



**METROPOLITAN
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COMMISSION**

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November 6, 2014

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Sent Via email to
Mr. Richard Hall
hallsomerset@yahoo.co.uk

RE: Richmond-San Rafael Bridge Access Improvement Project Information Request

Dear Mr. Hall,

As indicated yesterday via email, we apologize for the belated reply to your public records request, which resulted from your emails being diverted by our agency's spam filter.

This letter and associated attachments respond to your public records requests relating to costs associated with the I-580 Corridor Access Improvement Project. The Bay Area Toll Authority (BATA) has established a \$70 million conceptual level estimate and budget for the project. The estimate is highly conceptual will be refined as the planned improvements become better defined. The \$70 million conceptual estimate can be split as follows:

Scope Item	Budget Estimate	
Peak Period Use Lane on Eastbound Lower Deck of Richmond-San Rafael Bridge,	\$15 million	<ul style="list-style-type: none"> Includes roadway shoulder modifications along I-580 in Marin and Contra Costa Counties. A detailed cost estimate is attached.
Multi-User Path on Westbound Upper Deck of Richmond-San Rafael Bridge	\$53 million	<ul style="list-style-type: none"> Estimate is based on Alternative 1B identified in a draft February 2007 Project Study Report for Bicycle and Pedestrian Access on the Richmond San Rafael Bridge (Plus support cost and 4 years of escalation at 5%) A detailed cost estimate is attached.
Initial Project Development Costs	\$2.3 million	
Total Estimated BATA Costs	\$70.3 million	

Please note that the peak period use lane may result in the loss of existing bicycle access in Contra Costa County from Point Molate to Richmond on the I-580 shoulder. The estimated cost to replace this access is \$15 million and was not included in the \$70 million estimate.

Your email also noted interest in the concept of separating the scope for the Peak Period Use Lane on Eastbound Lower Deck from the scope for the Multi-User Path on Westbound Upper Deck. We have starting working on both as a single project as both require some of the same or similar technical documents. At this time, the environmental reviews and clearances necessary for the Peak Period Use Lane scope are projected to take longer than the same for the Multi-User Path.

I hope this information is helpful. Please address future such requests to records@mtc.ca.gov. You may find the information on MTC's web site useful as well:
www.mtc.ca.gov/about_mtc/public_records.htm

Sincerely,

A handwritten signature in black ink that reads "Ellen Griffin". The signature is fluid and cursive, with the first name "Ellen" being more prominent than the last name "Griffin".

Ellen Griffin
Principal, Public Engagement

Attachments

Attachment A – Peak Period Use Lane on Eastbound Lower Deck of Richmond-San Rafael Bridge Estimate

Feasibility Study Estimate of \$13.8 million, rounded to \$15 million for budgeting purposes

PSR COST ESTIMATE

District-County_Route: 04-MRN-580
 Type of Estimate: Feasibility Study

PM: _____
 EA: _____
 Program Code: _____

Project Description:

Limits: I-580 Eastbound from Sir Francis Drake On-Ramp in Marin County
to past the Marine Street Off-Ramp in Contra Costa County

Proposed Improvement (Scope):

Add Auxiliary Lane from Sir Francis Drake On-Ramp to San Quentin Road Overcrossing,
Convert the shoulder to a shoulder-running lane during rush hours on EB 580 from San
Quentin overcrossing to past Marine Street Off-Ramp
 (See Assumptions Tab)

Alternative: PPUL

SUMMARY OF PROJECT COST ESTIMATE

	Costs
TOTAL ROADWAY ITEMS	\$ 8,843,250
TOTAL STRUCTURE ITEMS	\$ -
SUBTOTAL CONSTRUCTION COSTS	\$ 8,843,250
ESCALATION TO 2015	\$ 538,554 ⁽¹⁾
TOTAL CONSTRUCTION COSTS	\$ 9,381,804
TOTAL RIGHT OF WAY & UTILITY ITEMS (Does not include Est for BCDC Mitigation)	\$ 1,161,686
TOTAL PROJECT CAPITAL OUTLAY COST	\$ 10,543,489
Project Report and Enviro Doc	\$ 707,460 ⁽²⁾
Design Phase (PS&E)	\$ 1,061,190 ⁽³⁾
Construction Administration	\$ 1,407,271 ⁽⁴⁾
TOTAL SUPPORT COST	\$ 3,175,921
TOTAL PROJECT COST	\$ 13,800,000

- Note 1: Based on escalation rate of 3.00% per year for two years
- Note 2: 8.00% of Total Construction Cost (non-escalated)
- Note 3: 12.00% of Total Construction Cost. (non-escalated)
- Note 4: 15.00% of Total Construction Cost.

