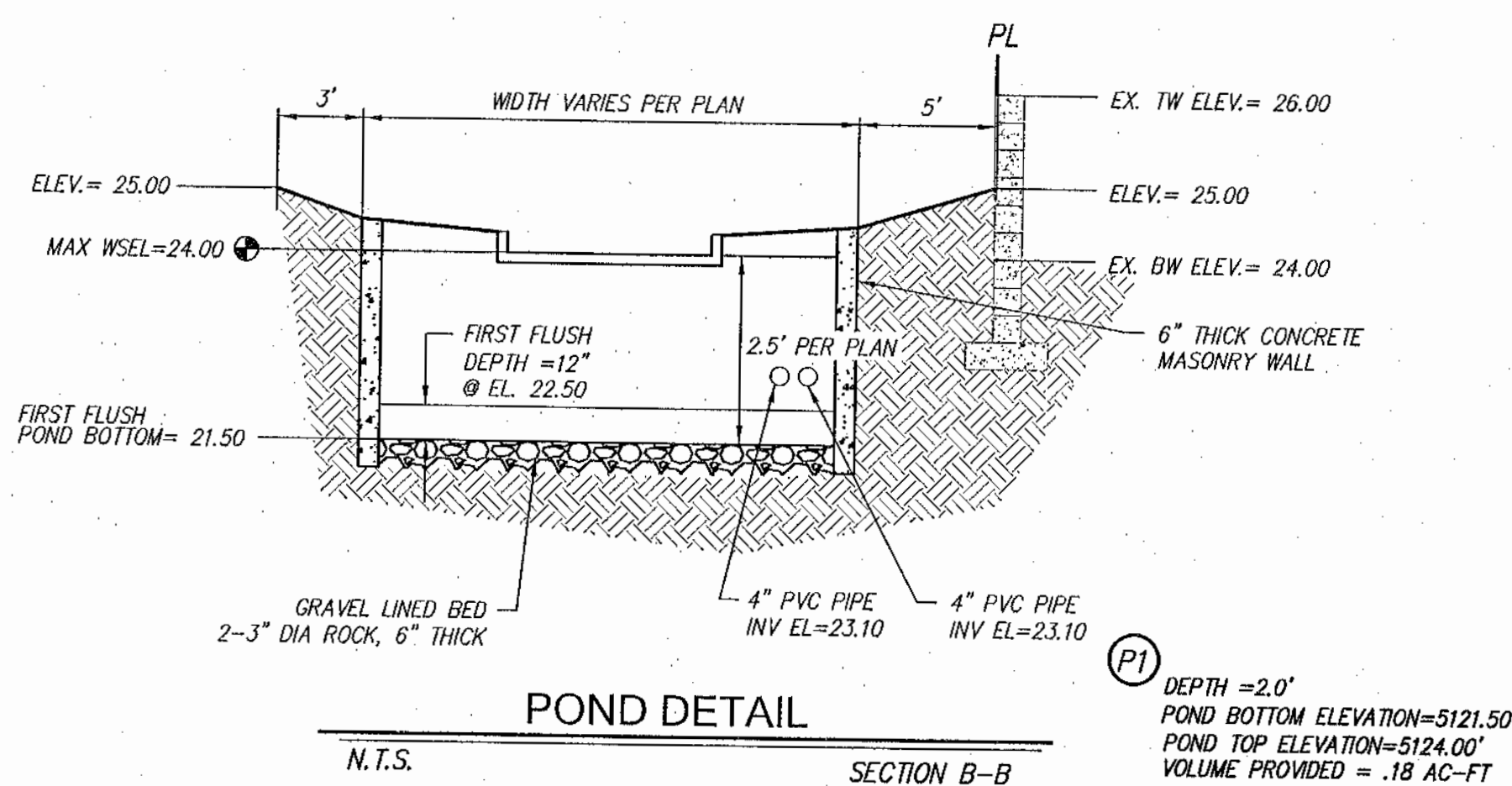
THE INTENT OF THIS PLAN IS TO PROVIDE COMPLETE DETENTION OF THE DEVELOPED, 100 YEAR, 24 HR. STORM.

