CITY OF ALBUQUERQUE

PLANNING DEPARTMENT - Development Review Services



Richard J. Berry, Mayor

September 25, 2014

David Thompson, P.E. Thompson Engineering Consultants, Inc PO Box 65760 Albuquerque, NM 87193

Re: La Luz del Oeste, Unit 4 Grading and Drainage Plan

Grading and Drainage Plan

Engineer's Stamp Date 9-2-2014 (File: F11D002A)

Dear Mr. Thompson:

Based upon the information provided in your submittal received 9-3-14, the above referenced Plan is approved for Grading Permit [for the Retaining Wall] with the following conditions/comments:

PO Box 1293

• Ponds in Basin 101 and 106 must maintain a percolation rate of 2.9 min/in. Pond volumes in these basins are considerably smaller than in the previously approved submittal. However, it is noted in the narrative that only the roadway drains to those ponds and a percolation rate of 2.9 min/in is used for the soils. The ponds only seem to be sufficient if the percolation rate is factored in. Therefore, provide percolation test data and note the percolation rate on the As-built Certification Plan.

Albuquerque

- The Pad Elevations are higher than the previously approved submittal
- Distance between double retaining walls changed to 10' (not shown on section detail)

New Mexico 87103

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

www.cabq.gov

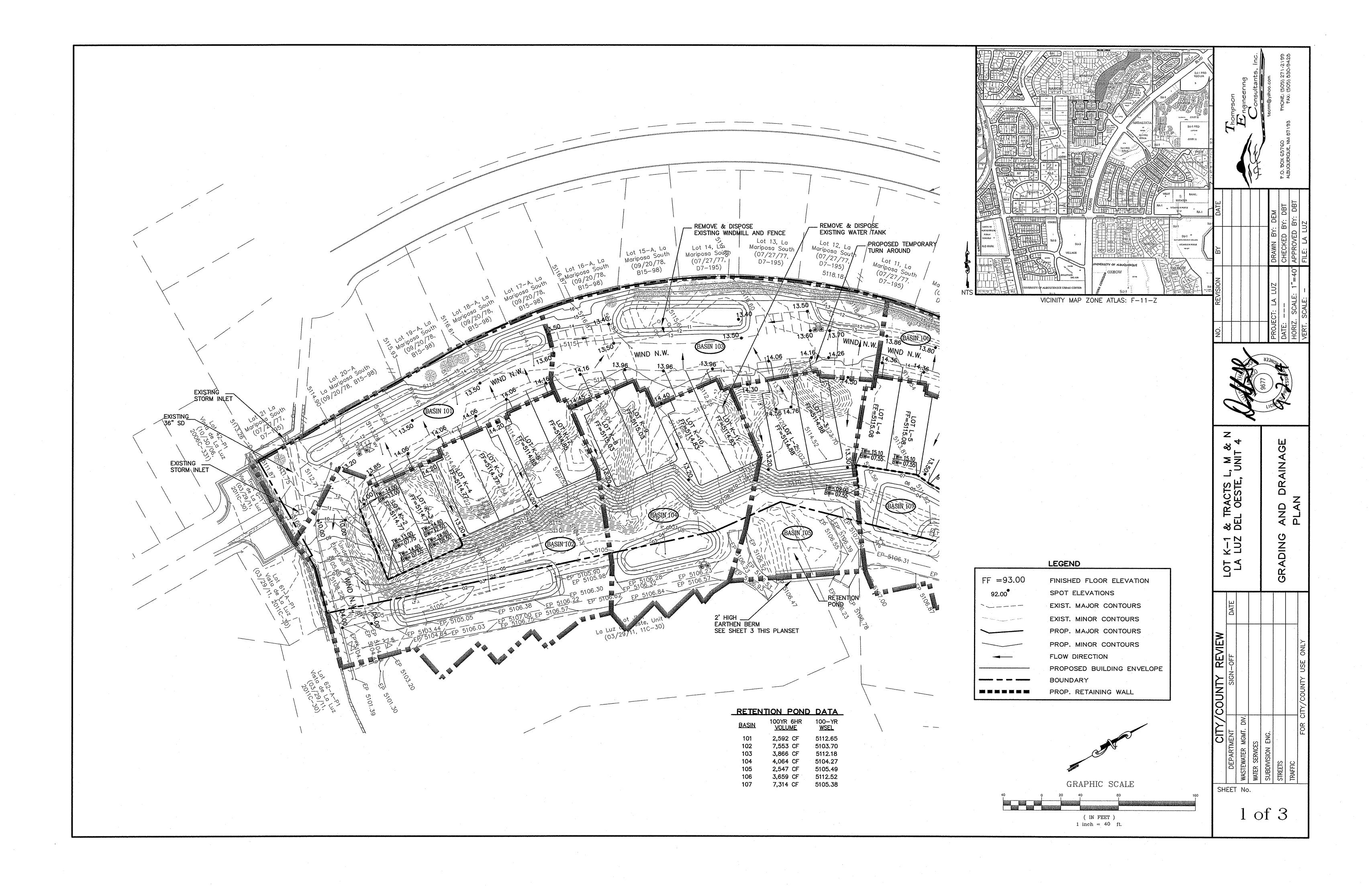
Sincerely,

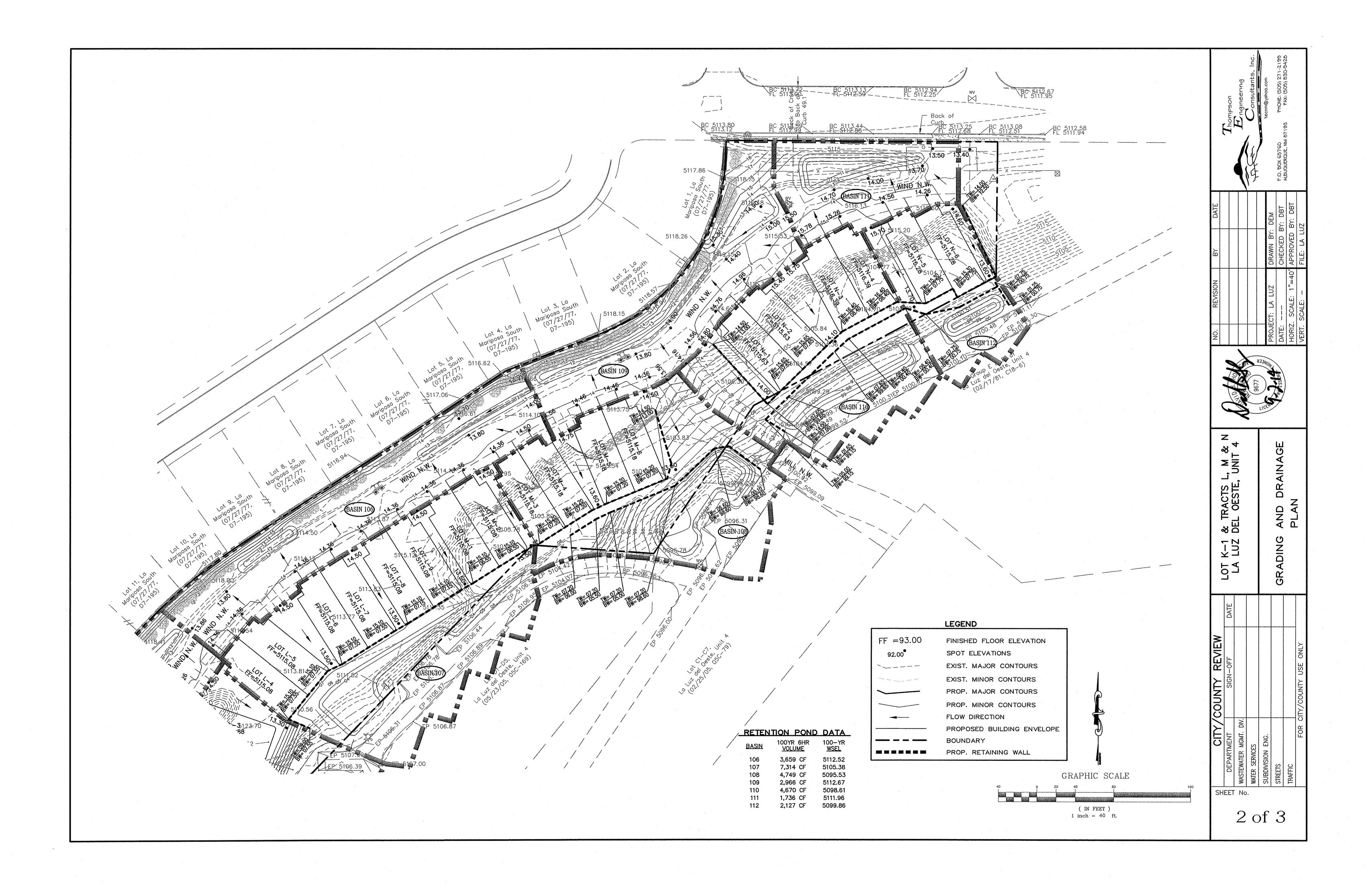
Rita Harmon, P.E.

