

G

Type



Plans

GRD09-0081

Permit Number

3487

Street Number

Alexander Valley Rd

Street Name

GEY

Community Code

131-180-009

APN

COUNTY OF SONOMA - PERMIT AND RESOURCE MANAGEMENT DEPARTMENT
 2550 Ventura Avenue, Santa Rosa, CA 95403 (707) 565-1900 FAX (707) 565-1103

Please Print
 Your Name: Amanda

Date Applied: 5/21/09

INFORMATION WITHIN HEAVY LINE TO BE COMPLETED BY APPLICANT

SITE LOCATION INFORMATION - PRINT CLEARLY			
Site Address: <u>6487 Highway 128</u>		City: <u>Healdsburg</u> ZIP: <u>95448</u>	
Cross-Street: <u>Alexander Valley Rd / Sausal Ln</u>	APN: <u>131-180-009</u>	Project Phone #: ()	Project Fax #: ()
Directions: <u>Hwy 101 N / Lytton Springs Exit</u>		Subd. Name	Unit # / Lot #
Describe Project: <u>Grading for new parking lot for updated existing building</u>		Living Area	Contract Price:
Garage		Decks	
OWNER NAME AND ADDRESS		APPLICANT NAME AND ADDRESS	
Name: <u>Alexander Valley Store LLC</u>		Name: <u>Artn: Ken Rochford + Jeff Shaddock</u>	
Mailing Address: <u>13414 Chalk Hill Road</u>		Mailing Address: <u>(Same as owner)</u>	
City: <u>Healdsburg</u>	State: <u>CA</u>	City: ()	State: ()
ZIP: <u>95448</u>	Day Ph: <u>(707) 431-8845</u>	Fax: <u>(707) 431-8603</u>	Day Ph: ()
CONTRACTOR INFORMATION		OTHER PERSONS (ARCHITECT, ENGINEER, ETC.)	
Company Name:		Name: <u>Adobe Associates, Inc / Paul Brown</u>	
Address:		Address: <u>1220 N. Dutton Avenue</u>	
City: ()	State: ()	City: <u>Santa Rosa</u>	State: <u>CA</u>
ZIP: ()	Day Ph: ()	Day Ph: <u>707 541-2300</u>	Fax: <u>707 541-2301</u>
Exp. Date: ()		License No: <u>41833 RCE</u>	Exp. Date: <u>3-31-10</u>
WORKER'S COMPENSATION DECLARATION			
I hereby affirm under penalty of perjury one of the following declarations:			
<input type="checkbox"/> I have and will maintain a certificate of consent to self-insure for worker's compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.			
<input type="checkbox"/> I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are:			
Carrier: _____			
Policy No: _____			
(This section need not be completed if the permit is for one hundred dollars (\$100) or less).			
<input type="checkbox"/> I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the worker's compensation laws of California, and agree that if I should become subject to the worker's compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.			
Exp. Date: _____ Applicant: _____			
WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000). IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.			
OWNER-BUILDER DECLARATION			
I hereby affirm under penalty of perjury that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500).):			
<input type="checkbox"/> I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044 Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)			
<input checked="" type="checkbox"/> I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.)			
<input type="checkbox"/> I am exempt under Sec. _____, B.P.C. for this reason: _____			
Date: <u>5.7.09</u>	Owner: <u>[Signature]</u>		
LICENSED CONTRACTOR'S DECLARATION			
I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.			
Lic. Class _____	Lic. No. _____		
Exp. Date _____	Contractor _____		
ASBESTOS DECLARATION			
Written asbestos notification pursuant to Part 61 of Title 40 of the Code of Federal Regulations is required when asbestos exists in buildings, or portions thereof, undergoing demolition. I hereby declare that demolition authorized by this permit is from construction that <input type="checkbox"/> does <input type="checkbox"/> does not contain asbestos, or that <input type="checkbox"/> no demolition is authorized by this permit.			
I certify that I have read this application and affirm under penalty of perjury that the above information is correct. I agree to comply with all local Ordinances and State laws relating to building construction. I hereby authorize representatives of the County of Sonoma to enter upon the above-mentioned property for inspection purposes. If, after making the Certificate of Exemption for the Worker's Compensation provision of the Labor Code I should become subject to such provisions, I will forthwith comply. In the event I do not comply with the Worker's Compensation law, this permit shall be deemed revoked.			
PERMITTEE SIGNATURE: <u>[Signature]</u>			
ADDRESS: <u>13414 CHALK HILL RD HEALDSBURG, CA 95448</u>			
<input type="checkbox"/> Contractor <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Other Licensed Professional			
Final Date: <u>10/21/10</u>		Inspector: <u>[Signature]</u>	
THIS PERMIT SHALL EXPIRE IN THREE(3) YEARS FROM DATE FEES ARE PAID UNLESS OTHERWISE NOTED BY CODE ENFORCEMENT			

JOB ADDRESS: 6487 Alexander Valley Rd PERMIT NUMBER: GRD09-0081 INSPECTION AREA: _____

FOR DEPARTMENT USE			
Zoning: <u>L1 ZSDSP</u>	File No: <u>PL09001</u>	Acres: <u>.98</u>	
Existing Use/Structures: <u>Bar/Store</u>			
Proposed Use/Structures: <u>Grading for testing room</u>			
Zoning Min. Yard Requirements: Front _____ Left _____ Right _____ Back _____			
NOTE: Fire Safe Standards require all parcels greater than 1 Acre to have a min. 30' setback unless mitigated. <input type="checkbox"/> Mitigation Required <input type="checkbox"/> Address subject to change			
Approval for Permit Issuance: _____		Approval for Occupancy: _____	
By: _____	By: <u>[Signature]</u>		Date: <u>9/8/09</u>
Date: _____			
Conditions: _____			
Sewer Connection: <input type="checkbox"/> Available <input type="checkbox"/> Fees Paid			
Approved by: _____		Date: _____	
Road Encroachment: <input type="checkbox"/> Fees Paid			
Approved by: <u>[Signature]</u>		Date: <u>10/5/09</u>	
Septic System Permit Clearance # <u>52808-0383</u>			
Approved by: <u>[Signature]</u>		Date: <u>10-6-09</u>	
Flood Zone: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 100 Year Flood Elevation: _____			
Site Review			
Drainage Review: <u>[Signature]</u>		Date: <u>10/5/09</u>	
Fire: <u>Jerry Farris</u>			
Approved by: _____		Date: <u>5-22-09</u>	
Code Enforcement Violation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Violation # _____			
This permit is limited to _____ days.			
Work Authorized: <u>GRADING & DRAINAGE IMPROVEMENTS</u>			
<input checked="" type="checkbox"/> Plans Approved <input type="checkbox"/> No Plans Subject to Field Inspection Plancheck Cleared By: <u>[Signature]</u> Date: <u>10/5/09</u> Permit Cleared for Issuance By: <u>[Signature]</u> Date: <u>10/6/09</u>			
<input type="checkbox"/> Post FIRM <input type="checkbox"/> Pre FIRM Type of Construction: _____ Occupancy: _____ No. of Stories: _____ No. of Bedrooms: _____		<input type="checkbox"/> Alquist Prolo Report Available <input type="checkbox"/> Geotechnical report Available Auto. Fire Sprinklers Req'd: _____ No. of Units: _____ Certificate of Occupancy: _____	
Machine Space for Permit Fee: _____ \$ _____ 05/07/09 PERMIT AND RESOURCES MATERIALS & EQUIPMENT COUNTY OF SONOMA			

ENGINEERING DIVISION - PERMIT INSPECTION RECORD

Sonoma County Permit And Resource Management Department
2550 Ventura Avenue ❖ Santa Rosa, CA 95403 ❖ Telephone (707) 565-1900

OWNER: Alexander Vly Store LLC
 PERMIT#: GRD09-0081 AREA: GEY
 JOB ADDRESS: 3487 Alexander Vly Rd
 DATE ISSUED: 10/17/09
 CONTRACTOR: _____

AUTOMATED INSPECTION REQUEST SYSTEM
❖ 565-3551 ❖

Our automated inspection request system (for use with a touch tone phone) allows you to schedule next day inspections by calling between the hours of 6:00 a.m. to midnight. You must have your permit number, job address number and the inspection code listed below.

THIS JOB CARD MUST BE AVAILABLE AT TIME OF INSPECTION

CONSTRUCTION INSPECTION CONTACT PERSON: _____
 DESCRIPTION OF WORK: Grading for future parking

The current status of this permit is available on our website:
<http://www.SonomaCountyPermits.org>

RB 1 _____ RB 2 _____ NPDES _____

Scantron CODE	INSPECTION TYPE	Scantron CODE	INSPECTION TYPE
	SITE GRADING & SITE IMPROVEMENTS GRD		STORM WATER
200	SITE GRADING, PRE-CONSTRUCTION (5 DAY NOTICE)	650	SUSMP INSPECTION
201	START WORK (5 DAY NOTICE) <u>10/19/09 KCL</u>	651	S/W PRE-CONSTRUCTION <u>10/19/09 KCL</u>
202	RESUME GRADING ACTIVITY (2 DAY NOTICE)	652	S/W BMPs VERIFICATION
203	SITE GRADING, ROUGH		
204	SUB DRAIN	654	S/W SITE INVESTIGATION
205	SUB GRADE (2 DAY NOTICE)	655	S/W PRE-RAIN SEASON INSPECTION
206	SITE IMPROVEMENTS, PRE-PAVING	656	S/W ENFORCEMENT ACTION COMPLIANCE
207	CONCRETE FLATWORK	657	S/W POST-RAIN SEASON INSPECTION
208	PAD CERTIFICATION		
209	PRE-PAVING (2 DAY NOTICE)	659	STORM WATER FINAL (2 DAY NOTICE)
210	PAVING (2 DAY NOTICE)		
211	STRIPING & SIGNAGE (5 DAY NOTICE)		
212	LIGHTING & SIGNALS (5 DAY NOTICE)		
213	KEYING & BENCHING		
214	SLOPE STABILITY / RETAINING WALL		
215	SOIL REPORT CERTIFICATION		
216	SPECIAL INSPECTION		
			SEWER SYSTEMS SEW
218	PRE-FINAL (5 DAY NOTICE)	430	START WORK (5 DAY NOTICE)
219	SITE GRADING, FINAL (2 DAY NOTICE) <u>10/21/09</u>	431	RESUME SEWER SYSTEM ACTIVITY
220	SUBDIVISION WARRANTY	432	SEWER TRENCH
		433	SEWER PIPE / BEDDING
		434	SEWER BACKFILL / COMPACTION
		435	SEWER TESTING
	WATER SYSTEMS WAT		
450	WATER FIELD WORK COMPLIANCE	438	SEWER MANHOLE
451	WATER PIPE INSTALLATION	439	SEPTIC TANK DESTRUCT W/SEWER CONNECTION
452	WATER ENCROACHMENT REQUIREMENTS	440	GREASE INTERCEPTOR
453	WATER WELL DRAWDOWN & YIELD	441	PUMP SYSTEM
454	WATER SYSTEM HYDROSTATIC TEST	442	SEWER PRE-PAVING
		443	SEWER PAVING
459	WATER SYSTEM FINAL		
	ENCROACHMENT ENC		
240	START WORK (5 DAY NOTICE)	449	SEWER FINAL (2 DAY NOTICE)
241	ENCROACHMENT TRENCHING		
242	ENCROACHMENT PIPE / BEDDING		
243	ENCROACHMENT BACKFILL / COMPACTION		
244	ENCROACHMENT PRE-PAVING		
245	ENCROACHMENT PAVING		
249	ENCROACHMENT FINAL		
250	PUBLIC IMPROVEMENTS WARRANTY		
	DRAINAGE DRN		
640	TRENCH (DRAINAGE PIPE)		
641	DRAINAGE PIPE		
642	PIPE BACKFILL / COMPACTION		
643	PIPE STRUCTURES		
644	INLET / OUTLET EROSION PROTECTION		
645	SWALE(S)		
649	DRAINAGE FINAL (2 DAY NOTICE)	699	PERMIT FINAL (5 DAY NOTICE) <u>10/21/09</u>

