# **CITY OF ALBUQUERQUE**

PLANNING DEPARTMENT – Development Review Services



July 10, 2015

David Soule, P.E. Rio Grande Engineering P.O. Box 93924 Albuquerque, NM 87199 Richard J. Berry, Mayor

# RE: Sunset Gardens Subdivision (File: K12D003) Drainage Report, Engineer's Stamp Date 1-19-15 Grading and Drainage Plan, Engineer's Stamp Date 5-15-15 Superseded by Grading and Drainage Plan, Engineer's Stamp Date 6-23-15

Dear Mr. Soule:

Based upon the information provided in your submittal received 5-15-15 and 6-23-15, the above referenced submittal is approved for Preliminary Plat action by the DRB.

The Grading and Drainage plan cannot be approved for Building Permit until the following comments are addressed (note that many are the same comments as last time. Comment response letter stated that these comments were addressed but the G&D plan remained unchanged):

	PO Box 1293		
		1.	Correct the Lot numbers to match the plat, particularly Lots 46-52
		2.	G&D dated 6-23-15 does not have existing contour labels (older submittal does)
	Albuquerque	3.	Correct the BFE Elevation (FIRM says 4947)
		4.	Label and Correct all the SD pipe sizes along Garden Way. Series should be 30", 36", 36", and 30".
	New Mexico 87103	5.	Show and Label the irrigation and 10' utility easement thru Lots 68 and 5 (not on 6-23-15 submittal- but is shown on the 5-15-15 submittal)
		6.	Specify the elevation of the turned block on wall along Lots 46-50 so that the BFE will equalize within the present flood zone boundary.
	www.cabq.gov	7.	Legal Description, Benchmark, Datum are not shown on the plan (The property line along
	www.cabq.gov	8.	Tract A (the roadway tract) should be the same line type as the property line between lots. Address "First Flush" with a statement. (it was on the 5-15-15 plan but not on the later one)
		9.	Show <i>existing</i> flow line elevations in Powell where new construction ties to existing. (show also on Work Order)
		10.	It is noted that the Emergency Spillway for each pond is the inlet grate. Do you mean that the pond will surge back to the inlet?
		11.	Wall hatching is inconsistent with legend. Also, some walls not hatched at all, but only on the latest submittal.
		12.	Inlets into all the Ponds: (shown also on Work Order) a. the invert at pond is higher than invert at inlet
			<ul><li>b. the Top of Curb is 1.43' higher than the grate elevation for Ponds A,B</li><li>c. The Grate Elevations shown are the Flowline elevations</li></ul>

- 13. Invert elevations of the 18"dia. into pond is about 1.5' above the Max. allowed invert elevation per detail 2202, Note B. Invert is also higher than "future use" invert. Hydrology would prefer for the inverts into pond to be lower than the "future use inverts." When the inverts to the pond are plugged in the future, lean fill can be poured to slope the bottom of the inlet to the "future use" invert. A special detail will need to be on the work order and G&D plan. Provide the detail on the G&D for future reference.
- 14. The Pond elevations and capacities do not match that shown in the report
- 15. Max WSEL for the ponds indicate that there is not sufficient freeboard.

\*\* means it is needed on the Work Order construction set.

- 16. **\*\***Removal of the Existing wall in the roadway near Powell needs to be shown on the Work Order.
- 17. \*\*Roadway tract needs a paper drainage easement prior to DRC
- 18. \*\*Obtain a Flood plain permit for construction in the flood zone prior to DRC
- 19. \*\*A LOMR-F will be needed prior to Building Permit for Lots 46 and 47

If you have any questions, you can contact me at 924-3695.

