GENERAL NOTES AND CONSTRUCTION CALLOUTS AND NOTES

GENERAL NOTES–DAM TERMINOLOGY:

1. ALL COORDINATES AND BEARINGS SHOWN ARE BASED ON NAD 83, CALIFORNIA COORDINATE SYSTEM (CCS) ZONE 5, AERIAL GRID COORDINATES, WHERE SHOWN, ARE FOR REFERENCE ONLY.
2. ALL DISTANCES SHOWN ON THESE DRAWINGS ARE GRID DISTANCES. TO OBTAIN GROUND DISTANCES, MULTIPLY BY 1.000082541
3. FOR SPILLWAY GRADING, SEE SHEET C–5
4. TOP OF ALL LEVEES ARE FLAT, EXCEPT SOUTH EMBANKMENT OF BASIN NO. 3 IS SLOPING 2% TOWARD THE BASIN NO. 3A AREA, SEE GRADING PLANS
5. FOR CLARITY, BOUNDARY FENCING IS SHOWN ON PLANS OFF CENTER (NOT TO SCALE). LOCATE PER ENGINEER'S DIRECTION.
6. DIMENSIONED WIDTHS SHOWN FOR ACCESS RAMPS ARE FROM BOTH EDGES OF RAMP. THEY DO NOT ACCOUNT FOR THE V–DITCH OUTSIDE THE ACCESS RAMP SECTION.
7. FOR LEGEND OF MAP SYMBOLS, GENERAL GRADING NOTES, STATIONING NOTES, AND CONSTRUCTION CALLOUTS, SEE SHEETS I–2, I–3

DAM CREST = TOP OF THE BASIN NO. 3

℄ DAM EMBANKMENT = CENTERLINE OF DAM CREST

℄ BASIN NO. 3A = CENTERLINE OF BASIN NO. 3A AND HABITAT RESTORATION AREA EMBANKMENT

SPILLWAY AXIS = CENTERLINE OF SPILLWAY

96" RCP AXIS = CENTERLINE OF 96" RCP BASIN OUTLET DRAIN

℄ 24" RCP AXIS = CENTERLINE OF 24" RCP BASIN NO. 3 INLET

℄ 30" RCP AXIS = CENTERLINE OF 30" RCP BASIN NO. 3 INLET

℄ 54" RCP AXIS = CENTERLINE OF 54" RCP BASIN NO. 3 INLET

℄ 36" RCP AXIS = CENTERLINE OF 36" RCP BASIN NO. 3A INLET

WEST SWALE AXIS = CENTERLINE OF WEST EARTHEN SWALE

EAST SWALE AXIS = CENTERLINE OF EAST EARTHEN SWALE

SE SWALE AXIS = CENTERLINE OF SOUTHEAST CONCRETE SWALE

RCB = BASELINE REINFORCED CONCRETE BOX

CACTUS CHANNEL = INLET CHANNEL FROM NORTH END OF CACTUS BASIN NO. 3 AND ADJACENT TO BASIN NOS. 4 & 5

ACCESS ROADS = ROADWAYS LINKING THE DAM CREST TO EXISTING ACCESS ROADS.

RAMPS = ROADWAYS THAT RAMP DOWN FROM THE DAM CREST TO THE BOTTOM OF THE CACTUS BASIN NO. 3, CACTUS BASIN NO. 3A, AND HABITAT RESTORATION AREA

DAM, CHANNEL, AND ROADWAY STATIONING:

℄ DAM EMBANKMENT: STA. 100+00 AT SPILLWAY AXIS, INCREASING FROM THE NW CORNER OF THE DAM TO THE NE CORNER OF THE DAM.

℄ BASIN NO. 3A: STA. 100+00 AT SPILLWAY AXIS, INCREASING FROM THE SW CORNER OF THE BASIN NO. 3A, AROUND THE HABITAT RESTORATION AREA, TO THE SW CORNER OF BASIN 3A

SPILLWAY AXIS: STA. 10+00 AT THE ℄ DAM EMBANKMENT/ ℄ BASIN NO. 3A, DECREASING DOWNSTREAM.

96" RCP AXIS: STA. 10+00 AT THE ℄ DAM EMBANKMENT/ ℄ BASIN NO. 3A, DECREASING DOWNSTREAM.

