

## 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 14.10 cfs AND TO NOT EXCEED 18.40 cfs. THE RUNOFF GENERATED FROM THE 26-LOT RESIDENTIAL PROPERTY IN THE REPORT IS 13.54 cfs. THIS EXISTING CHANNEL CONVEYS ALL RUNOFF THROUGH A 20' DRAINAGE EASEMENT TO THE EXISTING SUN SAGE HILLS SUBDIVISION.

## PROPOSED DEVELOPED CONDITIONS:

ALL DEVELOPED FLOWS FROM THE 33-LOT RESIDENTIAL SITE WILL DRAIN INTO SAGE RANCH COURT SW. ALL STREET FLOWS WILL BE COLLECTED BY A 8" CONCRETE RUNDOWN TO A FIRST FLUSH POND LOCATED BETWEEN LOTS 14 AND 15. THE POND WILL THEN OUTFALL BY AN 8" CONCRETE RUNDOWN TO AN EXISTING CONCRETE CHANNEL ON THE EASTERN PROPERTY LINE FOR THE SITE. 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 100 YR PEAK DISCHARGE FROM THE SITE IS 15.24 CFS. THE SITE DOES NOT ACCEPT ANY OFFSITE FLOWS.

THE HYDROLOGY WAS CALCULATED PER COA DPM USING AHYMO  $P_d=2.60"$  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 18.4 cfs. THE DISCHARGE FROM THE POND ON THE COMMERCIAL SITE IS RESTRICTED TO AN ORIFICE PLATE THAT WAS PREVIOUSLY CONSTRUCTED WITH THE POND. THE DISCHARGE FROM THE RESIDENTIAL PROPERTY, 15.24 cfs, WILL DISCHARGE FREELY 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 RESTRICTED 18.4 cfs.

## BASIN DATA

BASIN ID	% D	% C	AREA	Q(100)	VOLUME
100	77.0	23.0	3.76 AC.	15.24 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.

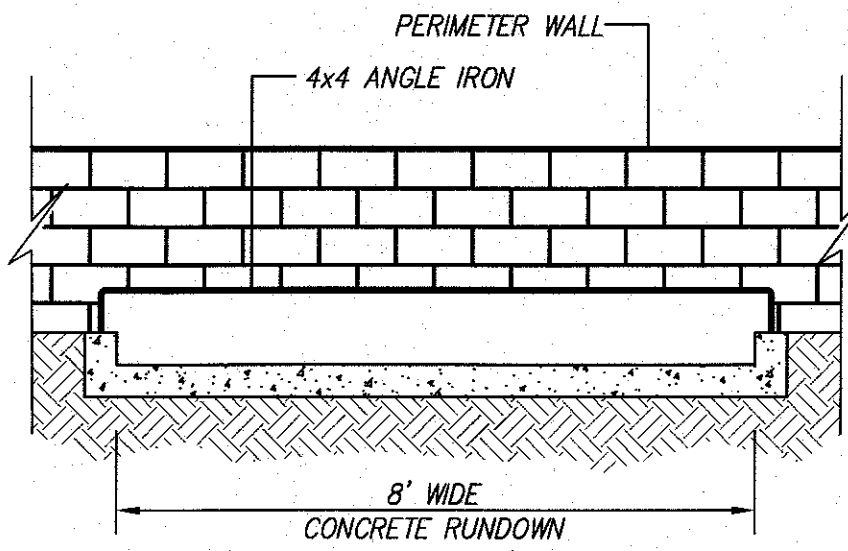
$$\begin{aligned}\text{REQUIRED VOLUME} &= 0.34" \times \text{IMPERVIOUS AREA} \\ &= 0.34" / 12 \times (126115 \text{ SF}) \\ &= 3573 \text{ CF} \\ &= .08 \text{ AC-FT}\end{aligned}$$

## GENERAL NOTES

- CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
- CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.
- 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.
- 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.
- THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.

