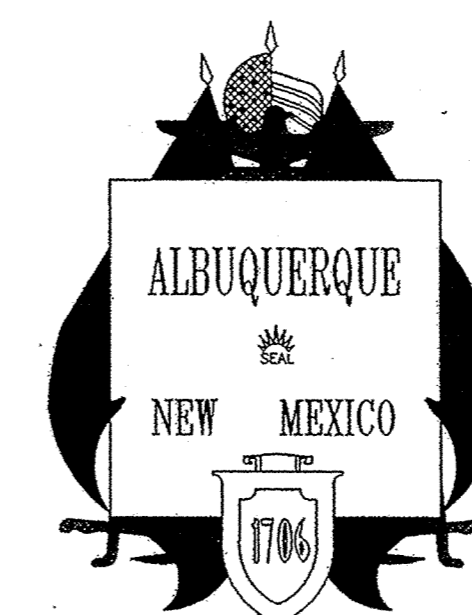


ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY

CONSTRUCTION PLANS FOR

BOCA NEGRA DETENTION DAM

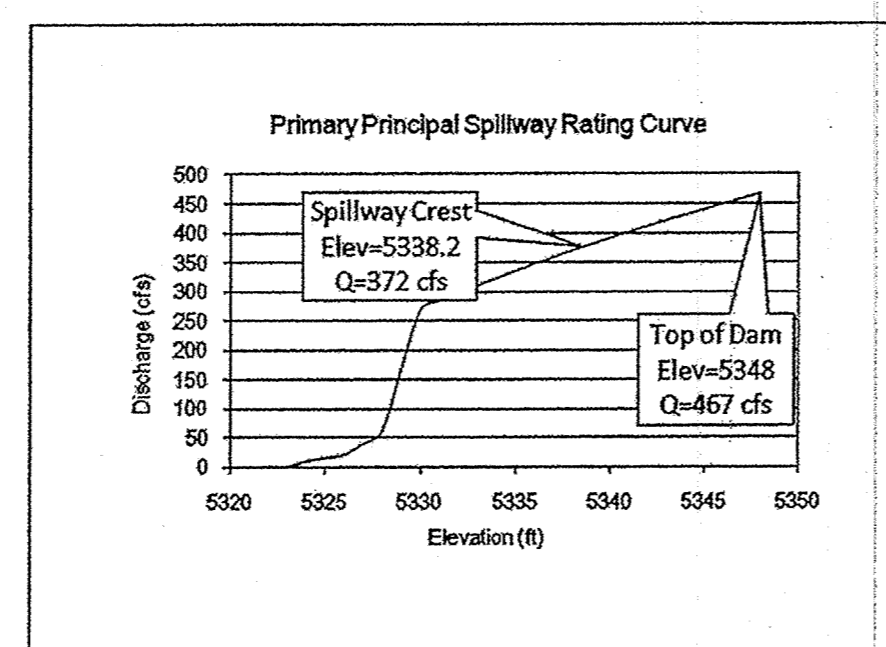


REFERENCES:			
BOCA NEGRA MARIPOSA DMP	RTI	APRIL 2005	
DESIGN REPORT	WCI	DECEMBER 2011	
GEOTECH REPORT	GEOTEST	OCTOBER 2011	
DOUBLE EAGLE II AIRPORT DRAINAGE MANAGEMENT	MCI	APRIL 2005	
HYDROLOGIC & HYDRAULIC ANALYSIS REPORT	WCI	SEPTEMBER 2011	

