

IOS-1 SOUTH PERMIT APPLICATION

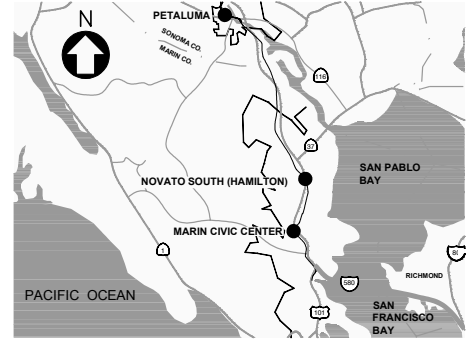
INITIAL OPERATING SEGMENT 1 SOUTH

IOS-1: FROM MILEPOST 19.3 TO MILEPOST 37.02

SONOMA & MARIN COUNTY, CALIFORNIA
MAY 2013

**NOT FOR
CONSTRUCTION**

PREPARED BY



LOCATION MAP
NOT TO SCALE

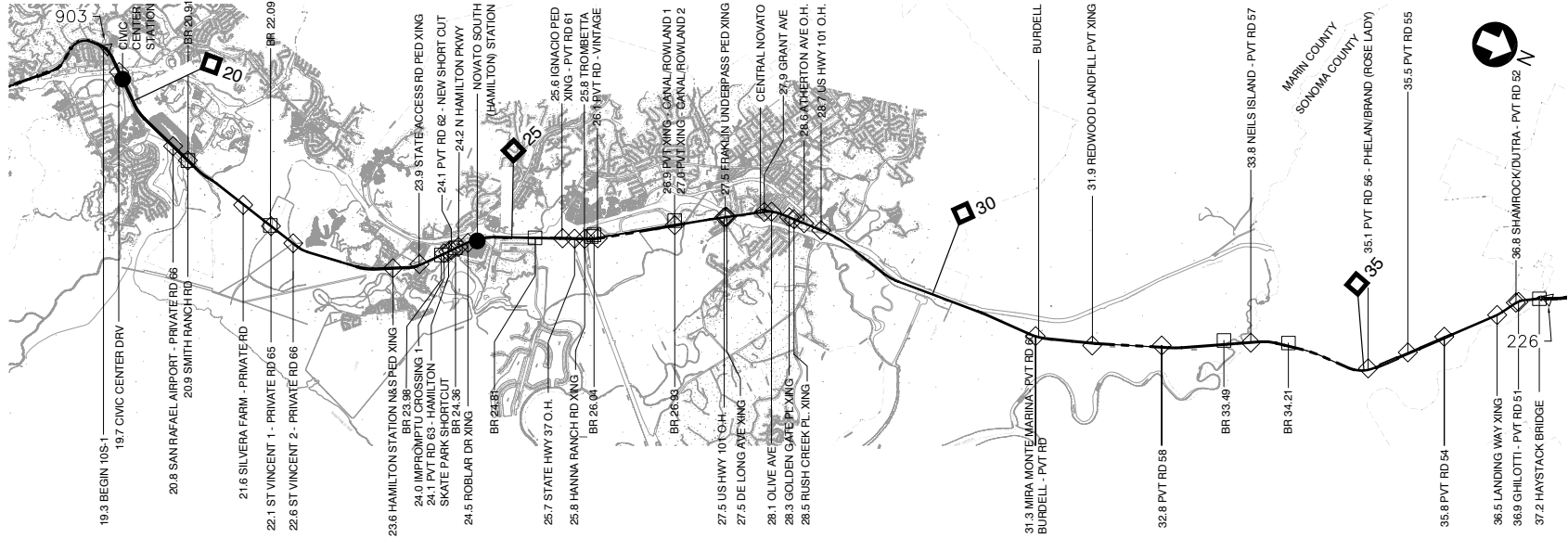
COORDINATE SYSTEM:
CALIFORNIA COORDINATE SYSTEM, CCS83, EPOCH 2008.00 AS PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER, CENTRAL COAST HEIGHT MODERNIZATION PROJECT, DATED MARCH 16, 2009.

BENCHMARK:
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS DETERMINED AND SHOWN ON THE RECORD OF SURVEY FILED IN BOOK 2010 OF SURVEYS PAGE 96, MARIN COUNTY RECORDS

AERIAL IMAGERY:
AERIAL IMAGERY SHOWN HEREON IS ORTHORECTIFIED AND WAS TAKEN BY MERRICK & COMPANY, GREENWOOD VILLAGE, COLORADO, IN APRIL OF 2009.

HIGH WATER LOCATION AT BRIDGES:
ORDINARY HIGH WATER MARK ESTABLISHED BY VISUAL OBSERVATION OF THE VEGETATION BREAKLINE.

Sonoma Marin Area Rail Transit Primary Control Network (points shown in Key Map)			
ID	Northing	Easting	Description
903	1761604.034	6405855.830	Set 1/2" Iron Pipe
226	1845234.676	6385354.188	Set 2" Disk on Iron Pipe



Map 01_01_2013 - 7:15pm ©\12422 - rptl Mary\12422-11-001 Smart\05_1 - Btl Pater\05-CAD\05_Construction_Package\05_05-1\003_DWG\04_SHEETS\001 - E\002.dwg

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
DRAWN BY
C. PHELPS
CHECKED BY
P. BORDENAVE
IN CHARGE
G. MAKANO
DATE
MAY 3, 2013

**PRELIMINARY FOR PLANNING/REVIEW
NOT FOR CONSTRUCTION**



IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
COVER SHEET & KEY MAP
SHEET 1 OF 87

CADD FILENAME EV301-EV302.dwg	CONTRACT NO. CV-DB-11-001
SCALE NONE	MILEPOST
DWG. NO. EV301	

May 02, 2013 - 9:51am © 12412 - InH Wang\12412-11-001 Smart.dwg 1 - Bld Phase\04-CAD\05 Construction\Package\05 05-1\003 DWG\A-SHEETS\01 - Environmental\01-0202.dwg

LEGEND & SYMBOLS

- ROW
- PROPOSED RETAINING WALL
- PROPOSED & EXISTING CULVERT
- PROPOSED STORM DRAIN
- PROPOSED UNDERDRAIN
- RUNOFF/FLOW DIRECTION
- PROPOSED TOP OF RAIL
- MAINLINE TRACK/SIDING
- PROPOSED SD INLET
- EXISTING EASEMENT
- EXISTING GROUND
- EXISTING PROPERTY PARCEL
- EXISTING TOP OF RAIL
- EXISTING TRACK
- MAJOR CONTOURS
- MINOR CONTOURS
- WETLAND AREA INSIDE ROW
- FILLED WETLAND AREA INSIDE ROW
SEE NOTE BELOW
- WETLAND AREA OUTSIDE ROW
- HIGH WATER MARK AT BRIDGE
- PROPOSED GRADING LINES
- MILEPOST
- HIGHWAY
- TURNOUT
- DIRECTIONAL INDICATORS OF TRAFFIC FLOW
- PEDESTRIAN ARM GATE
- VEHICULAR ARM GATE
- CANTILEVER
- WARNING SIGNAL
- CENTRAL INSTRUMENT LOCATION
(FOUNDATION PAD ONLY)
- WAYSIDE SIGNAL
(FOUNDATION PAD ONLY)
- METER
- HAND HOLE
- PG&E SERVICE CABINET
- PG&E VAULT
- FIELD WETLAND FLAG
(WITH FLAG ID)
- FIELD HIGH WATER MARK
(WITH HIGH WATER ID)
- FIELD DATA PLOT

FILLED WETLAND NOTE:
 TEMPORARY TRACKWORK WETLAND IMPACTS ARE NOT DEPICTED GRAPHICALLY ON ALL SHEETS. TEMPORARY TRACKWORK WETLAND IMPACTS OCCUR WHERE THE GRADING LIMIT LINE IS COINCIDENT WITH THE WETLAND AREA LINE; 2 FOOT WIDTH OF WETLAND AREA IS TEMPORARILY IMPACTED WHERE THIS CONDITION OCCURS.

WETLAND TYPES

- CBMA: COASTAL BRACKISH MARSH
- CFMA: COASTAL FRESHWATER MARSH
- CSMA: COASTAL SALT WATER MARSH
- CFSW: COASTAL FRESHWATER SEASONAL WETLAND
- RSW: RESTORED WETLAND
- OW: OPEN WATER
- PW: PERENNIAL WATERCOURSE
- PW/INWAT: PERENNIAL WETLAND IN WATER
- SEW: SEASONAL WATERWAY
- TW: TIDAL WATERWAY
- MHWL: MEAN HIGH WATER LINE

EXISTING TOPO SYMBOLS

- AT&T UTILITY LINE
- CHAIN LINK FENCE
- GAS LINE
- OVERHEAD ELECTRIC LINE
- OVERHEAD ELECTRIC (HIGH VOLTAGE)
- OVERHEAD UTILITY LINES (HIGH VOLTAGE)
- RECLAIMED WATER LINE
- SANITARY SEWER LINE
- SANITARY SEWER LINE - PRIVATE
- SANITARY SEWER FORCE MAIN
- STORM DRAIN LINE
- STORM DRAIN PIPE
- UNDERGROUND CABLE/TV UTILITY LINES
- UNDERGROUND ELECTRICAL
- UNDERGROUND FIBER OPTIC CABLE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND TRAFFIC UTILITY LINES
- WATER LINE

- CONCRETE
- PERIMETER OF BUILDING
- DRAINAGE INLET
- DRAINAGE DOWNSPOUT
- FIRE HYDRANT
- HOSE BIB
- IRRIGATION CONTROL VALVE
- MONITORING WELL
- RECLAIMED WATER VALVE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- STORM DRAIN CATCH BASIN
- STORM DRAIN MANHOLE
- STORM DRAIN PIPE
- WATER VALVE
- WATER METER

- CABLE TV BOX
- ELECTRIC BOX
- ELECTRIC LID
- GAS VALVE
- GAS METER
- JOINT UTILITY POLE
- LANDSCAPE LIGHT
- POWER POLE
- PG&E VAULT
- RISER POLE
- SERVICE POLE

- STREET LIGHT
- STREET LIGHT BOX
- TELEPHONE BOX
- TELEPHONE MANHOLE
- TELEPHONE POLE
- TRAFFIC DETECTOR LID
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL LIGHT BOX
- TRAFFIC SIGNAL POLE W/STREET LIGHT
- UTILITY MANHOLE
- BOLLARD
- MAILBOX
- SIGN
- SIGNAL GATE
- TREE SYMBOL AND DRIP LINE
- RAILROAD SWITCH
- FOUND IRON PIPE, SIZE AND TAGGED AS NOTED
- FOUND MONUMENT, SIZED AND STAMPED, AS NOTED
- SPOT ELEVATION
- SURVEY CONTROL POINT

CONSTRUCTION IMPACT LEGEND

- TEMPORARY IMPACT - RETAINING WALLS
- TEMPORARY IMPACT - EXCAVATION AND BACKFILL LIMITS
- TEMPORARY IMPACT - CRANE AREA
- PERMANENT IMPACT - ROCK APRON
- PERMANENT IMPACT - RETAINING WALL
- PERMANENT IMPACT - CULVERTS
- PERMANENT IMPACT - BRIDGES

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
 C. PHELPS
 DRAWN BY
 C. PHELPS
 CHECKED BY
 P. BORDENAVE
 IN CHARGE
 G. MAKANO
 DATE
 MAY 3, 2013

**PRELIMINARY FOR PLANNING/REVIEW
 NOT FOR CONSTRUCTION**



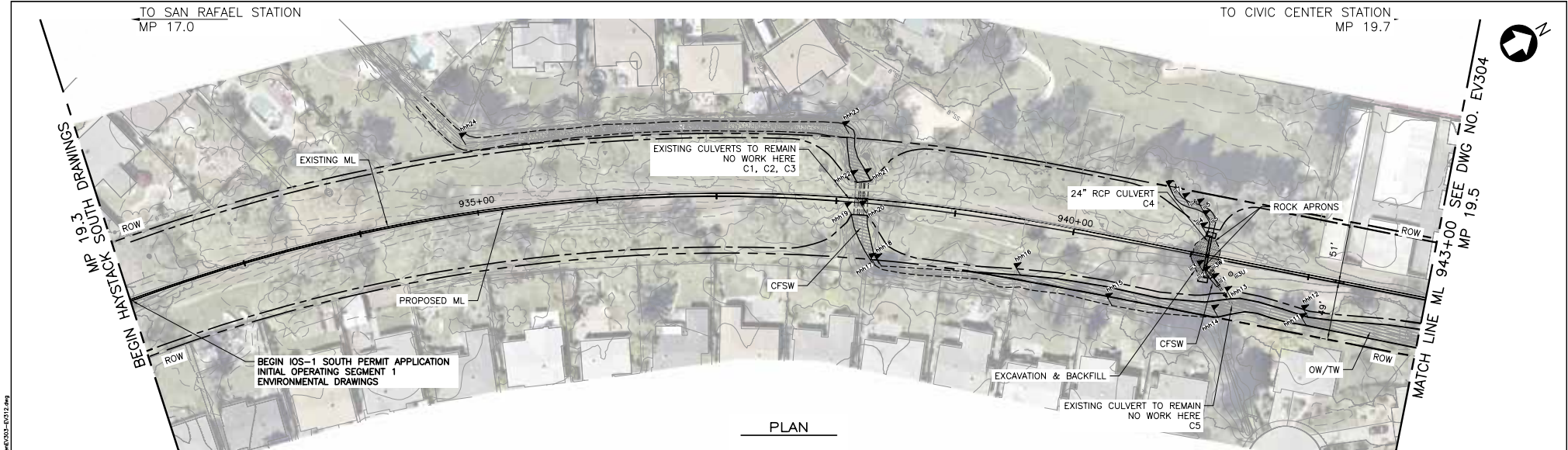
IOS-1 ENVIRONMENTAL PERMIT PLAN

PROPOSED CONDITION

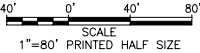
LEGEND & SYMBOLS

SHEET 2 OF 87

CADD FILENAME EV301-EV302.dwg	SCALE NONE	CONTRACT NO. CV-DB-11-001
DWG. NO. EV302	MILEPOST	



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV303	iii	CFSW	PERM	24	Culvert	941+14			1			2.00	3.00	24.00	0.00	0.00		
EV303	iii	CFSW	PERM	28	Culvert	941+14			1			2.00	0.00	0.00	0.00	28.00		

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MAY 3, 2013

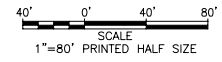
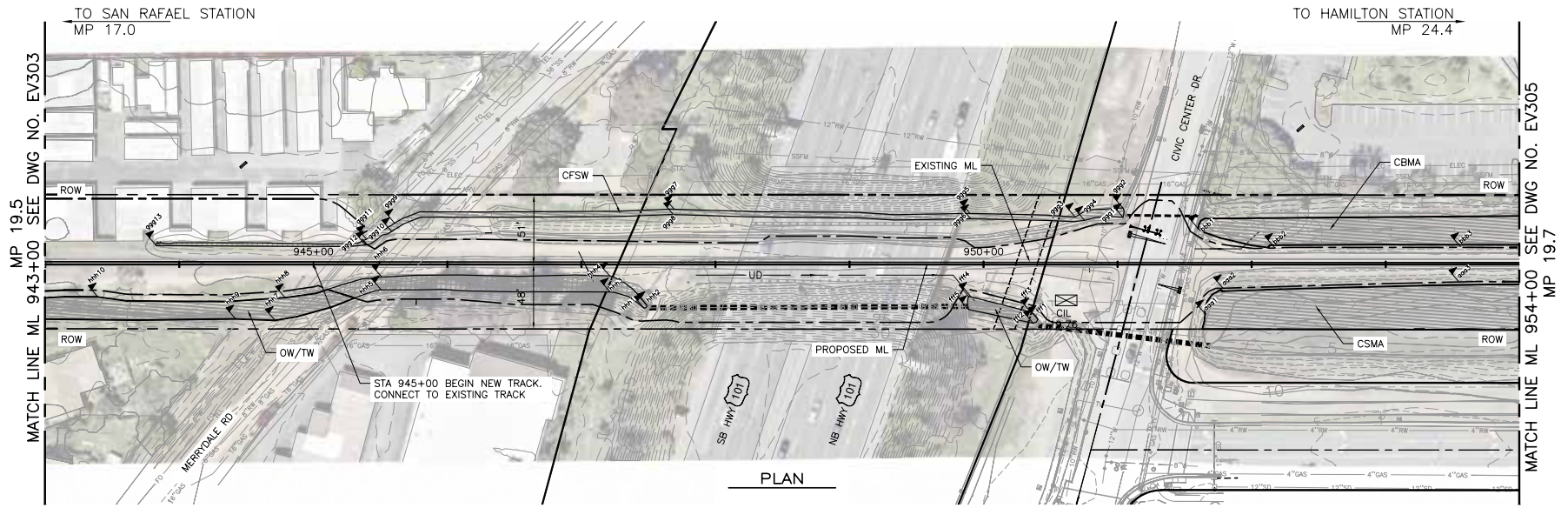
PRELIMINARY FOR PLANNING/REVIEW
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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg
PROPOSED CONDITION		SCALE AS SHOWN
ML STA 932+00 TO 943+00		CONTRACT NO. CV-DB-11-001
SHEET 3 OF 87		DWG. NO. EV303
		MILEPOST 19.3

May 01, 2013 7:22pm C:\12412 - Rpt Mntg\12412-11-001 Smart_05_1 - Btl Phter\04-CAD\05 Construction\Plotting\05_05-1\003 DWG\04 SHEETS\301 Environmental\0303-EV312.dwg

Map 01_2013 - 7/24/2013 - Phil Wang\12412-11-001\SMART_05 1 - B15 Phase\05-CAD\05 Construction\05-05-1003.DWG\A4_SHEET\301_Environment\0303-E0312.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV304	ggg	CFSW	PERM	346	Trackwork													
EV304	hhh	OW/TW	PERM	2536	Trackwork													
EV304, EV305	aaa	CSMA	TEMP	1326	Trackwork													
EV304, EV305	bbb	CBMA	TEMP	1032	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



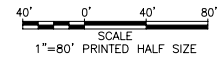
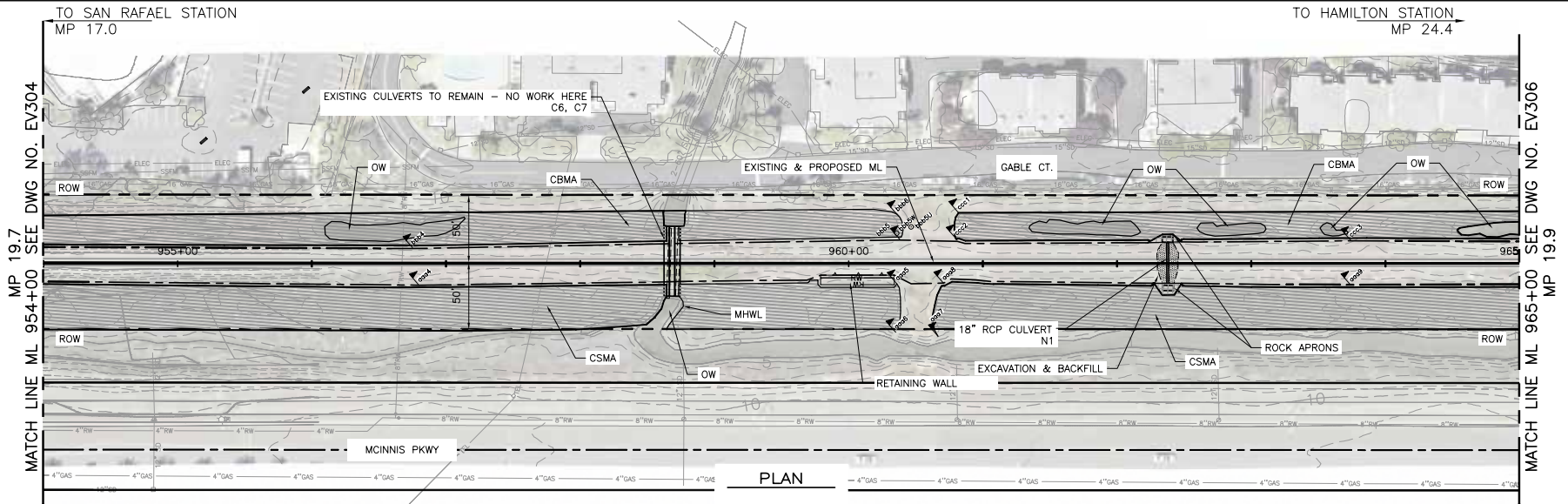
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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 943+00 TO 954+00		AS NOTED CV-DB-11-001
SHEET 4 OF 87		DWG. NO. MILEPOST
		EV304 19.5

Map 01_01_2013 - 7:27pm © 1/24/12 - rph Wmly\2412-11-001 Smart\05_1 - Bld Phase\05-CAD\05 Construction\05-05-1003 DWG\04 SHEETS\01 Environmental\0305-E0312.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV304, EV305	aaa	CSMA	TEMP	1326	Trackwork													
EV304, EV305	bbb	CBMA	TEMP	1032	Trackwork													
EV305	aaa	CSMA	TEMP	127	Culvert	962+38			1			1.50	2.00	2.00	94.00	31.00		
EV305	aaa	CSMA	TEMP	287	Trackwork													
EV305	aaa	CSMA	TEMP	187	Trackwork													
EV305	aaa	CSMA	TEMP	326	Wall		660+00											
EV305	bbb	CBMA	TEMP	321	Trackwork													
EV305	ccc	CBMA	PERM	96	Culvert	962+38			1			1.50	0.00	0.00	65.00	31.00		
EV305	ccc	CBMA	TEMP	316	Trackwork													
EV305, EV306	aaa	CSMA	TEMP	516	Trackwork													
EV305, EV306	ccc	CBMA	TEMP	491	Trackwork													
EV306	aaa	CSMA	PERM	74	Culvert	965+43			1			3.00	4.00	12.00	31.00	31.00		

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1

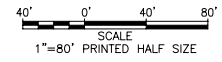
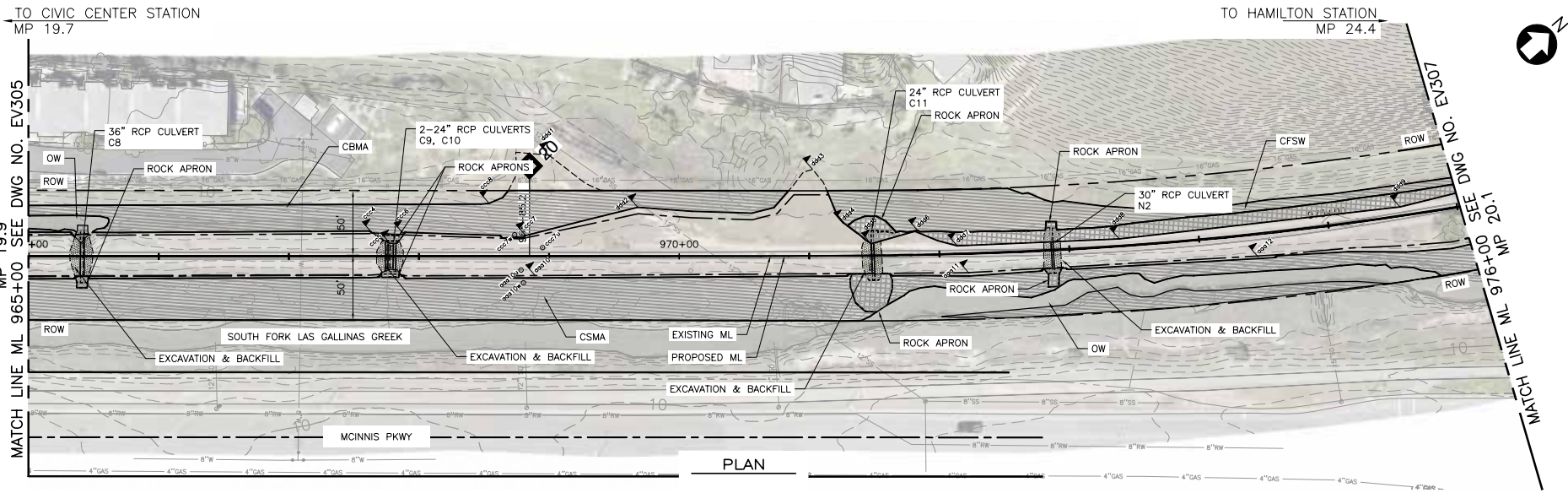


PREPARED BY
C. PHELPS
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P. BORDENAVE
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G. MAKANO
DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg
PROPOSED CONDITION		SCALE AS NOTED
ML STA 954+00 TO 965+00		CONTRACT NO. CV-DB-11-001
SHEET 5 OF 87		DWG. NO. EV305
		MILEPOST 19.7



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV305, EV306	aaa	CSMA	TEMP	516	Trackwork													
EV305, EV306	ccc	CBMA	TEMP	491	Trackwork													
EV306	aaa	CSMA	PERM	74	Culvert	965+43			1			3.00	4.00	12.00	31.00	31.00		
EV306	aaa	CSMA	PERM	70	Culvert	967+78			2			2.00	4.00	8.00	31.00	31.00		
EV306	aaa	CSMA	PERM	123	Culvert	972+87			1			2.50	4.00	14.00	27.00	82.00		
EV306	aaa	CSMA	PERM	780	Culvert	971+49			1			2.00	4.60	9.00	40.00	731.00		
EV306	aaa	CSMA	TEMP	213	Trackwork													
EV306	aaa	CSMA	TEMP	197	Trackwork													
EV306	aaa	CSMA	TEMP	585	Trackwork													
EV306	aaa	CSMA	TEMP	306	Trackwork													
EV306	ccc	CBMA	PERM	106	Culvert	967+78			2			2.00	3.00	6.00	69.00	31.00		
EV306	ccc	CBMA	PERM	39	Culvert	965+43			1			3.00	5.00	15.00	24.00	0.00		
EV306	ccc	OW	PERM	27	Culvert	965+43			1			3.00	3.00	9.00	18.00	0.00		
EV306	ccc	CBMA	TEMP	124	Trackwork													
EV306	ccc	CBMA	TEMP	346	Trackwork													
EV306	ddd	CFSW	PERM	522	Culvert	971+49			1			2.00	9.00	18.00	200.00	304.00		
EV306, EV307	ddd	CFSW	PERM	4487	Culvert	972+87			1			2.00	11.00	22.00	4161.00	304.00		

NOTE: TRACKWORK IMPACTS WERE UNINTENTIONALLY INCLUDED IN THE STRUCTURAL FILL IMPACTS FOR CULVERT 972+87 DURING GIS ANALYSIS. THIS IMPACT SPANS SHEETS EV306 AND EV307 EVEN THOUGH THE CULVERT IS ON SHEET EV306.

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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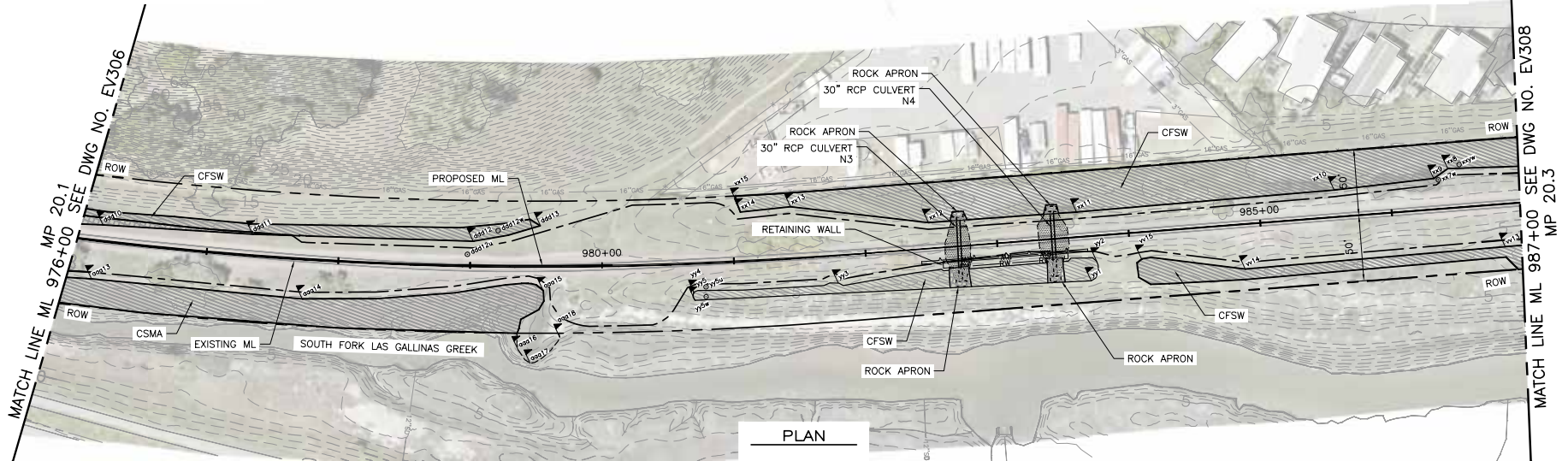
IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg
PROPOSED CONDITION		SCALE AS NOTED
ML STA 965+00 TO 976+00		CONTRACT NO. CV-DB-11-001
SHEET 6 OF 87		DWG. NO. EV306
		MILEPOST 19.9

Map 01_01_2013 - 7:29pm @ 12412 - Infil Winery\12412-11-001 Smart.dwg 1 - BSI Phase\03-CAD\03 Construction\Postings\05 05-11003 DWG\A\A_SHEET\EV301_Environment\0305-E0312.dwg

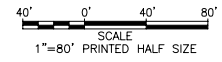
Map 01_01_2013 - 7:31pm © 12/4/12 - Infil Mining\2412-11-001 Smart\05 1 - Bld Phase\05-CAD\05 Construction\05 05-1000 DWG\04 SHEETS\01 Environmental\0303-E0312.dwg

TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV306, EV307	ddd	CFSW	PERM	4487	Culvert	972+87			1			2.00	11.00	22.00	4161.00	304.00		
EV307	xx	CFSW	PERM	70	Culvert	982+69			1			2.50	2.00	5.00	34.00	31.00		
EV307	xx	CFSW	PERM	66	Culvert	983+41			1			2.50	2.00	5.00	30.00	31.00		
EV307	yy	CFSW	PERM	233	Culvert	982+69			1			2.50	10.00	25.00	177.00	31.00		
EV307	yy	CFSW	PERM	230	Culvert	983+41			1			2.50	11.00	27.50	171.50	31.00		
EV307	yy	CFSW	TEMP	207	Wall		983+00											
EV307	yy	CFSW	TEMP	7	Wall		983+00											
EV307	yy	CFSW	TEMP	13	Wall		983+00											

NOTE: TRACKWORK IMPACTS WERE UNINTENTIONALLY INCLUDED IN THE STRUCTURAL FILL IMPACTS FOR CULVERT 972+87 DURING GIS ANALYSIS. THIS IMPACT SPANS SHEETS EV306 AND EV307 EVEN THOUGH THE CULVERT IS ON SHEET EV306.