## FIRST FLUSH

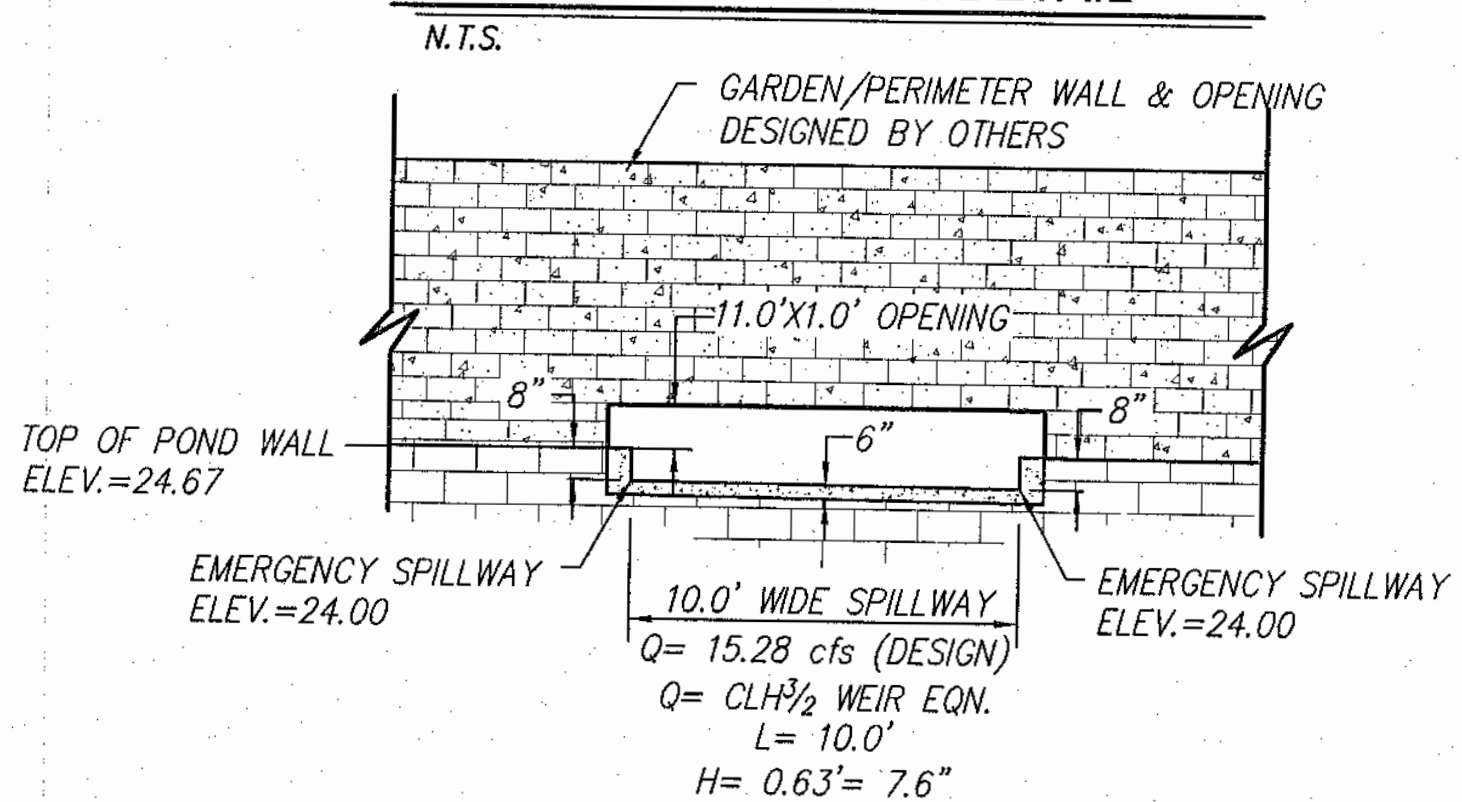
THE "FIRST FLUSH" IS BEING ACCOMPLISHED THROUGH THE DETENTION POND ON SITE.

REQUIRED VOLUME =  $0.42" \times$  IMPERVIOUS AREA  
=  $0.42"/12" \times (125888 \text{ SF})$   
= 4406 CF  
= .10 AC-FT

