



## SURVEY NOTES

- 1. THE HORIZONTAL DATUM FOR THIS SURVEY IS THE NORTH AMERICAN DATUM OF 1983, CORS 1996 ADJUSTMENT [NAD83(CORS96)], EPOCH DATE OF 2002.0000.
- 2. THE PROJECTION USED IS THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE 5 PROJECTION.
- 3. THIS SURVEY TIED TO 3 NATIONAL GEODETIC SURVEY (NGS) CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS). THOSE STATIONS ARE THE NGS POINTS DESIGNATED "P280", HAVING A PUBLISHED POSITION OF: NORTHING 2,392,488.93', EASTING 5,863,297.17'; AND "P295", HAVING A PUBLISHED POSITION OF: NORTHING 2,451,971.16', EASTING 5,717,719.86' AND "P067" HAVING A PUBLISHED POSITION OF: NORTHING 2,400,478.63, EASTING 5,668,475.25. THE RESULTING BEARING FROM "P280" TO "P295" BEING: N 67°46'31" W. THE BEARINGS SHOWN HEREON ARE REFERENCED TO CCS83, ZONE 5 GRID NORTH.
- ALL MEASUREMENTS LISTED, SHOWN AND REPRESENTED HEREON ARE BASED ON GRID DISTANCES OF THE CALIFORNIA COORDINATE SYSTEM OF 1983 ZONE 5 PROJECTION. THE COMBINED SCALE FACTOR FOR THE PROJECT IS 0.99994436 THIS SCALE FACTOR WAS CALCULATED USING AN ELEVATION OF 47.17 FEET FOR POINT NUMBER 1. DIVIDE THE DISTANCES HEREON BY THE COMBINED SCALE FACTOR TO OBTAIN GROUND DISTANCES. ALL DISTANCES SHOWN ARE U.S. SURVEY FEET
- 5. THE CONVERGENCE ANGLE IS: -1.49510995 AT POINT NUMBER 1.
- 6. THE ORTHOMETRIC HEIGHTS (ELEVATIONS) ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THIS SURVEY USED AN ELEVATION OF 47.17' FOR POINT 1 (COMPUTED USING GEOD09).
- THE CONTOUR INTERVAL IS 1 FOOT.
- 8. ORTHOPHOTOGRAPHY PROVIDED BY: COASTAL SAN LUIS RESOURCE CONSERVATION DISTRICT 645 MAIN ST. SUITE F MORRO BAY, CA 93442
- NO ATTEMPT WAS MADE TO LOCATE OR MAP UNDERGROUND UTILITIES.
- 10. EASEMENTS ARE PLOTTED ONLY ON PARCEL A OF PB-77-77 FROM FIRST AMERICAN TITLE COMPANY PRELIMINARY TITLE REPORT NUMBER 4001-3649453 (LI) DATED: OCTOBER 29, 2010. NO ATTEMPT HAS BEEN MADE TO PLOT EASEMENTS ON OTHER PARCELS.
- 11. NO BOUNDARY SURVEY HAS BEEN PERFORMED.
  BOUNDARY LINES SHOWN HEREON ARE RECORD
  INFORMATION FROM PB-77-77 (29/PM/1). RECORD
  BOUNDARY INFORMATION SHOULD NOT BE RELIED UPON
  AS THE TRUE LOCATION OF THE BOUNDARY LINES. A
  BOUNDARY SURVEY WILL RESULT IN DIFFERENT
  LOCATIONS. RECORD BOUNDARY LINES ARE SHOWN
  HEREON AS CONTEXTUAL INFORMATION ONLY.
- 12. THE LAND LIES WITHIN THE BOUNDARIES OF THE FIVE CITIES REDEVELOPMENT PROJECT AREA AS DISCLOSED BY THE DOCUMENT RECORDED IN BOOK 3171, PAGE 252 OF OFFICIAL RECORDS.

## SURVEYOR'S STATEMENT

THIS MAP REPRESENTS A SURVEY MADE BY ME ON NOVEMBER 12, 2010 AT THE REQUEST OF CHERYL LENHARDT, P.E., ON NOVEMBER 5, 2010.