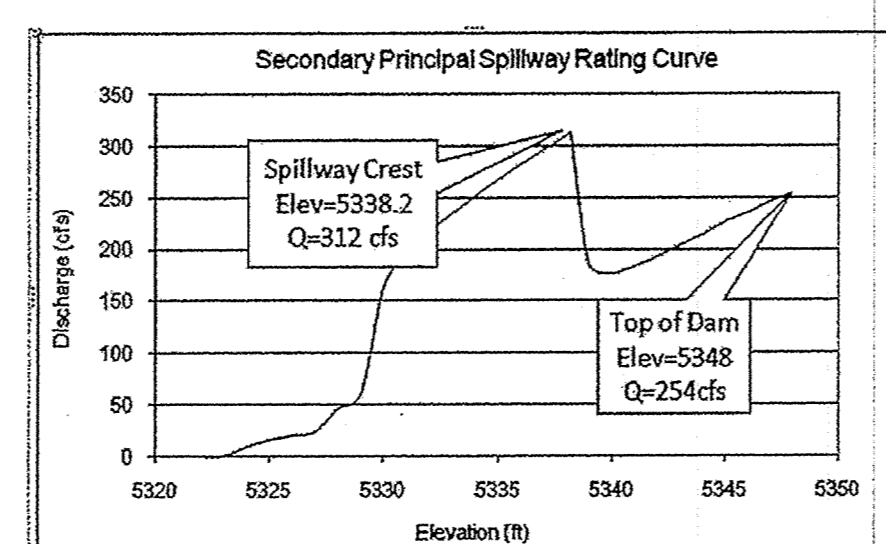
MARCH 2015

TAKEN FROM ORIGINAL

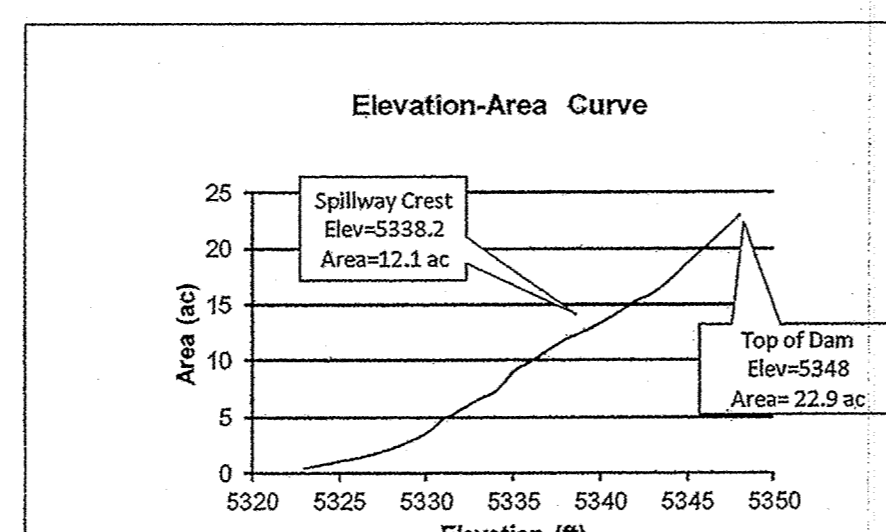
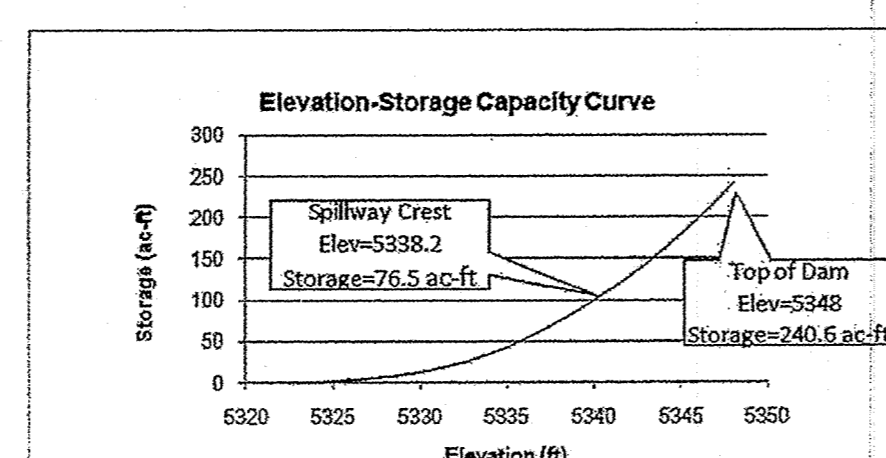
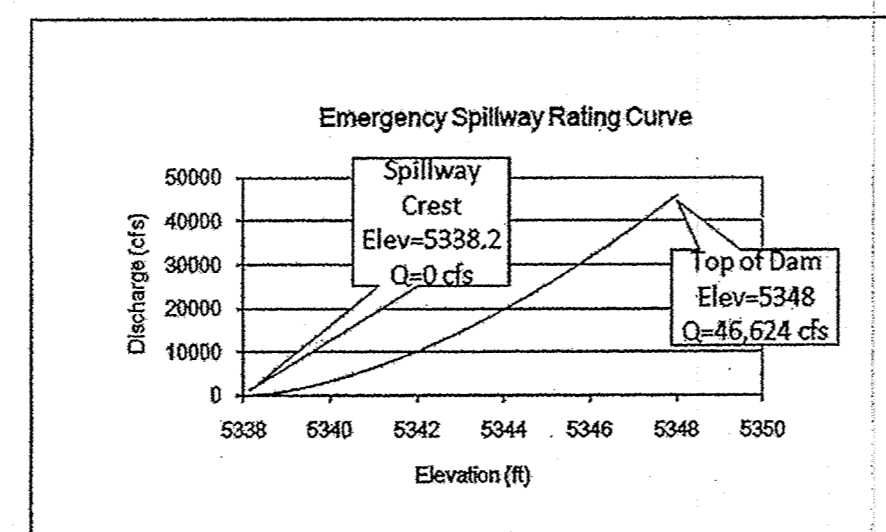
NAME OF DAM	BOCA NEGRA DETENTION DAM
TYPE OF DAM (MATERIAL)	HOMOGENEOUS EARTH EMBANKMENT
HAZARD POTENTIAL CLASSIFICATION	HIGH
MAX. HEIGHT ABOVE DOWNSTREAM TOE (FT)	26
MAX. LENGTH (FT)	3560
CREST WIDTH (FT)	17
SLOPE OF UPSTREAM FACE xH:1V	3 TO 1
SLOPE OF DOWNSTREAM FACE xH:1V	2.5 TO 1 & 3 TO 1
ELEVATION OF DAM CREST (FT)	5348
ELEVATION OF EMERGENCY SPILLWAY CREST (FT)	5338.2
EMERGENCY SPILLWAY WIDTH (FT)	419
1. PRIMARY PRINCIPAL SPILLWAY CONDUIT LENGTH (FT)	143
2. SECONDARY PRINCIPAL SPILLWAY CONDUIT LENGTH (FT)	145
1. UPSTREAM INVERT PRIMARY PRINCIPAL SPILLWAY (FT)	5318
2. UPSTREAM INVERT SECONDARY PRINCIPAL SPILLWAY (FT)	5323
1. DOWNSTREAM INVERT PRIMARY PRINCIPAL SPILLWAY (FT)	5311.9
2. DOWNSTREAM INVERT SECONDARY PRINCIPAL SPILLWAY (FT)	5321.8
FREEBOARD (FT)	10
RESIDUAL FREEBOARD (FT)	1.1
MAX EMERGENCY SPILLWAY DISCHARGE AT TOP OF DAM (CFS)	45903
1. PRIMARY PRINCIPAL SPILLWAY MATERIAL AND SIZE	48" x 48" CBC
2. SECONDARY PRINCIPAL SPILLWAY MATERIAL AND SIZE	48" x 48" CBC
1. MAX PRIMARY PRINCIPAL SPILLWAY DISCHARGE AT TOP OF DAM (CFS)	467
2. MAX SECONDARY PRINCIPAL SPILLWAY DISCHARGE AT TOP OF DAM (CFS)	254
1. LOCATION OF PRIMARY PRINCIPAL SPILLWAY	31.03722°N 107.66167°W
2. LOCATION OF SECONDARY PRINCIPAL SPILLWAY	31.03778°N 107.66167°W



