

Grass Valley & Nevada City Workshop

August 3, 2010

SIDEWALKS

SIDEWALKS ARE EITHER PLACED NEXT TO THE VEHICLE LANES OR ARE SET BACK FROM THE VEHICLE LANES. WIDER SIDEWALKS CAN ACCOMMODATE MORE PEDESTRIANS. PLACE YOUR STICKER NEXT TO YOUR SIDEWALK OF PREFERENCE.

• Adjacent Sidewalks

Adjacent sidewalks are next to vehicle lanes.



• Bifurcated Sidewalks

Bifurcated sidewalks are separated from vehicle lanes by a landscaped buffer.



PLANNING & POLICY



NEVADA COUNTY
PEDESTRIAN IMPROVEMENT PLAN

INTERSECTION FEATURES

PLACE YOUR STICKER NEXT TO YOUR FEATURES OF PREFERENCE

• Crosswalks

A crosswalk is a designated pedestrian crossing of a roadway. They are usually enhanced with paint, signage, and lighting.



• Push-Buttons

To receive a "Walk" signal at a crosswalk, pedestrians use a push button.



• Curb Ramps

Curb ramps make crosswalks and sidewalks accessible for wheelchairs, strollers, and bikes. The yellow "truncated domes" alert blind and vision impaired pedestrians as they approach a street.



• Countdown Timers

Countdown timers give pedestrians "Walk" and "Don't Walk" signals and inform them how long they have to cross the street.



NEVADA COUNTY
TRANSPORTATION IMPROVEMENT PLAN

INTERSECTION FEATURES

PLACE YOUR STICKER NEXT TO YOUR FEATURES OF PREFERENCE

- **Crosswalks**

A crosswalk is a designated pedestrian crossing of a roadway. They are usually enhanced with paint, signage, and lighting.



By placing
sticker in
yellow box
to indicate

Place
stickers
Here

- **Curb Ramps**

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• Countdown Timers

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Place
Stickers
Here

*S. Johnson &
W. H.*



F.P. EHR & PEERS



NEVADA COUNTY
PEDESTRIAN IMPROVEMENT PLAN

CROSSWALK ENHANCEMENTS

CROSSWALKS CAN BE ENHANCED WITH SEVERAL DIFFERENT FEATURES. CROSSWALK ENHANCEMENTS AIM TO IMPROVE SAFETY BY IMPROVING VISIBILITY, MINIMIZING CROSSING DISTANCE, AND ENSURING THAT MOTORISTS YIELD FOR CROSSING PEDESTRIANS. NO MATTER HOW ENHANCED A CROSSWALK IS, PEDESTRIANS SHOULD ONLY CROSS WHEN THEY ARE SURE THAT IT IS SAFE. PLACE A STICKER NEXT TO YOUR ENHANCEMENT OF PREFERENCE.

• Bulbouts and Refuge Islands

Bulbouts and refuge islands decrease crossing distance, improve visibility, and allow pedestrians to stop half-way.



• Enhanced Striping

The pattern of paint in crosswalks can vary. Yellow crosswalks denote a crosswalk near a school.



• Warning Lighting

Warning lighting is almost always yellow and is used to improve yielding among motorists. Warning lights can be placed overhead, at the side of the street, in the center of the street, or in the pavement.



• Pedestrian Signal

Most crosswalk enhancements aim to ensure that motorists yield for pedestrians. Traffic signals require vehicles to stop at a red light to allow pedestrians to cross.



fp

City of Fairfax



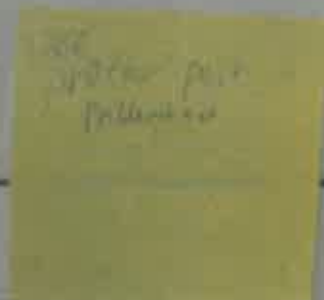
NEVADA COUNTY
PEDESTRIAN IMPROVEMENT PLAN

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Place
Stickers
Here



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Enhanced Striping

The pattern of paint in crosswalks can vary. Yellow crosswalks denote a crosswalk near a school.



Place
Stickers
Here

Don't forget the
one at Brimley
& Main

Don't forget
the one at
Main

Pedestrian Signal



• Pedestrian Signal

Most crosswalk enhancements aim to ensure that motorists yield for pedestrians. Traffic signals require vehicles to stop at a red light to allow pedestrians to cross.



