

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
 COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

106A



**FROM:** TLMA - Transportation Department

**SUBMITTAL DATE:**  
 November 12, 2009

**SUBJECT:** Supplement Number 4 to the Engineering Services Agreement for the Environmental Clearance and Design Engineering Services to Replace the Existing River Road Bridge over the Santa Ana River.

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. Ratify the Supplement Number 4 to the Engineering Services Agreement between the County of Riverside and T.Y. Lin International and;
2. Authorize the Chairman of the Board to execute the same.

**BACKGROUND:** On February 24, 1998, the Board executed an agreement with T.Y. Lin International to provide environmental and design engineering services to replace the existing 612 ft long River Road Bridge. The project will provide a state of the art replacement bridge of

Juan C. Perez  
 Director of Transportation

(Continued On Attached Pages)

<b>FINANCIAL DATA</b>	Current F.Y. Total Cost:	\$ 288,246	In Current Year Budget:	Yes
	Current F.Y. Net County Cost:	\$ 0	Budget Adjustment:	No
	Annual Net County Cost:	\$ 0	For Fiscal Year:	2009/10
<b>SOURCE OF FUNDS:</b> HBP [Formerly HBRR - Federal] (80%), Measure A/Western (20%)				Positions To Be Deleted Per A-30 <input type="checkbox"/>
				Requires 4/5 Vote <input type="checkbox"/>

**C.E.O. RECOMMENDATION:**

APPROVE

BY *Tina Grande*  
 Tina Grande

County Executive Office Signature

Policy  Policy

Consent  Consent

Dept's Recomm.:  
 Per Exec. Ofc.:

Prev. Agn. Ref. 4/10/07 (3.21) | District: 2 | Agenda Number:

3.32

The Honorable Board of Supervisors

RE: Supplement Number 4 to the Engineering Services Agreement for the Environmental Clearance and Design Engineering Services to Replace the Existing River Road Bridge over the Santa Ana River.

November 12, 2009

Page 2

1,200 feet in length and reconstruct the 2,000 feet of approach roads including a multiuse recreational trail connecting to the regional trail system. The agreement with T.Y. Lin International was amended on three occasions (Supplements 1, 2 and 3) to address various scope changes due to comments received from the Public Scoping Meetings and feedback from resource agencies, address changes in the way that Caltrans and FHWA reviews the environmental document, and to revise the environmental document for stage construction. This bridge is now under construction.

Supplement No. 4 addresses the scope and budget revisions that became necessary primarily due to the factors outlined below. The County staff negotiated a fee increase of **\$288,246.00** with the consultant for the Phase II (Design/PS&E Phase) budget:

- Requirement by the Federal Highway Administration (FHWA) to perform a Value Analysis to validate that the bridge design approach was appropriate and cost effective.
- It was anticipated that a development project on the north side would have been constructed by the time that the bridge went to construction. This project became stalled due to the economy, necessitating a revision to the plans to reflect actual conditions at start of construction.
- Sheet pile wall design in lieu of rock slope protection to secure the bridge embankments against scour effects and to keep the project footprint within environmental limits.
- Revisions to the plans and construction cost estimate to implement new guidelines given by Caltrans for the pavement structural section.
- Preparation of Street lighting Plan.
- A qualitative assessment of the Existing Bridge for Seismic Retrofit Strategy to seek additional State matching funds.

#### **Recommended Contract Budget**

Current Contract Amount:	\$ 2,856,927
<b>Recommended Supplement No.4:</b>	<b><u>\$ 288,246</u></b>
Total Contract Amount:	\$ 3,145,173

It should be noted that the overall cost of engineering and environmental work, as a percentage of the construction contract of over \$35 million, is still within industry standards, even accounting for the fact that the bridge construction bids were much lower than engineer's estimate due to the ultra-competitive bid market that we are in.

Project No. A7-0298

**SUPPLEMENT 4**

**SUPPLEMENT TO ENGINEERING SERVICES AGREEMENT BETWEEN  
THE COUNTY OF RIVERSIDE AND T.Y. LIN INTERNATIONAL  
FOR RIVER ROAD BRIDGE DESIGN AND ENVIRONMENTAL SERVICES**

THIS SUPPLEMENT 4 (hereinafter the "Supplement") to an agreement is made and entered into as of this \_\_\_\_\_ day of \_\_\_\_\_, 2009, by and between the County of Riverside, a political subdivision of the State of California (hereinafter the "COUNTY"), and T.Y. Lin International (hereinafter "ENGINEER").

**RECITALS**

- A. COUNTY and ENGINEER have entered in an agreement entitled "Engineering Services Agreement – Design and Environmental Services for River Road Bridge between County of Riverside Transportation Department and T.Y. Lin International" that is dated February 24, 1998 (hereinafter the "Agreement"). The Agreement provides the terms and conditions, scope of work, schedule and budget for the performance of professional and technical services necessary to prepare an environmental document, the supporting technical studies, plans, specifications, and estimates to replace the existing River Road Bridge over Santa Ana River. The COUNTY and the ENGINEER amended the original agreement on August 1, 2000, Supplement 1, on December 20, 2005, Supplement 2, and finally on April 10, 2007, Supplement 3, to modify the scope of work and to increase the budget for Phases I, II, and IV.
- B. The parties desire to supplement the current Agreement as amended last on April 10, 2007 to modify the scope of services in Phase II to be provided by the ENGINEER and to increase the contract budget.

**AGREEMENT**

NOW, THEREFORE, in consideration of the mutual covenants hereinafter contained, the parties agree as follows:

1. The current contract budget of \$2,856,927.00 shall be increased by \$288,246.00 to \$3,145,173.00 as provided below:

Increase the Phase II budget by the amount of \$288,246.00 to \$1,683,951.00, for engineering services necessary to perform a Value Engineering Analysis as mandated by the FHWA and to implement various design modifications that became necessary as a result of the changes in development activities and the utility coordination within the project area.

