

Analysis





Context Zones



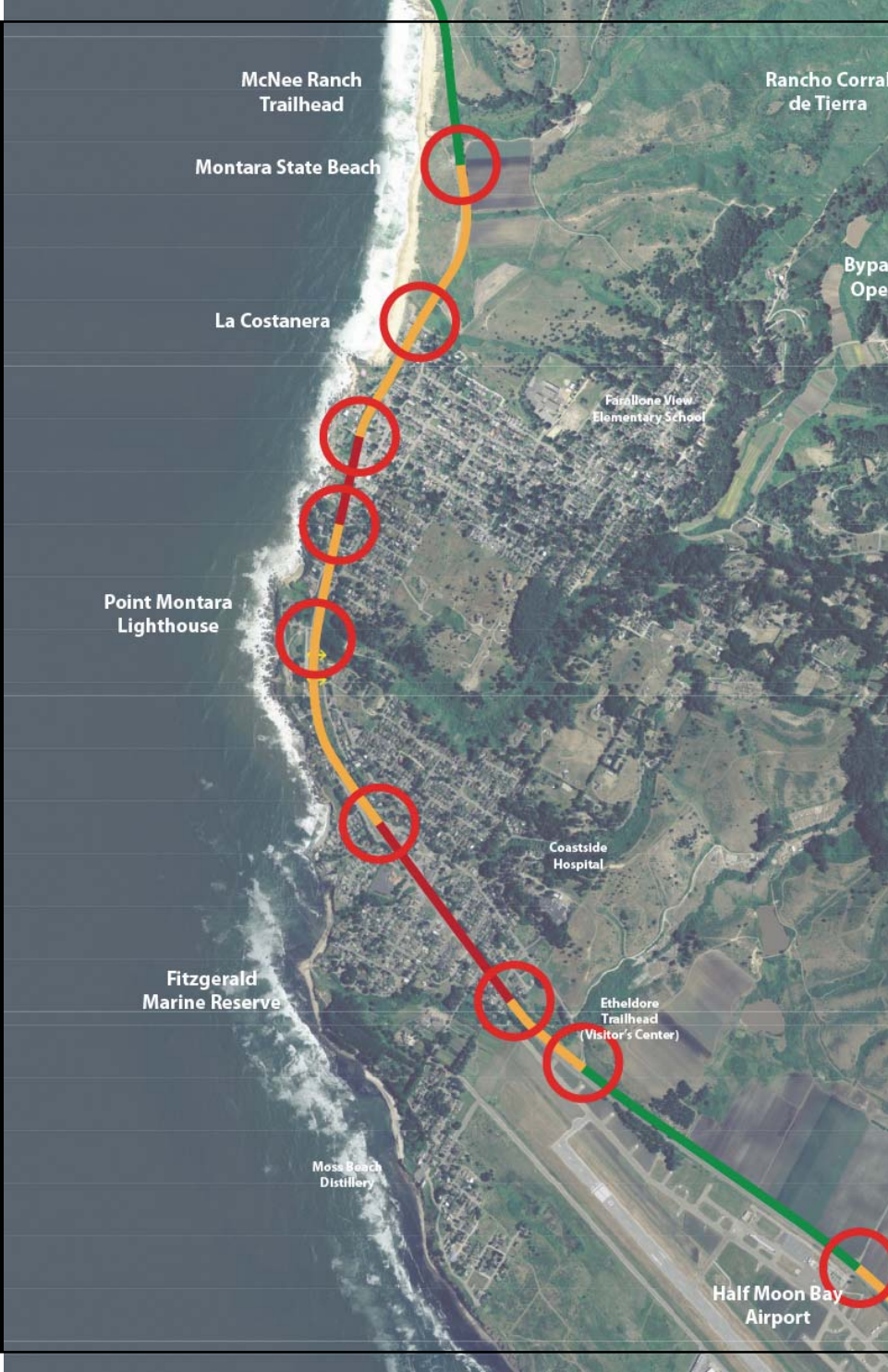
- Rural
- Village Fringe
- Village
- Hwy 1 Intersection

Aerial Map:
 National Highway 1 Safety & Mobility Improvement Study
 San Mateo County, CA
 May 2011

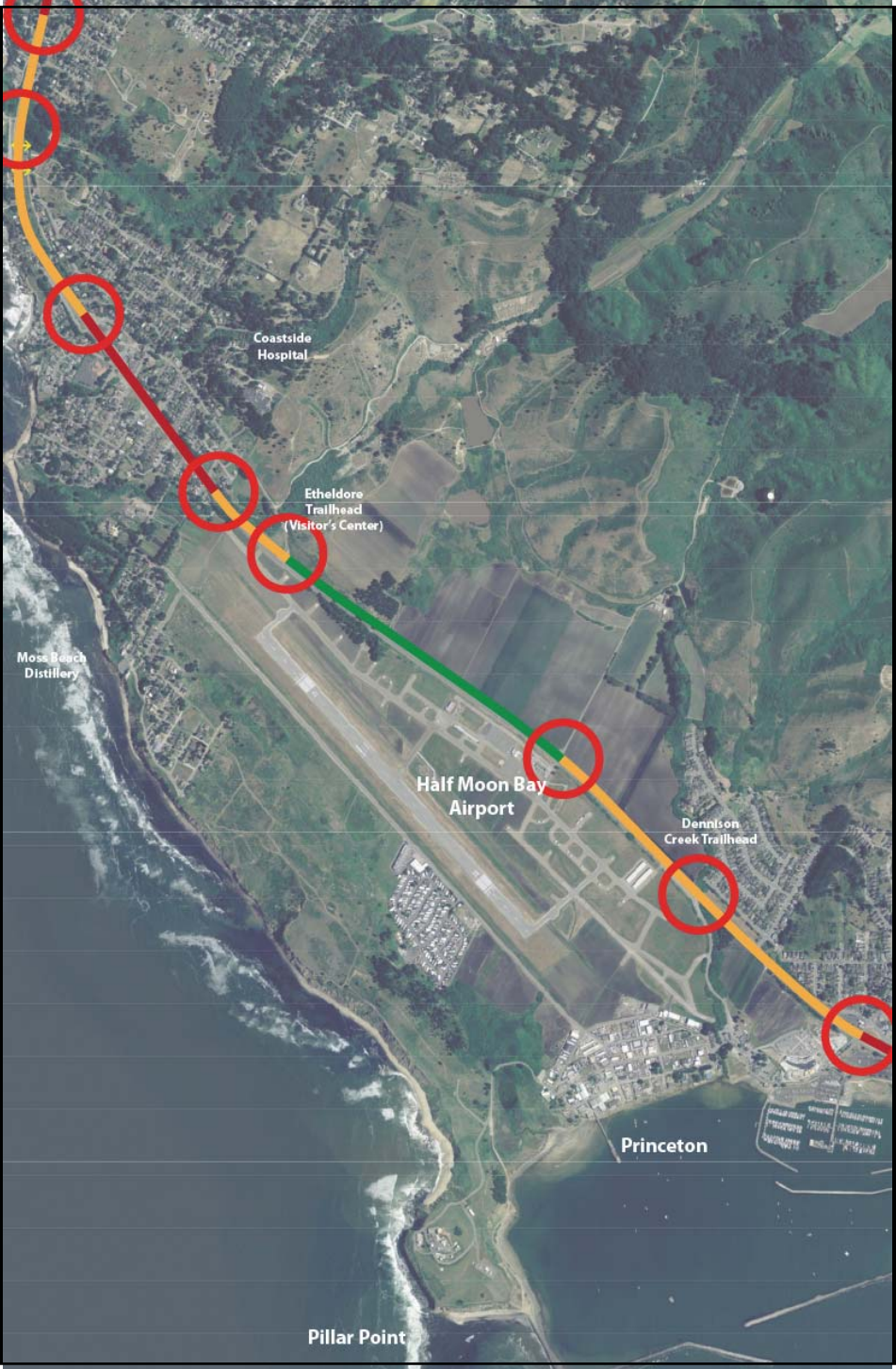
- Rural
- Village Fringe
- Village
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- Green square: Rural
- Orange square: Village Fringe
- Red square: Village
- Red circle: Hwy 1 Intersection



- Rural
- Village Fringe
- Village
- Hwy 1 Intersection





- Rural
- Village Fringe
- Village
- Hwy 1 Intersection

Montara State Beach

La Costanera

Faralle
Element

tara
ise

- Rural
- Village Fringe
- Village
- Hwy 1 Intersection






- Rural
- Village Fringe
- Village
- Hwy 1 Intersection



Preliminary Speed Recommendations

Existing Speed Limits



-  45 MPH Stretch of Roadway
-  50 MPH Stretch of Roadway
-  55 MPH Stretch of Roadway

