

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



ITEM: 3.26
(ID # 18609)

MEETING DATE:
Tuesday, March 29, 2022

FROM : TLMA-TRANSPORTATION:

SUBJECT: TRANSPORTATION AND LAND MANAGEMENT AGENCY/TRANSPORTATION DEPARTMENT: Approval of Amendment No. 2 to the Engineering Services Agreement between the County of Riverside and HNTB Corporation for Grade Separation Improvements on Jurupa Road. District 2. [\$2,536,771 FY 21/22-25/26 Cost, \$9,760,596 Total Cost - State Funds 100%]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve Amendment No. 2 to the Engineering Services Agreement between the County of Riverside and HNTB Corporation for the Jurupa Road Grade Separation Project to increase the not to exceed amount by \$2,536,771 and to extend the project completion date to December 31, 2025;
2. Authorize the Chair of the Board of Supervisors to execute the amendment to the contract on behalf of the County; and
3. Authorize the Director of Transportation and Land Management Agency, or authorized designee, to approve time extensions as provided for in the Agreement.

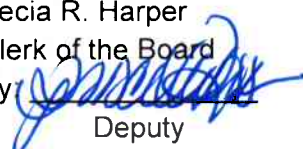
ACTION:Policy


Mark Lancaster, Director of Transportation 3/14/2022

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Washington, seconded by Supervisor Jeffries and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Spiegel, Washington, Perez and Hewitt
Nays: None
Absent: None
Date: March 29, 2022
xc: Trans.

Kecia R. Harper
Clerk of the Board
By 
Deputy

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

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 1,500,000	\$1,036,771	\$ 9,760,596	\$ 0
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0
SOURCE OF FUNDS: SB-132 Funds 100%. No General Funds will be used on this project.			Budget Adjustment: No	
			For Fiscal Year: 21/22 - 25/26	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

The County of Riverside Transportation Department, in cooperation with the City of Jurupa Valley (City), desires to construct a new grade separation to replace the existing Union Pacific Railroad (UPRR) at-grade crossing located on Jurupa Road in the City, east of Van Buren Boulevard. Jurupa Road is a two-lane arterial highway that provides access to commercial, industrial and residential land uses in the City.

This proposed project will grade separate Jurupa Road and the UPRR mainline tracks with an underpass where it crosses the tracks. This improvement will expand vehicular traffic circulation and safety. The project will also provide uninterrupted and efficient access to motorists, residents, businesses, pedestrians and emergency vehicles in the area. Additionally, the project will enhance the operational characteristics such as speed, efficiency, and reliability of freight and passenger trains throughout Riverside County by eliminating conflicts between railroad operations and vehicular traffic.

In April 2017, the Governor and State Legislators dedicated \$427 million to improve five major transportation projects in Riverside County. The Jurupa Road Grade Separation project was allocated \$108.4 million for the design and construction of a new roadway and structure to grade separate Jurupa Road from the UPRR tracks. Without this approved funding, the project would not have been built for many years. These funds are being distributed through the Riverside County Transportation Commission (RCTC).

On October 24, 2017 (Minute Order 3.14), the Board of Supervisors approved an agreement between the County, the City and RCTC that designated the County as the lead agency to implement the Project.

On March 13, 2018 (Minute Order 3.18), the Board of Supervisors approved an Agreement between the County and HNTB Corporation for engineering and environmental services (Agreement). The Agreement provides the terms and conditions, scope of work, schedule and budget for the performance of professional and technical services necessary to obtain

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

environmental clearance and prepare plans, specifications and estimates suitable for awarding a contract to construct the proposed grade separation.

The original scope and budget for the project was based on a roadway overpass of the UPRR corridor. However, during the project development phase, it was determined that an underpass would better meet the goals of the developing community and would minimize impacts to local businesses. As a result, the Jurupa Valley City Council approved the selection of a roadway underpass alternative. The underpass alternative required several additional features that affected the project design scope and budget.

On September 22, 2020 (Minute Order 3.16), the Board of Supervisors approved Amendment No.1 to the Agreement between the County and HNTB Corporation for engineering and environmental services to complete the additional services for the underpass alternative.