DATE:NOVEMBER 21, 2010

EDWARD M. READING, LS 8081

No. 8081

(LICENSE EXPIRES 12/31/2011)

# TOPOGRAPHIC SURVEY

OF
PORTIONS OF
PARCEL A OF PB-77-77 (29/PM/1)
AND
PARCEL 2 OF PB-72-250 (9/PM/64)

AND
LOT 14 OF RANCHO EL PISMO

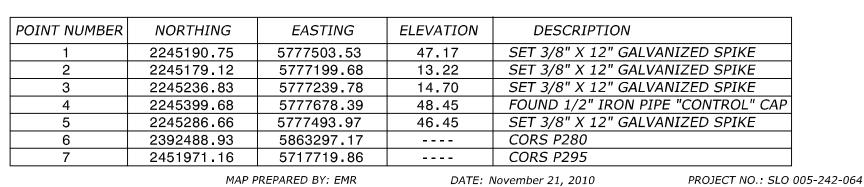
CITY OF PISMO BEACH, CALIFORNIA

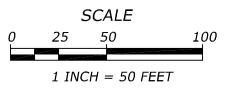
SURVEY CONTROL TABLE



WATER ELEVATION = 11.1' ON

11/12/2010





INTERMEDIATE CONTOUR

EDGE OF WATER 11/12/2010

INDEX CONTOUR

DRAWING FILE NAME: PISMO LAKE SLO 005-242-064.DWG

-064.DWG LAYOUT NAME: SHEET 1

**VICINITY MAP** 

N.T.S.

EASEMENT NOTES

PLOT EASEMENTS



### **Cost Estimates by Feature**

\* SF = square foot, LF = linear foot, Each = per item

Overland Charles Aver (Alt 14)	Quantity	Unit	Unit Cost*	Total Cost
Overlook/ Staging Area (Alt-1A)	27 000	SF	2.00	¢EE 760.00
Asphalt Paving Fencing	27,880 350	SF LF	25.00	\$55,760.00 \$8,750.00
Clear, Grubb & Grade New Trail	540	SF	3.50	\$1,890.00
Decomposed Granite Paving	540	SF	3.00	\$1,620.00
Picnic Tables	2	Each	1,600.00	\$3,200.00
Trash & Recycling Receptacles	2	Each	820.00	\$1,640.00
Bike Rack (6 slots)	1	Each	835.00	\$835.00
Trailhead Kiosk	1	Each	5,000.00	\$5,000.00
Entry Sign	1	Each	1,500.00	\$1,500.00
Ground cover and shrubs	3,200	SF	2.00	\$6,400.00
Sub Total	3,200	31	2.00	\$86,595.00
Sub Total				\$80,595.00
Trail to Lake (Alt-2A)	1,584	LF	-	-
Clear, Grubb & Grade New Trail	9,504	SF	3.50	\$33,264.00
Decomposed Granite Paving	9,504	SF	3.00	\$28,512.00
Boardwalk <sup>1</sup>	100	LF	56.00	\$5,600.00
Trail Fencing	792	LF	20.00	\$15,840.00
Benches - Metal	4	Each	2,000.00	\$8,000.00
Interpretative Sign & Base	4	Each	3,500.00	\$14,000.00
Sub Total				\$105,216.00
Loop Trail (Alt-3A)	3,800	LF	_	_
Clear, Grubb & Grade New Trail	22,800	SF	3.50	\$79,800.00
Decomposed Granite Paving	22,800	SF	3.00	\$68,400.00
Boardwalk <sup>1</sup>	200	LF	56.00	\$11,200.00
Trail Fencing	1,900	LF	20.00	\$38,000.00
Benches - Metal	8	Each	2,000.00	\$16,000.00
Interpretative Sign & Base	4	Each	3,500.00	\$14,000.00
Sub Total			,	\$227,400.00
Island Spur (Alt-2B & 3B)				
Bridge <sup>2</sup>	1,440	SF	100.00	\$144,000.00
Sub Total	1,440	31	100.00	\$144,000.00
Eastern Connector Trail (Alt-4)			200 222 23	4000 555 55
Bridge over 4th Street (225 LF) <sup>3</sup>	1	Each	300,000.00	\$300,000.00
Pier supported approach to Bridge	4,200	SF	100.00	\$420,000.00
Clear, Grubb & Grade New Trail	6,720	SF	3.50	\$23,520.00
Decomposed Granite Paving	6,720	SF	3.00	\$20,160.00
Trail Fencing	1,120	LF	20.00	\$22,400.00
Sub Total				\$786,080.00
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Alternative 1A Total	\$86,595		
Alternative 2A Total	\$191,811		
Alterative 2B Total	\$335,811		
Alternative 2B + 4 Total	\$1,121,891		
Alternative 3A Total	\$313,995		
Alterantive 3B Total	\$457,995		
Alternative 3B + 4 Total	\$1,244,075		

