



CONTRACT TASK ORDER (CTO)
COST SUMMARY

Contract No.:
Contract Name:
Consultant:
Task No.:
Task Name:
CTO Proposal Date:
Req. No.:

CTO SCOPE OF SERVICES - Attached

Services to be Furnished:
Location:
Design Start Date:
Duration:
Design Completion Date:
CTO Completion Date:

SUMMARY COST ESTIMATE

Table with columns: Cost Components, Total Authorization. Rows include Fully Burdened Direct Labor, Subconsultants, Other Direct Costs, Premium/Overtime Cost, Total Fixed Fee, and Total Not-to-Exceed Cost.

ALL SUPPORTING DOCUMENTATION MUST BE ATTACHED

FUNDING SOURCE: Federal, State, Local, Other. THRU: METRO, OCTA, RCTC, SANBAG, VCTC, Other.

DISTRIBUTION

Table with columns: PROJECT, TASK, TYPE, COST CENTER, COST (\$).

AUTHORITY APPROVALS: CTO Project Manager, SCRRRA Project Manager, Asst. Director, Program Management Oversight, Asst. Director, Contracts and Procurement, Director, Engineering & Construction. Limited Authorization: Not applicable. CONSULTANT/CONTRACTOR: Signature, Title, Date.



CONTRACT TASK ORDER (CTO) REVISION COST SUMMARY

Contract No.:	Task No.:	Revision No.:
Contract Name:	Task Name:	
Consultant:	CTO Proposal Date:	Req. No.:

CTO SCOPE OF SERVICES - Attached

Services to be Furnished:	Location:		
Design Start Date:	Duration:	Design Completion Date:	0-Jan-00
		CTO Completion Date:	

REVISED SUMMARY COST ESTIMATE

Cost Components				Previous Authorization	Current Authorization	Revised Total Authorization
1	Fully Burdened Direct Labor (Total Prime) DBE Portion (if applicable) (\$)			\$0.00	\$0.00	\$0.00
2	Subconsultants (attach detailed estimates in same format)	Company Name	DBE	\$0.00	\$0.00	\$0.00
			<input type="checkbox"/>	\$0.00	\$0.00	\$0.00
			<input type="checkbox"/>	\$0.00	\$0.00	\$0.00
			<input type="checkbox"/>	\$0.00	\$0.00	\$0.00
3	Other Direct Costs			\$0.00	\$0.00	\$0.00
4	Premium/Overtime Cost			\$0.00	\$0.00	\$0.00
5	Total Fixed Fee			\$0.00	\$0.00	\$0.00
6	Total Not-to-Exceed Cost			\$0.00	\$0.00	\$0.00

ALL SUPPORTING DOCUMENTATION MUST BE ATTACHED

FUNDING SOURCE		THRU		
<input type="checkbox"/> Federal	<input type="checkbox"/> State	<input type="checkbox"/> METRO	<input type="checkbox"/> OCTA	<input type="checkbox"/> RCTC
<input type="checkbox"/> Local	<input type="checkbox"/> Recollectable	<input type="checkbox"/> SANBAG	<input type="checkbox"/> VCTC	
<input type="checkbox"/> Other _____		<input type="checkbox"/> Other _____		

DISTRIBUTION

PROJECT	TASK	TYPE	COST CENTER	COST (\$)

AUTHORITY APPROVALS:	Limited Authorization:
_____ Date: _____	<input type="checkbox"/> Not applicable
CTO Project Manager	
_____ Date: _____	CONSULTANT/CONTRACTOR:
SCRRRA Project Manager	
_____ Date: _____	
Asst. Director, Program Management Oversight	
_____ Date: _____	Signature
Asst. Director, Contracts and Procurement	_____
_____ Date: _____	Title
Director, Engineering & Construction	_____
	Date



Contract No. E000-00
Contract Name:
Consultant:

Task No.
Task Name:
CTO Proposal Due Date:

Consultant shall prepare a proposal based on the following information.

Scope of Work:

Drawings attached # Additional Scope of Services attached.

Design Start Date:	Duration	Design Completion Date:
		CTO Completion Date:

Milestones:

FUNDING SOURCE <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Local <input type="checkbox"/> Recollectable <input type="checkbox"/> Other _____	THRU <input type="checkbox"/> METRO <input type="checkbox"/> OCTA <input type="checkbox"/> RCTC <input type="checkbox"/> SANBAG <input type="checkbox"/> VCTC <input type="checkbox"/> Other _____	FUNDS Fed. Trans Adm. Grant # _____ Fund Transfer Agt. # _____ Other _____ Other _____
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Project No.	Task No.	Expense Type	Cost Center	Expenses Authorized

Prepared by: _____ Date _____
 SCRRA Project Manager

_____ Date _____
 CTO Program/Project Manager



CTO REQUEST FOR PROPOSAL REVISION

[To Be Completed by SCRRRA]

Contract No. E000-00	Task No.	Revision No.
Contract Name:	Task Name:	
Consultant:	CTO Proposal Due Date:	

Consultant shall prepare a proposal based on the following information.

Scope of Work:

Drawings attached # _____ Additional Scope of Services attached.

Design Start Date: _____ Duration _____ Design Completion Date: _____

CTO Completion Date: _____

Milestones:

FUNDING SOURCE		THRU		FUNDS	
<input type="checkbox"/> Federal		<input type="checkbox"/> METRO		Fed. Trans. Adm. Grant # _____	
<input type="checkbox"/> State		<input type="checkbox"/> OCTA		Fund Transfer Agt. # _____	
<input type="checkbox"/> Local		<input type="checkbox"/> RCTC		Other _____	
<input type="checkbox"/> Recollectable		<input type="checkbox"/> SANBAG		Other _____	
<input type="checkbox"/> Other _____		<input type="checkbox"/> VCTC			
		<input type="checkbox"/> Other _____			

Project No.	Task No.	Expense Type	Cost Center	Expenses Authorized

Prepared by: _____ Date _____
 SCRRRA Project Manager

_____ Date _____
 CTO Program/Project Manager



Contract No.:	Task No.:	Revision No. :
Contract Name:	Task Name:	
Consultant:	CTO Proposal Date:	
	Revision CTO End Date:	
	Requisition No.:	

CTO EXTENSION

Scope Summary:

Extension Explanation:

PREVIOUS CTO END COMPLETION DATE:

CTO REVISION DURATION (DAYS):

CTO REVISION END COMPLETION DATE:

ALL SUPPORTING DOCUMENTATION MUST BE ATTACHED

AUTHORITY APPROVALS:

_____ Date: _____

CTO Project Manager or
SCRA Project Manager

_____ Date: _____

Contract Administration

CONTRACTOR:

Signature

Title

Date

Metrolink
Independent Cost Estimate
Engineering Design Services

Contract Name: **Name**
 Contract Number: **E000A-00**
 Project Number: **800000**
 Date Prepared: **7/10/2014**

CTO No.: **CTO-002**
 Description: **Engineering Support Services**

Labor & Subcontractor	
Total - Labor Cost (See Attached)	\$ -
Fixed Fee (Justification must be included in CTO Proposal) 0.0%	\$ -
Total - Subcontractor Services (See hourly breakdown, attached proposals, and the justification below)	\$ -
(1) Total - Subcontractor & Labor:	\$ -

Materials and Equipment Costs								
Line Item	Description	Days	Daily Rate	Weeks	Weekly Rate	Month	Monthly Rate	Total
1	Monthly Truck Rental for P.M. for site visits over three county area	0	\$ -	8	\$ 151.00	0	\$ -	\$ 1,208
2		0	\$ -			0	\$ -	\$ -
(2) Material & Equipment Subtotal:								\$ 1,208

Other Direct Costs (Details Listed Below)					
Line Item	Description	Quantity	Rate	Weeks	Total
1	Cell Phones	2	\$ 50.00	4	\$ 400
2	Computer / Technology Equipment		\$ -	0	\$ -
3	Reproduction Services	1	\$ 200.00	1	\$ 200
4	Travel (airfare, hotel, expenses etc., explain below)		\$ -		\$ -
5	Mileage and Parking	2	\$ -	26	\$ -
(3) Other Direct Costs Subtotal:					\$ 600
Grand Total (1+2+3):					\$ 1,808

Justification (Non-Standard & Premium Hours)	
OTHER DIRECT COSTS	
Reproduction	For Construction Design Documents and Specification.
Travel	Who, What, Why
Mileage	The PM will be attending meetings at the main office in downtown LA. Average 2 trips per months for 12 months
PREMIUM / OVERTIME COST	
Position/Name	Why
Position/Name	Why
Position/Name	Why
SUBCONTRACTORS	
Sub-Contractor 1	Who, What, Why
Sub-Contractor 2	Who, What, Why

Estimated by: _____

Date: _____

METROLINK Independent Cost Estimate Engineering Design Services

Contract Name:	Name
Contract Number:	E000A-00
Project Number:	800000
Date Prepared:	7/10/2014

CTO No.: CTO-002
Description: Engineering Support Services

Description of Work (Scope Summary):

Provide Engineering Support Services for PTC Program including independent technical and contractual oversight and recommendations.																	
Engineering Design Services		Project Duration (Months or Weeks): 00 weeks									Design Support during Construction			Total Hours	Type of Shift	Full Labor Burden Rate	TOTAL
Line Item	Job Classification	Preliminary Design (5% and 35%)			Interim Design (60%)			Final Design (90% and 100%)			Weekly Hours	Total Weeks	Total Hours				
		Weekly Hours	Total Weeks	Total Hours	Weekly Hours	Total Weeks	Total Hours	Weekly Hours	Total Weeks	Total Hours							
	Company Name	Name															
1	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
2	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
3	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
4	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
5	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
6	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
7	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
8	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
9	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
10	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
11	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
Subtotal Labor:		0	0	0	0	0	0	0	0	0	0	0	0	-	-		\$ -
Subcontractors / Vendors*																	
	Company Name	Name															
12	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
13	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
14	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
15	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
16	TITLE OF POSITION			0			0			0			0	0	Reg	\$ -	\$ -
17	TITLE OF POSITION			0			0			0			0	0		\$ -	\$ -
18	TITLE OF POSITION			0			0			0			0	0		\$ -	\$ -
Subtotal Subcontractor:		0	0	0	0	0	0	0	0	0	0	0	0	-			\$ -
Total - Labor & Subcontractor																\$ -	

*Provide Justification for Subcontracting Services and Labor Cost requiring Overtime on Page 1.



Contract No.:		CTO No.:		Consultant Initials _____		Page 1 of 2	
Consultant:							
Services to be furnished:				Location where work is to be performed:			
DETAILED DESCRIPTION OF COST ELEMENTS							
1. LABOR (specify function/title)	ESTIMATED HOURS	FULLY BURDENED LABOR RATE PER HOUR	ESTIMATED COST	TOTAL ESTIMATED COST			
			\$ -				
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TOTAL LABOR:							
2. SUBCONSULTANTS (attach "Form 60" for all proposed subconsultants)							
TOTAL SUBCONSULTANTS:							
3. OTHER DIRECT COSTS (itemize on Page 2 of Form 60)							
4. PREMIUM COST (itemize on Page 2 of Form 60)							
5. FEE (justification must be included in CTO proposal)							
TOTAL ESTIMATED COST AND FEE:							

Contract No.:	CTO No.: [REDACTED]	CTO PRICING PROPOSAL	Page 2 of 2
Consultant:		"FORM 60"	

SUPPORTING SCHEDULE

ITEM NO.	ITEM DESCRIPTION	ESTIMATED COST
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3.	Other Direct Costs	
	Document / Records Fees	
	Outside reproduction	
	Outside photography / film processing	
	TOTAL OTHER DIRECT COSTS:	
	Travel, mileage, subsistence within Metrolink service area; reproduction; mailing and delivery charges; telephone, cell phone, mobile phone and facsimile; small portable equipment, expendable office supplies, consumables	Disallowed

4. Premium / Overtime Cost (Direct Labor, No OH)		
		ESTIMATED COST
	No. of Hours	\$/ Hour
	TOTAL PREMIUM COSTS:	

Consultant Name:	Date Prepared:
Project Manager Name:	Date:
Signature:	

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DETAILED COST SCHEDULE:

Contract:
CTO No.:
Date:



CLASSIFICATION	NAME	HOURS	RATE	TOTAL	Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
					Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
DESCRIPTION														
				-										
				-	\$	-	\$	-	\$	-	\$	-	\$	-
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QA/QC														
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Subtotal					\$	-	\$	-	\$	-	\$	-	\$	-
LABOR SUBTOTAL: \$					-									
					\$	-	\$	-	\$	-	\$	-	\$	-

DETAILED COST SCHEDULE:

Contract:
CTO No.:
Date:



CLASSIFICATION	NAME	HOURS	RATE	TOTAL
OTHER DIRECT COSTS				AMOUNT
Reproduction - Outside Services				-
Photos - Film & Processing				-
				-
				-
ODCs SUBTOTAL: \$				-

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
\$ -		\$ -		\$ -		\$ -		\$ -	

SUB-CONTRACTORS	AMOUNT
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	-
SUB-CONTRACTORS \$	-

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
\$ -		\$ -		\$ -		\$ -		\$ -	

FEE	AMOUNT
Profit	-
FEE SUBTOTAL \$	-

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
Hours	Total	Hours	Total	Hours	Total	Hours	Total	Hours	Total
\$ -		\$ -		\$ -		\$ -		\$ -	

GRAND TOTAL:		\$ -		\$ -		\$ -		\$ -	
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INSTRUCTIONS FOR COMPLETING FORM 60 CONTRACT TASK ORDER PROPOSALS

Consultant is to provide a Contract Task Order (CTO) Proposal for work as requested by the Authority Design Engineer in accordance with the instructions annotated below. The provided Form 60 can be expanded by the Proposer to reflect all cost elements. There is no restriction on the length of a Form 60 nor the supporting detail attached. At a minimum, Proposers are to complete the Form 60s with such sufficient detail attached to demonstrate reasonableness of the cost proposed to support the offered Firm Fixed Price, inclusive of Profit/Fee.

Line 1 – Direct Labor: The Form 60 requires that all Direct Labor be identified by Labor Category. Complete the Proposed Labor Hours required for each Labor Category, the Labor Rate per Hour for each Labor Category and proposed cost for each Labor Category. All Direct Labor pricing will be summed on the Total Direct Labor line of the Form 60.

Line 2 – Labor Overhead: Labor Overhead may be proposed on a labor category basis or on a company rate basis. Please attach the most current supporting audit information verifying the O.H. (Overhead) Rate and the Base. Labor Overhead pricing will be summed on the “Total Labor Overhead” line of the Form 60.

Line 3 – Travel: Local travel within the Metrolink service area will not be reimbursed. All travel and per-diem or subsistence costs are allowable only to the extent that such costs are pre-approved within the amount negotiated and set forth in each CTO.

Line 4 – Subconsultants/Suppliers: Subconsultants/Suppliers will provide Form 60s and supporting detail for services to be performed as a result of any contract issued under this RFP. If the Proposer is a Joint Venture all of the firms in the Joint Venture shall submit Form 60s with supporting detail sufficient to establish reasonableness of the costs proposed. All Subconsultant/Suppliers proposed costs will be summed on the “Total Subconsultant/Suppliers” line of the Form 60.

Line 5 – Other Direct Costs: Other Direct Costs will be itemized on the Supporting Schedule (page two) of the Form 60 with detail provided sufficient to establish reasonableness of the Other Direct Costs proposed. Other Direct Costs will be summed on the Form 60 line entitled “Other Direct Costs.”

Line 6 - General & Administrative Expenses: General & Administrative Expenses identify the percentage cost proposed and the line item numbers on which the General & Administrative Expense cost is proposed. The Proposer will total such costs on the Form 60 line entitled “General & Administrative Expense”.

Line 7 – Fee: Fee will be proposed as a dollar amount on line 7 of the Form 60. The Proposer will calculate fee and disclose fee base on the Form 60 line entitled “Form 60.” A fee justification must accompany each Form 60. Please see Exhibit 1, Required Fee Justification: Content and Form. Proposer will provide the TOTAL OFFERED PRICE AND FEE as provided on the final line of Form 60.

CONSULTANT INVOICE SUMMARY



Remit Paymet to:
 Consultant Name
 Address
 Attn:

Invoice to:
 Southern California Regional Rail Authority
 One Gateway Plaza, 12th Floor
 Los Angeels, CA 90012
 Attn: Accounts Payable

INVOICE NO.	
PERIOD ENDING	
TOTAL CONTRACT LIMIT	
TOTAL AUTHORIZATION	
REMAINDER	

PROJECT NO.	DESCRIPTION	LABOR	ODC'S	FIXED FEES	TOTAL	AUTHORIZED AMOUNT	BILLED THIS INVOICE	BILLED PREVIOUSLY	BILLED TO DATE	REMAINING AUTHORIZATION	PROJECT COMPLETION
		\$	\$	\$	\$	\$	\$	\$	\$	\$	%
000000		\$30.00	\$9.00	\$3.00	\$42.00	\$30.00	\$6.00	\$12.00	\$18.00	\$12.00	60.0%
000000		\$0.00	\$0.00	\$0.00	\$0.00	\$30.00	\$6.00	\$12.00	\$18.00	\$12.00	60.0%
000000		\$0.00	\$0.00	\$0.00	\$0.00	\$30.00	\$6.00	\$12.00	\$18.00	\$12.00	60.0%
000000		\$0.00	\$0.00	\$0.00	\$0.00						#DIV/0!
000000		\$0.00	\$0.00	\$0.00	\$0.00						#DIV/0!
000000		\$0.00	\$0.00	\$0.00	\$0.00						#DIV/0!
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000000		\$0.00	\$0.00	\$0.00	\$0.00						#DIV/0!
000000		\$0.00	\$0.00	\$0.00	\$0.00						#DIV/0!
000000		\$0.00	\$0.00	\$0.00	\$0.00						#DIV/0!
000000		\$0.00	\$0.00	\$0.00	\$0.00						#DIV/0!
TOTAL		\$30.00	\$9.00	\$3.00	\$42.00	\$90.00	\$18.00	\$36.00	\$54.00	\$36.00	

If you have any questions regarding this invoice, please contact me at (714) 730-2323. Thank you for the opportunity to be of service.

Sincerely,

TOTAL THIS INVOICE \$18.00

Project Manager
 Enclosures

SUBCONSULTANT INVOICE SUMMARY



Southern California Regional Rail Authority



Remit Paymet to:
Consultant Name
Address

Invoice to:
Southern California Regional Rail Authority
One Gateway Plaza, 12th Floor
Los Angeels, CA 90012
Attn: Accounts Payable

INVOICE NO.
PERIOD ENDING

TOTAL CONTRACT LIMIT
TOTAL AUTHORIZATION
REMAINDER

Attn:

PROJECT NO.	DESCRIPTION	CONSULTANT				SUB-CONSULTANT 1				SUB-CONSULTANT 2				TOTAL			
		LABOR	ODC'S	FIXED FEES	SUB-TOTAL	LABOR	ODC'S	FIXED FEES	SUB-TOTAL	LABOR	ODC'S	FIXED FEES	SUB-TOTAL	LABOR	ODC'S	FIXED FEES	TOTAL
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
000000		\$10.00	\$3.00	\$1.00	\$14.00	\$10.00	\$3.00	\$1.00	\$14.00	\$10.00	\$3.00	\$1.00	\$14.00	\$30.00	\$9.00	\$3.00	\$42.00
000000					\$0.00				\$0.00				\$0.00	\$0.00	\$0.00	\$0.00	
000000					\$0.00				\$0.00				\$0.00	\$0.00	\$0.00	\$0.00	
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000000					\$0.00				\$0.00				\$0.00	\$0.00	\$0.00	\$0.00	
000000					\$0.00				\$0.00				\$0.00	\$0.00	\$0.00	\$0.00	
000000					\$0.00				\$0.00				\$0.00	\$0.00	\$0.00	\$0.00	
000000					\$0.00				\$0.00				\$0.00	\$0.00	\$0.00	\$0.00	
TOTAL		\$10.00	\$3.00	\$1.00	\$14.00	\$10.00	\$3.00	\$1.00	\$14.00	\$10.00	\$3.00	\$1.00	\$14.00	\$30.00	\$9.00	\$3.00	\$42.00

If you have any questions regarding this invoice, please contact me at (714) 730-2323. Thank you for the opportunity to be of service.

Sincerely,

TOTAL THIS INVOICE \$1.00

Project Manager
Enclosures

PROJECT SUMMARY



INVOICE NO.
 PERIOD ENDING

TOTAL CONTRACT LIMIT
 TOTAL AUTHORIZATION
 REMAINDER

PROJECT NO.	CTO NO.	DESCRIPTION	AUTHORIZED AMOUNT \$	BILLED THIS INVOICE \$	BILLED PREVIOUSLY \$	BILLED TO DATE \$	REMAINING AUTHORIZATION \$	PROJECT COMPLETION TO DATE %
000000			\$30.00	\$6.00	\$12.00	\$18.00	\$12.00	
	1		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
	2		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
	3		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
000000			\$30.00	\$6.00	\$12.00	\$18.00	\$12.00	
	1		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
	2		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
	3		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
000000			\$30.00	\$6.00	\$12.00	\$18.00	\$12.00	
	1		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
	2		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%
	3		\$10.00	\$2.00	\$4.00	\$6.00	\$4.00	60.0%

MONTHLY RACE-NEUTRAL DBE SUB-CONSULTANTS REPORT SUMMARY AND PAYMENT VERIFICATION (Form 103)

Reporting Period: _____

Contract Number: _____	Form 103 Report No.: _____	Report Prepared By: _____
Contract Award Date: _____	Original Contract (\$): _____	Title: _____
Prime Name: _____	Current Contract Value (\$): _____ [B]	Report Reviewed By: _____
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	% of Project Complete: _____	Signature: _____
Address: _____	[A]/[B] = _____	Title: _____
Telephone No.: _____	Total Dollars Paid to DBEs this Reporting Period (\$) \$ _____ -	Prime's Race-Neutral DBE Attainment to Date: _____
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	Total Dollars Paid to DBEs (\$) _____	<i>(Total Dollars Paid to DBEs divided by Total Dollars Paid to Prime)</i>
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____	Total Dollars Paid to HDR (\$) _____ [A]	

DBE SUBCONTRACTORS	Dollar Amount Paid this Month	Dollar Amount Paid To Date [C]	Type of Work Performed (Scope)	Original Dollar Amount Committed to DBE at Contract Award	\$ +/- Resulting from Change Order Activity	Current Subcontract Value [D]	% of Work Completed [C]/[D]	FOR SCRRRA USE ONLY
Name: _____	\$ -	\$ -		N/A	\$ -	\$ -		
Address: _____								
City, State, Zip Code: _____								
Telephone Number: _____								
Prime Subconsultant Broker								
Supplier: Regular Dealer Manufacturer								
Attach Verification of Payment: Yes No								
Name: _____	\$ -	\$ -		N/A	\$ -	\$ -		
Address: _____								
City, State, Zip Code: _____								
Telephone Number: _____								
Prime Subconsultant Broker								
Supplier: Regular Dealer Manufacturer								
Attach Verification of Payment: Yes No								
Name: _____	\$ -	\$ -		N/A	\$ -	\$ -		
Address: _____								
City, State, Zip Code: _____								
Telephone Number: _____								
Prime Subconsultant Broker								
Supplier: Regular Dealer Manufacturer								
Attach Verification of Payment: Yes No								

MONTHLY RACE-NEUTRAL DBE SUB-CONSULTANTS REPORT SUMMARY AND PAYMENT VERIFICATION (Form 103)

Reporting Period: _____

Contract Number: _____ Contract Award Date: _____ Prime Name: _____ Address: _____ Telephone No.: _____	Form 103 Report No.: _____ Original Contract (\$): _____ Current Contract Value (\$): _____ [B] % of Project Complete: _____ [A]/[B] = _____ Total Dollars Paid to DBEs this Reporting Period (\$) \$ _____ - Total Dollars Paid to DBEs (\$) _____ Total Dollars Paid to HDR (\$) _____ [A]	Report Prepared By: _____ Title: _____ Report Reviewed By: _____ Signature: _____ Title: _____ Prime's Race-Neutral DBE Attainment to Date: _____ (Total Dollars Paid to DBEs divided by Total Dollars Paid to Prime)	
---	---	---	--

DBE SUBCONTRACTORS	Dollar Amount Paid this Month	Dollar Amount Paid To Date [C]	Type of Work Performed (Scope)	Original Dollar Amount Committed to DBE at Contract Award	\$ +/- Resulting from Change Order Activity	Current Subcontract Value [D]	% of Work Completed [C]/[D]	FOR SCRRRA USE ONLY
--------------------	-------------------------------	--------------------------------	--------------------------------	---	---	-------------------------------	-----------------------------	---------------------

COMMENTS/ISSUES: _____

If necessary, this form can be duplicated to list all DBE subcontractors paid in this reporting period....
 SCRRRA Form _____

SCRRRA Form 103 (Rev. 11/21/13)



METROLINK

Project and Contract Task Order Summary
 Contract **XXXXX-XX** | Contractor Name

SCRRRA Contract Mgr: **Jane Doe**
 Status as of: **01/01/09**

Current Budget Authority:	0 100%
Budget Authorized to Date:	0 0%
Remaining Budget:	0 100%

									(a)	(b)	(c) = (a)-(b)	(d)	(e) = (a)+(d)	(f) = (b)/(a)	(g)		
PROJECT No.	CTO No.	Rev #	Status	Date Authorized	Expiration Date	SCRRA Project No.	Description	PM	Budget Authorized to Date	Expended to Date	Remaining Budget	Estimate to Complete (ETC)	Estimate at Completion (EAC)	% of Budget Expended	% Time Elapsed	COMMENTS	
000000		0	ACTIVE	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%		
	1										0.00		0.00	0%	--		
	2										0.00		0.00	0%	--		
	3										0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
							Project Subtotal 000000		0.00	0.00	0.00	0.00	0.00	0%	0%		
000000		0	PENDING	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
							Project Subtotal 000000		0.00	0.00	0.00	0.00	0.00	0%	0%		
000000		0	CLOSED	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
											0.00		0.00	0%	--		
							Project Subtotal 000000		0.00	0.00	0.00	0.00	0.00	0%	0%		
ACTIVE PROJECT SUBTOTAL									0.00	0.00	0.00	0.00	0.00	0%	0%		
PENDING PROJECT SUBTOTAL									0.00	0.00	0.00	0.00	0.00	0%	0%		
CLOSED PROJECT SUBTOTAL									0.00	0.00	0.00	0.00	0.00	0%	0%		



Project and Contract Task Order Summary
 Contract **XXXXX-XX** | Contractor Name

SCRRRA Contract Mgr: **Jane Doe**
 Status as of: **01/01/09**

Current Budget Authority:	0 100%
Budget Authorized to Date:	0 0%
Remaining Budget:	0 100%

PROJECT No.	CTO No.	Rev #	Status	Date Authorized	Expiration Date	SCRRA Project No.	Description	PM	(a) Budget Authorized to Date	(b) Expended to Date	(c) = (a)-(b) Remaining Budget	(d) Estimate to Complete (ETC)	(e) = (a)+(d) Estimate at Completion (EAC)	(f) = (b)/(a) % of Budget Expended	(g) % Time Elapsed	COMMENTS
000000		0	CLOSED	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	
CLOSED PROJECT SUBTOTAL									0.00	0.00	0.00	0.00	0.00	0%	-	
TOTAL CONTRACT									0.00	0.00	0.00	0.00	0.00	0%		

- NOTE:**
- (a) Budget Authorized to Date - The budget to date reflects the original executed CTO plus approved revision authorized by SCRRRA.
 - (b) Expended to Date - The cumulative project costs that have been paid through the current reporting period plus estimated expenditures where cost of the work performed has not been invoiced.
 - (d) Estimate to Complete (ETC) - The value of the work still required to be accomplished to complete, including anticipated and pending changes.
 - (e) Estimate at Completion (EAC) - An estimate and prediction of future conditions and events based on information and knowledge available at the time of the forecast.