Reviewed by: _____
 (Signature)

Approved by Project Manager: _____
 (Signature)

Date: September 17, 2013

Phone No.: 510-208-4599

PSR COST ESTIMATE

District-County_Route: 04-MRN-580
 Type of Estimate: Feasibility Study

PM: _____
 EA: _____

I. ROADWAY ITEMS

Section 1 Earthwork	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	100	CY	\$ 35.00	\$ 3,500	
Clearing & Grubbing	1	LS	\$ 100,000.00	\$ 100,000	
Develop Water Supply	1	LS	\$ 20,000.00	\$ 20,000	
Remove Inlet	0	EA	\$ 700.00	\$ -	
Remove Concrete Barrier	0	LF	\$ 17.00	\$ -	
Remove MBGR	550	LF	\$ 6.00	\$ 3,300	
Remove R/W Fence	800	LF	\$ 4.00	\$ 3,200	
				Subtotal Earthwork	\$ 130,000

Section 2 Pavement Structural Section

OGAC	557	TON	\$ 110.00	\$ 61,270	
AC Type A	2,004	TON	\$ 100.00	\$ 200,400	
Class 3 Aggregate Base	1,305	CY	\$ 60.00	\$ 78,300	
Class 4 Subbase	1,244	CY	\$ 20.00	\$ 24,880	
Asphalt Treated Permeable Base (ATPB)	102	CY	\$ 110.00	\$ 11,220	
Structural Enhancement Geotextile (Class B1)	0	SQYD	\$ 3.00	\$ -	
				Subtotal Pavement Structural Section	\$ 376,070

Section 3 Drainage

Modify Drainage System	1	LS	\$ 500,000.00	\$ 500,000	
Underdrains	5,120	LF	\$ 25.00	\$ 128,000	
Pipe	1,500	LF	\$ 150.00	\$ 225,000	
New/Modify Inlets	5	EA	\$ 3,000.00	\$ 15,000	
				Subtotal Drainage	\$ 868,000

PSR COST ESTIMATE

District-County_Route: 04-MRN-580
 Type of Estimate: Feasibility Study

PM: _____
 EA: _____

Section 4 Specialty Items	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Retaining Walls (Std - Minor)	0	SF	\$ 95.00	\$ -	
Erosion Control (1%)	1	LS	\$ 88,430.00	\$ 88,430	
Water Pollution Control (1.25%)	1	LS	\$ 110,537.50	\$ 110,538	
Permanent Treatment BMP (2%)	1	LS	\$ 176,860.00	\$ 176,860	
Remove Misc	1	LS	\$ 40,000.00	\$ 40,000	
Concrete Barrier (Type 60C)	600	LF	\$ 90.00	\$ 54,000	
Highway Planting	1	LS	\$ 40,000.00	\$ 40,000	
Environmental Mitigation	1	LS	\$ 200,000.00	\$ 200,000	
MBGR	1,000	LF	\$ 30.00	\$ 30,000	
ROW Fence	800	LF	\$ 10.00	\$ 8,000	
SWPPP	1	LS	\$ 50,000.00	\$ 50,000	

Subtotal Specialty Items \$ 797,828

Section 5 Traffic Items

Relocate/Install freeway lights	6	EA	\$ 25,000.00	\$ 150,000	
Traffic Delineation Items	1	LS	\$ 600,000.00	\$ 600,000	
Overhead Sign Structures - Static	1	EA	\$ 200,000.00	\$ 200,000	
Overhead Changeable Message Signs	4	EA	\$ 250,000.00	\$ 1,000,000	
Roadside Signs	45	EA	\$ 230.00	\$ 10,350	
Roadside Extinguishable Message Sign	1	LS	\$ 50,000.00	\$ 50,000	
Traffic Control System	1	LS	\$ 250,000.00	\$ 250,000	
Construction Area Signs	1	LS	\$ 40,000.00	\$ 40,000	
Portable CMS	4	EA	\$ 3,500.00	\$ 14,000	
Temporary Railing (Type K)	5,000	LF	\$ 15.00	\$ 75,000	
Traffic Count Stations	10	EA	\$ 40,000.00	\$ 400,000	
Modify Traffic Signal	0	EA	\$ 20,000.00	\$ -	