Unit costs are an approximations and were based on costs associated with other recent trails including the City of Grover Beach, Beach Cities Multi-Pupose Trail Feasibility Study (2010) and County of San Diego, Riverway Trails Plan (2000). Costs are based on labor and materials and do not include construction design, utility relocation, associated permitting, maintenance or contingency costs

<sup>&</sup>lt;sup>1</sup>Assumes trex decking, toe railing, pier block footings, Doug fir pressure treated stringers, and stainless steel hardware. After toe railing, 6x6 surface tread would be 5', 4".

<sup>&</sup>lt;sup>2</sup> Based on estimates from National Trails Training Partnership and does not include costs for abuttments and footings (2007).

<sup>&</sup>lt;sup>3</sup> Based on estimates from the Beach Cities Multi-Purpose Trail Feasiblity Study (2010).



#### **Proposed Evaluation Criteria for Public Access to the Reserve**

Evaluation criteria are a useful tool in objectively assessing potential public access alternatives. The proposed criteria are divided into three subject areas; Environmental, Physical and Fiscal.

#### **Environmental Criteria**

Minimize impacts to natural resources and sensitive areas

Minimize number of environmental permits and extent of mitigation required Minimize construction footprint

#### Physical Criteria

Minimize impacts to adjacent private properties

Maximize full accessibility

Maximize connections to existing and logical access points

Maximize interpretive areas taking advantage of natural overlooks and characteristics