SUMMARY							
Project Type	Budget Authorized to Date	Expended to Date	Remaining Budget	Estimate to Complete (ETC)	Estimate at Completion (EAC)	% of Budget Expended	% Time Elapsed
Active Projects	0	0	0	0	0	0%	0%
Pending Projects	0	0	0	0	0	0%	0%
Closed Projects	0	0	0	0	0	0%	--
Total:	0	0	0	0	0	0%	

Current Budget Authority:	0	100%
Budget Authorized to Date:	0	0%
Remaining Budget:	0	100%



Employee Name		Firm	SCRRA CTO No.	Invoice Hours													
Last	First			Project No.													
				000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	Total		
Doe	Jane	ABC	1														0.0
		ABC	2														0.0
		ABC	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	CDE	1														0.0
		CDE	2														0.0
		CDE	3														0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Invoice Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Contract Task Order (CTO) Summary
Contract XXXXX-XX | Contractor Name

SCRRRA Contract Mgr: **Jane Doe**
 Status as of: **01/01/09**

Current Budget Authority:	0	100%
Budget Authorized to Date:	0	0%
Remaining Budget:	0	100%

CTO No.	Rev #	Status	Date Authorized	Expiration Date	SCRRRA Project No.	Description	PM	(a) Budget Authorized to Date	(b) Expended to Date	(c) = (a)-(b) Remaining Budget	(d) Estimate to Complete (ETC)	(e) = (a)+(d) Estimate at Completion (EAC)	(f) = (b)/(a) % of Budget Expended	(g) % Time Elapsed	COMMENTS
XX	0	ACTIVE	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	
Subtotal CTO XX								0.00	0.00	0.00	0.00	0.00	0%	0%	
XX	0	ACTIVE	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	
Subtotal CTO XX								0.00	0.00	0.00	0.00	0.00	0%	0%	
XX	0	ACTIVE	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	
Subtotal CTO XX								0.00	0.00	0.00	0.00	0.00	0%	0%	
ACTIVE CTO SUBTOTAL								0.00	0.00	0.00	0.00	0.00	0%	0%	
XX	0	PENDING	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	
Subtotal CTO XX								0.00	0.00	0.00	0.00	0.00	0%	0%	
XX	0	PENDING	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	
Subtotal CTO XX								0.00	0.00	0.00	0.00	0.00	0%	0%	
PENDING CTO SUBTOTAL								0.00	0.00	0.00	0.00	0.00	0%	0%	
XX	0	CLOSED	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	



Contract Task Order (CTO) Summary
 Contract **XXXXX-XX** | Contractor Name

SCRRRA Contract Mgr: **Jane Doe**
 Status as of: **01/01/09**

Current Budget Authority:	0 100%
Budget Authorized to Date:	0 0%
Remaining Budget:	0 100%

CTO No.	Rev #	Status	Date Authorized	Expiration Date	SCRRRA Project No.	Description	PM	(a) Budget Authorized to Date	(b) Expended to Date	(c) = (a)-(b) Remaining Budget	(d) Estimate to Complete (ETC)	(e) = (a)+(d) Estimate at Completion (EAC)	(f) = (b)/(a) % of Budget Expended	(g) % Time Elapsed	COMMENTS
XX	0	CLOSED	01/01/09	01/30/09	000000	Project Description	J. Doe	0.00	0.00	0.00	0.00	0.00	0%	0%	
CLOSED CTO SUBTOTAL								0.00	0.00	0.00	0.00	0.00	0%	-	
TOTAL CONTRACT								0.00	0.00	0.00	0.00	0.00	0%		

NOTE:

- (a) Budget Authorized to Date - The budget to date reflects the original executed CTO plus approved revision authorized by SCRRRA.
- (b) Expended to Date - The cumulative project costs that have been paid through the current reporting period plus estimated expenditures where cost of the work performed has not been invoiced.
- (d) Estimate to Complete (ETC) - The value of the work still required to be accomplished to complete, including anticipated and pending changes.
- (e) Estimate at Completion (EAC) - An estimate and prediction of future conditions and events based on information and knowledge available at the time of the forecast.

SUMMARY							
Project Type	Budget Authorized to Date	Expended to Date	Remaining Budget	Estimate to Complete (ETC)	Estimate at Completion (EAC)	% of Budget Expended	% Time Elapsed
Active Projects	0	0	0	0	0	0%	0%
Pending Projects	0	0	0	0	0	0%	0%
Closed Projects	0	0	0	0	0	0%	--
Total:	0	0	0	0	0	0%	

Current Budget Authority:	0	100%
Budget Authorized to Date:	0	0%
Remaining Budget:	0	100%



Employee Name				Invoice Hours										
Last	First	Firm	SCRRRA Project No.	CTO 01	CTO 02	CTO 03	CTO 04	CTO 05	CTO 06	CTO 07	CTO 08	CTO 09	CTO 10	Total
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Doe	Jane	ABC	000000											0.0
		ABC	000000											0.0
		ABC	000000											0.0
			Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Invoice Total				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Project		Subdivision						
Prj. Mgr.		MP						
GEC		Date						
Task		Action Item List						
Open Items								
Item No.	Description - Action Item	Assigned To	Date Open	Date Required	Days Open	Date Closed	Discipline	Status - Action Taken
001					41932		Mechanical	
002					41932		Track	
003					41932		Structural	
004					41932		Track	
005					41932		Track	
006					41932		Track	
007					41932		Track	
008					41932		Track	
009					41932		Track	
010					41932		Track	
011					41932		Track	
Closed Items								
Item No.	Description - Action Item	Assigned To	Date Open	Date Required	Days Open	Date Closed	Discipline	Status - Action Taken
001					41932		Mechanical	
002					41932		Track	
003					41932		Structural	
004					41932		Track	
005					41932		Track	
006					41932		Track	
007					41932		Track	
008					41932		Track	
009					41932		Track	
010					41932		Track	
011					41932		Track	

CERTIFIED PAYROLL DATA FORM

Consultant Name: _____
 Address: _____
 Attn: _____

Contract No.: _____
 Project No.: _____
 Invoice No.: _____

Certified Payroll Information
 Period from: _____
 To: _____
 Invoice Date: _____

Employee Name		Job Title	Employee Number	Hourly Direct Labor Rate	Overhead Home Office Rate	Fully Burdened Labor Rate Home Office	Overhead Field Office Rate	Fully Burdened Labor Rate Field Office	Number of Hours Worked
Last	First			(\$)	(%)	(\$)	(%)	(\$)	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	
				\$0.00		\$0.00		\$0.00	

I hereby certify that the payroll figures and information Contained on this form are true and complete as of: _____ (Invoice Date)

 Project Manager Name

 Payroll Representative Name

 Company Name

 Payroll Representative Title

 Vice President's Name

 Company Name



Contract No.:		Consultant:		Reporting Period:		Page of	
CTO:		Description:			SCRRA Project No.:		
CTO Manager:				SCRRA Project Manager:			
CTO Amount:		Current Authorized:			NTP Date:		Status
		Phase 1					
		Phase 2					
		Phase 3					
		Phase 4					
		Phase 5					
		Phase 6					
		TOTAL AUTHORIZED		\$	-		Complete
Key Milestones:							
	Description	Scheduled	Comments			Actual	
1							
2							
3							
4							
5							
6							
7							
8							
Progress during Reporting Period:							
Projected Activities for Upcoming Period:							
Changes in Scope:							
Actions Required by SCRRA:							



Contract No.:	Consultant:	SCRRRA Project No.:
CTO No.:	Description:	Completion Date:

AUTHORIZED BUDGET				
	Authorization	Date	Description	Amount
Total Authorized Amount				\$ -

INVOICES AND PAYMENTS						
	Invoice No.	Amount Invoiced	Deductions Made	Retention Withheld	Amount Paid	Date of Payment
Totals						

CONSULTANT CERTIFICATION

All costs and fixed fee recoverable under this CTO have been invoiced to SCRRRA as listed above.
 Other than retention, consultant has received payment for all costs recoverable under this CTO.
 All deliverables required under this CTO have been made.
 There are no outstanding design issues related to the scope of this CTO.

_____ Date _____
 GEC Project Manager

CTO DELIVERABLES RECEIVED			
	Deliverables	Date Submitted	SCRRRA Manager Initials

APPROVALS (BY SCRRRA):

_____ Date _____
 CTO Manager

_____ Date _____
 SCRRRA Project Manager

MEETING ATTENDANCE AND MEETING MINUTES

Meeting Location:	Date:
Subject:	
Purpose:	
Participants: (See list below)	
Distribution:	
All Participants, plus	
Minutes Prepared by:	Company Name:

Summary of Discussion	
ITEM	SUMMARY

**MEETING ATTENDANCE AND MEETING MINUTES**

Participants List				
NAME	INITIAL	ORGANIZATION	PHONE	E-MAIL
Naresh Patel		SCRRA/Metrolink	(909) 592-7969	pateln@scrra.net

MEETING ATTENDANCE AND MEETING MINUTES

Action Item List

ITEM	TOPIC	ACTION ITEM	ASSIGNED TO	INITIATION DATE	DEADLINE	STATUS



Contract No.:		Consultant:		SCRRA Project No.:	
CTO:	Description:			Completion Date:	
CTO Manager:			SCRRA Project Manager:		

Describe the Scope Change, include the specific activities required, additional resources, support, etc.

Case for Change

Schedule Impacts (describe the impact on the schedule, both on the immediate activities and the overall schedule.)

Contract Changes - Identify changes required to the contract if any. These may include maximum contract value, use of subcontractors, completion date, etc.

- Initial Notification – Detailed cost estimate to follow on _____.
 - Cost Impacts – Overall cost impacts substantiated on attached CTO Proposal.
- (Attach Additional Sheets as Required)*

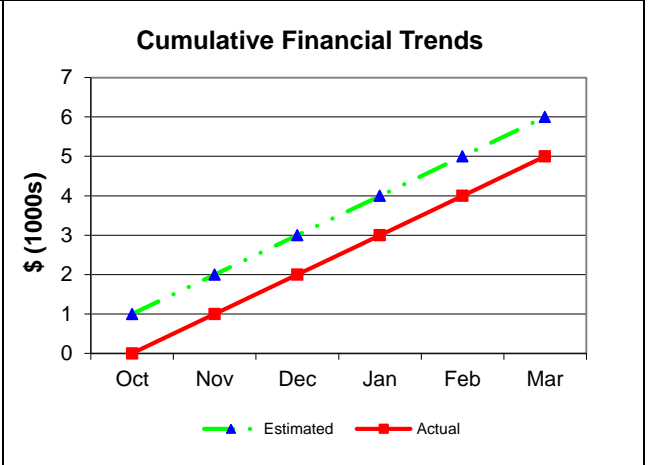
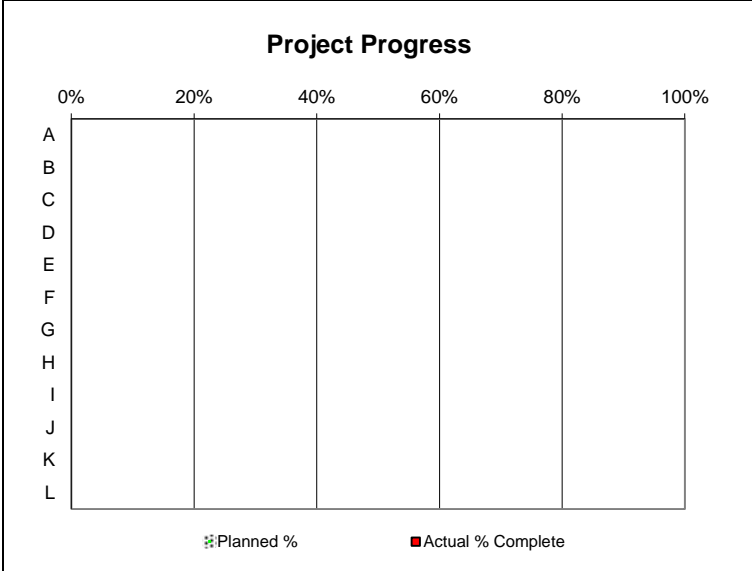
Submitted by:			
GEC Project Manager		Date	
Approved by:			
CTO Project Manager		Date	
SCRRA Project Manager		Date	
Director, Engineering & Construction		Date	



Consultant:		Contract No.:		Performance Progress		Financial Progress	
CTO No.:		Project No.:		Period Ending:		Funding Level:	\$0.00
Description:				Start Date:		Expended:	\$0.00
CTO Manager:				End Date:		Remaining:	\$0.00
SCRRA Proj. Manager:						% Expended:	#DIV/0!

Project Description:

Significant Accomplishments This Period:



Milestones and Deliverables:	Start	Planned Completion	Revised Completion	Actual Completion	Planned %	Actual % Complete
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						
L						

Technical/Cost/Schedule Problems:

Work Planned for Next Period:



Consultant:	HDR	Contract No.:	E727C-08	Performance Progress		Financial Progress	
CTO No.:	30	Project No.:	860772	Period Ending:	31-Mar-13	Funding Level:	\$1,564,000.00
Description:	Raymer to Bernson Double track PE/NEPA			Start Date:	31-Dec-11	Expended:	\$1,449,503.00
CTO Manager:	Naresh Patel			End Date:	28-Aug-13	Remaining:	\$114,497.00
SCRRA Proj. Manager:	Naresh patel					% Expended:	93%

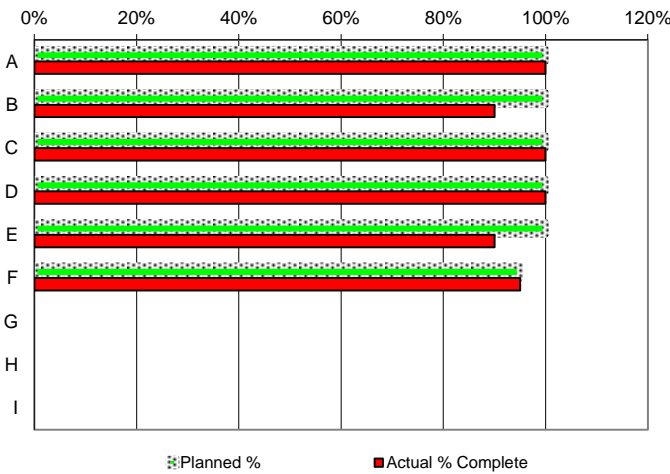
Project Description:

The Raymer-to-Bernson Double Track Project is located on the San Fernando Valley portion of the LOSSAN corridor (SCRRA's Ventura County Line), between MP 446.8 and MP 453.1. The project will complete the preliminary engineering (PE) and required environmental evaluations necessary for the eventual construction of the Raymer-to-Bernson Double-Track Project. Construction activities will include relocating and upgrading the mainline track, constructing 39,000 feet of second main-line track, reconstructing nine at-grade crossings, four new bridges, creating a new north platform, installing four #20 turnouts, improved fencing, relocating signal equipment, and other improvements. Once completed, the entire LOSSAN Corridor in Los Angeles County will be double tracked from the Orange County Line to the Chatsworth Station. Completion of the Project will result in improved travel times for the Amtrak Pacific Surfliner intercity rail passenger service. Operational reliability and on-time performance will be improved and allow for future growth in services along the corridor, consistent with the California State Rail Plan.

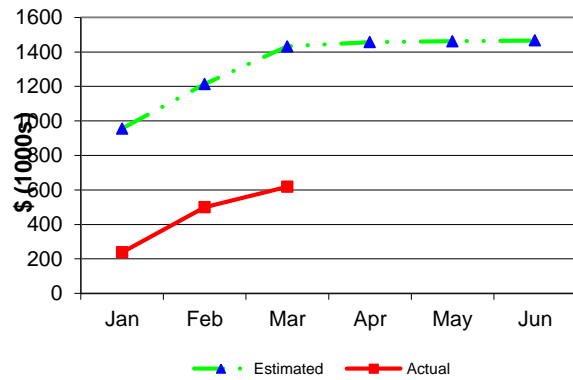
Significant Accomplishments This Period:

- Completed the final track alignment design for Alternative C ,
- Conducted numerous workshops with the UPRR and obtained approval to convert one of the industry sidings in the second mainline track by providing a new 1,600' siding at the GEMCO,
- Completed design of Bull Creek Bridge and Limekiln Creek Bridge and received permission from BOE to extend pier in channel without having to obtain a 408 permit,
- Completed Northridge Station conceptual layout including a preferred pedestrian underpass design,
- Determined wall types and developed conceptual layouts of retaining walls at Nordhoff Way and Mason Avenue,
- Determined locations potential utility conflicts and completed Form 6 Temporary Right of Entry permits for future pothole investigations,
- Completed structure type selection reports for Bull Creek Bridge and Limekiln Creek Bridge,
- Finalized longitudinal drainage locations and culvert extension designs and
- Submitted categorical exclusion document to FRA.

Project Progress



Cumulative Financial Trends



	Jan	Feb	Mar	Apr	May	Jun
Estimated	955	1213	1432	1457	1462	1467
Actual	238	499	618			
Monthly	238	261	119			

Milestones and Deliverables:		Start	Planned Completion	Revised Completion	Actual Completion	Planned %	Actual % Complete
A	Execute agreement between Caltrans and MTA	10-Oct-11	30-Oct-11	31-Jan-12	31-Jan-12	100%	100%
B	Execute agreement between MTA and SCRRA	1-Apr-12	30-Jun-12	30-Oct-12		100%	90%
C	Detailed Project Work Plan	12-Dec-11	26-Jan-12	11-May-12	12-Jul-12	100%	100%
D	Conceptual Design (5%-level)	27-Jan-12	10-Mar-12	14-Sep-12	14-Sep-12	100%	100%
E	Environmental Review	11-Mar-12	14-Oct-12	18-Jan-13	18-Jan-13	100%	90%
F	Preliminary Engineering (30% Design)	11-Mar-12	12-Sep-12	22-Feb-13	25-Feb-13	95%	95%
G							
H							
I							

Technical/Cost/Schedule Problems:

- Still need to obtain FAA approval on the North Alternative in the vicinity of the Van Nuys Airport

Work Planned for Next Period:

- Conduct stakeholder/public meetings to discuss alternatives and solicit input,
- Complete the final version of the engineers estimate of probable construction costs,
- Submit final version of the GO88-B applications for the nine grade crossings,
- Secure commitment from FAA to construct the North Alternative adjacent to the Van Nuys Airport,
- Revise Categorical Exclusion document to include narrative for the Van Nuys Airport and SHPO,
- Incorporate design review comments from LACMTA, SCRRA & Caltrans into the 30% preliminary engineering plans submitted on March 25th,
- Incorporate comments and edits from FRA, Caltrans, LACMTA and SCRRA/Metrolink into Draft Project Development Report and issue final document and
- Complete the FRA Project Management Plan for final design and construction



METROLINK

**REQUEST FOR SPECIAL DESIGN
CONSIDERATION FORM**

Project Name: _____ Location: _____

Project No.: _____ Contract No.: _____

Date: _____ Reference No.: _____ Revision: _____

Part 1: To be Completed by Originator

ORIGINATOR	Requested by: _____ Title: _____ Company: _____ Signature: _____ Print Name: _____	
IMPACTS	Does this Special Design Consideration impact Safety and Operations? Does this Special Design Consideration impact Positive Train Control? Does this Special Design Consideration conflict with any CPUC/CA MUTCD regulations and requirements? Does this Special Design Consideration impact economic, social or environmental issues?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
SPECIAL DESIGN CONSIDERATION INFORMATION	Does this Special Design Consideration affect the following? Engineering Standards <input type="checkbox"/> Yes <input type="checkbox"/> No Specifications <input type="checkbox"/> Yes <input type="checkbox"/> No Design Criteria <input type="checkbox"/> Yes <input type="checkbox"/> No Manual Section <input type="checkbox"/> Yes <input type="checkbox"/> No Description of Special Design Consideration: <i>(include location, extent of impact, affect on other operations)</i> 	

	<p>Rational for Special Design Consideration: <i>(include explanation as to impracticality of compliance with SCRRRA standards/criteria/instructions and demonstrate all attempts to comply)</i></p> <hr/> <p>Mitigation Measures: <i>(describe how purpose/intent of SCRRRA standards/criteria/instructions will attempt to be met by alternative means)</i></p>
<p>REASON FOR REQUEST</p>	<p>Request for Special Design Consideration must address the following:</p> <ul style="list-style-type: none"> • Established Design Criteria versus proposed and existing criteria • Reason the appropriate design criteria cannot be met • Justification for the proposed Criteria • Any background information which documents, support or justify the request • Any mitigation that will be provided to further support or justify the request • Safety implication of the request • The comparative cost of the full standard versus the lower design being proposed. Show what it would cost to met the standard for which the Special Consideration is requested • Long term effect of the reduced design as compared to the full standard
<p>ATTACHMENTS</p>	<p>The completed Request for Special Design Consideration Form and all supporting documentation (drawings, reports, and calculations) shall be submitted with all requests for Special Design Considerations. This form (at the end of the last page) and all documentation attached with the request must be stamped and sealed by a Registered California Engineer.</p> <p>List all attachments:</p>

Part 2: SCRRA Response

SCRRA RESPONSE	<input type="checkbox"/> Approved	<i>Additional SCRRA requirements upon which approval is granted:</i>
	<input type="checkbox"/> Resubmit	<i>Additional justification, explanation or information required:</i>
	<input type="checkbox"/> Rejected	<i>Reason:</i>

Part 3: SCRRA approval Signatures

SCRRA APPROVALS	Name	Date
	Assistant Director, Public Projects	
	Assistant Director, Standards and Design	
	Assistant Director, PTC Technical Services	
	Director, System Safety	
	Director, Engineering and Construction	



STATUS: O = Open; Issue Identified but Interface not Addressed or Verified
 A = Active; Interface Solution Under Development
 V = Verified; Interface Solution Completed, Verified, and Signed Off by Discipline Leaders