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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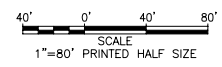
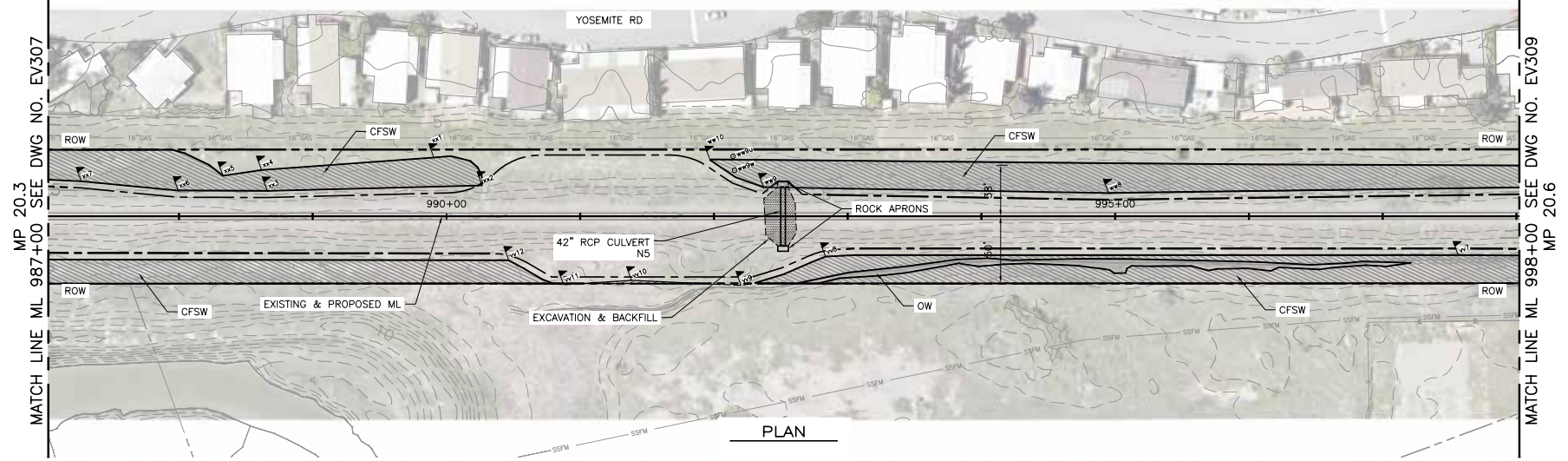
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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 976+00 TO 987+00		AS NOTED CV-DB-11-001
SHEET 7 OF 87		DWG. NO. MILEPOST
EV307	20.1	

TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV308	ww	CFSW	PERM	57	Culvert	992+49			1			3.50	1.00	3.50	22.50	31.00		
EV308	xx	CFSW	PERM	3	Trackwork													

Map 01_2013 - 7:53pm © 12/4/12 - Infil Mining\12412-11-001\SMART_05 1 - B5 Phase\06-CA\05 Construction Postings\05 05-1\003 DWG\04 SHEETS\301 Environmental\0305-0312.dwg

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1	20130503	CP			REV 1



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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg	
PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 987+00 TO 998+00		AS NOTED	CV-DB-11-001
DWG. NO. EV308	MILEPOST 20.3	SHEET 8 OF 87	

Map 01_2013 - 7:34pm © 12/12 - P:\M\12412-11-001\2412.dwg 1 - B5 Phase\06-CAV\05 Construction\Package\05 05-1\003_DWG\CA_SHEETS\301_Environment\0305-10312.dwg

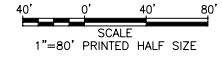
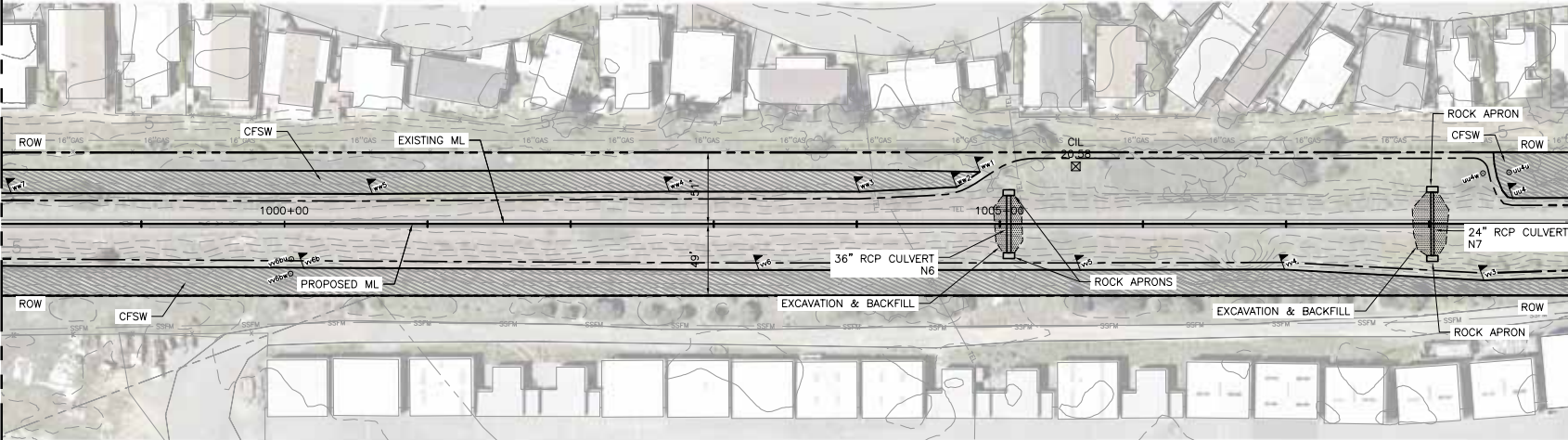
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

YOSEMITE RD

MP 20.6
MATCH LINE ML 998+00 SEE DWG NO. EV308

MATCH LINE ML 1009+00 SEE DWG NO. EV310
MP 20.8



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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IN CHARGE
G. NAKANO
DATE
MAY 3, 2013

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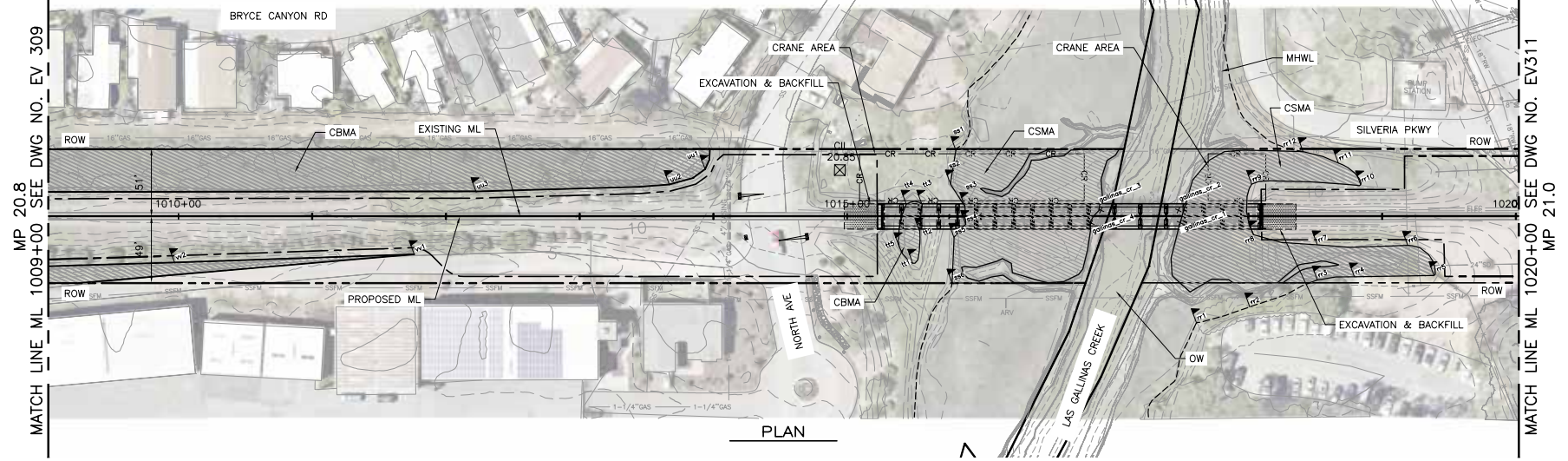


IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
ML STA 998+00 TO 1009+00
SHEET 9 OF 87

CADD FILENAME EV303-EV312.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV309	MILEPOST 20.6

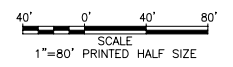
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4



PLAN

NOTE: FOR ADDITIONAL IMPACTS AT LAS GALLINAS CREEK SEE BRIDGE SUPPLEMENTAL PACKAGE.



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV310	Gallinas_cr	OW	PERM	26.16	Bridge			1017+00									12	26.16
EV310	Gallinas_cr	OW	TEMP	1888	Bridge			1017+00										
EV310	rr	CSMA	PERM	8	Trackwork													
EV310	rr	CSMA	PERM	26.16	Bridge			1017+00									12	26.16
EV310	rr	CSMA	TEMP	1025	Bridge			1017+00										
EV310	ss	CSMA	PERM	47.96	Bridge			1017+00									22	47.96
EV310	ss	CSMA	TEMP	3700	Bridge			1017+00										
EV310	tt	CBMA	PERM	13.08	Bridge			1017+00									6	13.08

Map 01_2013 - 7:56pm © 12/12 - Phil Wang\12412-11-001 Smart 05 1 - B5 Phase\05-CAD\05 Construction Package\05 05-1\003 DWG\01A SHEETS\01 Environmental\0305-E0312.dwg

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1009+00 TO 1020+00		AS NOTED CV-DB-11-001
DWG. NO. EV310	MILEPOST 20.8	
SHEET 10 OF 87		

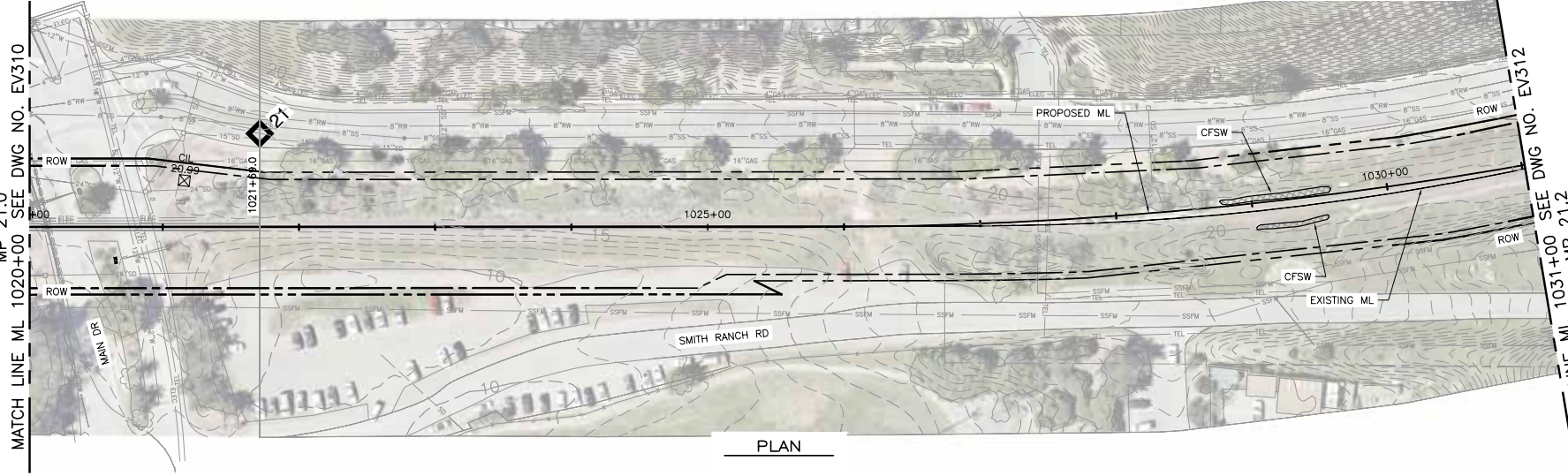
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

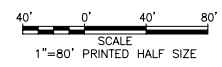


MP 21.0
MATCH LINE ML 1020+00 SEE DWG NO. EV310

MATCH LINE ML 1031+00 SEE DWG NO. EV312
MP 21.2



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV311	UN_WL_1029+00	CFSW	PERM	342	Trackwork													
EV311	UN_WL_1029+50	CFSW	PERM	179	Trackwork													

Map 01_01_2013 7:27pm C:\12412 - rpl Mwp\12412-11-001 Smart\05 1 - Bld Phase\05-CAVUS Construction Package\05 1-1003 DWG\04 SHEETS\01 Environmental\003-EV312.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV3103-EV312.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1020+00 TO 1031+00		AS NOTED CV-DB-11-001
DWG. NO. EV311	MILEPOST 21.0	
SHEET 11 OF 87		

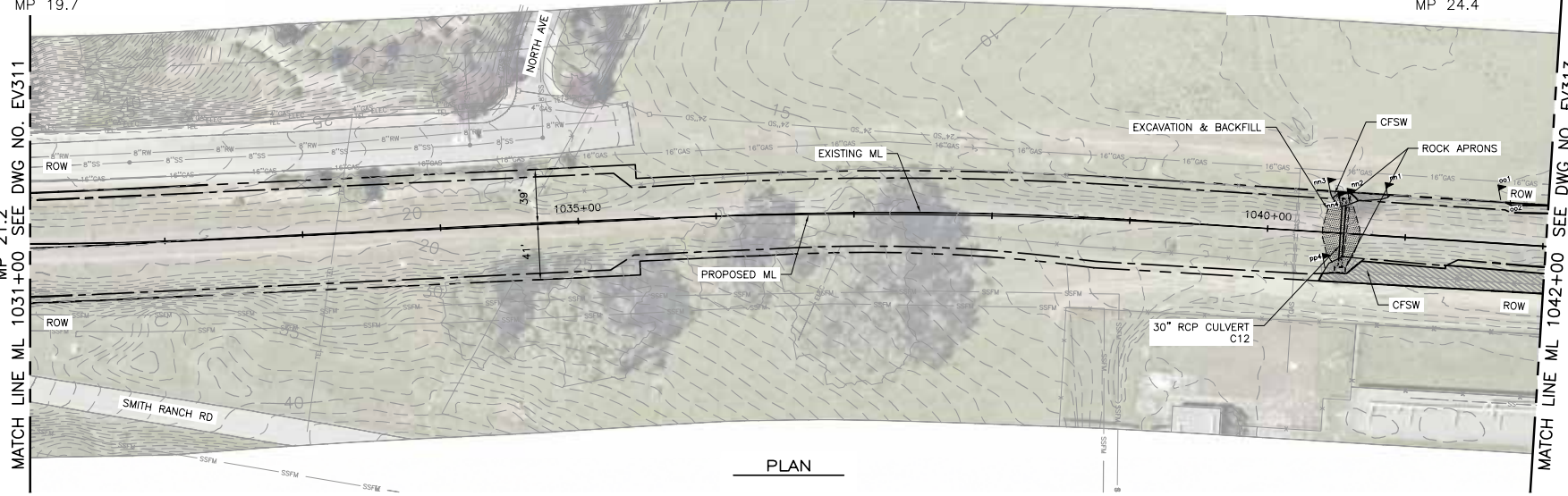
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

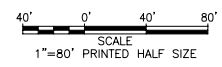


MP 21.2
MATCH LINE ML 1031+00 SEE DWG NO. EV311

MATCH LINE ML 1042+00 SEE DWG NO. EV313
MP 21.4



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV312	nn	CFSW	PERM	121	Culvert	1040+52			1			2.50	4.00	10.00	80.00	31.00		
EV312	pp	CFSW	PERM	221	Culvert	1040+52			1			2.50	4.00	10.00	180.00	31.00		
EV312	pp	CFSW	TEMP	134	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV303-EV312.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1031+00 TO 1042+00		AS NOTED CV-DB-11-001
DWG. NO. EV312	MILEPOST 21.2	
SHEET 12 OF 87		

Map 01_2013 - 7:29pm © 12412 - Intl Mining 12412-11-001 Smart 05 1 - B5 Phase 03-CAD-05 Construction Postings 05 05-1003 DWG (A) SHEETS 301 Environment 0305-E0312.dwg

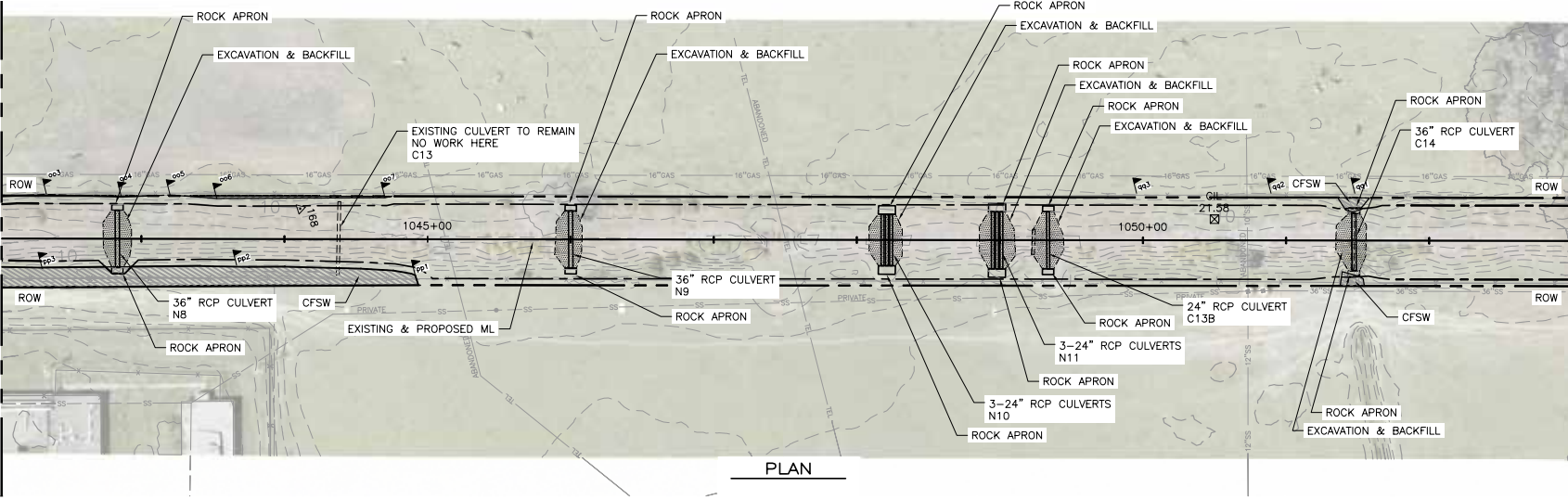
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

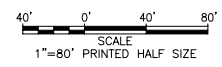


MP 21.4
MATCH LINE ML 1042+00 SEE DWG NO. EV312

MATCH LINE ML 1053+00 SEE DWG NO. EV314
MP 21.6



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV313	pp	CFSW	PERM	63	Culvert	1042+81			1			3.00	1.00	3.00	29.00	31.00		
EV313	qq	CFSW	PERM	22	Culvert	1051+45			1			3.00	0.00	0.00	4.00	18.00		
EV313	qq	CFSW	PERM	27	Culvert	1051+45			1			3.00	0.00	0.00	16.00	11.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg	
PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 1042+00 TO 1053+00		AS NOTED	CV-DB-11-001
DWG. NO. EV313	MILEPOST 21.4	SHEET 13 OF 87	

Map 01_2013 - 7.dwg © 12/12 - Phil Phelps\12412-11-001 Smart\05 1 - B5 Phase\06-CAD\05 Construction Postings\05 05-1003.dwg\A4_SHEET\301_Environment\0313-EV322.dwg

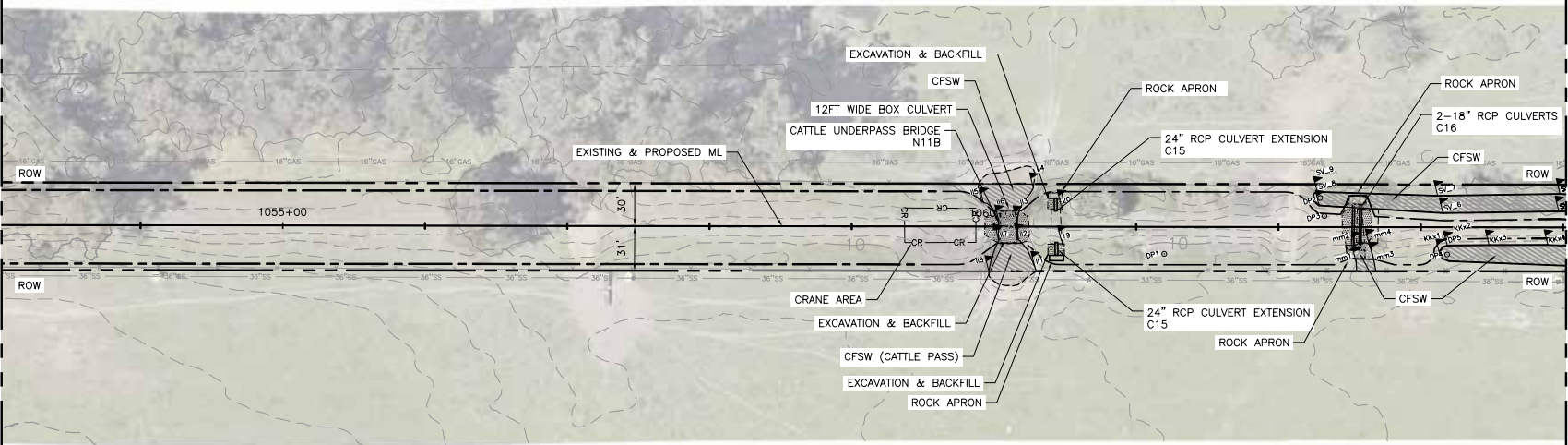
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

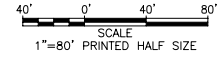


MP 21.6
MATCH LINE ML 1053+00 SEE DWG NO. EV313

MATCH LINE ML 1064+00 SEE DWG NO. EV315
MP 21.8



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV314	ii	CFSW	PERM	133	Culvert	1062+55			2			1.50	2.00	3.00	60.00	70.00		
EV314	iii	CFSW	PERM	323	Box Culvert	1060+08			1	12.00	7.00		23.00	270.00	53.00	0.00		
EV314	mm	CFSW	PERM	182	Culvert	1062+55			2			1.50	8.00	12.00	100.00	70.00		

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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MAY 3, 2013

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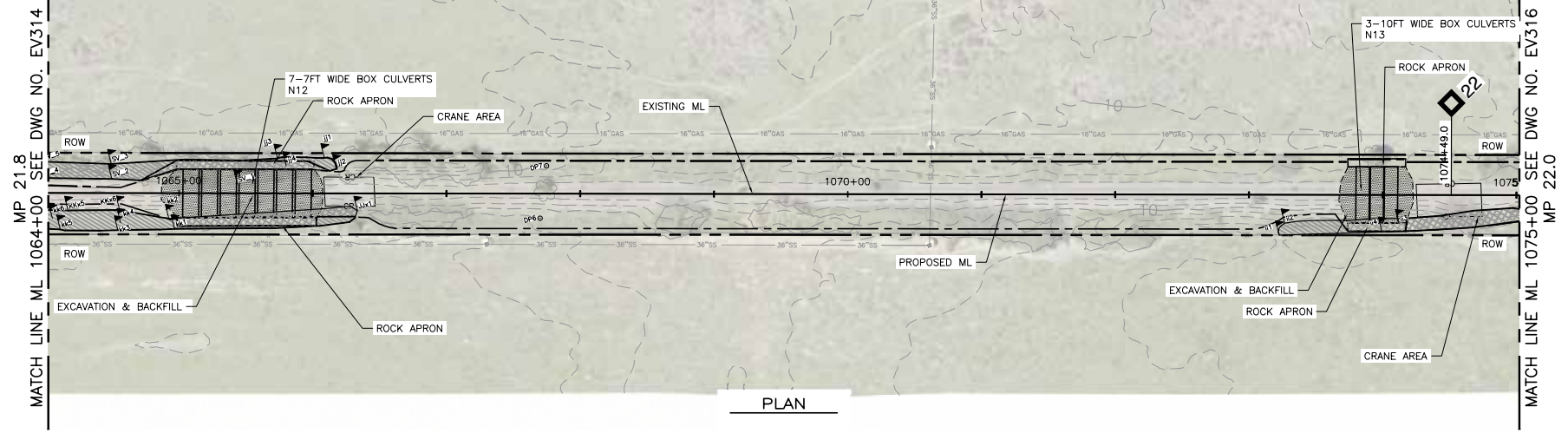
IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
ML STA 1053+00 TO 1064+00
SHEET 14 OF 87

CADD FILENAME
EV313-EV322.dwg
SCALE
AS NOTED
CONTRACT NO.
CV-DB-11-001
DWS. NO.
EV314
MILEPOST
21.6

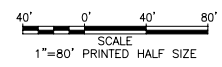
Map 01_01_2013 - 7:56pm @ 12412 - Inpl Win9x\12412-11-001 Smart 05 1 - B5 Phase\06-CAD\05 Construction Postings\05 05-1\003 DWG\A\A SHEETS\301 Environment\0313-EV022.dwg

TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV315	ii	CFSW	PERM	425	Box Culvert	1073+96			3	10.00	3.00		3.00	95.00	95.00	235.00		
EV315	ii	CFSW	PERM	737	Box Culvert	1065+51			7	7.00	2.00		1.00	1.00	367.00	369.00		
EV315	kk	CFSW	PERM	1142	Box Culvert	1065+51			7	7.00	2.00		1.00	272.00	501.00	369.00		
EV315, EV316	ii	CFSW	PERM	940	Trackwork													

Map 01_2013 - 7:50pm © 1/24/12 - Phil Wang\12412-11-001 Smart\05 1 - B5 Phase\06-CAD\05 Construction\05 05-1\003 DWG\04 SHEETS\01 Environmental\013-1022.dwg

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg	
PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 1064+00 TO 1075+00		AS NOTED	CV-DB-11-001
DWG. NO. EV315	MILEPOST 21.8	SHEET 15 OF 87	

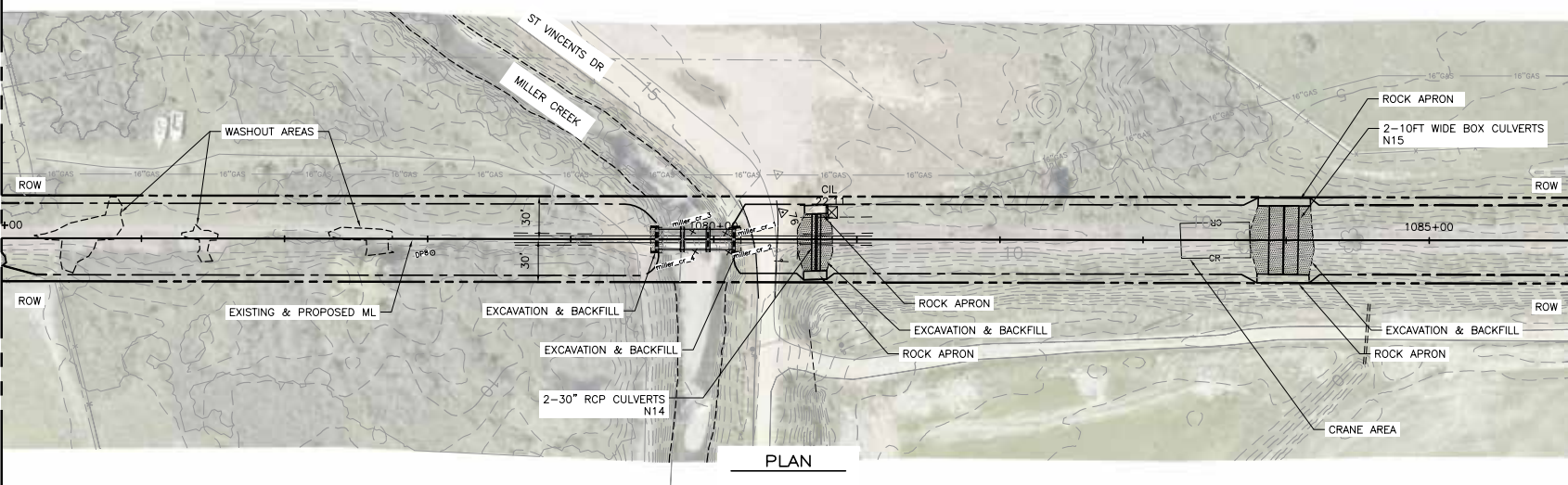
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

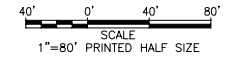


MP 22.0
MATCH LINE ML 1075+00 SEE DWG NO. EV315

MATCH LINE ML 1086+00 SEE DWG NO. EV317
MP 22.2



NOTE: FOR ADDITIONAL IMPACTS AT MILLER CREEK SEE BRIDGE SUPPLEMENTAL PACKAGE.



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV315, EV316	ii	CFSW	PERM	940	Trackwork													
EV316	Miller_cr	OW	PERM	13.08	Bridge			1079+90									6	13.08
EV316	Miller_cr	OW	TEMP	946	Bridge			1079+90										

Map 01_2013 - 7:52pm © 1/24/12 - Inpl Win95\12412-11-001 Smart 05 1 - B5 Phase\06-CAD\05 Construction Package\05 05-1\003 DWG\04 SHEETS\01 - Environment\013-E022.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



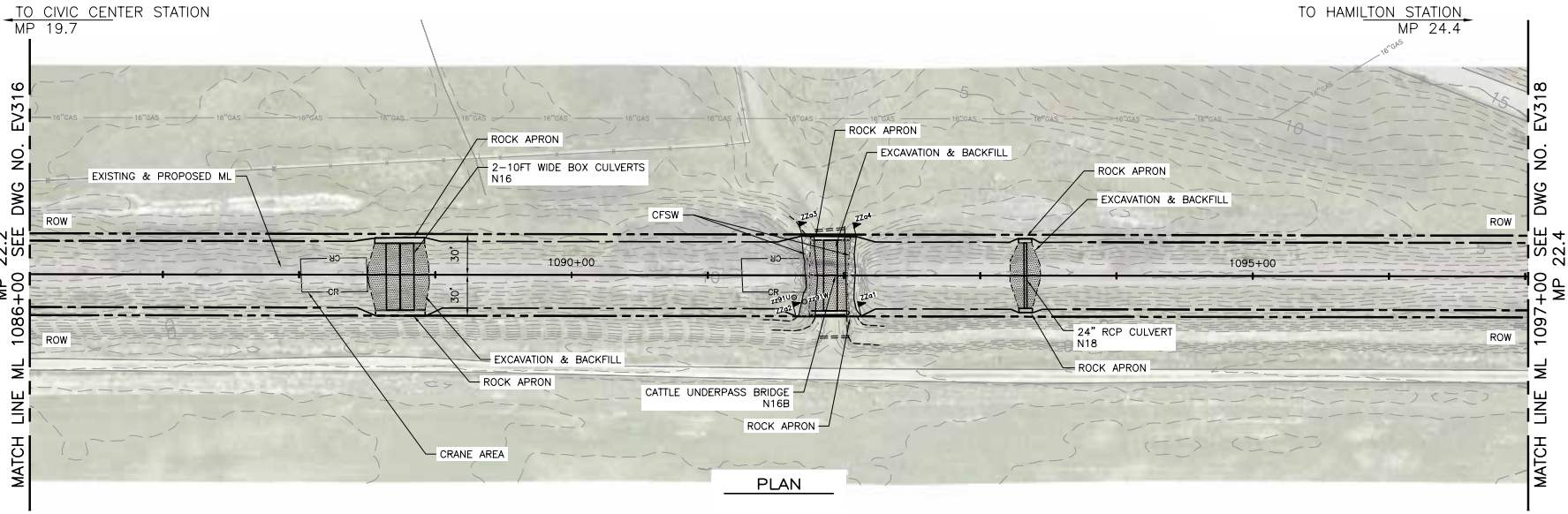
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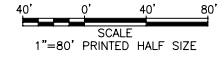


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg	
PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 1075+00 TO 1086+00		AS NOTED	CV-DB-11-001
DWG. NO. EV316	MILEPOST 22.0	SHEET 16 OF 87	

Map 01_2013 - 7:53pm © 1/24/12 - Phil Wang\12412-11-001\SMART_05 1 - B5 Phase\06-CAV\05 Construction\Package\05 05-1\003 DWG\CA SMART\301 Environmental\013-E022.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV317	Cattle Pass (MP 22.32)	CFSW	PERM	545	Box Culvert	1091+90			1	10.00	7.00		0.00	0.00	515.00	30.00		
EV317	Cattle Pass (MP 22.32)	CFSW	PERM	399	Box Culvert	1091+90			1	10.00	7.00		0.00	0.00	369.00	30.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