℄ 120" RCP LINE 'A': STA. 10+00 AT THE ℄ DAM EMBANKMENT, DECREASING DOWNSTREAM.

℄ 120" RCP LINE 'B': STA. 10+00 AT THE ℄ DAM EMBANKMENT, DECREASING DOWNSTREAM.

℄ 24" RCP AXIS: STA. 10+00 AT THE ℄ DAM EMBANKMENT, DECREASING DOWNSTREAM.

℄ 30" RCP AXIS: STA. 10+00 AT THE ℄ DAM EMBANKMENT, DECREASING DOWNSTREAM.

℄ 54" RCP AXIS: STA. 10+00 AT THE ℄ DAM EMBANKMENT, DECREASING DOWNSTREAM.

℄ 36" RCP AXIS: STA. 10+00 AT THE ℄ DAM EMBANKMENT, DECREASING DOWNSTREAM.

EASTERLY AND WESTERLY SPILLWAY/OUTFALL CHUT WALLS: STA. 10+00 AT THE ℄ DAM EMBANKMENT, DECREASING DOWNSTREAM.

ALL ACCESS RAMPS: STA. 10+00 AT ℄ DAM EMBANKMENT, INCREASING TOWARD THE BASIN FLOOR.

CONSTRUCTION CALLOUTS:

[1] INTERCEPTOR V–DITCH PER (STD)
[2] 3" AC PVMT ROAD SECTION PER (STD)
[3] 10' WIDE CONCRETE SWALE PER (STD)
[4] GRAVEL PAD PER (STD)
[5] CONCRETED SPLASH PAD PER (STD)
[6] CONCRETE COLLAR PER APWA SP 380–3
[7] BOUNDARY FENCE PER SHT FCD–I
[8] CHANNEL FENCE PER SHT FCD–II
[9] DOUBLE DRIVE GATE PER SHT FCD–I
[10] WALK GATE PER SHT FCD–II
[11] SPILLWAY ACCESS LADDER PER SHT S–7
[12] HEADWALL WING–TYPE PER SBC STD. DRWG. 209
[13]
[14] DRAINAGE INLET TYPE G2 FOR 54" RCP PER CALTRANS SP D73
[15] DRAINAGE INLET TYPE G2 FOR 30" RCP PER CALTRANS SP D73
[16] SLOPED PROTECTION BARRIER PER APWA SP 360–0 (STD)
[17] 6' WIDE WEST EARTHEN SWALE PER (STD)
[18] 4' WIDE EAST EARTHEN SWALE PER (STD)
[19] CONCRETE BULKHEAD PER RIVERSIDE COUNTY M816(MODIFIED)
[20] WATERMAN® FLAP GATES
[21] 36" RCP 'L' HEADWALL PER CALTRANS SP D89

CONSTRUCTION NOTES:

(1) CONSTRUCT SOUTH EMBANKMENT FOR BASIN NO. 3 PER PLAN ON SHEETS C–2 & C3 , PROFILE ON SHEETS P–2 & P–4, SECTIONS ON SHEETS X–11 TO X–13 & X–23 TO X–25 AND SURVEY CONTROL DATA ON SHEETS G–2 & G–3

(2) CONSTRUCT EAST AND WEST EMBANKMENTS FOR SOUTH HALF OF BASIN NO. 3 PER PLAN ON SHEET C–3, PROFILE ON SHEETS P–1 TO P–3, SECTIONS ON SHEETS X–5 TO X–10 & X–13 TO X–16 AND SURVEY CONTROL DATA ON SHEET G–3

(3) CONSTRUCT EAST AND WEST EMBANKMENTS FOR NORTH HALF OF BASIN NO. 3 PER PLAN ON SHEET C–4 , PROFILE ON SHEETS P–1 & P–3, SECTIONS ON SHEETS X–1 TO X–5 & X–16 TO X–20, AND SURVEY CONTROL DATA ON SHEET G–4

(4) CONSTRUCT SOUTH EMBANKMENT FOR BASIN NO. 3A SOUTH OF BASIN NO. 3 PER PLAN ON SHEET C–2, PROFILE ON SHEET P–5, SECTIONS ON SHEETS X–29 TO X–34, AND SURVEY CONTROL DATA ON SHEET G–2.