DESIGN INTERFACE MATRIX

Project Name: _____

Last Updated: _____

	✓ Track	Status	✓ Grade Crossings	Status	✓ Right of Way	Status	✓ Bridges & Culverts	Status	✓ Utilities	Status	✓ Stations	Status	✓ Facilities & Equipment	Status
Track			Track geometry matches roadway geometry		Horizontal clearance from track centerline to R/W		Track geometry matches bridge deck coordinates Adequate cover over culverts		Utilities shown on trackwork plans Clearances and protection per SCRRRA standards		Track geometry matches platform geometry		Adequate clearance to track centerline	
Grading	Typical sections match earthwork cross-sections		Surface runoff does not cross track		Grading limits in R/W								Embankment provided around signal equipment	
Civil & Site	PUC walkways along track and at switches		Smooth street profile and cross-slope transitions provided at crossing		Civil work within R/W								Equipment pads shown on civil plans Equipment locations reconciled	
Drainage	Longitudinal ditches match drainage requirements						Freeboard / flow capacity verified		No conflict between underground utilities and culverts Adequate cover of utilities at ditch locations		Platform drainage matches track drainage			
Structural	Horizontal clearance at structures Vertical clearance at structures Structures designed for track loading				Structures within R/W				No conflict between underground utilities and structure foundations		Allowance for (future) pedestrian over/under crossing structure at platform			
Electrical														
Mechanical														
Signals	Signal cutovers accommodated in construction phasing Signal facilities shown on track plans; clearance verified		ADA clearance around grade crossing devices at sidewalks		Signal equipment within R/W		No conflict between underground drainage facilities and signal foundations				Signal conduits provided under platform			
Communications											TVM hook-ups provided PA/CMS hook-ups provided			



STATUS: O = Open; Issue Identified but Interface not Addressed or Verified
 A = Active; Interface Solution Under Development
 V = Verified; Interface Solution Completed, Verified, and Signed Off by Discipline Leaders

DESIGN INTERFACE MATRIX

Project Name: _____

Last Updated: _____

Discipline	Track		Grade Crossings		Right of Way		Bridges & Culverts		Utilities		Stations		Facilities & Equipment	
Communications														
Operations	Construction phasing allows for track construction within work windows													
Safety and Security	Turnout, switch locations		Diagnostic meeting with CPUC, operating railroads and local authority		Safety enhancement on SCRRA right of way, including trespassers		Lighting, fencing				Lighting, communication, equipment locations Handicapped requirements		Safety and security of building	
Other														

PROJECT COST ESTIMATE



Project Name: _____
Design Level: Preliminary Design (30%) _____
Last Updated: _____

ITEM	DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST	NOTES
SCHEDULE XX - BASE BID					
DIVISION 01	GENERAL REQUIREMENTS				
DIVISION 03	CONCRETE				
DIVISION 04	MASONRY				
DIVISION 05	METALS				
DIVISION 09	FINISHES				
DIVISION 10	SPECIALTIES				
DIVISION 12	FURNISHINGS				
DIVISION 26	ELECTRICAL				
DIVISION 29	CUSTOMER INFORMATION SYSTEM (CIS)				
DIVISION 31	EARTHWORK				
DIVISION 32	EXTERIOR IMPROVEMENTS				
DIVISION 33	UTILITIES				
DIVISION 34	TRANSPORTATION (RAILROAD SIGNALS)				
DIVISION 34	TRANSPORTATION (HIGHWAY-RAIL GRADE CROSSINGS)				
DIVISION 34	TRANSPORTATION (TRACK CONSTRUCTION)				
DIVISION 34	TRANSPORTATION (RAILROAD BRIDGES)				
SCHEDULE XX - BID OPTIONS					
SUB-TOTAL: CONSTRUCTION COSTS					
			%		
	CONSTRUCTION CONTINGENCY	DPM			See the table below right for DPM percentages
	CIVIL DESIGN	DPM			
	CIVIL DESIGN SUPPORT DURING CONST.	DPM			
	S&C DESIGN	DPM			
	S&C DESIGN SUPPORT DURING CONST.	DPM			
	PROJECT MANAGEMENT	DPM			
	CONSTRUCTION MANAGEMENT	DPM			
	FLAGGING	DPM			
	AGENCY COSTS	DPM			
	MAINTENANCE OF WAY				
	TRACK/STRUCT. MAINTENANCE SUPPORT				
	S&C MAINTENANCE SUPPORT				
	MATERIAL PROCUREMENT LIST (From DPM -17)				
	RIGHT-OF-WAY ACQUISITION				
	RAILROAD WORK ORDERS				
	OTHERS (PERMITS, FEES, LEGAL)				
SUB-TOTAL: PROJECT RELATED OVERHEAD COSTS					
			%		
	PROJECT RESERVE/CONTINGENCY	DPM			
	INFLATION	Rate:	#	Years:	
TOTAL PROJECT COST:					

ENGINEER'S ESTIMATE



Project Name: _____
 Design Level: Preliminary Design (30%)
 Last Updated: _____

ITEM NO.	ORK DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	ITEM CONT.	NOTES
SCHEDULE XX-BASE BID							
DIVISION 01 GENERAL REQUIREMENTS							
01 11 16.01	Flagging	EA or AL					
01 31 19.01	Partnering	AL					
01 55 26.01	Maintenance and Protection of Traffic	LS					
01 56 38.01	Bird Protection	Change Order					
01 71 13.01	Mobilization, Demobilization, and Controls (Maximum of -- % of Total Bid)	LS					
GENERAL REQUIREMENTS SUBTOTAL							
DIVISION 03 CONCRETE							
03 21 00.01	Reinforcing Steel	LBS					
CONCRETE SUBTOTAL							
DIVISION 04 MASONRY							
04 22 00.01	6' Reinforced Concrete Block Wall	LF					
MASONRY SUBTOTAL							
DIVISION 05 METALS							
05 12 23.01	Structural Steel	LS					
METALS SUBTOTAL							
DIVISION 09 FINISHES							
09 61 50.01	Detectable Warning Tactile for Station Platform	SF					
FINISHES SUBTOTAL							
DIVISION 10 SPECIALTIES							
10 14 53.01	Roadway Signs	EA					

ENGINEER'S ESTIMATE



Project Name: _____
 Design Level: Preliminary Design (30%)
 Last Updated: _____

ITEM NO.	ORK DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	ITEM CONT.	NOTES
SPECIALTIES SUBTOTAL							
DIVISION 12 FURNISHINGS							
12 67 23.01	Benches	EA					
FURNISHINGS SUBTOTAL							
DIVISION 26 ELECTRICAL							
26 05 00.01	Basic Electrical Materials and Methods	LS					
ELECTRICAL SUBTOTAL							
DIVISION 29 CUSTOMER INFROMATION SYSTEM (CIS)							
29 00 00.01	Customer Information System (CIS)	LS					
CUSTOMER INFOR. SYSYEM SUBTOTAL							
DIVISION 31 EARTHWORK							
31 11 00.01	Clearing and Grubbing	LS					
EARTHWORK SUBTOTAL							
DIVISION 32 EXTERIOR IMPROVEMENTS							
32 12 00.01	Asphalt Concrete Cols Mill	SY					
EXTERIOR IMPROVEMENTS SUBTOTAL							
DIVISION 33 UTILITIES							
33 05 23.01	Construct --" Steel Pipe Encasement	EA					
UTILITIES SUBTOTAL							
DIVISION 34 TRANSPORTATION (RAILROAD SIGNALS)							
34 42 00.01	General Signal Requirements	LS					

ENGINEER'S ESTIMATE



Project Name: _____
 Design Level: Preliminary Design (30%)
 Last Updated: _____

ITEM NO.	ORK DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	ITEM CONT.	NOTES
TRANS. RAILROAD SIGNALS SUBTOTAL							
DIVISION 34 TRANSPORTATION (HIGHWAY-RAIL GRADE CROSSINGS)							
34 71 50.01	Highway-Rail Grade Crossings	TF					
TRANS. GRADE CROSSINGS SUBTOTAL							
DIVISION 34 TRANSPORTATION (TRACK CONSTRUCTION)							
34 72 00.01	136# New Track on Timber Ties, Including Rail, OTM, Ballast, Sub-	TF					
TRANS. TRACK CONSTRUCTION SUBTOTAL							
DIVISION 34 TRANSPORTATION (RAILROAD BRIDGES)							
34 80 11.01	Place ungrouted Class 1 Riprap	TON					
TRANS. RAILROAD BRIDGES SUBTOTAL							
SCHEDULE XX - BASE BID TOTAL CONSTRUCTION COST:							

ENGINEER'S ESTIMATE



Project Name: _____
 Design Level: Preliminary Design (30%)
 Last Updated: _____

ITEM NO.	ORK DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	ITEM CONT.	NOTES
SCHEDULE XX - BID OPTION 1							
DIVISION 01 GENERAL REQUIREMENTS							
01 11 16.01	Flagging	EA or AL					
01 31 19.01	Partnering	AL					
01 55 26.01	Maintenance and Protection of Traffic	LS					
01 56 38.01	Bird Protection	Change Order					
01 71 13.01	Mobilization, Demobilization, and Controls (Maximum of -- % of Total	LS					
GENERAL REQUIREMENTS SUBTOTAL							
DIVISION 03 CONCRETE							
03 21 00.01	Reinforcing Steel	LBS					
CONCRETE SUBTOTAL							
DIVISION 04 MASONRY							
04 22 00.01	6' Reinforced Concrete Block Wall	LF					
MASONRY SUBTOTAL							
DIVISION 05 METALS							
05 12 23.01	Structural Steel	LS					
METALS SUBTOTAL							
DIVISION 09 FINISHES							
09 61 50.01	Detectable Warning Tactile for Station Platform	SF					
FINISHES SUBTOTAL							
DIVISION 10 SPECIALTIES							
10 14 53.01	Roadway Signs	EA					



ENGINEER'S ESTIMATE

Project Name: _____

Design Level: Preliminary Design (30%)

Last Updated: _____

ITEM NO.	ORK DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	ITEM CONT.	NOTES
SPECIALTIES SUBTOTAL							
DIVISION 12 FURNISHINGS							
12 67 23.01	Benches	EA					
FURNISHINGS SUBTOTAL							
DIVISION 26 ELECTRICAL							
26 05 00.01	Basic Electrical Materials and Methods	LS					
ELECTRICAL SUBTOTAL							
DIVISION 29 CUSTOMER INFROMATION SYSTEM (CIS)							
29 00 00.01	Customer Information System (CIS)	LS					
CUSTOMER INFOR. SYSYEM SUBTOTAL							
DIVISIO 31 EARTHWORK							
31 11 00.01	Clearing and Grubbing	LS					
EARTHWORK SUBTOTAL							
DIVISION 32 EXTERIOR IMPROVEMENTS							
32 12 00.01	Asphalt Concrete Cols Mill	SY					
EXTERIOR IMPROVEMENTS SUBTOTAL							
DIVISION 33 UTILITIES							
33 05 23.01	Construct --" Steel Pipe Encasement	EA					
UTILITIES SUBTOTAL							
DIVISION 34 TRANSPORTATION (RAILROAD SIGNALS)							
34 42 00.01	General Signal Requirements	LS					

ENGINEER'S ESTIMATE



Project Name: _____
 Design Level: Preliminary Design (30%)
 Last Updated: _____

ITEM NO.	ORK DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST	ITEM CONT.	NOTES
TRANS. RAILROAD SIGNALS SUBTOTAL							
DIVISION 34 TRANSPORTATION (HIGHWAY-RAIL GRADE CROSSINGS)							
34 71 50.01	Highway-Rail Grade Crossings	TF					
TRANS. GRADE CROSSINGS SUBTOTAL							
DIVISION 34 TRANSPORTATION (TRACK CONSTRUCTION)							
34 72 00.01	136# New Track on Timber Ties, Including Rail, OTM, Ballast, Sub-	TF					
TRANS. TRACK CONSTRUCTION SUBTOTAL							
DIVISION 34 TRANSPORTATION (RAILROAD BRIDGES)							
34 80 11.01	Place ungrouted Class I Riprap	TON					
TRANS. RAILROAD BRIDGES SUBTOTAL							
SCHEDULE XX - BID OPTION 1 TOTAL CONSTRUCTION COST:							



METROLINK

MATERIALS LIST

Project Name: _____

Design Level: Preliminary Design (30%)

Last Updated: _____

MATERIAL DESCRIPTION	UNIT	UNIT COST	CALCULATED QUANTITY	CONT. (%)	TOTAL QUANTITY REQUIRED	TOTAL MATERIAL COST	NOTES
RAIL							
				DPM			
TIES							
SPECIAL TRACKWORK							
SIGNAL EQUIPMENT							
MECHANICAL EQUIPMENT							
OTHER							
TOTAL:							



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SCHEDULE 1 - BASE BID					
DIVISION 01	GENERAL REQUIREMENTS				
01 11 16.01	Flagging	EA or AL			
01 31 19.01	Partnering	AL			
01 55 26.01	Maintenance and Protection of Traffic	LS			
01 56 38.01	Bird Protection	Change Order			
01 71 13.01	Mobilization, Demobilization, and Controls (Maximum of -- % of Total Bid)	LS			
GENERAL REQUIREMENTS SUBTOTAL					
DIVISION 03	CONCRETE				
03 21 00.01	Reinforcing Steel	LBS			
CONCRETE SUBTOTAL					
DIVISION 04	MASONRY				
04 22 00.01	6' Reinforced Concrete Block Wall	LF			
MASONRY SUBTOTAL					
DIVISION 05	METALS				
05 12 23.01	Structural Steel	LS			



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
METALS SUBTOTAL					
DIVISION 09	FINISHES				
09 61 50.01	Detectable Warning Tactile for Station Platform	SF			
FINISHES SUBTOTAL					
DIVISION 10	SPECIALTIES				
10 14 53.01	Roadway Signs	EA			
SPECIALTIES SUBTOTAL					
DIVISION 12	FURNISHINGS				
12 67 23.01	Benches	EA			
FURNISHINGS SUBTOTAL					
DIVISION 26	ELECTRICAL				
26 05 00.01	Basic Electrical Materials and Methods	LS			
ELECTRICAL SUBTOTAL					
DIVISION 29	CUSTOMER INFORMATION SYSTEM (CIS)				
29 00 00.01	Customer Information System (CIS)	LS			



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
CUSTOMER INFOR. SYSEM SUBTOTAL					
DIVISIO 31	EARTHWORK				
31 11 00.01	Clearing and Grubbing	LS			
EARTHWORK SUBTOTAL					
DIVISION 32	EXTERIOR IMPROVEMENTS				
32 12 00.01	Asphalt Concrete Cols Mill	SY			
EXTERIOR IMPROVEMENTS SUBTOTAL					
DIVISION 33	UTILITIES				
33 05 23.01	Construct --" Steel Pipe Encasement	EA			
UTILITIES SUBTOTAL					
DIVISION 34	TRANSPORTATION (RAILROAD SIGNALS)				
34 42 00.01	General Signal Requirements	LS			
TRANS. RAILROAD SIGNALS SUBTOTAL					



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
DIVISION 34 TRANSPORTATION (HIGHWAY-RAIL GRADE CROSSINGS)					
34 71 50.01	Highway-Rail Grade Crossings	TF			
TRANS. GRADE CROSSINGS SUBTOTAL					
DIVISION 34 TRANSPORTATION (TRACK CONSTRUCTION)					
34 72 00.01	136# New Track on Timber Ties, Including Rail, OTM, Ballast, Sub-Ballast and Aggregate Base, Ties, and Fasteners	TF			
RANS. TRACK CONSTRUCTION SUBTOTAL					
DIVISION 34 TRANSPORTATION (RAILROAD BRIDGES)					
34 80 11.01	Place ungrouted Class I Riprap	TON			
TRANS. RAILROAD BRIDGES SUBTOTAL					
SCHEDULE 1 - BASE BID TOTAL PRICE					



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
SCHEDULE 2 - BID OPTION					
DIVISION 01	GENERAL REQUIREMENTS				
01 11 16.01	Flagging	EA or AL			
01 31 19.01	Partnering	AL			
01 55 26.01	Maintenance and Protection of Traffic	LS			
01 56 38.01	Bird Protection	Change Order			
01 71 13.01	Mobilization, Demobilization, and Controls (Maximum of -- % of Total Bid)	LS			
GENERAL REQUIREMENTS SUBTOTAL					
DIVISION 03	CONCRETE				
03 21 00.01	Reinforcing Steel	LBS			
CONCRETE SUBTOTAL					
DIVISION 04	MASONRY				
04 22 00.01	6' Reinforced Concrete Block Wall	LF			
MASONRY SUBTOTAL					
DIVISION 05	METALS				
05 12 23.01	Structural Steel	LS			



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
METALS SUBTOTAL					
DIVISION 09	FINISHES				
09 61 50.01	Detectable Warning Tactile for Station Platform	SF			
FINISHES SUBTOTAL					
DIVISION 10	SPECIALTIES				
10 14 53.01	Roadway Signs	EA			
SPECIALTIES SUBTOTAL					
DIVISION 12	FURNISHINGS				
12 67 23.01	Benches	EA			
FURNISHINGS SUBTOTAL					
DIVISION 26	ELECTRICAL				
26 05 00.01	Basic Electrical Materials and Methods	LS			
ELECTRICAL SUBTOTAL					
DIVISION 29	CUSTOMER INFORMATION SYSTEM (CIS)				
29 00 00.01	Customer Information System (CIS)	LS			



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
CUSTOMER INFOR. SYSEM SUBTOTAL					
DIVISIO 31	EARTHWORK				
31 11 00.01	Clearing and Grubbing	LS			
EARTHWORK SUBTOTAL					
DIVISION 32	EXTERIOR IMPROVEMENTS				
32 12 00.01	Asphalt Concrete Cols Mill	SY			
EXTERIOR IMPROVEMENTS SUBTOTAL					
DIVISION 33	UTILITIES				
33 05 23.01	Construct --" Steel Pipe Encasement	EA			
UTILITIES SUBTOTAL					
DIVISION 34	TRANSPORTATION (RAILROAD SIGNALS)				
34 42 00.01	General Signal Requirements	LS			
TRANS. RAILROAD SIGNALS SUBTOTAL					



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
DIVISION 34 TRANSPORTATION (HIGHWAY-RAIL GRADE CROSSINGS)					
34 71 50.01	Highway-Rail Grade Crossings	TF			
TRANS. GRADE CROSSINGS SUBTOTAL					
DIVISION 34 TRANSPORTATION (TRACK CONSTRUCTION)					
34 72 00.01	136# New Track on Timber Ties, Including Rail, OTM, Ballast, Sub-Ballast and Aggregate Base, Ties, and Fasteners	TF			
RANS. TRACK CONSTRUCTION SUBTOTAL					
DIVISION 34 TRANSPORTATION (RAILROAD BRIDGES)					
34 80 11.01	Place ungrouted Class I Riprap	TON			
TRANS. RAILROAD BRIDGES SUBTOTAL					
SCHEDULE 2 - BID OPTION TOTAL PRICE					



SCHEDULE OF QUANTITIES AND PRICES
[PROJECT]
IFB NO. C0000-00

CONTRACTOR'S NAME: _____

BID ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
--------------	-------------	------	----------	------------	-------------

SUMMARY

SCHEDULE NO.	DESCRIPTION	TOTAL PRICE
BASE BID		
SCHEDULE 1		
BASE BID		
BID OPTIONS		
SCHEDULE 2		
BID OPTIONS TOTAL		
TOTAL BID PRICE (BASE BID + BID OPTIONS)		

TOTAL BID PRICE (IN WORDS) _____

_____ DOLLARS



UTILITIES MATRIX

Project Name: _____

Last Updated: _____

ITEM	UTILITY DESCRIPTION	UTILITY OWNER Utility Company Contact Name Address Phone	AGREEMENT NO.	LOCATION (Project Station or MilePost Limits)	DATA SOURCE (e.g. As-Built, Field Survey, Potholing)	POTENTIAL CONFLICT	DISPOSITION			ESTIMATED COST			STATUS Next steps; Outstanding issues	
							PIP	RELOCATE	ENCASE	BY	LENGTH (FT.)	UNIT PRICE		AMOUNT
1	Describe size and type of utility, e.g. 48" water line	Utility Company Contact Name Address Phone	From utility agreement provided by SCRRRA	Describe limits of utility within project area	Describe source of utility information	Indicate project impacts to utility	X	X	X	SCRRRA Contractor or Utility Co.	2,000	\$ 100	\$ 200,000	List action items and issues requiring resolution
2													\$ -	
3													\$ -	
4													\$ -	
5													\$ -	
6													\$ -	
7													\$ -	
8													\$ -	
9													\$ -	
10													\$ -	
11													\$ -	



UTILITIES MATRIX

Project Name: _____

Last Updated: _____

ITEM	UTILITY DESCRIPTION	UTILITY OWNER Utility Company Contact Name Address Phone	AGREEMENT NO.	LOCATION (Project Station or MilePost Limits)	DATA SOURCE (e.g. As-Built, Field Survey, Potholing)	POTENTIAL CONFLICT	DISPOSITION		ESTIMATED COST			STATUS Next steps; Outstanding issues
							PIP RELOCATE ENCASE	BY	LENGTH (FT.)	UNIT PRICE	AMOUNT	
12											\$ -	
13											\$ -	
14											\$ -	
15											\$ -	
16											\$ -	
17											\$ -	
18											\$ -	
19											\$ -	
20											\$ -	
21											\$ -	
22											\$ -	

[DATE]

[CONTACT NAME]
[UTILITY COMPANY]
[ADDRESS]
[CITY, STATE, ZIP]

[GEC FILE INFO]
[DIGALERT NO]
[SCRRRA PROJECT NUMBER]

Subject: SCRRRA, Metrolink Commuter Rail System
[PROJECT DESCRIPTION AND LOCATION]
Facility/Utility Location Information Request

Dear Madame/Sir:

[GEC NAME] is preparing engineering designs for [PROJECT DESCRIPTION AND LOCATION]. The project site falls within [COUNTY] Thomas Guide map page [PAGE NO], grid [GRID NO]. We are in the process of identifying existing facilities/utilities that fall within the Project Area.

We request your assistance to verify the existence of facilities/utilities owned, leased, operated or maintained by your company/agency that may lie within the Project Area Boundary as shown on the enclosed 1"=100' scale drawing.

- Please review the enclosed map and response form regarding the status of your facilities/utilities in the Project Area.
- Complete and sign the response form.
- Indicate facility/utility type, size, material, location/alignment and depth of cover in red on the enclosed 1"=100' scale map
- Keep one copy of the letter and drawing for your records.
- Return one copy each of the following:
 - a) completed response form
 - b) 1"=100' drawing showing your facilities/utilities in red
 - c) As-Built drawings of your facilities/utilities

Should there be a contact person other than you handles utility location requests, please forward this letter to the correct person. Your cooperation in this matter is greatly appreciated. Do not hesitate to call me at [PHONE NUMBER] if you have any questions.

Sincerely yours,

[CONSULTANT CONTACT PERSON]

cc: CTO Project Manager

**SCRRA, Metrolink Commuter Rail System
[PROJECT NAME AND LOCATION]
Facility/Utility Location Information Request**

Drawing Comments - Please Complete and Return To:

**[CONSULTANT NAME]
[ADDRESS]
[CITY, STATE ZIP]
Attn: [CONSULTANT CONTACT PERSON]

From: [UTILITY COMPANY, ADDRESS]**

Please check the appropriate statement and return with facility/utility information (as applicable) to:

- Our company/agency has NO facilities/utilities in the project area, as shown on the enclosed 1"=100' drawing
- Our company/agency HAS facilities/utilities in the project area. As-built drawings are enclosed which show locations of our facilities/utilities.
- Our company/agency HAS facilities/utilities in the project area. As-built drawings are NOT available. Our facilities are shown in red on the 1"=100' drawing enclosed

Additional comments:

Signature

Date

Firm

Individual to Contact

Telephone Number

Please return on or before REQUESTED RETURN DATE



PERMIT MATRIX

Project Name: _____

Last Updated: _____

ITM	DESCRIPTION	PERMITTING AGENCY Agency Name Contact Name Address Phone	PERMIT PROCESS		DATA REQUIRED Technical requirements or back-up to accompany permit application	PERMIT FEE		COMMENTS Basis of permit fee determination	STATUS Next steps; Outstanding issues
			LEAD TIME	DURATION OR EXPIRATION		BY SCRRRA	BY CON- TRACTO R		
1	Name or type of permit required	Permit Agency Name Contact Person Address Phone	Timing for permit processing	When permit will expire	Technical analysis or design reports required	\$10,000		Other information relevant to permit requirements or determination	Describe action items required, by whom
2									
3									
4									
5									
6									
7									
8									
9									
10									

[Date]

[CTO Project Manager]
Southern California Regional Rail Authority
700 S. Flower Street, 26th Floor
Los Angeles, CA 90017

[Consultant File Information]
[SCRRA Project Number]

Subject: SCRRA, [GEC Contract No]: [GEC Contract Title]
[CTO No.]: [CTO Name]
[Progress/Camera-Ready] Submittal [- Concept/Preliminary/Interim/Final Design]

Dear [CTO Project Manager]:

Please find enclosed our [Concept/Preliminary/Interim/Final Design] progress submittal under the subject CTO. Per your request, [XX] copies are transmitted for your distribution to internal and third-party reviewers.