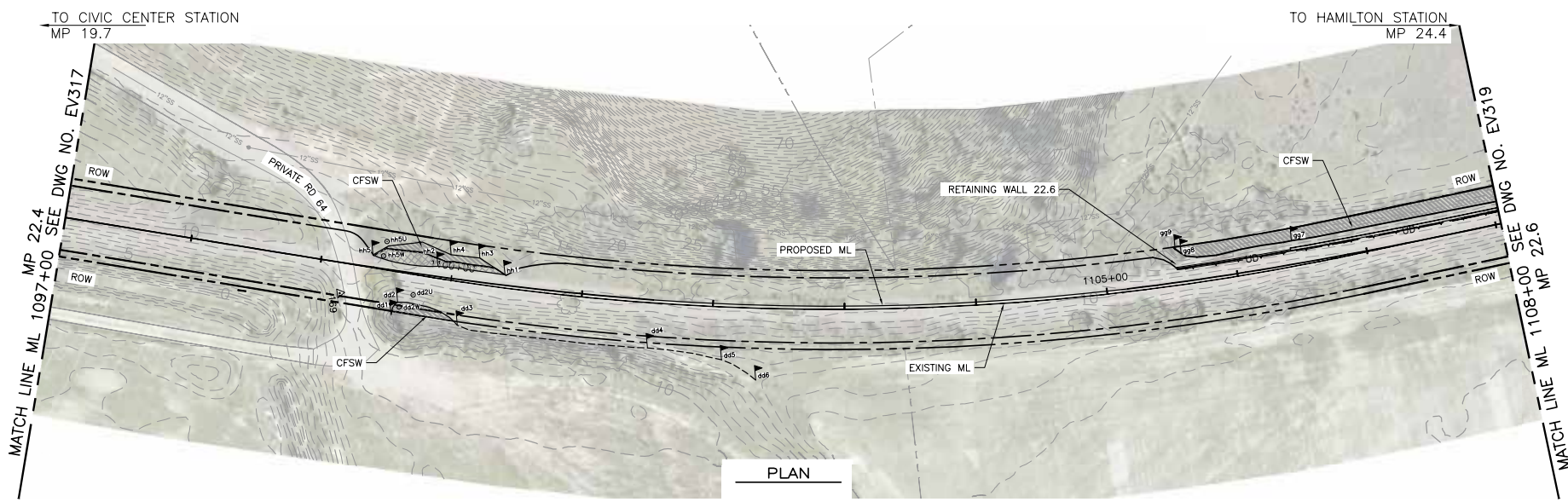
PREPARED BY
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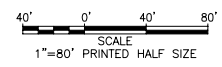


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1086+00 TO 1097+00		AS NOTED CV-DB-11-001
DWG. NO. EV317	MILEPOST 22.2	
SHEET 17 OF 87		

Map 01_01_2013 - 7:55pm @ 12412 - Inpl Win9x\2412-11-001 2MAY 05 1 - B5 Plasm\06-CAD\05 Construction Postings\05 05-1\003 DWG\CA SMART\301 Environmental\013-EV022.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV318	dd	CFSW	PERM	88	Trackwork													
EV318	hh	CFSW	PERM	635	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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DATE
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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1097+00 TO 1108+00		AS NOTED CV-DB-11-001
SHEET 18 OF 87		DWG. NO. MILEPOST
EV318	22.4	

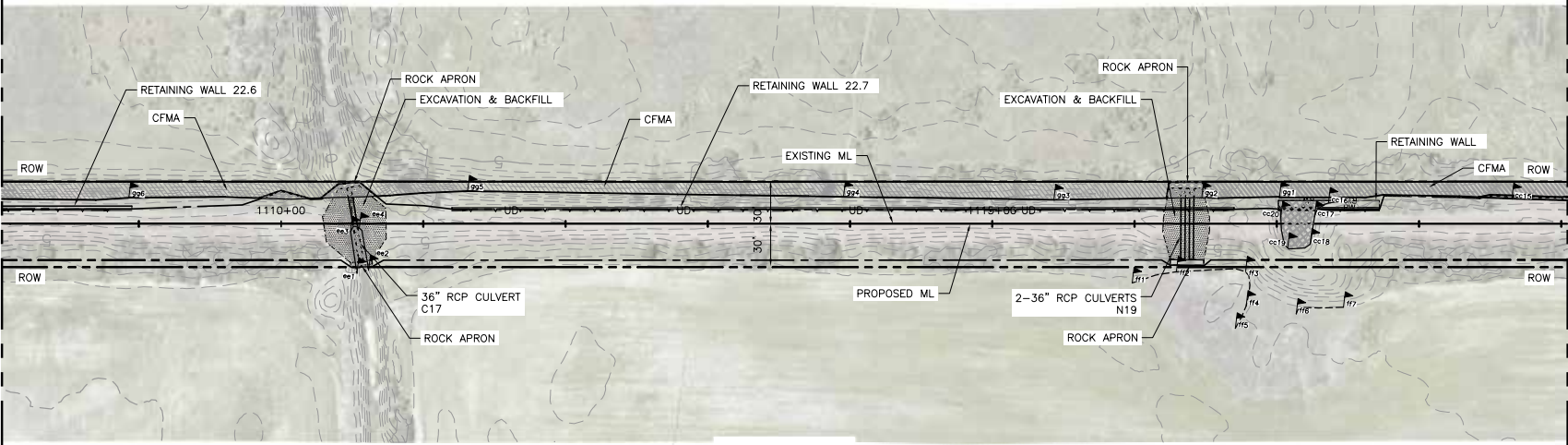
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

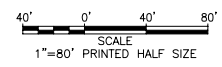


MP 22.6
MATCH LINE ML 1108+00 SEE DWG NO. EV318

MATCH LINE ML 1119+00 SEE DWG NO. EV320
MP 22.8



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV319	cc	CFMA	PERM	796	Trackwork													
EV319	cc	CFMA	PERM	107	Wall		1117+25											
EV319	cc	CFMA	PERM	226	Culvert	1110+47			1			3.00	25.00	74.00	121.00	31.00		
EV319	cc	CFMA	PERM	265	Culvert	1110+47			1			3.00	6.00	18.00	216.00	31.00		
EV319	cc	CFMA	PERM	293	Culvert	1116+37			2			3.00	6.00	18.00	220.00	55.00		
EV319	cc	CFMA	PERM	108	Trackwork													
EV319, EV320	cc	CFMA	PERM	399	Trackwork													

Map 01_2013 - 7:52pm © 1/24/12 - Phil Wang\2412-11-001 Smart\05 1 - 05 Phase\05-CAD\05 Construction\05 05-1\003 DWG\04 SHEETS\01 - E022.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
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DRAWN BY
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IN CHARGE
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DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg
PROPOSED CONDITION		SCALE
ML STA 1108+00 TO 1119+00		CONTRACT NO. CV-DB-11-001
SHEET 19 OF 87		DWG. NO. EV319
		MILEPOST 22.6

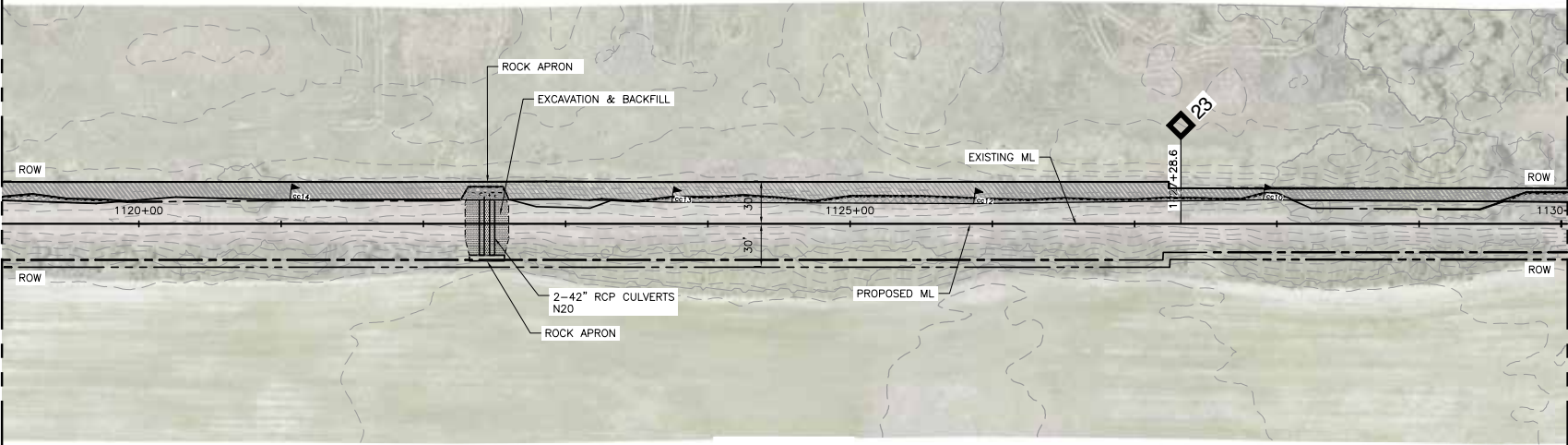
TO CIVIC CENTER STATION
MP 19.7

TO HAMILTON STATION
MP 24.4

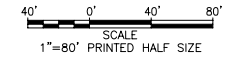


MP 22.8
MATCH LINE ML 1119+00 SEE DWG NO. EV319

MATCH LINE ML 1130+00 SEE DWG NO. EV321
MP 23.1



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV319, EV320	cc	CFMA	PERM	399	Trackwork													
EV320	cc	CFMA	PERM	266	Culvert	1122+43			2			3.50	4.00	14.00	192.00	60.00		
EV320	cc	CFMA	PERM	1560	Trackwork													
EV320, EV321	cc	CFMA	PERM	456	Trackwork													

Map 01_01_2013 - 7:59pm @ 12412 - Inpl Win9x\2412-11-001 2412.dwg 1 - B5 Phase\06-CAD\05 Construction\05-05-11\003 DWG\A4 SHEETS\301 Environmental\013-1022.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



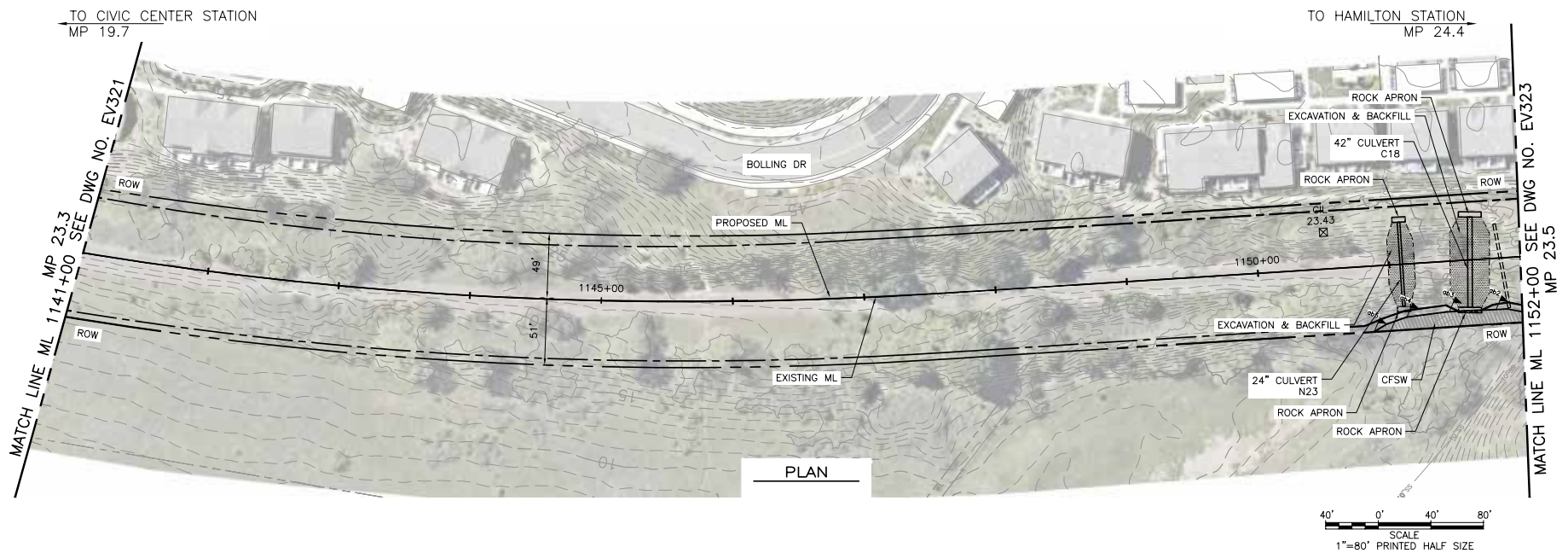
PREPARED BY
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C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1119+00 TO 1130+00		AS NOTED CV-DB-11-001
DWG. NO. EV320	MILEPOST 22.8	
SHEET 20 OF 87		

Map 01_2013 - 8/22pm © 1/24/12 - Phil Wang\12412-11-001 Smart 05 1 - B5 Phase\05-CAVUS Construction Postings\05 05-1\003 DWG\CAVUS_SHEETS\301 Environmental\013-EV322.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV322	ab	CFSW	PERM	24	Culvert	1151+57			1			3.50	0.00	0.00	0.00	24.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



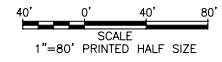
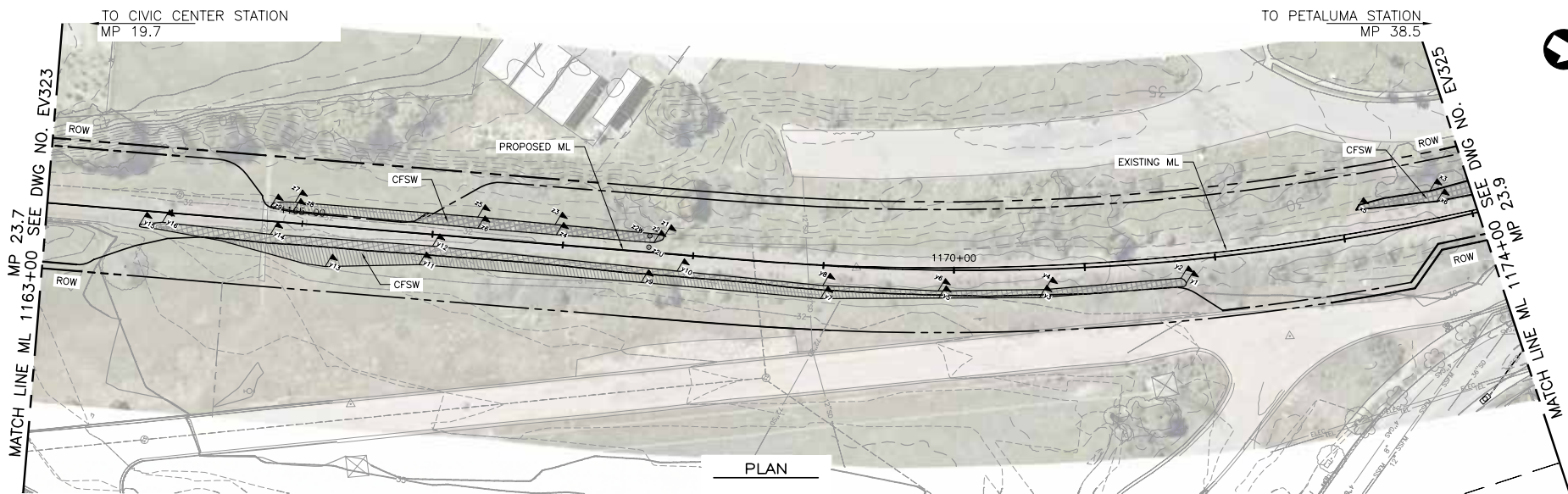
PREPARED BY
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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV313-EV322.dwg
PROPOSED CONDITION		SCALE
ML STA 1141+00 TO 1152+00		CONTRACT NO. CV-DB-11-001
SHEET 22 OF 87		DWG. NO. EV322
		MILEPOST 23.3

Map 01_01_2013 - 8:11pm © 1/24/12 - Phil Wang\12412-11-001 Smart\05 1 - B5 Phase\05-CAD\05 Construction\05-05-1003 DWG\04 SHEETS\01 Environmental\0323-EV323.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV324	v	CFSW	PERM	4198	Trackwork													
EV324	z	CFSW	PERM	1437	Trackwork													
EV324, EV325	x	CFSW	PERM	1106	Trackwork													

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



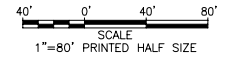
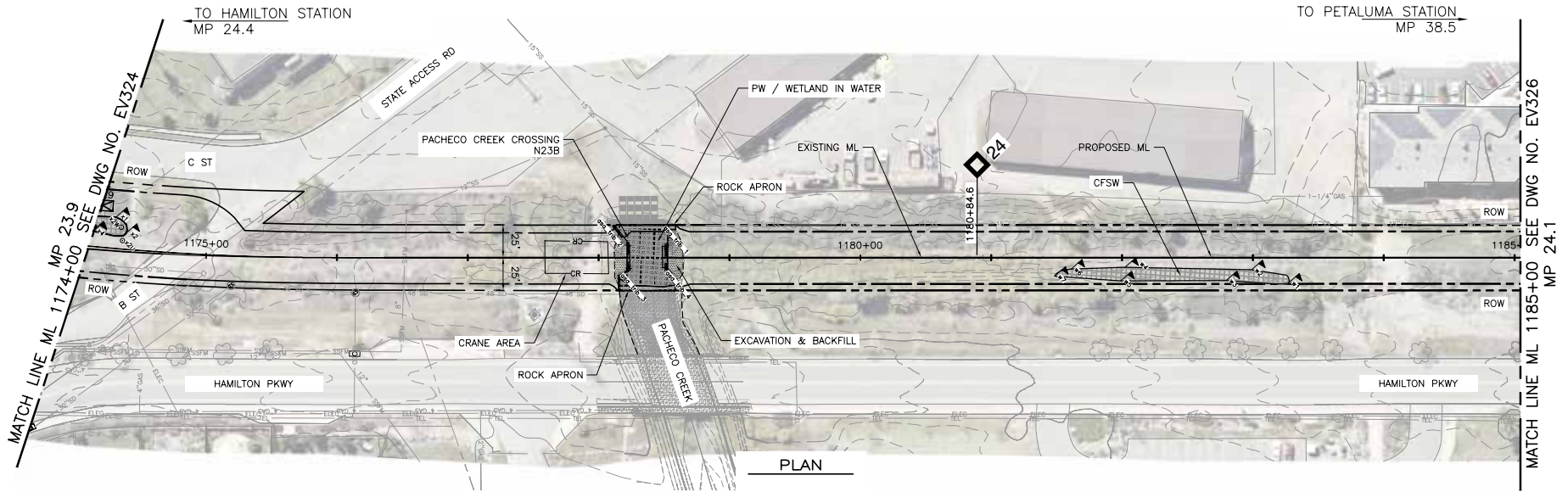
PREPARED BY
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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV323-EV332.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1163+00 TO 1174+00		AS NOTED CV-DB-11-001
DWG. NO. EV324	MILEPOST 23.7	
SHEET 24 OF 87		

Map 01_2013 - 8:33pm © 1/24/12 - Infil Mining\12412-11-001\SMART_05 1 - B51 Phase\04-CAD\05 Construction\Package\05 05-1\003_DWG\04_SHEET\301_Environment\0323-EV323.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV324, EV325	x	CFSW	PERM	1106	Trackwork													
EV325	Pacheco Creek	PWINWATER	PERM	1247	Box Culvert	1178+33			3	10.00	3.00		44.00	1131.00	116.00	0.00		
EV325	Pacheco Creek	PWINWATER	PERM	198	Box Culvert	1178+33			3	10.00	3.00		1.50	50.00	1.00	147.00		
EV325	Pacheco Creek	PWINWATER	PERM	189	Box Culvert	1178+33			3	10.00	3.00		0.50	6.00	36.00	147.00		
EV325	w	CFSW	PERM	1549	Trackwork													

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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G. NAKANO
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MAY 3, 2013

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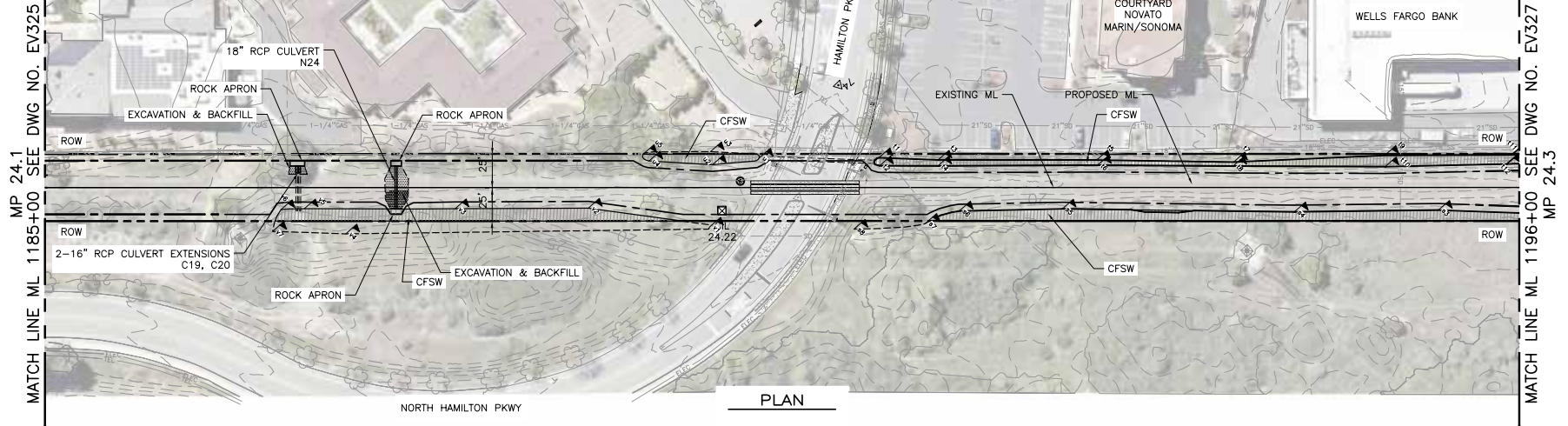


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV323-EV332.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1174+00 TO 1185+00		AS NOTED CV-DB-11-001
DWG. NO. EV325	MILEPOST 23.9	
SHEET 25 OF 87		

Map 01_2013 - 8:55pm © 1/24/12 - Phil Wang\12412-11-001\DWG\05 1 - B5 Phase\05-CAD\05 Construction\Postings\05 05-1\003 DWG\04 SHEETS\01 Environmental\0326-EV326.dwg

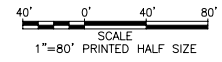
TO HAMILTON STATION
MP 24.4

TO PETALUMA STATION
MP 38.5



MP 24.1
MATCH LINE ML 1185+00 SEE DWG NO. EV325

MATCH LINE ML 1196+00 SEE DWG NO. EV327
MP 24.3



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV326	v	CFSW	PERM	41	Culvert	1187+63			1			1.50	1.00	1.50	8.50	31.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV323-EV332.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1185+00 TO 1196+00		DWG. NO. MILEPOST EV326 24.1
SHEET 26 OF 87		

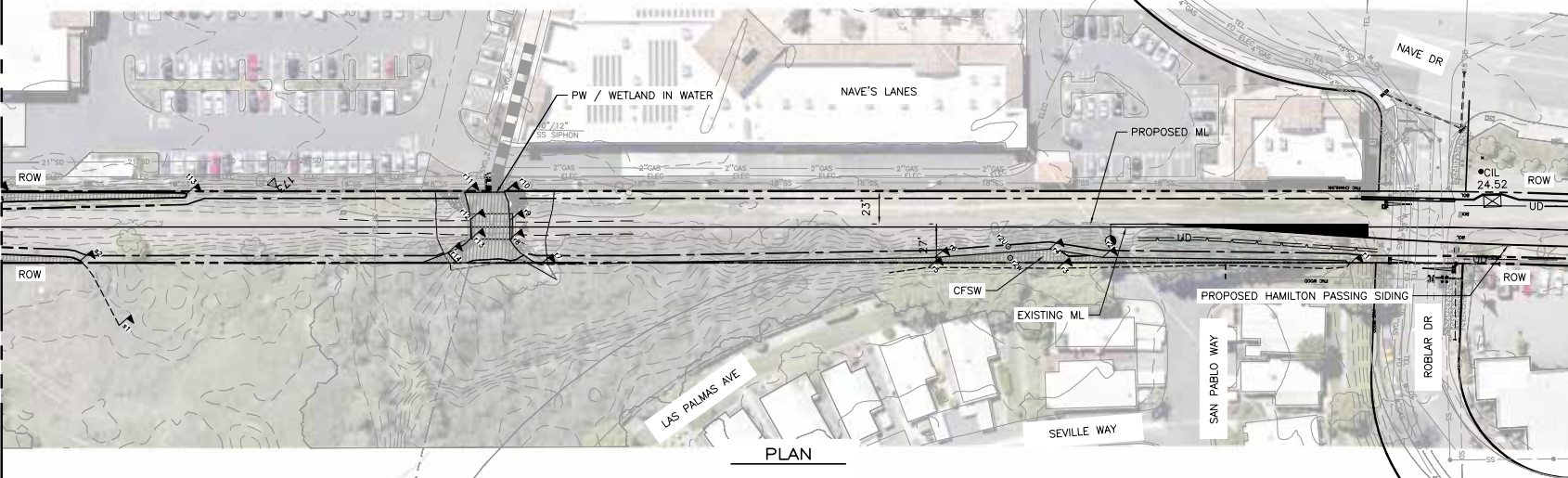
Map 01_2013 - 8:56pm 01/24/12 - P:\M\Map\12412-11-001 Smart.dwg 1 - B5 Phase\06-CAV\05 Construction Postings\05_05-1003_DWG\04_SHEETS\01_Environment\0327-EV326.dwg

TO HAMILTON STATION
MP 24.4

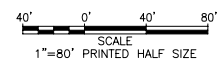
TO PETALUMA STATION
MP 38.5

MP 24.3
MATCH LINE ML 1196+00 SEE DWG NO. EV326

MATCH LINE ML 1207+00 SEE DWG NO. EV328
MP 24.5



PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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MAY 3, 2013

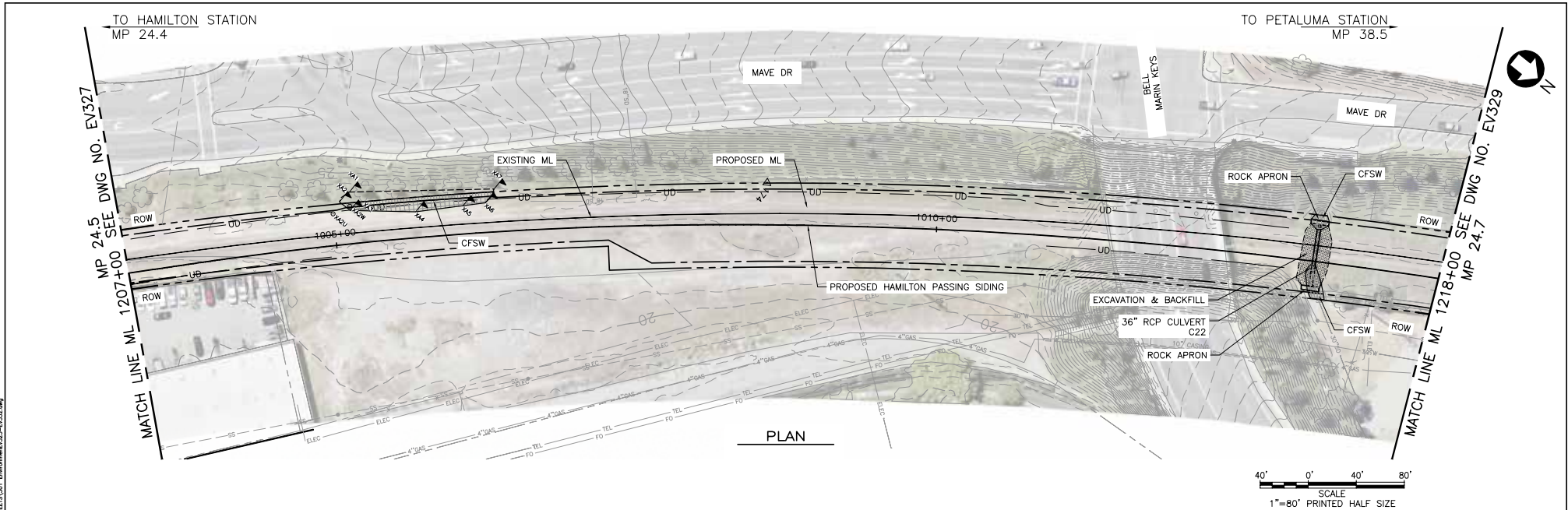
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IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
ML STA 1196+00 TO 1207+00
SHEET 27 OF 87

CADD FILENAME EV323-EV332.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV327	MILEPOST 24.3

Map 01_2013 - 8:58pm © 12/12 - Phil Wang\1212-11-001 Smart\05 1 - B5 Phase\05-CA\05 Construction Postings\05 05-1003 DWG\CA_SHEETS\301 Environmental\05-1003.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV328	UN_WL_1217+00	CFSW	PERM	215	Culvert	1216+95			1			3.00	16.00	48.00	136.00	31.00		
EV328	UN_WL_1217+00	CFSW	PERM	90	Culvert	1216+95			1			3.00	2.00	6.00	53.00	31.00		
EV328	XA	CFSW	PERM	734	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



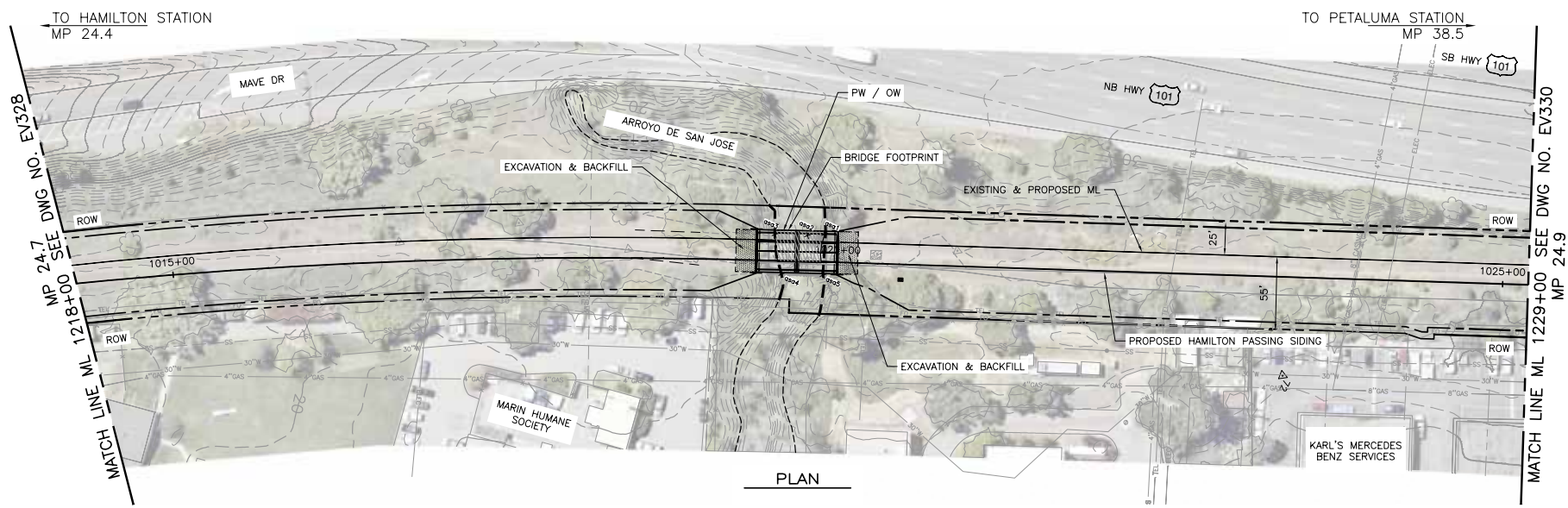
PREPARED BY
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MAY 3, 2013

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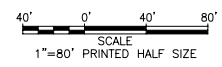


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV323-EV332.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1207+00 TO 1218+00		DWG. NO. MILEPOST EV328 24.5
SHEET 28 OF 87		

Map 01_2013 - 8:20pm @ 12412 - Phil Wang\12412-11-001\SMART_05 1 - B5 Phase\01-CAD\05 Construction Package\05 05-1\003 DWG\CA SHEETS\01 - Environmental\0329-EV329.dwg



NOTE: FOR ADDITIONAL IMPACTS AT SAN JOSE CREEK SEE BRIDGE SUPPLEMENTAL PACKAGE.