Balance recreational opportunities with sensitive species and areas

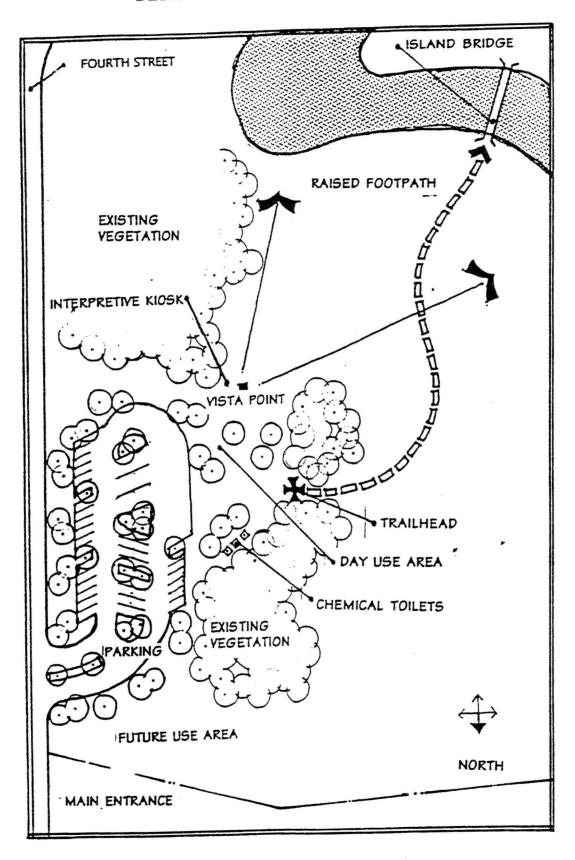
#### Fiscal Criteria

Minimize construction and maintenance costs

Maximize opportunity to qualify for