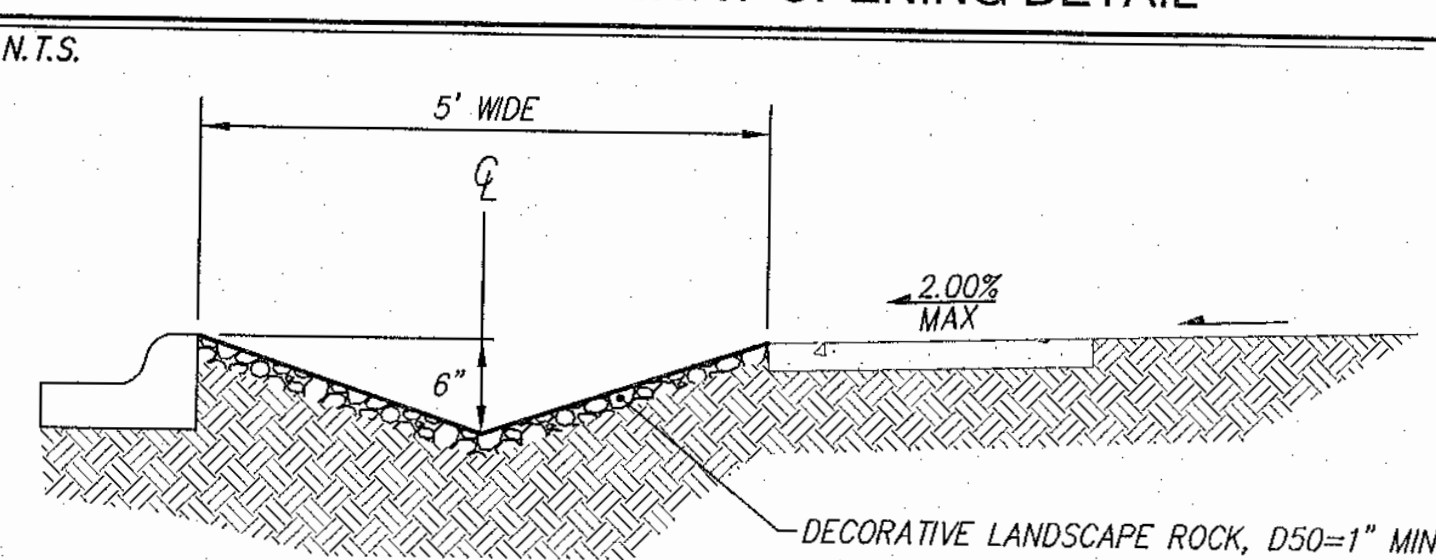
PROVIDED VOLUME = 4705 CF  
= .11 AC-FT



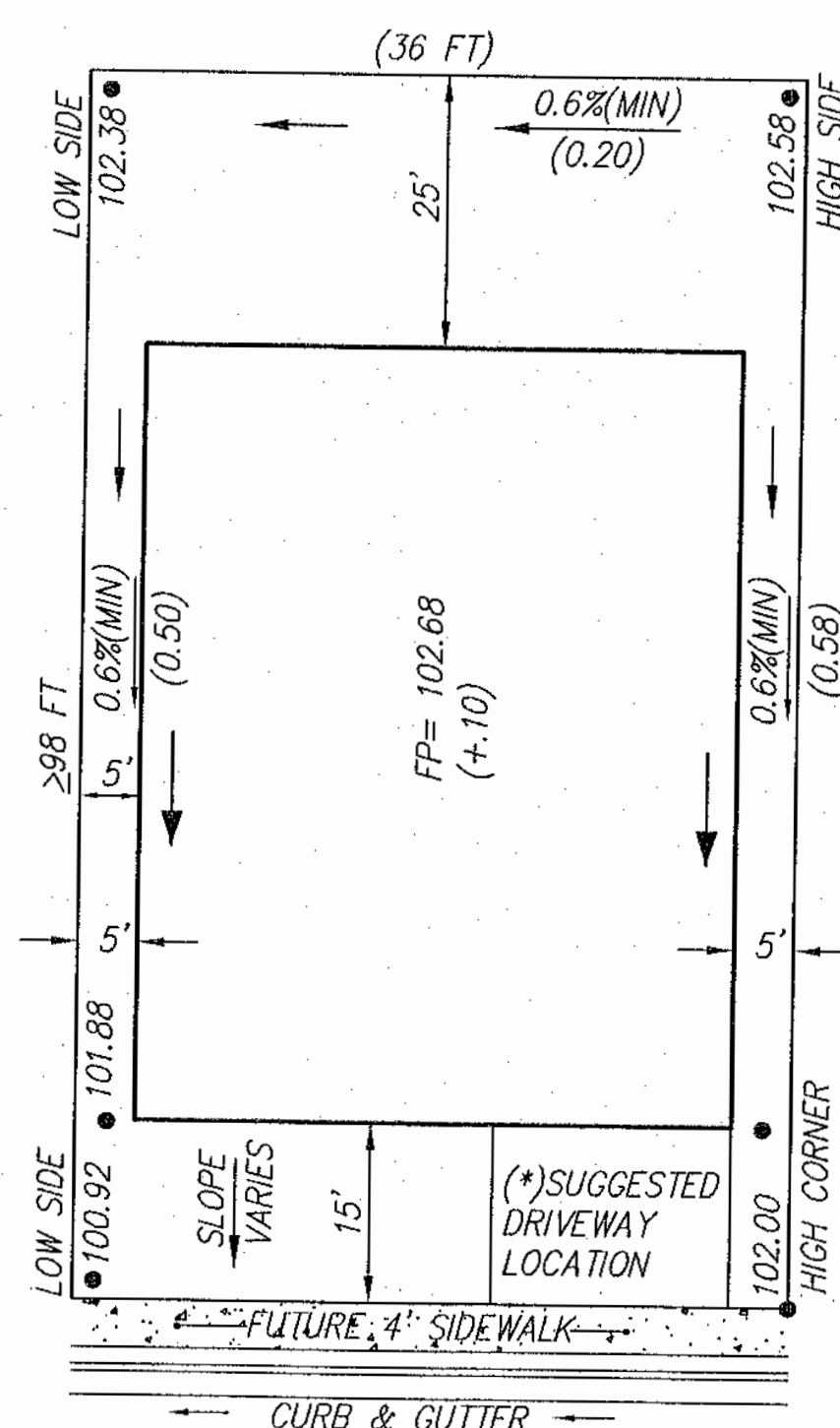
## WALL OPENING DETAIL



## EMERGENCY SPILLWAY OPENING DETAIL



## DEPRESSED LANDSCAPED DETAIL (TYP.)

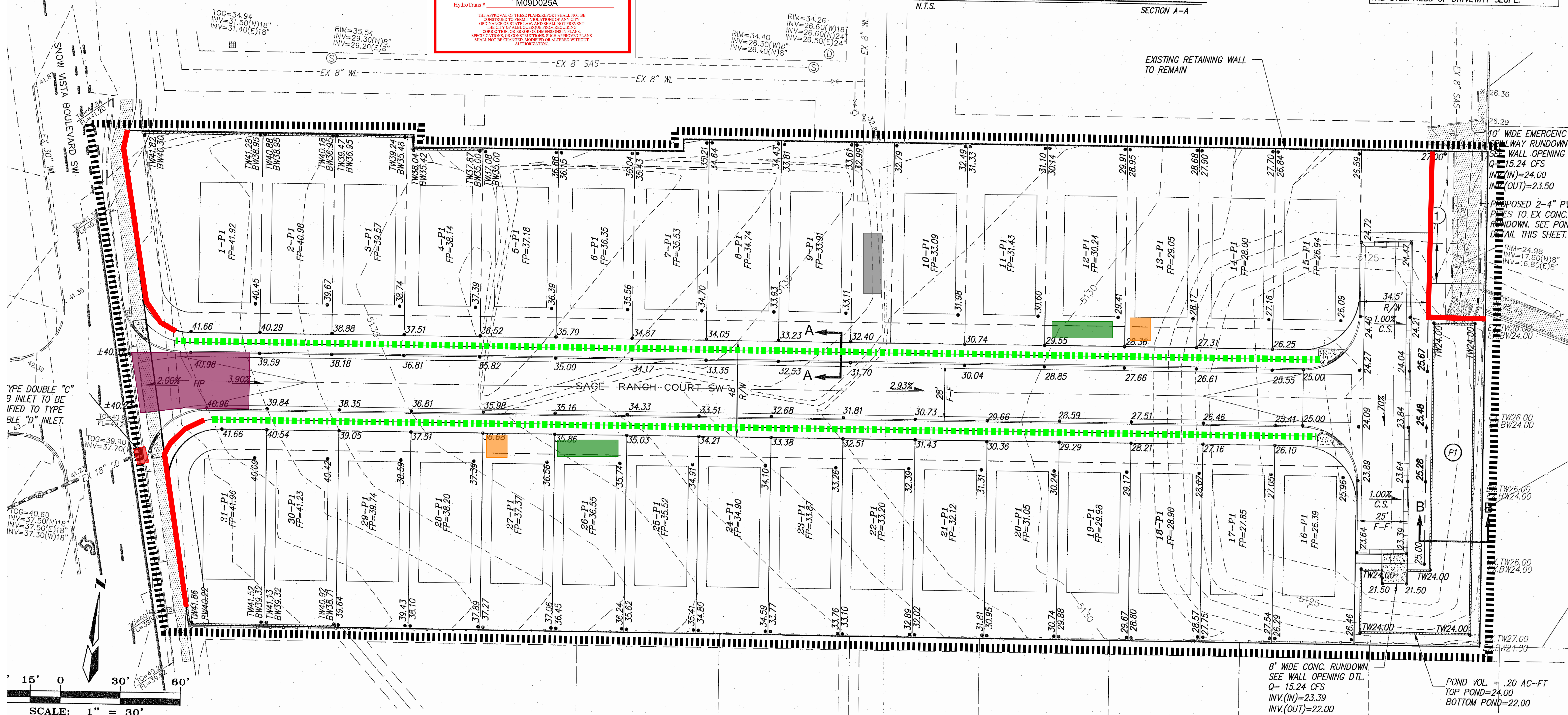


## TYPICAL LOT LAYOUT PLAN

SCALE: 1"=20' (FOR LOTS 1-P1 THRU 33-P1)

## 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.



## BMP MAP LEGEND

LIMITS OF DISTURBANCE

PERIMETER BMP (SILT FENCE)

VEHICLE TRACKOUT CONTROL

INLET PROTECTION

FLOW DIRECTION

PORTABLE TOILETS

WASTE CONTAINER

CONCRETE WASHOUT



OPERATOR: WESTWAY HOMES

TOTAL SITE AREA: 3.76 ACRES  
TOTAL DISTURBED AREA: 3.76 ACRES

RECEIVING WATERS: RIO GRANDE  
(TIJERAS ARROYO TO ALAMEDA BRIDGE)

REFER TO THE ESC BMP DETAILS  
(ESC-2) FOR INSTALLATION,  
INSPECTION AND MAINTENANCE  
REQUIREMENTS.

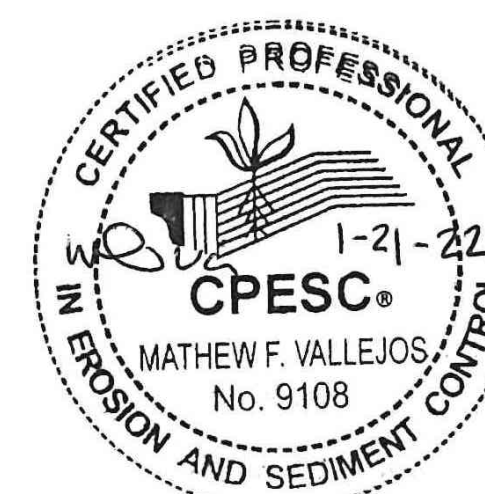
**\*\*GRADING PLAN BY OTHERS\*\***

SAGE RANCH

TEMPORARY EROSION AND SEDIMENT  
CONTROL PLAN

Drawn By:  
M. VALLEJOS, CPESC, CISEC