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV329	Arroyo De San Jose (asa)	PW/OW	PERM	13.08	Bridge			1223+50									6	13.08
EV329	Arroyo De San Jose (asa)	PW/OW	TEMP	976	Bridge			1223+50										

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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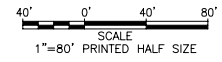
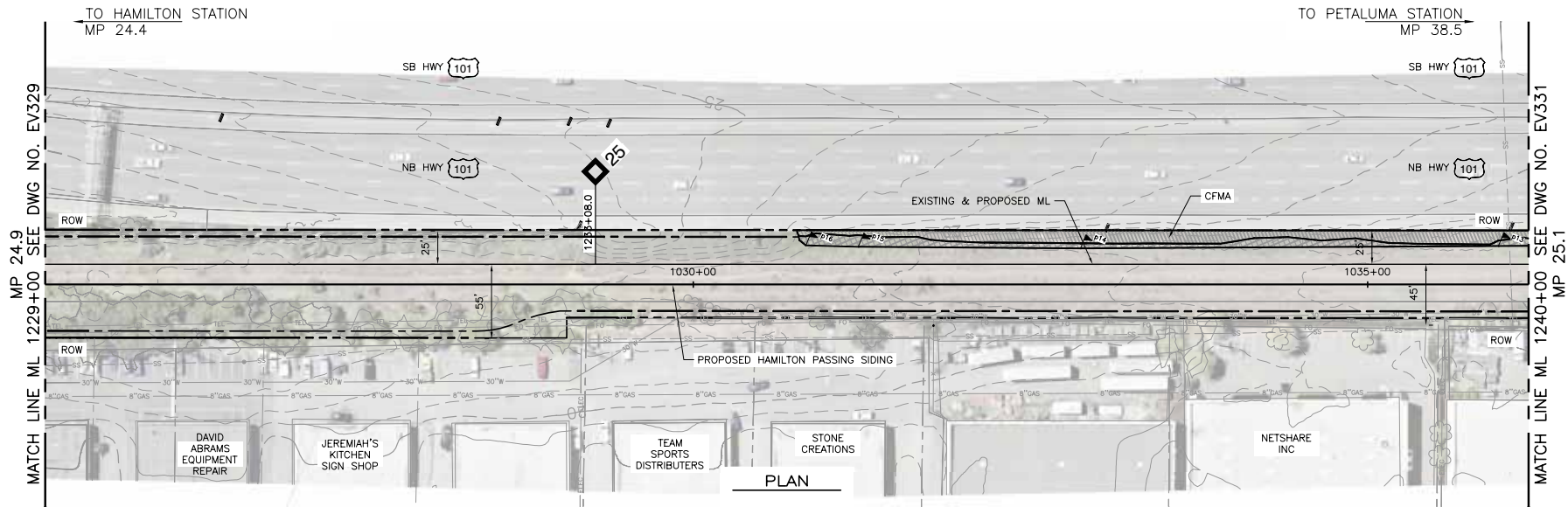
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IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
ML STA 1218+00 TO 1229+00
SHEET 29 OF 87

CADD FILENAME
EV323-EV332.dwg
SCALE
AS NOTED
CONTRACT NO.
CV-DB-11-001
DWS. NO.
EV329
MILEPOST
24.7

Map 01_2013 - 8:21pm @ 12412 - Phil Wang\12412-11-001 Smart\05 1 - 85 Phase\05-CAD\05 Construction Postings\05 05-1\003 DWG\CA SMART\0301 Environmental\0303-EV332.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV330, EV331	p	CFMA	PERM	2876	Trackwork													

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



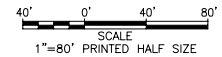
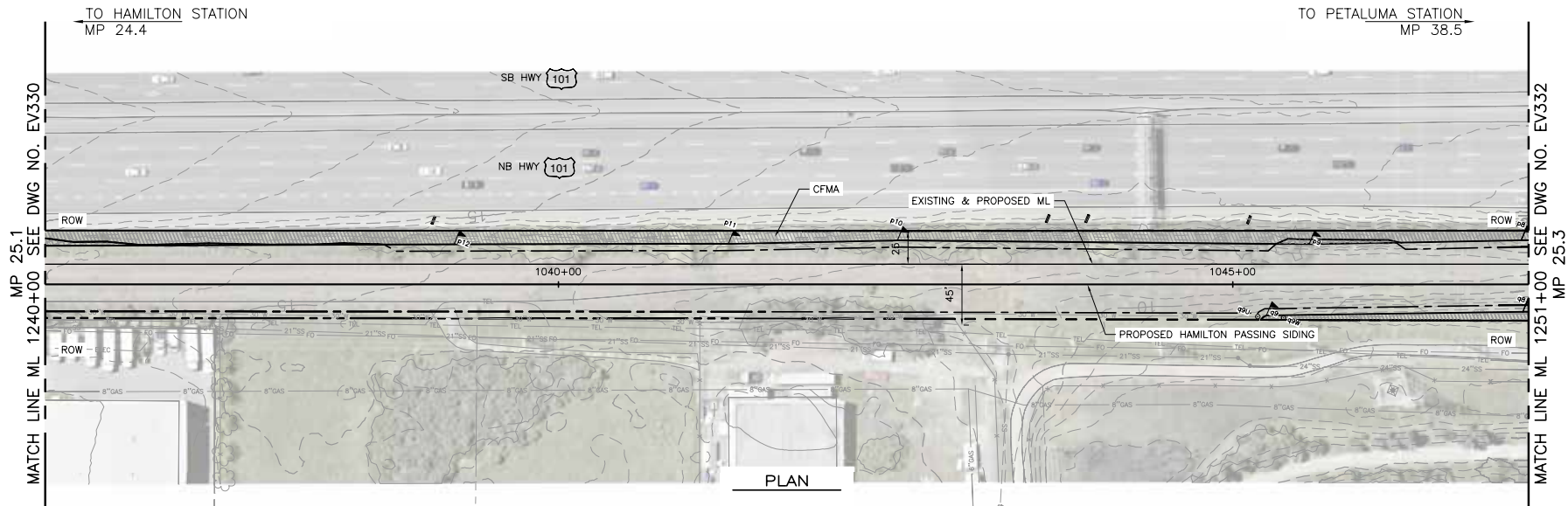
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DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV323-EV332.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1229+00 TO 1240+00		AS NOTED CV-DB-11-001
DWG. NO. EV330	MILEPOST 24.9	
SHEET 30 OF 87		

Map 01_2013 - 8:23pm © 12/12 - Phil Wang\12412-11-001 Smart\05 1 - B5 Phase\05-CAVUS Construction Postings\05 05-1\003 DWG\CAVUS\SMART\051 - EV331.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV331	p	CFMA	PERM	255	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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MAY 3, 2013

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NOT FOR CONSTRUCTION**



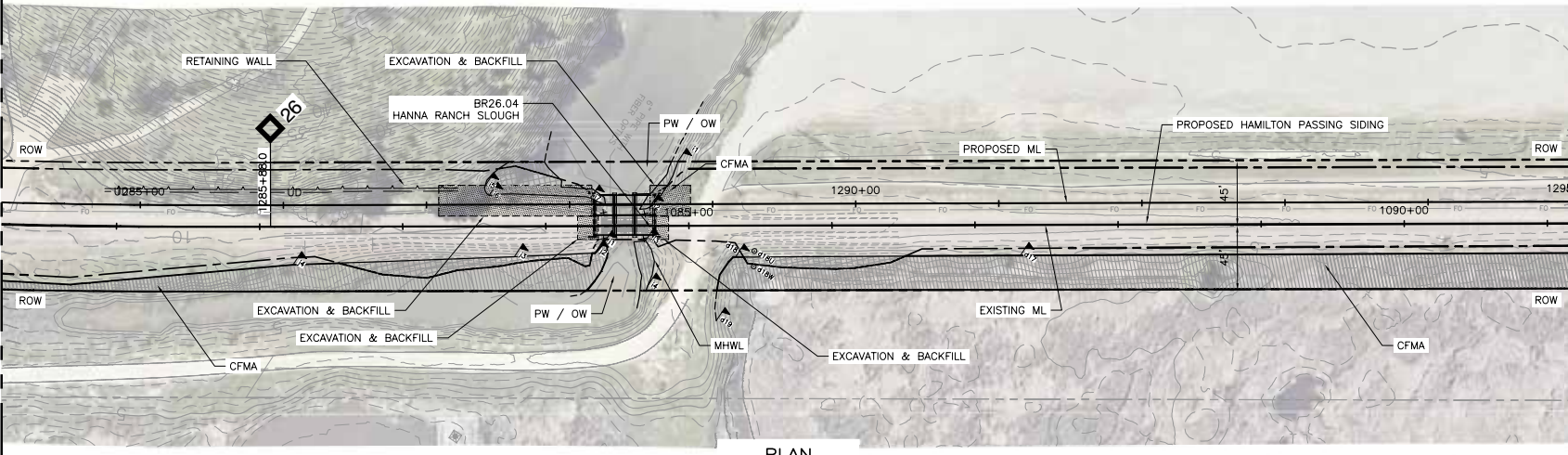
IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV323-EV332.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. CV-DB-11-001
ML STA 1240+00 TO 1251+00		DWG. NO. EV331
SHEET 31 OF 87		MILEPOST 25.1

TO HAMILTON STATION
MP 24.4

TO PETALUMA STATION
MP 38.5

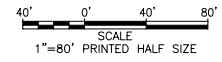
MP 26.0
MATCH LINE ML 1284+00 SEE DWG NO. EV334

MATCH LINE ML 1295+00 SEE DWG NO. EV336
MP 26.2



PLAN

NOTE: FOR ADDITIONAL IMPACTS AT HANNA RANCH SLOUGH SEE BRIDGE SUPPLEMENTAL PACKAGE.



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV335	d	CFMA	PERM	735	Trackwork													
EV335	Hanna	PW/OW	PERM	26.16	Bridge			1287+40									12	26.16
EV335	Hanna	PW/OW	TEMP	1606	Bridge			1287+40										
EV335		CFMA	PERM	125	Trackwork													
EV335	i	CFMA	PERM	4.36	Bridge			1287+40									2	4.36
EV335		CFMA	PERM	1022	Trackwork													
EV335	j	CFMA	PERM	1180	Trackwork													

May 02, 2013 - 10:25am G:\12412 - Petaluma\12412-11-001 SMART 05 1 - Bid Phase\10-CAD\IOS Environmental\105-1\001\DWG\10 SHEETS\101 Environmental\105-1\001.dwg
 C:\Users\pborde\Documents\105-1\001\DWG\10 SHEETS\101 Environmental\105-1\001.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



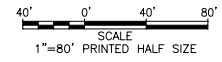
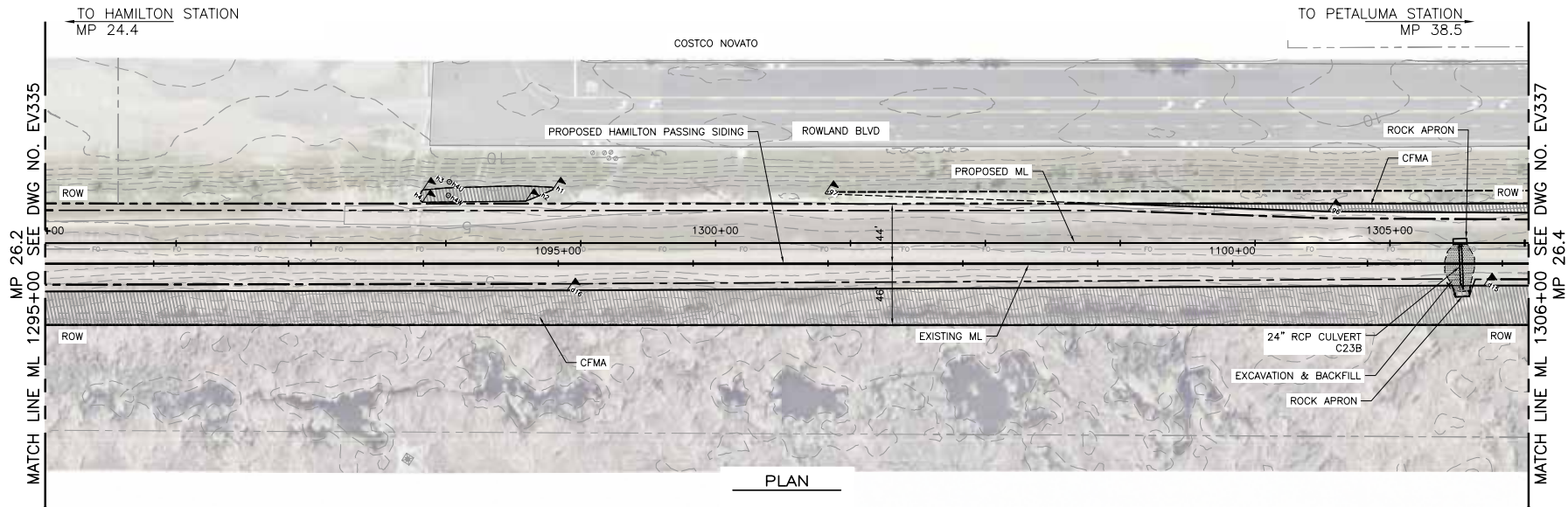
PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

**PRELIMINARY FOR PLANNING/REVIEW
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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1284+00 TO 1295+00		AS NOTED CV-DB-11-001
DWG. NO. EV335	MILEPOST 26.0	
SHEET 35 OF 87		

Map 02_2013 - 10:24am 6/1/2012 - Plan View\12412-11-001 SMART 05 1 - Bid Phase\12-CAD\12 Construction\Permit\05 05-1\001 DND\04 SHEETS\04 Environment\033-042.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV336	d	CFMA	PERM	61	Culvert	1305+80			1			2.00	1.00	2.00	28.00	31.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



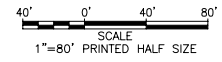
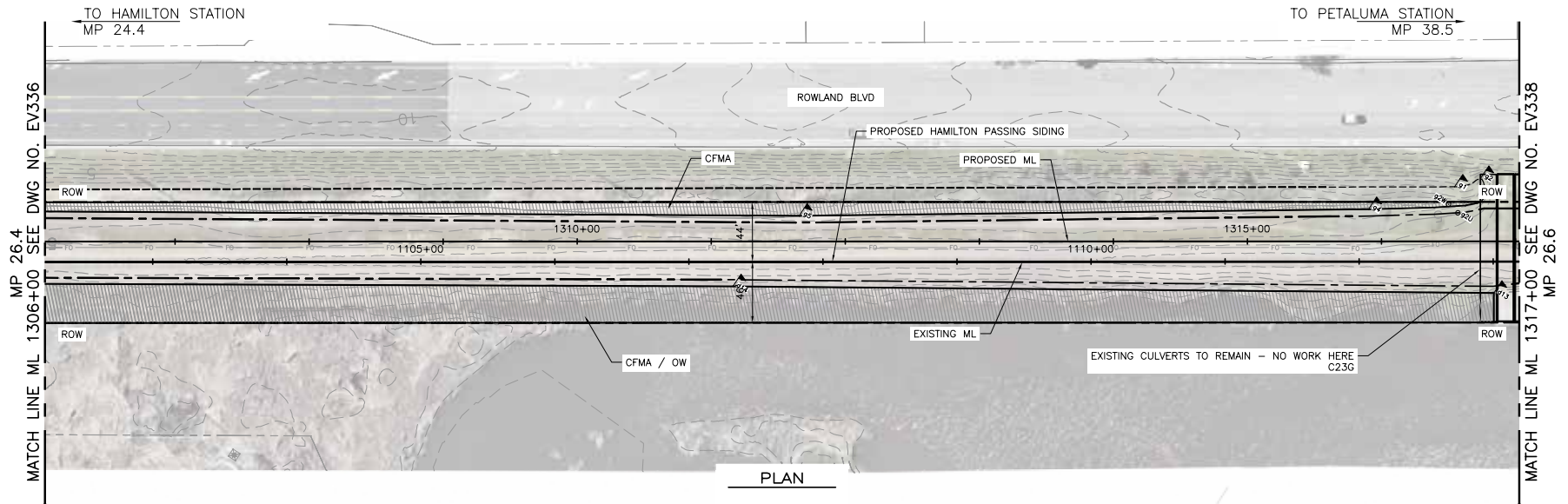
PREPARED BY
C. PHELPS
DRAWN BY
C. PHELPS
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P. BORDENAVE
IN CHARGE
G. NAKANO
DATE
MAY 3, 2013

**PRELIMINARY FOR PLANNING/REVIEW
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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1295+00 TO 1306+00		AS NOTED CV-DB-11-001
DWG. NO. EV336	MILEPOST 26.2	
SHEET 36 OF 87		

Map 02_2013 - 10256m_05\12412 - Plan Work\12412-11-001 SMART 05 1 - Bid Phase\12412-11-001 DND\04 SHEETS\04 Environment\0333-0242.dwg



REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



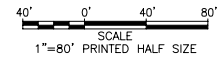
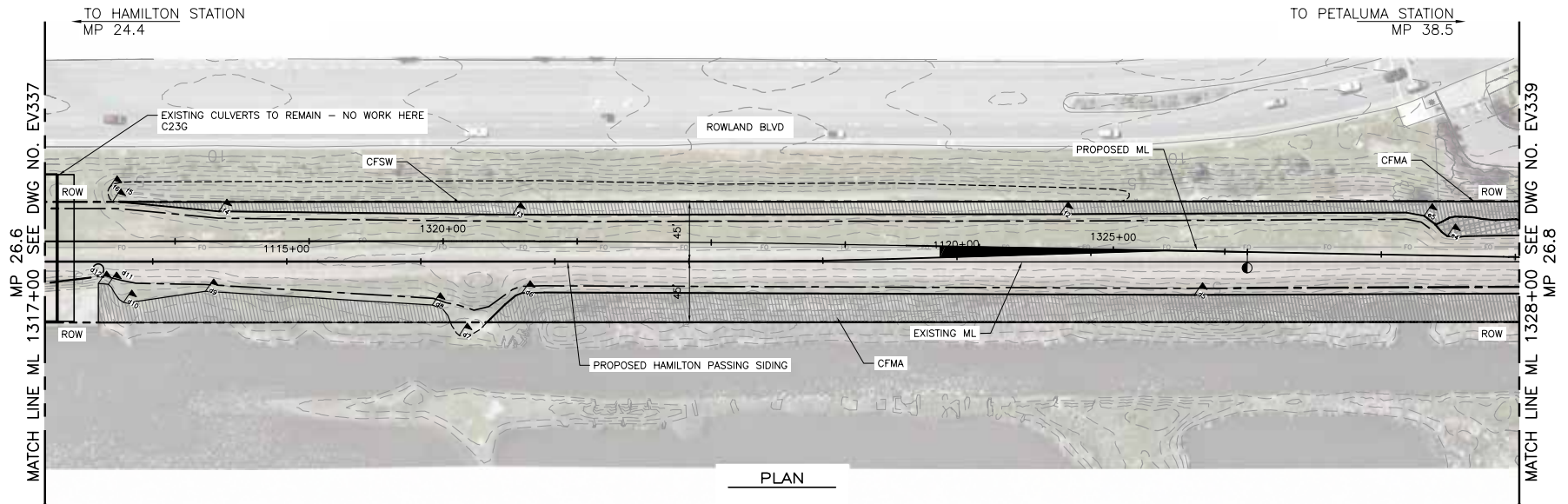
PREPARED BY
C. PHELPS
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C. PHELPS
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P. BORDENAVE
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 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1306+00 TO 1317+00		AS NOTED CV-DB-11-001
DWG. NO. EV337	MILEPOST 26.4	
SHEET 37 OF 87		

Map 02_2013 - 10:29am 05/12/12 - P:\Work\12412-11-001 SMART 05 1 - Bid Phase\12-CAD\12 Construction\Permit\05 05-1\001.DWG\04 SHEETS\04 Environmental\033-0242.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV338, EV339	e	CFMA	PERM	6935	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



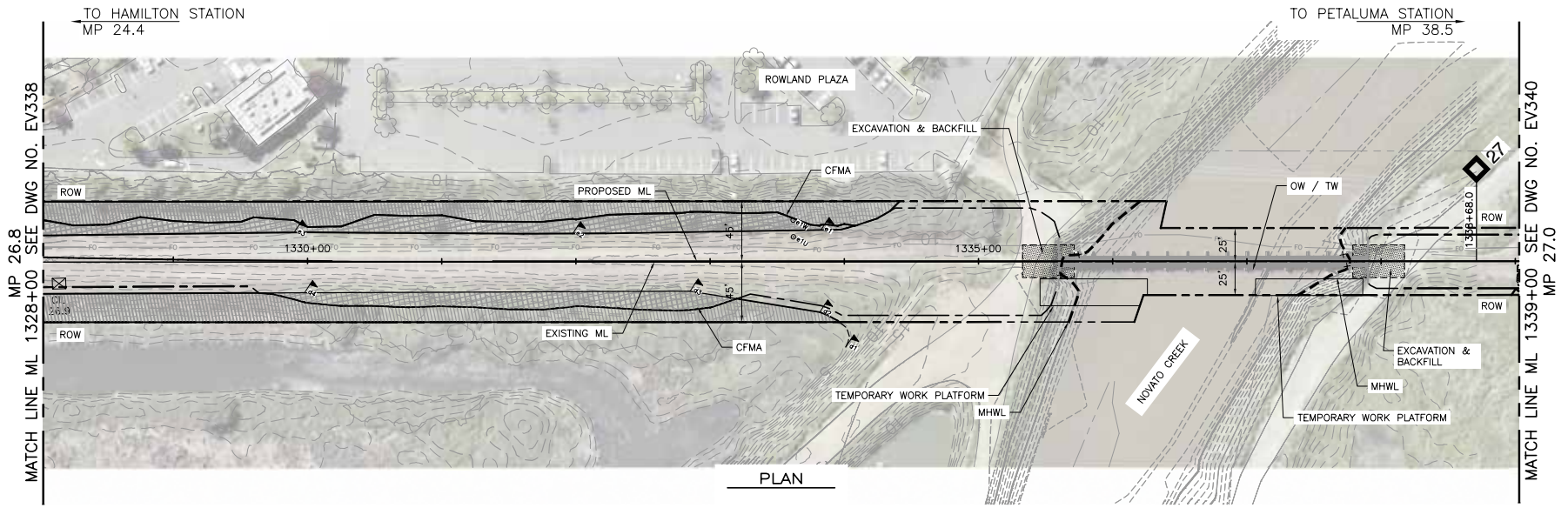
PREPARED BY
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G. NAKANO
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MAY 3, 2013

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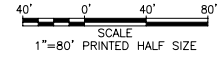


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1317+00 TO 1328+00		AS NOTED CV-DB-11-001
DWG. NO. EV338	MILEPOST 26.6	
SHEET 38 OF 87		

Map 02_2013 - 1023pm 05/12/12 - Plan Novato\1212-11-001 SMART 05 1 - Bid Phase\05-CAD\05 Construction\Permit\05 05-1\001 DND\04 SHEETS\04 Environment\0333-0242.dwg



NOTE: FOR ADDITIONAL IMPACTS AT NOVATO CREEK SEE BRIDGE SUPPLEMENTAL PACKAGE.



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV338, EV339	e	CFMA	PERM	6935	Trackwork													
EV339	d	CFMA	PERM	3692	Trackwork													
EV339	Novato	PW/OW	PERM	78.48	Bridge			1336+90									36	78.48
EV339	Novato	PW/OW	TEMP	227000	Bridge			1336+90										
EV339	Novato	PW/OW	TEMP	120	Bridge			1336+90										

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



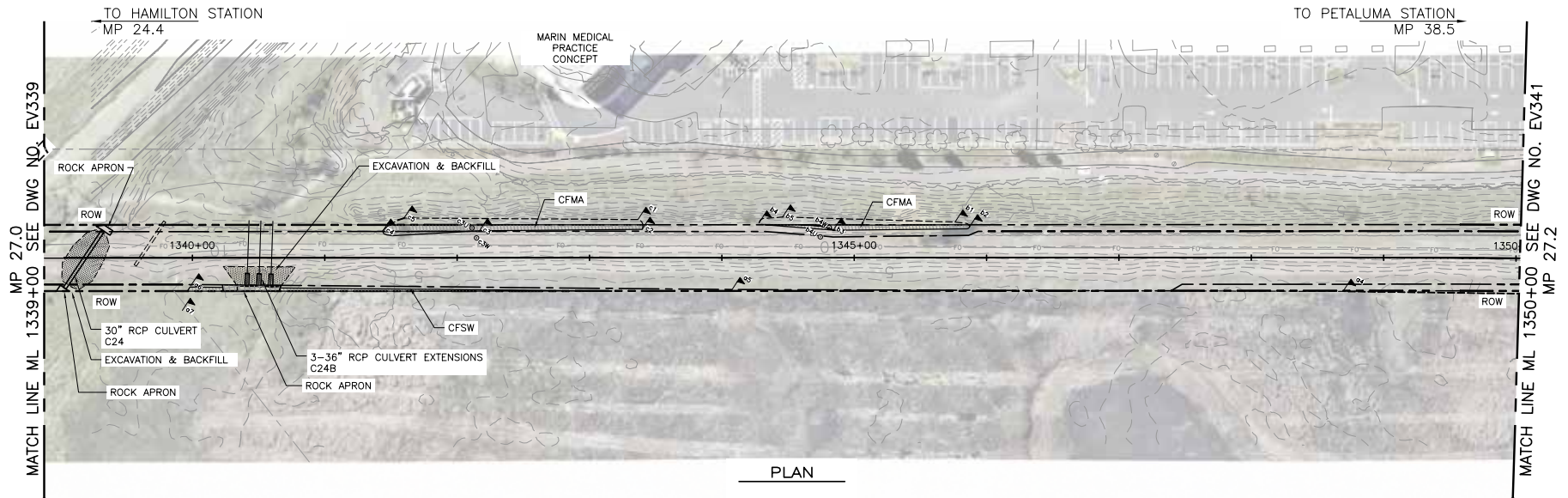
PREPARED BY
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C. PHELPS
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P. BORDENAVE
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G. NAKANO
 DATE
MAY 3, 2013

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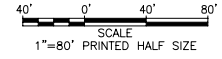


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1328+00 TO 1339+00		AS NOTED CV-DB-11-001
DWG. NO. EV339	MILEPOST 26.8	
SHEET 39 OF 87		

Map 01_2013 - 8.11pm © 12/12 - Phil Wang\12412-11-001 Smart\05 1 - B5 Phase\06-CA\05 Construction\05 05-1\003 DWG\04 SHEETS\01 Environmental\033-EV342.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV340	a	CFSW	TEMP	47	Trackwork													
EV340	a	CFSW	TEMP	642	Trackwork													
EV340	a	CFSW	PERM	200	Culvert	1340+48			3			3.00	1.00	3.00	85.00	112.00		
EV340	a	CFSW	TEMP	187	Trackwork													
EV340	c	CFMA	PERM	111	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



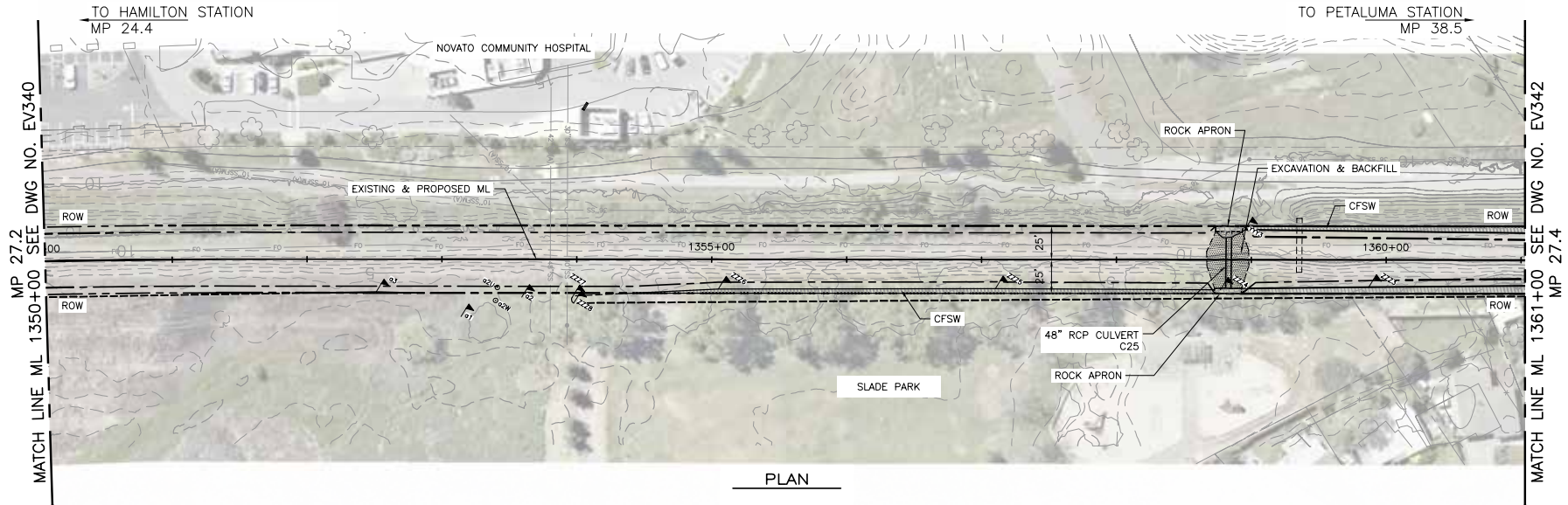
PREPARED BY
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MAY 3, 2013

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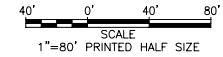


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1339+00 TO 1350+00		AS NOTED CV-DB-11-001
SHEET 40 OF 87		DWG. NO. MILEPOST
EV340	27.0	

Map 01_2013 - 8:42pm © 12/12 - Phil Wang\12412-11-001 Smart\05 1 - B5 Phase\04-CAD\05 Construction\Package\05 05-1\003 DWG\04 SHEETS\01 Environmental\033-EV342.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV341	YYY	CFSW	PERM	145	Culvert	1358+80			1			4.00	4.00	16.00	21.00	108.00		
EV341	ZZZ	CFSW	PERM	89	Culvert	1358+80			1			4.00	0.00	0.00	9.00	80.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



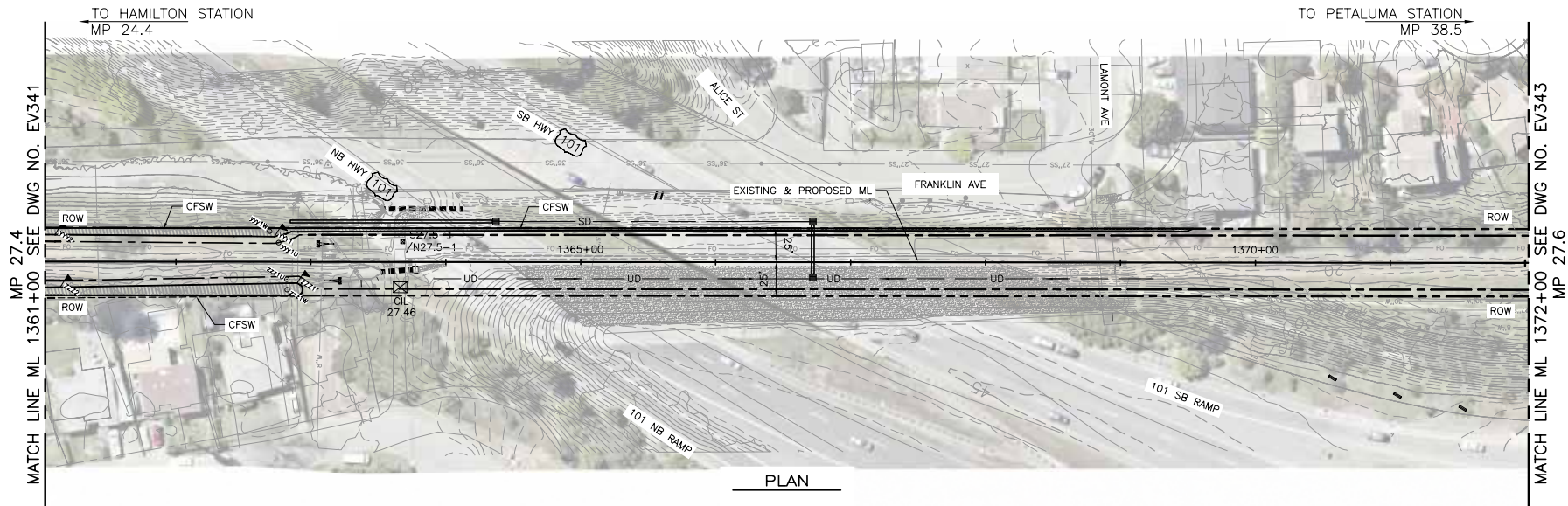
PREPARED BY
C. PHELPS
DRAWN BY
C. PHELPS
CHECKED BY
P. BORDENAVE
IN CHARGE
G. NAKANO
DATE
MAY 3, 2013

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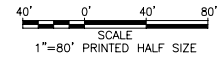


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1350+00 TO 1361+00		AS NOTED CV-DB-11-001
DWG. NO. EV341	MILEPOST 27.2	
SHEET 41 OF 87		

Map 01_01_2013 - 8:45pm © 12422 - P:\01_Maps\12422-11-001_SMAP_05 1 - B5 Phase\05-CA\05_Construction_Package\05_05-1\003_DWG\04_SHEETS\301_Environment\033-EV342.dwg



PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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G. NAKANO
DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV333-EV342.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1361+00 TO 1372+00		AS NOTED CV-DB-11-001
DWG. NO. EV342	MILEPOST 27.4	
SHEET 42 OF 87		

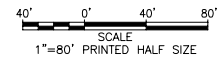
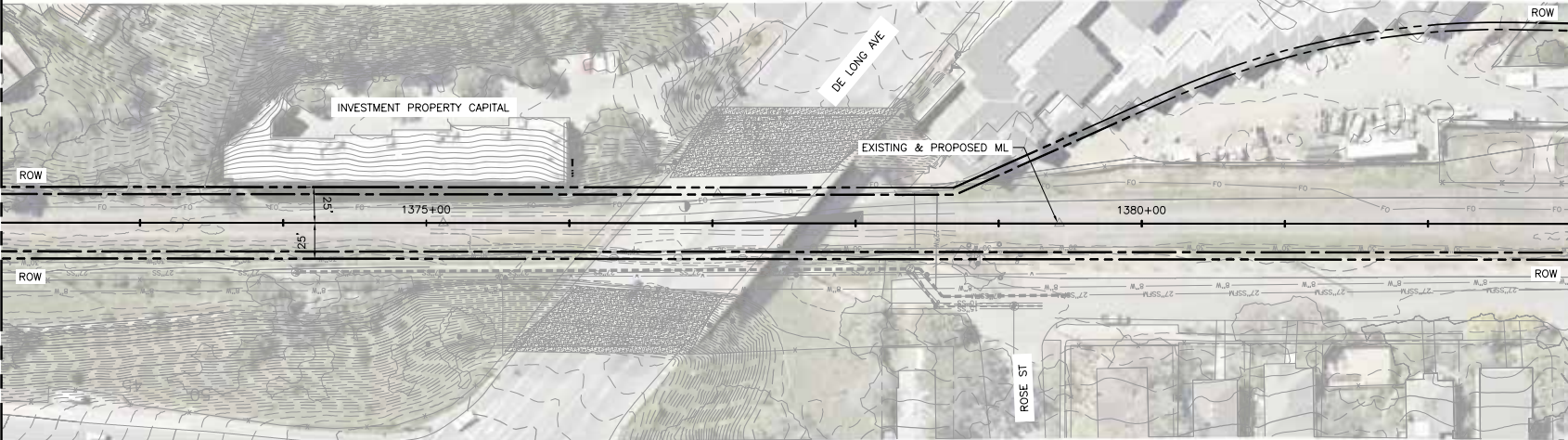
Map 02_2013 - 1106m_02_12012 - C:\Users\j1412-11-001\SMART\05_05-1\002_DWG\04_SHEETS\04_Environment\043-10052.dwg

TO HAMILTON STATION
MP 24.4

TO PETALUMA STATION
MP 38.5

MP 27.6
MATCH LINE ML 1372+00 SEE DWG NO. EV342

MATCH LINE ML 1383+00 SEE DWG NO. EV344
MP 27.8



REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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G. MAKANO
DATE
MAY 3, 2013

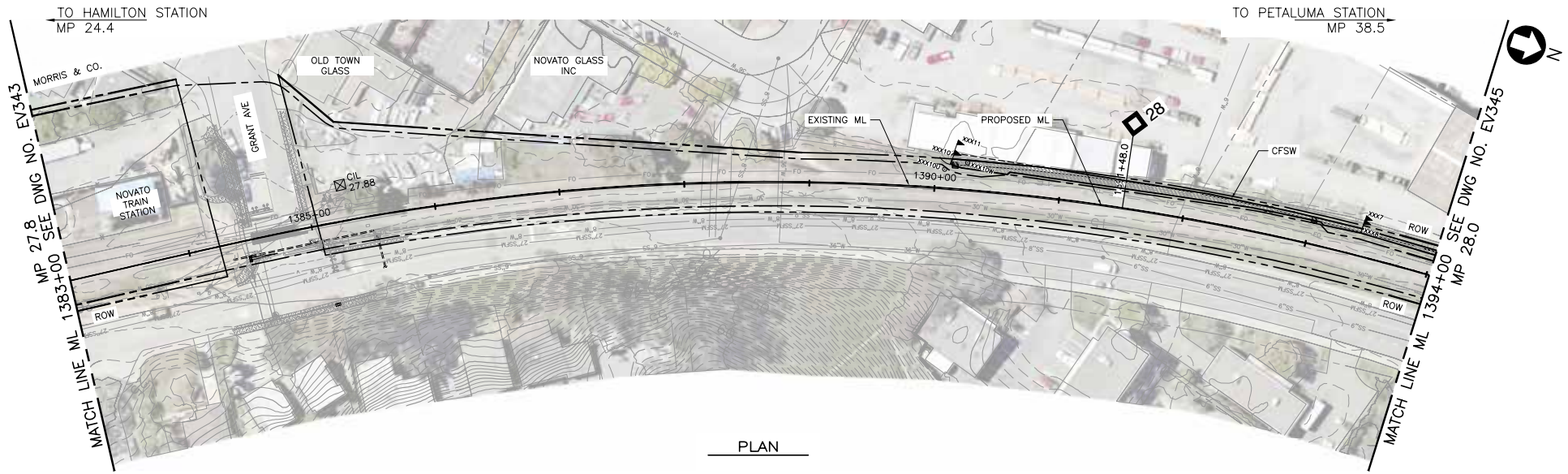
**PRELIMINARY FOR PLANNING/REVIEW
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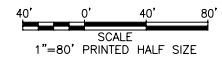
IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
ML STA 1372+00 TO 1383+00
SHEET 43 OF 87

CADD FILENAME EV343-EV352.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV343	MILEPOST 27.6

Map 02_2013 - 1108am 05/12/12 - Plan View\12412-11-001 SMART 05 1 - Bid Phase\05-CAD\02 Construction\Permit\05 05-11\001 DND\04 SHEETS\04 Environmental\042-02052.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV344	XXX	CFSW	TEMP	508	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
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P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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NOT FOR CONSTRUCTION**



IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV343-EV352.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1383+00 TO 1394+00		DWG. NO. MILEPOST EV344 27.9
SHEET 44 OF 87		

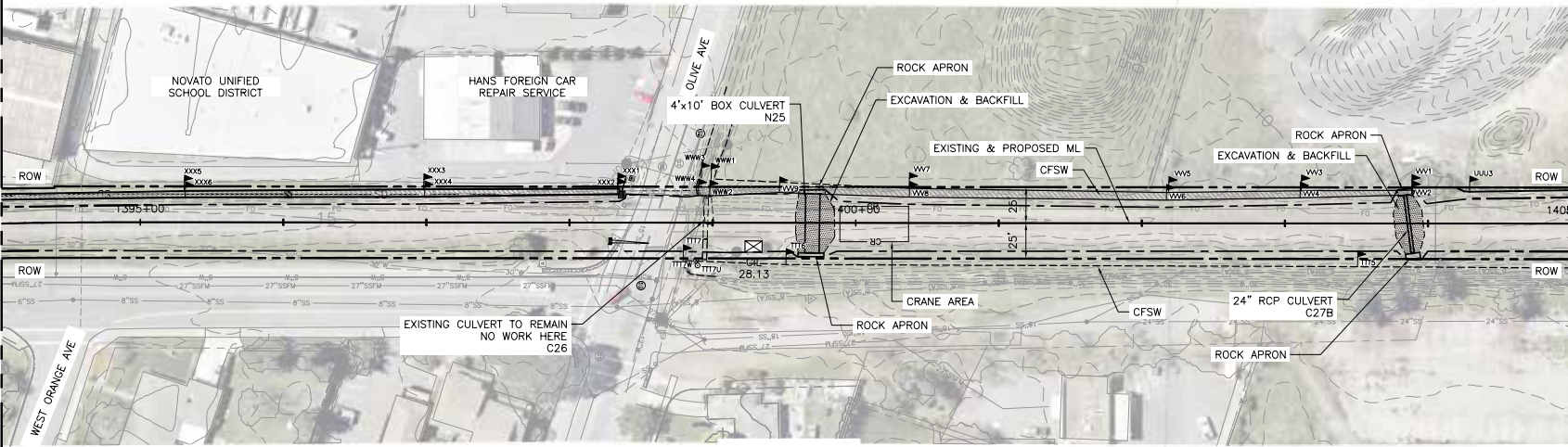
TO HAMILTON STATION
MP 24.4

TO PETALUMA STATION
MP 38.5

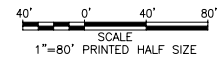


MP 28.0
MATCH LINE ML 1394+00 SEE DWG NO. EV344

MATCH LINE ML 1405+00 SEE DWG NO. EV346
MP 28.3



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV345	VVV	CFSW	PERM	64	Box Culvert	1398+93			1	10.00	4.00	2.00	1.00	1.00	13.00	50.00		
EV345	VVV	CFSW	PERM	41	Culvert	1403+84			1				1.00	2.00	8.00	31.00		
EV345	WWW	CFSW	PERM	82	Trackwork													

May 02, 2013 - 11:08am G:\12412 - Petaluma\12412-11-001 SMART 05 1 - Bid Phase\05-CAD\05 Construction\petaluma\05-05-11\001_DWG\04 SHEETS\04 Environment\045-0252.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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G. NAKANO
 DATE
MAY 3, 2013

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NOT FOR CONSTRUCTION**



IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV343-EV352.dwg	
PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 1394+00 TO 1405+00		AS NOTED	CV-DB-11-001
DWG. NO. EV345	MILEPOST 28.0	SHEET 45 OF 87	

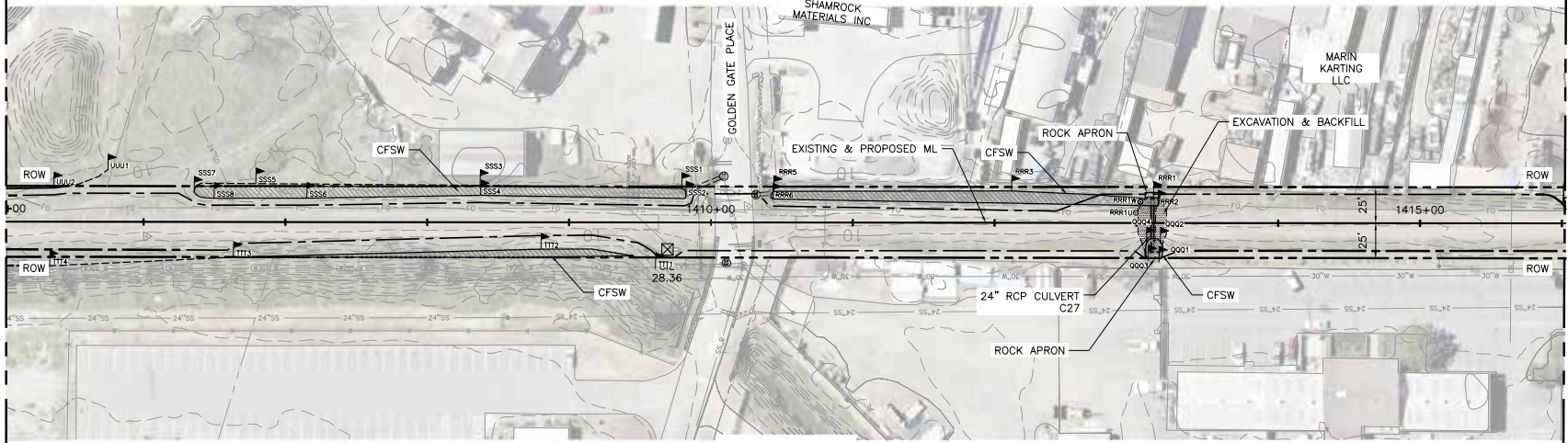
TO HAMILTON STATION
MP 24.4

TO PETALUMA STATION
MP 38.5

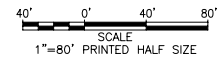


MP 28.3
MATCH LINE ML 1405+00 SEE DWG NO. EV345

MATCH LINE ML 1416+00 SEE DWG NO. EV347
MP 28.5



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV346	QQQ	CFSW	PERM	146	Culvert	1413+08			1			2.00	8.00	16.00	99.00	31.00		
EV346	RRR	CFSW	PERM	305	Culvert	1413+08			1			2.00	4.00	8.00	292.00	5.00		

Map 02_2013 - 1111am 05/12/12 - Plan WWSA\12412-11-001 SMART 05 1 - Bid Phase\05-CAD\05 Construction\05-05-11\01 DND\04 SHEETS\04 Environment\042-0252.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



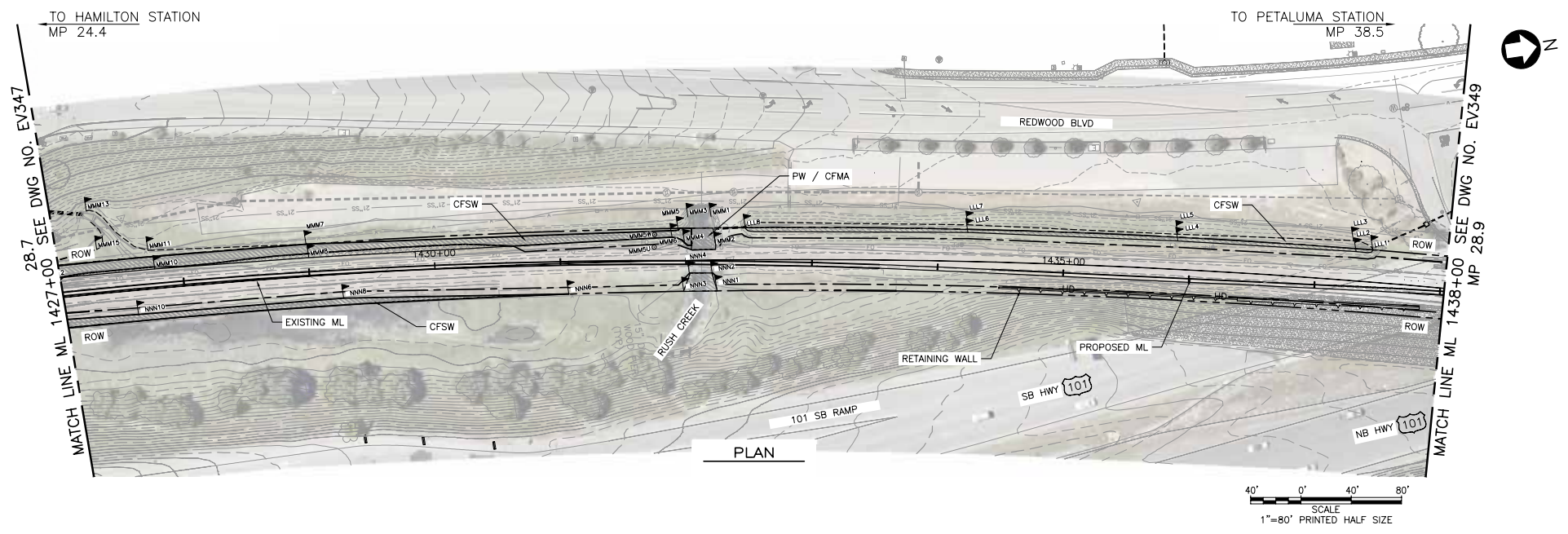
PREPARED BY
C. PHELPS
DRAWN BY
C. PHELPS
CHECKED BY
P. BORDENAVE
IN CHARGE
G. NAKANO
DATE
MAY 3, 2013

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NOT FOR CONSTRUCTION**



IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV343-EV352.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1405+00 TO 1416+00		DWG. NO. MILEPOST EV346 28.3
SHEET 46 OF 87		

May 02, 2013 - 11:46am G:\12412 - Plan Work\12412-11-001 SMART 05 1 - Bid Phase\12412-11-001.DWG (SHEETS) - Environment\12412-11-001.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV348	MMM	CFSW	PERM	883	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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C. PHELPS
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C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV343-EV352.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1427+00 TO 1438+00		DWG. NO. MILEPOST EV348 28.7
SHEET 48 OF 87		

Map 02, 2013 - 1:173m 0.12412 - C:\Users\j1412\11-001 SMART 05 1 - Bid Phase\05-CAD\02 Construction\Peraplan\05 05-1\002 DWD\04 SHEETS\04 Environmental\05-02-05.dwg

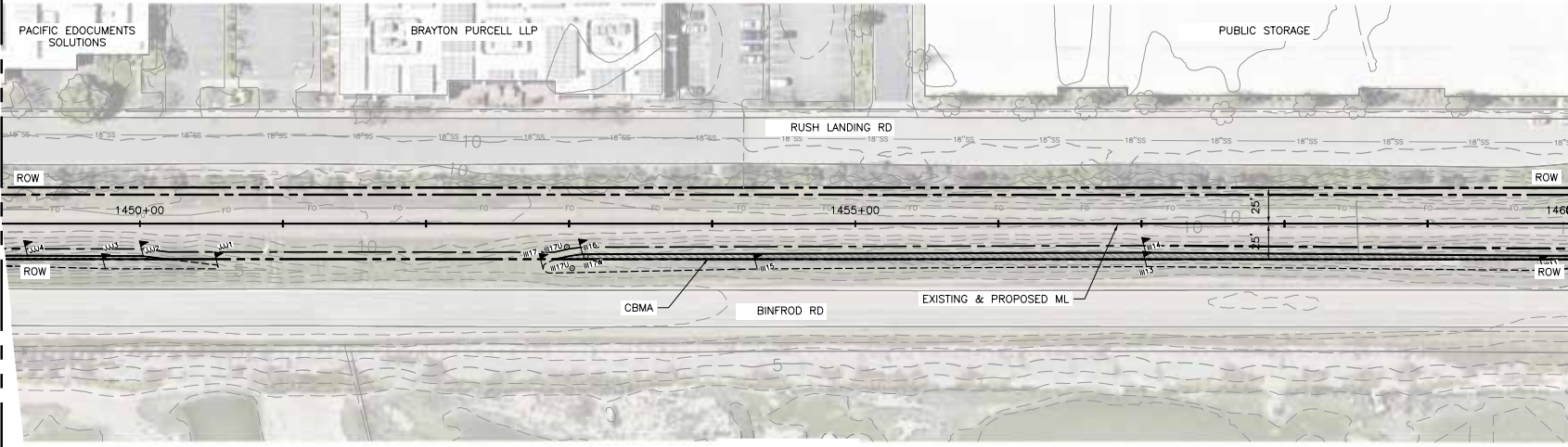
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5



MP 29.1
MATCH LINE ML 1449+00 SEE DWG NO. EV349

MATCH LINE ML 1460+00 SEE DWG NO. EV351
MP 29.3



PLAN

40' 0' 40' 80'
SCALE
1"=80' PRINTED HALF SIZE

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



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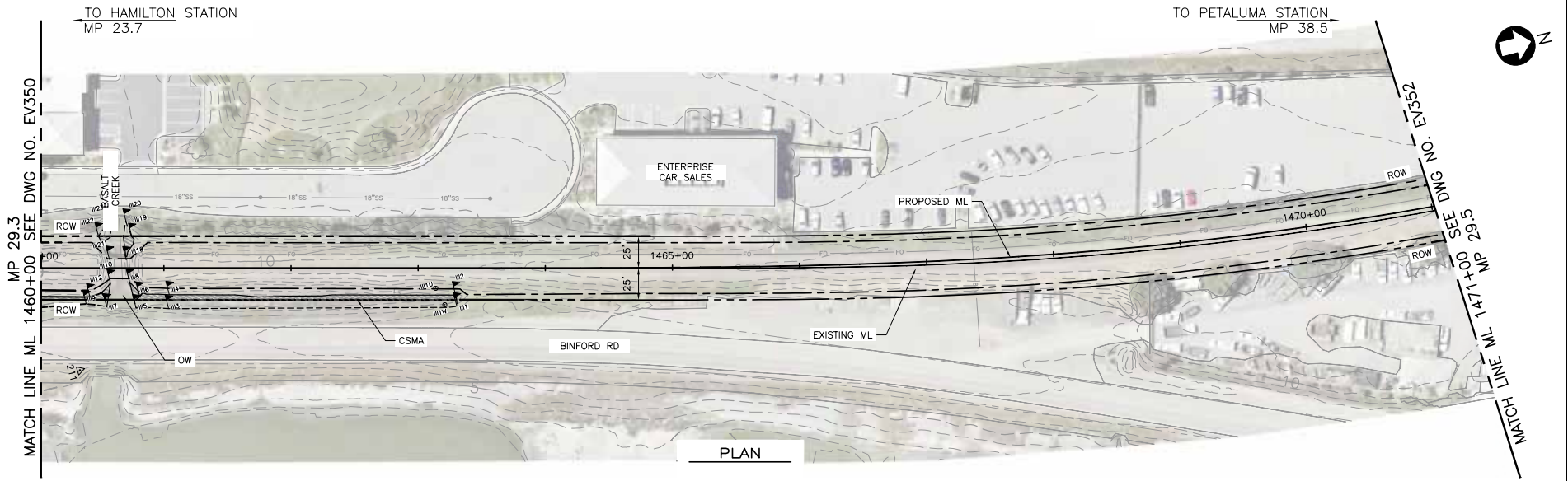
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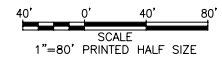
IOS-1 ENVIRONMENTAL PERMIT PLAN
 PROPOSED CONDITION
 ML STA 1449+00 TO 1460+00
 SHEET 50 OF 87

CADD FILENAME EV343-EV352.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV350	MILEPOST 29.1

Map 02_2013 - 1:11:00am 05/12/12 - C:\Users\j1412\11-001 SMART 05 1 - Bid Phase\05-CAD\02 Construction\Peraplan\05 05-1\002 DND\04 SHEETS\04 Environmental\05-02-02052.dwg



PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



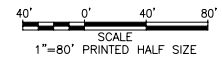
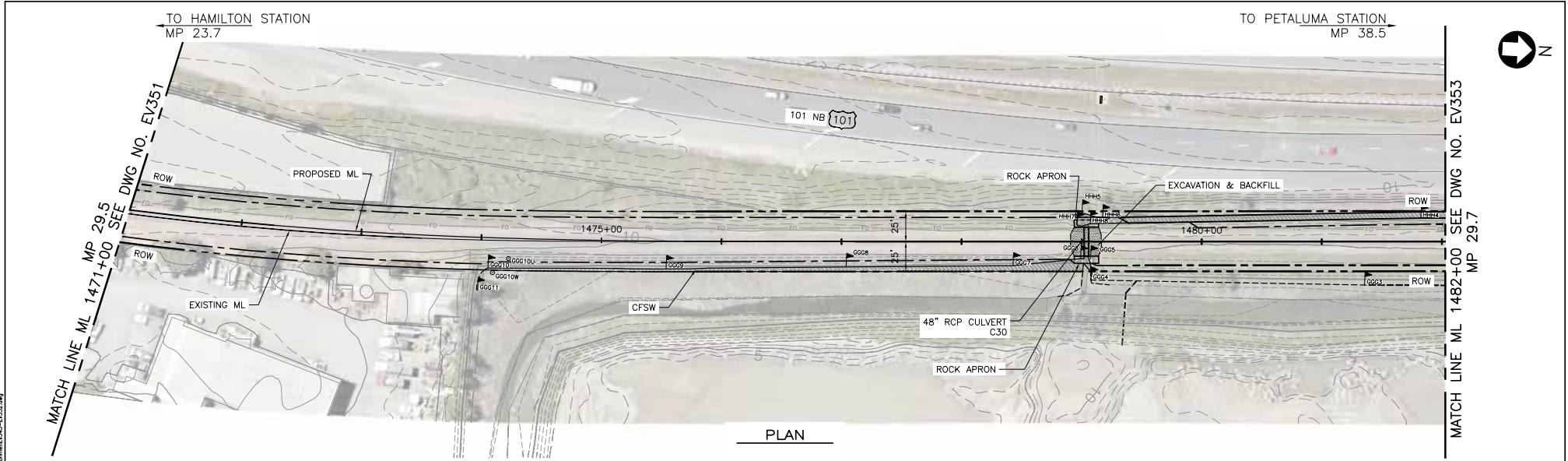
PREPARED BY
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P. BORDENAVE
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G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV343-EV352.dwg	
PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 1460+00 TO 1471+00		AS NOTED	CV-DB-11-001
DWG. NO.	MILEPOST		
EV351	29.3		
SHEET 51 OF 87			

Map 02_2013 - 11:20am 05/14/12 - P:\Work\10412-11-001 SMART 05 1 - Bid Phase\04-CAD\IOS Construction\05-105-1\001_IOS-1\001_SHEETS\01_Environment\043-0352.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV352	GGG	CFSW	PERM	62	Culvert	1479+01			1			4.00	0.00	0.00	8.00	54.00		
EV352	HHH	CFSW	PERM	142	Culvert	1479+01			1			4.00	0.00	0.00	34.00	108.00		
EV352	HHH	CFSW	PERM	67	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



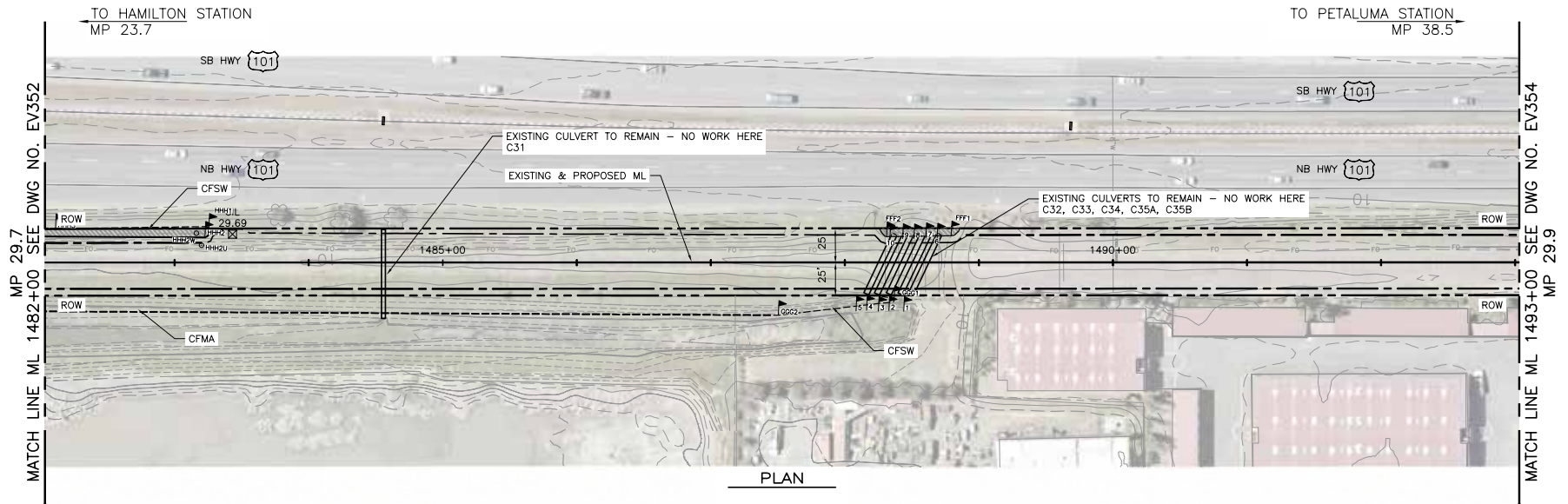
PREPARED BY
C. PHELPS
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 CHECKED BY
P. BORDENAVE
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G. NAKANO
 DATE
MAY 3, 2013

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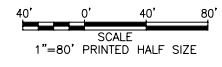


IOS-1 ENVIRONMENTAL PERMIT PLAN PROPOSED CONDITION ML STA 1471+00 TO 1482+00 SHEET 52 OF 87		CADD FILENAME EV343-EV352.dwg SCALE CONTRACT NO. CV-DB-11-001 DWS. NO. EV352 MILEPOST 29.5
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May 02, 2013 - 10:56am C:\12412 - Proj\mwp\12412-11-01\SMART 05.1 - Bld Phase\05-CAD\05 Construction Package\05_05-1\001 DWG\04 SHEETS\01 Environment\035-EV352.dwg



PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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G. NAKANO
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IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
 ML STA 1482+00 TO 1493+00
 SHEET 53 OF 87

CADD FILENAME EV353-EV362.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV353	MILEPOST 29.7

May 02, 2013 - 10:27am C:\12412 - P01 Wm\12412-11-01 SMART 05 1 - Bld Phase\05-CAD\05 Construction Package\05_05-1\020 DWG\04 SHEETS\01 Environment\035-EV354.dwg

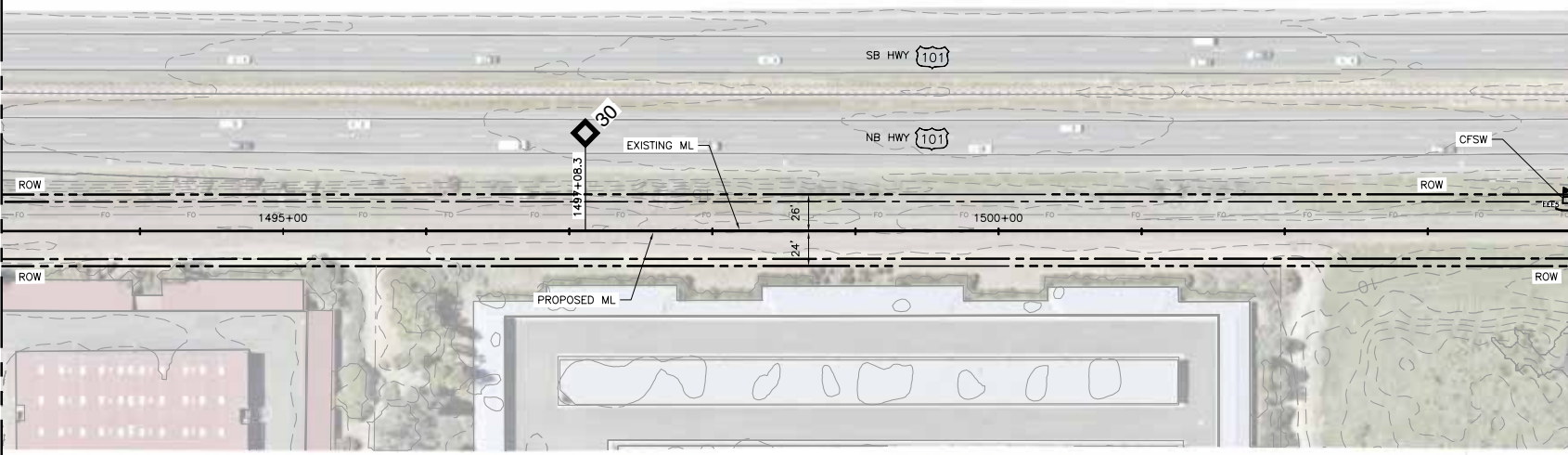
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

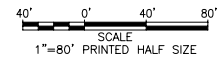


MP 29.9
MATCH LINE ML 1493+00 SEE DWG NO. EV353

MATCH LINE ML 1504+00 SEE DWG NO. EV355
MP 30.1



PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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G. NAKANO
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IOS-1 ENVIRONMENTAL PERMIT PLAN
 PROPOSED CONDITION
 ML STA 1493+00 TO 1504+00
 SHEET 54 OF 87

CADD FILENAME
EV353-EV362.dwg
 SCALE CONTRACT NO.
AS NOTED CV-DB-11-001
 DWS. NO. MILEPOST
EV354 29.9

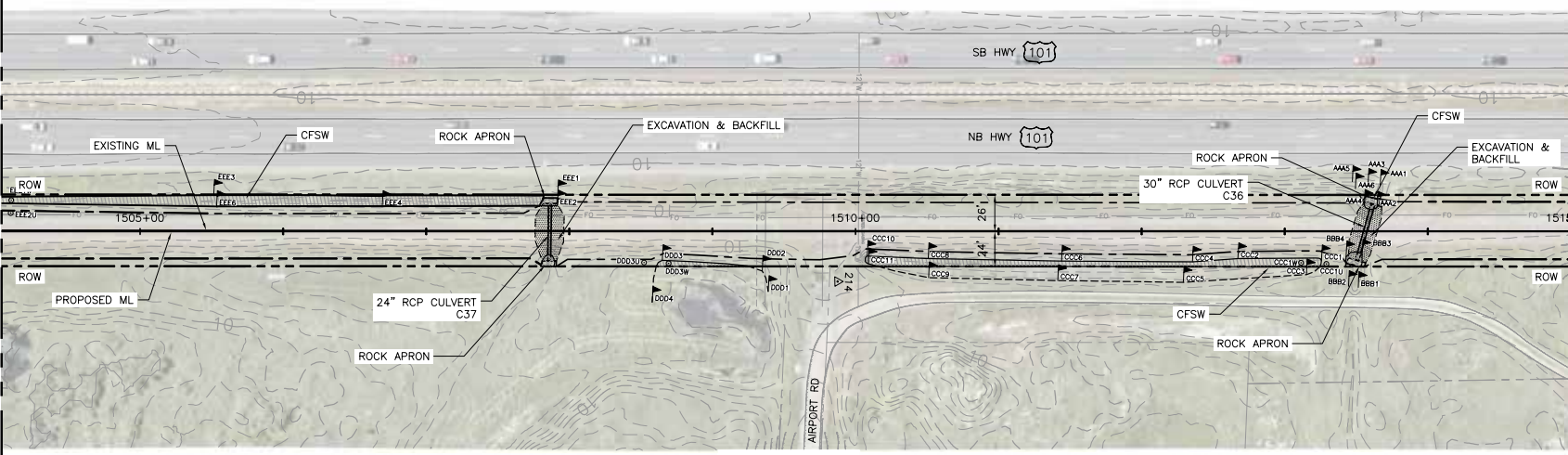
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