GRD09-0081

Required Grading Inspections

ENG-001

This is a list of required inspections to be performed by the grading inspector and, if engineered grading, by the engineer providing grading controls. If work requiring inspection is covered or concealed without first having been inspected, the grading inspector may require, by written notice, that such work be exposed for examination.

Project Address: 3467 ALEXANDER VALLEY RD City: GEYSERVILLE

Grading Plan Check or Permit # 6PD09-0081 APN: 131-180-009

- The project plans have been checked and classified as engineered grading. (Chapter 11 Sonoma County Code)
- The project plans have been checked and classified as non-engineered grading. (Chapter 11 Sonoma County Code)

Note: Inspections, tests and reports are required when the corresponding box is checked.

Grading Inspector	Engineer
<input checked="" type="checkbox"/> Pre-construction meeting with contractor, grading inspector and/or others.	<input checked="" type="checkbox"/> Pre-construction meeting with contractor, geotechnical engineer, grading inspector and others, as applicable.
<input checked="" type="checkbox"/> Other inspections, as agreed at pre-construction meeting.	<input checked="" type="checkbox"/> Other inspections, as agreed at pre-construction meeting.
<input type="checkbox"/> Preparation of ground for fill placement, organic layer removed, competent material exposed, surface scarified, etc.	<input checked="" type="checkbox"/> Preparation of ground for fill placement, organic layer removed, competent material exposed, surface scarified, etc.
<input type="checkbox"/> Surface benched where surface receiving fill is steeper than 5h:1v.	<input type="checkbox"/> Surface benched where surface receiving fill is steeper than 5h:1v. (The geotechnical engineer may require benching at flatter than 5h:1v.)
<input type="checkbox"/> Key or core.	<input type="checkbox"/> Key or core.
<input type="checkbox"/> Terraces, as required.	<input type="checkbox"/> Subsurface drainage facilities.
<input checked="" type="checkbox"/> Surface drainage facilities including interceptor drains, swales, ditches on terraces, concrete or shotcrete ditch lining, etc.	<input checked="" type="checkbox"/> Fill placement method, suitability of materials, lift thickness, moisture content and density monitored and reported to contractor, etc. (Design specifications).
<input checked="" type="checkbox"/> Final rough grading of both cut and fill slopes, including terracing, rounding of top soil layer, setbacks from permit area boundaries, etc.	<input type="checkbox"/> Terraces, as required.
<input checked="" type="checkbox"/> Erosion control measures, either temporary or permanent, including sediment fences, installation of fabrics, seeding slopes, etc.	<input checked="" type="checkbox"/> Surface drainage facilities including interceptor drains, swales, ditches on terraces, concrete or shotcrete ditch lining, etc.
<input checked="" type="checkbox"/> Final inspection for code compliance. If engineered grading, the final report is also reviewed by grading inspector before the grading permit is finalized.	<input checked="" type="checkbox"/> Final rough grading of both cut and fill slopes, including terracing, rounding of top soil layer, setbacks from permit area boundaries, etc.
PRIOR TO START OF WORK, CONTACT ALEX ROSAS @ 707/585.3746 TO SCHEDULE A MANDATORY PRE-CONSTRUCTION CONSULTATION.	<input checked="" type="checkbox"/> Density tests and moisture content with moisture/density curve at locations chosen by engineer providing grading controls, not by contractor.
	<input checked="" type="checkbox"/> Erosion control measures, either temporary or permanent, including sediment fences, installation of fabrics, seeding slopes, etc.
	<input checked="" type="checkbox"/> "As Built" plans by civil engineer, if changes have been made during construction. Verification on line & grade by civil engineer may be requested by soils engineer or this department.
	<input checked="" type="checkbox"/> Final report by the soils engineer providing grading controls meeting the requirements.

Plan Checker: [Signature]

Date: 10/15/09

*Engineer: [Signature]

Date: 10-2-09

*Engineer's signature is required for "engineered" grading.



**Drainage Analysis
Alexander Valley Store
3487 Alexander Valley Road
Healdsburg, California
JN 09015**

August 10, 2009

Prepared by:

**Adobe Associates, Inc.
1220 N Dutton Avenue
Santa Rosa, CA 95401
Telephone: 707-541-2300
Fax: 707-541-2301**



David R Brown, RCE 41833
My license expires 3/31/2010

Calculated By: _____
Checked By: _____

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12. Bio Swale Treatment Calculations

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Plate No. B-4: Flood Control Design Criteria, Sonoma County Water Agency

Alexander Valley Store

Drainage Narrative

The Alexander Valley Store is a 0.95 acre parcel located off of State Highway 128 and Alexander Valley Road north of Healdsburg, California. The project includes the construction of two decomposed granite parking areas, a new building over the existing foundation, a surrounding deck and multiple gardens and groves. The project will also be removing a house, garage and 2 other building structures. The north western corner of the property will remain undisturbed for a proposed septic system under separate permit.

The site consists of flat terrain with the western half historically draining towards the western corner. Existing improvements have left the southern portion to pond during significant storm events. The proposed improvements will eliminate ponding and direct this watershed to the existing 18" storm drain that crosses Highway 128 and Alexander Valley Road. The system then travels in a westerly direction eventually outleting into the Russian River over 0.77 miles away.

Two subdrains direct flows from the garden areas into a rain garden located in the middle of the site. The grates of area drains #4-#6 will be placed just below the finish surface of the surrounding hardscape and will accept stormwater once the rain garden reaches capacity. Area drains #7-8 and drop inlet #2 will accept runoff on site before discharging into the existing drop inlet at the corner of Highway 128 and Alexander Valley Road.

The southern parking lot will sheet flow to a bio swale adjacent to the property line near the driveway entrance. Within the bio-swales, 1.5" check dams will be constructed every 13' to decrease storm water velocities and increase the duration of treatment therefore increasing infiltration within the bio-swale during a 2 year storm event. During a 10-year storm event, water will overtop the check dams and flow freely within the remaining capacity of the trapezoidal channel. Downstream of the bio-swale, runoff will enter into a 12" storm drain and will be directed to the east along the south property line where the system will connect to the public storm drain at manhole #1.

Erosion and Sediment Control

Erosion and sediment will be controlled by a rock rip rap dissipater at the entrance of the 15" storm drain that passes under the driveway entrance. Furthermore, temporary straw wattles will be placed around the perimeter of drop inlets and area drains along with the placement of straw wattle check dams in the bio swale. Specific placement is illustrated on the Erosion Control and Sediment Control Plan.

Starting H.G.L and Backwater

Backwater calculations have been performed on both storm drain lines demonstrating that all storm water is contained within the system during a 10-year storm event. The 10 year HGL has been conservatively taken at the top of the 18" storm drain (Ex. DI #2) assuming that it will be flowing full. A 100-year routing map was provided illustrating an overland release point from the center of the site, though the north parking lot and into the existing vineyard to the northwest. At a worst case scenario, water will crest over the centerline of Alexander Valley Road at an elevation of 176.5' which is 1.5' below the finished floor height, which exceeds the 1' min freeboard. To determine the full flow capacity of the 18" culvert passing under Highway 128, a headwater depth

calculation was performed. The resulting 9 cfs flow was subsequently used to determine the backwater calculations for the onsite system.

The bio swale at Point of Concentration 8 was analyzed for capacity during the 10-year storm event. Inlet calculations were also performed for each structure.

Stormwater Flows

Pre vs. post-construction flows were calculated for the entire site during the 2 year storm event. Also included are pre vs. post construction impervious maps. Said data will demonstrate a reduction of impervious surfaces from 12,694 to 11,223 ft² thus reducing pre vs. post construction runoff from 1.98 to 1.65 cfs for the entire site. Post construction POC's 10-11 are equivalent to pre-construction POC #3 in that runoff will sheet flow into the adjacent vineyard. Pre-construction POC #2 will now be directed to the existing storm drain system along with pre-construction #1 to equal the remaining post construction runoff of POC's 7 and 9. The effects of the rain garden were not calculated but will play a role into both the retention and the treatment of the 2-year storm event.

Stormwater Treatment

The southern parking lot will be treated by the bio swale running adjacent to the southern property line while the parking lot to the north will be treated by a vegetated buffer strip to the northwest. Due to site constraints the length of the bio swale could not be increased to meet the 12 minute minimum time of treatment. To satisfy this requirement, check dams will be placed along the length of the bio swale to increase the time of treatment and promote additional infiltration. Also the decomposed granite parking lot runoff coefficient was modeled at 0.90 when a lower coefficient is commonly used.

Monitoring and maintenance of the on-site bio-swales shall be done by the owner. Long term maintenance of the bio-swales will include periodical cleaning and removal of sedimentation and oil buildup of the bottom and sides. Routine maintenance (irrigation, mowing and trimming) will also be done by the owner.

The rational method was used to calculate the 2-year, 10-year and 100-year hydrology and hydraulic calculations by following the SCWA Flood Control Design Criteria. In accordance with the SCWA Flood Control Design Criteria, all storm drain structures are sized to handle the runoff from the design storm event.