Sincerely,

Rita Harmon, P.E. Senior Engineer, Planning Dept. Development Review Services

Orig: Drainage file c.pdf: via Email: Recipient



## City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Sunset Gardens Subdivision	Building Permit #:	City Drainage #: K12D003			
DRB#: EPC#:		Work Order#:			
Legal Description: lots 1-70 sunset gardens subdivision					
City Address:					
Engineering Firm: RIO GRANDE ENGINEERING		Contact: DAVID SOULE			
Address: PO BOX 93924, ALBUQUERQUE, NM 87199					
Phone#: 505.321.9099 Fax#: 505.8	72.0999	E-mail: DAVID@RIOGRANDEENGINEERING.COM			
Owner: Joe Hahn		Contact:			
Address:		• • • • • • • • • • • • • • • • • • •			
Phone#: Fax#:		E-mail:			
Architect:		Contact:			
Address:					
Phone#: Fax#:		E-mail:			
Surveyor: CONSTRUCTION SURVEY INCORPORATED		Contact: JOHN GALLEGOS			
Address:					
Phone#: 917.8921 Fax#:		E-mail:			
Contractor:		Contact:			
Address:					
Phone#: Fax#:		E-mail:			
TYPE OF SUBMITTAL:	CHECK TYPE OF APPROV	AL/ACCEPTANCE SOUGHT:			
DRAINAGE REPORT	SIA/FINANCIAL GUARAN	TEE RELEASE			
DRAINAGE PLAN 1st SUBMITTAL	× PRELIMINARY PLAT APPI	ROVAL			
× DRAINAGE PLAN RESUBMITTAL	S. DEV. PLAN FOR SUB'D	APPROVAL			
CONCEPTUAL G & D PLAN	S. DEV. FOR BLDG. PERM	T APPROVAL			
GRADING PLAN	SECTOR PLAN APPROVAL				
EROSION & SEDIMENT CONTROL PLAN (ESC)	FINAL PLAT APPROVAL				
ENGINEER'S CERT (HYDROLOGY)	CERTIFICATE OF OCCUPA	ANCY (PERM)			
CLOMR/LOMR	CERTIFICATE OF OCCUPANCY (TCL TEMP)				
TRAFFIC CIRCULATION LAYOUT (TCL)	FOUNDATION PERMIT APPROVAL				
ENGINEER'S CERT (TCL)	× BUILDING PERMIT APPRO	DVAL			
ENGINEER'S CERT (DRB SITE PLAN)	GRADING PERMIT APPRO	VAL SO-19 APPROVAL			
ENGINEER'S CERT (ESC)	PAVING PERMIT APPROV	AL ESC PERMIT APPROVAL			
SO-19	WORK ORDER APPROVAL	ESC CERT. ACCEPTANCE			
OTHER (SPECIFY)	GRADING CERTIFICATION				
WAS A PRE-DESIGN CONFERENCE ATTENDED:	Yes X No Co	ppy Provided			
DATE SUBMITTED: 1/19/15	By:				

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans

2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than five (5) acres

3. Drainage Report: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more

4. Erosion and Sediment Control Plan: Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

May 15, 2015

Ms. Rita Harmon Senior Engineer Hydrology Department Public Works Department City of Albuquerque

#### RE: Revised Grading Plan (K12-D003) Sunset Villa Albuquerque, New Mexico

#### Dear Ms. Harmon:

The purpose of this letter is to accompany the enclosed revised grading plan. The plan has been revised to address your written comments dated February 24, 2015. The following is an answer to the corresponding comment number to your letter.

#### DRB:

- 1. We have submitted platting action to consolidate the lots for each pond. The approval of this plan is a requirement for that action
- 2. A LOMR-F is on the amended infrastructure list
- 3. Due to no fill being placed below the base flood elevation, there is no compensatory volume. All spots are above this flood plain.
- 4. All easements of record have been shown on the grading plan
- 5. We attempted to add this easement on the plat but drb wanted it as a separate easement. We have attached exhibit A for this easement.
- 6. We have shown flood zone on the plan
- 7. We have added turned blocks every 8' to allow flood waters to safely pass thru wall
- 8. We have added benchmark and datum to plan
- 9. Lot 9 is owned by the county and the pad has been removed
- 10. We have corrected the line type for the property line
- 11. We have added lot numbers to the plan
- 12. The have added the note to the plan identifying the inlet grates as the pond overflows, and added the MWSEL to each pond
- 13. We have corrected the weighted E land treatment table
- 14. We have added note to the plan regarding the first flush