Possible Future Speed Limits

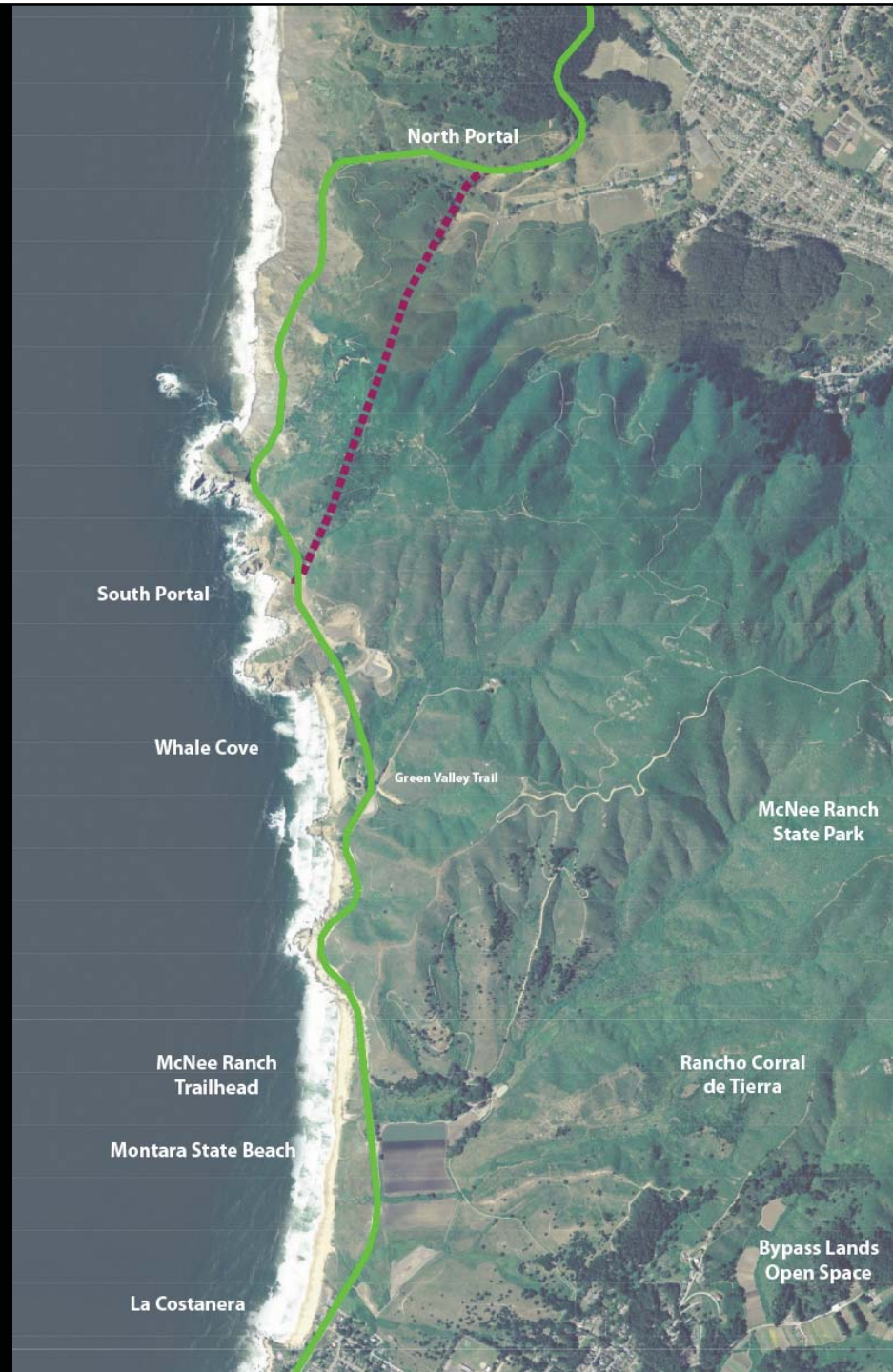
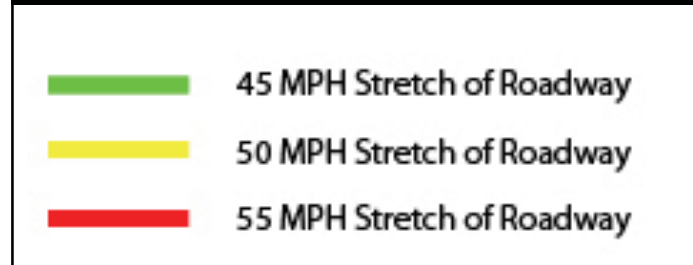


- 40 MPH Stretch of Roadway
- 45 MPH Stretch of Roadway
- 55 MPH Stretch of Roadway

40 MPH Stretch of Roadway
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Existing Speed Limits

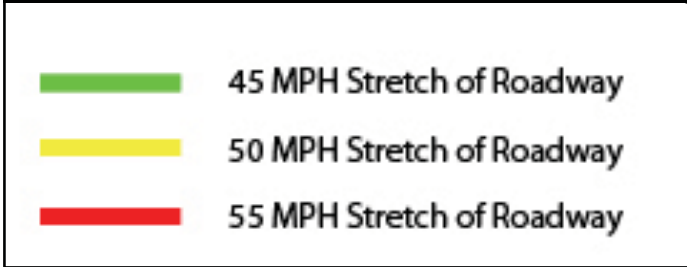


Possible Future Speed Limits

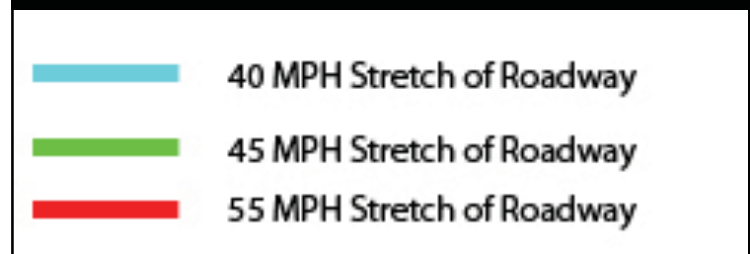


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Existing Speed Limits






Possible Future Speed Limits






Existing Speed Limits






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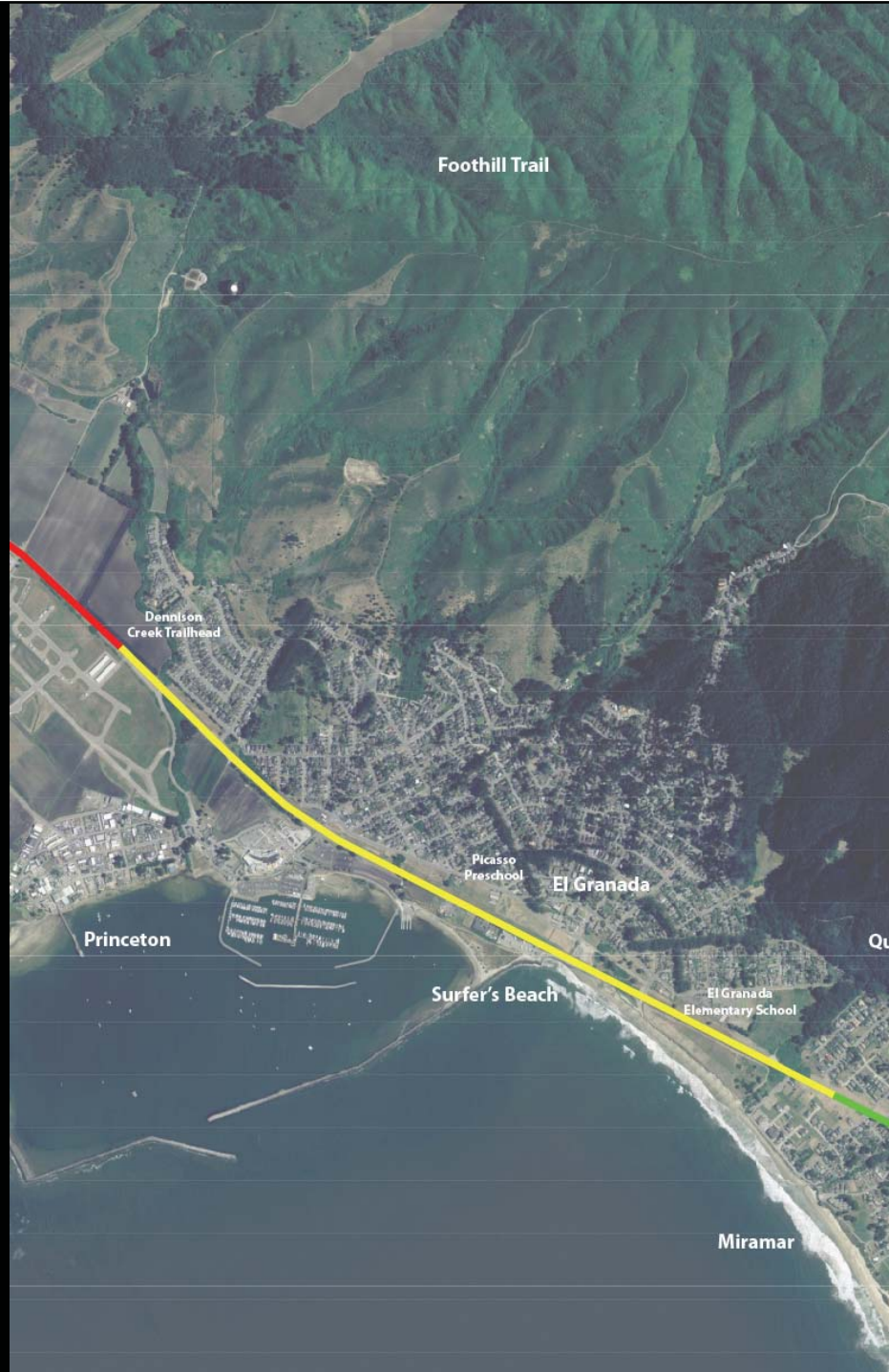
Possible Future Speed Limits