The following hardcopy deliverable documents are included:

- List documents here
-
-
-

A CD containing the following electronic files is included:

- List contents of CD
-
-

Additionally, the following design status reports are attached for your reference:

- Design Submittal Report
- QA Checklist
- Design Interface Matrix
- Utilities Matrix
- Permit Matrix
- Design Review Comments

Do not hesitate to contact myself or [CTO Design Manager] with any comments or questions. We [will/will not] proceed with work under this CTO pending your review of these submittal documents.

Sincerely yours,

[GEC Project Manager]

cc: CTO Project Manager
SCRRA Project Manager
GEC CTO Manager



PROJECT CONCEPT CHECKLIST

Contract No.:	Consultant:	SCRRRA Project No.
CTO:	Description:	SCRRRA Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Design Submittal Report				
List of items transmitted				
Statement of design accomplishments				
Design criteria				
Exceptions to standards				
Outstanding and unresolved issues				
QA/QC acknowledgment				
Plan for design advancement, if applicable				
Project Definition Report				
Formatting and presentation consistent with DPM				
Project Name and Location stated				
Major Project Components listed				
Project Stakeholder sign-offs obtained				
Existing Conditions described				
Project concept shown				
Main design issues identified				
Assumptions and limitations				
Modifications to existing facilities				
Major physical constraints				
Utilities				
Operational restrictions				
Right of way constraints				
Expansion possibilities				
Project schematic shown				
Alternative concept discussed				
Single line signal design drawings				
Conceptual overview of alternative signal configuration				
Site photos included				
Project Cost Estimate includes:				
Major construction cost components				
Construction contingency				
Civil/structural design and design support				
Signals design and design support				
Right of way				
Environmental clearance				
Construction management				
Agency allocation				
Project management				
Flagging				
Permitting/Third Party requirements				
Materials				
Notes on sources of cost data				
Submittal Documents				
Five (5) color, bound copies of PDR received				
CD received				

Contract Manager Initials _____



PRELIMINARY DESIGN CHECKLIST

Contract No.:		Consultant:	SCRRA Project No.
CTO:	Description:		CTO Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Design Submittal Report				
List of items transmitted				
Statement of design accomplishments				
Design criteria				
Exceptions to standards				
Outstanding and unresolved issues				
QA/QC acknowledgment				
Plan for design advancement				
Drawings				
Title Sheet				
Index of Drawings, noting drawings included in submittal				
Track Schematic				
Preliminary Typical Sections				
Basemapping utilizing State Plane Coordinates				
Track Plan and Profile				
Critical Cross-Sections				
Structures Layout				
Station Layout				
signal circuit design				
Discussion of alternatives and scaled layout of preferred alternative				
Aspect charts				
Specifications				
List of applicable SCRRA Standard Specifications				
List of Supplemental Specifications				
List of applicable Engineering Standard drawings				
List of applicable Reference drawings				
Project Cost Estimate				
Major construction cost components				
Construction contingency				
Civil/structural design and design support				
Signals design and design support				
Right of way				
Environmental clearance				
Construction management				
Agency allocation				
Project management				
Flagging				
Permitting/Third Party requirements				
Preliminary Materials List				
Notes on sources of cost data				

Contract Manager Initials _____



METROLINK

PRELIMINARY DESIGN CHECKLIST

Contract No.:	Consultant:	SCRRRA Project No.
CTO:	Description:	SCRRRA Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Exhibits, Calculations and Reports				
Summary of Preliminary Right of Way Issues				
Preliminary Utilities Matrix				
Preliminary Permit Matrix				
Preliminary Geotechnical Report				
Preliminary Traffic Impact Report (if applicable)				
Signal material list for all added and new materials				
Signal design basis report				
Design Submittal Documents				
Half-size drawings (___ sets)				
Specifications lists				
Preliminary cost estimate				
Quantity calculations				

Contract Manager Initials _____



INTERIM DESIGN CHECKLIST

Contract No.:		Consultant:	SCRRA Project No.
CTO:	Description:		CTO Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Design Submittal Report				
List of items transmitted				
Statement of design accomplishments				
Design criteria				
Exceptions to standards				
Outstanding and unresolved issues				
QA/QC acknowledgment				
Plan and schedule for remaining design tasks				
Drawings				
Title Sheet with location map				
Index of Drawings, noting drawings included in submittal				
Survey control				
Track schematic				
Typical sections with station limits				
Track plan and profile				
Earthwork cross-sections				
Drainage layout				
Grade crossing plans				
Signing and striping plans				
Preliminary traffic control plans				
Preliminary construction phasing plans				
Structures plans and details				
Station plans and details				
Electrical plans				
Mechanical plans				
Signal aspect charts and final scaled layout				
Signal circuit designs and plans				
Advanced standard crossing protection layout for all crossings on the corridor				
Switch machines design				
Fiber optic or communication based system design				
Signal house design				
Signal material list				
Power system design				
Underground cable and conduit layout				
Specifications				
Project-Specific Specifications Index, including SCRRA Standard Specifications, Modified Specifications, and Supplemental Specifications				
Draft Scope of Work and Hours of Operations				

Contract Manager Initials _____



INTERIM DESIGN CHECKLIST

Contract No.:	Consultant:	SCRRA Project No.
CTO:	Description:	SCRRA Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Specifications (Continued)				
Draft Supplemental Specifications (complete in draft form)				
Estimated Construction Duration				
List of applicable Engineering Standard drawings				
List of applicable Reference drawings				
Project Cost Estimate				
Engineer's Estimate of construction costs with complete draft descriptions of construction items, consistent with specifications				
Permitting costs				
All non-construction costs identified				
Notes on sources of cost data				
Exhibits, Calculations and Reports				
Final Drainage Report				
Final Geotechnical Report				
Final Traffic Impact Report (if applicable)				
CPUC Exhibits				
Utilities Matrix, identifying all affected utilities				
Permit Matrix, identifying all permits required				
Design Submittal Documents				
Half-size drawings (___ sets)				
Specifications lists				
Preliminary cost estimate				
Quantity calculations				

Contract Manager Initials _____



PRE-FINAL DESIGN CHECKLIST

Contract No.:	Consultant:	SCRRA Project No.
CTO:	Description:	CTO Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Design Submittal Report				
List of items transmitted				
Statement of design accomplishments				
Changes to previously accepted design approach, if any				
Outstanding and unresolved issues				
QA/QC acknowledgment				
Plan and schedule for remaining design tasks				
Drawings				
Title Sheet with location map				
Index of Drawings, noting drawings included in submittal				
General Notes				
Survey control				
Track schematic				
Construction phasing plans				
Typical sections with station limits				
Track plan and profile				
Track geometry tables				
Earthwork cross-sections				
Drainage plans and details				
Grade crossing plans and details				
Signing and striping plans and details				
Utilities protection and rearrangement plans and details				
Traffic control plans				
Structures plans and details				
Station plans and details				
Electrical plans and details				
Mechanical plans and details				
Signal aspect charts and final scaled layout				
Signal circuit designs and plans				
Advanced standard crossing protection layout for all crossings on the corridor				
Switch machines design				
Fiber optic or communication based system design				
Signal house design				
Signal material list				
Power system design				
Underground cable and conduit layout				
Specifications				
Project-Specific Specifications Index, including SCRRA Standard Specifications, Modified Specifications, and Supplemental Specifications				

Contract Manager Initials _____



PRE-FINAL DESIGN CHECKLIST

Contract No.:	Consultant:	SCRRA Project No.
CTO:	Description:	SCRRA Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Specifications (Continued)				
Modified Specifications, final draft complete				
Supplemental Specifications, final draft complete				
Construction Duration				
Materials List, complete				
List of applicable Engineering Standard drawings				
Copies of applicable Reference drawings				
Project Cost Estimate				
Engineer's Estimate of construction costs with complete descriptions of construction items, consistent with specifications				
Permitting costs				
All non-construction costs identified				
Notes on sources of cost data				
Trade list				
Exhibits, Calculations and Reports				
Utilities Matrix, defining all utilities work and responsibilities				
Permit Matrix, identifying all permits, lead times, responsibilities, and costs				
Utility company notifications				
Complete permit applications				
Design Submittal Documents				
Half-size drawings (___ sets)				
Specifications				
Pre-final cost estimate				
Quantity calculations				

Contract Manager Initials _____



Contract No.:		Consultant:	SCRRA Project No.
CTO:	Description:		CTO Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Design Submittal Report				
List of items transmitted				
Statement of design accomplishments				
Changes to previously accepted design approach, if any				
Outstanding and unresolved issues				
QA/QC acknowledgment				
Plan and schedule for delivery of camera-ready documents				
Drawings				
Drawing set complete, consistent with Index of Drawings				
IFB number and issue date shown				
Signal circuit design and plans				
Specifications				
Project-Specific Specifications complete, consistent with Specifications Index				
Modified Specifications, complete				
Supplemental Specifications, complete				
Materials List, complete				
List of applicable Engineering Standard drawings				
Copies of applicable Reference drawings				
Project Cost Estimate				
Engineer's Estimate of construction costs with complete descriptions of construction items, consistent with specifications				
Permitting costs				
All non-construction costs identified				
Notes on sources of cost data				
Schedule of Quantities and Prices				
Exhibits, Calculations and Reports				
Utilities Matrix, defining all utilities work and responsibilities				
Permit Matrix, identifying all permits, lead times, responsibilities, and costs				
Design Submittal Documents				
Half-size drawings (___ sets)				
Specifications				
Final cost estimate				
Quantity calculations				

Contract Manager Initials _____



**CAMERA-READY
CHECKLIST**

Contract No.:	Consultant:	SCRRA Project No.
CTO:	Description:	CTO Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Design Submittal Report				
List of items transmitted				
Summary of changes to drawings from Final Design, if any				
Outstanding and unresolved issues				
QA/QC acknowledgment				
Drawings				
Complete set of drawings, sealed by licensed professional(s)				
Specifications				
Complete set of specifications, sealed by licensed professional(s)				
Materials List, complete				
List of applicable Engineering Standard drawings				
Copies of applicable Reference drawings				
Project Cost Estimate				
Engineer's Estimate of construction costs with complete descriptions of construction items, consistent with specifications				
Permitting costs				
All non-construction costs identified				
Notes on sources of cost data				
Schedule of Quantities and Prices				
Exhibits, Calculations and Reports				
Utilities Matrix, defining all utilities work and responsibilities				
Permit Matrix, identifying all permits, lead times, responsibilities, and costs				
Design Submittal Documents				
1 set of reproducible half-size drawings, sealed				
1 set of reproducible specifications, sealed				
Final engineer's estimate				
Schedule of quantities and prices				
List of owner-provided materials				
Quantity calculations				
Engineering calculations, sealed				
CD containing drawings, specifications, and estimate				

Contract Manager Initials _____



METROLINK

**BIDDING DOCUMENTS
CHECKLIST**

Contract No.:		Consultant:	SCRRA Project No.
CTO:	Description:		CTO Project Manager:

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Requisition in data base (Oracle) system				
Funding Source				
Federal				
State				
Local				
Other				
Summary of Work				
Location OF Laydown Area				
Subcontracting opportunities and estimated prices (DBE/Non-DBE)				
Schedule of Quantities and Prices				
Excel				
Word				
Engineer's Estimate				
Work Completion Schedule				
Liquidated Damages Calculations				
List of materials to be provided by SCRRA				
List of Permits				
By SCRRA				
By Contractor				

Contract Manager Initials _____

Note: This checklist to be completed by SCRRA Project Manager.



**LIQUIDATED DAMAGES
CALCULATIONS FORM**

PROJECT NAME:	
PROJECT NO.:	
CONTRACT NO.:	
DATE:	

CONSTRUCTION COMPLETION

Labor Rates Based on Percentage Rates				
CONTRACT VALUE:		Costs		
CONSTRUCTION DURATION (Days)		% of const.	Estimated	Daily
Construction Management		8%	\$0.00	#DIV/0!
Project Management		4%	\$0.00	#DIV/0!
Flagging Services		6%	\$0.00	#DIV/0!
Design Services During Construction		1%	\$0.00	#DIV/0!
SCRRRA Agency Costs		8%	\$0.00	#DIV/0!
Total Cost				#DIV/0!

Labor Rates based on Hourly Burdened Rates				
		Hours/Day	Hourly Rate	Daily Rate
CM	Resident Engineer			\$0.00
	Office Engineer			\$0.00
	Office Assistant			\$0.00
PM	Project Manager			\$0.00
FLAGGING	Flagging			\$0.00
SCRRRA	Program Manager			\$0.00
	Contract Manager			\$0.00
	Inspector			\$0.00
	Other			\$0.00
	SCRRRA Overhead Rate	250.00%		\$0.00
Total Cost				\$0.00

A. Selected Labor Costs (Maximum from above)	#DIV/0!
B. Additional Operating Costs	
Description/Justifications:	
C. Additional Maintenance Costs	
Description/Justifications:	
D. Loss of Revenues to SCRRRA Operations	
Description/Justifications:	
E. Any effect/damages to other SCRRRA contracts	
Description/Justifications:	
Total Daily Construction Completion Costs	#DIV/0!

RAIL SERVICE INTERRUPTION

	Delay in min.	No. of Trains	Cost Per Min.	Daily Cost
			\$50.00	\$0.00

The cost for rail service interruption will be a maximum of \$1,000.00 for each train per day and a cumulative daily maximum of \$20,000.00 per day.

RAIL SERVICE DISRUPTION (Absolute Windows)

No. of passengers	No. of pass. in a bus	No. of Bus Trips	No. of Buses	Cost per Bus	Daily Cost
	50	0	0	\$500.00	\$0.00

The cost for rail service disruption will be a maximum of \$50,000.00 for one day. The cost will be reduced to \$25,000.00 if at least one track is put in operation.



DESIGN REVIEW COMMENTS

Reviewer: _____
 Submittal Name: _____

SCRRRA File No.: _____
 SCRRRA Project No.: _____

Response Codes: A=Agreed and will comply/take action. B= Will investigate. C=Disagree for reasons noted in Response/Status Column. D=Will address in next phase.

REVIEWER RESPONSIBILITY							RESPONDER RESPONSIBILITY			
NO.	DATE	SPEC	DWG	REF. PAGE	DISCIPLINE	COMMENT	RESPONDER	RESPONSE CODE	RESPONSE	RESOLUTION-ACTION ITEM
1	08/25/08	X		1000	General	Summary of work requires additional description.		A		
2										
3										
4										
5										
6										
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METROLINK

**DESIGN PROCEDURES MANUAL
COMMENTS FORM**

Date	
Comments to	SCRRA Assistant Director, Standards and Design Southern California Regional Rail Authority (SCRRA) 279 E. Arrow Highway, Suite 101 San Dimas, CA 97773
Comments By	Name: Mailing Address: City/State/Zip: Phone: E-mail:
Subject	Written Comments and Suggested Improvements to SCRRA Design Procedures Manual
Suggested Change(s)	
Reason for the Change	
Backup Source Data	



Contract No.:		Consultant:					SCRRRA Project No.
CTO:		Description:					SCRRRA Project Manager:
SECTION NO.	DESCRIPTION	SECTION REQUIRED	REVISIONS TO REQUIREMENTS (TEXT) NECESSARY	ACTION BY	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
Division 01 – General Requirements							
01 11 13	Work Covered by Contract Documents	Yes	Yes	GEC			Add a new Section 1.5, Summary of Work and list all activities for the project
01 11 15	Definition of Terms and Reference Standards	Yes	No changes				
01 11 16	Work by SCRRRA	Yes	Yes	GEC			List of all the labor provided by SCRRRA or indicate that SCRRRA is not providing any labor. Determine the amount of EIC services required for the project based on schedule and windows. Determine the Allowance for Schedule of Quantities and Prices.
01 14 00	Work Restrictions	Yes	Yes	GEC			Add a new section to list all project specific work windows and hours of operations
01 14 16	Coordination with SCRRRA	Yes	No changes				
01 14 19	Coordination with Utilities	Yes	Yes	GEC			Prepare Exhibit - Project Utility Responsibilities
01 21 00	Allowances	Yes	No changes				
01 22 00	Unit Prices	Yes	No changes				
01 22 05	Lump-Sum Prices	Yes	No changes				
01 23 00	Options	Yes	No changes				
01 23 50	Time-Related Overhead	Yes	No changes				
01 24 13	Value Engineering Change Proposals (VECP)	Yes	No changes				
01 25 00	Substitution Procedures	Yes	No changes				
01 26 14	Request for Information	Yes	No changes				
01 29 73	Schedule of Values	Yes	No changes				
01 31 00	Project Management and Coordination	Yes	No changes				
01 31 19	Partnering	To Be Reviewed	Yes	GEC			Determine the need of this Section. Review and include an Allowance in the Schedule of Quantities and Prices
01 31 99	Period of Performance	Yes	No changes				
01 32 15	Construction Project Schedule (Small Projects)	To Be Reviewed	Yes	GEC			If the estimated construction cost is \$3.0 million or less, this Section shall be included. Consult with SCRRRA for final determination
01 32 17	Construction Project Schedule (Large Projects)	To Be Reviewed	Yes	GEC			If the estimated construction cost is more than \$3.0 million, this Section shall be included. Consult with SCRRRA for final determination
01 32 33	Photographic Documentation	Yes	No changes				
01 33 00	Submittal Procedures	Yes	No changes				
01 35 15	Maintenance and Protection of Railroad Traffic	Yes	No changes				
01 35 23	Site Safety Requirements	Yes	No changes				

SECTION NO.	DESCRIPTION	SECTION REQUIRED	REVISIONS TO REQUIREMENTS (TEXT) NECESSARY	ACTION BY	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
01 35 44	Environmental Safety and Health Program	Yes	No changes				
01 35 91	Historic Treatment Procedures	To Be Reviewed	Yes	GEC			Determine the need of this section and revise the section if necessary
01 40 00	Quality Requirements	Yes	No changes				
01 43 23	Contractor Qualifications and Requirements	Yes	Yes	GEC			Review the Contractor Personnel requirements and edit the list if necessary
01 55 26	Maintenance and Protection of Traffic	Yes	No changes	GEC			Review and include in the Schedule of Qty and Prices (in the DPM) - Provide to Procurement. Make modifications to sections if necessary.
01 56 37	Worksite Security Requirements	Yes	Yes	GEC			Review Section 3.1, Security Services and Equipment. Determine the necessity and revise if required
01 56 38	Bird Protection	To Be Reviewed	No changes	GEC			Determine the need of this section and revise the section if necessary. Bird Protection ordered by the Authority will be paid for by Change Order.
01 56 39	Temporary tree and Plant Protection	To Be Reviewed	Yes	GEC			Determine the need of this section and revise the section if necessary
01 57 19	Temporary Environmental Controls	Yes	No changes				
01 60 00	Product Requirements	Yes	No changes				
01 64 00	Authority Furnished Materials and Equipment	To Be Reviewed	No changes	GEC			Review and identify all Furnished Material and Equipment in the Project Specific Specifications. Confirm no additional payment necessary.
01 71 13	Mobilization, Demobilization, and Controls	Yes	Yes	GEC			Review and include in the Schedule of Qty and Prices (in the DPM) - Provide to Procurement. If the construction cost is \$3.0 million or less, the Mobilization and Demobilization will be 10% of the total construction costs. If the construction cost is more than \$3.0 million, the Mobilization and Demobilization will be 8% of the total construction costs
01 71 23	Field Engineering	Yes	No changes				
01 74 19	Construction Waste Management and Disposal	Yes	No changes				
01 77 00	Substantial Completion	Yes	No changes				
01 77 19	Project Closeout	Yes	No changes				
01 78 23	Operation and Maintenance Data	Yes	No changes				
01 78 36	Warranties and Guarantees	Yes	No changes				
01 78 39	Project Record Documents	Yes	No changes				
01 79 00	Demonstration and Training	Yes	No changes				
01 91 13	General Commissioning Requirements	Yes	No changes				
Division 03 – Concrete							
03 21 00	Reinforcing Steel	Yes	No changes				

SECTION NO.	DESCRIPTION	SECTION REQUIRED	REVISIONS TO REQUIREMENTS (TEXT) NECESSARY	ACTION BY	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
03 31 00	Structural Concrete	Yes	No changes				Concrete Testing services will be included as an Allowance in the Schedule of Quantities and Prices.
Division 04 – Masonry							
04 22 00	Concrete Unit Masonry	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a masonry is part of the project
04 22 10	Environmental Paving	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a masonry is part of the project
Division 05 - Metals							
05 12 23	Structural Steel	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a masonry is part of the project
05 52 00	Hand Rails and Railing	Yes	No changes				
05 52 10	Pedestrian Swing Gates	Yes	No changes				
05 53 00	Metal Grating	Yes	No changes				
05 55 00	Miscellaneous Metals	Yes	No changes				
Division 09 – Finishes							
09 61 50	Detectable Warning Tactile	Yes	No changes				
09 90 00	Painting and Coating	Yes	No changes				
09 96 23	Graffiti-Resistant Coating	Yes	No changes				
Division 10 – Specialties							
10 14 53	Roadway Signs	Yes	No changes				
10 14 55	Railroad Signage	Yes	No changes				
Division 12 – Furnishings							
12 67 23	Benches and Trash Containers	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a masonry is part of the project
Division 12 – Electrical							
26 05 00	Basic Electrical Materials and Methods	Yes	No changes				
26 05 43	Electric: Exterior Underground	Yes	No changes				Underground conduits and ductbank are included in Section 26 13 00.
26 05 50	Overcurrent Protection Devices	Yes	No changes				
26 06 00	Grounding and Bonding	Yes	No changes				
26 07 10	Seismic Controls for Electric Works	Yes	No changes				
26 07 50	Electrical Identifications	Yes	No changes				
26 08 00	Electrical Testing	Yes	No changes				
26 12 00	Conductors and Cables - Low Voltage	Yes	No changes				Conductors and Cables required for communication system are included in this Section.
26 13 00	Conduits, Raceways, and Boxes	Yes	No changes				Conduits, raceways and boxes required for communications system are included in this Section.
26 14 00	Wiring Devices	Yes	No changes				
26 28 00	Overcurrent and Short Circuit Protection Devices	Yes	No changes				

SECTION NO.	DESCRIPTION	SECTION REQUIRED	REVISIONS TO REQUIREMENTS (TEXT) NECESSARY	ACTION BY	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
26 28 16	Safety Switches	Yes	No changes				
26 28 90	Transient Voltage Suppression	Yes	No changes				
26 41 00	Enclosed Switches and Circuit Breakers	Yes	No changes				
26 42 000	Enclosed Controllers	Yes	No changes				
26 44 10	Switchboards	Yes	No changes				
26 44 20	Service Pedestals and Panelboards	Yes	No changes				
26 46 00	Dry Type Transformers (66 V and Less)	Yes	No changes				
26 50 00	Interior and Exterior Lighting	Yes	No changes				
Division 29 – Customer Information System (CIS)							
29 00 00	Summary of Work (CIS)	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if station construction is part of the project
29 00 20	Standards, Abbreviations, and Definitions (CIS)	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if station construction is part of the project
29 10 60	Power Distribution Testing and Commissioning	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if station construction is part of the project
29 20 20	Communications Services	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if station construction is part of the project
29 20 60	System Testing and Commissioning	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if station construction is part of the project
Division 31 - Earthwork							
31 11 00	Site Clearing	Yes	No changes				
31 11 50	Demolition, Cutting and Patching	Yes	No changes				
31 20 00	Earthwork	Yes	No changes				
31 50 00	Excavation Support	Yes	No changes				
Division 32 – Exterior Improvements							
32 12 00	Hot Mix Asphalt (HMA) Pavement	Yes	No changes				
32 16 00	Curbs, Gutters, and Sidewalks	Yes	No changes				
32 17 23	Pavement Markings	Yes	No changes				
32 31 13	Chain Link Fencing and Gates	Yes	No changes				
32 31 16	Welded Wire Fencing and Gates	Yes	No changes				
32 31 19	Tubular Steel Fencing and Gates	Yes	No changes				
32 32 16	Gravity Block Retaining Walls	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a retaining wall is part of the project
32 32 20	MSE Retaining Walls	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a retaining wall is part of the project
32 80 00	Irrigation System	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a retaining wall is part of the project
32 90 00	Landscaping	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a retaining wall is part of the project
32 91 00	Soil Erosion, Sediment Control, Top Soiling and Seeding	Yes	No changes				
Division 33 – Utilities							