REVISD TABLES AND GRAPHS



BOCA NEGRA DETENTION DAM CHARACTERISTICS			
ELEVATION (ft)	DISCHARGE (CFS)	STORAGE (AC-FT)	SURFACE AREA (ACRES)
5318=4' X 4' CBC (PRIMARY) SPILLWAY INV			
5319	0	0	0
5320	0	0	0
5321	0	0	0
5322	0	0	0
5323=4' X 4' CBC (SECONDARY) SPILLWAY INV	0	0	0.5
5324	18	0.9	0.8
5325	31	1.8	1.1
5326	40	3.0	1.3
5327	62	4.5	1.7
5328	106	6.5	2.2
5329	226	9.0	2.8
5330	430	12.2	3.6
5331	479	16.4	4.8
5332	513	21.6	5.7
5333	545	27.7	6.6
5334	574	34.7	7.3
5335	602	42.8	9.0
5336	629	52.3	9.9
5337	655	62.8	10.9
5337.94 = 100 YR FUTURE CONDITION	677	73.5	11.6
5337.98 = 100 YR INTERIM CONDITION	678	74.0	11.9
5338	679	74.2	11.9
5338.2=EMERGENCY SPILLWAY CREST ELEVATION	684	76.5	12.1
5339	1,438	86.3	12.6
5340	3,699	99.3	13.4
5341	6,830	113.1	14.3
5342	10,683	127.9	15.3
5343	15,192	143.6	16.0
5344	20,320	160.2	17.2
5345	26,006	178.2	18.7
5346	32,315	197.6	20.1
5347	39,208	218.4	21.5
5348=TOP OF DAM	46,624	240.6	22.9