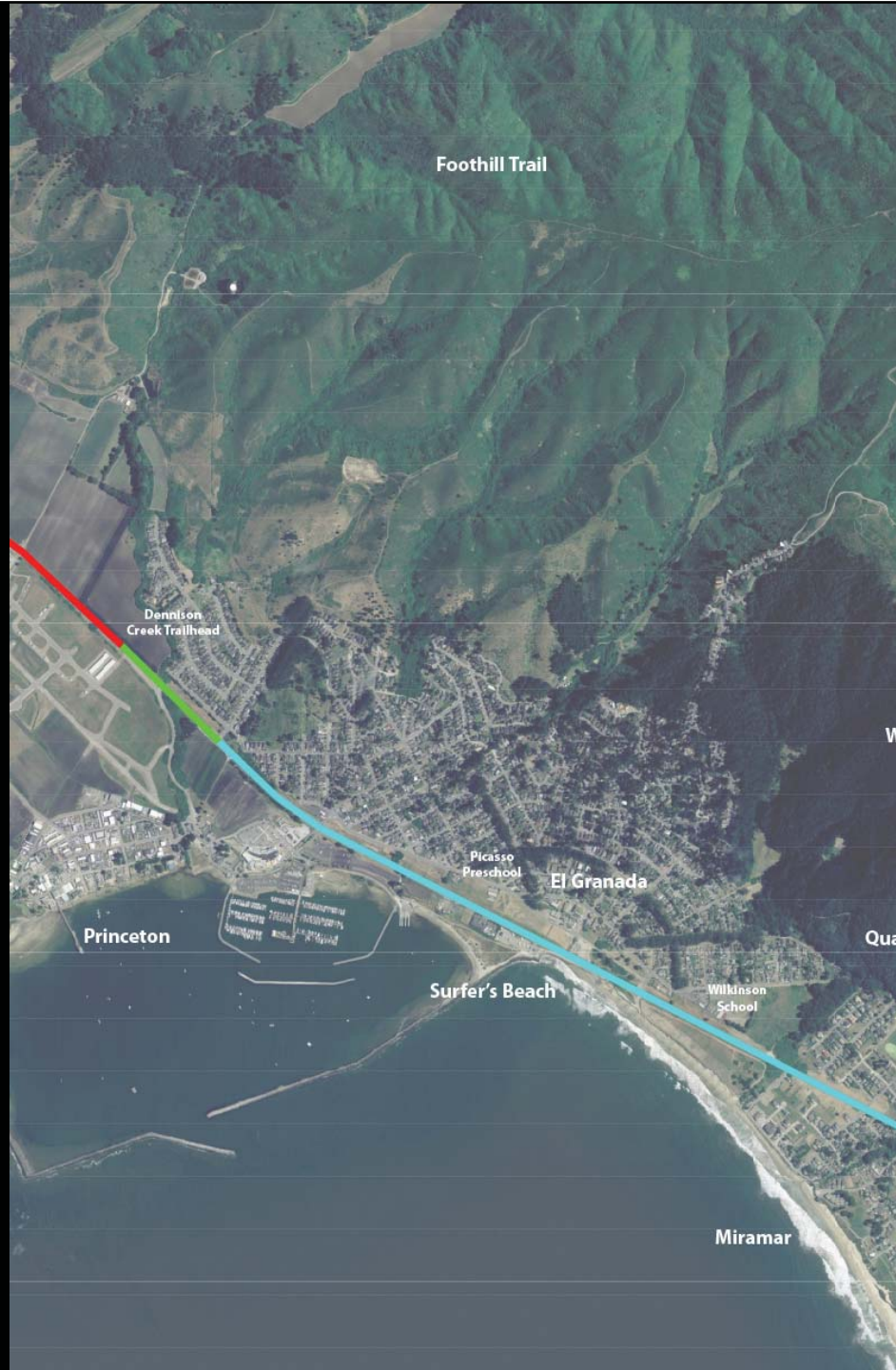
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Existing Speed Limits

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Possible Future Speed Limits

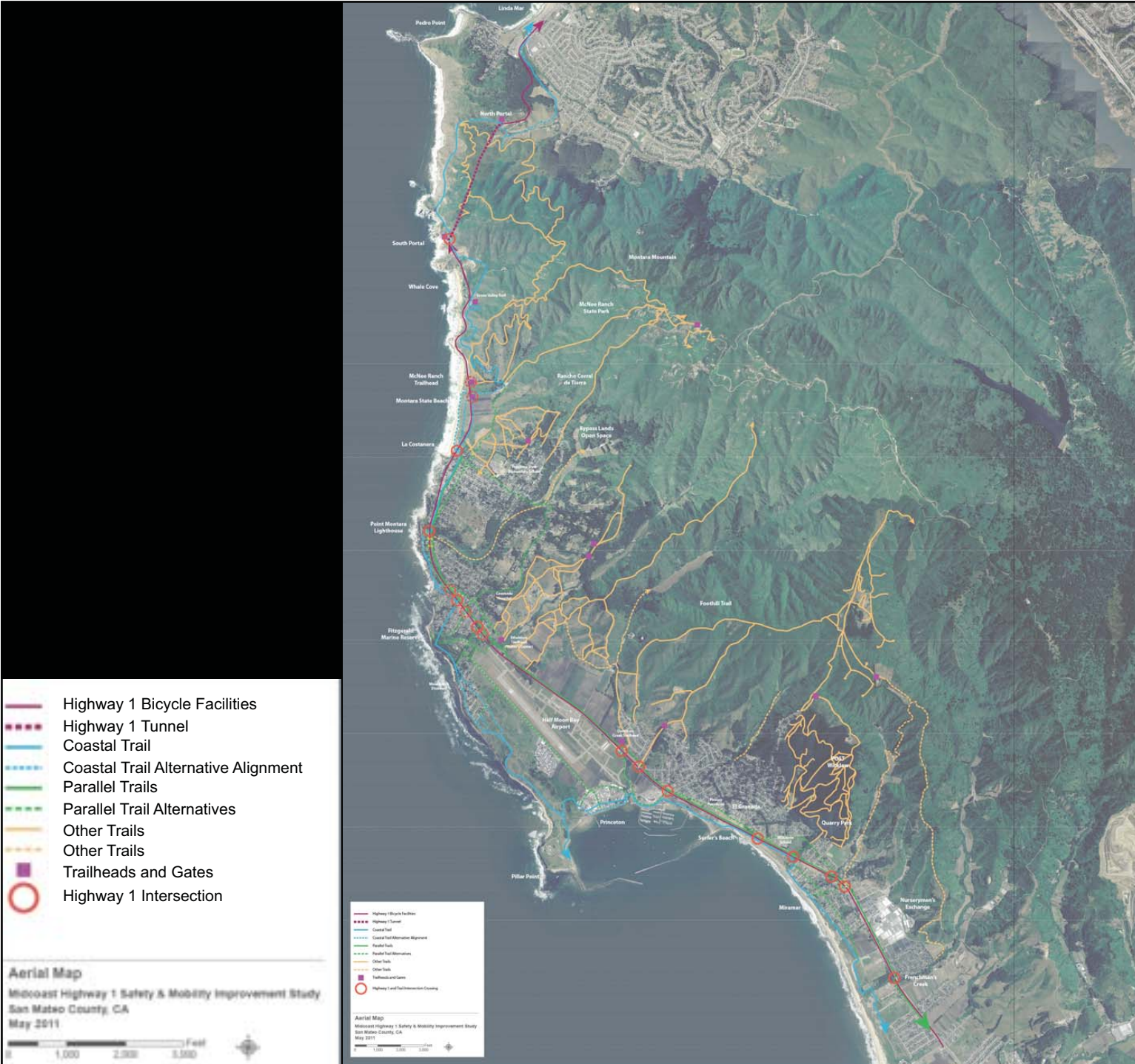


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-  45 MPH Stretch of Roadway
-  55 MPH Stretch of Roadway

Preliminary Travel Time Analysis

Begin	End	Length		Current Speed	Future Speed	Speed	Time	Current Time	Future Time	Change in Time
		<i>mi</i>	<i>feet</i>	<i>mph</i>	<i>mph</i>	<i>fps</i>	<i>mins</i>	<i>secs</i>	<i>secs</i>	
Montara Lot No. Montara										
37.05	36.67	0.38	2,006	45		66	0.51	30.40		
37.05	36.67	0.38	2,006		40	59	0.57		34.20	
										3.80
No. Montara		No. Moss								
36.7	35.95	0.75	3,960	45		66	1.00	60.00		
36.7	35.95	0.75	3,960		40	59	1.13		67.50	
										7.50
No. Moss		So. Moss								
35.95	34.85	1.1	5,808	50		73	1.32	79.20		
35.95	34.85	1.1	5,808		40	59	1.65		99.00	
										19.80
So. Moss		No. Airport								
34.85	34.45	0.4	2,112	50		73	0.48	28.80		
34.85	34.45	0.4	2,112		45	66	0.53		32.00	
										3.20
No. Airport		So. Airport								
34.45	33.95	0.5	2,640	55		81	0.55	32.73		
34.45	33.95	0.5	2,640		55	81	0.55		32.73	
										-
So. Airport		Capistrano/Obispo								
33.95	33.361	0.589	3,110	50		73	0.71	42.41		
33.95	33.361	0.589	3,110		45	66	0.79		47.12	
										4.71
Capistrano/Obispo		Cortez								
33.361	31.96	1.401	7,397	50		73	1.68	100.87		
33.361	31.96	1.401	7,397		40	59	2.10		126.09	
										25.22
Cortez		Frenchmens Creek								
31.96	30.225	1.735	9,161	45		66	2.31	138.80		
31.96	30.225	1.735	9,161		40	59	2.60		156.15	
										17.35
Total Time (secs)								513.21	438.64	64.23
Total Time (mins)								8.55	9.91	1.07