Detailed descriptions of the extra work and summaries of the requested and recommended budget adjustments are provided in Attachment "A" of this Supplement.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29

2. The existing Engineering Services Agreement expires on December 31, 2011. All covenants set forth in the amended Agreement shall be completed by the said date unless extended by another supplemental agreement.


3. Except to the extent specifically modified or amended hereunder, all of the terms, covenants and conditions of the Agreement as supplemented last on April 10, 2007 shall remain in full force and effect between the parties hereto.

IN WITNESS HEREOF, the parties hereto have caused this Supplement to the Agreement to be duly executed this day and year first written above.

1 APPROVALS

2 COUNTY Approvals

3 RECOMMENDED FOR APPROVAL:

4  
5  Dated: 11/12/09

7 JUAN C. PEREZ

8 Director of Transportation

10 APPROVED AS TO FORM:

11  
12  
13  Dated: 11/16/09  
14 Marsha L. Victor

14 PAMELA J. WALLS

15 County Counsel

17 APPROVAL BY THE BOARD OF SUPERVISORS

20 \_\_\_\_\_ Dated: \_\_\_\_\_

21 PRINTED NAME

22 Chairman, Riverside County Board of Supervisors

24 ATTEST:


27 \_\_\_\_\_ Dated: \_\_\_\_\_

28 KECIA HARPER-IHEM

29 Clerk of the Board of Supervisors (SEAL)

ENGINEER Approvals

ENGINEER:

 Dated: 6/11/09

WILLIAM M. ASHLEY  
PRINTED NAME

SR. VICE PRESIDENT  
TITLE

ENGINEER:

\_\_\_\_\_ Dated: \_\_\_\_\_

PRINTED NAME

TITLE

**ATTACHMENT A**

**SCOPE OF SERVICES AND FEE**

**RIVER ROAD BRIDGE OVER THE SANTA ANA RIVER**

**SUPPLEMENT 4**

**SCOPE OF SERVICES**

**RIVER ROAD BRIDGE OVER THE SANTA ANA RIVER**

**SUPPLEMENT 4A**

**PHASE II**

**COUNTY OF RIVERSIDE, CALIFORNIA**

**T.Y. LIN INTERNATIONAL**

**JUNE 8, 2009**

---

## TABLE OF CONTENTS

---

Table of Contents .....	ii
I. Description of Amendment .....	1
II. Scope of Additional Services .....	1
Phase II – Plans, Specifications and Estimates .....	1
Task II.4.1 – Value Analysis .....	1
Task II.4.2 – Existing Bridge Seismic Retrofit Strategy Report .....	1
Task II.4.3 – Utility Coordination .....	1
Task II.4.4 – Right-of-Way Coordination and Revisions .....	2
Task II.4.5 – Offset Volume Calculations and Army COE Coordination .....	2
Task II.4.6 – Review Alexander Developments (Webb Engineers) Design and Cash- in-Lieu Agreement .....	2
Task II.4.7 – Coordinate Additional Survey and Construction Limits for Street Improvements at Archibald and A-Road by Lennar Homes .....	2
Task II.4.8 – Sheet Pile Wall Design and Drawings .....	2
Task II.4.9 – Revisions to Pavement Structural Section .....	2
Task II.4.10 – Re-Design of Storm Drainage System .....	3
Task II.4.11 – Additional Drainage Calculations/Drainage Report Update .....	3
Task II.4.12 – Utility Potholing .....	3
Task II.4.13 – Modify Storm Drain Design and Drawings Based on the Pothole Data .....	3
Task II.4.14 – Clearing and Grubbing Exhibit .....	3
Task II.4.15 – Appraisal Exhibit(s) .....	4
Task II.4.16 – Street Lighting .....	4
Task II.4.17 – Additional Project Management Efforts .....	4

**I. DESCRIPTION OF AMENDMENT**

New project requirements, such as performance of a value analysis for the project design, additional information required in support of the Army COE permit, utility and right-of way revisions and coordination, redesign of storm drain facility, and street lighting will require additional out of scope services for completion of the River Road Bridge Replacement Project.

**II. SCOPE OF ADDITIONAL SERVICES**

The scope includes the following tasks with a level of effort commensurate with the labor hours shown on the Man hour Worksheets in Exhibit A.

**PHASE II – PLANS, SPECIFICATIONS AND ESTIMATES**

**Task II.4.1 – Value Analysis**

A VA Study as outlined in Caltrans Project Development Procedures Manual is required to evaluate alternative project solutions. Value Management Strategies, Inc. (VMS) will perform a value analysis for the design of the project in accordance with Caltrans value methodology and as outlined in VMS scope of services attached herein as Exhibit B.

Design plans, specifications, and cost estimates will be modified based on the comments received and agreed upon. A formal written response will be provided to all comments.

**Task II.4.2 – Existing Bridge Seismic Retrofit Strategy Report**

At the request of the County for purpose of applying for Prop 1B Bond Seismic Retrofit Funding, the existing bridge will be reviewed to assess the extent of its vulnerabilities and develop a probable seismic retrofit strategy and cost estimate.

A technical memorandum will be prepared summarizing the results of preliminary assessment and retrofit recommendations.

**Task II.4.3 – Utility Coordination**

A utility coordination process will be implemented to facilitate the design and coordination of the new and relocated utilities. This process will include contacting all utility companies involved and attending up to nine (9) coordination meetings. Additional coordination meetings may be necessary between the 100% submittal and completion of Phase II, estimated to occur in June 2008. A total of three (3) additional meetings will be assumed during this phase. Design plans will be distributed to all utility companies at different stages of the design.