Exhibits



13487 Alexander Valley Rd, Healdsburg, CA 95448

128

Alexander Valley Rd

W. Sams Hill

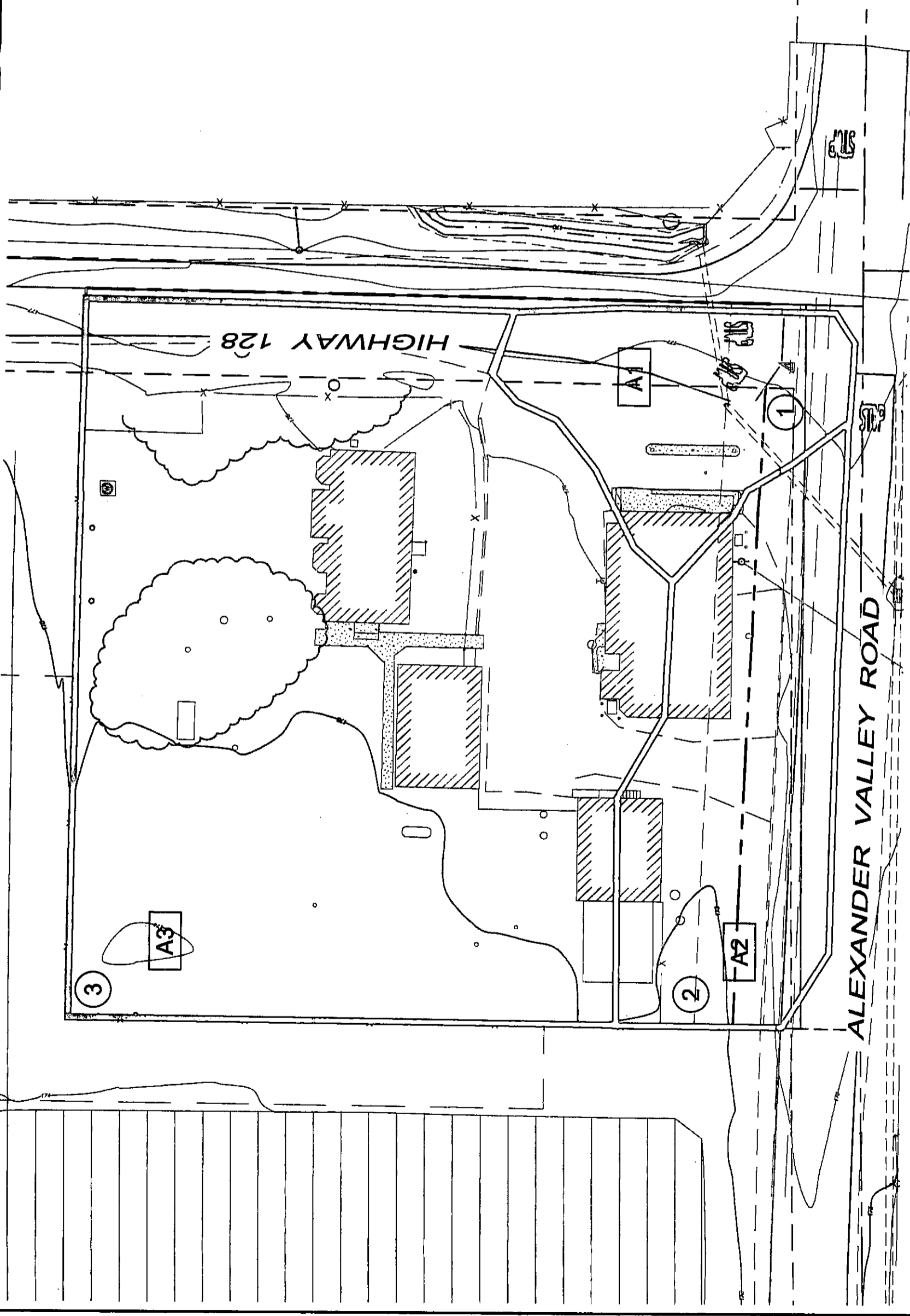
Google

© 2009 Tele Atlas
Imagery © 2009 DigitalGlobe
elev: 180 ft

38° 40' 00" 01" N, 122° 45' 11" 58" W

Oct 20, 2003

Eyefall: 1854 ft

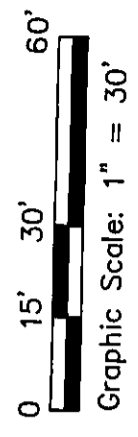


DRAINAGE AREA LEGEND

- A1 DRAINAGE AREA
- DRAINAGE AREA BOUNDARY
- 1 POINT OF CONCENTRATION

DRAINAGE AREA TABLE

- A1 = 0.12 AC (5,160 SF)
- A2 = 0.20 AC (8,564 SF)
- A3 = 0.75 AC (32,411 SF)

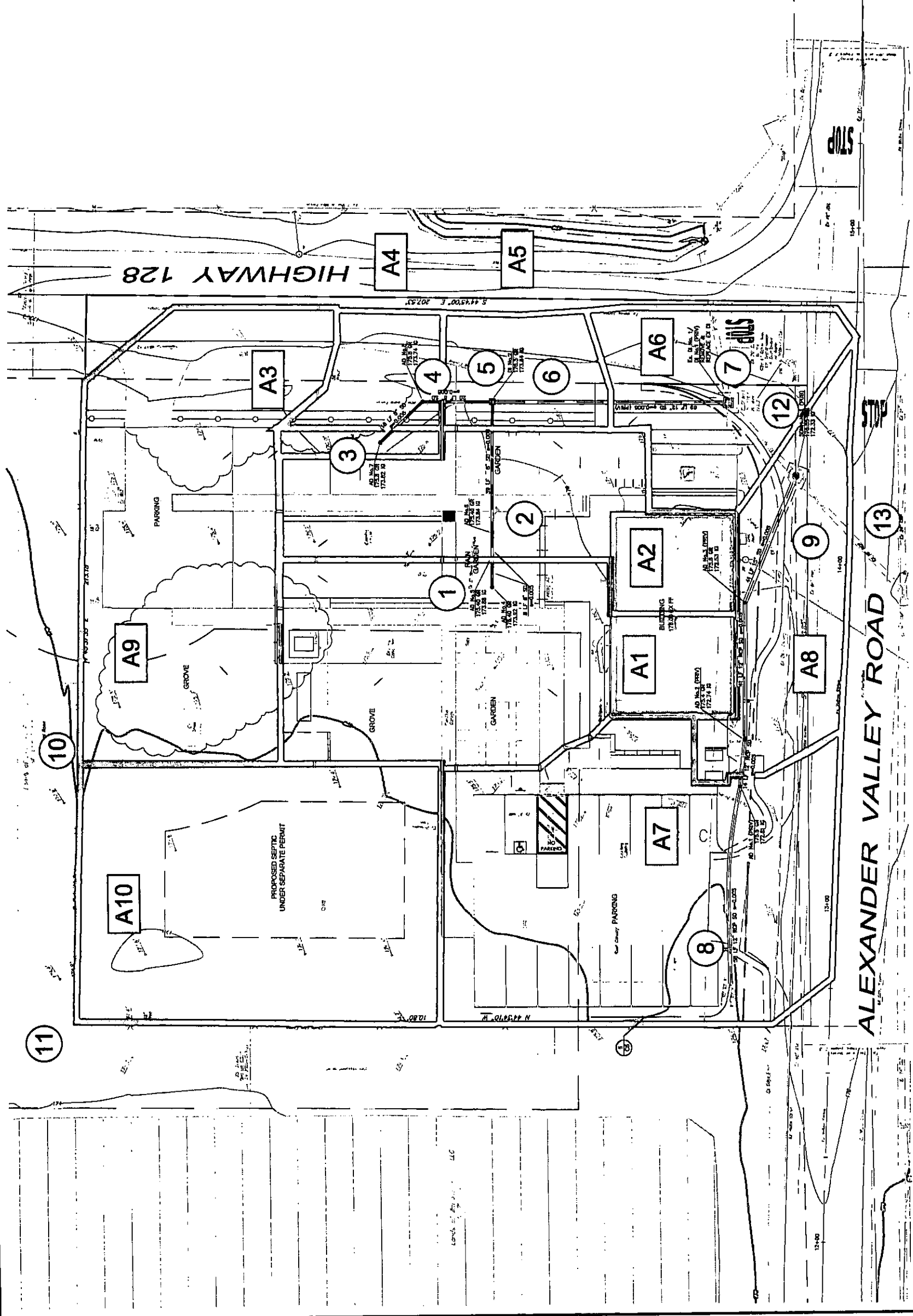


June 25, 2009

Adobe 1220
 Associates, Inc. N. Dutton Ave
 Civil Engineering Santa Rosa, CA 95401
 Land Surveying & Land Development 707 541-2300
 Services Fax: 707 541-2301

Pre Construction Hydrology Map

Alexander Valley Store
 6487 Highway 128
 Healdsburg, CA

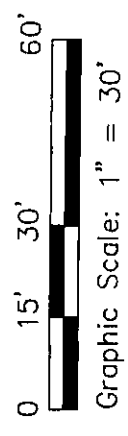
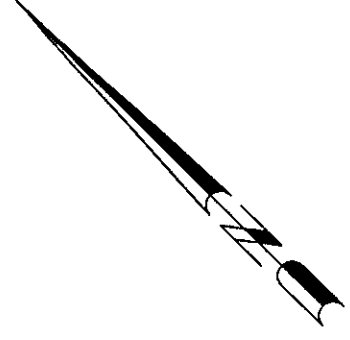


DRAINAGE AREA LEGEND

- A1 DRAINAGE AREA
- DRAINAGE AREA BOUNDARY
- ① POINT OF CONCENTRATION

DRAINAGE AREA TABLE

A1 = 0.15 AC (6,689 SF)	A6 = 0.07 AC (3,183 SF)
A2 = 0.10 AC (4,638 SF)	A7 = 0.20 AC (8,904 SF)
A3 = 0.01 AC (394 SF)	A8 = 0.08 AC (3,381 SF)
A4 = 0.03 AC (1,188 SF)	A9 = 0.18 AC (7,792 SF)
A5 = 0.03 AC (1,562 SF)	A10 = 0.18 AC (7,907 SF)



June 25, 2009

Adobe 1220
Associates, Inc. N. Dutton Ave
Civil Engineering Santa Rosa,
Land Surveying & CA 95401
Land Development 707 541-2300
Services Fax: 707 541-2301