01/21/2022



ESC-1



Silt Fence Detail

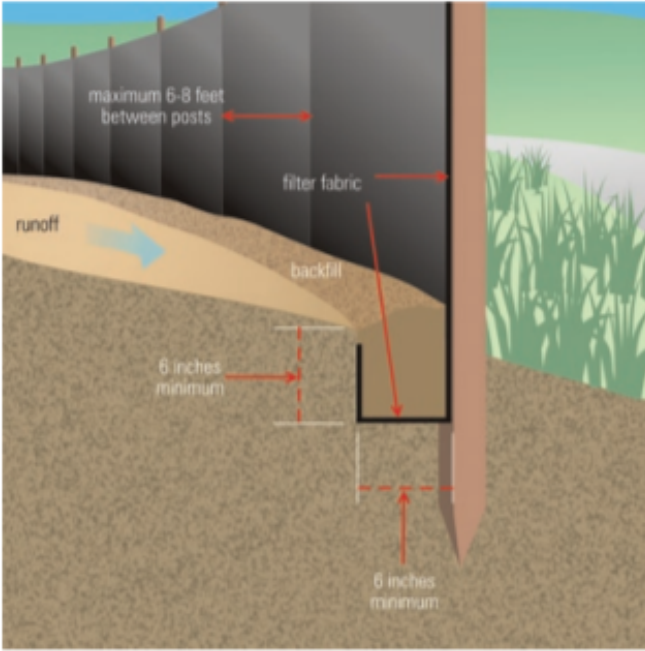
**Non-woven Silt Fence**  
A silt fence is a temporary sediment barrier consisting of a geotextile attached to supporting posts and trenched into the ground. Intended to retain sediment that has been dislodged by stormwater.

Use silt fence as a perimeter control particularly at lower or down slope edge of a disturbed area. Leave space for maintenance between slope and silt fence or roll. Trench in the silt fence on the uphill side (6 in deep by 6 in wide). Install stakes on the downhill side of the fence. Curve silt fence up-gradient to help it contain runoff.

To maintain remove sediment when it reaches one-third of the height of the fence. Replace the silt fence where it is worn, torn, or otherwise damaged. Retrench or replace any silt fence that is not properly anchored to the ground. If the silt fence cannot be toed in properly due to existing hard surface, place mulch filter sock at base to prevent sediment from leaving site.