#### **Task II.4.4 – Right-of-Way Coordination and Revisions**

The originally prepared right-of-way requirements map needs to be revised and adjusted based on the recent records discovered by the County. Additional meetings and further revisions to the maps, boundaries, and reference centerline is required to complete the right-of-way map. Recent significant changes in the existing right of way boundaries at the Bluff Street intersection require revisions to at least 16 plan sheets.

#### **Task II.4.5 – Offset Volume Calculations and Army COE Coordination**

Offset volume calculations are required to support the processing of the 404 Evaluation by the Army Corps of Engineers. This work includes earthwork calculations at 1-foot elevation intervals throughout the entire floodplain and coordination with both the County and ACOE Los Angeles office.

#### **Task II.4.6 – Review Alexander Developments (Webb Engineers) Design and Cash-in-Lieu Agreement**

Review of the Webb Engineers designs including, drainage design, utility under grounding and relocation, grading, and cash-in-lieu agreements is required to identify their impacts on the River Road Bridge Replacement Project. This work involves extensive coordination with Webb Engineers and additional meetings to discuss and resolve potential conflicts between the two projects.

#### **Task II.4.7 – Coordinate Additional Survey and Construction Limits for Street Improvements at Archibald and A-Road by Lennar Homes**

Additional meetings with representatives from Lennar Homes and the County are required to define the limits of construction on Archibald Avenue as part of Tracts 30825 and 30961. Coordination efforts are also required with the County's survey consultant, Aerotech Surveys, to obtain as-built survey of the street improvements constructed by Lennar Homes to assure conformance with the River Road Bridge Replacement Project plans.

#### **Task II.4.8 – Sheet Pile Wall Design and Drawings**

A sheet pile wall needs to be designed for the support of embankment around the bridge abutments and achieving the necessary cut off depth for scour. This wall is necessary for compliance with the environmental restrictions and the toe-down requirement of the rock slope protection around the abutments embankment.

#### **Task II.4.9 – Revisions to Pavement Structural Section**

Structural pavement section requires revisions based on the recent Caltrans recommendations. Design drawings, specifications, and engineer's estimate needs to be updated based on the revised thickness of the pavement section, modified cross sections, and revised earthwork volumes.

#### **Task II.4.10 – Re-Design of Storm Drainage System**

Redesign of the storm drainage system east of the proposed bridge structure is necessary as a result of the recently provided as-built drawings by the City of Norco for the 54-inch storm drain pipe which extends into the project limits. No physical signs of this storm drain were noted during field reviews nor were any picked up by the design surveys, originally.

#### **Task II.4.11 – Additional Drainage Calculations/Drainage Report Update**

The established drainage design criterion for the project was based on the Caltrans Highway Design Manual. This criterion is consistent with the American Association of State Highway and Transportation Officials (AASHTO) standards. However, after the submittal of the drainage report to the City of Norco, and the discovery of the existing 54-inch storm drain, the City requested the hydrologic and hydraulic calculations based on their criteria. Additional calculations and revisions to the drainage report are necessary to satisfy both Caltrans and the City of Norco criteria.

#### **Task II.4.12 – Utility Potholing**

At the request of the County, a pothole exhibit will be prepared to facilitate the design of the storm drainage system. It was originally assumed that the utility companies would be relocating their facilities out of the way of the proposed improvements. However, after the completion of utility relocation designs and the storm drainage plans for the River Road Project, it was discovered that the utility relocations did not extend through the Bluff Street Intersection where a significant amount of drainage improvements were proposed.

Services of a utility potholing contactor will be acquired to perform potholing of 21 existing utility locations in the vicinity of the River Road and Bluff Street Intersection, as shown on the attached Exhibit A.

#### **Task II.4.13 – Modify Storm Drain Design and Drawings Based on the Pothole Data**

The compiled pothole data will be interpolated to determine the elevation of the existing utilities at the storm drain crossing(s). The utilities currently shown in profile on the storm drainage plans will be adjusted to the interpolated elevation determined from potholing and the label will be changed from "depth unknown" to the interpolated depth of the top and/or bottom of utility as applicable. In addition, the utility plans will be modified to show the pothole locations and include a table with the elevations at each pothole.

#### **Task II.4.14 – Clearing and Grubbing Exhibit**

A clearing and grubbing exhibit will be prepared to stake the limits of clearing activities that could be performed prior to bidding of the project in an attempt to comply with the environmental restrictions outlined in the EIR.

**Task II.4.15 – Appraisal Exhibit(s)**

At the request of the County, an exhibit will be prepared with the aerial photograph overlain with the right of way requirements to facilitate the appraisal process.

**Task II.4.16 – Street Lighting**

Street lighting will be required for the roadway sections on the north and south sides of the bridge structure. The street lighting plans and light level calculations will be prepared based on the requirements established by the Illuminating Engineers Society (IES).

**Task II.4.17 – Additional Project Management Efforts**

The original estimate for project management efforts was based on the planned 100% submittal date of February 14, 2007. The completion date was postponed several times throughout the past year as the result of the additional services noted above and the 100% submittal date was revised to December 7, 2007. Addition of 10 months to the length of the project requires 10 additional monthly PDT meetings, invoicing cycles and accounting activities. Further project management efforts and PDT meetings are anticipated between the 100% submittal and completion of Phase II Project, estimated to occur in June 2008. A total of six (6) additional PDT meetings will be assumed during this period.