Trails & Trail Systems



- Highway 1 Bicycle Facilities
- - - Highway 1 Tunnel
- Coastal Trail
- - - Coastal Trail Alternative Alignment
- Parallel Trails
- - - Parallel Trail Alternatives
- Other Trails
- - - Other Trails
- Trailheads and Gates
- Highway 1 Intersection


Aerial Map
 Midcoast Highway 1 Safety & Mobility Improvement Study
 San Mateo County, CA
 May 2011

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0 1,000 2,000 3,000 Feet




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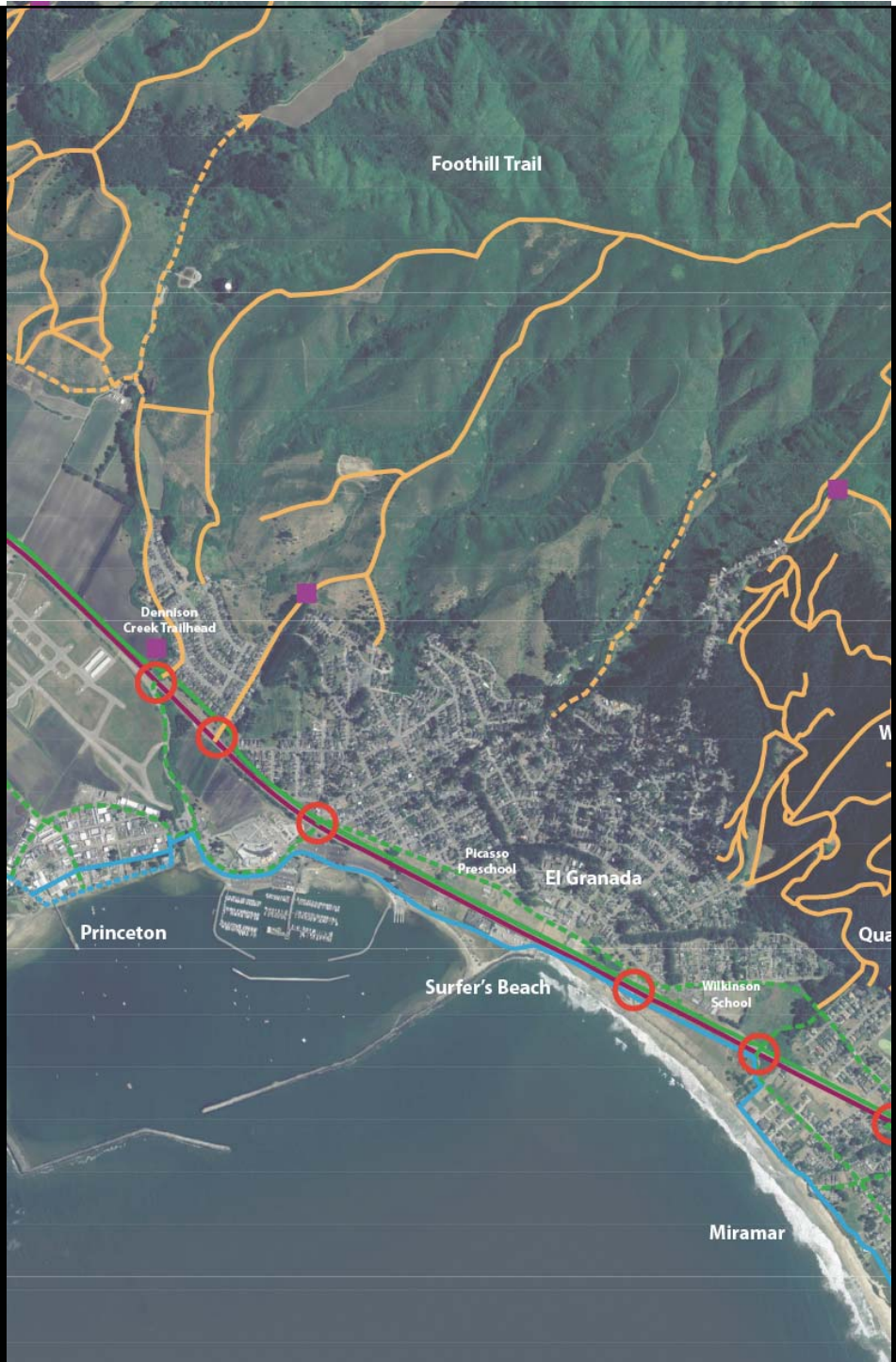

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Montara State Beach

La Costanera











Farallón
Elementary

Montara
Highway 1

-  Highway 1 Bicycle Facilities
-  Highway 1 Tunnel
-  Coastal Trail
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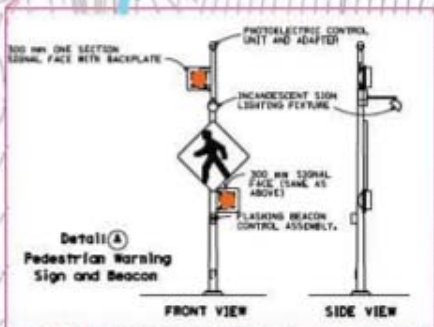
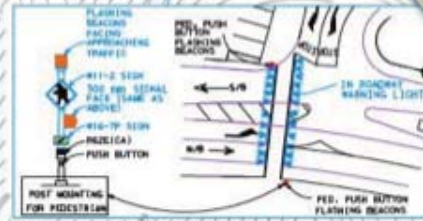
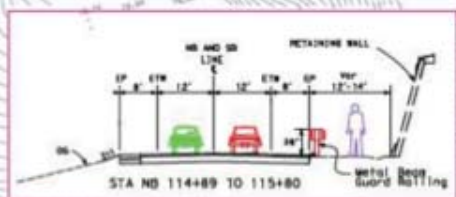
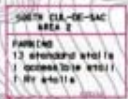
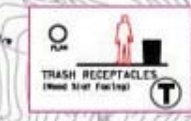
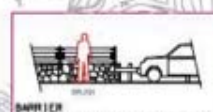
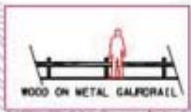
0 1,000 2,000 3,000 Feet




DESIGN PROPOSALS

Devil's Slide

PACIFIC OCEAN



Proposed Crossing

- LEGEND**
- Proposed Trail Connection
 - 6" High Concrete Sidewalk

**DEVIL'S SLIDE TUNNEL PROJECT
PUBLIC ACCESS SOUTH END**
Date: March 2, 2011

PRELIMINARY STUDY PURPOSE ONLY

Green Valley Trail Entrance to Highway 1.

Grey Whale Cove Beach



Highway 1 at Whale Cove Parking

Montara State Beach

North end Montara
State Beach



Montara State Beach/Rancho Corral de Tierra Interface: 2 Options Considered

- Option I
 - Consolidated parking across from central beach area for trailhead and beach access
 - Designated pedestrian crosswalk
 - Landscape restoration of existing informal parking area
 - Potential for formalized beach access
 - Connections to new Coastal Trail section

Montara State Beach/Rancho Corral de Tierra Interface:

- Option 2
 - Separate parking facilities on either side of the highway
 - Formalized parking on west side of highway - frontage road configuration
 - Potential for formalized beach access
 - Connections to new Coastal Trail section
 - Rancho parking could operate as an overflow facility for beach



Montara State Beach — Rancho Corral de Tierra Interface

Access and Parking Issues: Montara Beach

- Balancing needs of beach, trail, and restaurant users
- Peak use on weekends
- Illegal parking along Highway 1
- Minimal “No Parking” signage or enforcement
- Crossing safety
- Lack of signage/ wayfinding info









Existing Parking Supply: Montara Beach

Montara Beach Existing Conditions	
Beach Parking	Spaces (est.)
Montara State Beach - North Lot	37
Montara State Beach - South Lot	22
La Costanera North Lot (Publicly available until 5:00 PM)	27
La Costanera South Lot (Publicly available until 5:00 PM)	18
Subtotal: Legal Spaces Available for Beach Access	104
Informal Parking: West Side of Hwy 1 (Not Sign Restricted)	59
Informal Parking: West Side of Hwy 1 (Signed No Parking)	55
Subtotal: Informal Parking on West side of Hwy 1	115
Total Spaces Available for Beach Access	219

Montara Parking: Option A

Formalize and legalize parking on West Side of Hwy 1
South of Creek



Montara Beach Parking: Option A

Montara Beach Option A: Formalize Parking on West side of Hwy 1		
Beach Parking		
Montara State Beach - North Lot		37
Montara State Beach - South Lot		22
La Costanera North Lot (Publicly available until 5:00 PM)		27
La Costanera South Lot (Publicly available until 5:00 PM)		18
Formalized Parallel Parking - West side of Hwy 1*		31
Subtotal: Legal Spaces Available for Beach Access		135
GGNRA Parking		
New Off-Street Surface Lot Located 1/4 Mile East of Hwy 1		60
Subtotal: Spaces Available for GGNRA Trail Access		60
Total Spaces		195

*Existing informal parking area on West side of Hwy 1 formalized as parallel parking, with barrier separation from Hwy; one lane, one-way SB access lane extending approximately 600' from a one-way entrance on the North side to a one-way exit on the South end. Note: Assumes location of a GGNRA Trail Access Parking facility located approximately 1/4 mile East of Hwy 1.