Post Construction Hydrology Map

Alexander Valley Store
 6487 Highway 128
 Healdsburg, CA

Rational Method Drainage Study
10 Year Storm Event

Project: Alexander Valley Store

Date: 3/9/2009

Point of Conc.	Area	Elevation	Distance	Slope	V(ft/s)	Travel Time (min)	Total Time (min)	K	C	A _{Actual}	A _{KAC}	Sum KAC	Q (cfs)	Remarks
10 year														
1	A1					7.00	7.00	2.54	0.57	0.15	0.113	0.113	0.29	Overland Flow
2	A2	0.13	26	0.005	0.83	0.53	7.53	2.45	0.55	0.10	0.074	0.187	0.46	8"SD Assumed
3	A3					7.00	7.00	2.54	0.50	0.01	0.007	0.007	0.02	Overland Flow
4	A4	0.09	18	0.005	0.05	6.19	13.19	1.82	0.62	0.03	0.025	0.031	0.06	8"SD Assumed
5	A5					7.00	7.00	2.54	0.72	0.03	0.029	0.029	0.07	Overland Flow
6						7.53	7.53	2.45				0.247	0.61	
7	A6	0.34	69	0.005	1.73	0.66	8.19	2.34	0.75	0.07	0.070	0.317	0.74	8"SD Assumed
8	A7					7.00	7.00	2.54	0.79	0.20	0.210	0.210	0.53	Overland Flow
9	A8	0.65	130	0.005	1.53	1.42	8.42	2.31	0.61	0.08	0.064	0.274	0.63	8"SD
10	A9					7.00	7.00	2.54	0.61	0.18	0.145	0.145	0.37	Overland Flow
11	A10					7.00	7.00	2.54	0.50	0.18	0.120	0.120	0.30	Overland Flow

FLWS CALCULATED FOR BACKWATER CALCULATIONS

12													9.74	Headwater Calc + POC 7
13													10.38	POC 9+12

RUNOFF COEFFICIENTS

	A _T	A _V	A _P	C _T *
A1	6,689	5,557	1,132	0.57
A2	4,638	4,004	634	0.55
A3	394	394	0	0.50
A4	1,188	830	358	0.62
A5	1,562	710	852	0.72
A6	3,183	1,170	2,013	0.75
A7	8,904	2,454	6,450	0.79
A8	3,381	906	2,475	0.79
A9	7,792	5,740	2,052	0.61
A10	7,907	7,907	0	0.50

* Sonoma County Water Agency, Plate No. B-1

Rational Method Drainage Study
100 Year Storm Event

Project: Alexander Valley Store

Date: 3/9/2009

Point of Conc.	Area	Elevation	Distance	Slope	V(ft/s)	Travel Time (min)	Total Time (min)	K	C	A	A _{total}	KAC	Sum KAC	Q (cfs)	Remarks
1	A1	0.13	26	0.005	1.18	7.00	7.00	3.63	1.33	0.57	0.15	0.113	0.113	0.41	Overland Flow
2	A2	0.13	26	0.005	1.18	7.37	7.37	3.53	1.33	0.55	0.10	0.074	0.187	0.66	8"SD Assumed
3	A3	0.09	18	0.005	0.07	7.00	7.00	3.63	1.33	0.50	0.01	0.007	0.007	0.02	Overland Flow
4	A4	0.09	18	0.005	0.07	4.34	11.34	2.81	1.33	0.62	0.03	0.025	0.031	0.09	8"SD Assumed
5	A5	0.34	69	0.005	2.50	7.00	7.00	3.63	1.33	0.72	0.03	0.029	0.029	0.10	Overland Flow
6	A6	0.34	69	0.005	2.50	7.37	7.37	3.53	1.33	0.75	0.07	0.070	0.247	0.87	8"SD Assumed
7	A6	0.34	69	0.005	2.50	7.83	7.83	3.42	1.33	0.75	0.07	0.070	0.317	1.08	8"SD Assumed
8	A7	0.65	130	0.005	2.18	7.00	7.00	3.63	1.33	0.79	0.20	0.210	0.210	0.76	Overland Flow
9	A8	0.65	130	0.005	2.18	7.99	7.99	3.38	1.33	0.79	0.08	0.084	0.294	1.00	8"SD
10	A9	0.65	130	0.005	2.18	7.00	7.00	3.63	1.33	0.79	0.18	0.190	0.190	0.69	Overland Flow
11	A10	0.65	130	0.005	2.18	7.00	7.00	3.63	1.33	0.61	0.18	0.145	0.145	0.53	Overland Flow

FLOW CALCULATED FOR BACKWATER CALCULATIONS

Point of Conc.	Area	Elevation	Distance	Slope	V(ft/s)	Travel Time (min)	Total Time (min)	K	C	A	A _{total}	KAC	Sum KAC	Q (cfs)	Remarks
12														10.08	Headwater Calc + POC 7
13														11.08	POC 9+12

RUNOFF COEFFICIENTS

Area	A _r	A _v	A _p	C _r
A1	6,689	5,557	1,132	0.57
A2	4,638	4,004	634	0.55
A3	394	394	0	0.50
A4	1,188	830	358	0.62
A5	1,562	710	852	0.72
A6	3,183	1,170	2,013	0.75
A7	8,904	2,454	6,450	0.79
A8	3,381	906	2,475	0.79
A9	7,792	5,740	2,052	0.61
A10	7,907	7,907	0	0.50

* Sonoma County Water Agency, Plate No. B-1

Worksheet for Bio Swale Capacity @ POC 8 (10-Yr)

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.250
Channel Slope	0.01000 ft/ft
Left Side Slope	3.00 ft/ft (H:V)
Right Side Slope	3.00 ft/ft (H:V)
Bottom Width	2.75 ft
Discharge	0.53 ft ³ /s

Results

Normal Depth	0.45 ft
Flow Area	1.86 ft ²
Wetted Perimeter	5.61 ft
Hydraulic Radius	0.33 ft
Top Width	5.47 ft
Critical Depth	0.10 ft
Critical Slope	2.04527 ft/ft
Velocity	0.28 ft/s
Velocity Head	0.00 ft
Specific Energy	0.45 ft
Froude Number	0.09
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.45 ft
Critical Depth	0.10 ft
Channel Slope	0.01000 ft/ft

Cross Section for Bio Swale Capacity @ POC 8 (10-Yr)

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Roughness Coefficient	0.250
Channel Slope	0.01000 ft/ft
Normal Depth	0.45 ft
Left Side Slope	3.00 ft/ft (H:V)
Right Side Slope	3.00 ft/ft (H:V)
Bottom Width	2.75 ft
Discharge	0.53 ft ³ /s

Cross Section Image

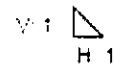
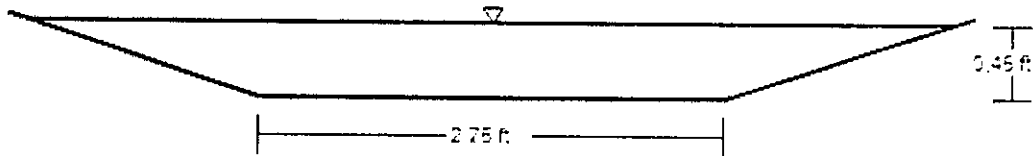
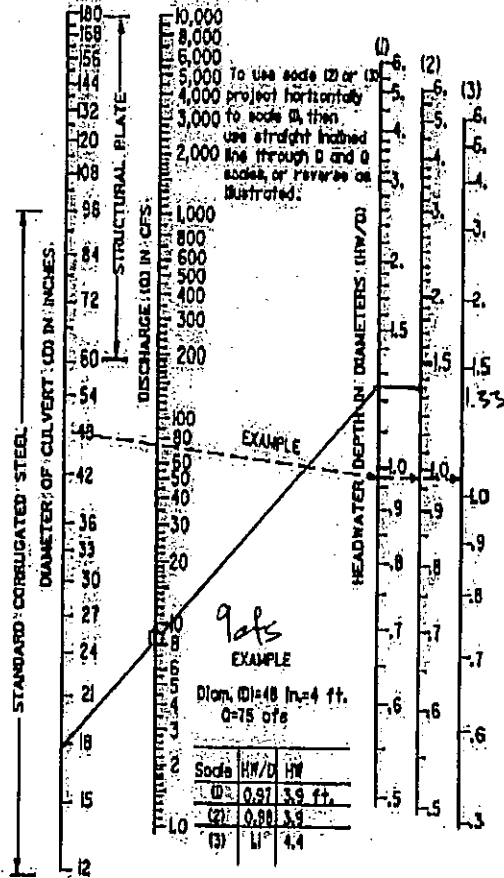


Figure 7-5 Inlet Control Nomograph, Circular Pipe

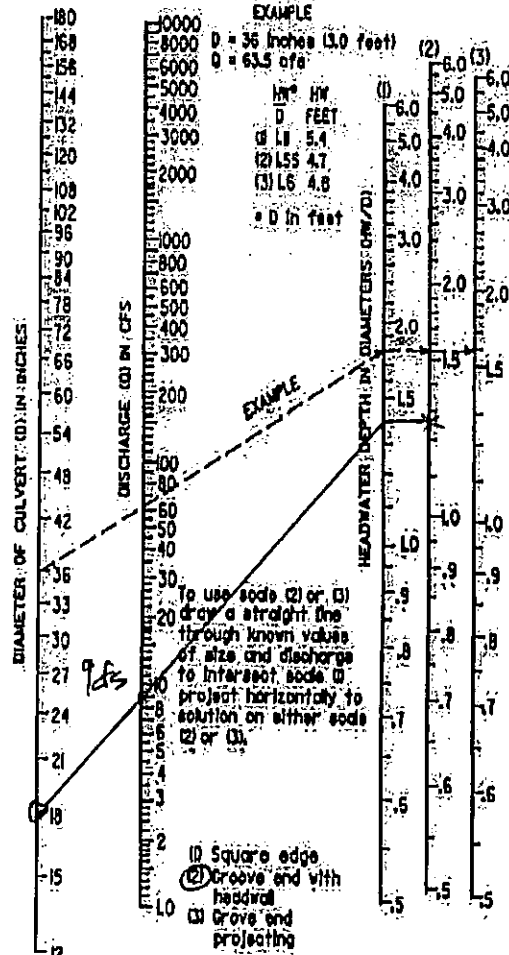
Source: Concrete Pipe Design Manual, ACPA, 1970.
 Handbook of Steel Drainage & Highway Construction
 Products, AISI, 1971.