## Exhibit A

### Cost Proposal Worksheet

COMPANY: T.Y. Lin International		SCOPE OF WORK: Supplement No. 4A - Bridge Engineering and Project Management			DATE: 1/8/2007	
PROJECT: River Road Bridge Replacement		MILESTONE/PHASE/PROJECT SUMMARY: Phases II Final PS&E				
<b>DIRECT LABOR</b>						
PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT		
Ashley	Project Manager	208.0	\$ 95.15	\$ 19,791		
Rucker	Specifications Engineer	0.0	\$ 61.85	\$ -		
Golchoobian	Bridge Design Engineer	264.0	\$ 52.05	\$ 13,741		
Sanchez	Bridge Checker	0.0	\$ 41.90	\$ -		
Makley	Bridge Design Engineer	60.0	\$ 39.45	\$ 2,367		
Fukuhara	Bridge CAD Technician	54.0	\$ 39.90	\$ 2,155		
Colcol	Bridge CAD Technician	0.0	\$ 30.20	\$ -		
-		0.0	\$ -	\$ -		
-		0.0	\$ -	\$ -		
-		0.0	\$ -	\$ -		
-		0.0	\$ -	\$ -		
-		0.0	\$ -	\$ -		
<b>TOTAL HOURS</b>		<b>586.0</b>	<b>TOTAL DIRECT LABOR</b>		<b>\$ 38,054</b>	
<b>MULTIPLIERS</b>						
<b>ESCALATION</b>		0.00% (of Total Direct Labor)				
<b>OVERHEAD - Additional Services</b>		133.00% (of Total Direct Labor + Escalation)		\$ 50,611.82		
<b>PAYROLL ADDITIVES - Add'l Services</b>		30.00% (of Total Direct Labor + Escalation)		\$ 11,416.20		
				<b>TOTAL MULTIPLIERS</b>		<b>\$ 62,028</b>
<b>OTHER DIRECT EXPENSES</b>						
Travel	Miles	1,000	\$ 0.50	\$ 500.00		
Reproduction	EACH	2	\$ 400.00	\$ 800.00		
Shipping/Delivery	EACH	4	\$ 100.00	\$ 400.00		
Communications	EACH	5	\$ 50.00	\$ 250.00		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
				<b>TOTAL OTHER DIRECT EXPENSES</b>		<b>\$ 1,950</b>
<b>OUTSIDE SERVICES</b>						
Willdan Associates	\$ 32,737	\$ 56,308	\$ 8,904	\$ 540	\$ 98,489	
VMS	\$ 38,737	\$ -	\$ -	\$ 4,915	\$ 43,652	
Saf-r-Dig	\$ 20,793	\$ -	\$ -	\$ -	\$ 20,793	
	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	
				<b>TOTAL OUTSIDE SERVICES</b>		<b>\$ 162,934.40</b>
<b>FEES</b>						
<b>OUTSIDE SERVICES ADMIN FEE</b>		0.00% (of Total Outside Services)				
<b>FIXED FEE</b>		10.00% (of Total Direct Labor + Total Multipliers)				
				<b>TOTAL FEES</b>		<b>\$ 10,008</b>
<b>DEDUCT REMAINING BUDGET AS OF 100% SUBMITTAL ON 12-7-2007</b>					<b>\$ (35,593)</b>	
				<b>TOTAL COST</b>		<b>\$ 239,382</b>

**Mantour Worksheet**

COMPANY: **T. Y. Lin International** SCOPE OF WORK: **Supplement No. 4A - Bridge Engineering and Project Management** DATE: **1/8/2007**

PROJECT: **River Road Bridge Replacement**  
 MILESTONE/PHASE/PROJECT SUMMARY: **Phases II Final PS&E**

Task No.	DESCRIPTION	Personnel Billing Rate:	Ashley	Rucker	Golchoobian	Sanchez	Malkley	Fukuhara	Colcol	\$0.00	\$0.00	\$0.00	\$0.00	Total Hours	Amount
II.4	Final PS&E (100% Submittal)														
II.4.1	Value Analysis		40	-	40	-	-	-	-	-	-	-	-	80	\$ 17,034
II.4.2	Existing Bridge Seismic Retrofit		24	-	40	-	60	54	-	-	-	-	-	178	\$ 25,711
II.4.3	Utility Coordination		40	-	40	-	-	-	-	-	-	-	-	80	\$ 17,034
II.4.4	Right-of-way Revisions		24	-	24	-	-	-	-	-	-	-	-	48	\$ 10,220
II.4.5	Offset Volume Calculations														
II.4.6	Review Alexander Developments Design														
II.4.7	Street Improvements at Archibald														
II.4.8	Sheet pile Wall Design				24									24	\$ 3,614
II.4.9	Revise Structural Section Pavement														
II.4.10	Re-design of Storm Drainage System														
II.4.11	Additional Drainage Calculations/ Report														
II.4.12	Pothole Coordination Exhibit				8									8	\$ 1,205
II.4.13	Modify Storm Drain Design														
II.4.14	Clearing and Grubbing Exhibit														
II.4.15	Appraisal Exhibit														
II.4.16	Street Lighting				8									8	\$ 1,205
II.4.17	Project Management		80		60									160	\$ 34,068
<b>TOTALS</b>			<b>208</b>	<b>-</b>	<b>264</b>	<b>-</b>	<b>60</b>	<b>54</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>586</b>	<b>110,090</b>

## Exhibit A

### Cost Proposal Worksheet

COMPANY: Willdan Associates	SCOPE OF WORK: Supplement No. 4A - Civil, Roadway	DATE: 1/8/2007
PROJECT: River Road Bridge Replacement	MILESTONE/PHASE/PROJECT SUMMARY: Phases II Final PS&E	

#### DIRECT LABOR

PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT
Leathers	Division Manager	136.0	\$ 56.82	\$ 7,728
Knell	Division Manager	0.0	\$ 56.82	\$ -
Bacsikin	Division Manager	0.0	\$ 56.82	\$ -
Hidalgo	Division Manager	0.0	\$ 56.82	\$ -
Trong	Senior Engineer	70.0	\$ 46.79	\$ 3,275
Kelley	Design Manager	104.0	\$ 43.45	\$ 4,519
Sanchez	Design Engineer II	198.0	\$ 38.44	\$ 7,611
Kelley	Design Engineer II	0.0	\$ 38.44	\$ -
Fidelino	Design Engineer II	0.0	\$ 38.44	\$ -
Reyes	Designer I	246.0	\$ 36.76	\$ 9,043
Peggy	Clerical	28.0	\$ 20.05	\$ 561
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL HOURS</b>		<b>782.0</b>	<b>TOTAL DIRECT LABOR \$ 32,737</b>	