Special light
time
needed



FEHR & PEERS



NEVADA COUNTY
PEDESTRIAN IMPROVEMENT PLAN

OTHER ENHANCEMENTS FOR WALKING

PLACE YOUR STICKER NEXT TO YOUR ENHANCEMENTS OF PREFERENCE

• Advanced Stop Bars

Advanced stop bars are placed in front of crosswalks. They keep vehicles from encroaching into the crosswalk when stopped at a red light.



• Advanced Yield Lines - "Sharks Teeth"

Advanced yield lines are placed in front of crosswalks. They remind motorists to yield to pedestrians.



• Pedestrian Scramble

Pedestrians usually have to cross two roadways to get from one corner of a signalized intersection to another. A "scramble phase" allows pedestrians to cross diagonally.



• Turn Radius

When going around a corner, motorists drive slower if the radius of the curb is smaller. Lower vehicle speeds are safer for pedestrians.



WHAT ARE THE ISSUES IN NEVADA COUNTY?

PLACE A STICKER NEXT TO THE ISSUE WHICH MOST CONCERNS YOU.

I Would Walk More if Sidewalks Were
Available and Better Connected



I Would Walk More if it Were Easier
to Get Across the Street



I Don't Feel Safe Walking



My Destinations are
too Far Away to Walk



I Would Walk More if the
Weather Were Better

Driving Is Easier than Walking



FORD & PIERCE



NEVADA COUNTY
FOOTPATH IMPROVEMENT PLAN

TRANSPORTATION TRADEOFFS

HOW WOULD YOU RESOLVE THE TENSION BETWEEN DIFFERENT DESIRES?
PLEASE PLACE A STICKER WHERE YOU THINK THE BALANCE SHOULD BE STRUCK.



City of Truckee



NEVADA COUNTY
PEDESTRIAN IMPROVEMENT PLAN

MAPPING: DOWNTOWN GRASS VALLE



WALK TO CLARK
S. WILSON ST
NEW ROAD
CLARK CATHEDRAL
AT 400 WFF
RAMP E
HARRIS

WALK TO CLARK
S. WILSON ST
NEW ROAD
CLARK CATHEDRAL
AT 400 WFF
RAMP E
HARRIS

WALK TO CLARK
S. WILSON ST
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RAMP E
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fp

JOHN & PETER

BENO SPARKS
BICYCLE & PEDESTRIAN
PLAN

PLEASE MARK HOT SPOTS AND LOCATIONS FOR IMPROVEMENT!

MAPPING: GRASS VALLEY



MAPPING: DOWNTOWN NEVADA CITY

Create Broad Street pedestrian plaza - National to York
Provide benches, shrubs, etc.

(10/15/1919)

BENZ SPARKS[®] PEDERSTRAN

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PLEASE MARK "HOT SPOTS" AND LOCATIONS FOR IMPROVEMENT /
MAPPING: NEVADA CITY



Truckee Workshop

August 4, 2010

SIDEWALKS

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• Adjacent Sidewalks

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• Bifurcated Sidewalks

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FIVE & PARK



NIMES COUNTY
PEDESTRIAN IMPROVEMENT PLAN

INTERSECTION FEATURES

PLACE YOUR STICKER NEXT TO YOUR FEATURES OR PREFERENCE!

• Crosswalks

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• Push-Buttons

To receive a "Walk" signal at a crosswalk, pedestrians use a push button.



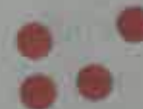
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• Countdown Timers

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City of Las Vegas



NEVADA COUNTY
PEDESTRIAN IMPROVEMENT PLAN

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• Bulbouts and Refuge Islands

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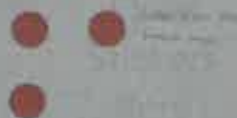
• Enhanced Striping

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• Pedestrian Signal

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fp

THINK & FLY



NEVADA COUNTY
PEDESTRIAN IMPROVEMENT TEAM

OTHER ENHANCEMENTS FOR WALKING

PLACE YOUR STICKER NEXT TO YOUR ENHANCEMENTS OF PREFERENCE

• Advanced Stop Bars

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100 ft
50 ft
25 ft
10 ft

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100 ft
50 ft
25 ft
10 ft

fp

Public & Private



NEVADA COUNTY
PEDESTRIAN ENHANCEMENT FUND

WHAT ARE THE ISSUES IN NEVADA COUNTY?