#### **BUILDING PERMIT**

- 1. We have labeled Sunset Gardens on the vicinity map
- 2. We have identified the removal of wall encroaching into the roadway
- 3. All of the walls are existing
- 4. We have shown flow line elevations for Powell
- 5. We have updated the type a inlet area
- 6. We have accounted for 2x the flow due to sump condition and increased 3 of the

inlets to double grates

- 7. A. We have corrected the pond inverts
  - B. We have corrected the top curb elevations
  - C. The grates are identified as flow lines
  - D. we have modified the inlet so lean fill is placed to direct flow to interim ponds
- 8. We have made change to the work order and will be submitting to drc.

Should you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

David Soule, PE RIO GRANDE ENGINEERING PO Box 93924 ALBUQUERQUE, NM 87199 321-9099

## CITY OF ALBUQUERQUE

PLANNING DEPARTMENT - Development Review Services



Richard J. Berry, Mayor

February 24, 2015

David Soule, P.E. Rio Grande Engineering P.O. Box 93924 Albuquerque, NM 87199

#### RE: Sunset Gardens Subdivision (File: K12D003) Grading and Drainage Plan, Engineer's Stamp Date 1-19-15 Drainage Report, Engineer's Stamp Date 1-16-15

Dear Mr. Soule:

Based upon the information provided in your submittal received 1-20-15, the above referenced submittal cannot be approved for action by the DRB on the Preliminary Plat and for Building Permit until the following comments are addressed:

PO Box 1293	<ol> <li>Temporary ponds cannot be on lots and must be on tracts. Therefore you will have to come in through DRB to amend the plat and revise the infrastructure list.</li> <li>A LOMR-F will need to be on the I.L.</li> <li>For a LOMR-F you will need to provide compensatory volume. Where do you intend to provide this extra volume? Provide Volume calculations.</li> </ol>
Albuquerque	<ol> <li>Lots 68 and 5 have an irrigation and utility easement thru them which should be shown on the Grading Plan. The pad crosses the easement. All easements should be shown on grading plan, including the utility easement. ✓</li> </ol>
New Mexico 87103	<ul> <li>5. Roadway tracts will need to have drainage easements.</li> <li>6. Show the flood zone on the plan. A Flood plain permit will be required.</li> <li>7. You may need to remove the wall, or provide opening in the wall behind lots 46 thru 49 so that the BFE will equalize within the present flood zone boundary. Once the pond is removed in the future, there needs to be some means of equalizing the BFE of the flood zone.</li> </ul>
www.cabq.gov	<ol> <li>8. Provide a Benchmark and Datum.</li> <li>9. If Lot 39 is owned by County, note so, and remove pad.</li> <li>10. The dashed line along the roadway tract - is this the property line? If so, it is not in the</li> </ol>
	<ul> <li>same line type as the property line.</li> <li>11. Show lot numbers on Grading Plan</li> <li>12. On each pond indicate the Emergency Spillway and the MWSEL</li> <li>13. The Land Treatments (A,B,C,D) do not add up to 100%.</li> <li>14. Address "First Flush" with a statement.</li> </ul>

Comments for Building Permit Approval:

1. On Vicinity Map, label Sunset Gardens

- 2. Near the Powell entrance, show the existing wall is to be removed, and the extents of the removal since it appears some wall is to remain. (show also on Work Order)
- 3. Hatch pattern for proposed and existing walls are not reflected on plan.
- 4. Show existing flow line elevations in Powell. (show also on Work Order)
- 5. Calculations for Type-A inlet uses Area = 5.92 sq.ft. However, I calculate 3.84 sq. ft.
- 6. If inlet is in sump condition, state so. Sump catch basins need to be designed for 2x 100yr storm, or other criteria in DPM pg 22-154.
- 7. Inlets into all the Ponds: (shown also on Work Order)
  - a. the invert at pond is higher than invert at inlet
    - b. the Top of Curb is 1.43' higher than the grate elevation for Ponds A,B
    - c. The Grate Elevations shown are the Flowline elevations
    - d. Invert elevations of the 18"dia. into pond is about 1.5' above the Max. allowed invert elevation per detail 2202, Note B. Invert is also higher than "future use" invert. Hydrology would prefer for the inverts into pond to be lower than the "future use inverts." When the inverts to the pond are plugged in the future, lean fill can be poured to slope the bottom of the inlet to the "future use" invert. A special detail will need to be on the work order and G&D plan.
- 8. On the Work Order, there is a lot of duplication. The curb return data is shown twice, as is the T.O.C., grate, and Invert elevations. It seems that in order to reduce the possibility of errors, and not have to review things twice, construction notes should only be shown once. A callout to the sheet where is data can be found should be noted on the 2<sup>nd</sup> duplication.

If you have any questions, you can contact me at 924-3695.

Sincerely, \_\_\_\_\_

Rita Harmon, P.E. Senior Engineer, Planning Dept. Development Review Services

Orig: Drainage file c.pdf: via Email: Recipient

#### Weighted E Method SUNSET VISTA

#### Existing Developed Basins

											100-Year, 6-h			10-day
Basin	Area	Area	Treatment	Â	Treatmer	nt B	Treatm	ent C	Treatme	nt D	Weighted E	Volume	Flow	Volume
	(sf)	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	(ac-ft)	(ac-ft)	cfs	(ac-ft)
BASIN A	150867	3.463	5%	0.17317	20.0%	0.693	20.0%	0.69269	55%	1.905	1.416	0.409	11.94	0.663
BASIN B	127921	2.937	5%	0.14683	20.0%	0.587	20.0%	0.58733	55%	1.615	1.438	0.352	10.13	0.567
BASIN C	56984	1.308	5%	0.06541	20.0%	0.262	20.0%	0.26163	55%	0.719	1.438	0.157	4.51	0.253
BASIN D	87633	2.012	5%	0.10059	20.0%	0.402	20.0%	0.40236	55%	1.106	1.438	0.241	6.94	0.389
BASIN E	112460	2.582	5%	0.12909	20.0%	0.516	20.0%	0.51635	55%	1.420	1.438	0.309	8.90	0.499
TOTAL	535865	12.302	0%	0	20.0%	2.460	25.0%	3.07544	55%	6.766	1.465	1.502	43.39	2.404

#### Equations:

Weighted E = Ea\*Aa + Eb\*Ab + Ec\*Ac + Ed\*Ad / (Total Area)

Volume = Weighted D \* Total Area

Flow = Qa \* Aa + Qb \* Ab + Qc \* Ac + Qd \* Ad

Where for 100-year, 6-hour storm (zone 1)

•	Ea= 0.44		Qa= 1.29	
	Eb= 0.67		Qb= 2.03	
	Ec= 0.99		Qc= 2.87	
	Ed= 1.97		Qd= 4.37	
The site initially will be gravel but u	Itimatly will be paved	I, land treatme	ints will be for ultim	ate paved conditiosn
R	EQUIRED PROVIDE	ED		
POND A	0.663 0.681	ac-ft	11.94 cfs	
POND B	0.567 1.02	ac-ft	10.13 cfs	22.07 east reach storm drain
PONDC	0.253 0.572	ac-ft	4.51 cfs	
PONDD	0.389 0.604	ac-ft	6.94 cfs	
PONDE	0.499 0.7	ac-ft	8.90 cfs	15.84 west reach storm drain