#### MULTIPLIERS

ESCALATION	0.00% (of Total Direct Labor)	\$ -
OVERHEAD-Additional Services	172.00% (of Total Direct Labor + Escalation)	\$ 56,308
<b>TOTAL MULTIPLIERS</b>		<b>\$ 56,308</b>

#### OTHER DIRECT EXPENSES

ITEM	QUANTITY	UNIT	RATE	AMOUNT
ODC	1	LS	\$ 540.00	\$ 540
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL OTHER DIRECT EXPENSES</b>				<b>\$ 540</b>

#### OUTSIDE SERVICES

	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL OUTSIDE SERVICES</b>								<b>\$ -</b>

#### FEES

FIXED FEE- ADDITIONAL SERVICES	10.00% (of Total Outside Services)	\$ 8,904
<b>TOTAL FEES</b>		<b>\$ 8,904</b>
<b>TOTAL COST</b>		<b>\$ 98,489</b>



**TASK ORDER – SCOPE OF SERVICES**  
**May 9, 2007**  
**Value Management Strategies, Inc.**

**I. Project Description**

The Contractor shall assist with preparing and distributing a Value Analysis (VA) study of the project described below:

***River Road Bridge Value Analysis Study***

**II. Team Authority and Coordination:**

VA Study to comply with NHS VE mandate and follow the Caltrans VA methodology as outlined in the Chapter 19, "Value Analysis" of the Project Development Procedures Manual (PDPM) and detailed in the Caltrans VA Team Guide and Report Guide – Third Editions, April 2003. VA studies identify and evaluate alternative project solutions and provide recommendations to decision-makers.

**Study Coordination:**

R. Terry Hays, Team Leader, Value Management Strategies, Inc.  
Anthony Roberts, District 8, Caltrans  
Tayfun Saglam, County of Riverside  
Mark Ashley, TYLIN Project Manager

**III. Study Participants and Schedule**

The VA Study is to follow the activities as defined in the Caltrans VA Activity Chart. The list of VA Study participants will be developed by Caltrans. The study will be three days, **June 26-28, 2007**. A pre-study teleconference will be scheduled no later than the week prior to the start of the study. Once the Draft report has been reviewed the project stakeholders, and implementation meeting will be conducted to resolve the disposition of the VA Alternatives presented in the report.

**IV. Period of Performance**

County of Riverside shall provide the Contractor with written approval prior to commencement of any work.

Work under this Task Order shall begin on **May 23, 2007** or upon final approval of this Task Order. Pre-study, data collection and dissemination shall begin on **May 23, 2007**.

**V. Scope of Services**

The required services are to lead a VA study of the above-described project. The scope of the work shall include but is not limited to the following:

- Provide a qualified, independent Certified Value Specialist (CVS) team leader to lead a VA study in accordance with Caltrans value methodology.
- Provide VA study documentation in accordance with the Caltrans VA Report Guide and this task order.
- Provide the following technical team members for the following disciplines:
  - Bridge Engineer.

- Conference rooms will be provided by County of Riverside or Caltrans.
- Ensure that applicable data and correspondence, any other relevant information necessary for the VA study is collected, developed and distributed.
- Facilitate VA Team Meetings.

**VI. VA Deliverables**

The VA Team Leaders are responsible for the following:

- Leading pre-study meeting/s. Attendance should include representatives Caltrans, County of Riverside staff, the Caltrans DVAC, project manager and key project development team staff, key outside project stakeholders (local transportation agencies, local government, and permitting agencies) and any known VA team members.
- Develop in conjunction with Caltrans the draft VA study charter (Attachments A, B and C per the Caltrans Team Guide.
- Complete the Preliminary VA Report with input/review of VA Team and technical reviewers in accordance with the VA Report Guide – Third Edition and with the following items:
  - A distribution list for the VA reports must be developed with the Caltrans Project Manager.
  - Submit Preliminary VA Report; no more than 2-weeks following Initial VA Presentation, as specified in the report distribution list.
  - The preliminary report should include hardcopy distribution. Copies of the reports should be distributed to the VA team, key technical reviewers and the project stakeholders.
- Coordinate with County of Riverside and Caltrans on the project stakeholders responses to the preliminary VA report and prepare for an implementation meeting to resolve the disposition of the VA alternatives, finalize the VA study reportables (costs, performance and value indices).
- Submit Final VA Report as specified in Caltrans VA Report Guide – Third Edition. Report should be submitted no more than 3 weeks following VA Final Presentation. Final VA report should also include an electronic copy in PDF format of the entire report and a separate file in excel format of the VA study summary report.
- Submit electronic copies of the updated VA study summary reports and updated Executive Summary as needed to document the resolution of conditionally approved alternatives as specified in the Final VA Report to the Caltrans PM, DVAC and the HQ VA Branch.

**VII. Reports and/or Meetings**

The Contractor shall submit progress reports, and meet with County of Riverside, as needed, to discuss progress on the study.

The Contractor shall schedule and facilitate an implementation meeting at a date and time to be determined by the County of Riverside and Caltrans Project Manager.