(5) CONSTRUCT EAST AND WEST EMBANKMENTS FOR BASIN NO. 3A AND HABITAT RESTORATION AREA, SOUTH OF BASIN NO. 3 PER PLAN ON SHEET C–2, PROFILE ON SHEETS P–4 & P–5, SECTIONS ON SHEETS X–21 TO X–23 & X–26 TO X–30 AND SURVEY CONTROL DATA ON SHEET G–2.

(6) CONSTRUCT HABITAT RESTORATION AREA SOUTH EAST OF CACTUS BASIN NO. 3 PER PLAN ON SHEET C–2, PROFILE ON SHEETS P–4 & P–5, SECTIONS ON SHEET X–25 TO X–32, AND SURVEY CONTROL DATA ON SHEET G–2.

(7) CONSTRUCT EAST MAINTENANCE ACCESS RAMP FOR BASIN NO. 3 PER PLAN ON SHEETS C3 & C4, PROFILE ON SHEET P–3, TYPICAL SECTION ON SHEET C–3, AND SURVEY CONTROL DATA ON SHEETS G–3 & G–4.

(8) CONSTRUCT WEST MAINTENANCE ACCESS RAMP FOR BASIN NO. 3 PER PLAN ON SHEETS C3 & C–4, PROFILE ON SHEET P–1, TYPICAL SECTION ON SHEET C–4, AND SURVEY CONTROL DATA ON SHEETS G–3 & G–4.

(9) CONSTRUCT WEST MAINTENANCE ACCESS RAMP FOR BASIN NO. 3A PER PLAN ON SHEET C–2, PROFILE ON SHEET P–4, TYPICAL SECTION ON SHEET C–2, AND SURVEY CONTROL DATA ON SHEET G–2.

(10) CONSTRUCT SOUTH MAINTENANCE ACCESS RAMP FOR HABITAT RESTORATION AREA PER PLAN ON SHEET C–2, PROFILE ON SHEET P–5, TYPICAL SECTION ON SHEET C–2, AND SURVEY CONTROL DATA ON SHEET G–2.

(11) CONSTRUCT REINFORCED CONCRETE SPILLWAY PER PLAN ON SHEETS C–2, C–3, C–5 & C–6, PROFILE ON SHEETS C–5, DETAILS ON SHEETS C–6, C–7 & S–5, AND SURVEY CONTROL DATA ON SHEETS G–2, G–3 & G–5.

(12) CONSTRUCT APPROX. 197 LINEAR FEET OF 96" RCP OUTLET BASIN DRAIN PER PLAN C–2, C–3, C–5 & S–5, PROFILE ON SHEET S–2 AND DETAILS ON SHEETS S–2 & S–3 (D–LOAD PER PROFILE)

(13) CONSTRUCT 96" RCP ENCASEMENT PER DETAIL ON SHEET S–4

(14) CONSTRUCT HEADWALL AND WINGWALLS FOR 96" RCP OUTLET PER PLAN ON SHEETS C–2, C–3, C–5 & S–2, PROFILE ON SHEET S–2, DETAILS ON SHEETS S–2 & S–3 AND STRUCTURAL DETAILS ON SHEETS S–8 & S–9 PER CALTRANS STD. DETAIL D90A

(15) CONSTRUCT WEST AND EAST ACCESS ROAD PER PLAN, TYPICAL SECTIONS ON SHEETS C–2 TO C–4, AND SURVEY CONTROL DATA ON SHEETS G–2 TO G–4.

(16) CONSTRUCT APPROX. 76 LINEAR FEET OF 36" RCP PER PLAN AND DETAILS ON SHEET SD–1 (D–LOAD PER PROFILE)

(17) CONSTRUCT APPROX. 146 LINEAR FEET OF 54" RCP INLET PER PLAN AND DETAILS ON SHEETS SD4 & SD5 (D–LOAD PER PROFILE)

(18) REMOVE AND REPLACE ROCK SLOPE PROTECTION AFTER FINISH GRADING 2.0' THICK RSP, CLASS 'LIGHT' USING METHOD "A" PLACEMENT TO ELEVATION = 1348'