LOSS COEFFICIENT K
 FOR VARIOUS ENTRANCE TYPES

HW SCALE D	ENTRANCE TYPE	COEF- FICIENT
(1)	Headwall, sq edge or end section conforming to FH slope	0.5
(2)	Walled to conform to slope	0.7
(3)	Projecting from FH	0.9



(A) CORRUGATED STEEL PIPE



(B) REINFORCED CONCRETE PIPE

$$\frac{H}{D} = \frac{2}{1.5} = 1.33$$

CALCULATION USED TO
DETERMINE CONSERVATIVE
FLOW FOR BACKWATER
CALCULATIONS @ EX. 18" SD
FROM SDMH #1 - EX DI #1 / DI #2

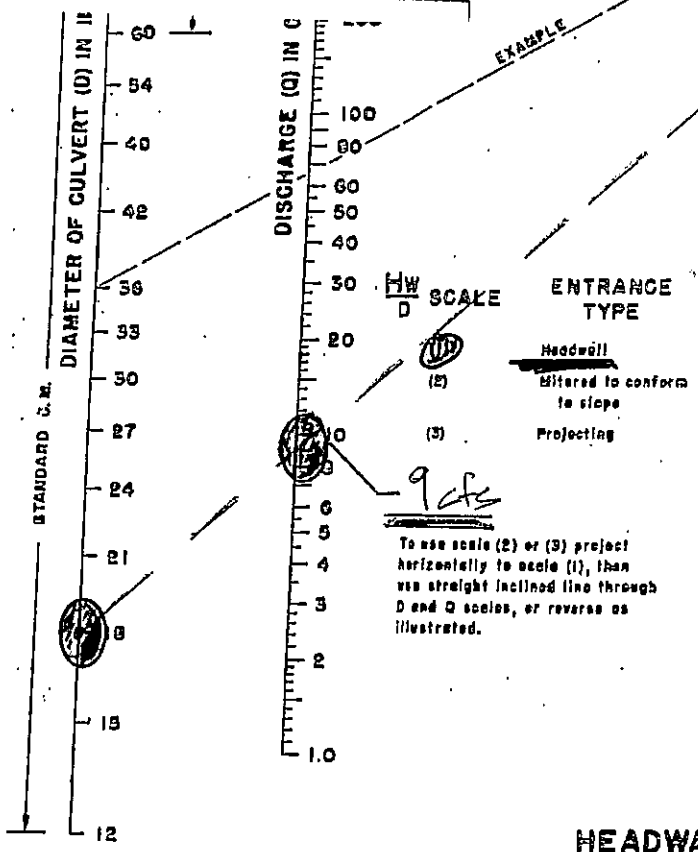
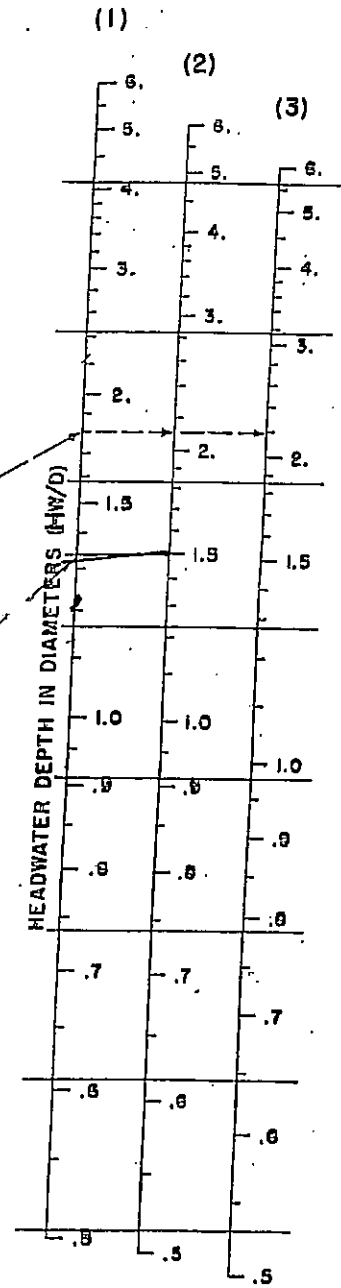
9 cfs FLOW WAS ADDED TO
 RESPECTIVE 10' 100 YEAR FLOWS
 @ POC 7 = POC 12
 POC 13 = POC 12 + 9

From BPR
 EXAMPLE

D = 36 inches (3.0 feet)
 Q = 60 cfs

	$\frac{H_w}{D}$	H_w (feet)
(1)	1.8	5.4
(2)	2.1	6.3
(3)	2.2	6.6

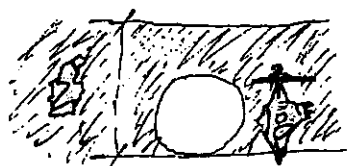
*D in feet



**HEADWATER DEPTH FOR
 C. M. PIPE CULVERTS
 WITH INLET CONTROL**

$$\frac{H_w}{D} = \frac{2}{1.5} = 1.33$$

TOP OF WALL
 175.97



173.98 1a

FIGURE 10-9.