37.91 southreach

## **DROP INLET CALCULATIONS**

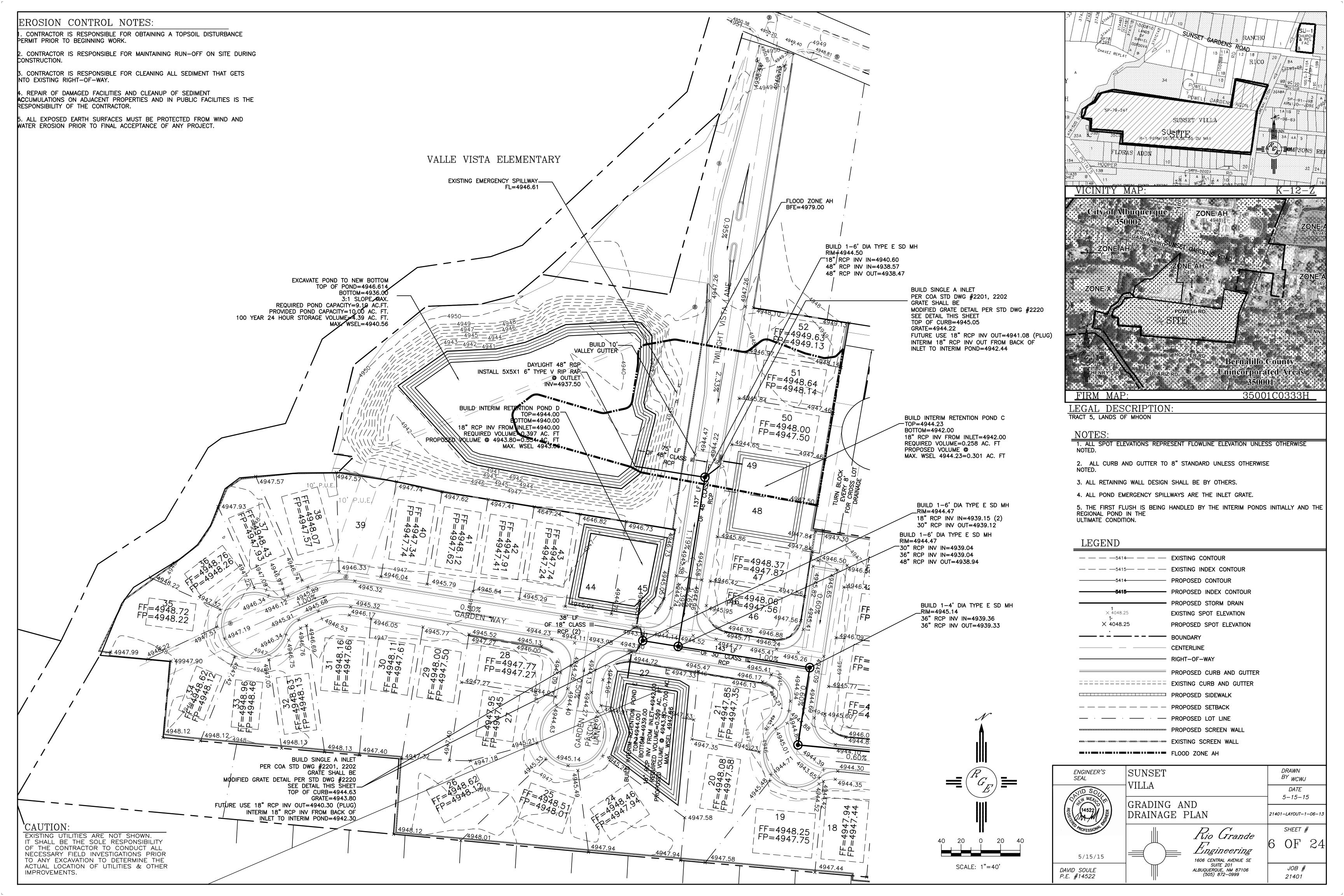
INLET	TYPE OF INLET	AREA (SF)	Q (CFS)	H (FT)	H ALLOW (FT)
а	DOUBLE	7.68	23.88	0.4170	1
b	DOUBLE	7.68	20.26	0.3002	1
C	SINGLE A	3.84	9.02	0.2380	1
d	SINGLE A	3.84	13.88	0.5635	1
е	SINGLE A	3.84	17.8	0.9268	1