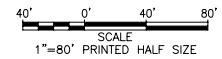


MP 30.1
MATCH LINE ML 1504+00 SEE DWG NO. EV354

MATCH LINE ML 1515+00 SEE DWG NO. EV356
MP 30.3



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV355	AAA	CFSW	PERM	78	Culvert	1513+53			1			2.50	4.00	10.00	37.00	31.00		
EV355	BBB	CFSW	PERM	96	Culvert	1513+53			1			2.50	5.00	12.50	52.50	31.00		
EV355	EEE	CFSW	PERM	59	Culvert	1507+84			1			2.00	2.00	4.00	24.00	31.00		
EV355	UN WL 1507+85	CFSW	PERM	61	Culvert	1507+84			1			2.00	3.00	6.00	24.00	31.00		

May 02, 2013 - 10:28am - C:\2412 - P01\mwy12412-11-001\SMART_05_1 - Bld Phase\05-CAD\05-Construction\Package\05_05-1\003\DWG\04-SHEETS\01-Environment\035-EV356.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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P. BORDENAVE
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G. NAKANO
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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV353-EV362.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1504+00 TO 1515+00		AS NOTED CV-DB-11-001
DWG. NO. EV355	MILEPOST 30.1	
SHEET 55 OF 87		

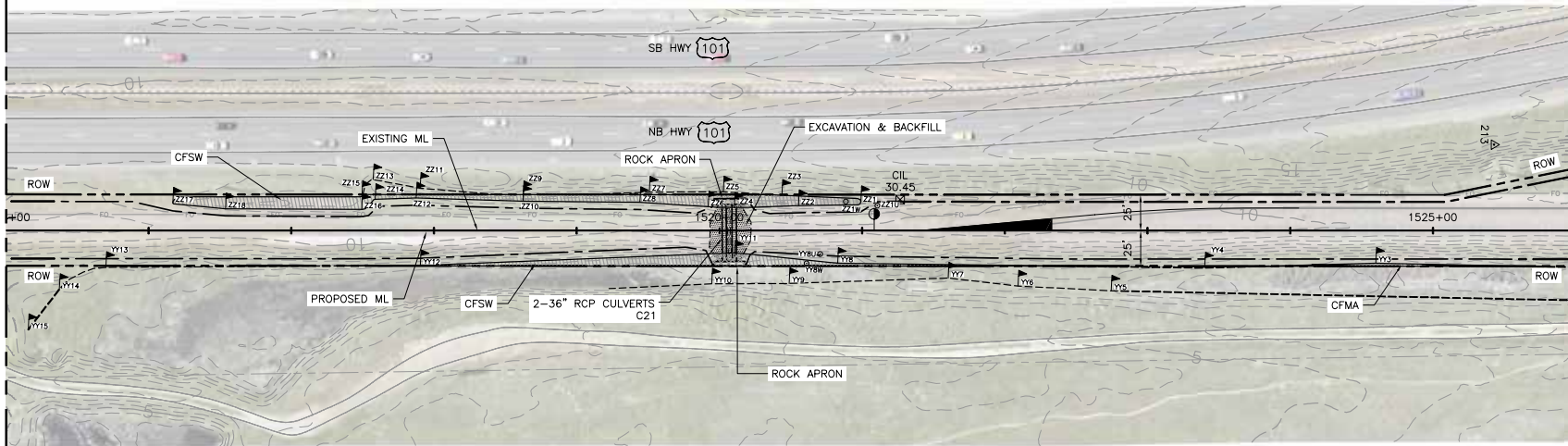
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

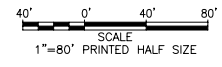


MP 30.3
MATCH LINE ML 1515+00 SEE DWG NO. EV355

MATCH LINE ML 1526+00 SEE DWG NO. EV357
MP 30.5



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV356	ZZ	CFSW	PERM	159	Culvert	1520+04			2			3.00	2.00	6.00	93.00	60.00		

May 02, 2013 - 10:50am C:\12412 - Proj\12412\12412-11-001\SMART\05_1 - Bld Phase\05-CAD\05 Construction Package\05_105-1\003 DWG\04 SHEETS\01 Environment\0355-0362.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



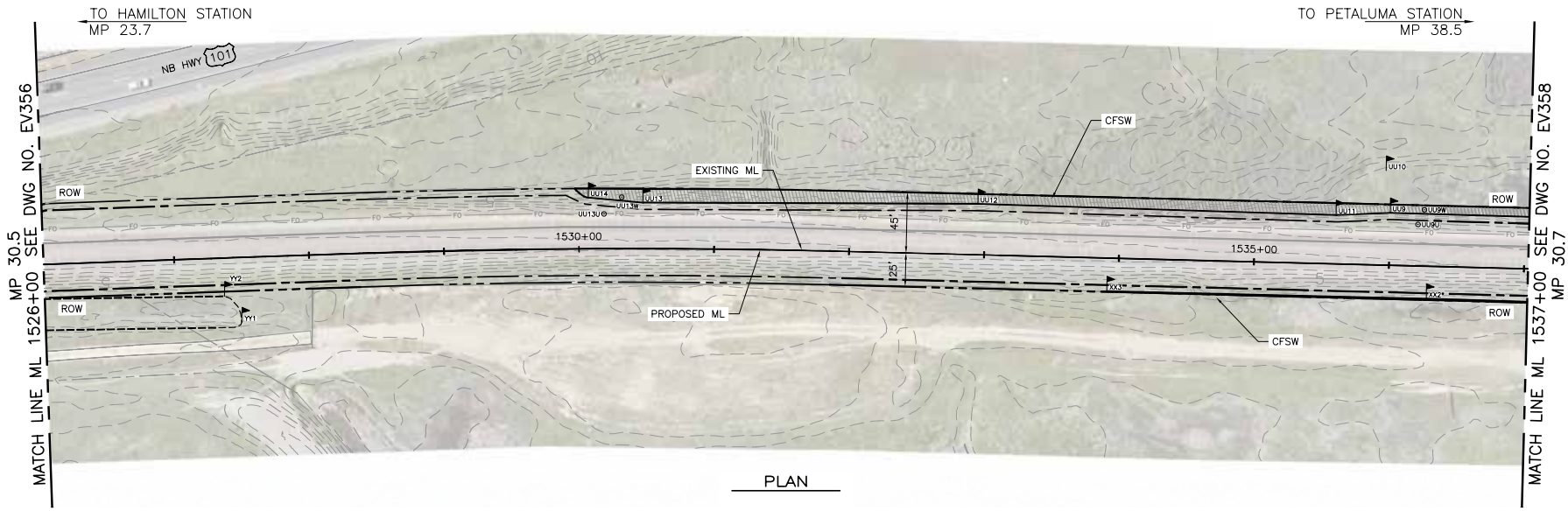
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C. PHELPS
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P. BORDENAVE
 IN CHARGE
G. NAKANO
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MAY 3, 2013

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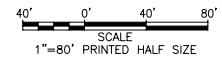


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV353-EV362.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1515+00 TO 1526+00		AS NOTED CV-DB-11-001
DWG. NO. EV356	MILEPOST 30.3	
SHEET 56 OF 87		

May 02, 2013 - 10:38am - C:\12412 - P01\mwp\12412-11-001\SMART_05_1 - Bld\Project\05-CAD\05 Construction Package\05_05-1\001\DWG\04 SHEETS\01 Environment\0353-EV356.dwg



PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV353-EV362.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1526+00 TO 1537+00		AS NOTED CV-DB-11-001
DWG. NO. EV357	MILEPOST 30.5	
SHEET 57 OF 87		

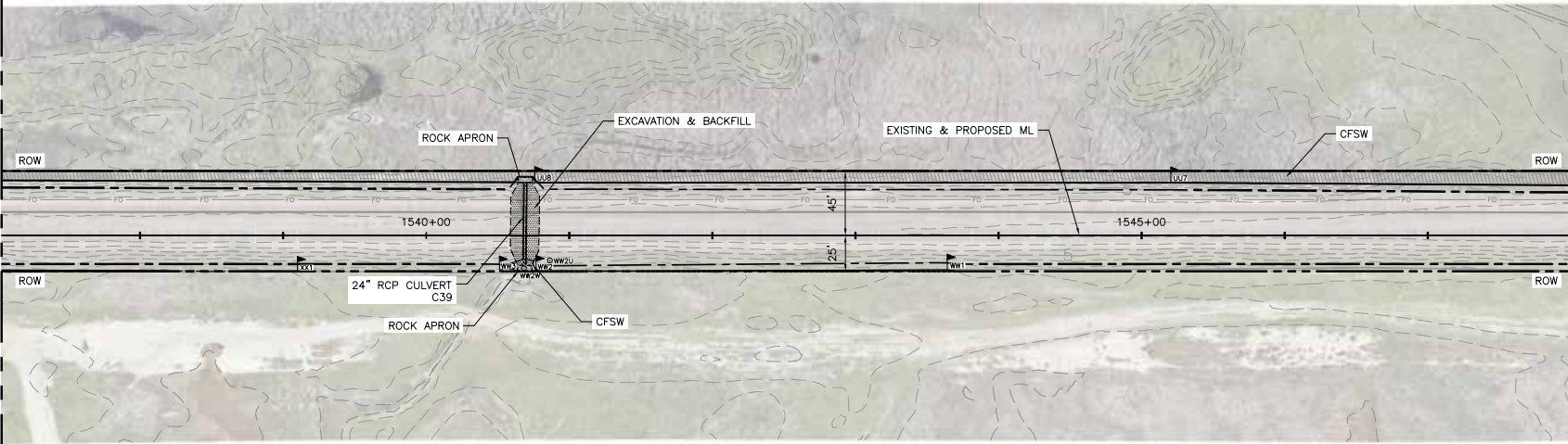
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

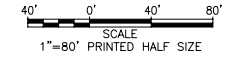


MP 30.7
MATCH LINE ML 1537+00 SEE DWG NO. EV357

MATCH LINE ML 1548+00 SEE DWG NO. EV359
MP 30.9



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV358	UU	CFSW	PERM	53	Culvert	1540+66			1			2.00	0.00	0.00	22.00	31.00		
EV358	WW	CFSW	PERM	126	Culvert	1540+66			1			2.00	1.00	2.00	93.00	31.00		

May 02, 2013 - 10:58am - 13:58pm - P:\01\12412 - P01\12412-11-01\SMART 05 1 - Bld Phase\05-CAD\05 Construction Package\05 105-1\003\12412\04 SHEETS\01 Environment\035-0362.dwg
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REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME
PROPOSED CONDITION		EV353-EV362.dwg
ML STA 1537+00 TO 1548+0		SCALE CONTRACT NO.
SHEET 58 OF 87		AS NOTED CV-DB-11-001
DWG. NO.	MILEPOST	
EV358	30.7	

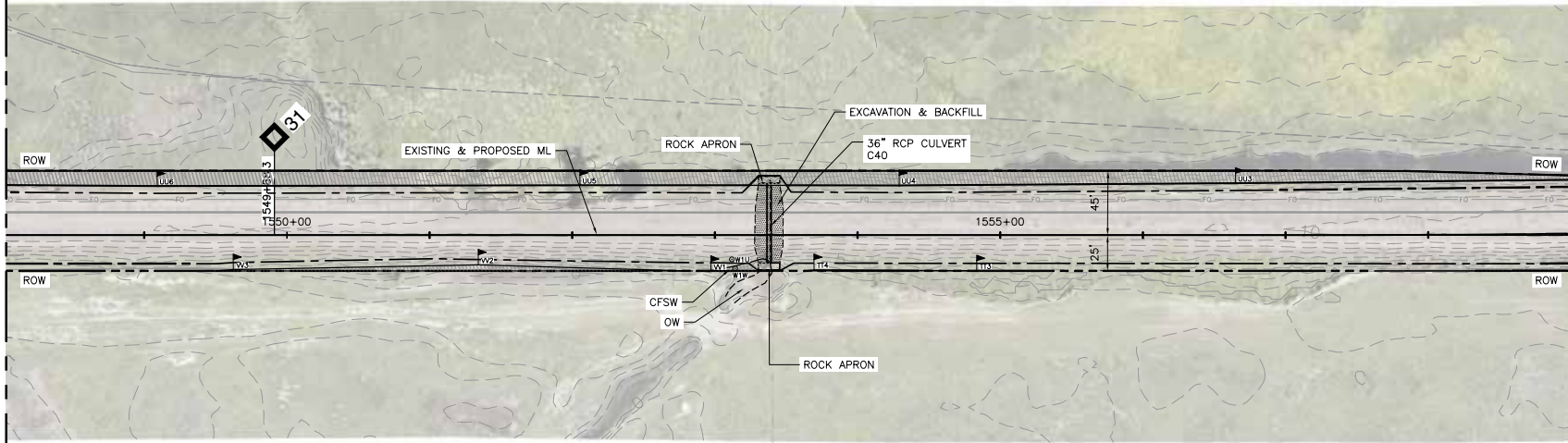
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5



MP 30.9
MATCH LINE ML 1548+00 SEE DWG NO. EV358

MATCH LINE ML 1559+00 SEE DWG NO. EV360
MP 31.2



PLAN

40' 0' 40' 80'
SCALE
1"=80' PRINTED HALF SIZE

PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV359	UU	CFSW	PERM	135	Culvert	1553+35			1			3.00	2.00	6.00	98.00	31.00		
EV359	W	CFSW	PERM	88	Culvert	1553+35			1			3.00	1.00	3.00	60.00	25.00		

May 02, 2013 - 10:54am - C:\Users\j12412... \P01\mwy12412-11-001\SMART_05_1 - Bld Phase\06-CAD\05 Construction Package\05_05-1\003 DWG\04 SHEETS\01 Environment\0353-EV358.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
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MAY 3, 2013

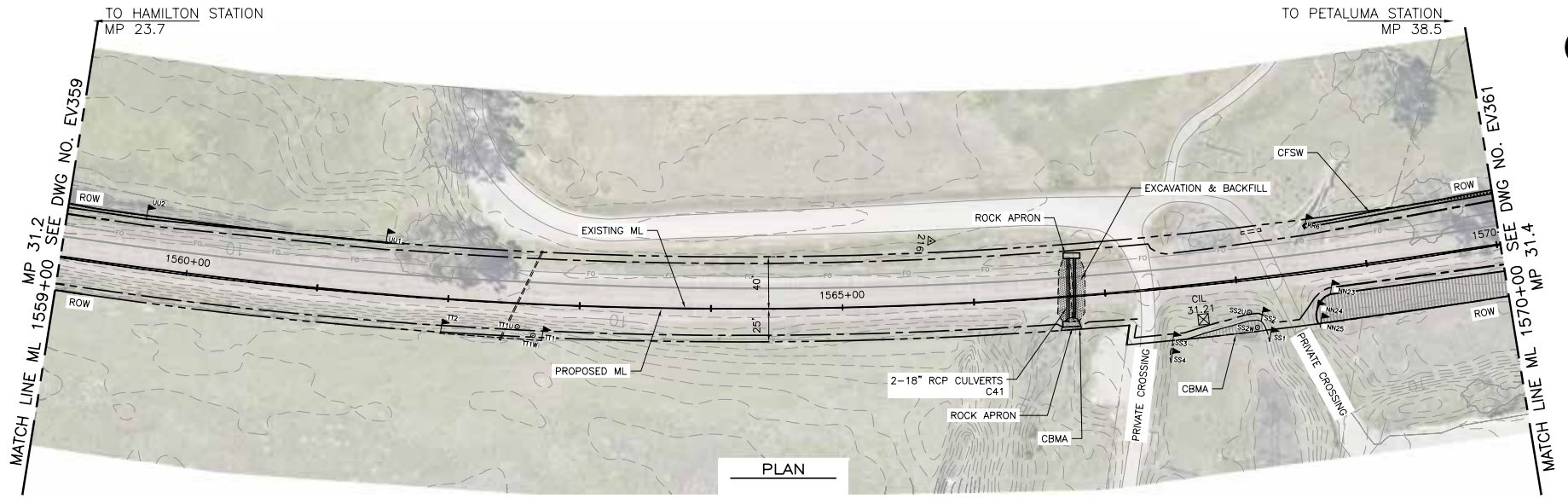
PRELIMINARY FOR PLANNING/REVIEW
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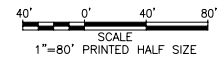
IOS-1 ENVIRONMENTAL PERMIT PLAN
 PROPOSED CONDITION
 ML STA 1548+00 TO 1559+00
 SHEET 59 OF 87

CADD FILENAME
EV353-EV362.dwg
 SCALE CONTRACT NO.
AS NOTED CV-DB-11-001
 DWS. NO. MILEPOST
EV359 30.9

May 02, 2013 - 10:56am - P:\01_WW\12412-11-001_SMAPR_05_1 - Bld Phase\06-CAD\05_Construction_Package\05_05-1\003_DWG\04_SHEETS\01_Environment\035-EV362.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV360	UN_WL_1566+70	CBMA	PERM	76	Culvert	1566+75			2			1.50	2.00	3.00	37.00	36.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME
PROPOSED CONDITION		EV353-EV362.dwg
ML STA 1559+00 TO 1570+00		SCALE CONTRACT NO.
SHEET 60 OF 87		AS NOTED CV-DB-11-001
DWG. NO.	MILEPOST	
EV360	31.2	

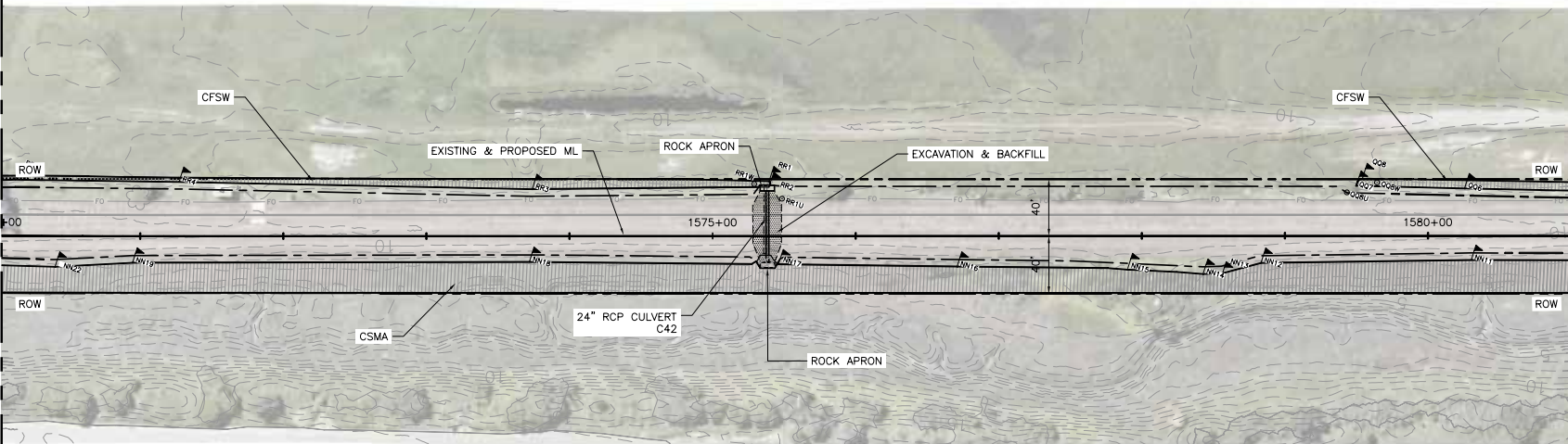
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

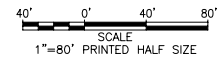


MP 31.4
MATCH LINE ML 1570+00 SEE DWG NO. EV360

MATCH LINE ML 1581+00 SEE DWG NO. EV362
MP 31.6



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV361	NN	CSMA	PERM	100	Culvert	1575+36			1			2.00	4.00	8.00	61.00	31.00		
EV361	RR	CFSW	PERM	9	Culvert	1575+36			1			2.00	0.00	0.00	0.00	9.00		

May 02, 2013 - 10:58am - C:\Users\j12412... \P01\mww\12412-11-001\SMART_05_1 - Bld Phase\06-CAD\05 Construction Package\05_05-1\003 DWG\04 SHEETS\01 Environment\0305-0362.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

**PRELIMINARY FOR PLANNING/REVIEW
NOT FOR CONSTRUCTION**



IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV353-EV362.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1570+00 TO 1581+00		AS NOTED CV-DB-11-001
DWG. NO. EV361	MILEPOST 31.4	
SHEET 61 OF 87		

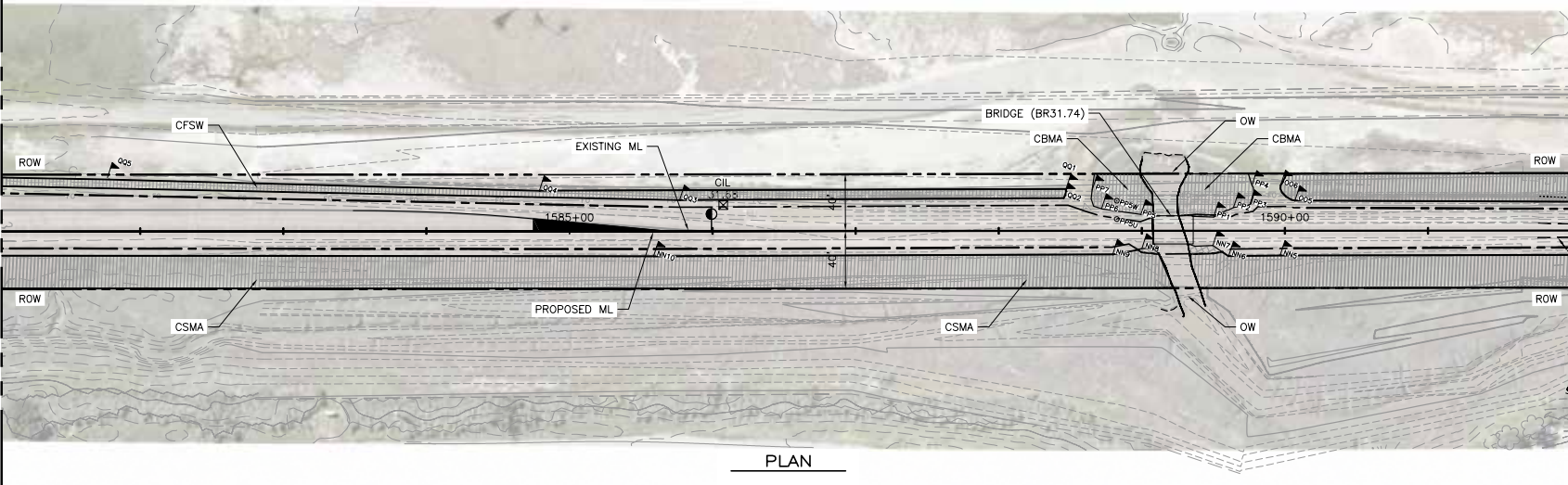
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

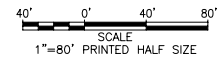


MP 31.6
MATCH LINE ML 1581+00 SEE DWG NO. EV361

MATCH LINE ML 1592+00 SEE DWG NO. EV363
MP 31.8



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV362	NN	CSMA	PERM	38	Trackwork													
EV362	NN	CSMA	PERM	114	Trackwork													
EV362	PP	CBMA	PERM	22	Trackwork													

May 02, 2013 - 10:46am - C:\Users\j12412... P:\M\12412-11-001\SMART_05_1 - Bld Phase\05-CAD\05-Construction\Package\05_05-1\003\DWG\04_SHEETS\01_Environment\035-EV362.dwg

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1	20130503	CP			REV 1



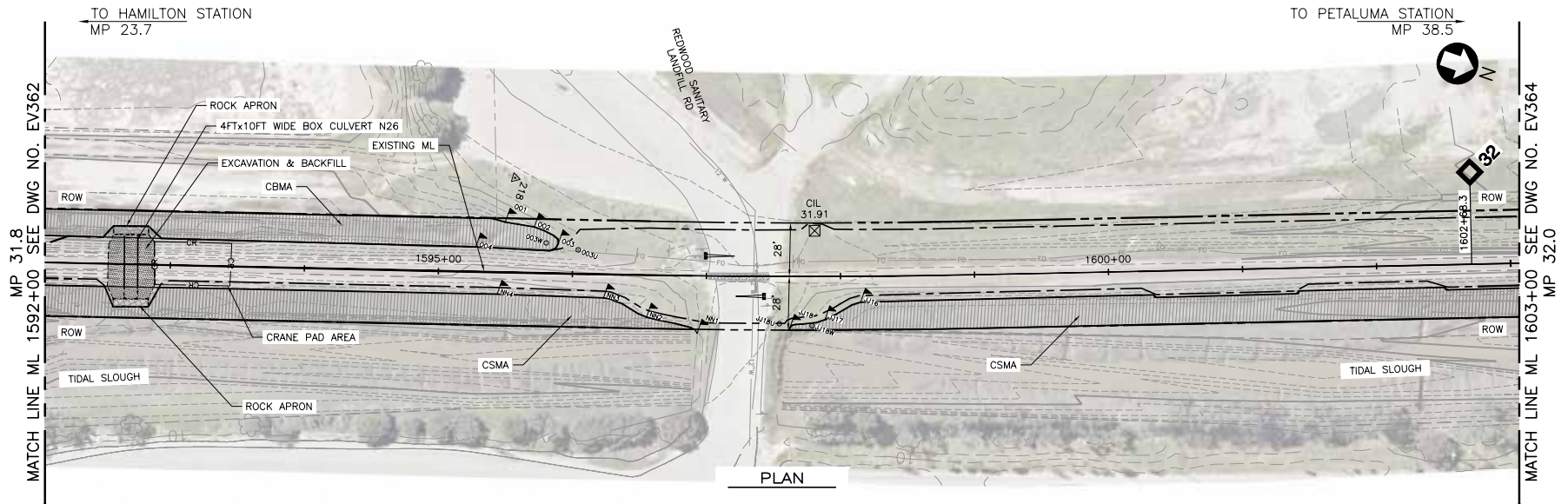
PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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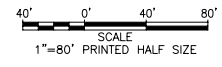


IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV353-EV362.dwg	
PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 1581+00 TO 1592+00		AS NOTED	CV-DB-11-001
DWG. NO. EV362	MILEPOST 31.6	SHEET 62 OF 87	

May 02, 2013 - 10:48am © 12412 - P:\M\12412-11-001\SMART_05_1 - Bld Phase\05-CAD\05 Construction Package\05_05-1\003 DWG\04 SHEETS\01 Environment\0505-0372.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV363	JJ	CBMA/CSMA	TEMP	214	Trackwork													
EV363	NN	CSMA	PERM	491	Box Culvert	1592+70			1	10.00	4.00		8.00	88.00	295.00	108.00		
EV363	OO	CBMA	PERM	296	Box Culvert	1592+70			1	10.00	4.00		3.00	24.00	164.00	108.00		
EV363, EV364	JJ	CBMA/CSMA	TEMP	282	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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C. PHELPS
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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV363-EV372.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1592+00 TO 1603+00		AS NOTED CV-DB-11-001
DWG. NO. EV363	MILEPOST 31.8	
SHEET 63 OF 87		

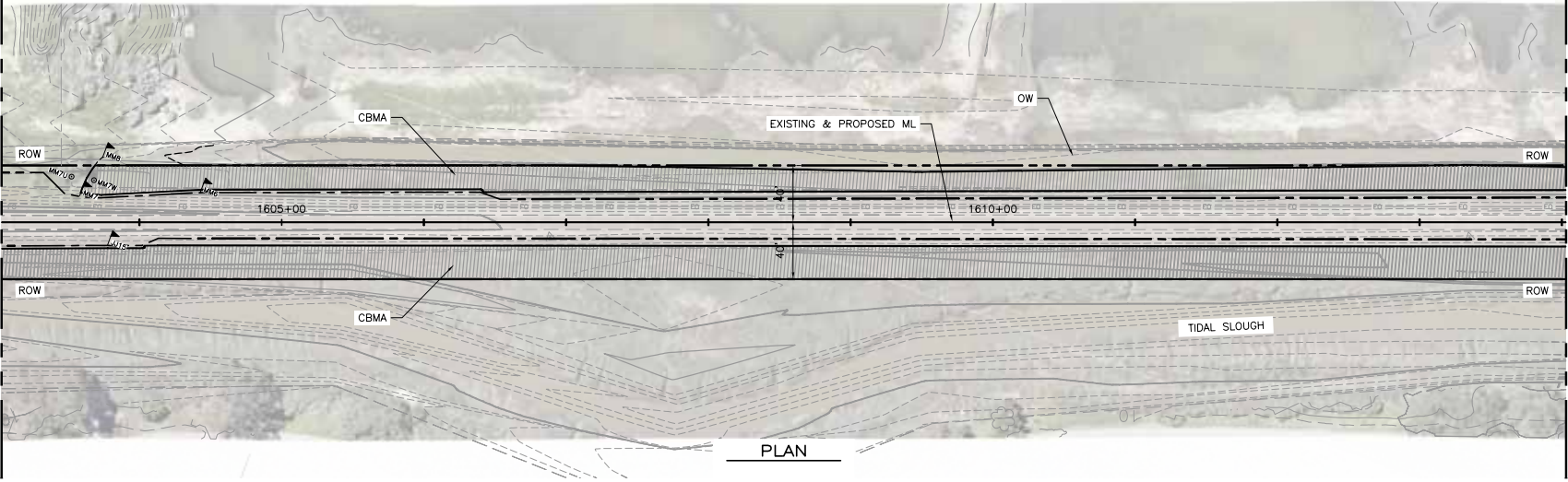
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

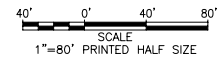


MP 32.0
MATCH LINE ML 1603+00 SEE DWG NO. EV363

MATCH LINE ML 1614+00 SEE DWG NO. EV365
MP 32.2



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV363, EV364	JJ	CBMA/CSMA	TEMP	282	Trackwork													
EV364	MM	CBMA	TEMP	568	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
ML STA 1603+00 TO 1614+00
SHEET 64 OF 87

CADD FILENAME
EV363-EV372.dwg
SCALE
AS NOTED
CONTRACT NO.
CV-DB-11-001
DWS. NO.
EV364
MILEPOST
32.0

May 02, 2013 - 10:47am - C:\12412 - P01 Wmwy\12412-11-001 SMART 05 1 - Bld Pkwy\05-CAD\05 Construction Package\05 105-1\003 DWG\04 SHEETS\01 Environment\0505-0372.dwg

May 02, 2013 - 10:48am C:\12412 - P01\Work\12412-11-01\SMART 05 1 - Bld Phase\05-CAD\05 Construction Package\05_05-1\001_SHEETS\01 Environment\05-0372.dwg