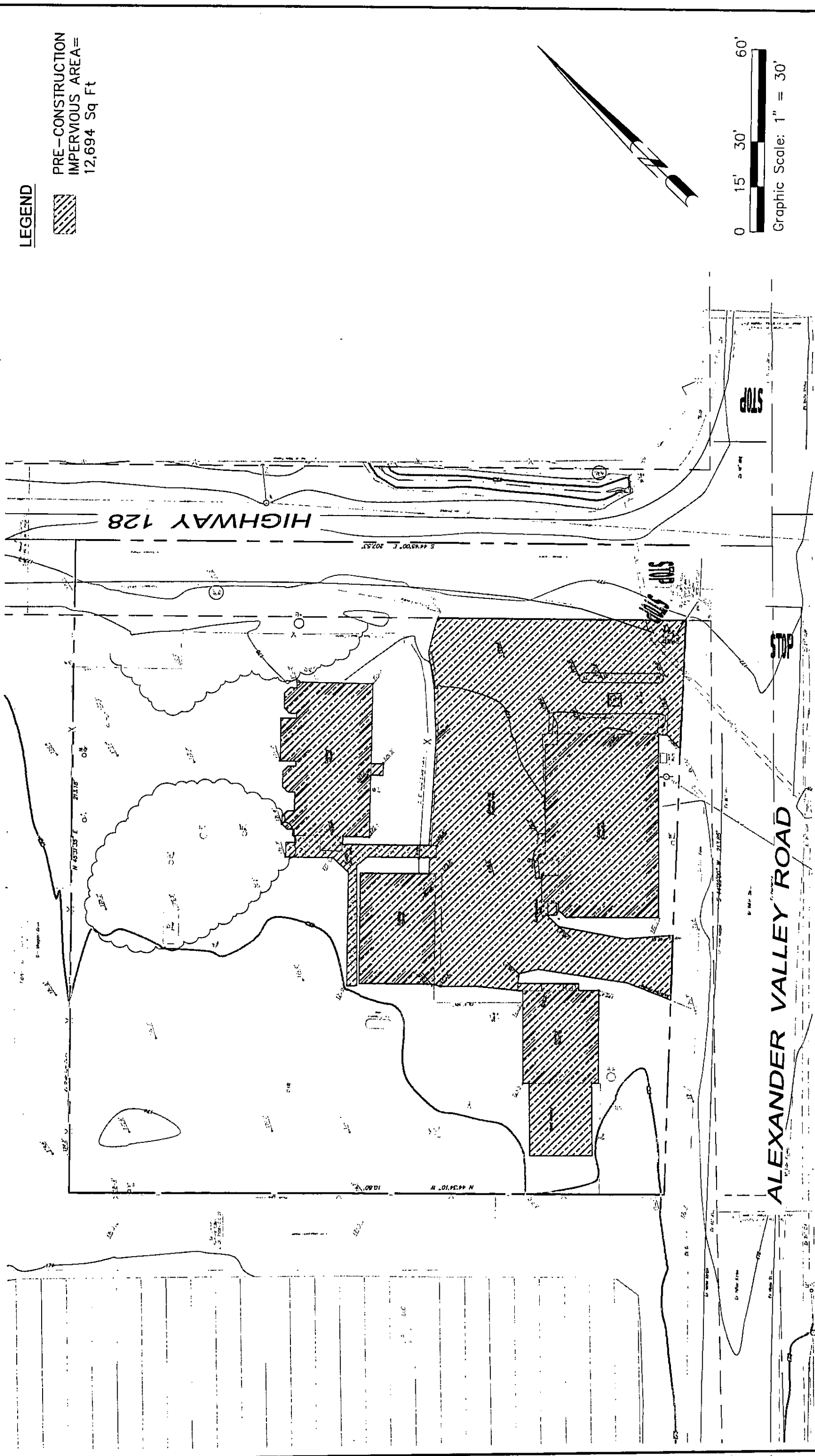
Head Water Calculations

Project: Alexander Valley Store

Job No: 09015 Date: 30-Jun-09

10 Year Data

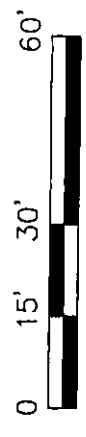
CATEGORY ITEM SYMBOL	LENGTH L (ft)	DIAMETER D (ft)	PIPE DATA			VELOCITY V (ft/s)	VELOCITY HEAD V ² /2g (ft)	FRICTION SLOPE S _f (ft/ft)	FRICTION LOSS H _f (ft)	HEAD LOSSES			ELEVATIONS		
			AREA A (ft ²)	MANNING'S COEFF. n	FLOW Q (ft ³ /s)					ENLARGEMENT LOSS H _e (ft)	CONTRACTION LOSS H _c (ft)	BENDS & SUMMATION LOSSES H _b (ft)	ENERGY GRADE E.G.L.	HYDRAULIC GRADE H.G.L.	INLET GRADE F.G.
Tap at 18" SD Ex. DI No. 2															
Ex. DI No. 2															
OUTLET		1.50	1.77	0.017	10.38	5.87	0.535				0.00	172.40	172.40	175.80	170.90
18"SD	45	1.50	1.77	0.017	10.38	5.87	0.535	0.75			0.75	172.40	172.40		
INLET		1.50	1.77	0.017	10.38	5.87	0.535		0.00		0.00	173.15	173.15		
SDMH #1															
OUTLET		1.25	1.23	0.014	0.63	0.51	0.004				0.01	173.16	173.16	176.55	172.37
15"SD	16	1.25	1.23	0.014	0.63	0.51	0.004	0.08			0.08	173.16	173.16		
INLET		1.25	1.23	0.014	0.63	0.51	0.004		0.00		0.00	173.24	173.24		
AD No. 3															
OUTLET		1.00	0.79	0.014	0.53	0.67	0.007				0.00	173.24	173.24	175.60	172.53
12"SD	136	1.00	0.79	0.014	0.53	0.67	0.007	0.68			0.68	173.24	173.24		
INLET		1.00	0.79	0.014	0.53	0.67	0.007		0.00		0.00	173.92	173.92		
Inlet											0.00	173.92	173.92	174.10	173.10
SDMH #1															
OUTLET		1.50	1.77	0.017	9.74	5.51	0.472				0.71	173.16	173.16	176.55	172.37
18"SD	29	1.50	1.77	0.017	9.74	5.51	0.472	0.93			0.93	173.16	173.16		
INLET		1.50	1.77	0.017	9.74	5.51	0.472		0.00		0.00	174.09	174.09		
Ex. DI No. 1/DI No. 1															
OUTLET		1.00	0.79	0.014	0.61	0.78	0.009				0.01	174.10	174.10	176.20	173.30
12"SD	69	1.00	0.79	0.014	0.61	0.78	0.009	0.02			0.02	174.10	174.10		
INLET		1.00	0.79	0.014	0.61	0.78	0.009		0.00		0.00	174.12	174.12		
DI No. 2															
OUTLET		0.67	0.35	0.014	0.46	1.32	0.027				0.04	174.16	174.16	176.30	173.64
6"SD	39	0.67	0.35	0.014	0.46	1.32	0.027	0.07			0.07	174.16	174.16		
INLET		0.67	0.35	0.014	0.46	1.32	0.027		0.00		0.00	174.23	174.23		
AD No. 6															
OUTLET		0.67	0.35	0.014	0.29	0.83	0.011				0.03	174.26	174.26	175.70	173.83
6"SD	16	0.67	0.35	0.014	0.29	0.83	0.011	0.01			0.01	174.26	174.26		
INLET		0.67	0.35	0.014	0.29	0.83	0.011		0.00		0.00	174.27	174.27		
AD No. 4															
OUTLET		0.67	0.35	0.014	0.29	0.83	0.011				0.03	174.30	174.30	175.70	173.96
6"SD															
INLET									0.00		0.00	174.27	174.27		
AD No. 4															



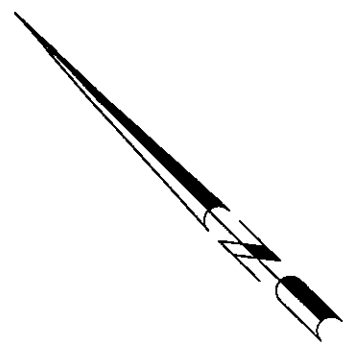
LEGEND



PRE-CONSTRUCTION
IMPERVIOUS AREA=
12,694 Sq Ft



Graphic Scale: 1" = 30'

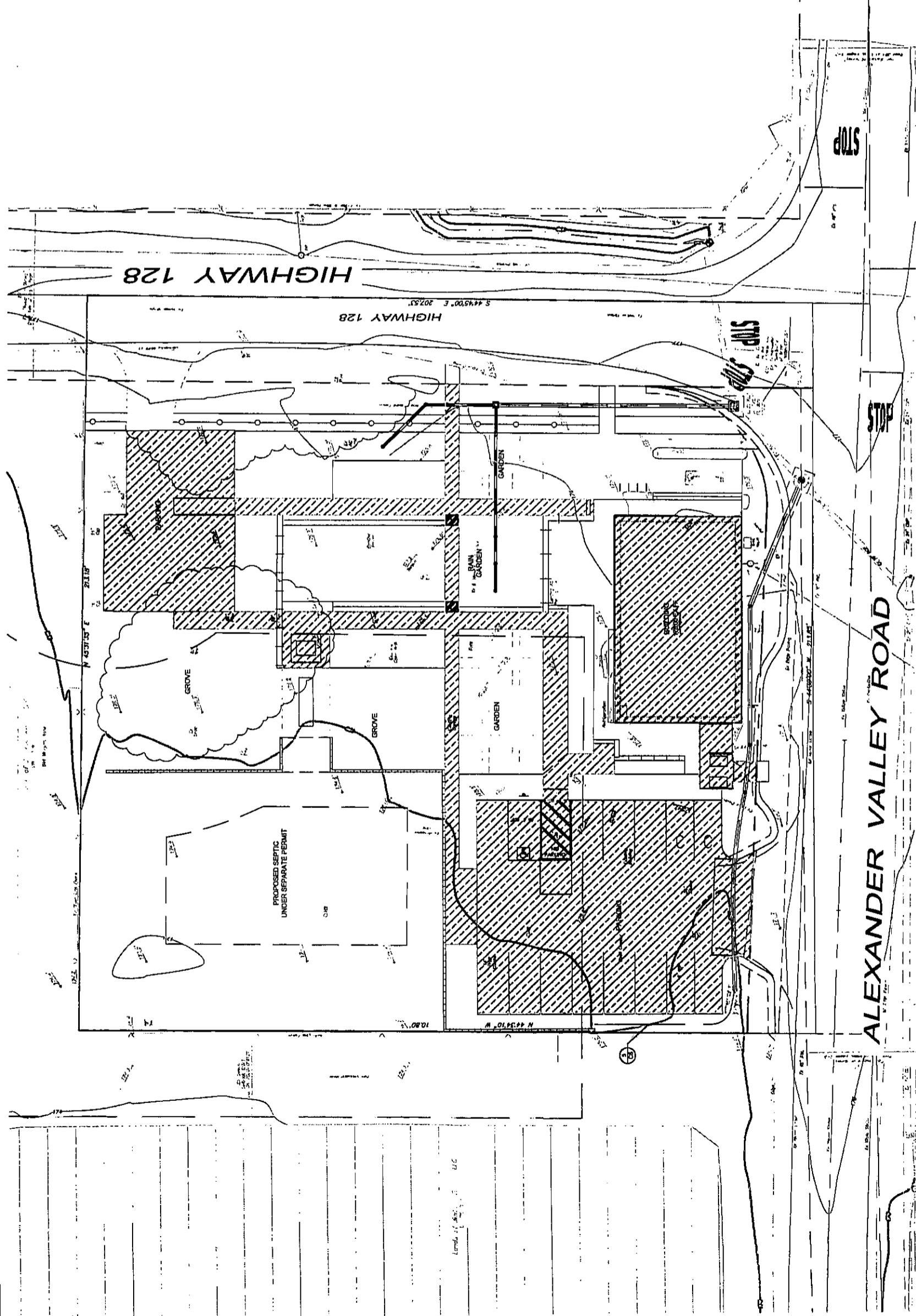


June 25, 2009

Adobe 1220
 Associates, Inc. N. Dutton Ave
 Civil Engineering Santa Rosa, CA 95401
 Land Surveying & Development 707 541-2300
 Services Fax: 707 541-2301

Pre-Construction Impervious Areas

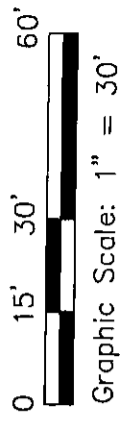
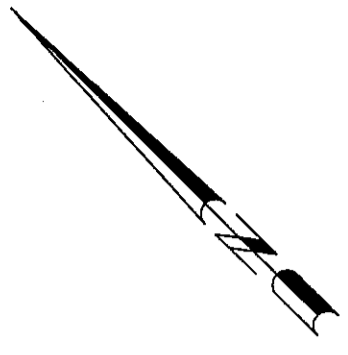
Alexander Valley Store
Healdsburg, CA
6487 Highway 128



LEGEND



POST-CONSTRUCTION IMPERVIOUS AREA = 11,223 Sq Ft
6,397 Sq Ft of Total is Decomposed Granite.



June, 23, 2009

Adobe 1220
Associates, Inc. N. Dutton Ave
Civil Engineering. Santa Rosa, CA 95401
Land Surveying & Land Development 707 541-2300
Services Fax: 707 541-2301

Post-Construction Impervious Areas

Alexander Valley Store
6487 Highway 128
Healdsburg, CA

ALEXANDER VALLEY ROAD

HIGHWAY 128

HIGHWAY 128

PROPOSED SEPTIC UNDER SEPARATE PERMIT

GROVE

GROVE

GARDEN

BRAIN GARDEN

GARDEN

STOP

STOP

STOP

STOP

Rational Method Drainage Study

2 Year Storm Event
Pre Construction

Project: Alexander Valley Store Date: 3/9/2009

Point of Conc.	Area	Elevation	Distance	Slope	V(ft/s)	Travel Time (min)	Total Time (min)	I	K	C	A	A _{total}	KAC	Sum KAC	Q (cfs)	Remarks
2 year	A1					7.00	7.00	2.03	1.33	0.90	0.12	0.12	0.144	0.144	0.29	Overland Flow
	A2					7.00	7.00	2.03	1.33	0.79	0.20	0.20	0.211	0.211	0.43	Overland Flow
	A3					7.00	7.00	2.03	1.33	0.62	0.75	0.75	0.623	0.623	1.27	Overland Flow
														TOTAL FLOW LEAVING SITE	1.98	POC 1+2+3

RUNOFF COEFFICIENTS

	AT	AV	AP	CT
A1	5,160	0	5,160	0.90
A2	8,564	2,284	6,280	0.79
A3	32,411	22,289	10,122	0.62

Rational Method Drainage Study

2 Year Storm Event
Post Construction

Project: Alexander Valley Store Date: 3/5/2009

Point Conc.	Area	Elevation	Distance	Slope	V(ft/s)	Travel Time (min)	Total Time (min)	I	K	C	A	A _{total}	KAC	Sum KAC	Q (cfs)	Remarks
1	A1					7.00	7.00	2.03	1.33	0.57	0.15	0.15	0.113	0.113	0.23	Overland Flow
2	A2	0.13	26	0.005	0.66	0.66	7.66	1.94	1.33	0.55	0.10	0.25	0.074	0.187	0.36	8"SD Assumed
3	A3					7.00	7.00	2.03	1.33	0.50	0.01	0.01	0.007	0.007	0.01	Overland Flow
4	A4	0.09	18	0.005	0.04	7.76	14.76	1.37	1.33	0.62	0.03	0.04	0.025	0.031	0.04	8"SD Assumed
5	A5					7.00	7.00	2.03	1.33	0.72	0.03	0.03	0.029	0.029	0.06	Overland Flow
6							7.66	1.94						0.247	0.48	
7	A6	0.34	69	0.005	1.37	0.84	8.50	1.83	1.33	0.75	0.07	0.07	0.070	0.317	0.58	8"SD Assumed
8	A7					7.00	7.00	2.03	1.33	0.79	0.20	0.20	0.210	0.210	0.43	Overland Flow
9	A8	0.65	130	0.005	1.22	1.77	8.77	1.80	1.33	0.79	0.08	0.28	0.084	0.294	0.53	8"SD
10	A9					7.00	7.00	2.03	1.33	0.61	0.18	0.18	0.145	0.145	0.29	Overland Flow
11	A10					7.00	7.00	2.03	1.33	0.50	0.18	0.18	0.120	0.120	0.24	Overland Flow
														1.65	TOTAL FLOW LEAVING SITE	
															POC 7+9+10+11	