Subtotal Traffic Items \$ 2,789,350

TOTAL SECTIONS 1-5 \$ 4,961,248

PSR COST ESTIMATE

District-County_Route: 04-MRN-580

Type of Estimate: Feasibility Study

PM: _____

EA: _____

Section 6 Minor Items

Subtotal Sections 1 - 5	\$ 4,961,248	x	10%	<u>\$ 496,125</u>	
				Total Minor Items	<u>\$ 497,000</u>

Section 7 Roadway Mobilization

Subtotal Sections 1 - 5	\$ 4,961,248				
Minor Items	<u>\$ 497,000</u>				
Subtotal Sections 1 - 6	\$ 5,458,248	x	10%	<u>\$ 545,825</u>	
				Total Roadway Mobilization	<u>\$ 546,000</u>

Section 8 Roadway Additions

Supplemental Work	\$ 5,458,248	x	10%	<u>\$ 545,825</u>	
Contingencies	\$ 6,550,073	x	35%	<u>\$ 2,292,526</u>	
				Total Roadway Additions	<u>\$ 2,839,000</u>
				Total Roadway Items (Total of Sections 1-8)	<u>\$ 8,843,250</u>

Estimate Prepared by: CC Phone: 510-587-8629 Date: September 17, 2013

Estimate Checked by: MZ Phone: 510-208-4599 Date: September 17, 2013

PSR COST ESTIMATE

District-County_Route: 04-MRN-580

Type of Estimate: Feasibility Study

PM: _____

EA: _____

II. STRUCTURES ITEMS

	<u>Structure 1</u>	<u>Structure 2</u>	
Bridge Name:			
Structure Type:			
Width (out to out) - (ft)			
Span Lengths - (ft)			
Total Area - (ft ²)			
Footing Type (pile/spread)			
Cost Per ft ²			
(incl. 10% mobilization and 25% contingency)			
Total Cost for Structure	\$ _____ -	\$ _____ -	
		Subtotal Structures Items	\$ _____ -
		(Sum of Total Cost for Structures)	
Railroad Related Costs:			\$ _____ -
		Subtotal Railroad Items	\$ _____ -
		Total Structures Items	\$ _____ -
		(Sum of Structures Items plus Railroad Items)	

Comments:

Estimate Prepared by:

Phone: 408-297-9585

Date: September 17, 2013

PSR COST ESTIMATE

District-County_Route: 04-MRN-580
 Type of Estimate: Feasibility Study

PM: _____
 EA: _____

II. RIGHT OF WAY ITEMS

	Current Value 2013	Escalation Rate Per Year	Escalated Value 2015
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$ -	-	\$ -
B. Utility Relocation (State Share)	\$ -	-	\$ -
C. Relocation Assistance (Shuttle for Bikes)	\$ 1,095,000	3%	\$ 1,161,685.50
D. Clearance/Demolition	\$ -	-	\$ -
E. TCE/Permit to Enter	\$ -	-	\$ -
F. BCDC Mitigation	\$ -	-	\$ -
Total Right of Way & Utilities (Current Value)	<u>\$ 1,095,000</u>	Total Esc. Value	<u>\$ 1,161,686</u>
		Rounded	<u>\$ -</u>

Anticipated Date of Right of Way Certification
(Date to which Values are Escalated) _____

F. Construction Contract Work
 Brief Description of Work

Right of Way Branch Cost Estimate for Work \$ _____

Comments:

Estimate Prepared by: HNTB Phone: 510-587-8629 Date: September 17, 2013

Shoulder Running Lane from Sir Francis Drake to Richmond Pkwy Off-ramp

I-580 Eastbound from Sir Francis Drake on-ramp to the Richmond Pkwy Off-Ramp

General Scope of Work

- Extending existing I-580 auxiliary lane from the San Quentin off-ramp to the Richmond Parkway Off-ramp
- Restriping the Richmond – San Rafael Bridge eastbound to accommodate a shoulder running lane during peak hours. Shoulder running lane becomes an exit only lane at the Richmond Pkwy Off-ramp.
- Widening / reconstructing the EB I-580 / San Quentin off-ramp gore area
- Modifications to signing, striping and pavement delineation to accommodate project. This includes adding overhead sign structures.
- Safety improvements (replacement & extension of existing railing, street lighting) to accommodate the project.
- Modifications to the existing San Quentin intersection with I-580 ramps to add a pork chop island limiting / preventing ramp through movements.

Assumptions

- Modification to the San Quentin overcrossing structure is not required. Existing width can accommodate the proposed auxiliary lane.
- Existing width of I-580 shoulder accommodates the addition of the auxiliary lane.
- Modifications to the existing San Quentin on-ramp (which is substandard) will not be required.
- Existing Richmond San Rafael bridge width is sufficient to accommodate 3 lanes. Modifications are limited to striping and signing.
- Existing shoulder features a full depth structural section and reconstruction of the shoulder is not required on the Marin County Side of the Bridge
- Existing shoulder on the Contra Costa Side will need to be reconstructed for full depth structural section and paved all the way to the face of the existing retaining wall
- Existing fence along 580 EB on the Contra Costa Side will need to be removed and replaced with an MBGR and a new ROW Fence

Estimated Project Cost: \$13.8 million

Existing Pavement at Richmond PKWY
 0.15 RAC-G
 0.68 AC
 0.25 ATPB
 0.75 CTB
 1.30 AS

Existing Pavement at San Quentin
 .1 OGAC
 0.15 AC (Type A)
 0.41 AC
 0.67 Untreated Base
 0.5 Imported Subbase

Pavement Quantities	length	Width	Area	Ton OGAC (0.15)	Ton 0.5' AC (Type A)	Cubic Yards 0.7' C1 3 Agg	Cubic Yards 0.5' C1 4 Sub	0.25 ATPB	Existing Pavement at San Quentin	Existing Pavement at Richmond PKWY
Ramp	940	24	22560	284	846	585	418	0	.1 OGAC	0.15 RAC-G
New Lane	1000	12	12000	135	450	312	223	0	0.15 AC (Type A)	0.68 AC
Lane Taper	780	5	3900	44	147	102	73	0	0.41 AC	0.25 ATPB
Additional Pavement to Richmond PKWY			11000	124	561	306	530	102	0.67 Untreated Base	0.75 CTB
Total	2720	41	49460	557	2004	1305	1244	102	0.5 Imported Subbase	1.30 AS

2

Replace Street Lights

Remove Fence (ft)
 New Fence (Ft)
 800 Station 116+00 to 124+00
 800 Station 116+00 to 124+00

Signing

Overhead Exit Sign
 Roadside Signs
 CMS Sign - 2 Post
 Overhead Changeable Message Signs
 1 New Static sign needed at exit to San Quentin
 45 assumed
 1 at off-ramp to San Quentin
 4 two leading to the shoulder running lane, two at the downstream end of the shoulder running lane

Barrier

Type 60
 MBGR
 MBGR
 Length (ft)
 600 Replace existing MBGR with CB along outside edge of travelway at San Quentin
 200 Replace existing MBGR east of San Quentin
 800 Install new MBGR along edge of travelway from Station 116+00 to 124+00

Drainage

New/Cap Inlet
 Remove Inlet
 Pipe (ft)
 Underdrain
 Underdrain
 5 Assume one new inlet every 300 ft
 0
 1500 Need to improve or install new drainage in front of the wall (stations 120+00 to 135+00)
 2720 place underdrain for entire section of reconstructed pavement (around gore area at the San Quentin Off-Ramp)
 2400 place underdrain from station 116+00 to 140+00

Relocation Assistance

Assume 8 hours a day Shuttle operation, 365 days a week, at \$75/hr for 5 years \$ 1,095,000.00