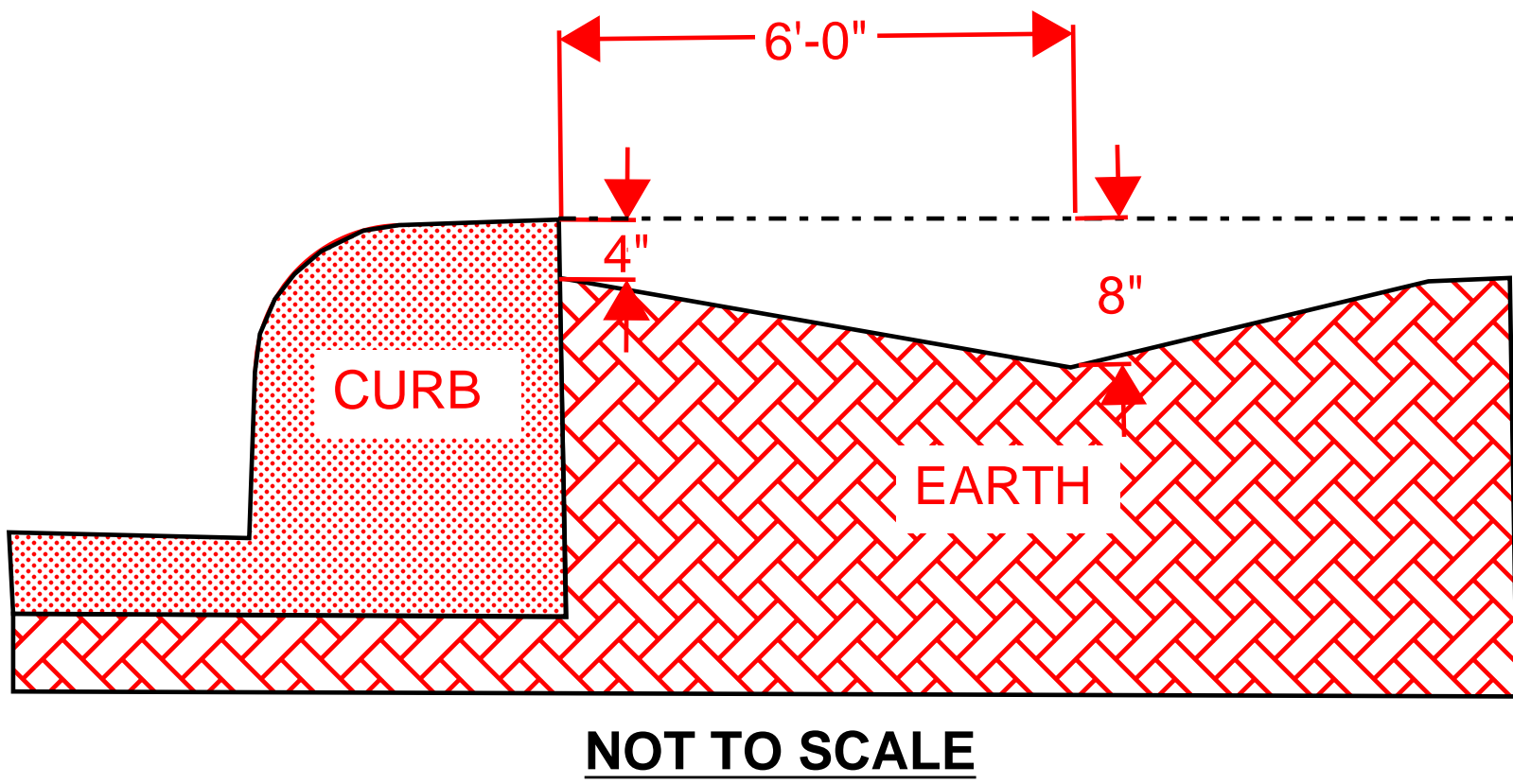
8’ max wood stake spacing and 10’ max spacing for steel T-post.