SECTION NO.	DESCRIPTION	SECTION REQUIRED	REVISIONS TO REQUIREMENTS (TEXT) NECESSARY	ACTION BY	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
33 05 23	Steel Casing	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if drainage is part of the project
33 42 00	Culvert and Drainage Pipe	To Be Reviewed	Yes	GEC			Excavation and backfill, structural fill, crushed aggregate bedding material, structural concrete and precast concrete will be included as a part of the bid items
33 46 00	Underdrains	Yes	No changes				
Division 34 – Transportation							
Track Materials							
SS 34 11 10	Continuous Welded Rail (CWR)	Yes	No changes				
SS 34 11 15	Other track Materials (OTM)	Yes	No changes				
SS 34 11 23	Special Trackwork	Yes	No changes				
SS 34 11 26	Ballast	Yes	No changes				
SS 34 11 27	Sub-Ballast and Aggregate Base	Yes	No changes				
SS 34 11 33	Concrete Railroad Ties	Yes	No changes				
SS 34 11 34	Wood Railroad Ties	Yes	No changes				
SS 34 11 36	Elastic Rail Fasteners	Yes	No changes				
SS 34 11 40	Precast Concrete Grade Crossing Panels	Yes	No changes				
Railroad Signals							
34 42 00	General Signal Requirements	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 10	Coordination with SCRRRA Procurement Contractor	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 16	Signal Wires and Cables	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 18	Conduits and Pull Boxes	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 38	Interlocking Controls	To Be Reviewed	Yes	GEC			Section 2.01.B.1 specifies that SCRRRA will provide Custom Local Control Panel. Include this in Project Specific Specifications is Section 01 64 00 Authority Furnished Materials.
34 42 40	Solid-State Coded Track Circuits	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 42	Signal Layout, Structures and Foundations	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 43	Electric Switch Lock Layouts	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract

SECTION NO.	DESCRIPTION	SECTION REQUIRED	REVISIONS TO REQUIREMENTS (TEXT) NECESSARY	ACTION BY	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
34 42 44	Relays	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 46	Signal Equipment Houses	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 48	Power Switch and Lock Movement	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 50	Switch Circuit Controller	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 52	Rectifiers, Batteries, and Battery Charging Equipment	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 54	Rail Bonding	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 56	Signal Grounding	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 58	Signal System Testing	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 60	Signal Systems Miscellaneous Products	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 62	Service Meters	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 64	Highway-Rail Grade Crossing Warning Systems	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 66	Dragging Equipment Detectors	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
34 42 70	Wayside Signal Assemblies	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if signal design and construction is part of the contract
Highway-Rail Grade Crossings							
34 71 50	Highway-Rail Grade Crossings	Yes	No changes				
Track Construction							
34 72 00	Trackwork	Yes	No changes				Track work will include CWR, OTM, Ballast, Sub-Ballast and Aggregate Base, Ties and Fasteners

SECTION NO.	DESCRIPTION	SECTION REQUIRED	REVISIONS TO REQUIREMENTS (TEXT) NECESSARY	ACTION BY	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
34 72 20	Track Shifting, Relocation and Resurfacing	Yes	No changes				Track work will include CWR, OTM, Ballast, Sub-Ballast and Aggregate Base, Ties and Fasteners
34 72 30	Field Welding Rail	Yes	No changes				
34 72 40	Track Collector Pan System	Yes	No changes				
Railroad Bridges							
34 80 11	Stone Revetment (Riprap)	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a need for riprap part of the project
34 80 21	Piling	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 22	Cast-In-Drilled Hole (CIDH) Piles	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 23	Subdrainage System for Railroad Bridges and Retaining Walls	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 31	Bridge Deck Drainage System	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 32	Adhered Elastomeric Waterproofing for Railroad Bridges	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 33	Hot Mix Asphalt (HMA) for Bridges	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 43	Precast and Prestressed Concrete for Bridges	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 51	Structural Steel for Railroad Bridges	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 52	Metal Fabrications for Railroad Bridges	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 53	Steel Handrails for Railroad Bridges	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project
34 80 61	Painting and Protective Coating for Bridges	To Be Reviewed	Yes	GEC			Determine the need of this Section. Include this Section if a railroad bridge is part of the project



Contract No.:		Consultant:		SCRRA Project No.	
CTO:		Description:		SCRRA Project Manager:	
BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
DIVISION 01 – GENERAL REQUIREMENTS					
01 11 16.01	Flagging	EA OR AL			
01 31 19.01	Partnering	AL			
01 55 26.01	Maintenance and Protection of Traffic	LS			
01 56 38.01	Bird Protection	Change Order			
01 71 13.01	Mobilization, Demobilization, and Controls (Maximum of --% of Total Bid)	LS			
DIVISION 03 - CONCRETE					
03 21 00.01	Reinforcing Steel	LBS			
03 21 00.01	Reinforcing Steel for Bridges	LBS			
03 31 00.01	Concrete Curb	LF			
03 31 00.02	Concrete Curb and Gutter	LF			
03 31 00.03	Concrete Sidewalks (-")	SF			
03 31 00.04	Concrete Road Pavement (-")	SF			
03 31 00.05	Concrete Driveway (-")	SF			
03 31 00.06	Concrete Retaining Wall	LS			
03 31 00.07	Concrete Underpass	LS			
03 31 00.08	Concrete Platform	CY			
03 31 00.09	Stamped Concrete - Median Island	SF			
03 31 00.09	Precast Concrete	SF			
03 31 00.10	Concrete Structures	CY			
03 31 00.11	Concrete Structures for Bridges	CY			
03 31 00.12	Concrete Testing by SCRRA Selected Testing Agency	AL			
DIVISION 04 - MASONRY					
04 22 00.01	6' Reinforced Concrete Block Wall	LF			
04 22 10.01	Environmental Paving	SF			
DIVISION 05 - METALS					
05 12 23.01	Structural Steel	LS			
05 52 00.01	Metal Hand Railing	LF			
05 52 00.02	Stainless Steel Hand Railing	LF			
05 52 00.03	Pedestrian Barricade	EA			

BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
05 52 00.04	Right-of-Way Security Gates	EA			
05 52 10.01	Pedestrian Swing Gate	EA			
DIVISION 09 - FINISHES					
09 61 50.01	Detectable Warning Tactile for Station Platform	SF			
09 61 50.01	Detectable Warning Tactile for Sidewalks	SF			
DIVISION 10 - SPECIALTIES					
10 14 53.01	Roadway Signs	EA			
10 14 55.01	Railroad Signs	EA			
DIVISION 12 - FURNISHINGS					
12 67 23.01	Benches	EA			
12 67 23.02	Trash Containers	EA			
DIVISION 26 - ELECTRICAL					
26 05 00.01	Basic Electrical Materials and Methods	LS			
26 05 43.01	Electrical Manholes	EA			
26 05 43.02	Electrical Handholes	EA			
26 12 00.01	Conductors and Cables Electrical and Communications System	LS			
26 13 00.01	Conduits, Raceways and Boxes for Electrical and Communications System	LS			
26 13 00.02	Electrical Enclosures	EA			
26 13 00.03	Electrical Cabinets	EA			
	Concrete Pullboxes				
26 50 00.01	Fluorescent Light Fixtures including Lamps and Ballasts	EA			
26 50 00.02	High Intensity Light Fixtures including Lamps and Ballasts	EA			
26 50 00.03	Light Poles	EA			
DIVISION 29 - CUSTOMER INFORMATION SYSTEM (CIS)					
29 00 00.01	Customer Information System (CIS)	LS			
29 20 20.01	Ethernet Switch	EA			
29 20 20.02	Audio Amplifier	EA			
29 20 20.03	Priority Controller	EA			
29 20 20.04	42" Commercial LCD Display	EA			
29 20 20.05	Network Media Player	EA			
29 20 20.06	Strobe Lights	EA			
29 20 20.07	Audio Decoder	EA			
29 20 20.08	Environmental Distribution Center/FOPP	EA			
29 20 20.09	LED Message Display	EA			
29 20 20.10	EPM	EA			

BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
29 20 20.11	Rack Mount Connector Housing	EA			
29 20 20.12	Transient Voltage Suppression	EA			
29 20 20.13	UPS	EA			
29 20 20.14	Closet Connector Housing-Pigtail Modules	EA			
29 20 20.15	Splice trays	EA			
29 20 20.16	Bracket Inside Connector Housing	EA			
29 20 20.17	LCD Enclosure (including 42" Monitor Enclosure, Insulation, Enclosure Post, Brackets)	EA			
29 20 20.18	Speakers	EA			
29 20 20.19	Modular Media Convertor	EA			
DIVISION 31 - EARTHWORK					
31 11 00.01	Clearing and Grubbing	LS			
31 11 50.01	Removal of Traffic Lines and Markings	LS			
31 11 50.02	Remove Chain Link Fence	LF			
31 11 50.03	Remove Asphalt Concrete	SF			
31 11 50.04	Remove Asphalt Concrete Curb	LF			
31 11 50.05	Remove Concrete Curb	LF			
31 11 50.06	Remove Concrete Curb and Gutter	LF			
31 11 50.07	Remove Sidewalk	SF			
31 11 50.08	Remove Concrete Pavement	SF			
31 11 50.09	Remove Signs	EA			
31 11 50.10	Remove Drainage Pipe (-")	LF			
31 11 50.11	Remove Headwall	EA			
31 11 50.12	Adjusting Manholes and Inlets	EA			
31 11 50.13	Remove Trees	EA			
31 20 00.01	Excavation	CY			
31 20 00.02	Excavation (Detention Basin)	CY			
31 20 00.03	Excavation (Roadway)	CY			
31 20 00.04	Excavation (Platforms)	CY			
31 20 00.05	Excavation (Walls)	CY			
31 20 00.07	Embankment	CY			
31 20 00.08	Structural Excavation	CY			
31 20 00.09	Structural Backfill	CY			
31 20 00.10	Pervious Backfill	CY			
31 20 00.11	Removal of Unsuitable Material and Backfilling with Approved Suitable Material	CY			
31 20 00.12	Hazardous Material	CY			
31 50 00.01	Temporary Excavation Support	LS			
DIVISION 32 - EXTERIOR IMPROVEMENTS					

BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
32 12 00.01	Asphalt Concrete Cold Mill	SY			
32 12 00.02	HMA Pavement	TON			
32 12 00.03	Asphalt Concrete Sidewalk	SF			
32 12 00.04	Asphalt Concrete Driveway	SF			
32 12 00.05	Asphalt Concrete Pavement with Glass Grid (Coordinate with Others for Loop Installation)	SF			
32 12 00.06	Asphalt Concrete Curb	LF			
32 16 00.01	Curb and Gutter	SF			
32 16 00.02	Median Concrete Curb	SF			
32 16 00.03	Concrete Curb	SF			
32 16 00.04	Concrete V Ditch	SF			
32 16 00.05	Concrete Sidewalk	SF			
32 16 00.06	Concrete Driveway	SF			
32 17 13.01	Remove Pavement markings	LS			
32 17 13.02	Install Painted Lines and Markings	LS			
32 17 13.03	Install Thermoplastic Pavement Lines and Markings	LS			
32 17 13.04	Install Pavement Markers	EA			
32 13 13.01	6' High Chain Link Fence	LF			
32 13 13.01	4' High Chain link Fence	LF			
32 13 13.01	Chain Link Gate (20' Wide)	EA			
32 13 13.01	Chain Link Gate (16' Wide)	EA			
32 13 16.01	6' High Welded Wire Fence	LF			
32 13 16.01	4' High Welded Wire Fence	LF			
32 13 16.01	Welded Wire Gate (20' Wide)	EA			
32 13 16.01	Welded Wire Gate (16' Wide)	EA			
32 31 19.01	6' High Tubular Steel Fence	LF			
32 31 19.02	4' High Tubular Steel Fence	LF			
32 31 19.03	Tubular Steel Gate (20' Wide)	EA			
32 31 19.04	Tubular Steel Gate (16' Wide)	EA			
32 32 16.01	Gravity Block Retaining Wall	SF			
32 32 20.01	MSE Retaining Walls	SF			
32 80 00.01	Irrigation System	LS			
32 90 00.01	Landscaping	LS			
32 91 00.01	Soil Erosion and Sediment Control	LS			
32 91 00.02	Top Soil and Finish Grading	LS			
32 91 00.03	Seeding	LS			
DIVISION 33 - UTILITIES					
33 05 23.01	Construct --" Steel Pipe Encasement	EA			

BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
33 42 00.01	--" RCP Culvert Pipe	LF			
33 42 00.02	--" CMP Culvert Pipe	LF			
33 42 00.03	--" Corrugated High-Density Polyethylene Drainage Pipe	LF			
33 42 00.04	--" Smooth Steel Pipe	LF			
33 42 00.05	--" PVC Pipe	LF			
33 42 00.06	--" Reinforced Concrete Box Culvert including excavation, fill, bedding, concrete	LF			
33 42 00.07	Construct Inlet	EA			
33 42 00.08	Construct Manhole	EA			
33 42 00.09	Catch Basin	EA			
33 42 00.10	Concrete Junction Box	EA			
33 46 00.01	8" Perforated PVC Underdrain Including Fittings, Trench, Permeable Material and Geotextile Fabric	LF			
33 46 00.02	8" PVC Cleanout Including Clean Out Frame and Cover, Wye, and Elbow	EA			
33 46 00.03	Connect Underdrain to -" Storm Drain Stub Out with Fittings	EA			
33 46 00.04	Connect Underdrain to Existing Storm Drain with Junction Structure	EA			
DIVISION 34 TRANSPORTATION					
	RAILROAD SIGNALS				
34 42 00.01	General Signal Requirements	LS			
34 42 00.02	Demolition and Removal of Existing Equipment including retiring of CPs, Grade Crossings, Signals, Gates and Cabling	LS			
34 42 16.01	2c # 6 Twisted Track Wire	LF			
34 42 16.02	7c # 6 Cable	LF			
34 42 16.03	7c # 14 Cable	LF			
34 42 16.04	12c # 14 Cable	LF			
34 42 16.05	3c #6 Cable	LF			
34 42 16.06	House Wiring Changes and Cable Hookups in New Houses	EA			
34 42 16.07	House Wiring Changes and Cable Hookups in Existing Houses	EA			
34 42 16.08	Wiring of Gates and/or Cantilevers	EA			
34 42 16.09	Field Case and House Wiring	EA			
34 42 18.01	4" Rigid Galvanized Conduits Under Roadway	LF			

BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
34 42 18.02	4" Rigid Galvanized Conduits under Tracks	LF			
34 42 18.03	4" Schedule 40 PVC Conduits (General)	LF			
34 42 18.04	6" burial caution Tape	LF			
34 42 18.05	4' x 4' x 4' Pull Boxes	EA			
34 42 18.06	24" X 18" X 13" Pull Boxes	EA			
34 42 18.07	10" X 17" X 12" Pull Boxes	EA			
34 42 42.01	Signal Structures and Foundations	EA			
34 42 43.01	Electric Switch Lock	EA			
34 42 44.01	Relays	EA			
34 42 46.01	Transport and Install Signal Equipment House	EA			
34 42 48.01	Power Switch and Lock Movement	EA			
34 42 50.01	Switch Circuit Controller	EA			
34 42 52.01	Rectifiers	EA			
34 42 52.02	Batteries	EA			
34 42 52.03	Battery Charging Equipment	EA			
34 42 54.01	Rail Head Bond	EA			
34 42 54.02	Track Connection	EA			
34 42 54.03	Test Track Connections and Bonds	EA			
34 42 58.01	Signal System Testing	LS			
34 42 58.02	Furnish, Install and Test Miscellaneous Signal Equipment in Houses	LS			
34 42 58.03	Support During Signal Cutovers	LS			
34 42 62.01	AC Meter Service Panels	EA			
34 42 64.01	Program GCP 4000	EA			
34 42 64.02	Program Intelligent Serial Preemption Interconnection (I-SPI)	EA			
34 42 64.03	Program Exit Gate Management System (EGMS)	EA			
34 42 64.04	Furnish and Install Performed Vehicle Detection Loops	EA			
34 42 64.05	Transport, Install and Test Vehicular gates and Flashing Light Assemblies	EA			
34 42 64.06	Transport, Install and Test Pedestrian gates and Flashing Light Assemblies	EA			
34 42 64.07	Furnish, Install and Test Narrow Band Shunts, Wideband Shunts and Tuned Joint Couplers (NBS, WBS & TJC's)	EA			
34 42 66.01	Dragging Equipment Detector Systems	EA			
34 42 70.01	Wayside Signal Assemblies	EA			

BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
	HIGHWAY-RAIL GRADE CROSSINGS				
34 71 50.01	Highway-Rail Grade Crossings	TF			
	TRACK CONSTRUCTION				
34 72 00.01	136# New Track on Timber Ties, including Rail, OTM, Ballast, Sub-Ballast and Aggregate Base, Ties, and Fasteners	TF			
34 72 00.02	136# New Track on Concrete Ties, including Rail, OTM, Ballast, Sub-Ballast and Aggregate Base, Ties, and Fasteners	TF			
34 72 00.03	Remove and Dispose Track	TF			
34 72 00.04	Rehabilitate Track	TF			
34 72 00.05	Repair Track	TF			
34 72 00.06	No. 14 Power Operated Tangential - 136# Left Hand WSM Turnout on Wood Ties	EA			
34 72 00.07	No. 14 Hand Throw Tangential - 136# Left Hand WSM Turnout on Wood Ties	EA			
34 72 00.08	No. 14 Hand Throw Standard - 136# Left Hand WSM Turnout on Wood Ties	EA			
34 72 00.09	No. 14 Power Operated Tangential - 136# Right Hand WSM Turnout on Wood Ties	EA			
34 72 00.10	No. 14 Power Operated Tangential - 136# Right Hand RBM Turnout on Wood Ties	EA			
34 72 00.11	No. 14 Power Operated Tangential - 136# Left Hand WSM Turnout on Concrete Ties	EA			
34 72 00.12	No. 14 Hand Throw Tangential - 136# Left Hand WSM Turnout on Concrete Ties	EA			
34 72 00.13	No. 14 Hand Throw Standard - 136# Left Hand WSM Turnout on Concrete Ties	EA			
34 72 00.14	No. 14 Power Operated Tangential - 136# Right Hand WSM Turnout on Concrete Ties	EA			
34 72 00.15	No. 14 Power Operated Tangential - 136# Right Hand RBM Turnout on Concrete Ties	EA			
34 72 00.16	Bumping Post	EA			
34 72 00.17	Double Switch Point Derail	EA			
34 72 00.18	Guard Rail	TF			
34 72 00.19	Bumping Post	EA			
34 72 20.01	Shift Track	TF			
34 72 20.02	Raise Track	TF			
34 72 20.03	Surface track	TF			

BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED MODIFICATIONS SUBMITTED BY GEC?	MODIFICATIONS APPROVED BY PROJECT MANAGER?	NOTES
34 72 40.01	Track Collector Pan System	EA			
	RAILROAD BRIDGES				
34 80 11.01	Place ungrouted Class I Riprap	TON			
34 80 11.02	Place grouted Class I Riprap	TON			
34 80 11.03	Place ungrouted Class II Riprap	TON			
34 80 11.04	Place grouted Class II Riprap	TON			
34 80 21.01	12" Timber Piles	LF			
34 80 21.02	12" Steel Piles	LF			
34 80 21.03	12" Precast prestressed Concrete Piles	LF			
34 80 21.04	12" Timber Test Piles	LF			
34 80 21.05	Steel Sheet Piles	SF			
34 80 22.01	16" Cast-In-Drilled Hole (CIDH) Piles	LF			
34 80 22.02	24" Cast-In-Drilled Hole (CIDH) Piles	LF			
34 80 23.01	Subdrainage System for Railroad Bridges	LS			
34 80 23.02	Subdrainage System for Retaining Walls	LS			
34 80 23.03	Subdrainage System for Concrete Masonry Walls	LS			
34 80 23.04	Subdrainage System for Concrete Walls	LS			
34 80 23.05	Subdrainage System for Concrete Platforms	LS			
34 80 31.01	Bridge Deck Drainage System	LS			
34 80 32.01	Adhered Elastomeric Waterproofing for Railroad Bridges	LS			
34 80 33.01	Furnish and Install HMA for Bridges	TON			
34 80 43	Precast and Prestressed Concrete for Bridges	LS			
34 80 51.01	Structural Steel for Railroad Bridges	LS			
34 80 52	Metal Fabrications for Railroad Bridges	LS			
34 80 53.01	Steel Handrails for Railroad Bridges	LF			

NOTES:

- 1 Bid Items will be added or deleted to the Schedule of Quantities and Prices based on project scope and details.
- 2 Sizes and Materials shall be included in Schedule of Quantities and Prices for bid items that has multiple choices in the Specifications.
- 3 If the unit of measurement is changed in the Schedule of Quantities and Prices, the GEC will discuss this with the SCRRA.

DESIGN SCOPE MATRIX

SUBJECT	PROJECT CONCEPT AND DESIGN CRITERIA (5% DESIGN)	PRELIMINARY DESIGN (30% DESIGN)	INTERIM DESIGN (60% DESIGN)	PRE-FINAL DESIGN (90% DESIGN)	FINAL DESIGN (100% DESIGN)
Purpose	<ul style="list-style-type: none"> To compare alternative design solutions. To establish a program cost estimate and/or determine the appropriateness of the established budget. To confirm the correctness and completeness of the project objectives. To convey the project to transportation and other interested groups. To assure SCRRA Director-level approval of project concept. 	<ul style="list-style-type: none"> Describe project objectives and goals based on engineering analysis. Identify all stakeholders and incorporate their inputs towards realizing the project. Determine the constructability and functional feasibility of the project. Advance the design to a level where potential impacts on the environment, utility lines and drainage can be identified, quantified and solutions can be explored. Prepare preliminary Right-of-Way requirements maps. Identify initial operating impacts. Quantify potential impacts on local traffic circulation and mobility during construction. Identify potential adverse environmental impacts that must be mitigated. Identify possible construction staging and contractor staging areas. Prepare a preliminary engineer's estimate, including preliminary SCRRA materials list so that procurement coordination may begin. Develop vital and non-vital software logic as needed for applications involved. Develop preliminary system-wide communication backbone that may be fiber-optic or communication based. Preliminary recommendations on current or new signal and communication technologies. 	<ul style="list-style-type: none"> Confirm the designer's approach to the major engineering and functional issues. Confirm adequate advancement of the design. Confirm the adequacy program cost estimate and budgets or funding sources. Confirm that all affected agencies and utilities companies have agreed to the work. Identify preliminary signal facility layouts (by SCRRA signal Consultant). Define expected construction duration. Participate in diagnostic reviews of crossings that will be modified, at meeting(s) set up by Crossings and Encroachments engineer with affected local and regulatory agencies. Confirm practical locations for insulated joints and headblocks, keeping in mind the walkway, drainage, roadway, and interference from nearby tracks. 	<ul style="list-style-type: none"> To confirm adequate advancement and quality of the design and design documents. To finalize locations of signal facilities and insulated joints. To identify all required Right-of-Way impacts (including temporary easements, acquisitions, and lease revisions). To identify all required utility protections or relocations. To obtain required approvals from regulatory agencies. To refine the project schedule. 	<ul style="list-style-type: none"> To confirm quality, completeness and adequacy of design for issuance for competitive bidding.
General	This stage of design will require approximately 5% of the overall design effort.	The Preliminary Design Phase will commence after the SCRRA Director of Engineering and Construction approves the Project Concept and design criteria including any exceptions. At times, tasks will commence based on SCRRA developed concept. This phase of design will require about 30% of the overall effort, and on the average the engineering/technical work will be advanced to 30% of final design. The design criteria/exceptions will continue to be refined progressively as the design advances.	The Interim design may proceed in advance of SCRRA review comments on the Preliminary Design submittal with the approval of the SCRRA PM and based on the approved CTO. This design phase will require an additional 30% of the overall design effort to bring the design level to 60% design completion.	The pre-final design will not commence until the client provides the Consultant with Interim Design review comments and approval to proceed to 100% design unless otherwise authorized by the SCRRA Project Manager. This phase of design will require that the design be advanced to at least 90% of the overall design effort. Some components of the design may be progressed to 100% design	The final design will commence after the SCRRA Project Manager gives instructions and signed authorization to proceed to 100% design. Review comments from the 90% submittal will be incorporated during the progress of work to 100%.
Site Assessment	<ul style="list-style-type: none"> Perform a field inspection to identify and measure critical clearances and evaluate existing conditions, including track alignment, evidence of utilities, identification and location of structures and railroad signal equipment, and identify potential Right-of-Way conflicts Perform site visits as necessary 				
Research	<ul style="list-style-type: none"> Obtain county assessor maps and railroad Right-of-Way maps to identify railroad property limits Obtain existing easements, leases and licenses UP/BNSF/Amtrak facilities Research easement, lease, license agreements from Member Agencies 				
Utilities	<ul style="list-style-type: none"> Contact Underground Service Alert (USA, or DigAlert) to identify utilities that may be affected by the project Contact utility owners to obtain utility maps of their facilities within the project area Prepare and send out notification letters (SCRRA Form DPM-20: Utilities Information Request Letter) to affected utility companies; prepare and maintain utility/permit information matrix; and arrange and attend meetings with the utility companies Utility coordination efforts and utility work required 	<ul style="list-style-type: none"> Review utility plans and matrix to verify that utilities are recorded accurately Survey existing underground and overhead utilities including manholes, pipe inverts and sizes, and elevations Perform a through site visit Update utility matrix to include new information Identify which utility are likely to be in conflict with the project Contact each utility owner and set up one-on-one 	<ul style="list-style-type: none"> Perform final subsurface utility engineering as required to facilitate critical design issues Prepare utility plans showing all existing utilities and all proposed resolutions of impacts including where the utility will be relocated Prepare profiles for each utility relocation Review other disciplinary plans to verify that the existing, abandoned, and proposed utilities are shown correctly. Meet with utility owners as required to coordinate 	<ul style="list-style-type: none"> Utility conflicts are engineered Submit final set of plans to each utility owner with utility conflicts 	<ul style="list-style-type: none"> Submit an updated utility matrix File all signed agreements with SCRRA and Member Agencies