Attachment B – Multi-User Path on Westbound Upper Deck of Richmond-San Rafael Bridge
Budget Estimate

Draft February 2007 Project Study Report Estimate for Alternative 1B for On-Deck Two-
Directional Pathway, Moveable Barrier Upper Deck Only

Project Capital Outlay Cost Estimate	\$21,896,200
Estimated Capital Outlay Support (Assume 40% of Capital Outlay)	\$ 8,758,480
Annualized Operating Costs	<u>\$12,702,000</u>
Unescalated Total	\$43,356,680
Escalation at 5% for 4 years	<u>\$ 9,343,636</u>
Escalated Total	\$52,700,315
Rounded to \$53 million for budgeting purposes	

PRELIMINARY ESTIMATE OF PROJECT COST

District-County-Route 04 - CC/Mm - 580
 PM 6.1/7.8, 0.0/2.6
 EA _____
 Program Code _____

PROJECT DESCRIPTION: I-580 Corrdior/Richmond-San Rafael Bridge Bicycle and Pedestrian Access

Limits: On Route 580 from 1.7 miles east to 2.6 miles west of Contra Costa/Marin County Line

Proposed Improvement (Scope): Provide bicycle and pedestrian access on the Richmond/San Rafael Bridge.

Alternate: Alternative 1B: On-Deck Two-Directional Pathway, Moveable Barrier Upper Deck Only

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$	<u>19,996,000</u>
TOTAL STRUCTURE ITEMS	\$	<u>1,900,200</u>
SUBTOTAL CONSTRUCTION COSTS	\$	<u>21,896,200</u>
TOTAL RIGHT OF WAY ITEMS	\$	<u>0</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	<u>21,896,200</u>
ANNUALIZED OPERATING COSTS (25 years, 4% inflation)	\$	<u>12,702,000</u>
TOTAL PROJECT COSTS	\$	<u>34,598,200</u>

Reviewed by _____
 Signature

Approved _____
 Signature

Phone No. _____ **Date** _____

District-County-Route	<u>04 - CC/Mrn - 580</u>
KP(PM)	<u>6.1/7.8, 0.0/2.6</u>
EA	<u>0</u>
Program Code	<u>0</u>

Section 6 Minor Items

Subtotal Sections 1-5 \$14,851,500 x 2% \$297,030

TOTAL MINOR ITEMS \$297,000

Section 7 Roadway Mobilization

Subtotal Sections 1-5 \$14,851,500

Minor Items \$297,000

Sum \$15,148,500 x 5% \$757,425

TOTAL ROADWAY MOBILIZATION \$757,400

Section 8 Road Additions

Supplemental

Subtotal Sections 1-5 \$14,851,500

Minor Items \$297,000

Sum \$15,148,500 x 2% \$302,970

Contingencies *

Subtotal Sections 1-5 \$14,851,500

Minor Items \$297,000

Sum \$15,148,500 x 25% \$3,787,125

TOTAL ROADWAY ADDITIONS \$4,090,100

TOTAL ROADWAY ITEMS \$19,996,000

(Total of Sections 1-8)

ESTIMATE PREPARED BY

John Paris, PE PHONE # (510) 208-2400 DATE November 28, 2006
 (Print Name)

* Use appropriate percentage per Chapter 3-50 of Project Development Procedures Manual: PSR 25%, Draft PR 20%, PR 15%.

District-County-Route	<u>04 - CC/Mrn - 580</u>
KP(PM)	<u>6.1/7.8, 0.0/2.6</u>
EA	<u>0</u>
Program Code	<u>0</u>

II. STRUCTURES ITEMS

	Modify Finger Joints	Close Gaps in Steel Barrier	Raise Trestle Barrier
Bridge Name	<u>14 Total</u>	<u></u>	<u></u>
Structure Type	<u></u>	<u></u>	<u></u>
Width (out to out) - (ft)	<u></u>	<u></u>	<u></u>
Bridge Length - (ft)	<u></u>	<u>\$18,400</u>	<u>\$2,900</u>
Total Area - (sf)	<u></u>	<u></u>	<u></u>
Footing Type (pile/spread)	<u></u>	<u></u>	<u></u>
Cost Per sf (incl. 10% mobilization and 25% contingency)	<u></u>	<u></u>	<u></u>
Bridge Cost	<u>\$1,500,000</u>	<u>\$76,200</u>	<u>\$189,000</u>
Traffic Handling	<u>\$50,000</u>	<u>\$35,000</u>	<u>\$50,000</u>
Remove Existing Bridge	<u></u>	<u></u>	<u></u>
Total Cost for Structure	<u>\$1,550,000</u>	<u>\$111,200</u>	<u>\$239,000</u>