RUNOFF COEFFICIENTS

	A _T	A _V	A _P	C _T *
A1	6,689	5,557	1,132	0.57
A2	4,638	4,004	634	0.55
A3	394	394	0	0.50
A4	1,188	830	358	0.62
A5	1,562	710	852	0.72
A6	3,183	1,170	2,013	0.75
A7	8,904	2,454	6,450	0.79
A8	3,381	906	2,475	0.79
A9	7,792	5,740	2,052	0.61
A10	7,907	7,907	0	0.50

* Sonoma County Water Agency, Plate No. B-1

Worksheet for Bio Swale Treatment Calc. @ POC 8 (2-Yr)

Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Roughness Coefficient	0.250	
Channel Slope	0.01000	ft/ft
Left Side Slope	3.00	ft/ft (H:V)
Right Side Slope	3.00	ft/ft (H:V)
Bottom Width	2.00	ft
Discharge	0.05	ft ³ /s = 0.21 · C · A · K

Results

Normal Depth	0.14	ft
Flow Area	0.35	ft ²
Wetted Perimeter	2.90	ft
Top Width	2.86	ft
Critical Depth	0.03	ft
Critical Slope	3.10480	ft/ft
Velocity	0.14	ft/s → $t_{0.14} = L/V$
Velocity Head	0.00	ft
Specific Energy	0.14	ft
Froude Number	0.07	
Flow Type		Subcritical

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.14	ft
Critical Depth	0.03	ft
Channel Slope	0.01000	ft/ft
Critical Slope	3.10480	ft/ft

Cross Section for Bio Swale Treatment Calc. @ POC 8 (2-Yr)

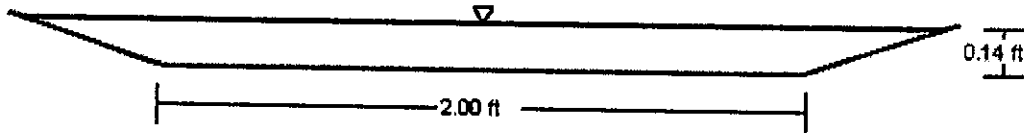
Project Description

Friction Method Manning Formula
Solve For Normal Depth

Input Data

Roughness Coefficient	0.250
Channel Slope	0.01000 ft/ft
Normal Depth	0.14 ft
Left Side Slope	3.00 ft/ft (H:V)
Right Side Slope	3.00 ft/ft (H:V)
Bottom Width	2.00 ft
Discharge	0.05 ft ³ /s

Cross Section Image



V: 1
H: 1

DO SOME TREATMENT CALCULATIONS

$$Q = 0.21 \cdot C \cdot A \cdot K$$

$K = 1.33$ (PER SANTA FLOOD CONTROL DESIGN CRITERIA)
 $A = 0.20$ ← INCLUDING EXCESS AREA FOR TREATMENT
 $C = 0.79$
 $Q = 0.05$

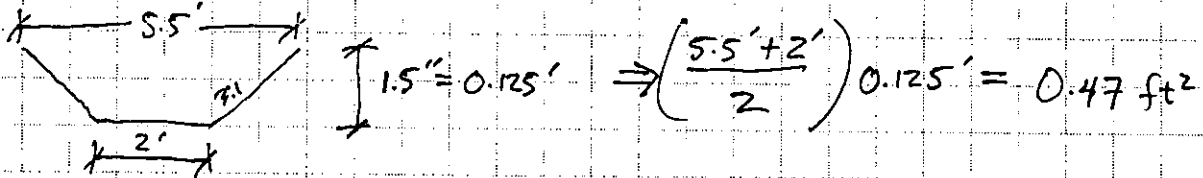
$t = L/v$; $L = 50$, $s = 0.0$, $n = 0.25$
- SEE ATTACHED FLOW MASTER CALC -

$D_{NORMAL} = 0.13'$; $v = 0.14 \text{ FT/S}$

$t = 357 \text{ SEC}$
6.28 MIN

Check Dam CALCS:

AREA OF TRAPEZOIDAL CHECK DAM:



$$0.47 \text{ ft}^2 \times 13 \text{ ft (Average length between dams)} = 6.09 \text{ ft}^3$$

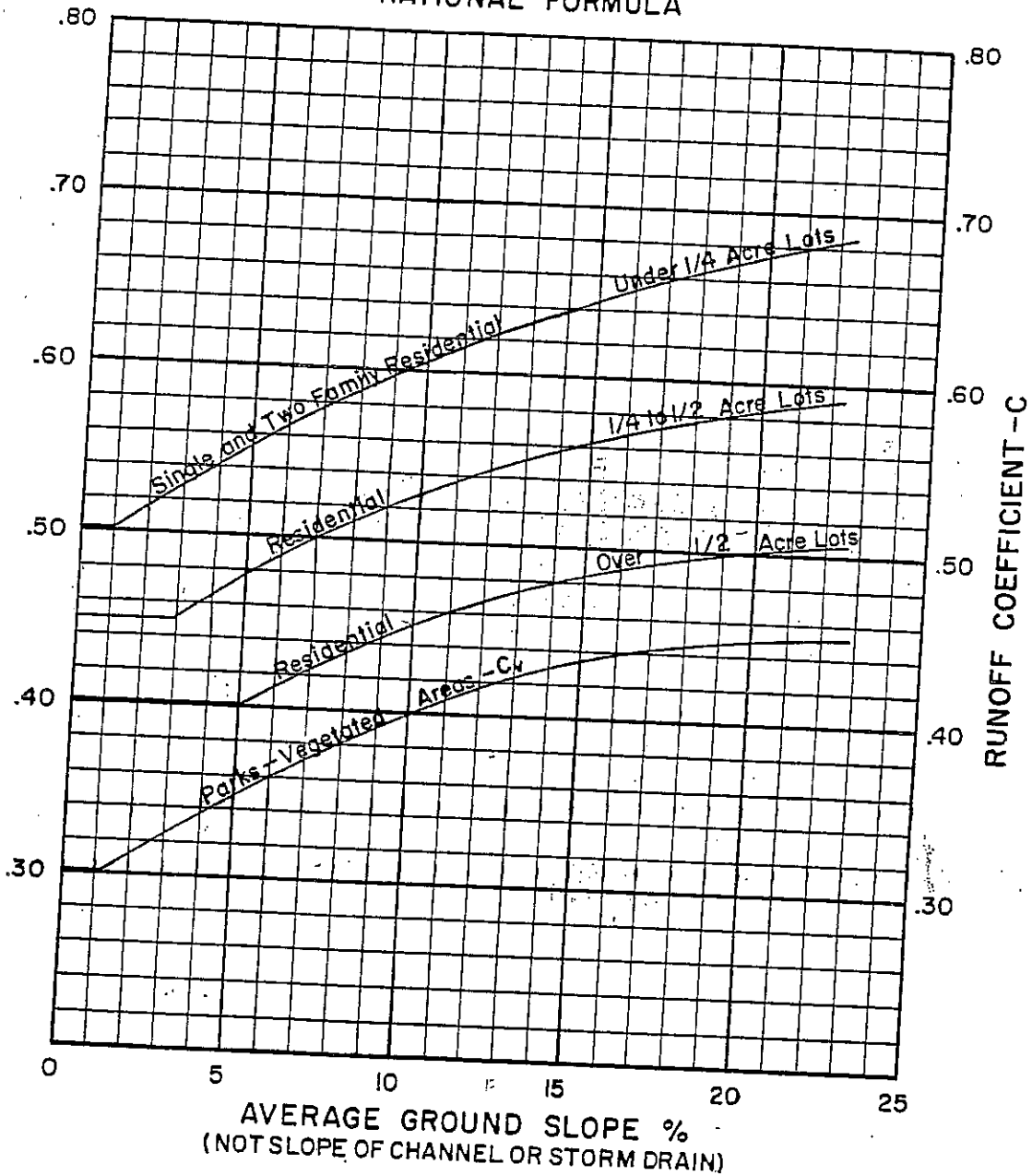
$$Q_{17} = 0.05 \text{ ft}^3/\text{s}$$

$$T_c = \frac{6.09 \text{ ft}^3}{0.05 \text{ ft}^3/\text{s}} = 121.8 \text{ s} \Rightarrow 121.8 \text{ s (3 check dams)} = 365.4 \text{ s}$$

$$T_c \text{ (of swale)} + T_c \text{ (check dams)} = 357 \text{ s} + 365.4 \text{ s} = 722 \text{ sec} = \underline{\underline{12.04 \text{ min}}} > 12 \text{ min OK}$$

Exhibits

RUNOFF COEFFICIENTS
FOR
RATIONAL FORMULA



NOTE: Commercial, Industrial & Multiple Residential Areas

$C_p = 0.9$ (Based on paving, roofs, etc.)