Montara Beach Parking: Option B

- Locate New Shared Beach Access/GGNRA Trail Parking ¼ Mile East of US-1
- Restrict parking on west side of US-1 (Replace signage; increase enforcement)

Montara Beach Option B: Locate Shared Beach/GGNRA Parking East of Hwy 1

Beach Parking

Montara State Beach - North Lot*	37
Montara State Beach - South Lot	22
La Costanera North Lot (Publicly available until 5:00 PM)	27
La Costanera South Lot (Publicly available until 5:00 PM)	18
Subtotal: Legal Spaces Available for Beach Access	104

Shared Beach/GGNRA Parking

New Off-Street Surface Lot Located Immediately E of Hwy 1 #	60
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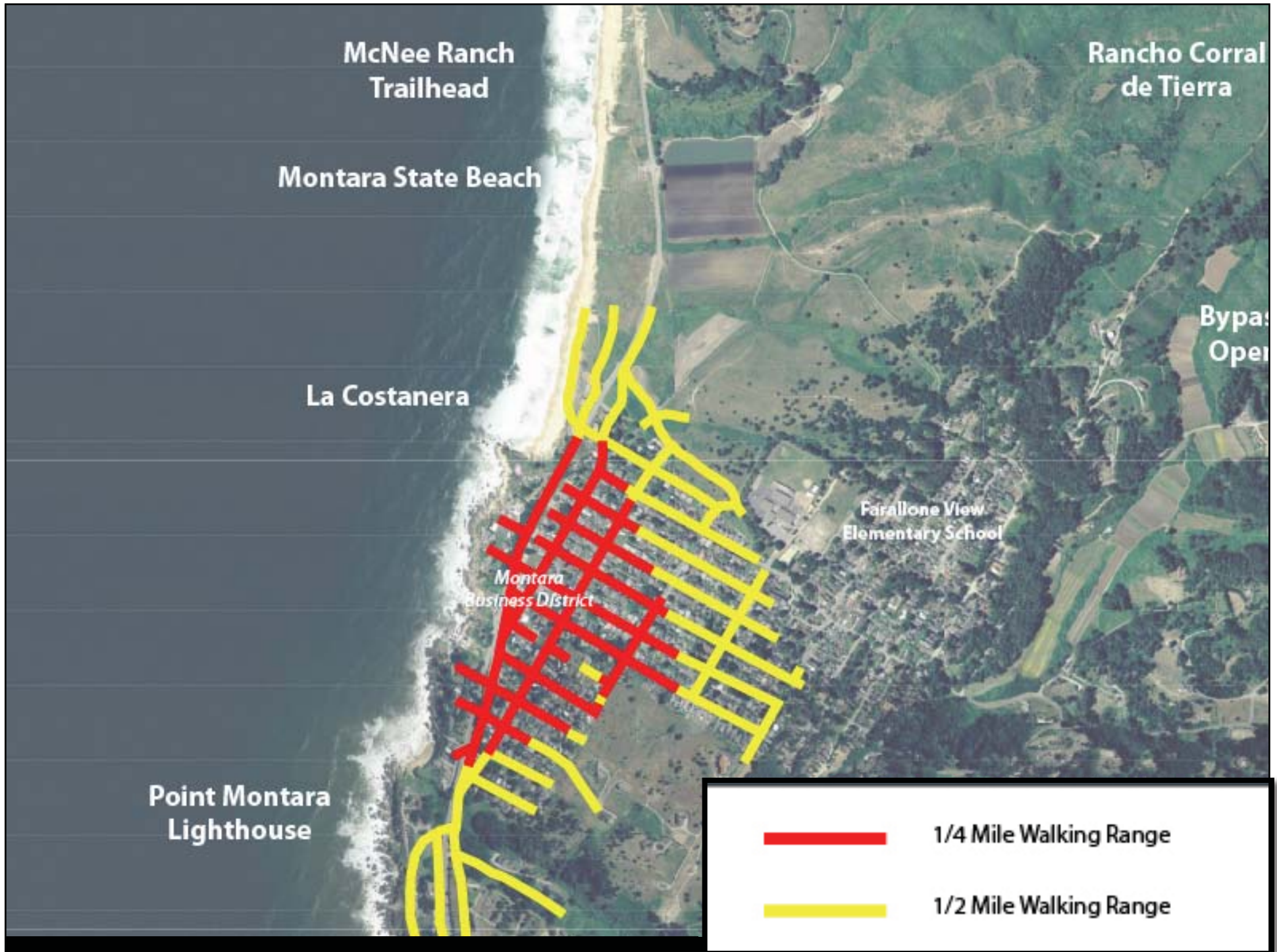
Total Spaces Available for Shared Beach/GGNRA Access	164
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*Pursue formalization and expansion of Montara State Beach North Lot if surveys show that utilization at all three parking facilities regularly exceeds 90% occupancy AND if illegal on-street parking remains prevalent.

Assumes installation of No Parking Anytime signage, enforcement of parking restriction, and natural restoration of existing informal parking areas on Westside of Hwy 1 from Montara Beach North Lot to La Costanera.