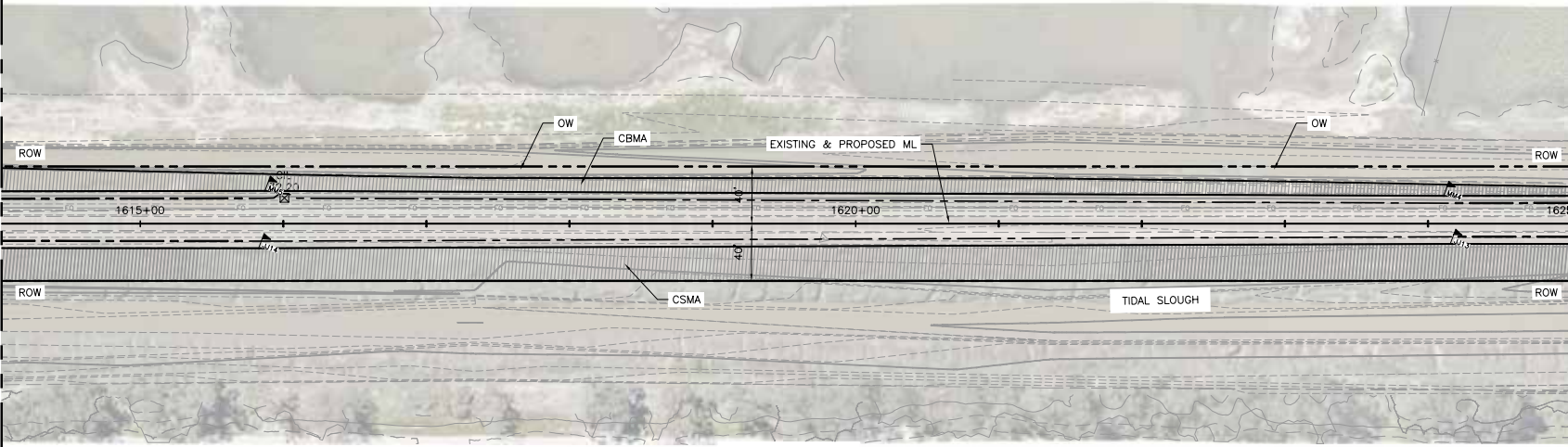
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

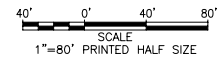


MP 32.2
MATCH LINE ML 1614+00 SEE DWG NO. EV364

MATCH LINE ML 1625+00 SEE DWG NO. EV366
MP 32.4



PLAN



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IOS-1 ENVIRONMENTAL PERMIT PLAN
 PROPOSED CONDITION
 ML STA 1614+00 TO 1625+00
 SHEET 65 OF 87

CADD FILENAME EV363-EV372.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV365	MILEPOST 32.2

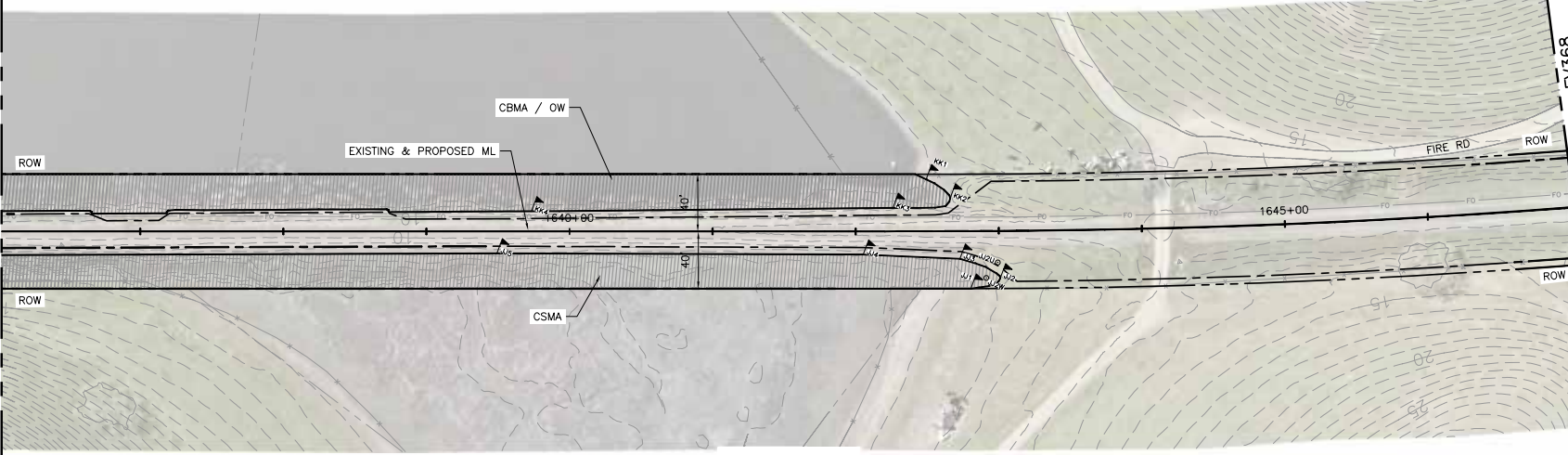
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

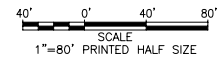


MP 32.6
MATCH LINE ML 1636+00 SEE DWG NO. EV366

MATCH LINE ML 1647+00 SEE DWG NO. EV368
MP 32.8



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV366, EV367	KK	CBMA/OW	TEMP	514	Trackwork													
EV367	KK	CBMA/OW	TEMP	309	Trackwork													

May 02, 2013 - 10:58am - P:\01\12412 - IOS-1\12412-11-001\SMART_05_1 - Bld Phase\05-CAD\05 Construction Package\05_105-1\003\DWG\04_SHEETS\01_Environment\05-0372.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



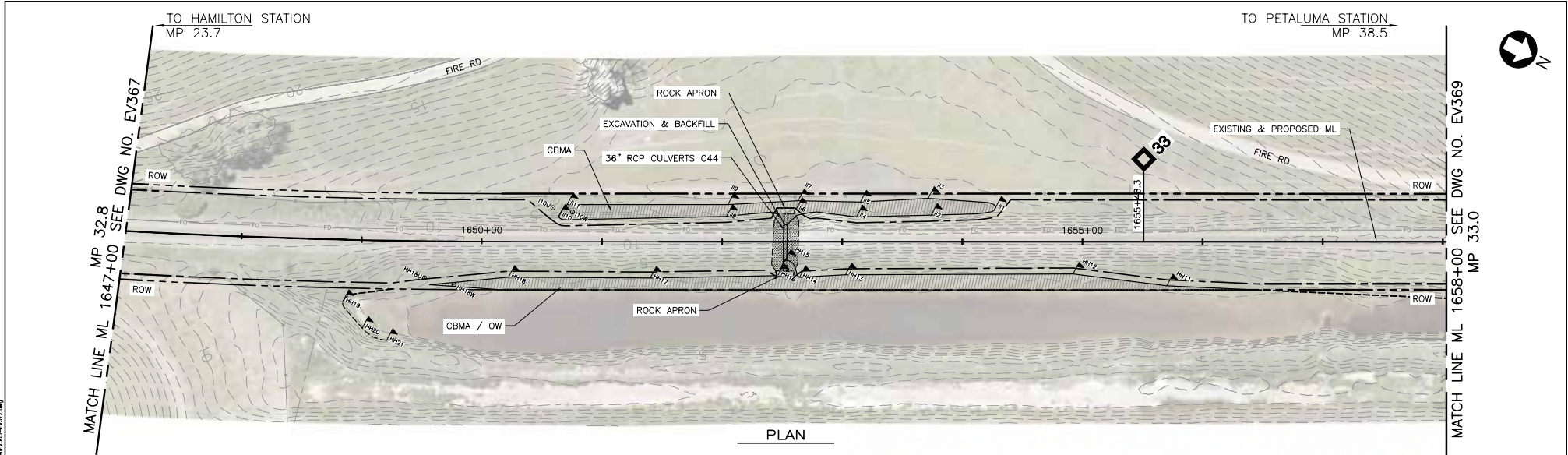
PREPARED BY
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P. BORDENAVE
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G. NAKANO
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MAY 3, 2013

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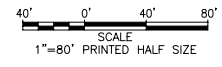


IOS-1 ENVIRONMENTAL PERMIT PLAN PROPOSED CONDITION ML STA 1636+00 TO 1647+00 SHEET 67 OF 87		CADD FILENAME EV363-EV372.dwg SCALE AS NOTED DWS. NO. EV367	CONTRACT NO. CV-DB-11-001 MILEPOST 32.6
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May 02, 2013 - 10:58am C:\12412 - P:\1\12412\12412-11-001\SMART\05_1 - Bld Phase\05-CAD\05 Construction Package\05_105-1\003\DWG\04 SHEETS\01 Environment\0505-0372.dwg



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV368	HH	CBMA	PERM	166	Culvert	1652+52			1			3.00	8.00	24.00	108.00	36.00		
EV368	II	CBMA	PERM	177	Culvert	1652+52			1			3.00	7.00	21.00	120.00	36.00		

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1	20130503	CP			REV 1



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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV363-EV372.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1647+00 TO 1658+00		AS NOTED CV-DB-11-001
DWG. NO. EV368	MILEPOST 32.8	
SHEET 68 OF 87		

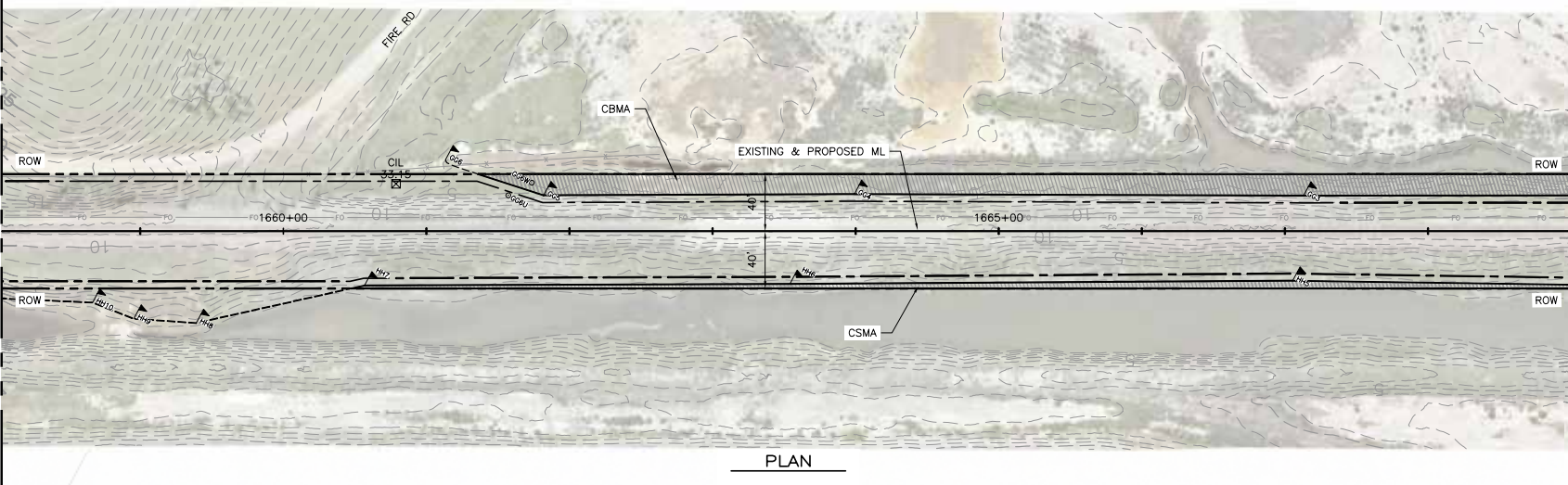
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

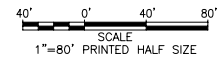


33.0
MATCH LINE ML 1658+00 SEE DWG NO. EV368

MATCH LINE ML 1669+00 SEE DWG NO. EV370
MP 33.2



PLAN



May 02, 2013 - 1:55pm C:\12412 - Proj\Wm\12412-11-01\SMART 02.1 - Bld Phase\06-CAD\05 Construction Package\05_05-1\020 Smart\04 SHEETS\01 Environment\06-0372.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

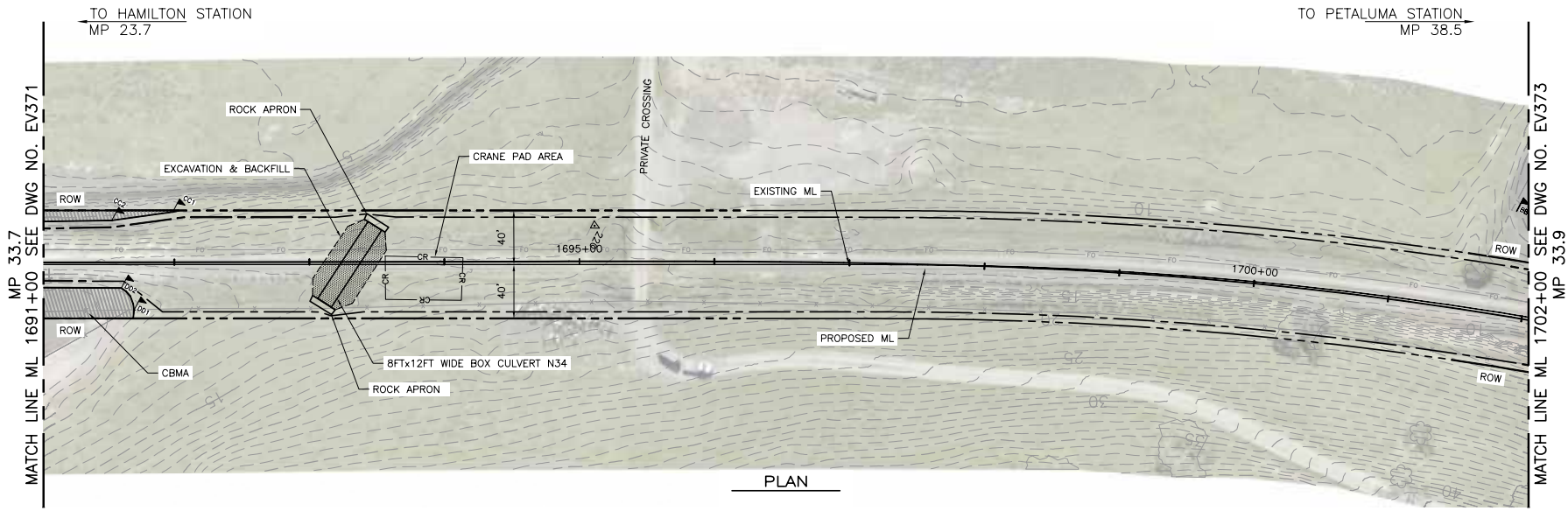
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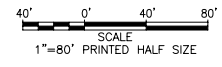
IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
 ML STA 1658+00 TO 1669+00
 SHEET 69 OF 87

CADD FILENAME EV363-EV372.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV369	MILEPOST 33.0

May 02, 2013 - 11:00am - P:\01\12412 - P01\12412\11-01\SMART_05_1 - Bld\12412\05-CAD\05_Construction_Package\05_105-1\003_SMT\04_SHEETS\01_Environment\05-0372.dwg



PLAN



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1	20130503	CP			REV 1



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C. PHELPS
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MAY 3, 2013

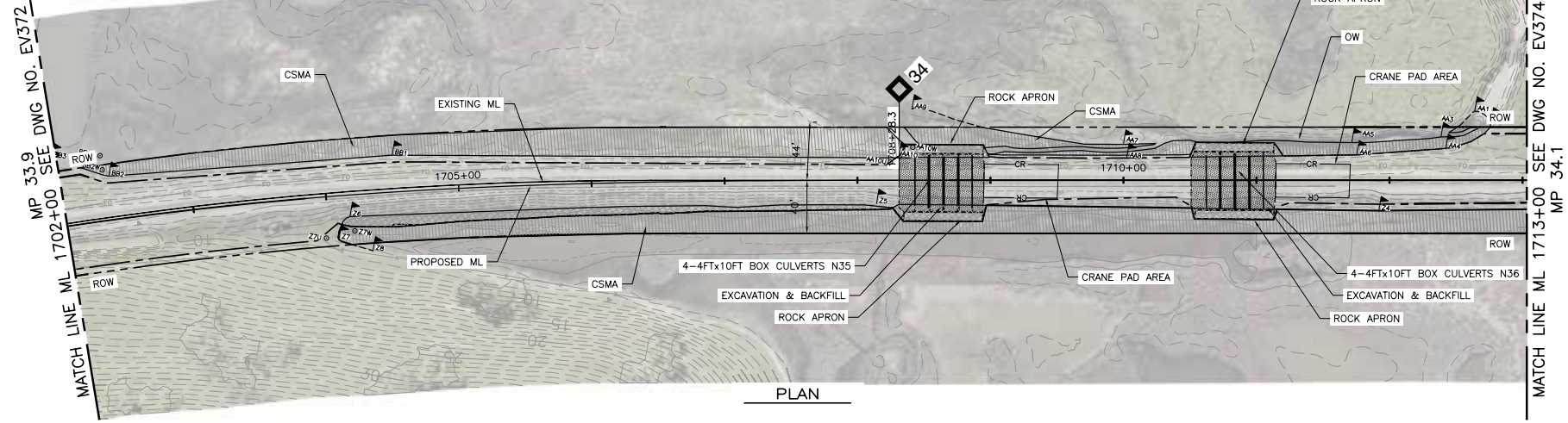
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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV363-EV372.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1691+00 TO 1702+00		AS NOTED CV-DB-11-001
DWG. NO. EV372	MILEPOST 33.7	
SHEET 72 OF 87		

TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5



PLAN

40' 0' 40' 80'
SCALE
1"=80' PRINTED HALF SIZE

PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV373	AA	CSMA	PERM	597	Box Culvert	1708+64			4	10.00	4.00		2.00	109.00	178.00	310.00		
EV373	AA	CSMA	PERM	673	Box Culvert	1710+83			4	10.00	4.00		3.00	150.00	213.00	310.00		
EV373	AA	CSMA	TEMP	288	Trackwork													
EV373	Z	CSMA	PERM	803	Box Culvert	1708+64			4	10.00	4.00		5.00	230.00	263.00	310.00		
EV373	Z	CSMA	PERM	484	Box Culvert	1710+83			4	10.00	4.00		1.00	50.00	124.00	310.00		
EV373	Z	CSMA	PERM	2283	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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C. PHELPS
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DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV373-EV382.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1702+00 TO 1713+00		AS NOTED CV-DB-11-001
DWG. NO. EV373	MILEPOST 33.9	
SHEET 73 OF 87		

May 02, 2013 - 11:06am C:\12412 - Proj\mwp\12412-11-001\SMART_05_1 - Bld\Phase05-CADD\IOS Construction Package\IOS_05-1\003 DWG\04 SHEETS\01 Environment\0373-0382.dwg

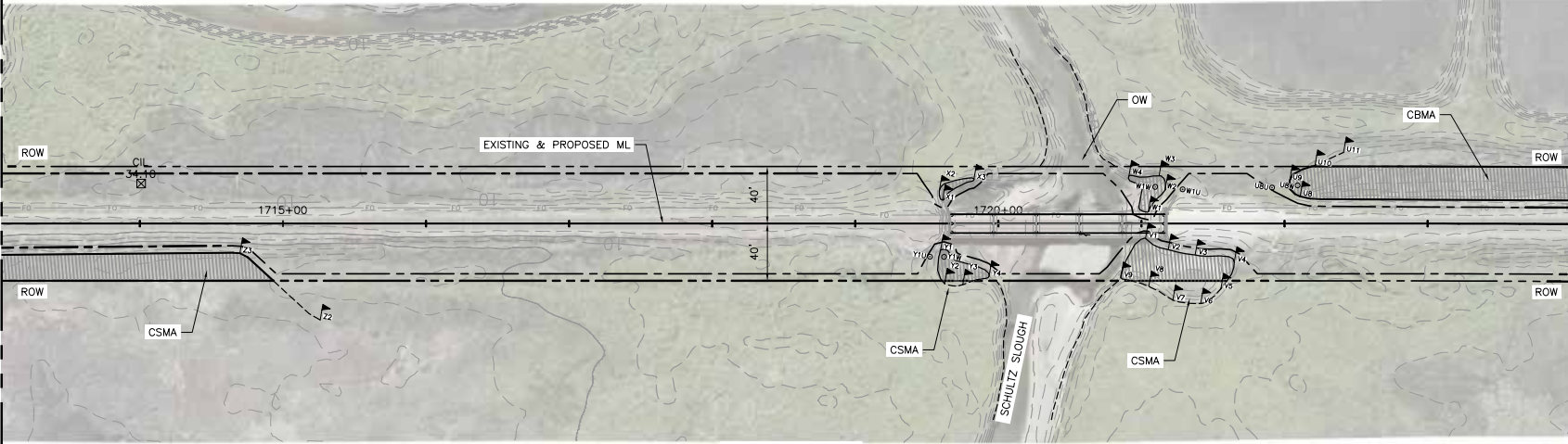
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

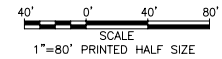


MP 34.1
MATCH LINE ML 1713+00 SEE DWG NO. EV373

MATCH LINE ML 1724+00 SEE DWG NO. EV375
MP 34.3



PLAN



May 02, 2013 - 11:07am - P:\01\mwp\12412-11-001\SMART_05_1 - Bld Phase\06-CAD\05 Construction Package\05_05-1\001\DWG\04 SHEETS\01 Environment\0373-0382.dwg

REV	DATE	BY	SUB	APR	DESCRIPTION
1	20130503	CP			REV 1



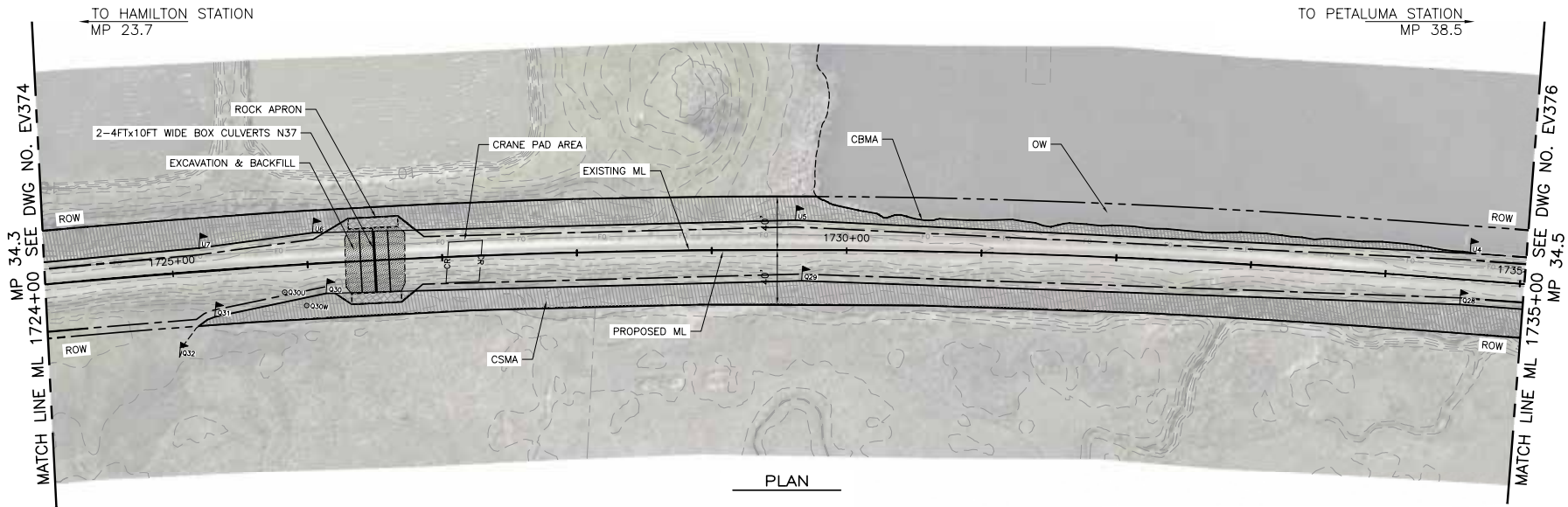
PREPARED BY
C. PHELPS
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C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV373-EV382.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1713+00 TO 1724+00		AS NOTED CV-DB-11-001
DWG. NO. EV374	MILEPOST 34.1	
SHEET 74 OF 87		

May 02, 2013 - 11:08am C:\12412 - P:\M\12412-11-001\SMART 05 1 - Bld P\res\05-CAD\05 Construction Package\05_05-1\001 DWG\04 SHEETS\01 Environment\0373-0382.dwg



PLAN

40' 0' 40' 80'
 SCALE
 1"=80' PRINTED HALF SIZE

PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV375	Q	CSMA	PERM	395	Box Culvert	1726+50			2	10.00	4.00		1.00	5.00	198.00	192.00		
EV375	U	CBMA	PERM	537	Box Culvert	1726+50			2	10.00	4.00		2.00	50.00	295.00	192.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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 IN CHARGE
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 DATE
 MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN

PROPOSED CONDITION

ML STA 1724+00 TO 1735+00

SHEET 75 OF 87

CADD FILENAME
 EV373-EV382.dwg
 SCALE AS NOTED CONTRACT NO.
 CV-DB-11-001
 DWS. NO. EV375 MILEPOST 34.3

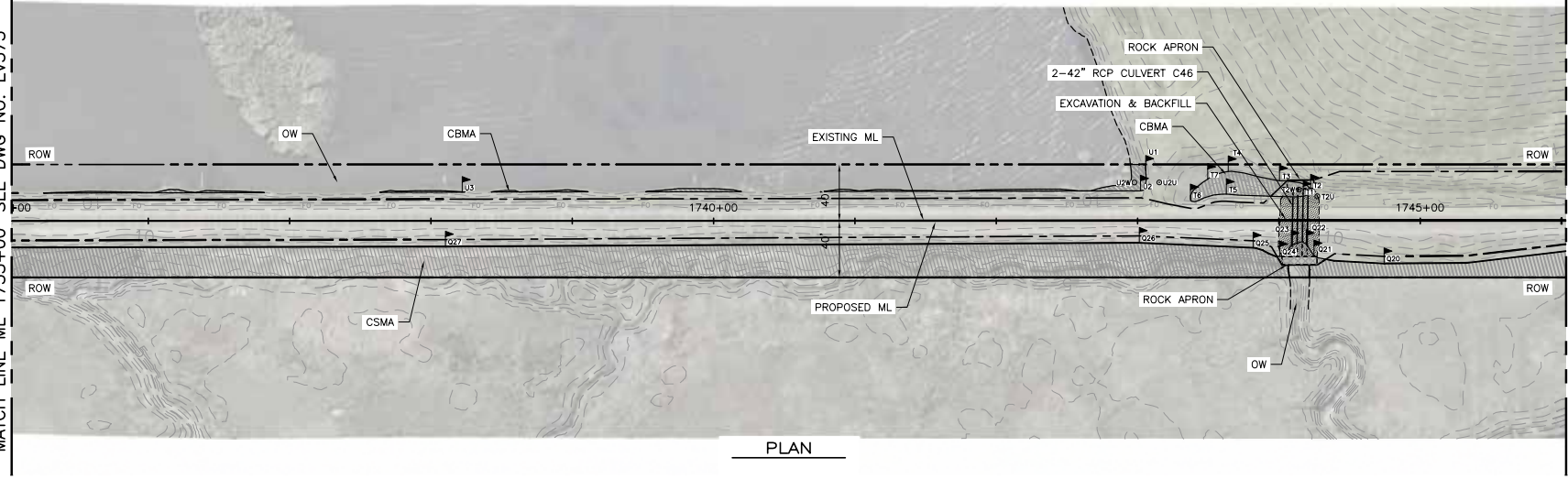
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

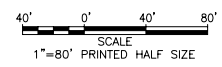


MP 34.5
MATCH LINE ML 1735+00 SEE DWG NO. EV375

MATCH LINE ML 1746+00 SEE DWG NO. EV377
MP 34.7



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV376	Q	CSMA	PERM	321	Culvert	1744+14			2		3.50	9.00	31.50	176.50	113.00			
EV376	T	CBMA	PERM	214	Culvert	1744+14			2		3.50	5.00	17.50	131.50	65.00			

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
ML STA 1735+00 TO 1746+00
SHEET 76 OF 87

CADD FILENAME
EV373-EV382.dwg
SCALE
AS NOTE
CONTRACT NO.
CV-DB-11-001
DWS. NO.
EV376
MILEPOST
34.5

Path: \\mnp\12412-11\1118em_11118em_012412_1 - P01 WWP\12412-11-001 SMART_05_1 - Bld Pksws\06-CAD\05 Construction Package\05_05-1\003 DWG\04 SHEETS\01 Environment\0375-0382.dwg
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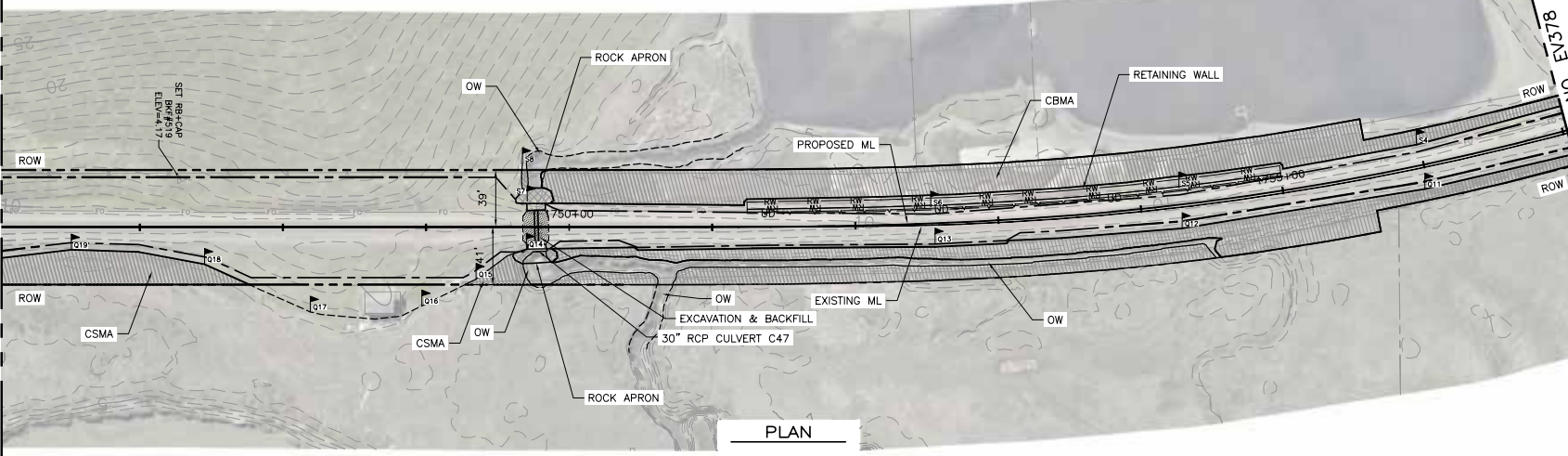
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

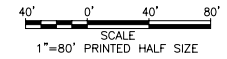


MP 34.7
MATCH LINE ML 1746+00 SEE DWG NO. EV376

SEE DWG NO. EV378
MATCH LINE ML 1757+00 SEE DWG NO. EV379



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV377	Q	CSMA	PERM	148	Culvert	1749+74			1			2.50	0.00	0.00	0.00	148.00		
EV377	Q	CSMA	TEMP	516	Trackwork													
EV377	S	CBMA	PERM	233	Culvert	1749+74			1			2.50	0.00	0.00	0.00	233.00		
EV377	S	CBMA	TEMP	2487	Wall		1753+00											

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
DRAWN BY
C. PHELPS
CHECKED BY
P. BORDENAVE
IN CHARGE
G. NAKANO
DATE
MAY 3, 2013

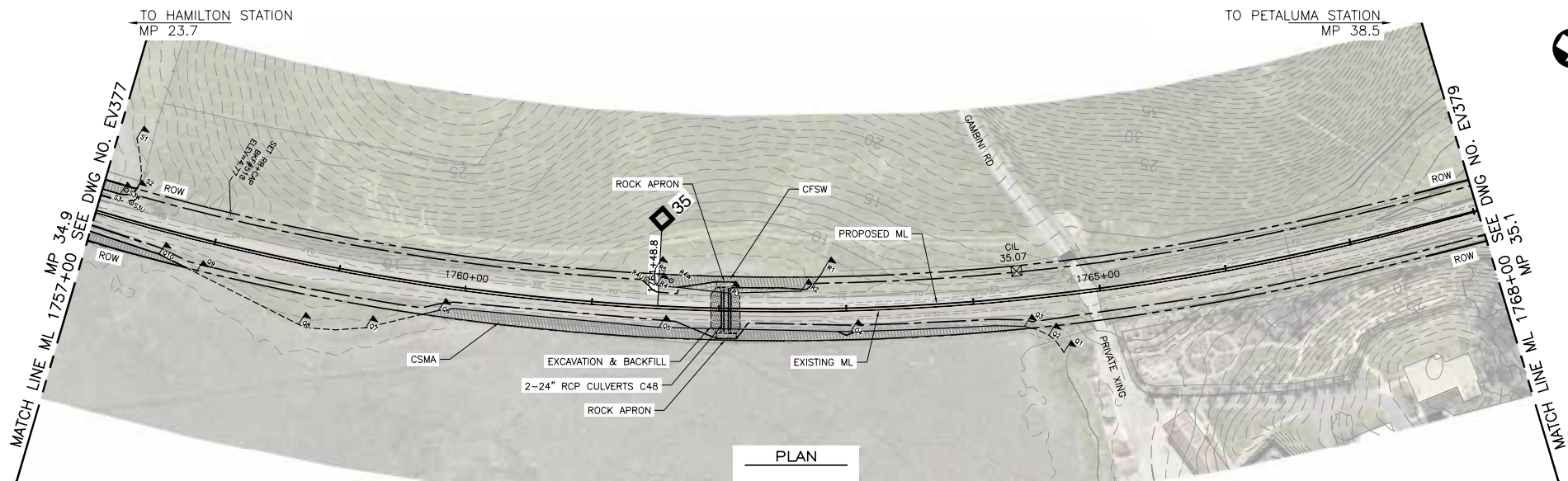
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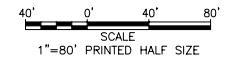
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PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1746+00 TO 1757+00		DWG. NO. MILEPOST EV377 34.7
SHEET 77 OF 87		