VA Study Budget		River Road Bridge			
Item	Name	Hours	Rate	Cost	Total
<b>PRESTUDY - Preparation and Coordination</b>					
Program Manager	Hays	4	\$225.00	\$900.00	
Team Leader	Stewart	9	\$191.00	\$1,719.00	
Bridge Design/Construction	Creveling	6	\$206.53	\$1,239.18	
Project Coordinator	Kramer	4	\$110.84	\$443.36	
Administrative Assistant	Northrop	2	\$70.49	\$140.98	
<b>Total PRESTUDY - Preparation and Coordination:</b>					<b>\$4,442.52</b>
<b>PRESTUDY - Cost Model</b>					
Team Leader	Stewart	2	\$191.00	\$590.88	
<b>Total PRESTUDY - Cost Model:</b>					<b>\$590.88</b>
<b>PRESTUDY - Meeting Leadership</b>					
Team Leader	Stewart	8	\$191.00	\$1,181.76	
<b>Total PRESTUDY - Meeting Leadership:</b>					<b>\$1,181.76</b>
<b>SEGMENT 1&amp;2 - Segment 1 VA Study</b>					
Team Leader	Stewart	15	\$191.00	\$2,865.00	
Bridge Design/Construction	Creveling	15	\$206.53	\$3,097.95	
<b>Total SEGMENT 1&amp;2 - Segment 1 VA Study:</b>					<b>\$5,962.95</b>
<b>SEGMENT 1&amp;2 - Segment 2 VA Study</b>					
Team Leader	Stewart	15	\$191.00	\$2,865.00	
Bridge Design/Construction	Creveling	15	\$206.53	\$3,097.95	
<b>Total SEGMENT 1&amp;2 - Segment 2 VA Study:</b>					<b>\$2,865.00</b>
<b>SEGMENT 1&amp;2 - VA Preliminary Report</b>					
Team Leader	Stewart	20	\$191.00	\$3,820.00	
Clerical Support	Combs	24	\$206.53	\$4,956.72	
Project Coordinator	Kramer	2	\$110.84	\$221.68	
Administrative Assistant	Northrop	2	\$70.49	\$140.98	
QA/QC	Parker	16	\$87.21	\$1,395.36	
<b>Total SEGMENT 1&amp;2 - VA Preliminary Report :</b>					<b>\$10,534.74</b>
<b>SEGMENT 3 - Coordination and Meeting</b>					
Team Leader	Stewart	12	\$191.00	\$2,292.00	
<b>Total SEGMENT 3 - Coordination and Meeting :</b>					<b>\$2,292.00</b>
<b>SEGMENT 3 - Final VA Report</b>					
Team Leader	Stewart	14	\$191.00	\$2,674.00	
Clerical Support	Combs	16	\$206.53	\$3,304.48	
Project Coordinator	Kramer	2	\$110.84	\$221.68	
Administrative Assistant	Northrop	2	\$70.49	\$140.98	
QA/QC	Parker	16	\$87.21	\$1,395.36	
<b>Total SEGMENT 3 - Final VA Report:</b>					<b>\$7,736.50</b>
<b>SEGMENT 3 - Study Closeout Report</b>					
Team Leader	Stewart	12	\$191.00	\$2,292.00	
Clerical Support	Combs	2	\$70.49	\$140.98	
QA/QC	Parker	8	\$87.21	\$697.68	
<b>Total SEGMENT 3 - Study Closeout Report:</b>					<b>\$3,130.66</b>
<b>Labor SubTotal:</b>					<b>\$38,737.01</b>

**Other Direct Costs**

<u>Category</u>	<u>UM</u>	<u>Number</u>	<u>Rate</u>	<u>Cost</u>	<u>Total</u>
<b>Team Leader</b>					
Air Travel	EA	3	\$500.00	\$1,500.00	
Airport Shuttle	RT	3	\$90.00	\$270.00	
Rental Car	Day	5	\$55.00	\$275.00	
Meals and Incidentals	Day	5	\$40.00	\$200.00	
Lodging/Hotels	Day	5	\$110.00	\$550.00	
Parking	Day	5	\$15.00	\$75.00	
Personal Car	MI		\$0.485	\$0.00	
			<b>Total Team Leader:</b>		<b>\$2,870.00</b>
<b>Bridge Design/Construction</b>					
Air Travel	EA	0	\$500.00	\$0.00	
Airport Shuttle	RT	0	\$90.00	\$0.00	
Rental Car	Day	0	\$55.00	\$0.00	
Meals and Incidentals	Day	3	\$40.00	\$120.00	
Lodging/Hotels	Day	3	\$110.00	\$330.00	
Parking	Day	3	\$15.00	\$45.00	
Personal Car	MI		\$0.485	\$0.00	
			<b>Total Team Leader:</b>		<b>\$495.00</b>
<b>Miscellaneous Direct Costs</b>					
Shipping	LS	1	\$350.00	\$350.00	
Reproduction	LS	1	\$1,200.00	\$1,200.00	
Conference Room	Day	0	\$0.00	\$0.00	
Miscellaneous Supplies	EA	0	\$0.00	\$0.00	
			<b>Total Misc. ODC:</b>		<b>\$1,550.00</b>
			<b>ODC SubTotal:</b>		<b>\$4,915.00</b>
			<b>Total Task Order:</b>		<b>\$43,652.01</b>

**SCOPE OF SERVICES**

**RIVER ROAD BRIDGE OVER THE SANTA ANA RIVER**

**SUPPLEMENT 4B**

**PHASE II**

**COUNTY OF RIVERSIDE, CALIFORNIA**

**T.Y. LIN INTERNATIONAL**

**JUNE 8, 2009**

## TABLE OF CONTENTS

---

Table of Contents.....	ii
I. Description of Amendment.....	1
II. Scope of Services.....	1
Phase II – Plans, Specifications and Estimates.....	1
Task II.4.1.1 – Revise the Digital Terrain Model.....	1
Task II.4.1.2 – Earthwork Analysis.....	1
Task II.4.1.3 - Revise Hydrology Calculations.....	1
Task II.4.1.4 – Revise Storm Drain Design.....	1
Task II.4.1.5 – Revise Road Plans.....	1
Task II.4.1.6 – Revise the Design Cross Sections.....	2
Task II.4.1.7 – Revise CSWPPP.....	2
Task II.4.1.8 - Revise the Quantities and Cost Estimate.....	2
Task II.4.1.9 - Conduct Additional Utility and Right of Way Coordination.....	2
Task II.4.1.10 – PDT Meetings.....	2
Task II.4.2.1 – OCWD Second Access Point.....	2
DELIVERABLES.....	2

**I. DESCRIPTION OF AMENDMENT**

The private development previously planned for Tract Number 31406 located at the north end of the Archibald Avenue/River Road Intersection will not be completed as planned. As a result, the northerly end of River Road/Archibald Avenue from New River Road to A-Road/Kendra Lane will need to be redesigned.