Montara

Montara Business District Walking Distances



Montara –
Farallone View Elementary
Walking Distances

Montara State Beach

La Costanera

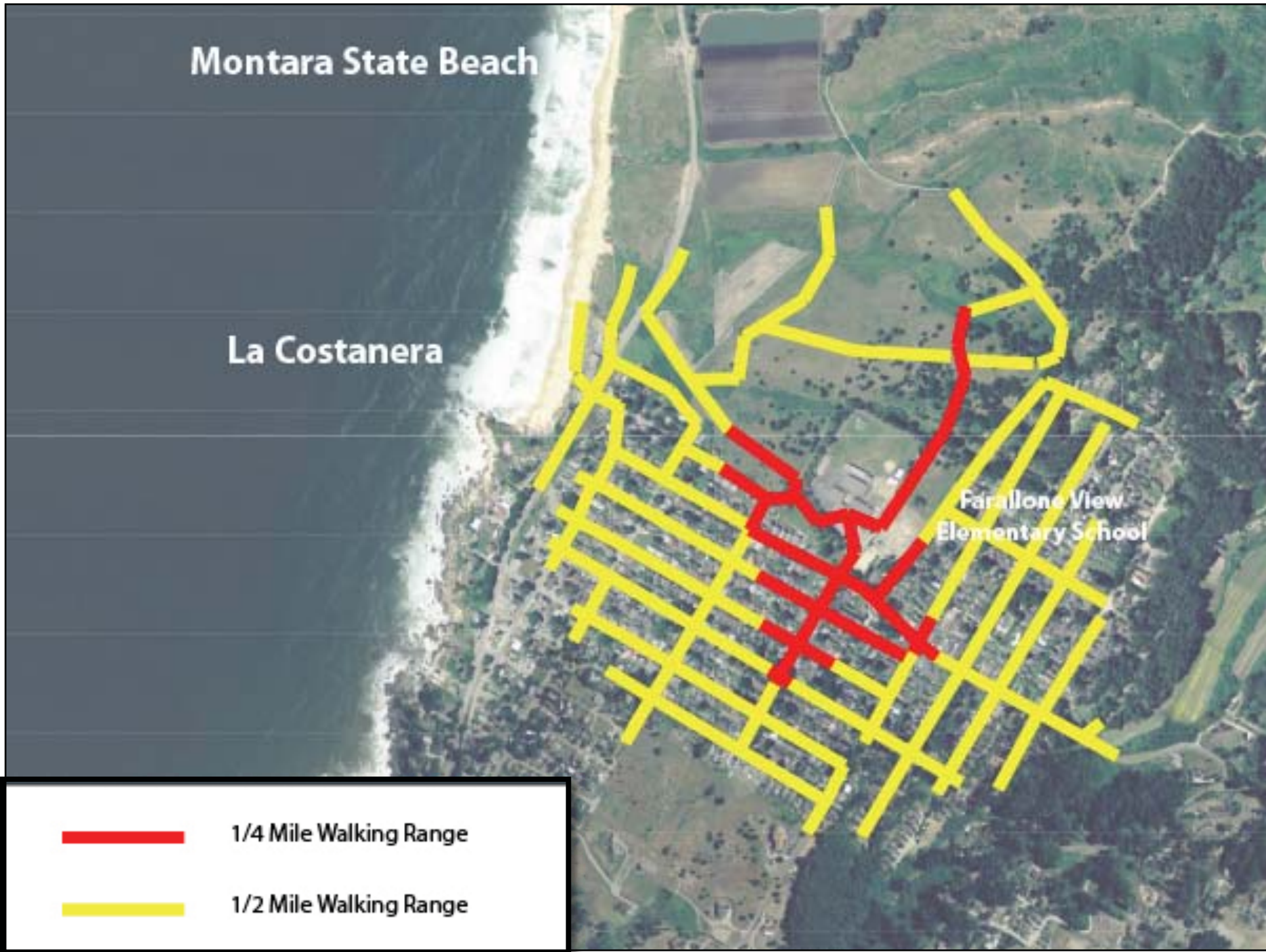
Farallone View
Elementary School



1/4 Mile Walking Range



1/2 Mile Walking Range



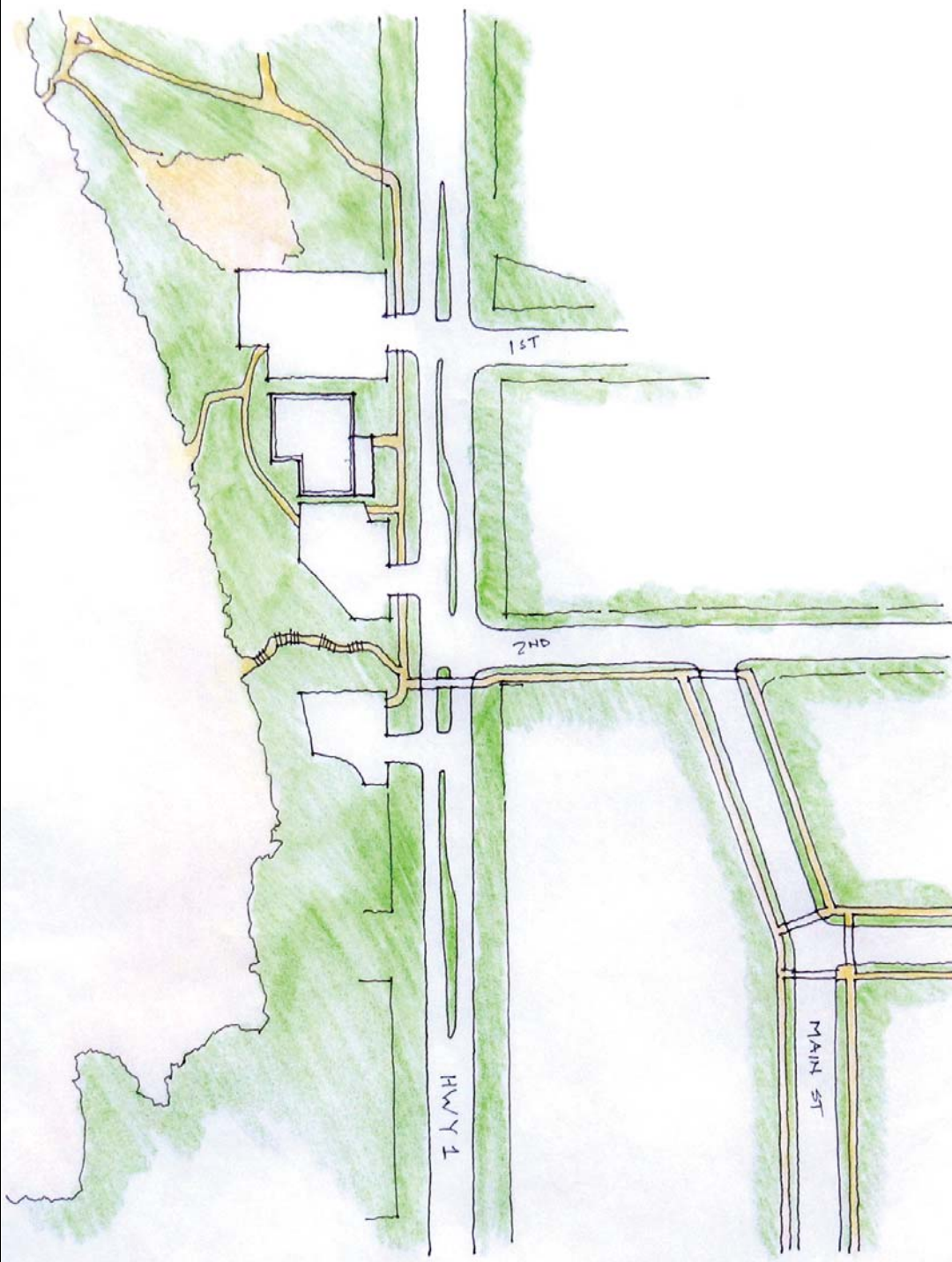
Montara –
Farallone View Elementary
Biking Distances



South End Montara State Beach

- Raised medians from north of 1st street through south of 2nd street
- Restricted access (right turns in/out) to/from northern beach access lot
- Designated pedestrian crossing at 2nd street

South end Montara
State Beach



Highway 1 - Central Montara

- Option 1
 - Raised medians from north of 6th Street through south of 9th Street
 - Restricted turning movements at 9th Street
 - Completion of sidewalks along Highway 1 between 6th and 9th Streets
 - Designated pedestrian crossing at 7th Street

Highway 1 - Central Montara

- Option 2
 - Raised medians from north of 6th Street through south of 9th Street
 - Completion of sidewalks along Highway 1 between 6th and 9th Streets
 - Roundabout at 9th Street
 - Designated pedestrian crossing at 7th Street

Main Street - Central Montara

- Completion of sidewalks between 6th and 9th Streets
- Shared bikeway striping & signage
- Mini-circle at Main & 8th Street