(19) REMOVE AND REPLACE ROCK PROTECTION AFTER FINISH GRADING CHECK DAM IN BASIN NO. 3A

(20) PROTECT IN PLACE EXISTING RCB OUTLET STRUCTURE IN BASIN NO. 3A

(21) PROTECT IN PLACE EXISTING HEADWALL AND WINGWALL FOR RCB

(22) PROTECT IN PLACE EXISTING BOUNDARY CHAIN LINK FENCE

(23) REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE CROSSING CACTUS BASIN NO. 3

(24) PROTECT IN PLACE THE EXISTING TREE(S) IN THE HABITAT RESTORATION AREA

(25) PROTECT IN PLACE THE EXISTING STAFF GAUGE IN THE HABITAT RESTORATION AREA

(26) PROTECT IN PLACE EXISTING 36" CMP

(27) REMOVE AND DISPOSE EXISTING 36" CMP

(28) CONSTRUCT ROCK CUT–OFF WALLS AROUND THE OUTSIDE PERIMETER OF ROCK RIP RAP AREAS AS FOLLOWS:
THE OUTSIDE PERIMETER OF 1/2 TON UNGROUTED ROCK RIP RAP AREAS SHALL BE 5' DEEP AND 5' WIDE
THE OUTSIDE PERIMETER OF 1/4 TON GROUTED ROCK RIP RAP SHALL BE 5' DEEP AND 3' WIDE
THE OUTSIDE PERIMETER OF GROUTED FACING ROCK SHALL BE 3' WIDE AND 3' DEEP

(29) CONSTRUCT CONCRETE CUT–OFF WALLS PER PLAN ON SHEETS C–2, C–3, C–5 & C–6 AND DETAILS ON SHEET S–3 & S–6

(30) CONSTRUCT SPILLWAY SUBDRAIN SYSTEM PER PLAN ON SHEET C–6, SECTIONS & DETAILS ON SHEETS C–6 & C–7.

(31) REMOVE EXISTING BOUNDARY FENCE AND GATES FROM BASELINE RD. AT APPROX. STA 114+00 ± TO EAST END AND REPLACE FENCE PER FCD–I TO STA 113+06.81 TO STA 114+00 ±

(32) MOVE BOUNDARY FENCE FROM STA 113+06.81 TO THE EAST 25'± TO THE SOUTH PER FCD–I

(33) REMOVE EXISTING 20' DOUBLE DRIVE GATE AND RE–INSTALL 20' DOUBLE DRIVE GATE AT STA 113+94± TO STA 112+86.81 AND AT LOCATION SHOWN HEREON AND PER DETAIL SHOWN ON FCD–I

(34) CONSTRUCT 20' CONCRETE DRIVEWAY PER SAN BERNARDINO COUNTY STD. 128

(35) PROTECT IN PLACE EXISTING BLOCK WALL

(36) REMOVE AND DISPOSE EXISTING DOUBLE DRIVE GATE

(37) REMOVE AND RE–INSTALL BOUNDARY FENCE AFTER EXCAVATION PER SHEET FCD I

(38) BREAK AND REPLACE EXISTING 24" RCP PER PLAN, PROFILE ON SHEET SD–2, SECTION ON SHEET SD–2 AND SURVEY CONTROL DATA ON SHEET G–4.

(39) BREAK AND REPLACE EXISTING 30" RCP PER PLAN, PROFILE ON SHEETS SD–3, SECTION ON SHEET SD–3 AND SURVEY CONTROL DATA ON SHEET G–3.

(40) CONSTRUCT APPROX. 159 LINEAR FEET OF 2 –120" RCP BASIN INLET PER PLAN, PROFILE ON SHEETS SD–6 & SD–7 AND DETAILS ON SHEETS SD–6 & SD–7 (D–LOAD PER PROFILE)

(41) CONSTRUCT 2 –120"" RCP ENCASEMENT PER DETAIL ON SHEET SD–7

(42) CONSTRUCT HEADWALL AND WINGWALLS FOR 2 –120" RCP OUTLET PER PLAN, PROFILE ON SHEET SD–6 & SD–7, DETAILS ON SHEET SD–6 & SD–7 AND STRUCTURAL DETAILS ON SHEETS S–8 & S–9 PER CALTRANS STD. DETAIL D90A

(43) CONSTRUCT 10" THICK REINFORCED CONCRETE FLOATER SLAB PER PLAN AND DETAILS ON SHEET S–3

(44) BREAK EXISTING 66" SRMP AT NORTH EMBANKMENT OF BASIN NO. 3 TO INLET TO BASIN NO. 4

(45) HYDROSEED CUT AND FILL SLOPE WITH NATIVE VEGETATION PER SPECS

(46) SAWCUT AND CONNECT EXISTING 24" RCP TO DRAINAGE INLET PER PLAN, PROFILE ON SHEET SD–4, PER APWA SP 308–1, CORNER CONNECTION.