DESIGN SCOPE MATRIX

	<ul style="list-style-type: none"> shall be tracked by the Consultant using SCRRA Form DPM-19: Utilities Matrix Research license agreements that Member Agency have for utilities. Document legal implications of the agreements on the matrix Conduct utility specific meetings with all utility owners Determine if the utility will affect the proposed improvements Include on the drawings those known utilities based on provided information from SCRRA, Member Agency, utility companies and through review of Dig Alert 	<ul style="list-style-type: none"> meetings Send a set of utility composite maps to each utility owner and ask them to review the maps before the meeting Negotiate roles and responsibilities on relocating utilities Identify all relocations that can occur before the proposed construction and which need to take place during the construction Prepare pothole plan Pothole and survey 	<ul style="list-style-type: none"> the accommodation, protection or relocation or reconstruction of utilities Make final changes and updates to the plans, profiles, cross sections and estimates Process utility relocations 		
Surveying	<ul style="list-style-type: none"> Prepare Right-of-Way base maps for limits of the project Provide ground control surveys and plans Conduct aerial mapping and photography Prepare planimetric and topographical maps Conduct land/ground surveying 	<ul style="list-style-type: none"> Basemapping, to include Right-of-Way limits, as obtained from railroad Right-of-Way maps or purchase and sale agreements, and from parcel maps obtained from the County Assessor's office Right-of-Way base maps for the construction limits Identify adjacent parcels and ownership for alternatives Data Reduction Conform requirement for ROW acquisition and easements 	<ul style="list-style-type: none"> Prepare Right-of-Way requirements map for project limits. Prepare documents to support property acquisition, including survey, legal description and plats 	<ul style="list-style-type: none"> Record of survey if there are property acquisitions 	
Geotechnical	<ul style="list-style-type: none"> Collect and review existing information on soil conditions and drilling from previous projects and provide documents of findings Provide conceptual design parameters as required Finalize and prioritize plan for subsurface investigations Obtain subsurface investigation permits from the city and county, utility clearance and final boring locations in the field prior to drilling. Each permit submittal will require a plan showing proposed core locations, along with identification on the plan of each existing utility Perform geotechnical investigation as required for design purposes 	<ul style="list-style-type: none"> Preliminary Geotechnical Report Collect and review results of geotechnical investigations performed during Preliminary Design Complete laboratory tests Provide preliminary recommendations, and all required design parameters Submit preliminary geotechnical report to summarize investigation and to include results of laboratory testing and to provide structural design parameters and recommendations 	<ul style="list-style-type: none"> Additional geotechnical investigations for final design purposes, if requested Complete geotechnical investigations and include the findings in the final geotechnical report Provide boring logs Provide final recommendations and all required design parameters Provide outline specifications for geotechnical requirements 		<ul style="list-style-type: none"> Verify results of subsurface investigations with completed design and make any appropriate changes in the final submittal Review technical specifications for conformance with geotechnical investigations and recommendations
Permits	<ul style="list-style-type: none"> Determine preliminary permit needs Determine permit requirements CPUC permit exhibits 	<ul style="list-style-type: none"> Preliminary Permit Matrix Coordinate permit requirements and permit approval process with local agencies Prepare preliminary permit plans 	<ul style="list-style-type: none"> Identification of all permits requirements Obtain local agency permit approval CPUC Permit 	<ul style="list-style-type: none"> Obtain all required permits Agreements are in place with agencies and utility companies 	<ul style="list-style-type: none"> Submit final approved permits Outline expectation of the construction contractor Submit approved plans and permits
Environmental	<ul style="list-style-type: none"> Verify CEQA Exclusion Verify NEPA Exemption and complete application to FTA (if applicable) Identify specific protection Conduct Phase I site assessment report 	<ul style="list-style-type: none"> Perform visual inspection for obvious contamination Prepare remediation plan (if required) Prepare CEQA exclusion statement Prepare NEPA exemption application (if required) 	<ul style="list-style-type: none"> Complete actions started in Preliminary (30%) Design Submit Phase II site assessment Analyze noise, vibration, air quality and aesthetic 	<ul style="list-style-type: none"> Submit air quality, water quality, erosion, and wetland assessment and mitigation plans 	<ul style="list-style-type: none"> Submit soil disposal plans
Drainage	<ul style="list-style-type: none"> Collect copies of previously completed drainage studies and reports Collect current electronic models for all floodplains Identify and describe existing conditions, identify potential drainage problems areas, identify potential solutions Preliminary drainage plan and hydraulic information 	<ul style="list-style-type: none"> Identify the appropriate drainage criteria, based on local agency design manuals Perform a hydraulic analysis Develop conceptual designs Provide water surface profiles Prepare and submit preliminary grading and drainage plans 	<ul style="list-style-type: none"> Drainage layout and design, including Stormwater Management (SWM) facilities Provide hydraulic and hydrologic calculations Prepare hydraulic and hydrologic report Obtain local agency approvals Submit completed stormwater management plan Storm drain plans and profiles (illustrating general drainage of crossing and surrounding intersections, proposed storm drain lines, location of inlets, location of connection to existing system, profile of invert of each proposed line) 		<ul style="list-style-type: none"> Grading and drainage plans and details Finalize design and provide all calculations and documents Secure permits
Alternative Analysis	<ul style="list-style-type: none"> Evaluate alternatives for utilities, signals, grade crossing, street, drainage, and track improvements Conceptual overview of alternative signal configuration Develop conceptual alignments and layouts utilizing digital photography (if available) enhanced to identifiable scale, with alignments in color. New alignments and structures, along with critical measurements, shall be identified 	<ul style="list-style-type: none"> Preliminary discussion of alternatives and scaled layout of preferred alternative 	<ul style="list-style-type: none"> Engineered alignments, based on up to date topographic information 		
Track Design	<ul style="list-style-type: none"> Geometric layout should be developed for the alternatives, including horizontal and vertical alignments Develop cross sections at critical areas, minimum clearance calculations, required track centers, 	<ul style="list-style-type: none"> Track plan and profile sheets, including tabular presentation of curve data (track no., curve no., degree of curve, overall length, superelevation, spiral length, passenger speed and unbalance, freight speed) Track schematic, color-coded, illustrating existing and 	<ul style="list-style-type: none"> Track layout with turnout details, including point of switch, headblock ties, frogs, and locations of insulated joints for all turnouts; except lateral turnouts of a single diverging track, standard crossover of two parallel tracks, 		<ul style="list-style-type: none"> Address Interim Design comments Perform and required revisions to stations and grade crossings In addition to the list of standard submittals listed in the Design Procedures Manual, submittal shall

DESIGN SCOPE MATRIX

	<ul style="list-style-type: none"> platform locations for each alternatives, and quantity calculations of major items including earthwork Preliminary plans, profiles, typical sections, cross sections and cost estimates Engineering analysis including ROW needs for each alternative, interface with future rail alternatives, identification of crossings, identification of sidings locations, and identification of any freight rail tracks adjacent to alignment Trackwork design effort shall focus on rail alignment, clearances, stations, construction methods, and grading and drainage requirements. Alignments drawings scale shall be 1"=200' for developed and undeveloped areas, 1"=100' in constrained urban areas and 1"=50' for stations and crossings Submittals shall include typical sections, track alignment plans, key maps, plans, profiles, cross sections and cost estimate 	<ul style="list-style-type: none"> proposed conditions within project limits (11" high strip map) Perform any necessary revisions to the trackwork horizontal and layout design. Add special trackwork design and verify clearances. Document the work with design notes, detail notes and computer outputs Track alignment and signal layout plans for the shoofly track, main line track, the siding track and future mainline track The track alignment shall show the track plan and profile and indicate the location of temporary shoring, retaining walls, bridges, streets, right-of-way lines, pipelines, utilities, and other features Update the general layout, as necessary, as the design information is received from other disciplines. Keep the design team apprised of any changes Compute the quantities and complete the summary of quantities Prepare any detailed drawings required in accordance with SCRRRA Design Criteria Determine cut and fill slope limits based on geotechnical information 	<ul style="list-style-type: none"> Trackwork plans and specifications shall be submitted addressing comments made at Preliminary Design phase Perform any required revisions. Examine highway-rail grade crossings to determine elevation, grade and cross-slope necessary for both track and roadway. Document the design work with design notes, detail notes and computer outputs. Verify alignment is coordinated with signal design Prepare a list of trackwork items that do not meet minimum design criteria Verify that current design is acceptable to freight rail owners and coordinate appropriate construction activities/schedule with operations and freight owners Submittal shall include typical sections, track alignment plans (including curve tables and special trackwork tables), key maps, plans, profiles, cross sections, highway-rail grade crossing details, special trackwork details, track charts, specifications and cost estimates Operational reviews will be conducted with SCRRRA and with AMTRAK, BNSF Railway Company, and Union Pacific Railroad. Contacts with these third party railroads will follow defined protocols per the Project Work Plan. These meetings will provide a forum to establish work windows and define those operational impacts that are acceptable and are not acceptable during Project construction 	<ul style="list-style-type: none"> include typical sections, track alignment plans (including curve tables and special trackwork tables), key maps, plans, profiles, cross sections, highway-rail grade crossing details, special trackwork details, track charts, specifications and cost estimates
Station Design	<ul style="list-style-type: none"> Evaluation of the number of stations and possible station locations Location shall be identified by street address and station points Type of platform, width of platform, including right-of-way limitations Platform amenities relative to location and access by passengers. ADA accessibility Entry to the facilities shall be well defined for vehicles and pedestrians access The design philosophies integrated into design shall be as per SCRRRA station criteria, yet each facility should give a unique identity to the neighborhood it serves 	<ul style="list-style-type: none"> Review local code requirements for parking, lighting, setbacks, etc. and provide a summary of requirements Review existing easement within the site and provide a list of proposed easements Verify number of required parking spaces Review ADA requirements and provide for ADA facilities Coordinate with grading and drainage design for horizontal and vertical layout of the facility. Confirm adequate circulation and geometry using turning templates or simulations. For areas of concern, submit exhibits overlaying turning movements and/or sites on the plans Prepare and submit preliminary signing and striping plans for the parking and statins and any grade crossing or bike paths. The signing plan shall include directional as well as regulatory signing Prepare and submit preliminary lighting layout for parking, statin platform and major structures Platform remodel and new construction will include provision for canopies, lighting, ticket vending machines, real-time signage, security cameras, PA upgrade and other SCRRRA Standard station amenities Coordinate with utility design to assure necessary utilities services are available for the site and show these on the drawings Develop pedestrian tunnel alternatives accessing the new proposed platform including exhibits depicting plans, sections, building elevations and 3D character sketches of each alternative. Exhibits will include concepts for stairs and accessible ramps at each end of the underpass with an effort to maintain clear & secure sightlines as well as lighting, security camera placement and finishes 	<ul style="list-style-type: none"> Photometric calculations to support appropriate light levels as required by SCRRRA and other agencies requirements Verify number of required parking spaces Identify all existing and proposed easements on the plans Prepare and submit a lighting photometric plan Provide for circulation and emergency vehicles as required Coordinate with other disciplines for any changes that would affect design of the stations Prepare plans for submittal to local jurisdiction for approval. Select and provide details of pavement design Submit completed stormwater management plan Submit completed layout of site amenities for the station Determine whether any materials or equipment will be owner furnished or owner installed and provide a written summary of these items 	<ul style="list-style-type: none"> Submit final set of station design plans and specifications
Bridge and Structures Design	<ul style="list-style-type: none"> Obtain structure site data including, existing plans, As-Built, inspection reports, structure ratings, foundation information, and shop drawings. A field investigation of the existing structure will be made Obtain typical roadway sections, including roadway plan and profile showing all alignment data, topography, and utilities 	<ul style="list-style-type: none"> Update the general layout, as necessary, as final design information is received from the other disciplines Obtain final geotechnical and hydraulics reports early in the design process Perform the required structural analysis, design, and check. Document the work with design notes, detail notes, and computer outputs 	<ul style="list-style-type: none"> Perform the required structural analysis, design, and check. Structural plans and special provisions shall be submitted at the 60% Design level for review and comments, addressing comments made at 30% Design review Submit final Structural Selection Report to SCRRRA 	<ul style="list-style-type: none"> After receiving 90% Design review comments, the structural plans and specifications shall be revised as needed and submitted Prepare rating packages in accordance with SCRRRA Design Criteria Manual An independent and complete set of final structure plans, specifications, quantities, cost

DESIGN SCOPE MATRIX

	<ul style="list-style-type: none"> Initiate foundation investigation. Identify test hole request locations on a plan along with project control line, stations, and coordinates, utilities and available general layout information for the proposed structures Obtain and review structure site data to determine the requirements that control the structure size, layout, type, and alternatives Determine the structure layout alternatives Determine the structure length, width, and span configuration that satisfy all horizontal and vertical clearance criteria The structural and functional adequacy of the existing structure shall be investigated and documented Determine the structure type alternatives as per Design Criteria Manual and Grade Separation Guidelines Determine the foundation alternatives Develop a staged construction phasing plan, as necessary for traffic control and detours. The impact of staged construction on the structure alternatives shall be considered and documented Compute preliminary quantities and preliminary cost estimates as necessary to evaluate and compare the structure layout, and type Evaluate the structure alternatives. Establish the criteria for evaluating and comparing the structure alternatives that encompass all aspects of the project's objectives. Elements typically considered include safety, construction cost, constructability, life cycle costs, environmental considerations, aesthetics, in service maintenance and inspection, and the ability to rehabilitate, widen and replace the new structure Prepare and submit preliminary general layout for the recommended structure. Special details drawings shall accompany the general layout Prepare and submit a bridge hydraulics report based on preliminary hydrology, site review, meetings and coordination Prepare a Structure Selection Report to document and obtain approval for the preliminary structure design. The report shall summarize, justify and explain the site data used to select the structure including, roadway alignments and cross sections, existing structure data, utilities, hydraulics, environmental constraints, geological information, architectural requirements, maintenance requirements, seismic design criteria, and construction phasing Type Selection Review meeting shall be scheduled with SCRRRA to present the proposed structures and briefly discuss pertinent design and construction issues Determine basic tunnel configuration, tunnel location alternatives, and lengths Identify major seismic considerations. Locate faults 	<ul style="list-style-type: none"> Prepare all detail drawings in accordance with SCRRRA criteria. Compute the quantities and complete the summary of quantities Determine ventilation requirements for tunnel Assess fire and life safety requirements Identify local requirements for first responders for tunnel Assess constructability including methods, access, temporary construction areas, disposal, etc. for tunnel Identify retaining structures as required to reduce ROW requirements and/or mitigate impacts Determine retaining wall type, locations, lengths and heights 			<p>estimate; final design notes and retaining walls; final independent design check notes; final set of the final quantity calculations; a rating package for each bridge shall be submitted</p>
<p>General Crossing Design</p>	<ul style="list-style-type: none"> Review SCRRRA Design criteria for grade crossings. Review SCRRRA's Highway-Rail Grade Crossings Recommended Design Practices and Standards Manual Obtain site data including, existing plans, As-Built, and reports. A field investigation of the existing grade crossing will be made Obtain typical sections, including plan and profile showing all alignment data, topography, and utilities Prepare plan and profile, cross sections at critical areas, and quantity calculations of major items including earthwork Prepare and submit preliminary general layout for the recommended grade crossing. Special details drawings shall accompany the general layout 	<ul style="list-style-type: none"> Prepare and submit plan, profile and cross sections for proposed improvements Provide general layout of railroad and traffic signals Begin permit process Prepare all detail drawings in accordance with SCRRRA criteria Compute the quantities and complete the summary of quantities Crossing designs will be overlaid and presented on the corridor track plan and profile drawings Identify power supply points in coordination with utility companies Preemption calculations 	<ul style="list-style-type: none"> Provide construction details for crossing elements Develop and submit concepts for construction phasing Coordinate design with utility, lighting, drainage and other disciplines and include existing and proposed facilities Perform the required analysis, design, and check. Plans and special provisions shall be submitted at the 60% Design level for review and comments, addressing comments made at 30% Design review Crossing Improvement plans illustrating existing and proposed track locations, centerlines of roadways, curb lines, sidewalk lines, existing and proposed warning devices, existing and proposed right-of-way, if required, and other pertinent 		<ul style="list-style-type: none"> Submit completed grade crossing plans, specifications, and cost estimates Obtain final approval from local jurisdiction Provide calculations Identify constructability issues

DESIGN SCOPE MATRIX

	<ul style="list-style-type: none"> Grade crossing plans (illustrating panel layout, limits of paving, location of curb, gutter and sidewalk, location of gates and warning devices, and proposed location of signal case or cases) All plans will be prepared on 11" x 17" sheets for presentation at workshop meetings Prepare concept exhibits and diagnostic meeting forms, conduct CPUC diagnostic meeting, prepare diagnostic meeting notes and prepare action item list 		<ul style="list-style-type: none"> information needed to validate crossing safety requirements Calculations for structural elements, hydrology, stormwater flows, and similar investigations Prepare final exhibits and diagnostic meeting forms, conduct CPUC diagnostic meeting, prepare diagnostic meeting notes and prepare action item list. 		
Street Design	<ul style="list-style-type: none"> Pedestrian use observations Use of surrounding area (schools, hospitals, etc.) ADA access City or County traffic studies and level of service Geometric layout shall be developed and submitted for the reasonable alternatives, including horizontal and vertical alignment Prepare plan and profile, cross sections at critical areas, and quantity calculations of major items including earthwork Consider roadside development elements including landscaping, bike paths, lighting, traffic lights and include general accommodations for these elements in the plans 	<ul style="list-style-type: none"> Prepare and develop plan and profile, cross sections for proposed street improvements Begin permit process Prepare traffic study Review design criteria from local jurisdictions Provide a summary of design controls (design speed, vehicles, roadway classifications, traffic, level of service, etc.) 	<ul style="list-style-type: none"> Prepare and submit plan, profile and cross sections for proposed improvements Provide general layout of traffic signals Begin permit process Curb, gutter, and median details (including standard details, if proposed) Traffic signing and striping plan (illustrating proposed traffic lanes, lane assignments for turning, and typical widths of traffic lanes) Street light design plans (for impacts adjacent to railroad crossing only) Vehicle turning movement exhibits Provide construction details for roadway elements Develop and submit concepts for construction phasing, traffic controls plans, signing and striping plans Coordinate design with utility, lighting, drainage and other disciplines and include existing and proposed facilities Coordinate with Member Agency for any licenses or easements required to construct improvements 	<ul style="list-style-type: none"> Obtain final approval from local jurisdiction 	<ul style="list-style-type: none"> Submit completed roadway, signing, striping, and traffic control plans Submit final local agency approved plans Provide calculations Identify constructability issues
Railroad Signal Design	<ul style="list-style-type: none"> Single line signal design drawing identifying track configuration, signals and switches Coordinate and recommended locations and extent of signalized territory, appropriate speed limits Provide conceptual layout of grade crossing warning equipment Prepare plan sheet illustrating signal work to support additional gates and warning devices Preliminary cost estimate shall include all signal system elements 	<ul style="list-style-type: none"> Preliminary signal circuit designs Signal design basis report describing the reasons for the project and operational benefits Coordinate and recommended locations and extent of signalized territory, appropriate speed limits Prepare preliminary signals single line diagrams Provide conceptual layout of grade crossing warning equipment Prepare plan sheet illustrating signal work to support additional gates and warning devices Crossover, station and grade crossing design Identify requirements for equipment houses, signal houses, troughs, wayside equipment, etc. Evaluation and modifications to existing adjacent highway-rail grade crossings and wayside signal locations circuit plan designs and equipment within affected approaches 	<ul style="list-style-type: none"> Interim recommendations on current or new signal and communication technologies Interim signal facility and insulated joint locations Review and recommendation on maintainability, safety, operational, signal visibility, communications control system equipment, and reliability enhancements Work with the electrical utility company(s) to identify all required AC feed locations to ensure availability at various sites and to secure basic technical information and agreements for the designs to proceed Quiet Zone signal system in accordance with FRA requirements Interim radio system design consistent with FCC regulations providing complete coverage of the operating area. The task will include a coverage analysis indicating the adequacy of existing receiver/transmitter location and/or determining the need for additional locations Develop interim vital and non-vital software logic as needed for applications involved Interim system-wide communication backbone that may be fiber-optic or communication based Communication design and communication house locations. Manholes and handholes Electrical requirements Integrate railroad signal requirements into other plans 		<ul style="list-style-type: none"> Track schematic, color-coded, illustrating existing and proposed conditions within project limits (11" high strip map) Final circuit designs and plans. Track circuit fouling protection, bonding, and locations of insulated joints on the circuit plans Final design plans and specifications Track circuit and signal design Signal house locations Duct bank layouts Track circuit modifications or installations Electric service requirements Existing signal house modifications List of equipment for advance ordering Traffic signal interconnection
Traffic Signal Design	<ul style="list-style-type: none"> Obtain necessary traffic data from the city of county jurisdictions Review accident data and determine desirable safety improvements Recommend appropriate geometry based on traffic projection data Develop conceptual signal plans 	<ul style="list-style-type: none"> Preliminary Traffic Impact Report (if required) Submit updated traffic study for final design efforts Continue the traffic and street agency process Develop traffic signal timing and phasing plans 	<ul style="list-style-type: none"> Detailed mitigation measures for traffic related issues, if required Coordination and preparation of temporary traffic control plans. Develop temporary traffic control plans Incorporate standard traffic signal timing and phasing plans and specifications into the project 		<ul style="list-style-type: none"> Submit final city and county approved traffic control, signal timing, phasing, signing and striping plans Final design plans and specifications Submit final approved preemption calculations to SCRRA

DESIGN SCOPE MATRIX

	<ul style="list-style-type: none"> Preliminary cost estimate shall include all signal system elements 		<ul style="list-style-type: none"> plans Develop preemption strategy and prepare preemption timing as per Design Procedures Manual and grade Crossing Manual requirements Coordinate with the city and county on traffic control, signal timing, phasing, signing and striping plans 		
Agreements	<ul style="list-style-type: none"> Determine agreement needs and requirements 	<ul style="list-style-type: none"> SCRRA track and signal scope and estimates Draft C&M agreement C&M Legal review 	<ul style="list-style-type: none"> Submit draft MOU and agreements to local agency. Negotiate changes with local agency and SCRRA legal team 	<ul style="list-style-type: none"> Final MOU and C&M agreement are in place 	<ul style="list-style-type: none"> Submit approved MOU and C&M agreement to SCRRA

DESIGN SUBMITTAL MATRIX

SUBJECT	PROJECT CONCEPT AND DESIGN CRITERIA (5% Design)	PRELIMINARY DESIGN (30% DESIGN)	INTERIM DESIGN (60% DESIGN)	PRE-FINAL DESIGN (90% DESIGN)	FINAL DESIGN (100% DESIGN)
Project Management	<ul style="list-style-type: none"> Client expectation survey PDT control information communication plan project baseline schedule work plan and task budget Job specific quality plan Risk management plan Monthly earned value report Monthly invoice Meeting agenda/minutes Presentation materials 				
Project Kick-Off Meeting	<ul style="list-style-type: none"> Communication Plan DPM-10: Meeting Agenda/Minutes 				
Project Development Team (PDT) Meetings	<ul style="list-style-type: none"> Meeting Agendas/Minutes Exhibits 				
Monthly Progress Reports	<ul style="list-style-type: none"> DPM-12: Monthly Progress Reports Monthly Invoices 				
Quality Control	<ul style="list-style-type: none"> Quality Management Program 				
General Submittals	<ul style="list-style-type: none"> Design Submittal Report, including a list of reports and analyses Project Definition Report County assessor maps and railroad Right-of-Way maps Existing easements, leases and licenses Ground control plans Planimetric and topographical maps Conceptual geotechnical design parameters Conceptual alignments and layouts typical sections, track alignment plans, key maps, plans, profiles, cross sections and cost estimate Structure Selection Report 	<ul style="list-style-type: none"> Preliminary Geotechnical Report Preliminary Permit Matrix Preemption calculations Traffic study Preliminary signals single line diagrams Conceptual layout of grade crossing warning equipment Traffic signal timing and phasing plans Draft C&M agreement 	<ul style="list-style-type: none"> Local agency permit approval Stormwater management plan Hydraulic and hydrologic report Final Structural Selection Report Final exhibits and diagnostic meeting forms. diagnostic meeting notes Temporary traffic control plans 	<ul style="list-style-type: none"> Deliverables are similar to the Interim Design submittal except that the design documents are advanced to 90% or higher design level Top and toe of slope is identified Slope treatments are engineered Utility conflicts are engineered Culvert and utility crossing extensions are engineered Agreements are in place with agencies and utility companies Permit applications are complete Record of survey if there are property acquisitions Final MOU and C&M agreement are in place 	<ul style="list-style-type: none"> Schedule of Quantities and Prices Quantities take-off calculations and related drawings
Drawings	<ul style="list-style-type: none"> Right-of-Way base maps Preliminary drainage plan and hydraulic information Preliminary general layout of the recommended grade crossing 	<ul style="list-style-type: none"> Title sheet, including project location Index of drawings Preliminary typical sections Preliminary grading and drainage plans Track plan and profile sheets, including tabular presentation of curve data (track no., curve no., degree of curve, overall length, superelevation, spiral length, passenger speed and unbalance, freight speed) Basemapping, to include Right-of-Way limits, as obtained from railroad Right-of-Way maps or purchase and sale agreements provided by SCRRRA, and from parcel maps obtained from the County Assessor's office Cross-sections at critical locations Type/size/location drawings for structures Plan for station designs Right-of-Way base maps for the construction limits 	<ul style="list-style-type: none"> Title Sheet with location map Index of Drawings General Notes Survey Control Track Schematic Track typical sections with station limits Photometric light levels Track plan and profile sheets, including tabular presentation of curve data (track no., curve no., degree of curve, overall length, superelevation, spiral length, passenger speed and unbalance, freight speed) Track geometry tables and sheets Track layouts showing the complete graphical turnout details to scale over the centerline of the track, including point of switch, headblock ties, frogs, and locations of insulated joints for all turnouts; except lateral turnouts of a single diverging track, standard crossover of two parallel tracks, and above-mentioned turnouts and crossovers where there is no roadway within 50 feet longitudinally or 25 feet laterally of the point of switch. Earthwork cross-sections at 50 ft. intervals showing utilities at the right elevations Drainage calculations and layouts, including SWM systems Composite utility or utility rearrangement plans Grading, erosion and sediment control plans 		<ul style="list-style-type: none"> Final Plans.