Silt Fence Installation

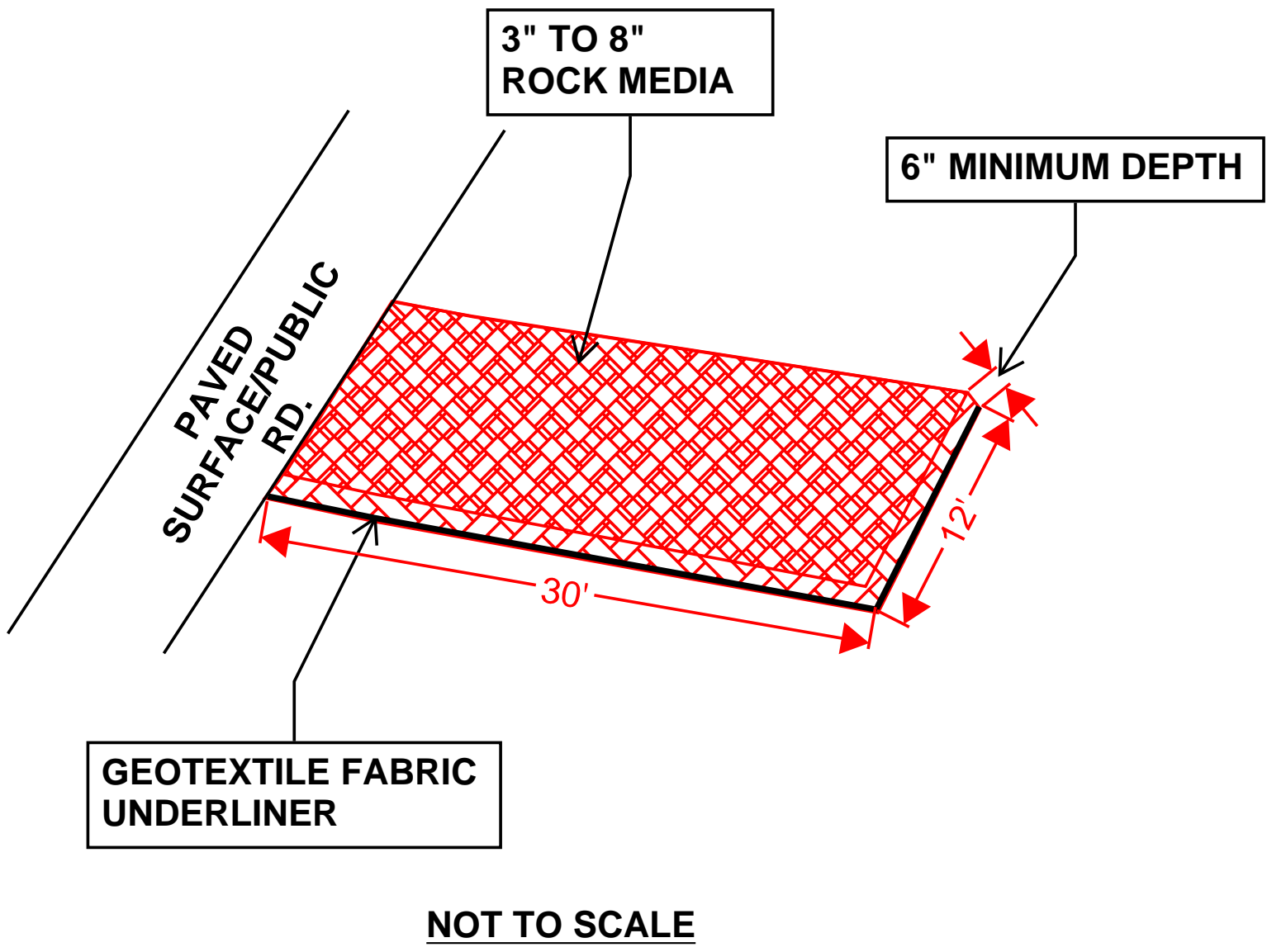


Source: USEPA Guide for Construction Site

Cut-Back Curb Detail



VEHICLE TRACK-OUT CONTROL



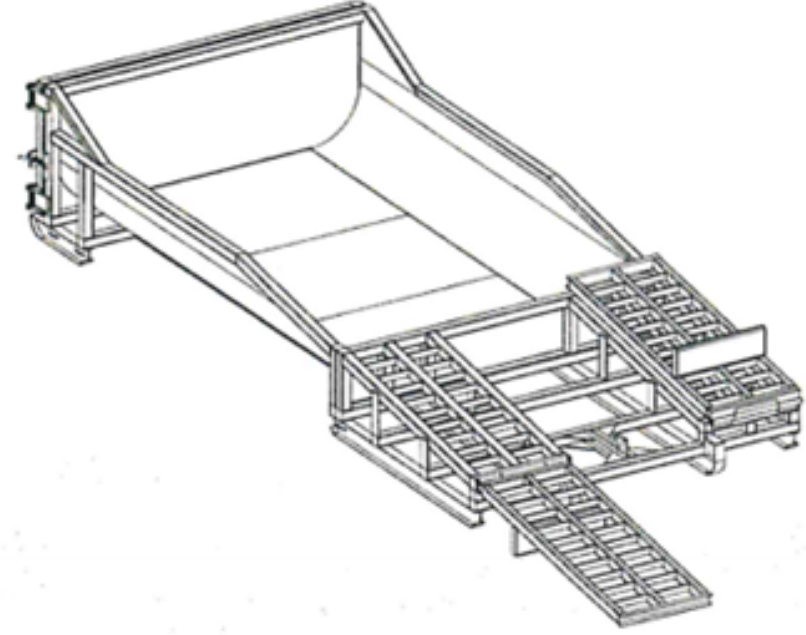
- DIMENSIONS NOTED CAN BE SITE RESTRICTIVE.

TYPICAL CONCRETE WASHOUT-BELOW GRADE



- Install appropriate signage to inform concrete equipment operators of the proper washout location.
- An appropriate stabilized entrance shall be installed where applicable. The length and width of the stabilized entrance may vary based on size and location of the washout.
- Washout facilities must be sized to contain washout water and solids.
- Typical dimensions are 10 feet long by 10 feet wide but may vary upon site limitations.
- Pit shall be delineated with Orange Filter Sock and A-Framed staked.
- The pit shall be lined with 10mil (minimum) polyethylene impermeable liner on the bottom and sides overlapping the top edges completing a leak-proof container.

**PORTABLE CONCRETE WASHOUT CONTAINER**



**CONCRETE WASHOUT SYSTEMS**

PO Box 2604  
Carmichael, CA. 95609  
Phone: 1.877.292.7468  
Fax: 1.916.244.0403  
info@concretewashout.com  
www.concretewashout.com  
Patent Pending

**DESCRIPTION**  
A portable, self-contained and watertight container affixed with ramps that controls, captures and contains caustic concrete wastewater and washout material.

**PURPOSE & OBJECTIVE**  
Allows trade personnel to easily washout concrete trucks, pumps and other equipment associated with cement on site and allows easy off site recycling of the same concrete materials and wastewater.

**APPLICATION**  
Construction projects where concrete, stucco, mortar, grout and cement are used as a construction material or where cementitious wastewater is created.

**MAINTENANCE**  
Inspect and clean out when ¾ full, not allowing the container to overflow.  
Inspect wastewater level and request a vacuum if needed.  
Inspect subcontractors to ensure that proper housekeeping measures are employed when washing out equipment.

**SPECIFICATIONS**  
The container must be portable and temporary, watertight, equipped with ramps and have a holding capacity to accept washout from approximately 350 yards of poured concrete. A vacuum service must accompany washout container and be used by site superintendent as needed. A rampless container may be used in conjunction with a ramped container or by itself if a concrete pump is not needed. The washwater must be disposed of or treated and recycled in an environmentally safe manner and in accordance with federal, state or local regulatory guidelines.