The Orange County Water District (OCWD) requires a second access point to the river area. A 15-foot wide driveway is planned to be designed and constructed as part of the River Road Bridge Replacement Project for future improvement by OCWD to a full access road.

**II. SCOPE OF SERVICES**

The scope will include the following tasks with a level of effort commensurate with the labor hours shown on the attached Exhibit C. It will be assumed that the necessary right of way for the construction of an urban arterial to the north of the existing Archibald Avenue/River Road Intersection and the necessary slope easements to grade within the adjacent property will be dedicated by the property owner or acquired by the County.

**Phase II – Plans, Specifications and Estimates**

**Task II.4.1.1 – Revise the Digital Terrain Model**

Revise the digital terrain model (DTM) to eliminate Tract 31406 grading and modify the roadway template

**Task II.4.1.2 – Earthwork Analysis**

Run new earthwork analysis at the north end of the project based on the revised DTM

**Task II.4.1.3 - Revise Hydrology Calculations**

Revise the hydrology / hydraulic calculations to eliminate Tract 31406 improvements and incorporate roadway geometric changes.

**Task II.4.1.4 – Revise Storm Drain Design**

Revise the proposed storm drain system to intercept flow discharging from the undeveloped Tract 31406, as explained above.

**Task II.4.1.5 – Revise Road Plans**

Revise the improvement plans to be consistent with the revised grading and drainage design:

- Typical Sections (1 Sheet)
- Plan Sheets (3 Sheets)
- Grading Plans (3 Sheets)
- Drainage Plans (1 Sheet)
- Drainage Profile (1 Sheet)

**Task II.4.1.6 – Revise the Design Cross Sections**

**Task II.4.1.7 – Revise CSWPPP**

Revise the Conceptual Storm Water Pollution Prevention Plan (CSWPPP) to reflect the changes in the hydrology and discharging flow from the undeveloped site.

**Task II.4.1.8 - Revise the Quantities and Cost Estimate**

**Task II.4.1.9 - Conduct Additional Utility and Right of Way Coordination**

**Task II.4.1.10 – PDT Meetings**

Attend two (2) coordination meetings with the County staff to discuss the revisions.

**Task II.4.2.1 – OCWD Second Access Point**

Revise layout plan, construction details, and grading plan to show the proposed driveway on the southerly side of River Road just west of the Bluff Street to provide a second access point for the OCWD.

**DELIVERABLES**

**Preliminary Submittal (90%)**

- Five (5) Sets of Half-Size Plans (PDF format)
- One (1) Set of Construction Specifications
- One (1) Set of Engineer's Estimate

**Final Submittal (100%)**

- One (1) Set of Original, Signed and Stamped Mylars
- Five (5) Sets of Full-Size Plans on Bond Paper
- Five (5) Sets of Half-Size Plans on Bond Paper
- One (1) Set of Construction Specifications – Hard Copy
- One (1) Set of Construction Specifications – Electronic Copy
- One (1) Set of Engineer's Estimate
- One (1) Set of Electronic Copy of Plans
- Two (2) Sets of Bridge Design and Independent Check Calculations
- One (1) Set of 4-Scale Bridge Deck Contour Plans
- One (1) Set of Roadway Cross-sections

County of Riverside  
River Road Bridge over the Santa Ana River  
Supplement 4B  
January, 2008

## Exhibit C

### Cost Proposal Worksheet

COMPANY: T.Y. Lin International	SCOPE OF WORK: Supplement No. 4B	DATE: 1/14/2008
PROJECT: River Road Bridge Replacement	MILESTONE/PHASE/PROJECT SUMMARY: Phases II Final PS&E	

#### DIRECT LABOR

PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT
Ashley	Project Manager	24.0	\$ 101.35	\$ 2,432
Rucker	Specifications Engineer	0.0	\$ 61.85	-
Golchoobian	Bridge Design Engineer	32.0	\$ 53.60	\$ 1,715
Sanchez	Bridge Checker	0.0	\$ 41.90	-
Makley	Bridge Design Engineer	0.0	\$ 39.45	-
Fukuhara	Bridge CAD Technician	0.0	\$ 39.90	-
Colcol	Bridge CAD Technician	0.0	\$ 30.20	-
-		0.0	\$ -	-
-		0.0	\$ -	-
-		0.0	\$ -	-
-		0.0	\$ -	-
-		0.0	\$ -	-
<b>TOTAL HOURS</b>		<b>56.0</b>	<b>TOTAL DIRECT LABOR \$ 4,148</b>	

#### MULTIPLIERS

ESCALATION	0.00% (of Total Direct Labor)	
OVERHEAD - Additional Services	133.00% (of Total Direct Labor + Escalation)	\$ 5,516.31
PAYROLL ADDITIVES - Add'l Services	30.00% (of Total Direct Labor + Escalation)	\$ 1,244.28
<b>TOTAL MULTIPLIERS</b>		<b>\$ 6,761</b>