ORIFICE EQUATION

Q = CA sqrt(2gH)

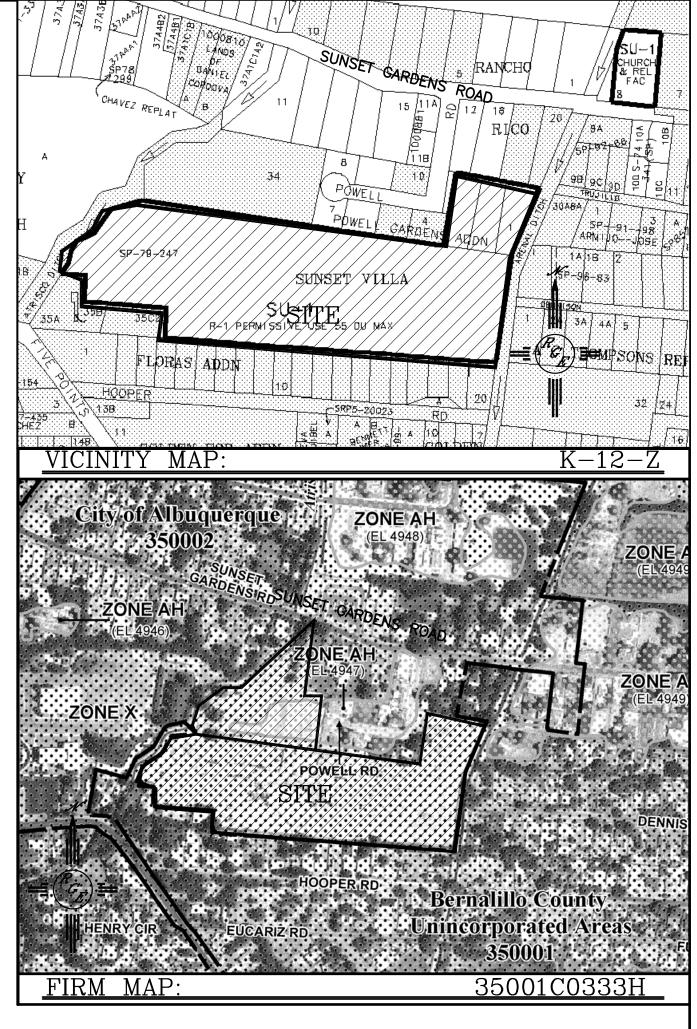
C =	0.6
g =	32.2

FLOW RATES ARE DOUBLED





EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.



LEGAL DESCRIPTION: TRACT 5, LANDS OF MHOON

## NOTES

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

2. ALL CURB AND GUTTER TO 8" STANDARD UNLESS OTHERWISE NOTED.

3. ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.

4. ALL POND EMERGENCY SPILLWAYS ARE THE INLET GRATE.

5. THE FIRST FLUSH IS BEING HANDLED BY THE INTERIM PONDS INITIALLY AND THE REGIONAL POND IN THE ULTIMATE CONDITION.

### LEGEND

		EXISTING CONTOUR	
— — — —5415—		EXISTING INDEX CONTOUR	
5414		PROPOSED CONTOUR	
		PROPOSED INDEX CONTOUR	
		PROPOSED STORM DRAIN	
<b>1</b> × 4048.25 <b>1</b> •		EXISTING SPOT ELEVATION	
× 4048.25		PROPOSED SPOT ELEVATION	
·	· – – —	BOUNDARY	
		CENTERLINE	
		RIGHT-OF-WAY	
		PROPOSED CURB AND GUTTER	
		EXISTING CURB AND GUTTER	
		PROPOSED SIDEWALK	
		PROPOSED SETBACK	
· · _	·	PROPOSED LOT LINE	
*****	***************************************	PROPOSED SCREEN WALL	
	<u></u>	EXISTING SCREEN WALL	
			DRAWN