DESIGN SUBMITTAL MATRIX

			<ul style="list-style-type: none"> Grade crossing plans Signing and striping plans Right-of-Way mapping showing existing Right-of-Way and any additional land required Preliminary Maintenance of Traffic (Traffic Control) Plans, including access roads if required Preliminary Construction Phasing Plans Preliminary landscape drawings Electrical and Mechanical Drawings associated with system control Temporary traffic control plans Complete (using SCRRA part numbers) material list for all added and new equipment 		
Specifications		<ul style="list-style-type: none"> List of standard and special specifications. List of standard and reference drawings 	<ul style="list-style-type: none"> Index of Specifications Draft Scope of Work and Hours of Operation Specifications List of all Standard Specifications and preliminary write up for Project-Specific Specifications Project-Specific Specifications are complete in draft form 		<ul style="list-style-type: none"> Final Project-Specific Specifications
Exhibits, Reports and Calculations	<ul style="list-style-type: none"> Concept exhibits and diagnostic meeting forms for grade crossings 	<ul style="list-style-type: none"> Design Submittal Report, including a summary of preliminary Right-of-Way issues, including potential acquisitions, encroachments, or easements, and describing any discrepancies among available Right-of-Way documents Track schematic, color-coded, illustrating existing and proposed conditions within project limits (11" high strip map) Preliminary Utility Matrix Preliminary Traffic Impact Report (if required) Preliminary Geotechnical Report Preliminary Permit Matrix Design Interface Matrix Vehicle Turning Exhibit Grade crossing, street Improvements, and Traffic Signal Modification plans and details Design Review Comments form, with responses Preliminary (using SCRRA part numbers) material list for all added and new equipment Signal design basis report describing the reasons for the project and operational benefits 	<ul style="list-style-type: none"> Design Submittal Report Track schematic, color-coded, illustrating existing and proposed conditions within project limits (11" high strip map) Final drainage calculations Final Geotechnical Report Final Traffic Impact Report Complete Utility Matrix Complete Permit Matrix (all permits identified) CPUC exhibits Design Interface Matrix Grade crossing, street Improvements, and Traffic Signal Modification plans and details Design Review Comments form, with responses 		<ul style="list-style-type: none"> Design Submittal Report. Design Interface Matrix. Final Utility Matrix. Final Permits Matrix. Design Review Comments form, with responses.
Cost Estimates		<ul style="list-style-type: none"> Preliminary Project Cost Estimate DPM-15-16-17-18: Cost Estimates 	<ul style="list-style-type: none"> Draft Engineer's Estimate Quantity Estimate for Owner-Provided Materials DPM-15-16-17-18: Cost Estimates 	<ul style="list-style-type: none"> DPM-15-16-17-18: Cost Estimates 	<ul style="list-style-type: none"> Final Project Cost Estimate DPM-15-16-17-18: Cost Estimates
Signal Design	<ul style="list-style-type: none"> Conceptual signal plans 	<ul style="list-style-type: none"> Preliminary signal circuit designs Preliminary discussion of alternatives and scaled layout of preferred alternative Preliminary aspect charts 	<ul style="list-style-type: none"> Interim aspect charts and final scaled layout Interim circuit designs and plans. Track circuit fouling protection, bonding, and locations of insulated joints on the circuit plans Interim advanced standard crossing protection layouts for all the crossings on the corridor Interim design for upgrading power switch machines to high voltage, high speed machines, when necessary Fiber splice, fiber distribution panel connections, fiber node detail designs when necessary VHLC rack local control panel, relays, batteries, rectifier and miscellaneous equipment redesign for control points, when necessary Interim design of enclosures location avoiding underground facilities and minimizing vibration impacts by operational movements, while ensuring access and security Review for single switch indications on crossovers to allow for track and time on one track at a time during inspection and testing Interim design of signal AC power system. This could include a system-wide redundant AC power supply, individual feeds required at each signal case, or a combination of both systems Interim design of new underground cables 		<ul style="list-style-type: none"> Track schematic, color-coded, illustrating existing and proposed conditions within project limits (11" high strip map) Final circuit designs and plans. Track circuit fouling protection, bonding, and locations of insulated joints on the circuit plans Complete (using SCRRA part numbers) material list for all added and new equipment
SCRRA Forms	<ul style="list-style-type: none"> DPM-20: Utilities Information Request Letter 	<ul style="list-style-type: none"> DPM-14: Preliminary Design Interface Matrix 	<ul style="list-style-type: none"> DPM-14: Complete Design Interface Matrix DPM-19: Complete Utility Matrix 	<ul style="list-style-type: none"> DPM-22: Progress Submittal Transmittal Letter 	<ul style="list-style-type: none"> DPM-14: Final Design Interface Matrix DPM-19: Final Utility Matrix

DESIGN SUBMITTAL MATRIX

	<ul style="list-style-type: none"> DPM-22: Progress Submittal Transmittal Letter DPM-23: Project Concept Checklist DPM-31: Design Review Comments 	<ul style="list-style-type: none"> DPM-19: Update Utility Matrix DPM-21: Preliminary Permit Matrix DPM-22: Progress Submittal Transmittal Letter DPM-24: Preliminary Design Checklist DPM-31: Design Review Comments 	<ul style="list-style-type: none"> DPM-21: Complete Permit Matrix DPM-22: Progress Submittal Transmittal Letter DPM-25: Interim Design Checklist DPM-31: Design Review Comments 	<ul style="list-style-type: none"> DPM-26: Pre-Final Design Checklist DPM-31: Design Review Comments 	<ul style="list-style-type: none"> DPM-21: Final Permit Matrix DPM-22: Progress Submittal Transmittal Letter DPM-27: Final Design Checklist DPM-31: Design Review Comments
Camera-Ready Documents	<ul style="list-style-type: none"> Final plans, specifications and estimates (hardcopy plans and specifications affixed with seal of licensed engineer in responsible charge of the work) Schedule of Quantities and Prices CD containing above documents in native electronic format (i.e. MS Word, MS Excel, MicroStation) Engineering calculations Project Cost Estimate back-up Design Submittal Report Design Review Comments form, with responses SCRRA Form DPM-28: Camera-Ready Checklist 				
Post-Issuance Deliverables (Addenda)	<ul style="list-style-type: none"> Changes to the IFB documents that have been sealed and signed by a licensed engineer shall be made No other body except the Consultant or SCRRA may initiate changes to documents Notify SCRRA in writing of any proposed changes to the documents. Changes to documents shall be made by the Consultant only after review and approval by SCRRA SCRRA will notify the Consultant in writing of SCRRA-proposed changes to the documents SCRRA will assign and provide to the Consultant an Addendum number and issue date for use in preparing revised documents Changes to drawings and annotated in accordance with the SCRRA CADD Drafting Standards, Guidelines, and Criteria Changes to specifications or bid forms 				
Conformed Documents	<ul style="list-style-type: none"> Conformed plans and specifications (hardcopy plans and specifications affixed with seal of licensed engineer in responsible charge of the work) Bid form, incorporating actual prices of lowest responsive and responsible bidder to whom contract has been awarded CD containing above documents in native electronic format (i.e. MS Word, MS Excel, MicroStation) Revised engineering calculations, if any 				
Positive Train Control	<p>Surveying</p> <ul style="list-style-type: none"> Post-construction ground control survey, aerial mapping and photography, planimetric and topographical survey, land surveying, and top of rail surveys Post-construction survey will include the entire project limits. The survey will include vertical and horizontal controls and the survey will tie-in to previously established bench marks Provide high-accuracy ground control for design level photogrammetry. Aerial mapping and photogrammetry shall meet all the requirements shown on SCRRA Design Criteria Manual Section 20.0, Right-of-Way Mapping and Surveying. The aerial photography will include an approximate 1,500 ft. wide strip centered on railroad right-of-way to facilitate design and planning work. The aerial photography shall be high resolution digital color ortho imagery at a 1"=40' with orthophoto resolution of 0.20 Planimetric and topographical survey shall include: all railroad hardware, such as switches, signals, utility boxes, signs, etc.; all utility features, such as poles, manholes, utility boxes/vaults, culverts and fiber optic markers; and other basic planimetric features, such as roads, drains, buildings, parking lots. Land survey will include plan and profile of track, top of rail, buildings, above ground utilities, streams, manholes, ditches, bridges, highway-rail grade crossing warning devices, station shelters, fences, gates, signs, signal masts, signal bridges, signal houses, bicycle lockers, passenger platforms, station signage, ticketing machines, communications shelters, yards, layover facilities and maintenance facilities. Cross-sections will be provided at an approximate distance of 50 feet. Collect direct field data on the top of rail for all rails within the Metrolink right-of-way. All rail shots must be taken on high rail; on tangents, every 100-foot interval; on curves, every 50-foot interval; at turnouts, about nine shots are needed: at switch points (PS - 2 shots), at point of frog (PF - 3 shots), and at the center of the last long tie (LLT - 4 shots); turnout sizes should be measured and determined in the field, then noted in the point descriptions for switch point shots; all shots along turnouts should be taken on the common rails. <p>Track Charts and Aerial Composite Maps</p> <ul style="list-style-type: none"> Track charts will have a scale of 1"=500' and include infrastructure data, including track center line; track geometric data; turnouts, derails, crossovers; type of tracks and rails; culverts; roads, buildings, parking; signal masts; signal control points; and fiber optic gas and fuel lines. Composite maps will have a scale of 1"=200' and include right-of-way lines, ingress and egress points, main line track alignments, track geometry data, fiber optic and fuel pipelines and other key information. Reference will be made to existing track charts and composite maps prepared by SCRRA for the Metrolink system. Track charts will include spreadsheet inventory of key Metrolink infrastructures including control points, curve characteristics, structures, grade crossings and stations. <p>PTC Database Conversion</p> <ul style="list-style-type: none"> After mapping is completed, the data obtained from mapping must be converted to PTC data model for use onboard the locomotives in a Subdiv file. There are two types of data elements in Subdiv files. They are static and dynamic. Static data includes railroad identification, subdivision track charts, maximum speed, speed restrictions, track rule (Timetable), MP helper (dispatch points), text points (station names), CP name changes, quiet zones, WIU data (signal department) and BOS. Dynamic data includes, track segment, node, center line, switch, signal, PTC limit, road crossing at grade, clearance points, device status configuration, device type and BOS polygon. The collection of geographic data, conversion of data into correct format which can be understood by the PTC Wabtrax compiler, creation of PTC data model, compilation of track database (also called Subdiv files), track database office validation, track database field validation, critical feature validation, and track database correction is the responsibility of the GEC. The process of track database development is shown below in a flow chart. 				

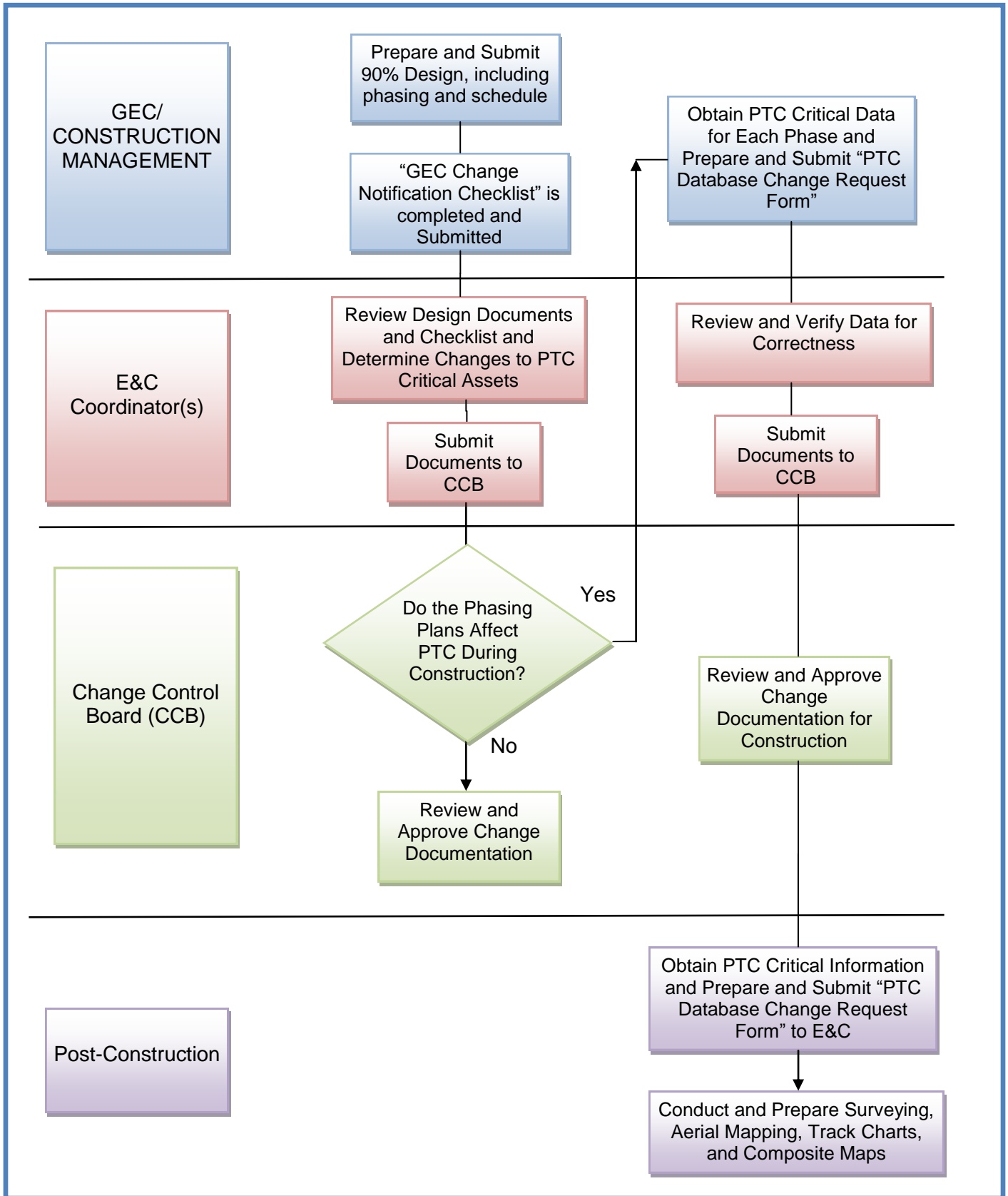


ITEM	ASSETS	
Type of Changes Affecting PTC	New Installation	
	Removal, Relocation or Reinstallation of Track or Signal Asset	
	Asset Description Change	
PTC Critical Assets	Grade Crossings	<ul style="list-style-type: none"> • Street Widening • New Crossing Panels • Changes to Warning Gates • Pedestrian Gates • Quiet Zone
	Turnouts/Diamonds	<ul style="list-style-type: none"> • Adding or Removing a Turnout • Changing Insulated Joints • Replacing Points (Emergency Repair) • Any Changes to Geometry • Changes to Type of Switch <ul style="list-style-type: none"> a. Powered b. Electrically Locked c. Hand Operated d. With Leaving Signal e. Non-Clearing • Type of Derail
	Signals	<ul style="list-style-type: none"> • Type of Signal • Operation of Signal • Signal Aspects • Signal Programs • Location of Signal • Absolute Signal • Number Plated • P-Plate • Any Changes to Control Point
	Signs	<ul style="list-style-type: none"> • Resume Speed/Speed Reduction Signs • Limit Signs • Mile Posts • Whistle Post/Quiet Zone Signs • Damage or Remove Track Marking
	Track	<ul style="list-style-type: none"> • Alignment • Superelevation • Removal or Moving (Emergency Repair)



ITEM	ASSETS
Grade Crossings	Crossing Panel replacement with same Width
Signals	Detector replacement
	Flashing light replacement
	Dragging Equipment Detector
	High Water Detector
Switches/Turnouts	Diamond Crossing
Track	CWR adjustment/Disturbance for all rail service failures and defects on main and CTC siding
	Quarterly joint track and signal inspection of turnouts
	Switch point derail inspection
	Walking inspection of crossing diamonds
	Track and structures curve inspection
	Concrete tie or fastener replacement
	Wood tie or fastener replacement
	Hot weather CWR inspection
	Earthquake inspection
	Tsunami inspection
	Lubricator Changes

PTC DESIGN AND CONSTRUCTION CHANGE REPORTING PROCESS





SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRA) CHANGE REQUEST (CR)

CHECK B4 U CHANGE

CR ID#: **SCRRA-CR-000000**

ORIGINATION

Author:		Phone / E-mail:		Safety Affected: <input type="checkbox"/> Yes <input type="checkbox"/> No		Origination Date:	
Reporting Dept / Orgn:		Project Name:		Contract Number:		Project #:	
Title:				Description:			
Who Detected Problem?:		How was the Problem Detected?:				Need Date:	
Severity: <input type="checkbox"/> Critical (Emergency Fix Required) <input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low				Change Type: <input type="checkbox"/> DOC <input type="checkbox"/> DWGS <input type="checkbox"/> FW <input type="checkbox"/> SW <input type="checkbox"/> HW <input type="checkbox"/> Process			
Drawing #:		Drawing Date:		Is there a PE Sign-Off: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Document #:		Document Date:		HW Part #:			
Found in Test Procedure #:		Test Plan ID #:		Problem Type: <input type="checkbox"/> Defect <input type="checkbox"/> Enhancement <input type="checkbox"/> New Requirement			
SubSystem(s) Affected: <div style="display: flex; flex-wrap: wrap; gap: 10px;"> <div style="border: 1px solid #ADD8E6; padding: 5px; border-radius: 10px;"><input type="checkbox"/> BOS <input type="checkbox"/> CAD</div> <div style="border: 1px solid #ADD8E6; padding: 5px; border-radius: 10px;"><input type="checkbox"/> CNC <input type="checkbox"/> WSRS</div> <div style="border: 1px solid #ADD8E6; padding: 5px; border-radius: 10px;"><input type="checkbox"/> NMS</div> <div style="border: 1px solid #ADD8E6; padding: 5px; border-radius: 10px;"><input type="checkbox"/> SMC</div> <div style="border: 1px solid #ADD8E6; padding: 5px; border-radius: 10px;"><input type="checkbox"/> ITCM</div> <div style="border: 1px solid #ADD8E6; padding: 5px; border-radius: 10px;"><input type="checkbox"/> WAYSIDE</div> <div style="border: 1px solid #ADD8E6; padding: 5px; border-radius: 10px;"><input type="checkbox"/> OBS</div> </div> LOCO#: _____ <input type="checkbox"/> Other: _____				SubDivision:		Mile Post:	
				SW/FW Version:		Control Point:	
Describe Current Environment:				Track Data Types: <input type="checkbox"/> Comm/Backhaul <input type="checkbox"/> Grade Crossings <input type="checkbox"/> PTC DB <input type="checkbox"/> Sign Feature <input type="checkbox"/> Signal Feature <input type="checkbox"/> Structure <input type="checkbox"/> Switch Feature <input type="checkbox"/> Wayside Device Feature			
				Other Environment(s):			

ANALYSIS

Assigned To:		Est Analysis Time:		Act Analysis Time:		Analysis Date:	
Project / System(s) Affected: <input type="checkbox"/> Positive Train Control <input type="checkbox"/> Network <input type="checkbox"/> Project Name : _____ <input type="checkbox"/> Tool: _____ <input type="checkbox"/> Other: _____							
Problem Validation: (Select all that apply) <input type="checkbox"/> Architectural <input type="checkbox"/> Connectivity <input type="checkbox"/> Consistency <input type="checkbox"/> Database <input type="checkbox"/> Functionality <input type="checkbox"/> Documentation <input type="checkbox"/> Installation <input type="checkbox"/> Memory <input type="checkbox"/> Performance <input type="checkbox"/> Security/Conventions <input type="checkbox"/> Stress <input type="checkbox"/> Usability							
Documents Affected: <input type="checkbox"/> None <input type="checkbox"/> Design <input type="checkbox"/> Drawing <input type="checkbox"/> Requirements <input type="checkbox"/> Standards <input type="checkbox"/> Test Plan <input type="checkbox"/> Test Procedure <input type="checkbox"/> Other: _____							
Analysis and Impact to other Systems / Interfaces?:				Identify the Current Technology Stack:		Valid Issue: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Identify Existing Requirement #:		Risk Impact:		Impact if not implemented:			



SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRA)

CHANGE REQUEST (CR)

CHECK B4 U CHANGE

TECHNICAL REVIEW BOARD (TRB) AUTHORIZATION			
Severity: <input type="checkbox"/> N/C <input type="checkbox"/> Change To: _____	Implementation Priority: <input type="checkbox"/> 1 (H) <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 (L)	Planned SW Release #:	Contractor Name:
Risk #: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Test & Turn-Up Plan Required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Drawings (Plans) Required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
TRB Disposition: <input type="checkbox"/> Approved <input type="checkbox"/> Deferred <input type="checkbox"/> CCB <input type="checkbox"/> Withdraw <input type="checkbox"/> Disapproved <input type="checkbox"/> Closed <input type="checkbox"/> Other: _____			TRB Date:
SEGMENTS / SUBSYSTEM IMPACTED			
Implementer:	Est Impl Time:	Act Impl Time:	Implementation / Deployment Date:
SubSystem Affected:		Segment Affected:	
SubDivision:	Control Point:	Mile Post:	SW Version #:
Risk #:	Part Name:	Part #:	Serial #:
Drawing (Plan) #:	Test & Turn-Up Plan #:		
TEST			
Tester Name:	Est Test Time:	Act Test Time:	Test Date:
Testing Location: <input type="checkbox"/> Contractor Site <input type="checkbox"/> Field Testing <input type="checkbox"/> HyRail <input type="checkbox"/> MOC <input type="checkbox"/> TCOSF Lab	Hyrail Testing Locations:		
Identify System / SubSystem(s) Tested:	Software Version Tested:		
Identify Technology Stack (Used for testing):	Test Plan Name:	Test Procedure #:	
	Test Procedure:		
Test Results:			
QUALITY ASSURANCE			
System / SubSystem Owner:	Approve for Closure: <input type="checkbox"/> Yes <input type="checkbox"/> No	Approve Date:	
Standards Owner:	Approve for Closure: <input type="checkbox"/> Yes <input type="checkbox"/> No	Approve Date:	
1.) Are all applicable "AS-BUILTS" drawings/plans checked into ClearCase (CM)?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
2.) Are all applicable Software/Firmware checked into ClearCase (CM)?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3.) Are all applicable documents checked into ClearCase (CM)?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
4.) Has the Asset Management System been updated to reflect CR changes?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
5.) If this is a change to any Standard, has Engineering Signed-Off?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
CONFIGURATION MANAGEMENT STATUS			
Status: (States in ClearQuest)			
<input type="checkbox"/> Open <input type="checkbox"/> Analysis <input type="checkbox"/> TRB Auth <input type="checkbox"/> CCB <input type="checkbox"/> Defer <input type="checkbox"/> In Progress <input type="checkbox"/> Test <input type="checkbox"/> QA <input type="checkbox"/> Withdrawn <input type="checkbox"/> Disapprove <input type="checkbox"/> Canceled <input type="checkbox"/> Close			
BASELINE MANAGEMENT			
System / SubSystem Baseline Name:	Software Version #:	Document Baseline Name:	Document Revision #:
Configuration Management:	Total Estimated Time:	Total Actual Time:	Closed Date:

GEC CHANGE NOTIFICATION CHECKLIST

ITEM	YES	NO	N/A
Grade Crossings			
New installations			
Additional Concrete Panels			
Grade crossing removed			
Grade crossing relocated			
Grade crossing replacement with overpass or overhead			
Grade Crossing warning devices upgraded to gates, bells and flashers			
Grade Crossing Width Modifications			
New grade crossing			
New underpass			
New Overhead			
Number of lanes revised			
Track Angle Changes			
Revision to Number of lanes			
Track Number revisions			
Signs			
New, removed or relocated signs (Begin/End CTC Sign, Control Point, Mile Post, "P" Plate, Radio Channel, Speed, Track Number, Whistling Post/Quiet Zone)			
Markings			
New, removed or relocated markings (Control Point Markings, Mile Post Marking, Tenth Mile Post Marking)			
Signals			
Flashing light replacement			
New Control Point			
New signals			
New Derail			
Signals removal			
Signals relocation			
Signal Aspects revision			
Signal direction revision			
Signal Bungalow Relocation			
Structures			
New Bridge			
Bridge modifications			
Bridge rating change			
Replace pipe			
Pipe Extension			
Switches/Turnouts			
New turnout			
Revise the size of turnout			

Turnout removed			
Turnout relocated			
Change in number of tracks			
Track			
Existing hand-throw switch upgraded to hand-throw with electric lock			
Existing hand-throw switch upgraded to power operation			
Change in angle of track			
Curve super-elevation changes			
New track construction			
Concrete tie or fastener replacement			
Wood tie or fastener replacement			
Speed increase			
Utilities			
New Fiber optic line			
Signal or communication line replacement			
New signal or communication line			
Construction Window for Track and Signal Construction			
Construction			
Maintenance Window			
Emergency Track and Signal Work			
Post Construction ground control survey, aerial mapping and photography, planimetric and topographical survey, land surveying, and top of rail surveys			

MARKING AND MEASURING PROCEDURES

Figure – Clearance Point Location

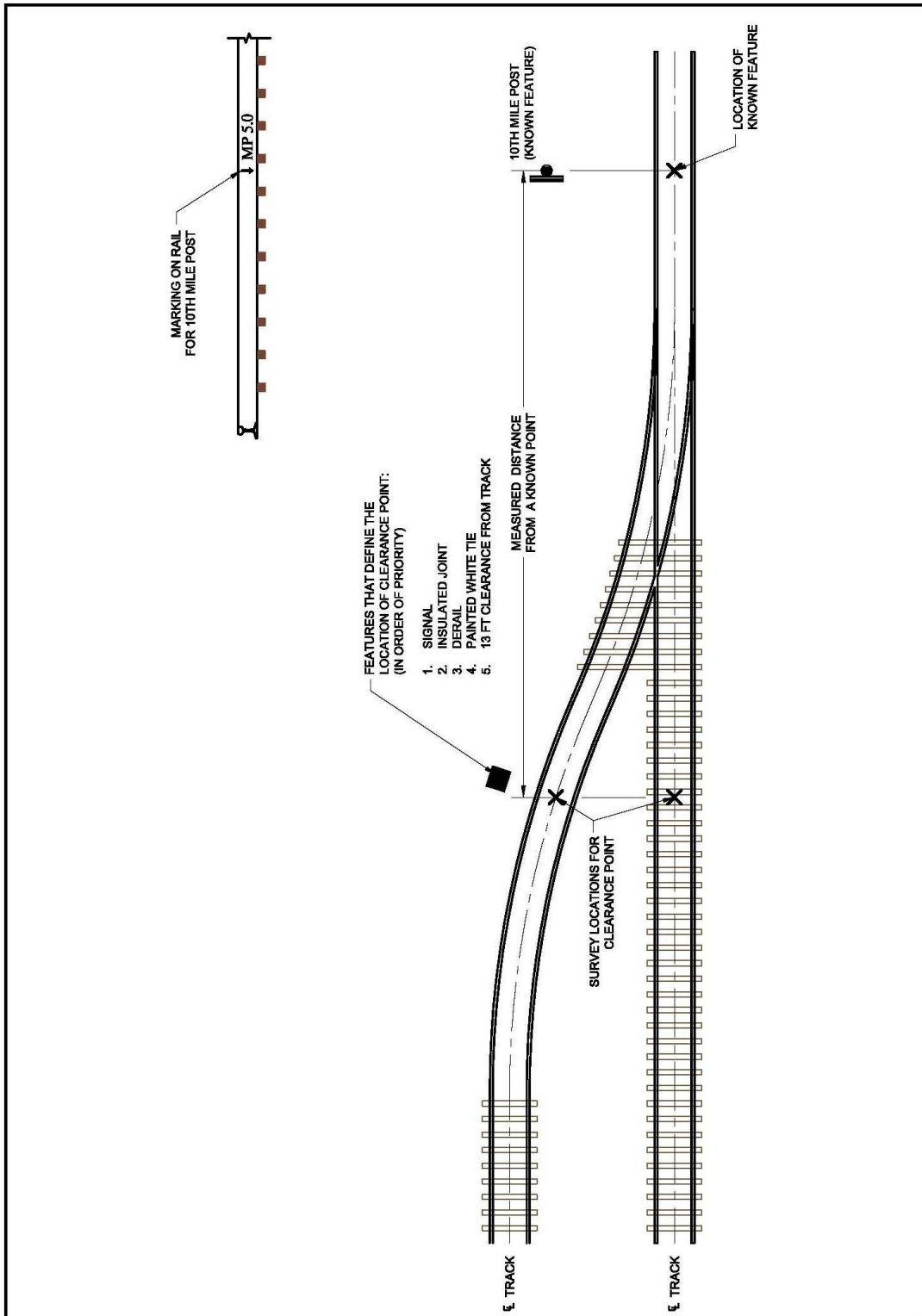


Figure – Grade Crossing Location

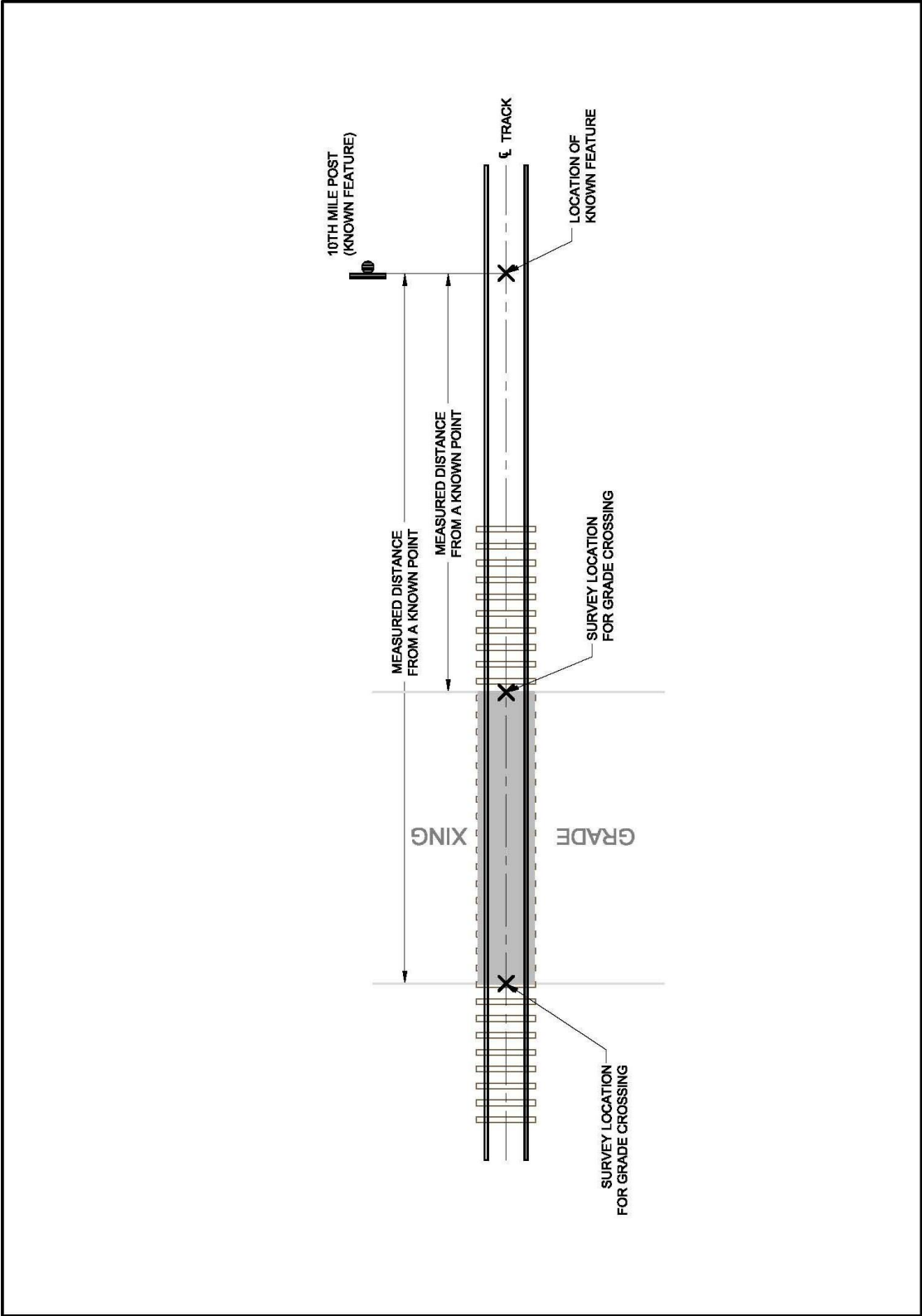


Figure – Mile Post Sign and Marking Location

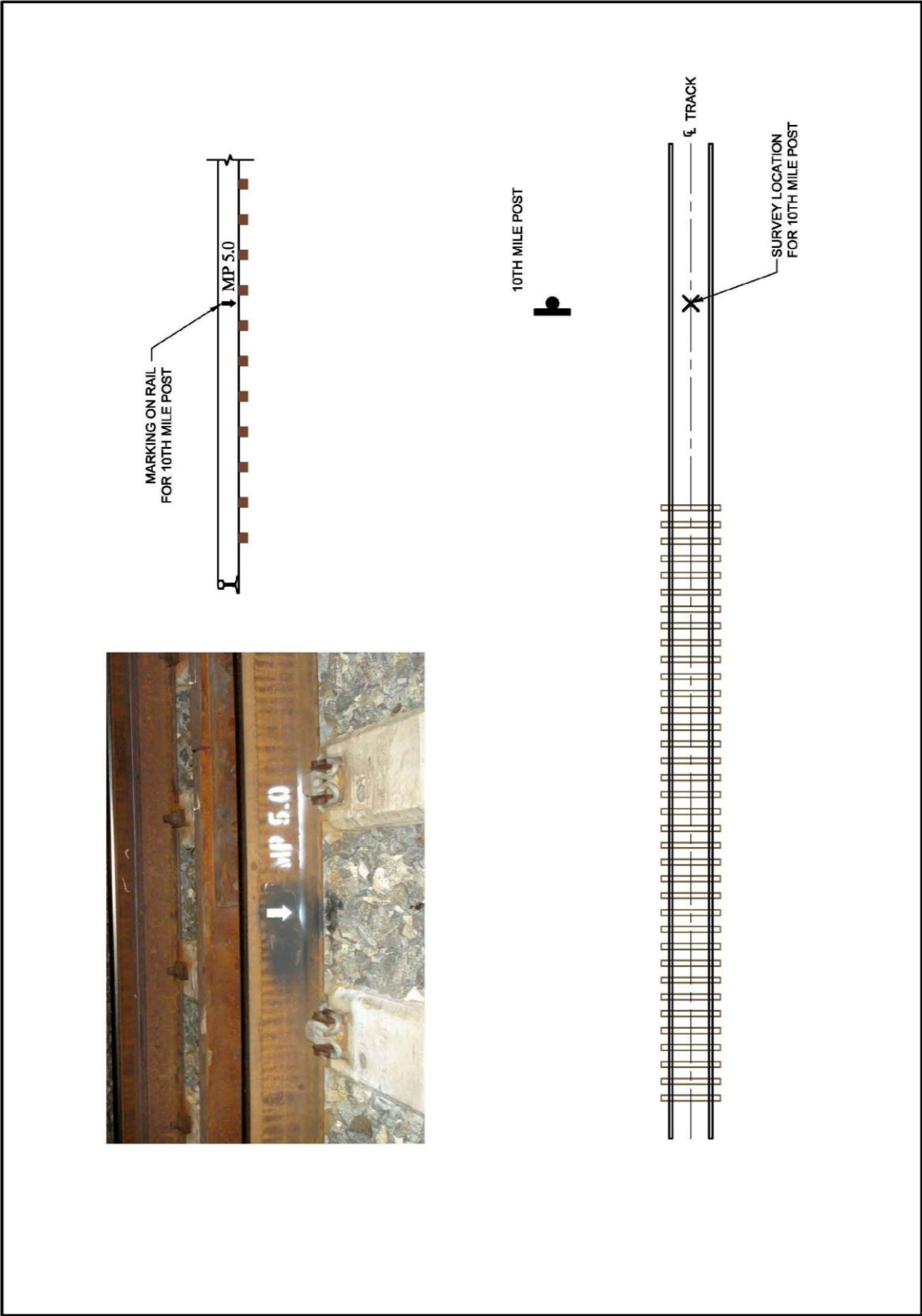


Figure – Mile Post Sign and Marking Location (Continued)



Photograph of a Mile Post

Figure – Sign Location

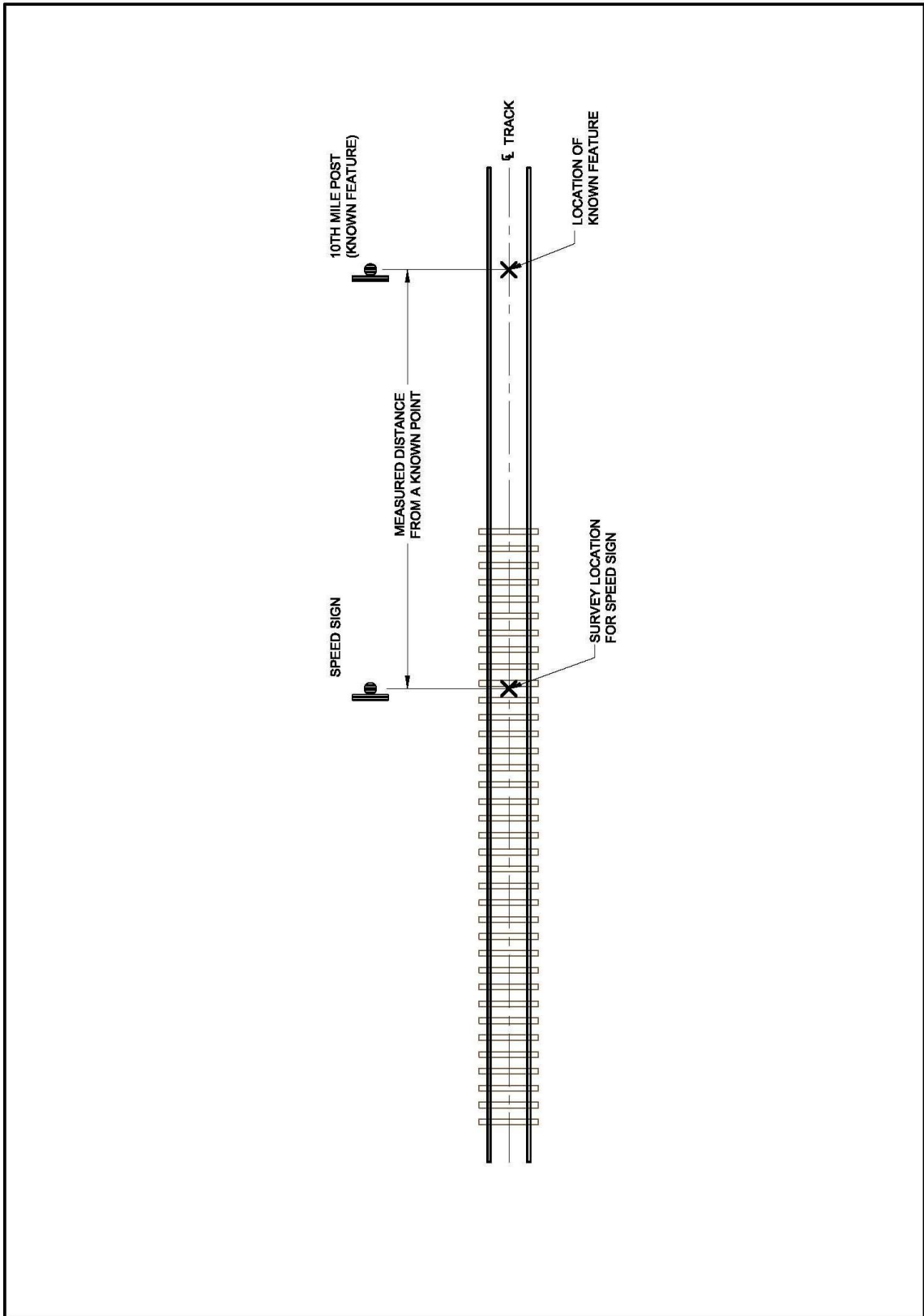


Figure – Sign Location (Continued)



Figure – Signal Location

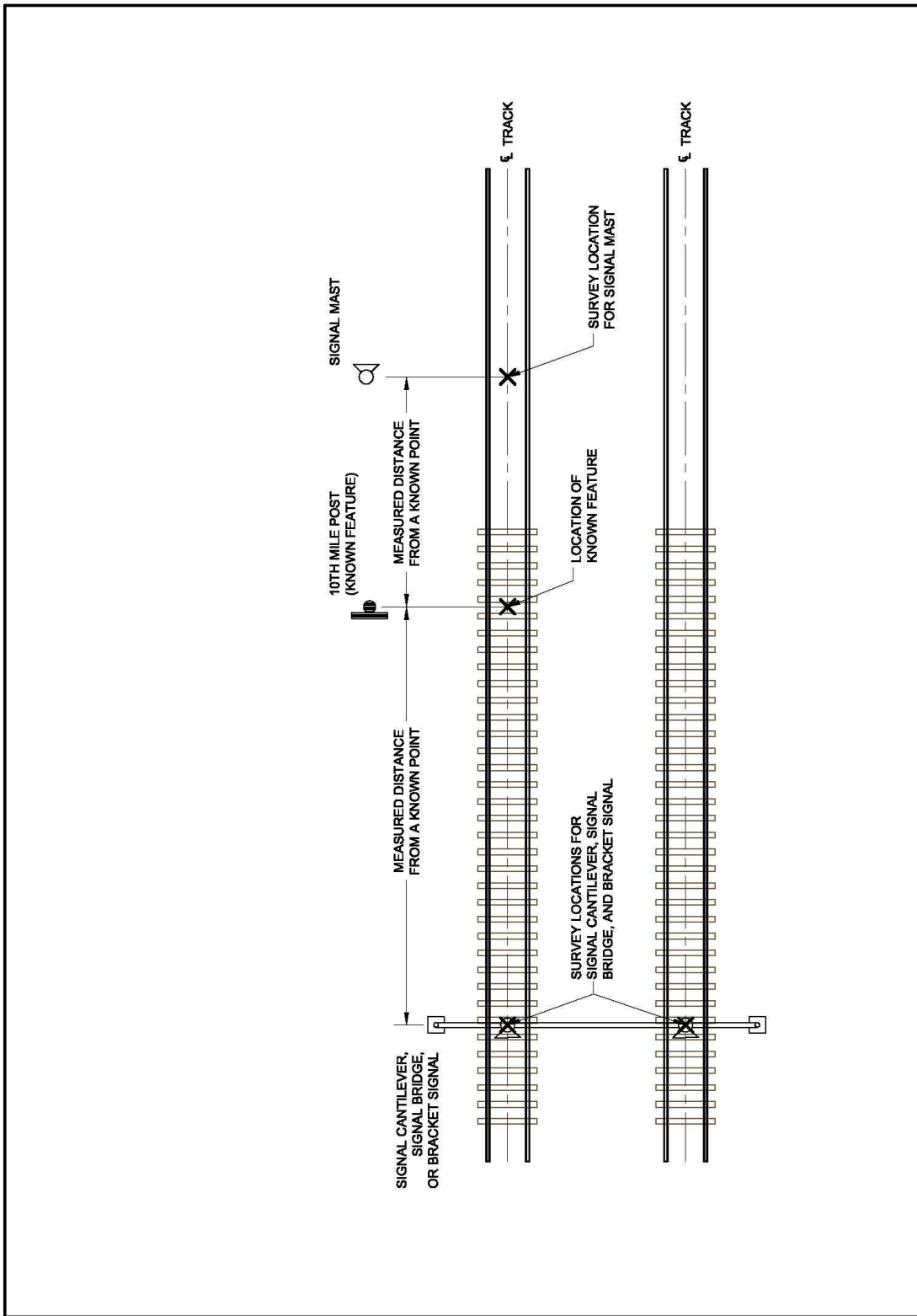


Figure – Signal Location (Continued)



Figure – Switch Location

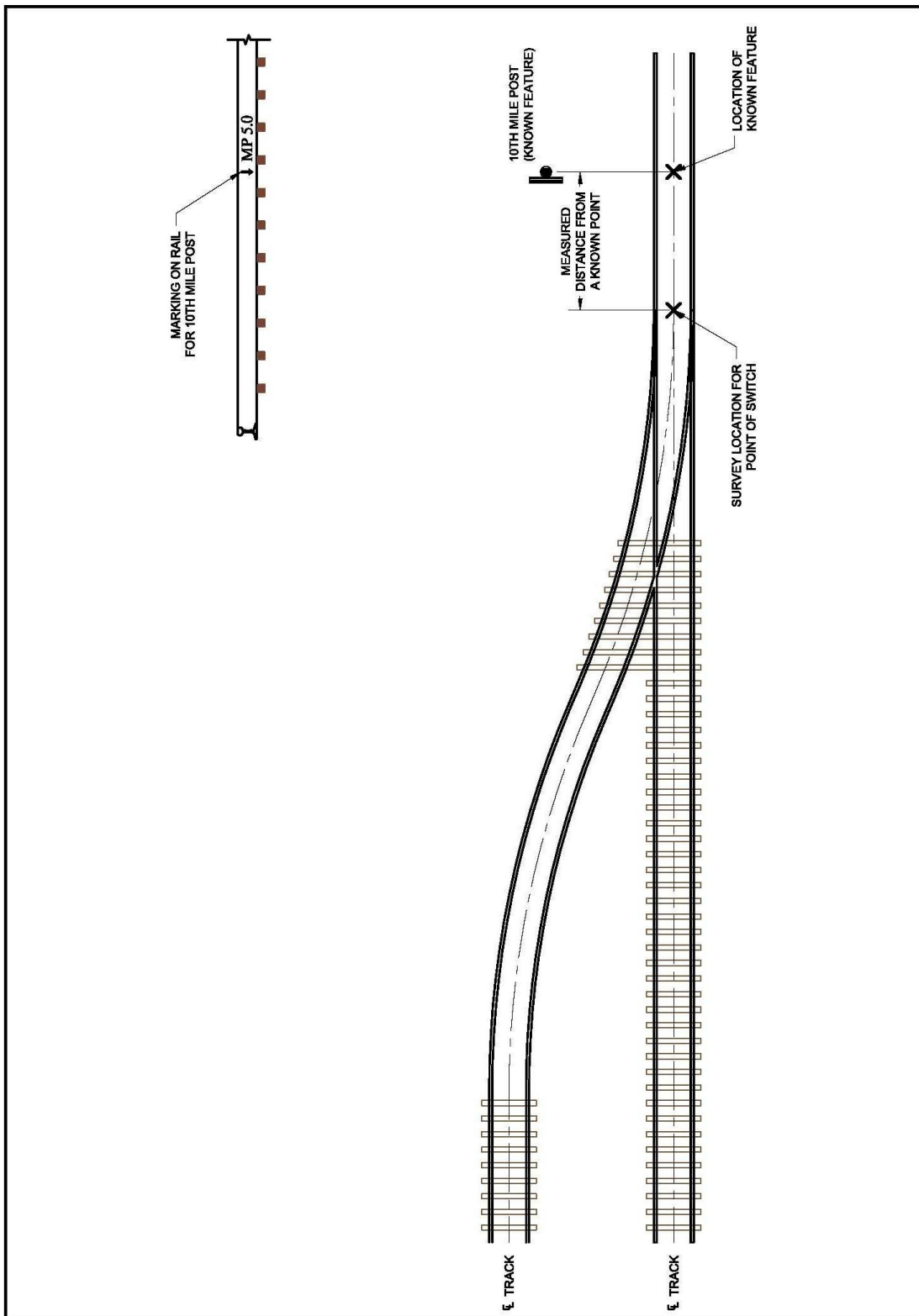


Figure – Switch Location (Continued)



Photograph of Switch