Path: \\mnp\12412-11-001\SMART_05_1 - Bid\Project\GIS-CADD\Construction\Package\US_05-1\003\DWG\04_SHEETS\01_Environment\0373-0382.dwg
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PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV378	Q	CSMA	PERM	216	Culvert	1762+06			2			2.00	4.00	8.00	125.00	83.00		
EV378	R	CFSW	PERM	412	Culvert	1762+06			2			2.00	4.00	8.00	321.00	83.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
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P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV373-EV382.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1757+00 TO 1768+00		DWG. NO. MILEPOST EV378 34.9
SHEET 78 OF 87		

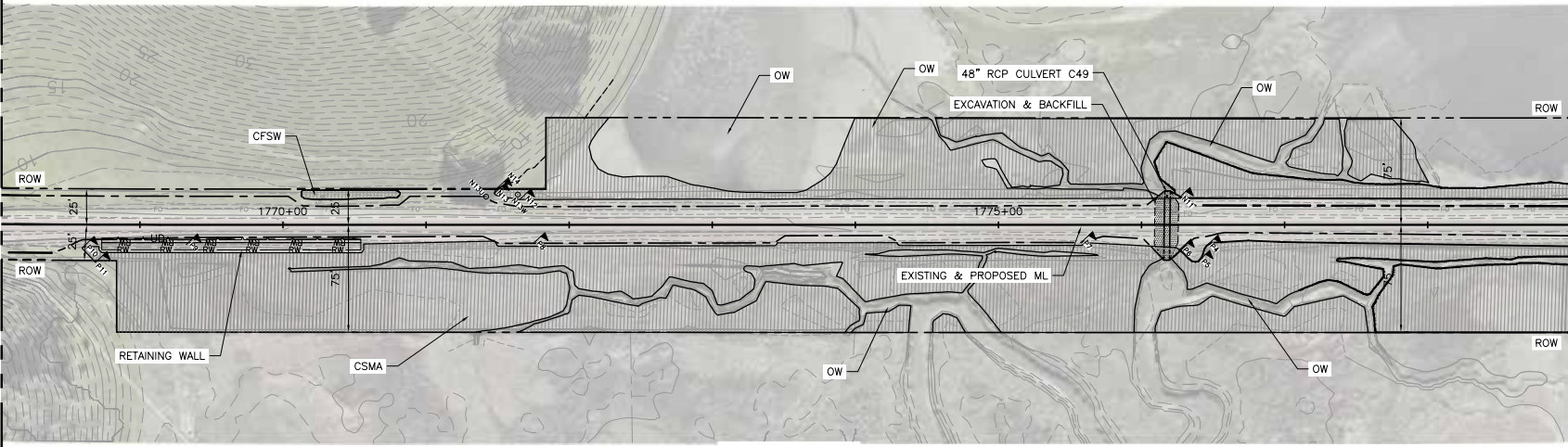
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

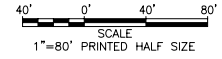


MP 35.1
MATCH LINE ML 1768+00 SEE DWG NO. EV378

MATCH LINE ML 1779+00 SEE DWG NO. EV380
MP 35.3



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV379	N	CBMA	PERM	58	Culvert	1776+15	1769+00		1			4.00	4.00	16.00	42.00	0.00		
EV379	O	CSMA	TEMP	1020	Wall													
EV379	P	CSMA	PERM	116	Culvert	1776+15			1			4.00	6.00	24.00	92.00	0.00		
EV379	P	CSMA	TEMP	235	Trackwork													
EV379	P	CSMA	TEMP	391	Trackwork													

May 02, 2013 - 11:17am © 12412 - Plot: W:\m\12412-11-001_SMAPT_05_1 - Bld P\m\12412-11-001_CAD\OS Construction\Package\OS_05-1\001_SMAPT_05_1_SHEETS\01_Environment\0373-0382.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

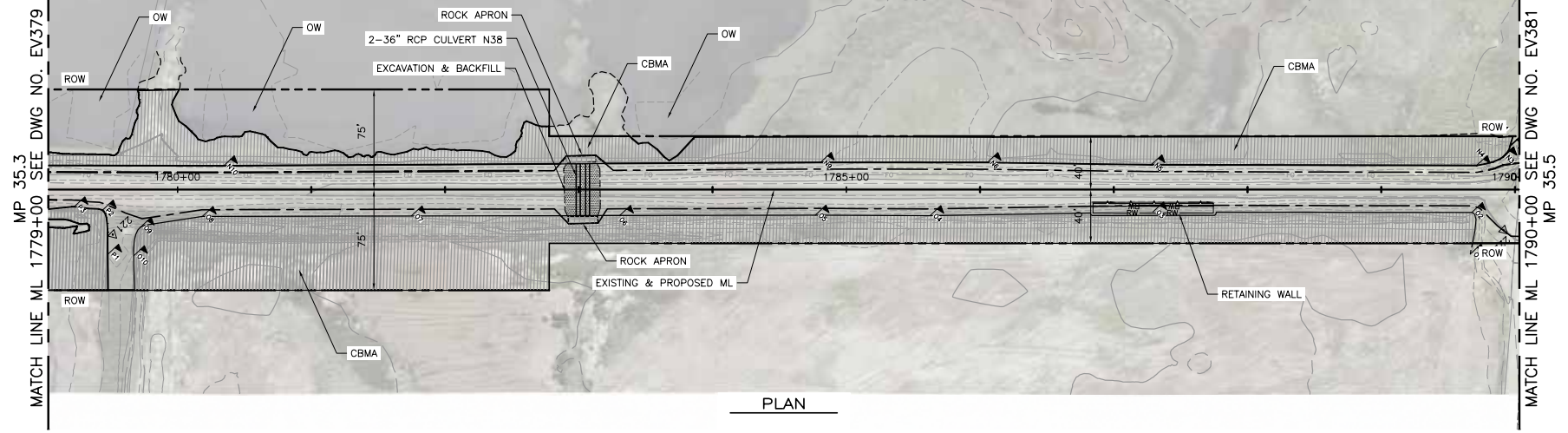
**PRELIMINARY FOR PLANNING/REVIEW
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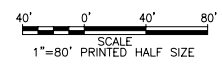
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PROPOSED CONDITION		SCALE	CONTRACT NO.
ML STA 1768+00 TO 1779+00		AS NOTED	CV-DB-11-001
DWG. NO. EV379	MILEPOST 35.1	SHEET 79 OF 87	

TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV380	N	CBMA	PERM	171	Culvert	1783+03			2			3.00	1.00	3.00	71.00			
EV380	O	CBMA	PERM	157	Culvert	1783+03			2			3.00	1.00	3.00	57.00	97.00		
EV380	O	CBMA	TEMP	222	Wall		1787+20											

May 02, 2013 - 11:18am - P:\04\12412 - P04\12412-11-001\SMART_05_1 - Bld\12412-05-CAD\05 Construction\Package\05_05-1\003\DWG\04_SHEETS\01_Environment\0373-0382.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
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P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

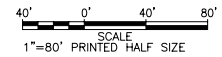
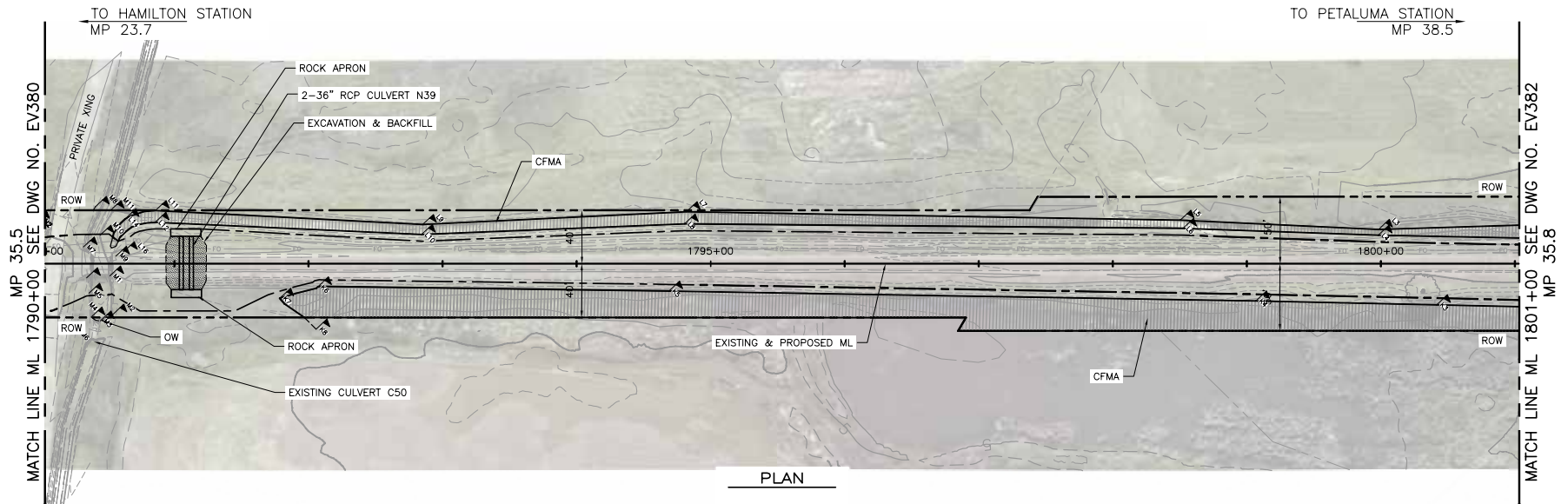
**PRELIMINARY FOR PLANNING/REVIEW
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IOS-1 ENVIRONMENTAL PERMIT PLAN
 PROPOSED CONDITION
 ML STA 1779+00 TO 1790+00
 SHEET 80 OF 87

CADD FILENAME
EV373-EV382.dwg
 SCALE
AS NOTED
 CONTRACT NO.
CV-DB-11-001
 DWS. NO.
EV380
 MILEPOST
35.3

May 02, 2013 - 11:24am - P:\04\12412 - P04\12412-11-001\SMART_05_1 - Bld\12412-05-CAD\05_Construction\Package\05_105-1\003_SHEETS\04_SHEETS\01_Environment\0373-EV382.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV381	L	CFMA	PERM	27	Trackwork													

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
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P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV373-EV382.dwg
PROPOSED CONDITION		SCALE CONTRACT NO.
ML STA 1790+00 TO 1801+00		AS NOTED CV-DB-11-001
DWG. NO. EV381	MILEPOST 35.5	
SHEET 81 OF 87		

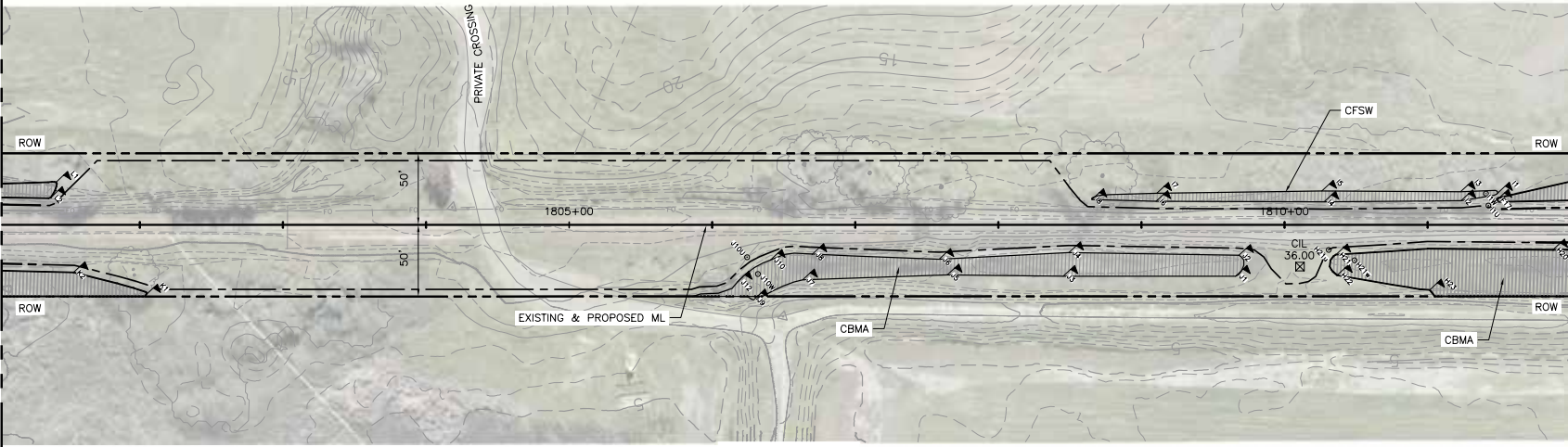
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TO HAMILTON STATION
MP 23.7

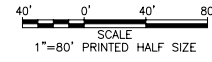
TO PETALUMA STATION
MP 38.5

MP 35.8
MATCH LINE ML 1801+00 SEE DWG NO. EV381

MATCH LINE ML 1812+00 SEE DWG NO. EV383
MP 36.0



PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



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C. PHELPS
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 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN
PROPOSED CONDITION
 ML STA 1801+00 TO 1812+00
 SHEET 82 OF 87

CADD FILENAME EV373-EV382.dwg	
SCALE AS NOTED	CONTRACT NO. CV-DB-11-001
DWG. NO. EV382	MILEPOST 35.8

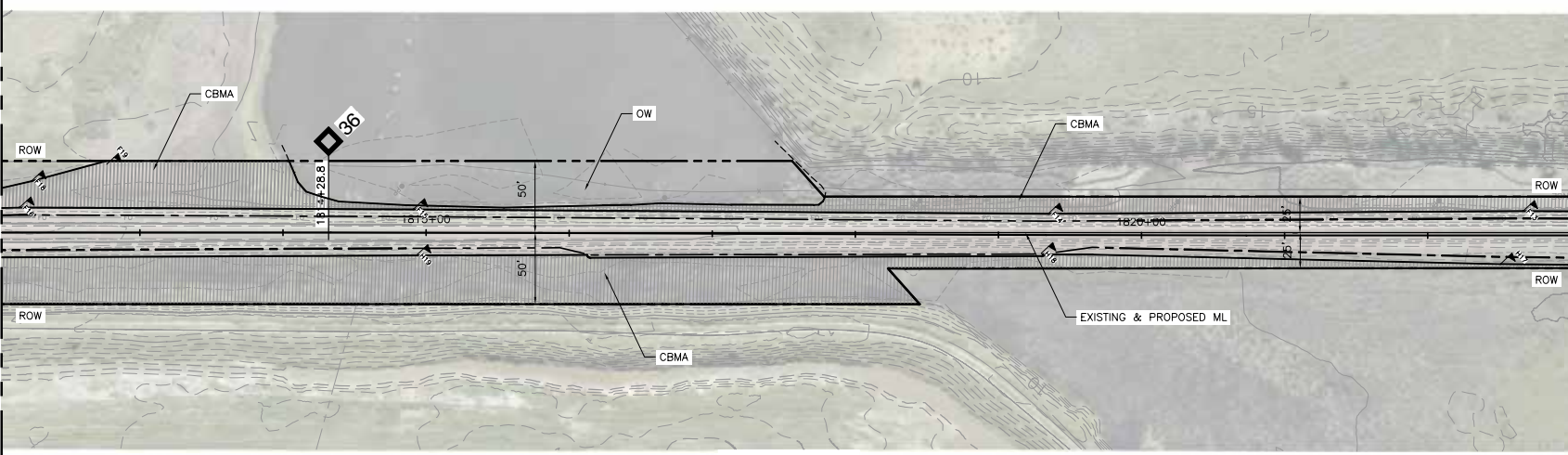
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

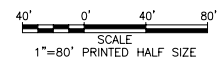


MP 36.0
MATCH LINE ML 1812+00 SEE DWG NO. EV382

MATCH LINE ML 1823+00 SEE DWG NO. EV384
MP 36.2



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV383	H	CBMA	TEMP	506	Trackwork													

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REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
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P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV383-EV387.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1812+00 TO 1823+00		DWG. NO. MILEPOST EV383 36.0
SHEET 83 OF 87		

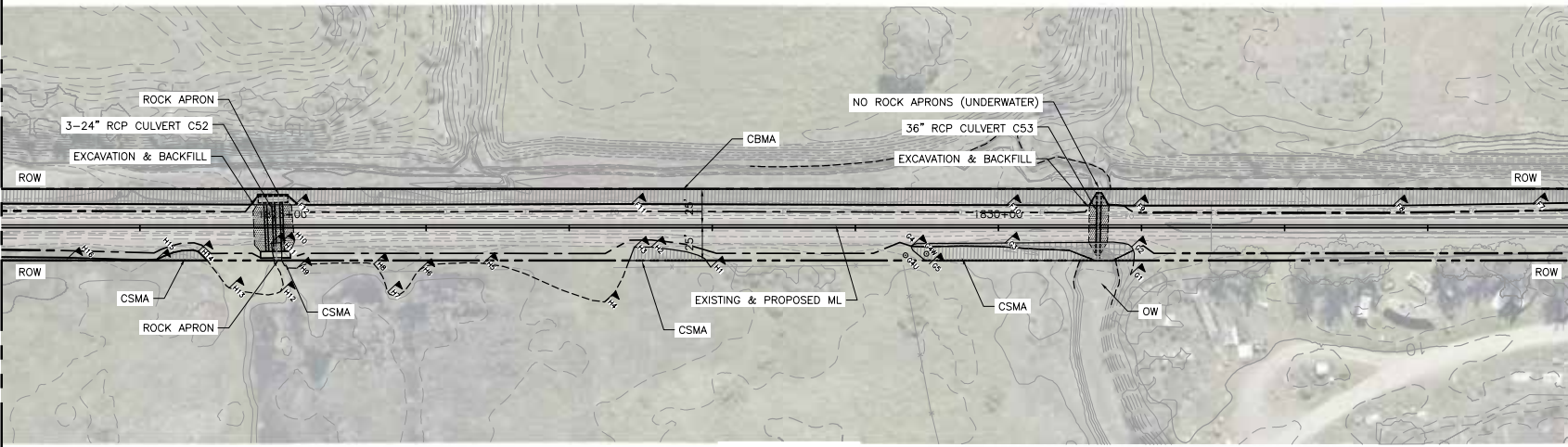
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5



MP 36.2
MATCH LINE ML 1823+00 SEE DWG NO. EV383

MATCH LINE ML 1834+00 SEE DWG NO. EV385
MP 36.4



PLAN

40' 0' 40' 80'
SCALE
1"=80' PRINTED HALF SIZE

PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV384	F	CBMA	PERM	184	Culvert	1824+94			3			2.00	2.00	4.00	128.00	52.00		
EV384	F	CBMA	PERM	80	Culvert	1830+69			1			3.00	6.00	18.00	62.00	0.00		
EV384	G	CSMA	PERM	762	Culvert	1830+69			1			3.00	6.00	18.00	744.00	0.00		
EV384	H	CSMA	PERM	76	Culvert	1824+94			3			2.00	5.00	10.00	31.00	35.00		

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
DRAWN BY
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CHECKED BY
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IN CHARGE
G. NAKANO
DATE
MAY 3, 2013

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IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV383-EV387.dwg
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001
ML STA 1823+00 TO 1834+00		DWG. NO. MILEPOST EV384 36.2
SHEET 84 OF 87		

May 02, 2013 - 11:30am © 12412 - P:\01\mwy\12412-11-001\SMART_05_1 - Bld Phase\05-CAD\05 Construction Package\05_05-1\001\DWG\04 SHEETS\01 Environment\0383-0387.dwg

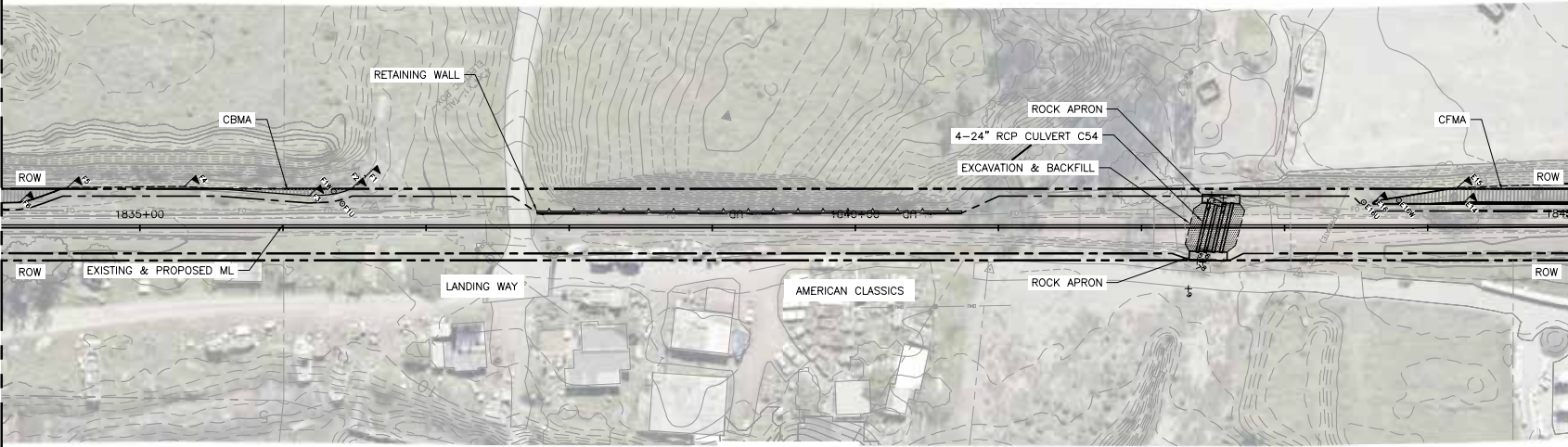
TO HAMILTON STATION
MP 23.7

TO PETALUMA STATION
MP 38.5

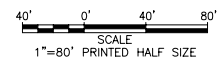


MP 36.4
MATCH LINE ML 1834+00 SEE DWG NO. EV384

MATCH LINE ML 1845+00 SEE DWG NO. EV386
MP 36.6



PLAN



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLANDS (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV385	UN_WL_1842+50	CFMA	PERM	35	Culvert	1842+49			4			2.00	2.00	4.00	11.00	20.00		

Path: \\mnp\12412-11-001\SMART\05.1 - Ball Passes\05-CAD\05 Construction\Package\05_05-1\001\DWG\04_SHEETS\01_Environment\0385-0387.dwg
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REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

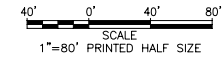
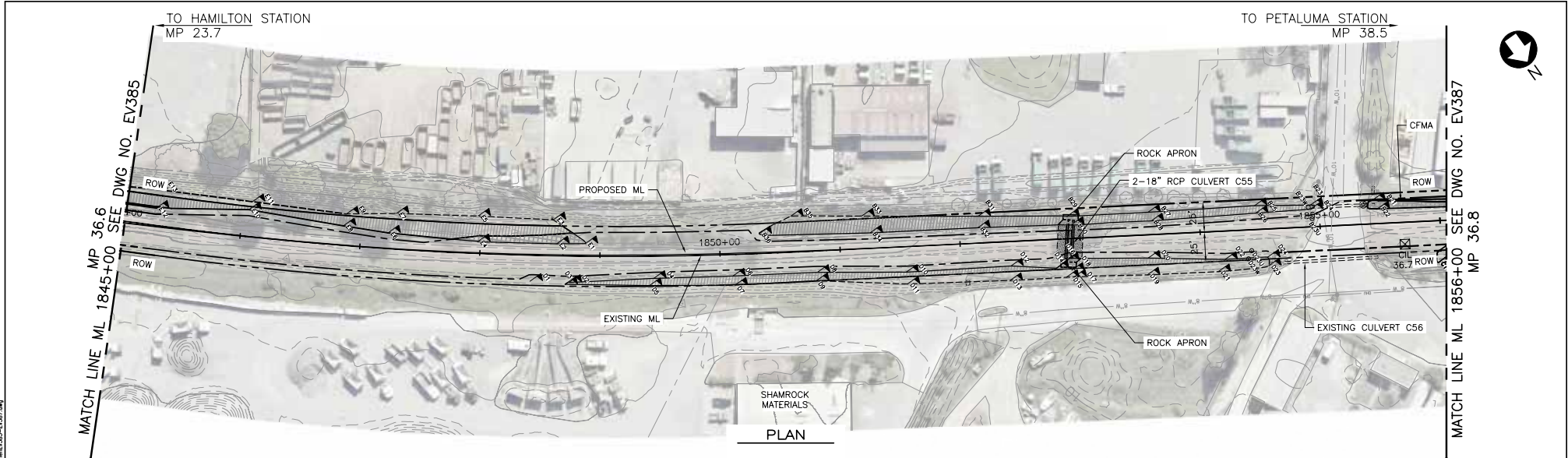
**PRELIMINARY FOR PLANNING/REVIEW
NOT FOR CONSTRUCTION**



IOS-1 ENVIRONMENTAL PERMIT PLAN
 PROPOSED CONDITION
 ML STA 1834+00 TO 1845+00
 SHEET 85 OF 87

CADD FILENAME
EV383-EV387.dwg
 SCALE CONTRACT NO.
AS NOTED CV-DB-11-001
 DWS. NO. MILEPOST
EV385 36.4

May 02, 2013 - 11:54am - I:\1346m - IOS-1\IOS-1\003 SHEETS\01 - Environment\0385-0387.dwg
 P:\1346m - IOS-1\IOS-1\003 SHEETS\01 - Environment\0385-0387.dwg



PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV386	B	CFMA	PERM	111	Culvert	1852+91			2			1.50	4.00	6.00	70.00	35.00		
EV386	D	CFMA	PERM	84	Culvert	1852+91			2			1.50	0.05	0.08	31.93	52.00		
EV386	E	CFMA	PERM	603	Trackwork													
EV385, EV387	B	CFMA	PERM	3156	Culvert	1856+40			2			2.00	6.00	12.00	3144.00	0.00		
EV386, EV387	B	CFMA	PERM	125	Trackwork													

NOTE: TRACKWORK IMPACTS WERE UNINTENTIONALLY INCLUDED IN THE STRUCTURAL FILL IMPACTS FOR CULVERT 1858+40 DURING GIS ANALYSIS. THIS IMPACT SPANS SHEETS EV386 AND EV387 EVEN THOUGH THE CULVERT IS ON SHEET EV387.

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



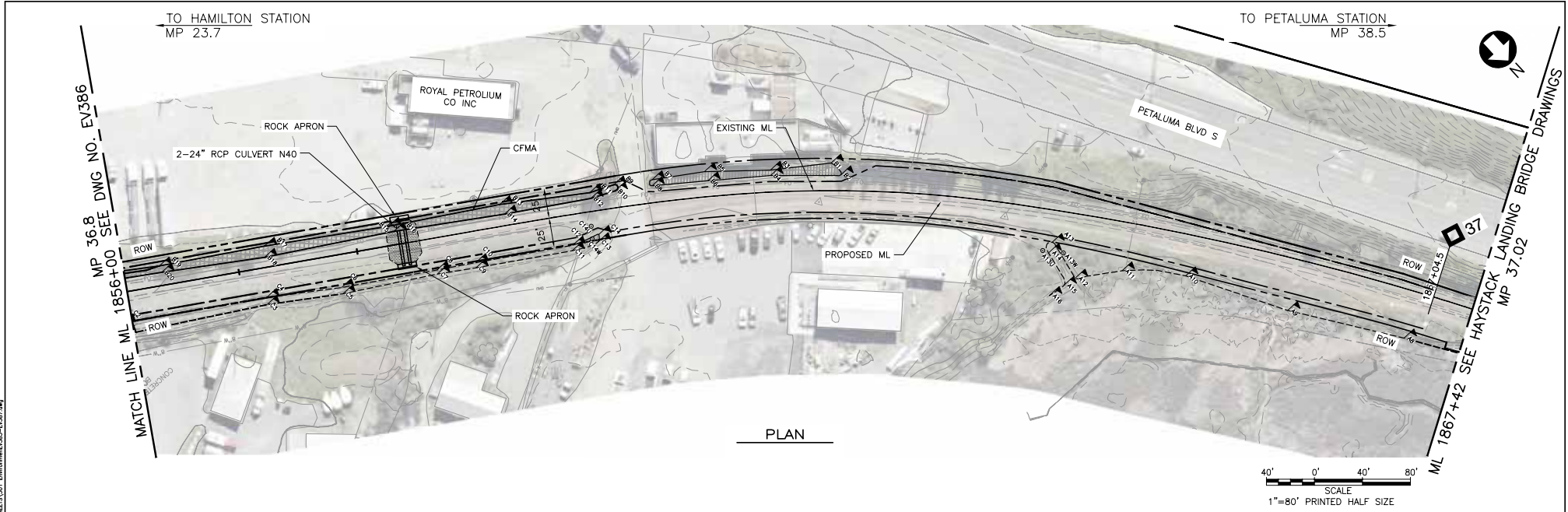
PREPARED BY
 C. PHELPS
 DRAWN BY
 C. PHELPS
 CHECKED BY
 P. BORDENAVE
 IN CHARGE
 G. NAKANO
 DATE
 MAY 3, 2013

PRELIMINARY FOR PLANNING/REVIEW
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IOS-1 ENVIRONMENTAL PERMIT PLAN PROPOSED CONDITION ML STA 1845+00 TO 1856+00 SHEET 86 OF 87		CADD FILENAME EV383-EV387.dwg SCALE AS NOTED DWG. NO. EV386	CONTRACT NO. CV-DB-11-001 MILEPOST 36.6
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May 02, 2013 - 11:56am © 12412 - P:\M\W\12412-11-02\SMART_02_1 - Bld Phase\06-CAD\05 Construction Package\05_05-1\02 DWG\04 SHEETS\01 Environment\038-0387.dwg



PLAN

PLAN SHEET	WETLAND NAME	WETLAND TYPE	IMPACT STATUS	IMPACT AREA (SF)	PROJECT ELEMENT	CULVERT STATION	WALL STATION	BRIDGE STATION	NUMBER OF CULVERTS	BOX CULVERT WIDTH (FT)	BOX CULVERT HEIGHT (FT)	CULVERT DIAMETER (FT)	CULVERT LENGTH IN WETLANDS (FT)	CULVERT AREA IN WETLANDS (SF)	CULVERT STRUCTURAL FILL AREA IN WETLAND (SF)	CULVERT APRON AREA IN WETLANDS (SF)	NUMBER OF PILES TO BE INSTALLED	BRIDGE PILE IN WETLAND OR CHANNEL AREA (SF)
EV385, EV387	B	CFMA	PERM	3136	Culvert	1858+40			2			2.00	6.00	12.00	3144.00	0.00		
EV386, EV387	B	CFMA	PERM	125	Trackwork													

NOTE: TRACKWORK IMPACTS WERE UNINTENTIONALLY INCLUDED IN THE STRUCTURAL FILL IMPACTS FOR CULVERT 1858+40 DURING GIS ANALYSIS. THIS IMPACT SPANS SHEETS EV386 AND EV387 EVEN THOUGH THE CULVERT IS ON SHEET EV387.

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130503	CP			REV 1



PREPARED BY
C. PHELPS
 DRAWN BY
C. PHELPS
 CHECKED BY
P. BORDENAVE
 IN CHARGE
G. NAKANO
 DATE
MAY 3, 2013

PRELIMINARY FOR PLANNING/REVIEW
NOT FOR CONSTRUCTION



IOS-1 ENVIRONMENTAL PERMIT PLAN		CADD FILENAME EV383-EV387.dwg	
PROPOSED CONDITION		SCALE CONTRACT NO. AS NOTED CV-DB-11-001	
ML STA 1856+00 TO 1867+42		DWG. NO. EV387	MILEPOST 36.8
SHEET 87 OF 87			