Montara: Main Street and 7th Street



Montara: Main Street and 7th Street

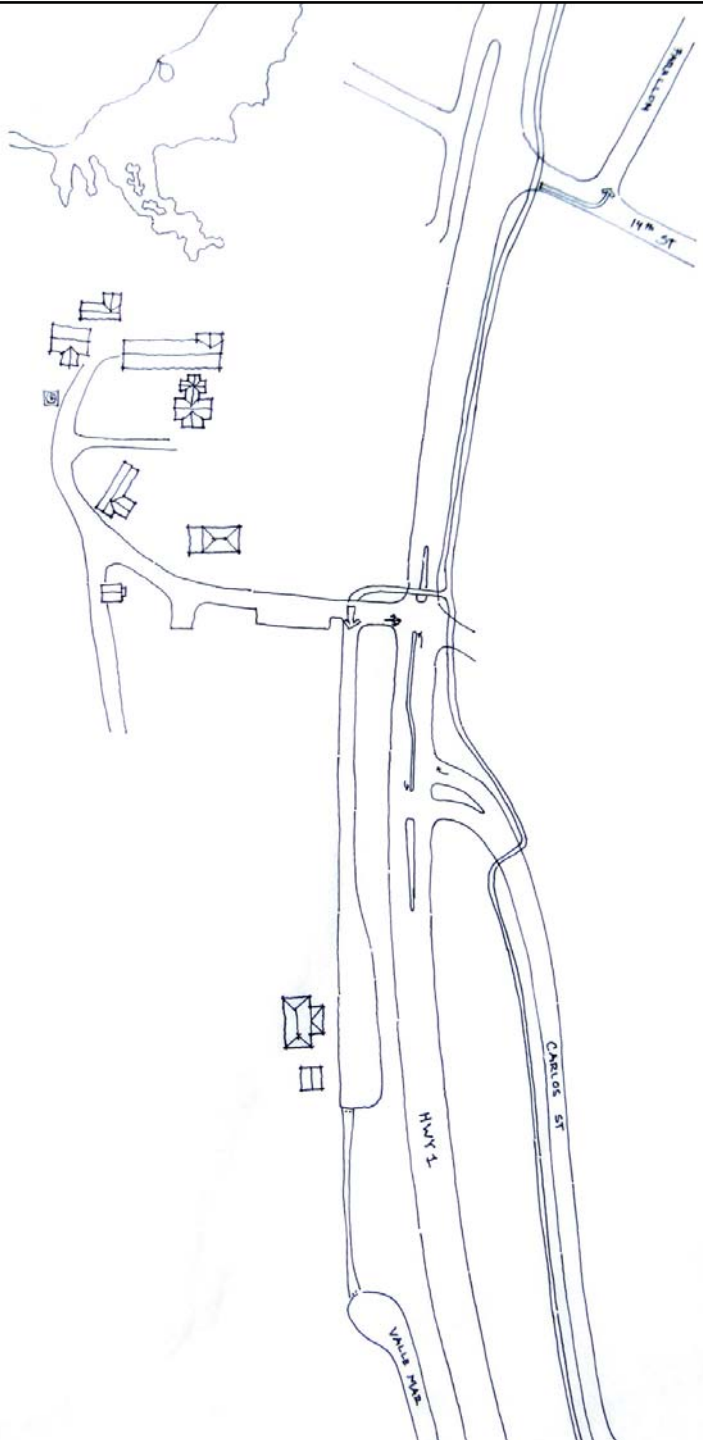
Pt. Montara Lighthouse

Point Montara Lighthouse

2 Options Considered

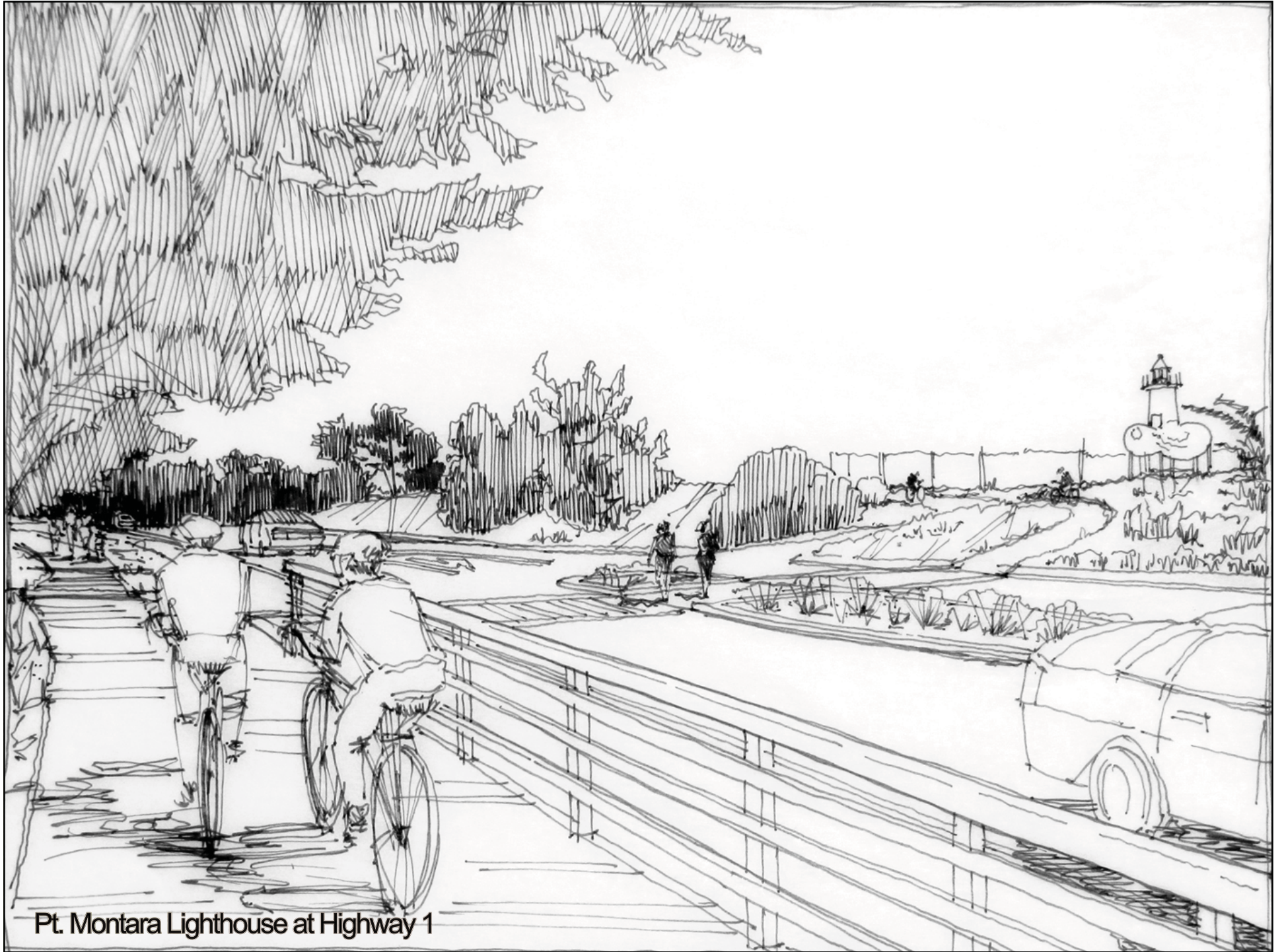
- Option 1
 - Pedestrian Bridge
 - Raised medians
- Option 2
 - At-grade pedestrian crossing north of Hostel entrance
 - Raised medians







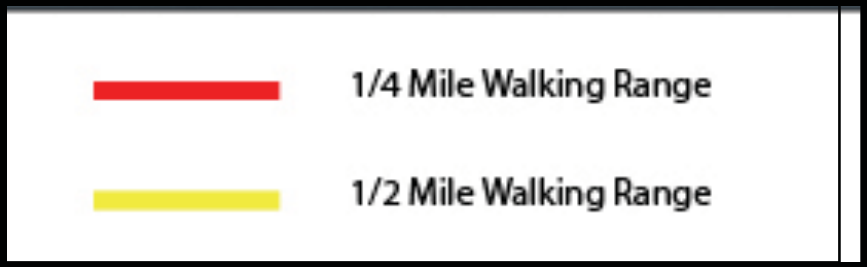
Pt. Montara Lighthouse at Highway 1



Pt. Montara Lighthouse at Highway 1

Moss Beach

Moss Beach Business District Walking Distances



Central Moss Beach

2 Options Considered

- Option I
 - Raised medians between Etheldore and Marine with left turn pockets
 - Designated pedestrian crossings at California, Virginia, Cypress
 - Closure of frontage road access between Vallemar/Etheldore and Virginia

Central Moss Beach

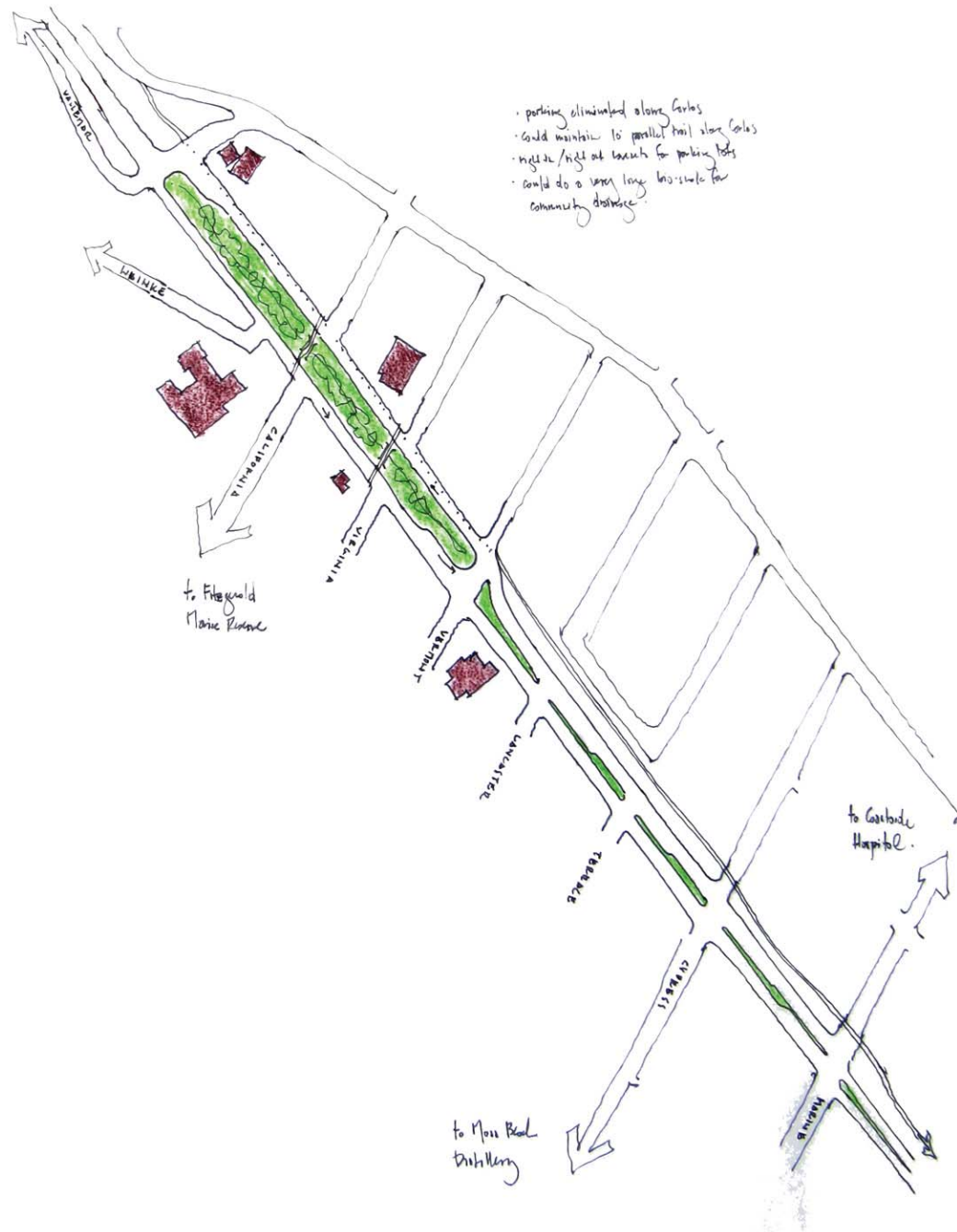
2 Options Considered

- Option 2
 - Raised medians between Etheldore and Marine
 - Roundabouts at Etheldore and Cypress
 - Restricted turning movements at Virginia, Vermont, and potentially Lancaster, Terrace
 - Designated pedestrian crossings at California, Virginia, Cypress
 - Closure of frontage road access between Vallemar/Etheldore and Virginia

Central Moss Beach “Michigan Left Turns”

- Is physically possible if both the highway and the frontage road are utilized
- Not recommended as a circulation pattern as northbound traffic would need to be routed along Carlos Street through Moss Beach