**TARGETED POLLUTANTS**  
Caustic wastewater (high pH level near 12 units)  
Suspended solids  
Assorted Metals; Chromium VI, Nickel, Sulfate, Potassium, Magnesium and Calcium Compounds



OPERATOR: WESTWAY HOMES

TOTAL SITE AREA: 3.76 ACRES  
TOTAL DISTURBED AREA: 3.76 ACRES

RECEIVING WATERS: RIO GRANDE (TIJERAS ARROYO TO ALAMEDA BRIDGE)

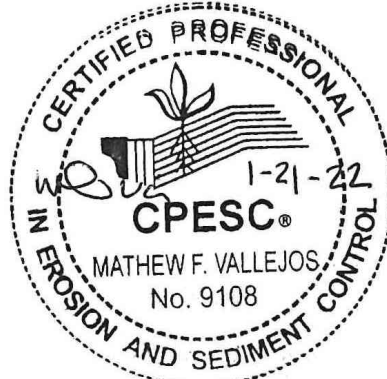
REFER TO THE ESC BMP DETAILS (ESC-2) FOR INSTALLATION, INSPECTION AND MAINTENANCE REQUIREMENTS.

SAGE RANCH

TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Drawn By:  
M. VALLEJOS, CPESC, CISEC

01/21/22



ESC-2



ESC Plan Standard Notes (2021-03-24)

1. All Erosion and Sediment Control (ESC) work on these plans, except as otherwise stated or provided hereon shall be permitted, constructed, inspected, and maintained in accordance with:
- The City Ordinance § 14-5-2-11, the ESC Ordinance,
  - The EPA's 2017 Construction General Permit (CGP), and
  - The City Of Albuquerque Construction BMP Manual.
2. All BMP's must be installed prior to beginning any earth moving activities except as specified hereon in the Phasing Plan. Construction of earthen BMP's such as sediment traps, sediment basins, and diversion berms shall be completed and inspected prior to any other construction or earthwork. Self-inspection is required after installation of the BMPs and prior to beginning construction.
3. Self-inspections - At a minimum a routine compliance self-inspection is required to review the project for compliance with the Construction General Permit once every 14 days and after any precipitation event of 1/4 inch or greater until the site construction has been completed and the site determined as stabilized by the city. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
4. Corrective action reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
5. Stabilization reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request. Reports should include records of weed removal per City Ordinance (§ 9-8-1), sterilization, soil test results and recommendation, materials and manufacturer's specifications for application rates, estimated functional longevity, methods of application, inspection and maintenance. The reduced self-inspection schedule in CGP 4.4.1 applies to stabilized area and any damaged or worn stabilization must be identified in the reports along with weed problems. Corrective actions for stabilization shall be documented in a stabilization report including actual rates and dates of stabilization, and the materials and manufacturer's specifications used.
6. BMPs shall be inspected and maintained until all disturbed areas are stabilized in accordance with the Final Stabilization Criteria (CGP 2.2.14.b). Generally, all disturbed areas, other than structures and impervious surfaces, must have uniform perennial vegetation that provides 70 percent or more of the cover provided by native vegetation or seed the disturbed area and provide non-vegetative mulch that provides cover for at least three years without active maintenance. Final stabilization must be approved by the City of Albuquerque prior to removal of BMPs and discontinuation of inspections.

**Nature of Construction Activity:**

New residential home construction. 30 lots with an approximate area of 3.76 acres.

**Project/Site Name:** \_\_\_\_\_ Sage Ranch  
**Project Street/Location:** \_\_\_\_\_ Snow Vista Blvd. SW and Sage Rd. SW  
**City:** \_\_\_\_\_ Albuquerque  
**State:** \_\_\_\_\_ NM  
**Zip Code:** \_\_\_\_\_ 87121  
**County:** \_\_\_\_\_ Bernalillo

**Project Latitude:** \_\_\_\_\_ 35.05399 **Longitude:** \_\_\_\_\_ -106.73897

**Determination of Latitude/Longitude:**

- ☐ USGS topographic map (scale: \_\_\_\_\_ )  
☐ EPA Web Site ☒ NM OpenEnviroMap ☐ GPS  
☐ Other (please specify): \_\_\_\_\_

**Function of Construction Activity:**

- ☒ Residential ☐ Commercial ☐ Industrial ☐ Linear (roadway)  
☐ Linear (Utility) ☐ Other (specify): \_\_\_\_\_

**Is your project/site located on Federal or Native American Lands** Yes ☐ No ☒

**Description:** \_\_\_\_\_

Start/Date/Finish/Date/ (dates to be marked on site plan by operator)	Construction Activity, BMPs, and Location
Initial Phases	Pre-Site Grading 1. Install perimeter BMPs (silt fence, erosion control logs, downstream inlet protection, etc.) 2. Construct VTC 3. Set up construction trailer, construction barrier, and material storage areas 4. Install sanitary facilities and dumpster 5. Implement stabilization procedures where work is complete or ceases (per section 2.2.14 of the 2017 EPA CGP)
Interim Phases	Site Grading/ Building Construction 1. Mass grade site 2. Construct utilities, infrastructure 3. Building, pavement construction 4. Implement stabilization procedures <u>were</u> work is complete or ceases (per section 2.2.14 of the 2017 EPA CGP)
Final Phases	Final Stabilization 1. Implement stabilization procedures <u>were</u> work is complete or ceases (per section 2.2.14 of the 2017 EPA CGP) 2. Prepare final seeding and landscaping 3. Monitor stabilized areas until final stabilization is <u>reached</u> 4. Remove temporary control BMPs and stabilize any areas disturbed by the removal