grants and other funding sources



## DESIGN AND CONCEPT DRAWING



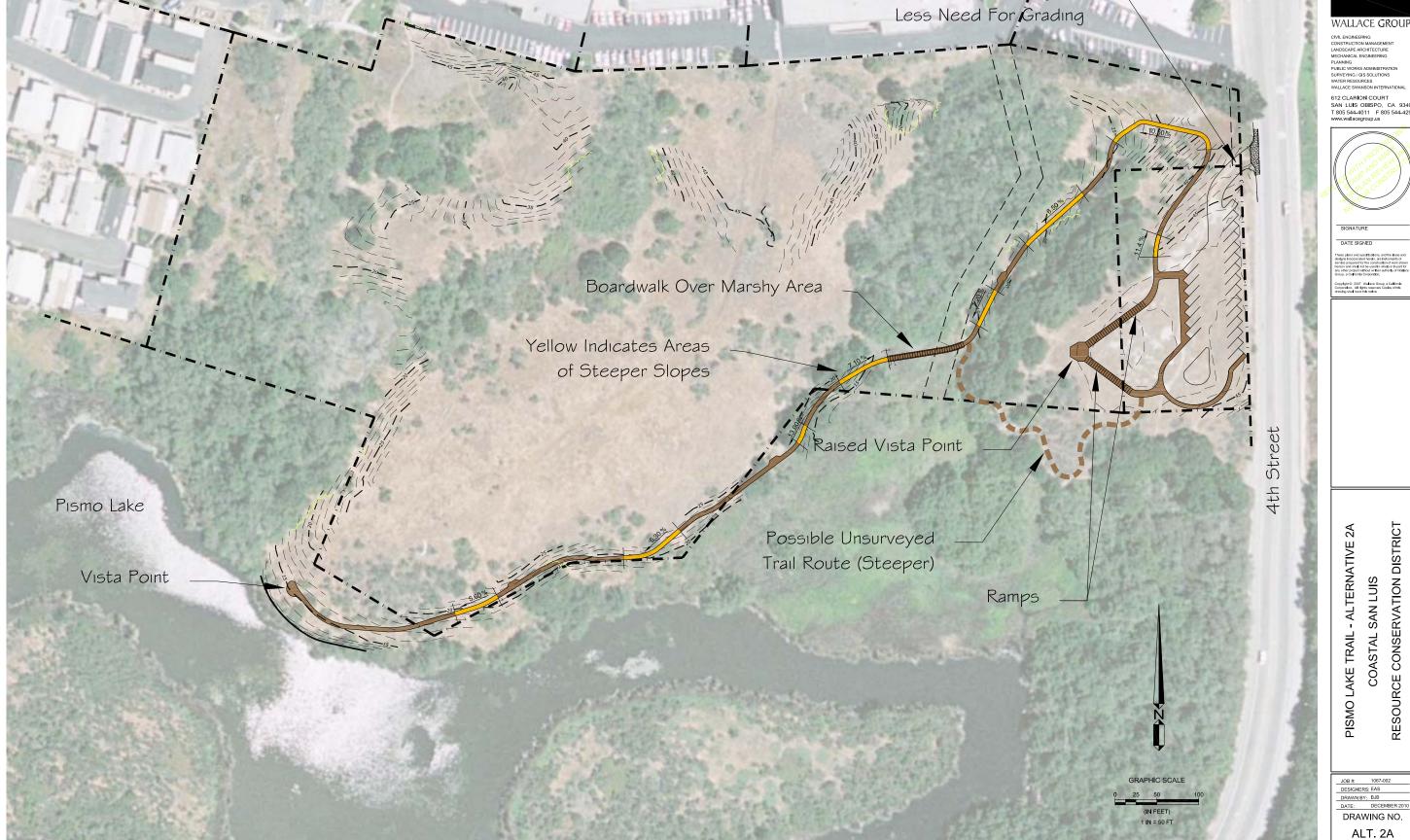


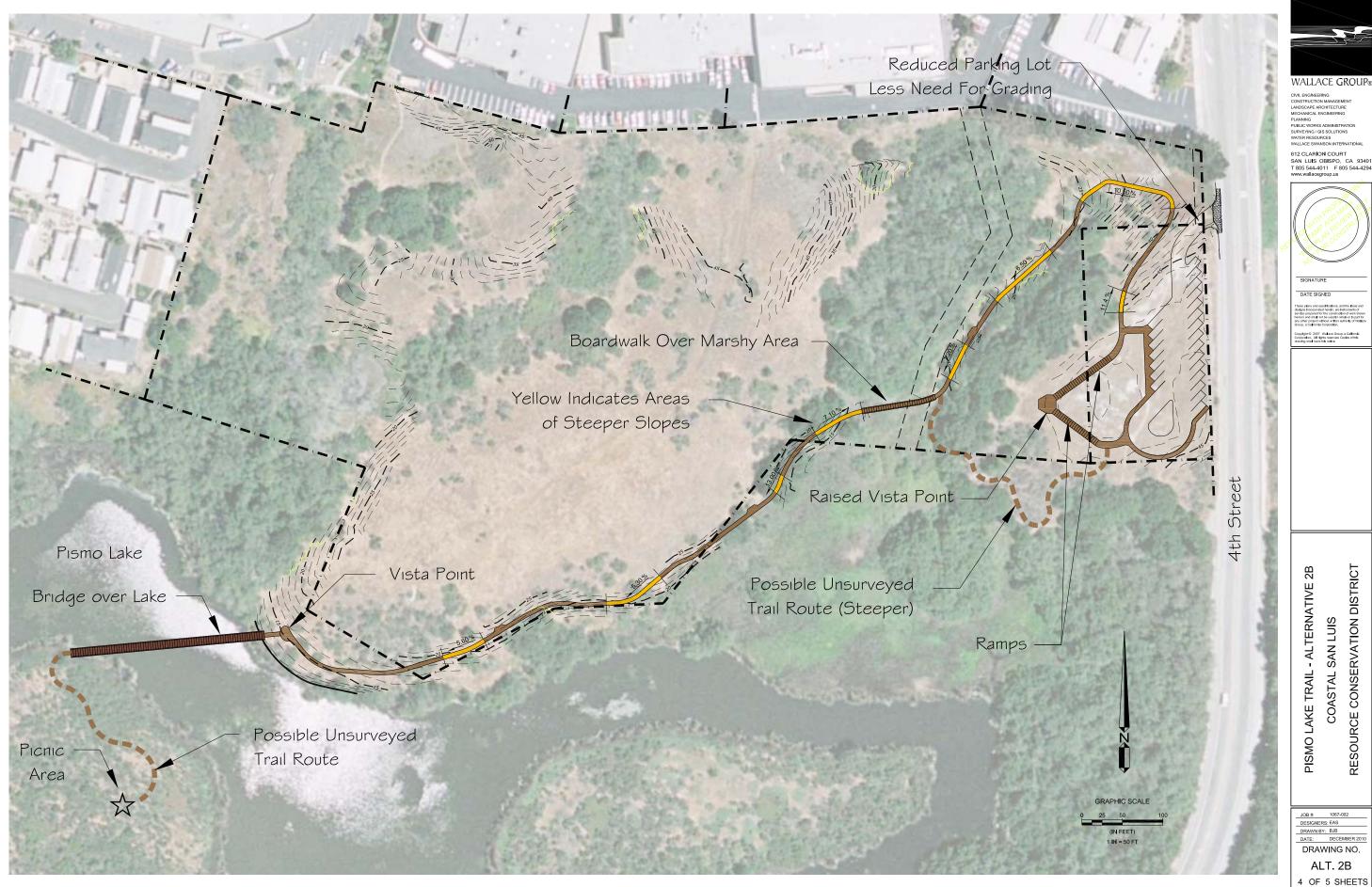




1 OF 5 SHEETS

2 OF 5 SHEETS











3 OF 5 SHEETS