Moss Beach —
Michigan left
turn alternative





Moss Beach: Cypress Avenue

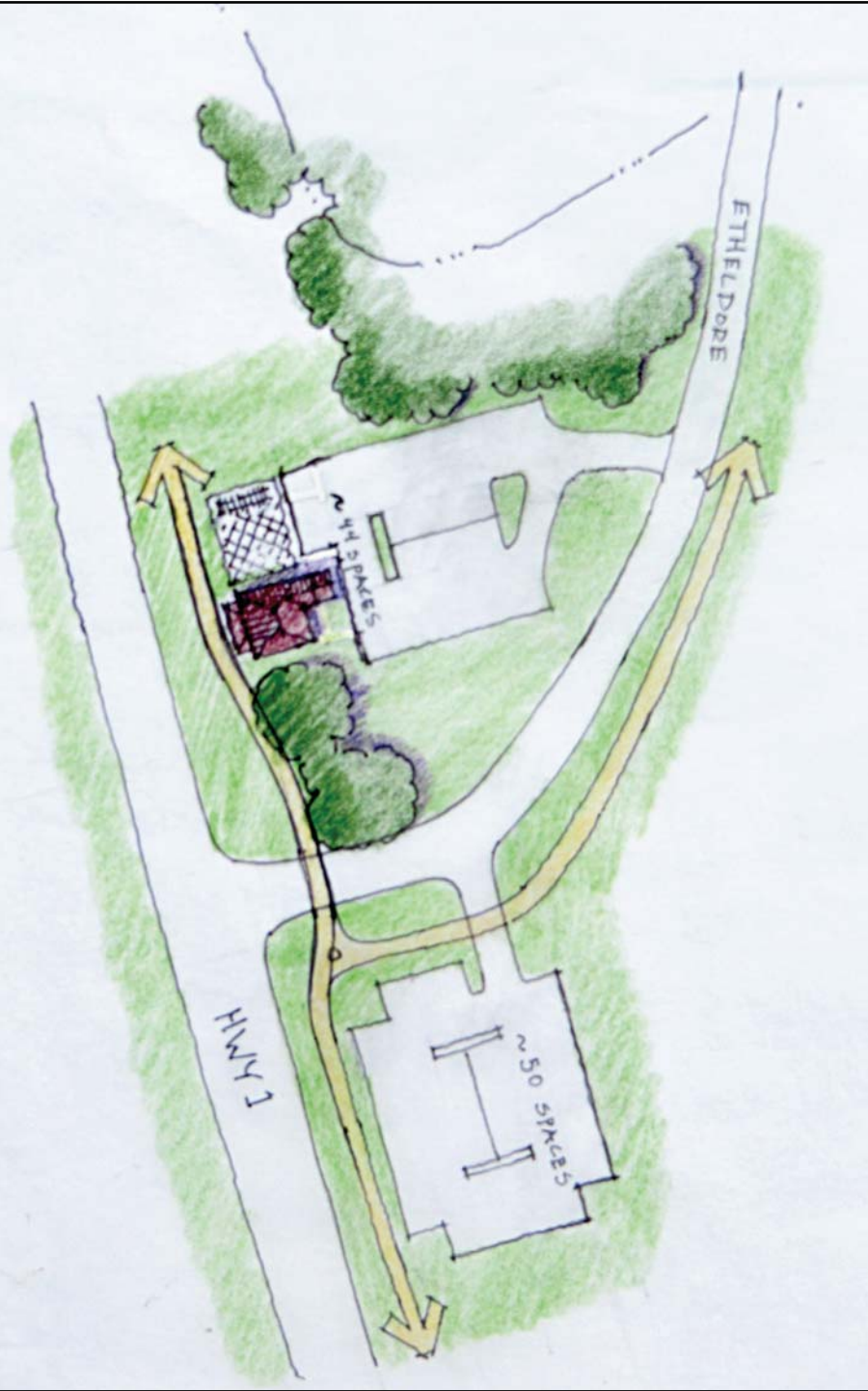


Moss Beach: Cypress Avenue

South of Moss Beach Etheldore & Highway 1

- Potential location for Rancho Corral de Tierra trailhead
- 2 options considered for parking lot location
- Potential location for GGNRA visitor's center with frontage along Parallel Trail

Etheldore and
Highway 1



Access & Parking Issues: Moss Beach



Access & Parking Issues: Moss Beach



Moss Beach Parking: Existing Conditions

Moss Beach Parking: Existing Conditions	Parking Spaces (Est.)
Carlos St: East side, Virginia to California (Parallel)	10
Carlos St: East side, California to Etheldore (Parallel)	26
Carlos St: West side, Virginia to California (Informal Angled)	11
Carlos St: West side, California to Etheldore (Informal Angled)	21
Subtotal: Existing On-Street Parking on Carlos Street	68
Spaces Typically Utilized by Sheriff's Dept. Vehicles	3
Total Effective Supply of Public On-Street Parking Space	65



Moss Beach Parking: Proposed



Source: T. Boulanger, City of Vancouver, WA

Formalization of angled parking on east side increases supply by 26%

Moss Beach Parking: With Formalized Angled Parking	Parking Spaces (Est.)
Carlos St: East side, Virginia to California (Parallel)	10
Carlos St: East side, California to Etheldore (Parallel)	26
Carlos St: West side, Virginia to California (Formal Angled)	17
Carlos St: West side, California to Etheldore (Formal Angled)	30
Total Effective Supply of Public On-Street Parking Space	82

*Assumes up to four on-street parking spaces on California, East of Carlos St are dedicated to Sheriff's Dept. vehicles.

May 26, 2011

Urban *Advantage*

Steve Price, 510 486-0427
www.urban-advantage.com

Central Moss Beach

- Parallel Trail could be routed along eastern portion of median as a Class I Trail in addition to shared bikeway striping along Carlos
- Pedestrian improvements could integrate stormwater management facilities, new sidewalks, landscape improvements, permeable materials

Moss Beach, CA
Carlos Street



Moss Beach, CA
Carlos Street



Moss Beach, CA
Carlos Street

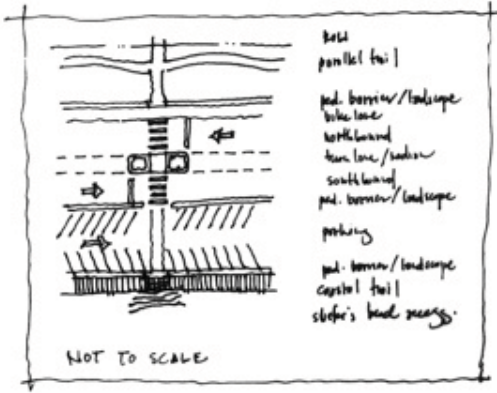
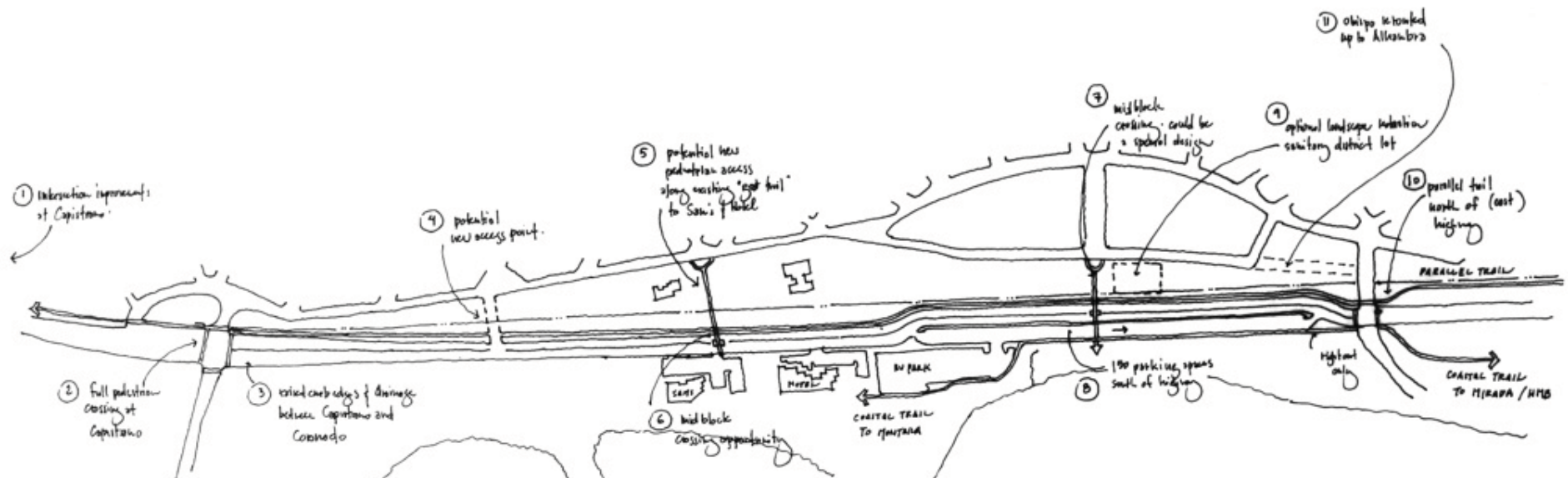
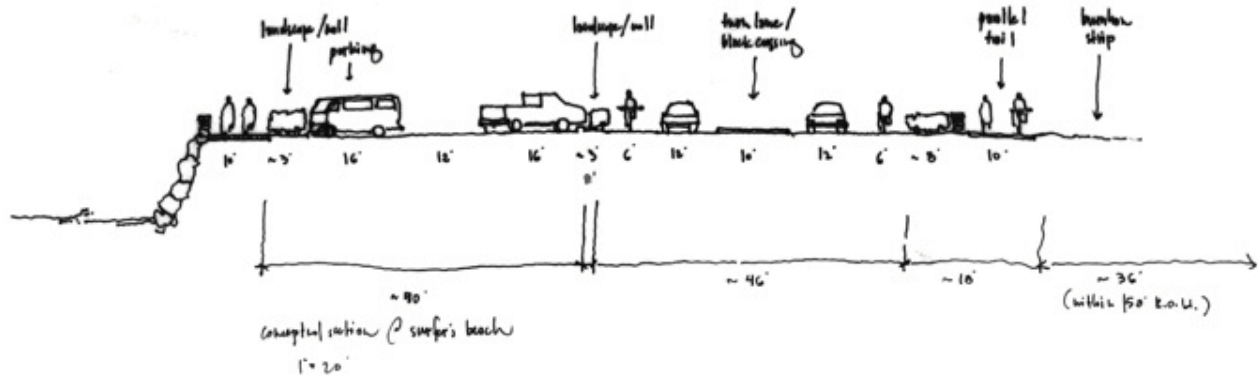


El Granada

El Granada

Option “E”

- Fifth Alternative considered after additional comments from community on 2009 report
- Highway I could be shifted eastward within existing ROW to provide a formalized parking area on the west side of the highway for approx. 150 vehicles
- Option would require management strategies to handle overflow parking and restrict illegal parking along the highway
- Could be coordinated with landscape restoration of the Burnham Strip



6/17/2011
1" = 40' (approx.)

Questions/Comments