ROLE	COMPANY	REPRESENTATIVE NAME	PHONE	EMAIL
OPERATOR	WESTWAY HOMES	W. MIKE FIETZ	505-379-5368	<a href="mailto:MIKEF@THEWESTWAY.COM">MIKEF@THEWESTWAY.COM</a>
OWNER	WESTWAY HOMES	W. MIKE FIETZ	505-379-5368	<a href="mailto:MIKEF@THEWESTWAY.COM">MIKEF@THEWESTWAY.COM</a>
BMP MAINTENANCE	SUPERIOR STORMWATER SERVICES, LLC	TIM SLATUNAS	505-353-2558	<a href="mailto:TIM@SUPERIORSTORMWATER.COM">TIM@SUPERIORSTORMWATER.COM</a>
SWPPP INSPECTIONS	GREEN GLOBE ENVIRONMENTAL, LLC	TIM SLATUNAS	505-353-2558	<a href="mailto:TIM@GREENGLOBENM.COM">TIM@GREENGLOBENM.COM</a>



OPERATOR: SAGE RANCH

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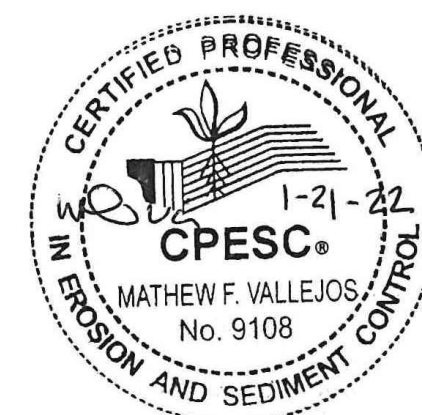
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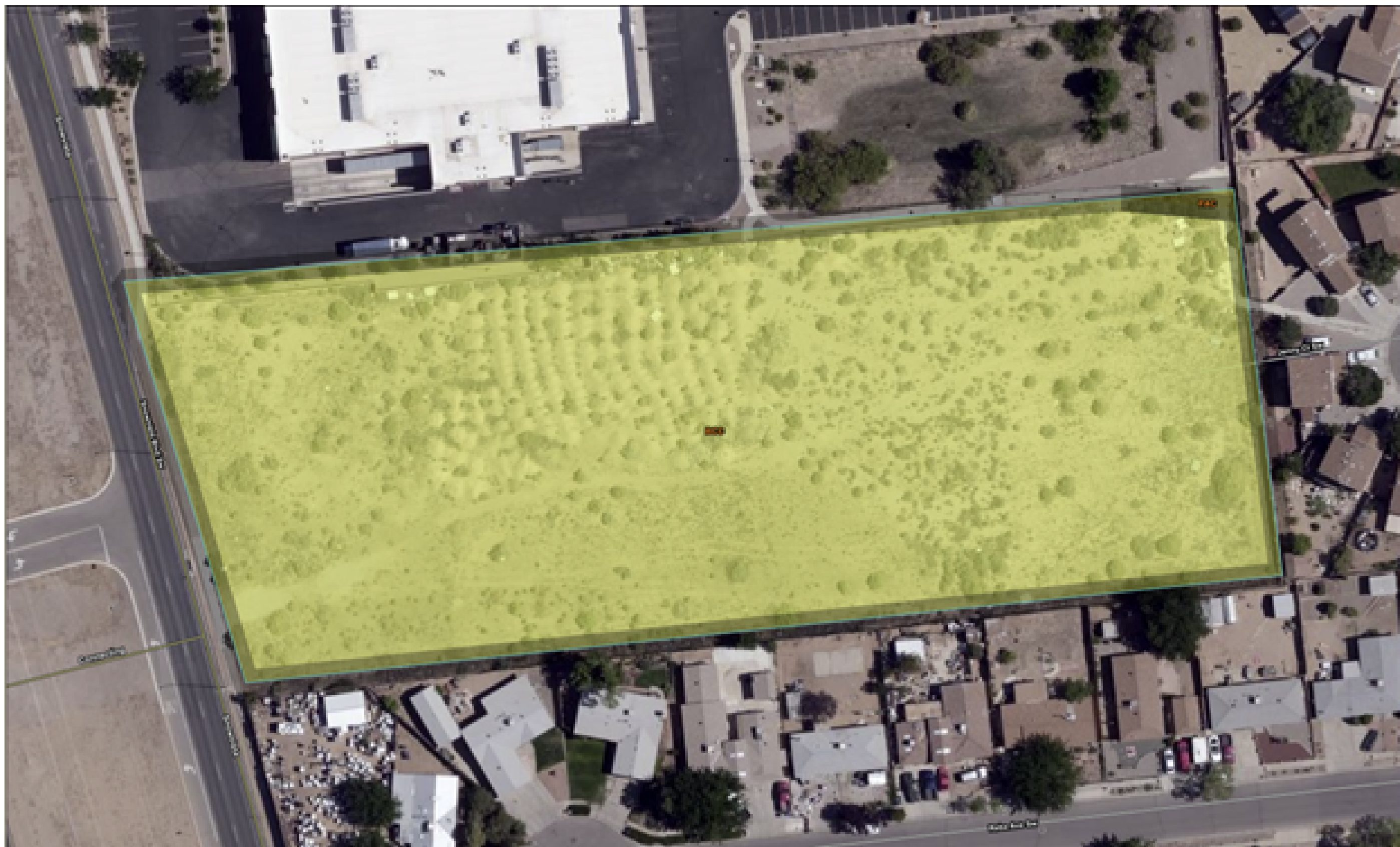
SAGE RANCH

TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Drawn By:  
M. VALLEJOS, CPESC, CISEC 01/21/22



ESC-3



Tables — K Factor, Whole Soil — Summary By Map Unit				
Summary by Map Unit — Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico (NM600)				
Map unit symbol	Map unit name	Rating	Acres in A01	Percent of A01
BCC	Bluepoint loamy fine sand, 1 to 9 percent slopes	.20	3.8	99.7%
PAC	Pajarito loamy fine sand, 1 to 9 percent slopes	.17	0.0	0.3%
Totals for Area of Interest			3.8	100.0%