PLACE A STICKER NEXT TO THE ISSUE WHICH MOST CONCERNS YOU

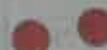
I Would Walk More if Sidewalks Were Available and Better Connected



I Would Walk More if it Were Easier to Get Across the Street



I Don't Feel Safe Walking



My Destinations are too Far Away to Walk



I Would Walk More if the Weather Were Better

Driving is Easier than Walking



fp

FOUR & PERS



NEVADA COUNTY
PUBLICIMPROVEMENT PLAN

TRANSPORTATION TRADEOFFS

HOW WOULD YOU RESOLVE THE TENSION BETWEEN DIFFERENT DESIRES?
PLEASE PLACE A STICKER WHERE YOU THINK THE BALANCE SHOULD BE STRUCK

Ease of Driving ————— 2 ————— 1 ————— 0 ————— 1 ————— 2 ————— Ease of Walking

Balance Transportation Resources Across all Modes ————— 2 ————— 1 ————— 0 ————— 1 ————— 2 ————— Focus Attention on Areas Where They Will Provide the Most Benefit

Truckee Should Aim to Become a Place Where You Can Walk Anywhere ————— 2 ————— 1 ————— 0 ————— 1 ————— 2 ————— Truckee Would Benefit Most From Improved Transit Service

Increase Efficiency of the Movement of People and Goods with Respect to Cost ————— 2 ————— 1 ————— 0 ————— 1 ————— 2 ————— Increase Sustainability of the Movement of People and Goods with Respect to Energy Consumption and Carbon Emissions



PLANNING & DESIGN



NEVADA COUNTY
REGIONAL IMPROVEMENT PLAN

AB 1600 -
roundabouts
or signal
at Bridge &
Dinning Pkwy,
W River

CLEAR
SNOW FROM
SUS

CLARIFY
WHO IS
REQUIRED
TO CLEAR
SNOW FROM
SUS

MAPPING: DOWNTOWN TRUCKEE



PPING: TRUCKEE



Drinking
water
along
Oroville Dam, CA
Oroville Dam
Drinking
water

SSS
Improvement
planned for
2011

CLASS X
TRUCKEE
SSS
DRINKING
WATER
2011

TRUCKEE
SSS
DRINKING
WATER
2011

TRUCKEE
SSS
DRINKING
WATER
2011

TRUCKEE
SSS
DRINKING
WATER
2011



HEADS COUNTY
HEADING FROM NORTH TO

Evening Markets

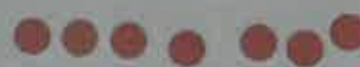
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PLACE A STICKER NEXT TO THE ISSUE WHICH MOST CONCERNS YOU

I Would Walk More if Sidewalks Were Available and Better Connected



I Would Walk More if it Were Easier to Get Across the Street



I Don't Feel Safe Walking



My Destinations are too Far Away to Walk



I Would Walk More if the Weather Were Better



Driving is Easier than Walking



EVANS & PECKHAM



NEVADA COUNTY
POSTROAD IMPROVEMENT PLAN

MAPPING: DOWNTOWN GRASS VALLEY

Better illustrated crosswalks



- Missing sidewalk
- Existing sidewalk
- - - Sidewalk portions missing

fp

Don & Tom

MAPPING: GRASS VALLEY



MAPPING: DOWNTOWN
NEVADA CITY



PHOTOGRAPH BY
JOHN & PEARL

MAPPING: NEVADA CITY



This map is Nevada City, CA

fp



NEVADA COUNTY
10001 Nevada City, California 95959

MAPPING: DOWNTOWN TRUCKEE



fp

FINE & PINE

MAPPING: TRUCKEE



Fehr & Peers

Nevada County Pedestian Improvement Plan
Cost Estimate - For Planning Purposes Only