SUBTOTAL STRUCTURES ITEMS \$1,900,200

Railroad Related Costs:

SUBTOTAL RAILROAD ITEMS \$0

TOTAL STRUCTURES ITEMS \$1,900,200

COMMENTS:

ESTIMATE PREPARED BY

John Paris, PE PHONE # (510) 208-2400
(Print Name)

DATE November 28, 2006

(If appropriate, attach additional pages and backup)

BACKUP INFORMATION FOR COST ESTIMATE

Section 1. Roadway Excavation: For off ramp widening to accommodate pathway - 6 foot widening
Assume barrier will be placed along edge of traveled way, existing 4 foot shoulder will be used along with 6 feet of ramp widening for the pathway

Off Ramp: 800 feet length

Section 2: Pavement Structural Section: For 6 feet of ramp widening to accommodate the pathway
Assume pavement section to match existing:

- 0.25' AC
- 0.67' AB
- 0.50' AS

Section 3: Drainage

Only minor drainage needed. Drainage inlet at bottom of off ramp will require reconstruction to accommodate the ramp widening.

Section 4: Specialty Items

The movable barrier would be needed for the entire length of the upper deck, off ramp at west end of bridge, and 500 feet from the beginning of the end of the upper deck to near the toll plaza.

Upper Deck	21,300 feet
Off Ramp	800
Extension past Upper Deck	500
Total Length	<hr/> 22,600 feet

Estimate includes the gawk screen to bring the barrier to 54 inches.

Assume a design exception would be obtained for the non-standard height of the existing outside bridge railing to accommodate a multiple-use pathway. The price to adjust the outside railing would be similar to what is proposed for Alternative 2.

Machine maintenance costs and driver costs not included:

- Machine maintenance costs would be approximately \$100/hr of use - yearly cost of approximately \$110,000 per machine, assuming 3 hours a day, 365 days/week
- Driver costs of approximately \$200,000 year - each machine requires 2 drivers.

Environmental mitigation would include noise attenuation and permitting related to design and construction costs.

BACKUP INFORMATION FOR COST ESTIMATE (Continued)

Costs for security cameras are extrapolated from costs that were incurred for the security cameras on the Zampa Bridge. Construction capital costs provided by Caltrans for security cameras on the Zampa Bridge are as follows: Labor \$223,000; Materials \$330,000; Equipment: \$62,000. Total amount is \$615,000, which does not include support costs. The Zampa Bridge is 0.66 miles long, and the multiple-use path is only on one side of the bridge.

The \$3,690,000 cost estimate for security cameras on the Richmond-San Rafael Bridge was obtained by multiplying the Zampa Bridge costs by 6.

Section 5. Traffic Items:

The entire length of the bridge and part of approaches will be restriped

Signing needed for the pathway

Section 6. Minor Items:

Use 2% of roadway items since most of the cost is material cost of the barriers

Includes fencing along the Caltrans maintenance area to connect the path with Western Drive and the east end of the bridge.

Section 7. Roadway Mobilization:

Use 5% rather than 10% of roadway items since most of the cost is material cost of the barriers

Section 8: Roadway Additions:

Use 2% rather than 10% of roadway items since most of the cost is material cost of the barriers. This is not a contingency. This item covers supplemental work that cannot be predicted beforehand, such as removal of unsuitable material or AC content.

Structure Items

Close gaps in steel barrier: Use 1/2-inch diameter steel bars to close gaps under the utility tray and above above the tray in the main span truss and plate girders. Two bars weigh 1.33 pounds per LF. Cost of Furnish Structural Steel is \$2.33/pound. Cost for Erect Structural Steel is \$1.81/pound.

Raise Trestle Barrier: Standard tubular railing at \$65/LF