Senior Engineer, Planning Dept. Development Review Services

Orig: Drainage file

c.pdf Addressee via Email, Monica Ortiz





DRAINAGE PLAN:

LEGAL DESCRIPTION: TRACTS K-1, L, M, & N, LA LUZ DEL OESTE, UNIT 4

SITE AREA: 7.59 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 12, 2012 (PANEL NO. 35001C0114 H) INDICATES A FLOOD HAZARD ZONE X.

EXISTING DRAINAGE CONDITIONS:

THIS PROJECT INVOLVES THE CONSTRUCTION OF 15 DUPLEX HOMES AS THE LAST PHASE OF THE LA LUZ DEL OESTE DEVELOPMENT. THIS LAST PHASE OF THE DEVELOPMENT GENERALLY DRAINS FROM WEST TO EAST. THERE ARE EXISTING RETENTION PONDS THAT COLLECT ANY RUNOFF FROM THE UNDEVELOPED AREA.

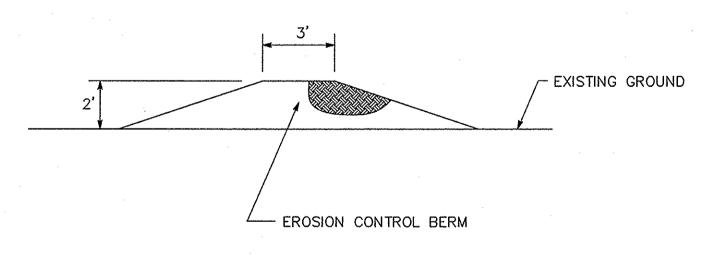
THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH SETION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED 'DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF VOLUME COMPUTATIONS. THE SITE IS LOCATED IN ZONE 1 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.20 INCHES. UNDER EXISTING CONDITIONS THE TRACTS INCLUDE LAND TREATMENTS A & D.

DEVELOPED DRAINAGE CONDITIONS:

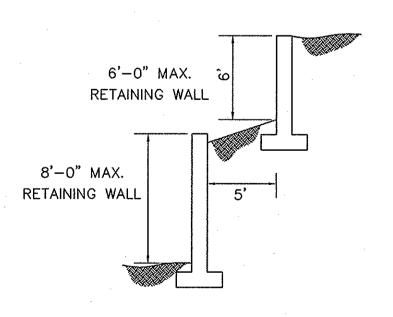
THE DRAINAGE CONCEPT FOR THIS LAST PHASE OF THE LA LUZ DEL OESTE FOLLOWS THE 'DRAINAGE REPORT FOR LA LUZ DEL OESTE UNIT 4" DATED MAY 1979 AND THE FINDINGS FROM A PREDESIGN CONFERENCE ON MARCH 25, 2013. ALL RUNOFF FROM THE PROPOSED DEVELOPMENT WILL BE DIRECTED TO RETENTION PONDS SIZED TO STORE THE 100-YEAR, 6-HOUR STORM VOLUME DUE TO THE HIGH INFILTRATION RATES IN THE SANDY SOIL. THE PERCOLATION RATE AVERAGED OVER TWO BORINGS IN THE PROJECT AREA IS 2.9 MINUTES PER INCH.