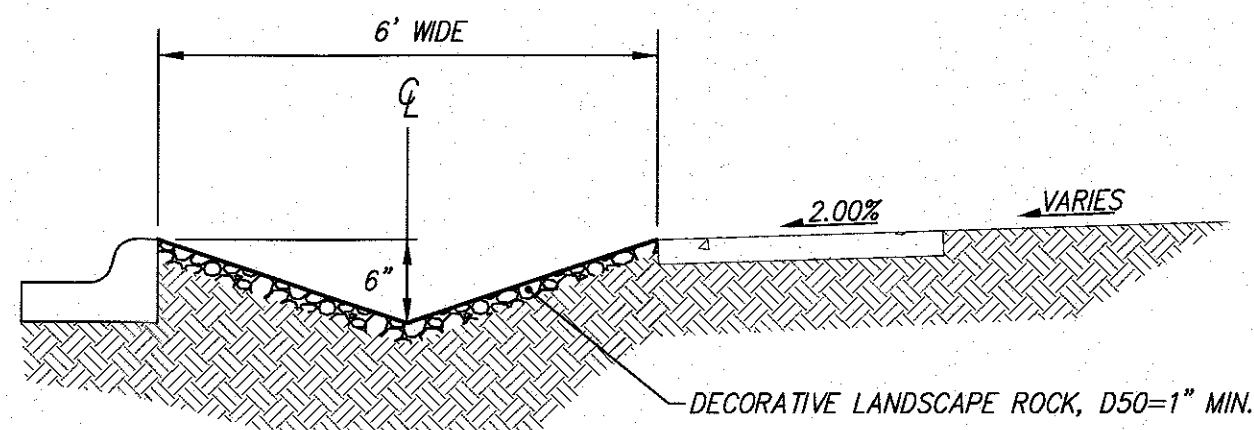
## CAUTION:

NOTE THAT ALL EXISTING UTILITIES MAY NOT BE SHOWN. ALL EXISTING SERVICE CONNECTIONS ARE NOT SHOWN. ANY EXISTING UTILITIES THAT ARE SHOWN ARE APPROXIMATE LOCATION ONLY. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL THE UTILITY OWNERS AND TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATIONS TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS.



## WALL OPENING DETAIL

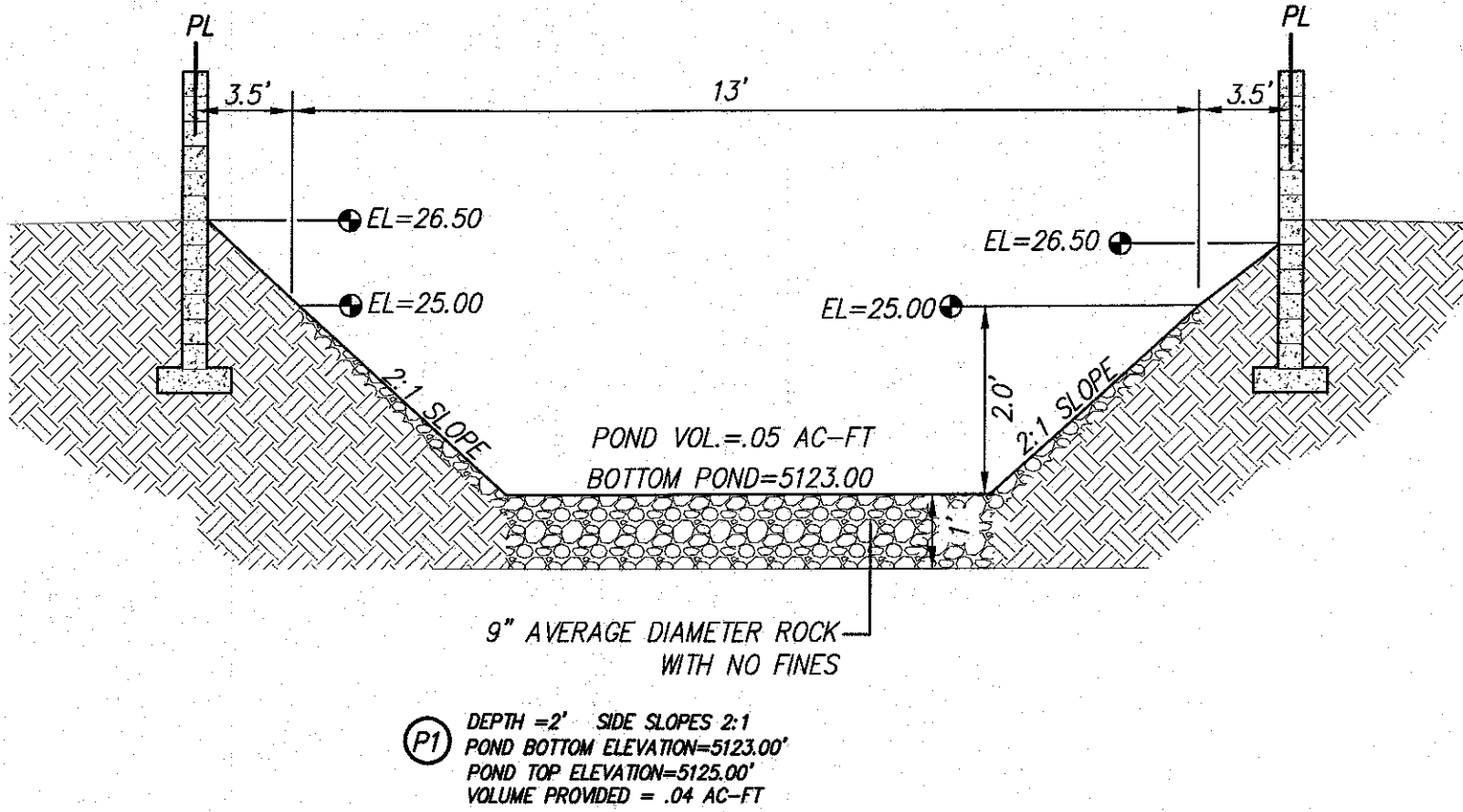
N.T.S.