Colfax Avenue Safe Routes to School

Item	Description	Qty.	Unit	Unit Cost	Total Cost
1	Bulbout small (curb, sf concrete, wheelchair access, demo)	3	EA	\$ 15,000	\$ 45,000
2	Bulbout medium (curb, sf concreet, wheelchair access, demo)	3	EA	\$ 20,000	\$ 60,000
3	Crosswalk striping (high visibility)	120	LF	\$ 40	\$ 4,800
4	Traffic Control & Mobilization (10%)	1	LS	\$ 11,000	\$ 11,000
5	Design of Improvements (10%)	1	LS	\$ 11,000	\$ 11,000
Subtotal					\$ 131,800
Contingency (20%)					\$ 26,360
TOTAL					\$ 159,000

Notes and assumptions:

1. This construction cost estimate is preliminary based on aerial graphics and is for planning purposes only.
2. Costs do not include drainage improvments
3. Costs do not include utility relocation
4. Costs assume no right-of-way acquisition is needed.

Fehr & Peers

Nevada County Pedestian Improvement Plan
Cost Estimate - For Planning Purposes Only

West Main Street Traffic Calming

Item	Description	Qty.	Unit	Unit Cost	Total Cost
1	Bulbout medium (curb, sf concrete, wheelchair access, demo)	4	EA	\$ 20,000	\$ 80,000
2	Stop Bar Striping (12")	70	LF	\$ 6	\$ 420
3	Crosswalk striping (standard) (LF of x-walk)	150	LF	\$ 12	\$ 1,800
4	Traffic Control & Mobilization (10%)	1	LS	\$ 9,000	\$ 9,000
5	Design of Improvements (10%)	1	LS	\$ 9,000	\$ 9,000
Subtotal					\$ 100,220
Contingency (20%)					\$ 20,044
TOTAL					\$ 121,000

Notes and assumptions:

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3. Costs do not include utility relocation
4. Costs assume no right-of-way acquisition is needed.

Fehr & Peers

Nevada County Pedestian Improvement Plan
Cost Estimate - For Planning Purposes Only

Ridge Road Safe Routes to School

Item	Description	Qty.	Unit	Unit Cost	Total Cost
1	Bulbout small (curb, sf concrete, wheelchair access, demo)	1	EA	\$ 15,000	\$ 15,000
2	Concrete Sidewalks	2,400	SF	\$ 10	\$ 24,000
3	Remove Asphalt	2,400	SF	\$ 5	\$ 12,000
4	Curb and gutter	600	LF	\$ 30	\$ 18,000
5	Signage	4	EA	\$ 300	\$ 1,200
6	Pedestrian Refuge Island	4	EA	\$ 10,000	\$ 40,000
7	Accessible ramp	1	EA	\$ 3,100	\$ 3,100
8	Crosswalk striping (high visibility)	100	LF	\$ 40	\$ 4,000
9	Traffic Control & Mobilization (10%)	1	LS	\$ 12,000	\$ 12,000
10	Design of Improvements (10%)	1	LS	\$ 12,000	\$ 12,000
Subtotal					\$ 141,300
Contingency (20%)					\$ 28,260
TOTAL					\$ 170,000

Notes and assumptions:

1. This construction cost estimate is preliminary based on aerial graphics and is for planning purposes only.
2. Costs do not include drainage improvements
3. Costs do not include utility relocation
4. Sidewalks are 4 feet wide
5. Driveways do not need accessible ramps, ramps assumed only at crosswalks
6. Costs assume no right-of-way acquisition is needed.

Fehr & Peers

Nevada County Pedestrian Improvement Plan
Cost Estimate - For Planning Purposes Only

City Hall Crosswalk

Item	Description	Qty.	Unit	Unit Cost	Total Cost
1	Bulbout small (curb, sf concrete, wheelchair access, demo)	1	EA	\$ 15,000	\$ 15,000
2	Bulbout medium (curb, sf concrete, wheelchair access, demo)	1	EA	\$ 20,000	\$ 20,000
3	Crosswalk striping (high visibility)	40	LF	\$ 40	\$ 1,600
4	Traffic Control & Mobilization (10%)	1	LS	\$ 4,000	\$ 4,000
5	Design of Improvements (10%)	1	LS	\$ 4,000	\$ 4,000
Subtotal					\$ 44,600
Contingency (20%)					\$ 8,920
TOTAL					\$ 54,000

Notes and assumptions:

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3. Costs do not include utility relocation
4. Costs assume no right-of-way acquisition is needed.