(47) ESTABLISH SURVEY MONUMENT ALONG SPILLWAY EMBANKMENT AT STA.100+00.00 ℄ DAM EMBANKMENT/STA. 10+00.00 ℄ SPILLWAY PER PLAN ON SHEET C5.

(48) ESTABLISH SURVEY MONUMENT ALONG SPILLWAY EMBANKMENT AT STA. 99+00.00 ℄ DAM EMBANKMENT PER PLAN ON SHEET C5.

(49) ESTABLISH SURVEY MONUMENT ALONG SPILLWAY EMBANKMENT AT STA.101+00.00 ℄ DAM EMBANKMENT PER PLAN ON SHEET C5.

MATERIAL ZONES:

ZONE (1) MIXED, BORROW FROM BASIN EXCAVATION, 93% RELATIVE COMPACTION

SIZE	PERCENT PASSING
2.0"	100
1.5"	73 – 100
1.0"	65 – 92
# 4	37 – 64
#10	25 – 52
#20	15 – 37
#40	9 – 25
#200	≥ 8

ZONE (2) CLASS 2 AGGREGATE BASE, 6" DEEP

ZONE (3) 3" AC PAVEMENT (ON 6" OF ZONE 2, 95% RELATIVE COMPACTION)

ZONE (4) CONCRETED ROCK SLOPE PROTECTION (RSP). 1/4 TON, METHOD 'A' PLACEMENT

ZONE (5) CONCRETED ROCK SPLASH PAD, FACING CLASS, METHOD 'A' PLACEMENT

ZONE (6) 1/4 TON GROUTED ROCK RIP–RAP, THICKNESS = 3' MIN., DEPTH OF GROUT PENETRATION =1.25', METHOD 'A' PLACEMENT

ZONE (7) 1/2 TON UNGROUTED ROCK RIP–RAP, THICKNESS = 3.5' MIN., METHOD 'A' PLACEMENT

ZONE (8) CONCRETED FACING ROCK, THICKNESS = 1.5' MIN., DEPTH OF GROUT PENETRATION =.75', METHOD 'A' PLACEMENT

ZONE (9) GRAVEL PAD ON BASIN FLOOR ADJACENT TO RAMPS PER (STD)

ZONE (10) 1/2 TON CONCRETE RIPRAP (T=4.0') WITH UPPER 6" TO 9" OF TOP LAYER EXPOSED, TYPE 'B' PLACEMENT WITH 1.25' THICK ROCK BACKING NO. 2 AND TYPE 'A' ROCK SLOPE PROTECTION FABRIC PER CALTRANS STD. SPEC. SECTION 72

REGISTERED PROFESSIONAL ENGINEER — JAMES PATRICK BORCHUK — No. 41807 — Exp. 3/31/08 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT 1939 CALIFORNIA

REVISIONS			
MARK	DATE	DESCRIPTION	BY:

SUBMITTED BY:
CHIEF, ENGINEERING DIVISION — DATE

RECOMMENDED BY:
ASSIST. FLOOD CONTROL ENGINEER — DATE

APPROVED BY:
FLOOD CONTROL ENGINEER — DATE

PROJ. ENGR.	DES. BY:	REV'D BY:	DRAWN BY:
T.R.	S.F.B./D.J.N.	J.B.	S.F.B./D.J.N.

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT

FONTANA–RIALTO DRAINAGE SYSTEM

CACTUS BASIN NO. 3

CONSTRUCTION CALLOUTS, NOTES AND MATERIAL ZONES

DATE DEC. , 2007
SCALE AS SHOWN
FILE NO. 2–104–
SHEET NO. I–3