## SECTION A-A

DEPRESSED LANDSCAPED DETAIL (TYP.)

N.T.S.



DEPTH = 2' SIDE SLOPES 2:1  
POND BOTTOM ELEVATION=5123.00'  
POND TOP ELEVATION=5125.00'  
VOLUME PROVIDED = .04 AC-FT

TOG=34.94  
INV=31.50(N)18"  
INV=31.40(E)18"

RIM=35.54  
INV=29.30(N)18"  
INV=29.20(E)18"

RIM=34.40  
INV=26.50(N)18"  
INV=26.40(E)18"

8" WIDE CONC. RUNDOWN  
SEE WALL OPENING DETL.  
Q= 15.24 CFS  
INV.(IN)=26.00  
INV.(OUT)=25.00

POND VOL. = .04 AC-FT  
TOP POND=25.00  
BOTTOM POND=23.00

PROPOSED 8" WIDE  
OPENING FOR CONC.  
RUNDOWN. SEE WALL  
OPENING DETAIL THIS  
SHEET.

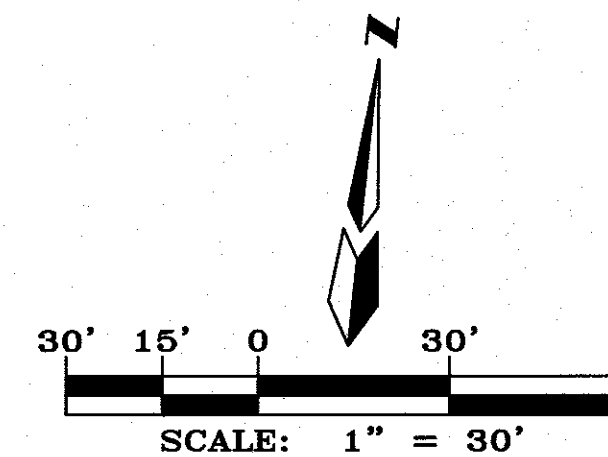
RIM=24.98  
INV=17.80(N)18"  
INV=16.80(E)18"

## TYPICAL LOT LAYOUT PLAN

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

## (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.



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CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT

TITLE:

SAGE RANCH SUBDIVISION

DESIGN REVIEW COMMITTEE

CITY ENGINEER APPROVAL

LAST DESIGN UPDATE

MO./DAY/YR.

MO./DAY/YR.

CITY PROJECT NO.

ZONE MAP NO.

M-9-Z

SHEET

OF

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