Fehr & Peers

Nevada County Pedestrian Improvement Plan
Cost Estimate - For Planning Purposes Only

South Nevada City Safe Routes to School

Item	Description	Qty.	Unit	Unit Cost	Total Cost
1	Concrete Sidewalks	24,000	SF	\$ 10	\$ 240,000
2	Curb and gutter	6,000	LF	\$ 30	\$ 180,000
3	Accessible ramp	6	EA	\$ 3,100	\$ 18,600
4	Bulbout large (curb, sf concrete, wheelchair access, demo)	1	EA	\$ 25,000	\$ 25,000
5	Retaining Wall	1,680	SF	\$ 125	\$ 210,000
6	Earthwork for retaining wall	375	CY	\$ 15	\$ 5,625
7	Crosswalk striping (high visibility)	75	LF	\$ 40	\$ 3,000
8	Crosswalk striping (standard) (LF of x-walk)	35	LF	\$ 12	\$ 420
9	Traffic Control & Mobilization (10%)	1	LS	\$ 69,000	\$ 69,000
10	Design of Improvements (10%)	1	LS	\$ 69,000	\$ 69,000
Subtotal					\$ 820,645
Contingency (20%)					\$ 164,129
TOTAL					\$ 985,000

Notes and assumptions:

1. Sidewalks are 4 feet wide
2. This construction cost estimate is preliminary based on aerial graphics and is for planning purposes only.
3. Costs do not include drainage improvements
4. Costs do not include utility relocation
5. Driveways do not need accessible ramps, ramps assumed only at crosswalks
6. Costs assume no right-of-way acquisition is needed.

Fehr & Peers

Nevada County Pedestrian Improvement Plan
Cost Estimate - For Planning Purposes Only

Donner Pass Road Safe Routes to School Improvements

Item	Description	Qty.	Unit	Unit Cost	Total Cost
1	Concrete Sidewalks	30,240	SF	\$ 10	\$ 302,400
2	Curb and gutter	3,780	LF	\$ 30	\$ 113,400
3	Accessible ramp	9	EA	\$ 3,100	\$ 27,900
4	Signage	8	EA	\$ 300	\$ 2,400
5	Pedestrian Refuge Island	8	EA	\$ 10,000	\$ 80,000
6	Traffic Control & Mobilization (10%)	1	LS	\$ 53,000	\$ 53,000
7	Design of Improvements (10%)	1	LS	\$ 53,000	\$ 53,000
Subtotal					\$ 632,100
Contingency (20%)					\$ 126,420
TOTAL					\$ 759,000

Notes and assumptions:

1. Sidewalks are 8 feet wide
2. This construction cost estimate is preliminary based on aerial graphics and is for planning purposes only.
3. Costs do not include drainage improvements
4. Costs do not include utility relocation
5. Driveways do not need accessible ramps, ramps assumed only at crosswalks
6. Costs assume no right-of-way acquisition is needed.

Fehr & Peers

Nevada County Pedestian Improvement Plan
Cost Estimate - For Planning Purposes Only

Donner Pass Road Connectivity

Item	Description	Qty.	Unit	Unit Cost	Total Cost
1	Concrete Sidewalks	41,400	SF	\$ 10	\$ 414,000
2	Curb and gutter	5,175	LF	\$ 30	\$ 155,250
3	Accessible ramp	26	EA	\$ 3,100	\$ 80,600
4	Signage	4	EA	\$ 300	\$ 1,200
5	Pedestrian Refuge Island	4	EA	\$ 10,000	\$ 40,000
6	Retaining Wall	1,500	SF	\$ 125	\$ 187,500
7	Earthwork for retaining wall	139	CY	\$ 15	\$ 2,085
7	Traffic Control & Mobilization (10%)	1	LS	\$ 89,000	\$ 89,000
8	Design of Improvements (10%)	1	LS	\$ 89,000	\$ 89,000
Subtotal					\$ 1,058,635
Contingency (20%)					\$ 211,727
TOTAL					\$ 1,271,000

Notes and assumptions:

1. Sidewalks are 8 feet wide
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4. Costs do not include utility relocation
5. Driveways do not need accessible ramps, ramps assumed only at crosswalks
6. Costs do not include geometric changes to freeway ramps
7. Costs assume no right-of-way acquisition is needed.