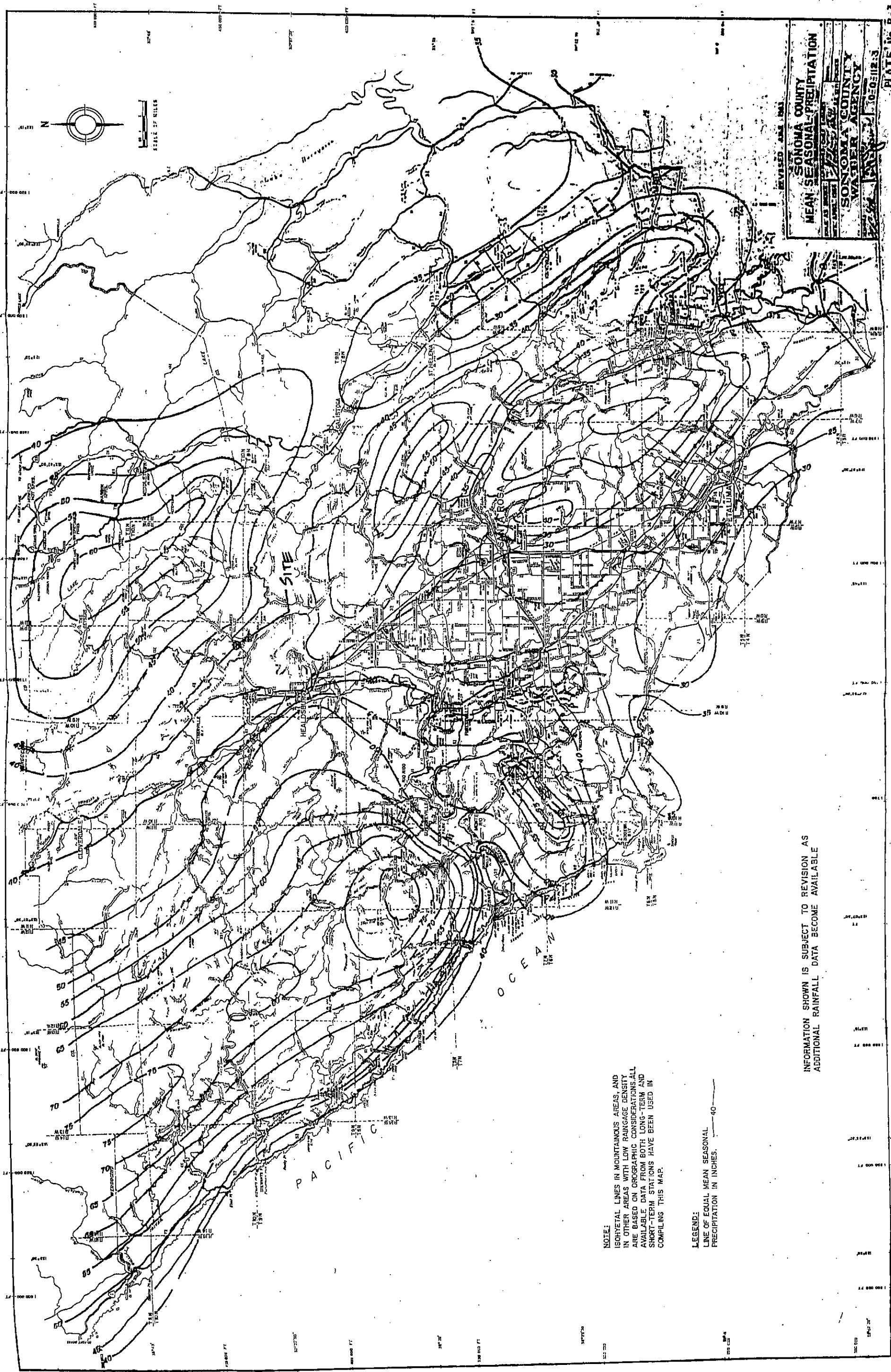
When vegetated area exceeds 20% of total, C_v from vegetated curve may be used to reduce above C_p as follows:

$$C_T = C_v \frac{A_v}{A_T} + C_p \frac{A_p}{A_T}$$

SONOMA COUNTY WATER AGENCY

PLATE No. B-1

REVISED 1966
SONOMA COUNTY
MEAN SEASONAL PRECIPITATION
SONOMA COUNTY
WATER AGENCY
1966-1967



NOTE:
ISOHYETAL LINES IN MOUNTAINOUS AREAS, AND
IN OTHER AREAS WITH LOW RAINGAGE DENSITY
ARE BASED ON OROGRAPHIC CONSIDERATIONS. ALL
AVAILABLE DATA FROM BOTH LONG-TERM AND
SHORT-TERM STATIONS HAVE BEEN USED IN
COMPILING THIS MAP.

LEGEND:
LINE OF EQUAL MEAN SEASONAL
PRECIPITATION IN INCHES. — 40

INFORMATION SHOWN IS SUBJECT TO REVISION AS
ADDITIONAL RAINFALL DATA BECOME AVAILABLE

D	= inside diameter of culvert
HW	= head water depth at upstream pool
WSEL at upstream pool	= water surface elevation (HGL) for a given return period
L	= length of culvert
n	= roughness coefficient of pipe wall
S_o	= slope of invert
TW	= tailwater depth at culvert outlet (depends on characteristics of stream and not on culvert)

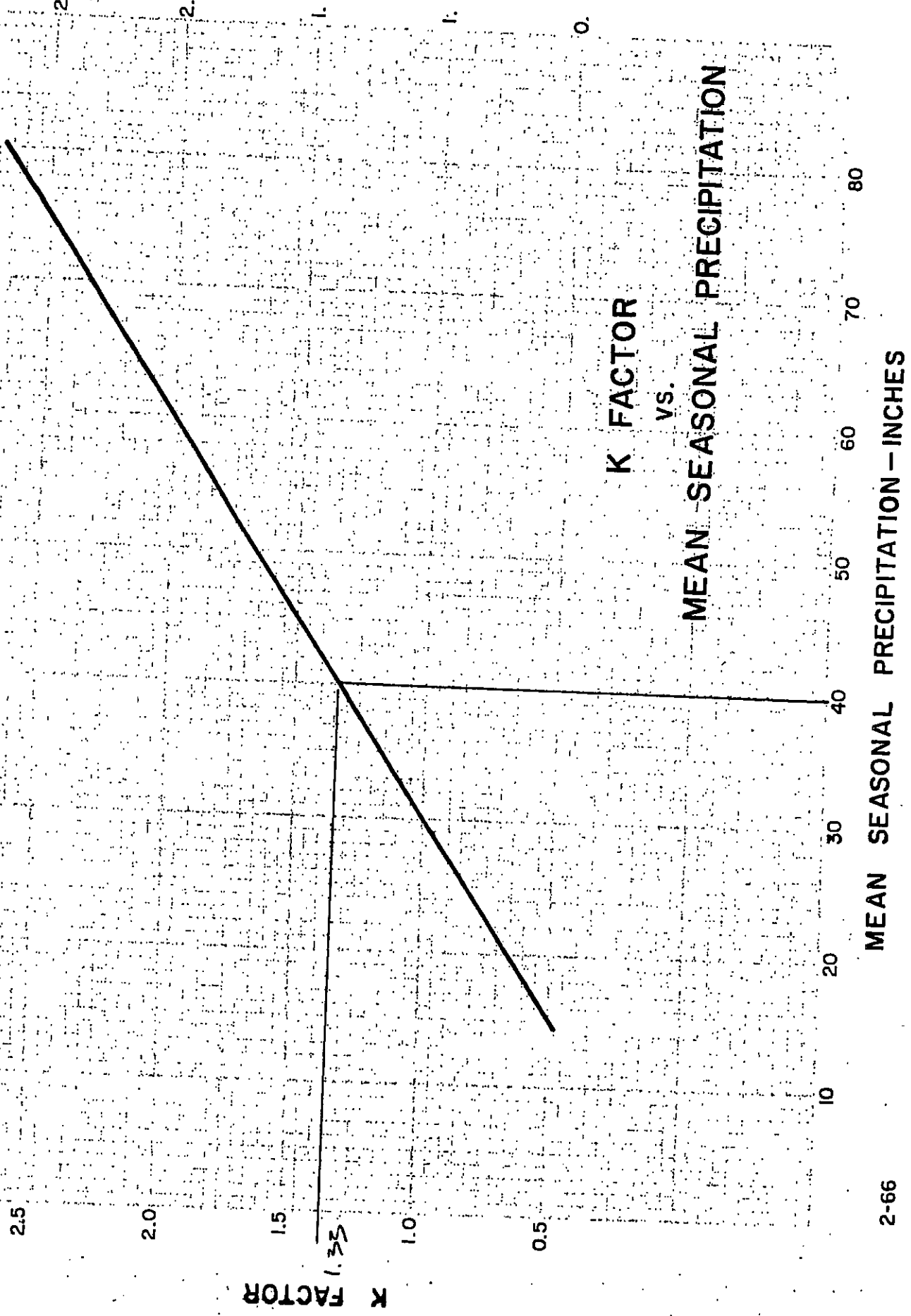
E) Culverts can be designed to operate as an open channel, orifice, or under pressure.

F) *Inlet Control (u/s control)* (restricts flow at inlet)

- 1) Inlet control occurs when it is harder for the stream flow to get through the entrance of culvert than to flow through the remainder of culvert into the stream.
- 2) Control section is located at or near culvert entrance, and for any given shape of culvert, discharge is dependent only on inlet geometry and head water depth.
- 3) Since control is at inlet, capacity is not affected by any hydraulic factors beyond culvert entrance, such as S_o , L, n, etc.
- 4) Culverts with inlet control will always flow partially full.
- 5) If the culvert flows as an open channel, depth for inlet control is V_c at entrance, and flow immediately downstream from inlet is supercritical.
- 6) If the culvert operates as an orifice, the inlet is submerged and the flow downstream is supercritical.
- 7) Most culverts flow with inlet control.

G) *Outlet Control (d/s control)*

- 1) Outlet control occurs when it is harder for stream flow to pass through the length of culvert than it is to get through the entrance.
- 2) Control section is located at or near culvert outlet for any given shape and size of culvert. The discharge is dependent on all hydraulic factors upstream from the outlet, such as: shape, S_o , L, n, TW, HW and inlet geometry.
- 3) Culvert operating under outlet control can flow either as full (under pressure) or partially full as an open channel with subcritical flow.



K FACTOR
vs.
MEAN SEASONAL PRECIPITATION

Required Cut/Fill Table for Grading Permits

BPC-008

Applicant Owner Architect \ Engineer

Project Site Information

Tim Schram, Adobe Associates, Inc.

6487 Hwy. 128

Name

Address(es)

1220 N. Dutton Avenue

Healdsburg

Mailing Address

City/Town

Santa Rosa, CA 95401

131-180-009

City/Town

State/Zip

(707) 541-2300 541-2301

Assessor's Parcel Number(s)

Phone

Fax

Alexander Valley Store


Signature

5/21/09
Date

Project Name (if applicable)

0.59

Disturbed Area

Please do not write in the shaded areas.

Cut	-		84 Cu. Yds.
Fill	+	279 Cu. Yds.	
Export	-		0 Cu. Yds.
Import	+	0 Cu. Yds.	
Shrinkage	-		0 Cu. Yds.
Totals	-	279 Cu. Yds.	84 Cu. Yds.

Purpose or use of grading:

Construction of two parking areas, a new building over an existing foundation, and multiple gardens and groves.

Geotechnical report available?

Yes

No (existing foundation)

Geotechnical report included with application?

Yes

No

Will more than 1 acre be denuded?

Yes

No

----- **DO NOT WRITE BELOW THIS LINE - To Be Completed by PRMD Staff** -----

Total volume used for fee calculations

Cu. Yds.

For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater. (Reference is 1998 California Building Code Section 3310.2)

Activity No. GRD09-0081