THE PROPOSED STREET AND PARKING AREAS TO THE WEST OF THE PROPOSED DUPLEXES AND THE DRIVEWAYS WILL ALL DRAIN TO RETENTION PONDS LOCATED WEST OF WIND ROAD, RUNOFF FROM THE ROOFS OF THE PROPOSED DUPLEXES WILL ALL DRAIN TO THE EAST TO RETENTION PONDS LOCATED EAST OF THE HOMES. ALTHOUGH THERE ARE EXISTING RETENTION PONDS TO THE EAST OF THE HOMES THAT THE ROADS AND PORTION OF HOMES EAST OF THE PONDS DRAIN TO, ALL OF THESE PONDS WILL BE EXPANDED TO ACCOMMODATE THE 100-YEAR, 6-HOUR VOLUME FROM THE PROPOSED DUPLEXES AND EXISTING STREETS AND HOMES THAT CURRENTLY DRAIN TO THE PONDS. ALL POND VOLUMES AND WATER SURFACE ELEVATIONS ARE SHOWN ON THE GRADING AND DRAINAGE SHEETS. A TWO-FOOT HIGH BERM WILL BE CONSTRUCTED AT THE DOWNSTREAM END OF BASIN 105 TO RETAIN ALL RUNOFF FROM BASIN 105. HALF OF MILL ROAD WILL DRAIN TO BASIN 108 AND HALF WILL DRAIN TO BASIN 110 TO RETENTION PONDS. BASINS 110 AND 112 DRAINS BOTH THE RUNOFF FROM THE PROPOSED HOMES AND FROM THE ROADS AND PORTION OF HOMES EAST OF THE RETENTION PONDS. THERE WILL BE SILT FENCE ALONG THE EASTERN BOUNDARY OF THE EASTERN MOST PONDS.