I, Daniel S. Aguirre, P.E., state that I am a qualified professional engineer licensed in the State of New Mexico, that I have supervised the construction of Boca Negra Detention Dam and appurtenant structures and find them to be completed in accordance with the record construction drawings and specifications and are now in a satisfactory condition for acceptance.

Daniel S. Aguirre, P.E. NM 11955

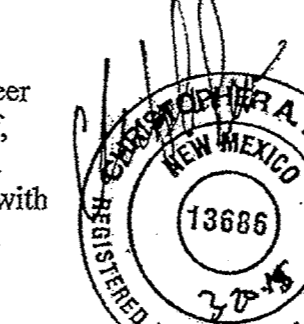
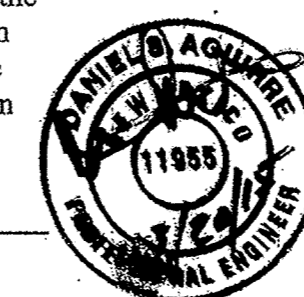
3/20/15

CERTIFICATE OF SUBSTANTIAL COMPLIANCE OF PLANS

I, Christopher Perea of the firm Wilson & Company, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications. The original design intent of the approved plans has been met, except as noted by me on the as-built construction drawing. This certification is based on site inspection by me or personnel under my direction.

Christopher Perea, P.E. NM 13686

3/20/15



State of New Mexico ss.

County of Santa Fe ss.

I hereby certify that the accompanying Construction Drawings for Boca Negra Detention Dam and appurtenant structures has been duly examined by me and were duly accepted for filing on the 9th day of February, 2015.

State Engineer _____ Date _____

State of New Mexico ss.

County of Bernalillo ss.

I, Jerry M. Londo, P.E., being first duly sworn, upon my oath, state that I am the Executive Engineer of the Albuquerque Metropolitan Arroyo Flood Control Authority, a governmental entity duly organized under the laws of the state of New Mexico, that the accompanying Construction Drawings, consisting of 55 sheets, for Boca Negra Detention Dam, were made under authority of the Board of Directors of said governmental entity and that, in their behalf, I have read and examined the statements and representations and all that is shown herein is done with their free consent and in accordance with their wishes and state that the same are true and correct to the best of my knowledge and belief.

Jerry M. Londo, P.E. Executive Engineer Date 2/9/2015

Subscribed and sworn to before me this 9th day of February, 2015.

Sanjay S. Aggarwal Notary Public My commission expires 10-09-2018

State of New Mexico ss.

County of Bernalillo ss.

I, Daniel S. Aguirre, P.E. CEM, state that I am a qualified professional engineer licensed in the state of New Mexico, qualified in Civil engineering; that the accompanying Construction Drawings, consisting of 55 sheets, was prepared by me or under my supervision; that the accompanying Construction Drawings, consisting of 55 sheets, is in compliance with the Dam Design, Construction and Dam Safety Regulations (18.25.12 NMAC) and that the same are true and correct to the best of my knowledge and belief.

Daniel S. Aguirre, P.E. CEM License No. 11955

Date submitted 2/9/12

Subscribed and sworn to before me this 9th day of February, 2015.

Sanjay S. Aggarwal Notary Public My commission expires 10-09-12

DRB# 1002962

WILSON & COMPANY
4900 LANG AVENUE, NE
SUITE 100
ALBUQUERQUE, NEW MEXICO
87109
(505) 348-4000

RECORD DRAWING
DATE 03/15

REV	SHEETS	CITY ENGINEER	APPROVALS	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
Δ			ORC Chairman					
Δ			Transportation					
			Water/Wastewater					
			Hydrology					
			AMAFCA					
ENGINEERS STAMP & SIGNATURE				APPROVED FOR CONSTRUCTION		*****		
				City Engineer		Date		
				AMAFCA Project No.		Sheet		
				City Project No. 781181		1R OF 62		