#### OTHER DIRECT EXPENSES

ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
Travel	Miles	400	\$ 0.50	\$ 200.00
Reproduction	EACH	2	\$ 200.00	\$ 400.00
Shipping/Delivery	EACH	2	\$ 100.00	\$ 200.00
Communications	EACH	2	\$ 50.00	\$ 100.00
		0	\$ -	-
		0	\$ -	-
		0	\$ -	-
<b>TOTAL OTHER DIRECT EXPENSES</b>				<b>\$ 900</b>

#### OUTSIDE SERVICES

COMPANY	LABOR	MULTIPLIERS	FEE	EXPENSES	TOTAL
Willdan Associates	\$ 11,937	\$ 20,531	\$ 3,247	\$ 250	\$ 35,965
		\$ -	\$ -		\$ -
		\$ -	\$ -		\$ -
	\$ -	\$ -	\$ -		-
	\$ -	\$ -	\$ -		-
<b>TOTAL OUTSIDE SERVICES</b>					<b>\$ 35,964.67</b>

#### FEES

OUTSIDE SERVICES ADMIN FEE	0.00% (of Total Outside Services)	
FIXED FEE	10.00% (of Total Direct Labor + Total Multipliers)	
<b>TOTAL FEES</b>		<b>\$ 1,091</b>

**TOTAL COST \$ 48,864**



## Exhibit C

### Cost Proposal Worksheet

COMPANY: Willdan Associates	SCOPE OF WORK: Supplement No. 4B - Civil, Roadway Revisions	DATE: 1/14/2008
PROJECT: River Road Bridge Replacement	MILESTONE/PHASE/PROJECT SUMMARY: Phases II Final PS&E	

#### DIRECT LABOR

PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT
Leathers	Division Manager	54.0	\$ 56.82	\$ 3,068
Knell	Division Manager	0.0	\$ 56.82	-
Bacsikin	Division Manager	0.0	\$ 56.82	-
Hidalgo	Division Manager	0.0	\$ 56.82	-
Trong	Senior Engineer	25.0	\$ 51.80	\$ 1,295
Keresztes	Design Manager	0.0	\$ 43.45	-
Sanchez	Design Engineer II	76.0	\$ 38.44	\$ 2,921
Keriger	Design Engineer II	24.0	\$ 36.76	\$ 882
Fidelino	Design Engineer II	0.0	\$ 38.44	-
Reyes	Designer I	96.0	\$ 36.76	\$ 3,529
Acosta	Drafter	8.0	\$ 30.10	\$ 241
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL HOURS</b>		<b>283.0</b>	<b>TOTAL DIRECT LABOR \$ 11,937</b>	

#### MULTIPLIERS

ESCALATION	0.00% (of Total Direct Labor)	\$ -
OVERHEAD-Additional Services	172.00% (of Total Direct Labor + Escalation)	\$ 20,531
<b>TOTAL MULTIPLIERS</b>		<b>\$ 20,531</b>

#### OTHER DIRECT EXPENSES

ITEM	UNIT	QUANTITY	UNIT COST	AMOUNT
ODC	LS	1	\$ 250.00	\$ 250
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL OTHER DIRECT EXPENSES</b>				<b>\$ 250</b>

#### OUTSIDE SERVICES

COMPANY	LABOR	MULTIPLIERS	FEE	EXPENSES	TOTAL
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL OUTSIDE SERVICES</b>					<b>\$ -</b>

FIXED FEE- ADDITIONAL SERVICES	10.00% (of Total Outside Services)	\$ 3,247
<b>TOTAL FEES</b>		<b>\$ 3,247</b>

<b>TOTAL COST</b>		<b>\$ 35,965</b>
-------------------	--	------------------

**Manhour Worksheet**

SCOPE OF WORK:															
COMPANY: Willdan Associates															
PROJECT: River Road Bridge Replacement															
MILESTONE/PHASE/PROJECT SUMMARY: Supplement No. 4B - Civil, Roadway Revisions Due to Changes at Tract No. 31406 and Addition of OCWD Second Access															
DATE: 1/24/2008															
Task No.	DESCRIPTION	Personnel Billing Rate:	Leathers \$170	Knell \$170	Bacskin \$170	Hidalgo \$170	Trong \$155	P.Keresztes \$130	Sanchez \$115	Knieger \$110	Fidelino \$115	Reyes \$110	Acosta \$90	Total Hours	Amount
Phase II	Revise PS&E														
II.4.1.1	Revise DTM											8		8	\$ 880
II.4.1.2	Run New Earthwork Analysis	4							8			20		32	\$ 3,600
II.4.1.3	Revise Hydrology calculations	5					4			24			8	41	\$ 4,830
II.4.1.4	Revise Storm Drain System						4		20					24	\$ 2,920
II.4.1.5	Revise Plans:						1					4		5	\$ 585
	Typical Sections (1 Sheet)		4				4		4			8		20	\$ 2,640
	Plan Sheets (3 Sheets)		4				2		4			8		18	\$ 2,330
	Grading Plans (3 Sheets)						2		8			4		14	\$ 1,670
	Drainage Plans (1 Sheet)						2		8			4		14	\$ 1,670
	Drainage Profile (1 Sheet)						2		8			20		30	\$ 3,430
II.4.1.6	Revise Design Cross Sections						1		4			4		17	\$ 2,415
II.4.1.7	Revise CSWPPP						1		4			4		17	\$ 2,415
II.4.1.8	Revise Quantities and Cost Estimate													12	\$ 2,040
II.4.1.9	Utility and Right of Way Coordination													8	\$ 1,360
II.4.1.10	Coordination Meetings, total 2														\$ -
II.4.3.1	OCWD Access Driveway		1				2		8			12		23	\$ 2,720
<b>Subtotals:</b>															
<b>TOTALS</b>			54				25		76	24		96	8	283	35,715