		LAND TREATMENT				WEIGHTED	100-YEAR PRECIPITATIO		
BASIN	AREA	Α	В	С	D	i ve Carmeningeleyde billioste da Silon terrelatent avendrif en mendrelaten verd vyrong samtiste kinineae.	V (6-hr)	V (6-hr)	Q
##	(acre)	(%)	(%)	(%)	(%)	(in)	(acre-ft)	(cu-ft)	(cfs
STING CONDITION	S					Andrew Control			,
101	0.6000	100.00	0.00	0.00	0.00	0.44	0.02	958	0.7
102	1.4600	70.00	0.00	0.00	30.00	0.90	0.11	4,765	3.2
103	0.8200	100.00	0.00	0.00	0.00	0.44	0.03	1,310	1.0
104	0.7800	62.40	0.00	0.00	37.60	1.02	0.07	2,875	1.9
105	0.5700	74.30	0.00	0.00	25.70	0.83	0.04	1,724	1.1
106	0.7100	100.00	0.00	0.00	0.00	0.44	0.03	1,134	0.9
107	1.2900	54.50	0.00	0.00	45.50	1.14	0.12	5,320	3.4
108	0.9700	68.10	0.00	0.00	31.90	0.93	0.08	3,268	2.2
109	0.6200	100.00	0.00	0.00	0.00	0.44	0.02	990	0.8
110	0.8900	65.50	0.00	0.00	34.50	0.97	0.07	3,127	2.0
111	0.3700	100.00	0.00	0.00	0.00	0.44	0.01	591	0.4
112	0.4000	63.30	0.00	0.00	36.70	1.00	0.03	1,454	0.9
TOTAL RUNOFF	9.48						0.63	27,516	19.0
POSED CONDITIO	NS					- Paradison			
101	0.6000	0.00	34.30	34.30	31.50	1.19	0.06	2,592	1.83
102	1.4600	0.00	23.90	23.90	52.20	1.43	0.17	7,553	5.04
103	0.8200	0.00	29.40	29.50	41.10	1.30	0.09	3,866	2.6
104	0.7800	0.00	23.40	23.50	53.10	1.44	0.09	4,064	2.7
105	0.5700	0.00	32.20	32.30	35.30	1.23	0.06	2,547	1.78
106	0.7100	0.00	24.10	24.20	51.70	1.42	0.08	3,659	2.4
107	1.2900	0.00	17.90	17.90	64.20	1.56	0.17	7,314	4.7
108	0.9700	0.00	27.20	27.30	45.50	1.35	0.11	4,749	3.2
109	0.6200	0.00	28.60	28.60	42.80	1.32	0.07	2,966	2.0
110	0.8900	0.00	23.00	23.00	54.00	1.45	0.11	4,670	3.10
111	0.3700	0.00	29.70	29.70	40.60	1.29	0.04	1,736	1.19
112	0.4000	0.00	22.10	22.20	55.70	1.47	0.05	2,127	1.4
TOTAL RUNOFF	9.48						1.10	47,843	32.1
XCESS PRECIP.		0.44	0.67	0.99	1.97	Ei (in)	ettillistä ta esti ya ta (alkumisima) too estatoi esti yetiin eto-akeelkeep vuoten siiriliyyumiyalaen e	мерен жазана жана серектери жана жана жана жана жана жана жана жан	encontrol escensis mariente la fermio est forganis.
PEAK DISCHARGE		1.29	2.03	2.87	4.37	Ei (in) QPi (cfs)	inamentyra jugualas kirje un diransi kanasanin ji sakakansis a ahke nikimara e eimen antara samanas (Manufajahkan da Sjara Maria yangan yangan da hafiya sjarah ya
LAN DIOUINNOE		1.23	۷.03	۵.01	7.07	QFI (CIS)	oolikaan eerotoon valtuud kaadiin eele kaatiin eele kaaliin kaatiin kaaliin kaaliin kaaliin kaaliin kaaliin ka	70NE -	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
VEIGHTED = (in) = (EA)(0(A) + (EB)(0(B) + (EC)(0(C) + (ED)(0(B)) + (EC)(0(B) + (ED)(0(B)) + (ED)(0(B)(D)(0(B)) + (ED)(0(B)(D)(0(B)) + (ED)(0(B)(D)(0(B)) + (ED)(0(B)(D)(0(B)) + (ED)(0(B)(D)(D)(0(B)(D)(D)(D)(0(B)(D)(D)(D)(D)(D)(D)(D)(D)(D)(D)(D)(D)(D)							ZONE = 1 P6-HR (in.) = 2.20		
WEIGHTED E (in) = (EA)(%A) + (EB)(%B) + (EC)(%C) + (ED)(%E V6-HR (acre-ft) = (WEIGHTED E)(AREA)/12						Change and weight from spready derivations also desirable entities are spirit absoluted from Change and Mission and Change and Chang	P24-HR (in.) = 2.66		



1' HIGH EARTHEN BERM



DOUBLE RETAINING WALL DETAIL

	Thompson	Engineering	Consultants, Inc.	tecnm@yahoo.com		41 51 52 50 50 51 50 51 50 51 51 51 51 51 51 51 51 51 51 51 51 51		
/ DATE					UKAWN BT: DEM	CHECKED BY: DBI	=40' APPROVED BY: DBT	711 C. # A 1 1 1 7
B					UKAW	CHEC	to" APPR	 - -
REVISION				- TOT	PROJECT: LA LUZ		HORIZ. SCALE: 1"=4	TON TOUR
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14 9 44 - OTOACH 9 4 7 TO		LA LUZ DEL OESIE, UNII 4	2/196		DETAIL O			
CITY/COUNTY REVIEW	SIGN-OFF DATE	DIV.			•			FOR CITY/COLINTY LISE ONLY
	T DEPARTMENT	WASTEWATER MGMT. DIV.	WATER SERVICES	SUBDIVISION ENG.	STREETS		TRAFFIC	

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