During the development of the plans for the underpass, UPRR has required that the County incorporates additional improvements to the UPRR facilities that were not scoped and budgeted in the original Agreement or in Amendment No.1. The additional improvements have resulted in additional submittals to UPRR for review that were not included with the original Agreement and Amendment No.1.

This Amendment No. 2 provides the additional scope of work and the funding to make the necessary revisions and incorporate the additional improvements requested by UPRR. This Amendment No. 2 will increase the funding as follows:

Original authorization	\$5,357,952
Authorized by Amendment No. 1	\$1,865,873
Authorized by Amendment No. 2	<u>\$2,536,771</u>
Total	\$9,760,596

Impact on Residents and Businesses

The Jurupa Road grade separation project will improve vehicular traffic circulation and safety and will provide uninterrupted and efficient access for motorists, residents, businesses, pedestrians and emergency vehicles in the area. Additionally, the project will enhance the operational characteristics such as speed, efficiency, and reliability of freight and passenger trains through Riverside County by eliminating conflicts between railroad operations and vehicular traffic.

SUPPLEMENTAL:

Additional Fiscal Information

On April 6, 2017, the California Senate approved Senate Bill Number 132 (hereinafter "SB-132") which added appropriation to the budget bill to provide \$427,172,000 for five major transportation projects. SB-132 includes provisions for providing funding in the amount of

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
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\$108.4 Million for the construction on the Jurupa Road Grade Separation project. SB-132 funds for the project will be distributed through the RCTC.

The City of Jurupa Valley will be 100% responsible for funding the portions of the project not covered by SB-132. No County funds will be used.

Contract History and Price Reasonableness

The Amendment No. 2 price was negotiated and is consistent with industry standards.

Attachments:

Amendment No. 2

Vicinity Map



Jason Farin, Principal Management Analyst 3/21/2022



Cynthia M. Gutzel, Chief Deputy County Counsel 3/16/2022

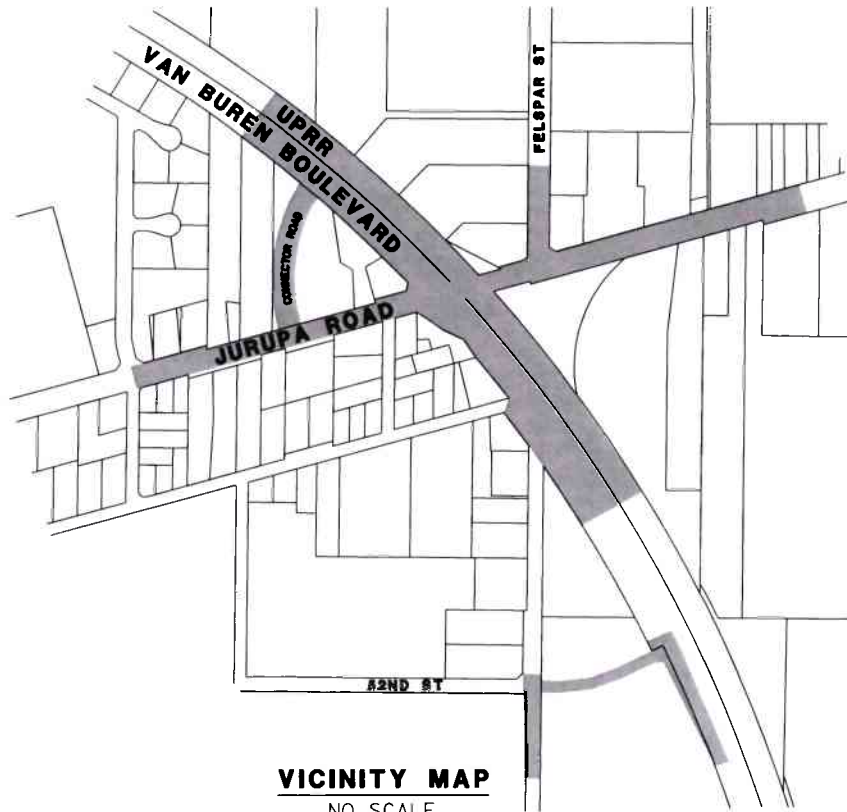
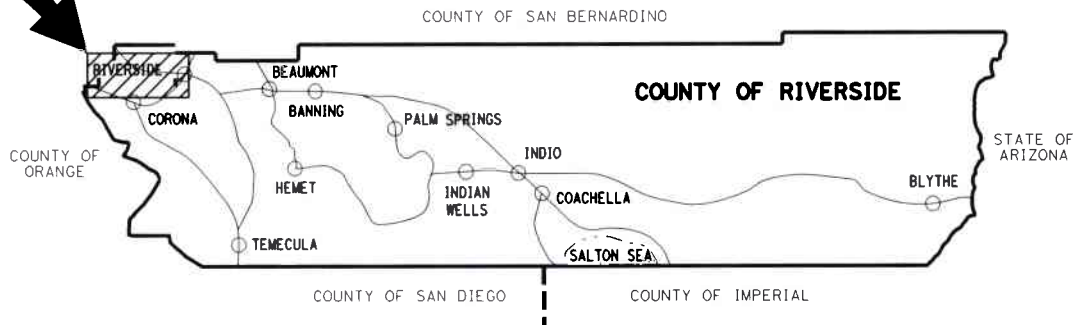
COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT

JURUPA ROAD

UPRR GRADE SEPARATION PROJECT

CITY OF JURUPA VALLEY

PROJECT
SITE



VICINITY MAP
NO SCALE

1 **AMENDMENT NO. 2**

2 **TO THE ENGINEERING SERVICES AGREEMENT**

3 **FOR JURUPA ROAD GRADE SEPARATION PROJECT**

4 **BETWEEN COUNTY OF RIVERSIDE • TRANSPORTATION DEPARTMENT AND HNTB CORPORATION**

5 THIS AMENDMENT NO. 2 TO THE ENGINEERING SERVICES AGREEMENT FOR JURUPA ROAD GRADE
6 SEPARATION PROJECT (hereinafter "Amendment No. 2") is made and entered into as of the 29TH day of
7 March, 2022, by and between the County of Riverside, a political subdivision of the State of
8 California, (hereinafter the "COUNTY") and HNTB Corporation, a Delaware corporation, (hereinafter
9 "ENGINEER").

10 **RECITALS**

- 11 A. COUNTY and ENGINEER have entered into an agreement entitled "Engineering Services Agreement for
12 Jurupa Road Grade Separation Project between County of Riverside • Transportation Department and
13 HNTB Corporation" that is dated March 13, 2018 (hereinafter "Agreement"). The Agreement provides the
14 terms and conditions, scope of work, schedule and budget for the performance of professional and
15 technical services necessary to obtain environmental clearance and prepare plans, specifications and
16 estimates suitable for awarding a contract to construct the proposed grade separation.
- 17 B. The original scope and budget for the project was based on a roadway overpass of the Union Pacific
18 Railroad (UPRR) corridor. However, during the project development phase, it was determined that an
19 underpass would better meet the goals of community development and would minimize impacts to the
20 local businesses. As a result, the Jurupa Valley City Council approved the selection of a roadway
21 underpass alternative. Amendment No. 1 to the Agreement (hereinafter "Amendment No. 1") was
22 executed on September 22, 2020, by the COUNTY and ENGINEER to add several engineering and
23 environmental tasks needed for the underpass alternative.
- 24 C. During the development of the plans for the underpass, UPRR has required that the COUNTY incorporate
25 additional improvements to the UPRR facilities that were not scoped and budgeted in the Agreement or in
26 Amendment No. 1.
- 27 D. The parties desire to once again amend the Agreement to modify the scope of services provided by the
28 ENGINEER and increase the contract budget.
- 29 E. This Amendment No. 2 provides additional funding to make the necessary revisions to complete

1 additional engineering tasks. This Amendment No. 2 will increase the funding as follows:

2	Original authorization	\$5,357,952
3	Authorized by Amendment No. 1	\$1,865,873
4	<u>Authorized by Amendment No. 2</u>	<u>\$2,536,771</u>
5	Revised Total Authorized	\$9,760,596

7 **AGREEMENT**

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

- 9 1. Appendix A is amended to include the additional services as described in the attached Scope of Services
- 10 entitled "AMENDMENT 2 • APPENDIX A2 • SCOPE OF SERVICES" attached hereto and incorporated herein.
- 11 2. The second sentence of Appendix B • Article BI • Introduction is amended to extend the project
- 12 completion date from December 31, 2023 to December 31, 2025, as follows: "All Covenants set forth in
- 13 this Agreement shall be completed by December 31, 2025, unless extended by supplemental
- 14 agreement."
- 15 3. Article VI • Compensation and Appendix C• Article CV • Cost Proposal are amended to increase the
- 16 contract not to exceed amount by \$2,536,711 for a total not to exceed amount of \$9,760,596 in
- 17 accordance with the attached Fee Proposal entitled "AMENDMENT 2 • APPENDIX C2 • JURUPA ROAD
- 18 GRADE SEPARATION AMENDMENT NO. 2 FEE PROPOSAL" attached hereto and incorporated herein.
- 19 4. Except to the extent specifically modified or amended hereunder, all of the terms, covenants and
- 20 conditions of the Agreement and Amendment No. 1 shall remain in full force and effect between the
- 21 parties hereto.

22 **IN WITNESS HEREOF**, the parties hereto have caused this Amendment No. 2 to the Agreement to be duly
23 executed this day and year first written above.
24
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ARTICLE VIII • APPROVALS

COUNTY Approvals

RECOMMENDED FOR APPROVAL:

Mark Lancaster Dated: 3-15-22

MARK LANCASTER
Director of Transportation

APPROVED AS TO FORM:

County Counsel

_____ Dated: _____

Danielle Maland
Deputy County Counsel

APPROVAL BY THE BOARD OF SUPERVISORS

Jeff Hewitt Dated: MAR 29 2022

JEFF HEWITT
PRINTED NAME
Chairman, Riverside County Board of Supervisors

ATTEST:

Kecia Harper Dated: MAR 29 2022

KECIA HARPER
Clerk of the Board (SEAL)

ENGINEER Approvals

ENGINEER:

Kevin A. Haboian Dated: 3/14/22

Kevin A. Haboian, P.E.
PRINTED NAME
Senior Vice President
TITLE

ENGINEER:

Gail Farber Dated: 3/14/22

Gail Farber, P.E.
PRINTED NAME
Vice President
TITLE


CERTIFICATE OF AUTHORITY

AND

POWER OF ATTORNEY

The undersigned, Vice President of HNTB Corporation, a Delaware corporation, (the "Corporation") hereby certifies that KEVIN A. HABOIAN has been authorized by the Board of Directors of the Corporation, commencing as of the date hereof, to enter into agreements and contracts for usual and customary architectural, engineering, planning, and management professional services, and to incur ordinary and necessary obligations in connection therewith, in the name of and on behalf of the Corporation, and the Corporation shall be bound thereby. The Corporation hereby ratifies and confirms any action taken by such individual pursuant to this certificate. Such authority shall expire as of May 31, 2022.

Date: May 11, 2021

DocuSigned by:

By: 5C05C82D6B8B474...
Thomas D. O'Grady

AMENDMENT 2 • APPENDIX A2 • SCOPE OF SERVICES

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APPENDIX A • ARTICLE AI • INTRODUCTION

A. PROJECT DESCRIPTION

No Change. See Agreement and Amendment No. 1.

B. LOCATION

No Change. See Agreement.

C. COORDINATION

No Change. See Agreement.

D. PHASES

No Change. See Agreement.

E. STANDARDS

No Change. See Agreement.

F. KEY PERSONNEL

No Change. See Agreement.

ARTICLE AII • PROJECT ADMINISTRATION

A. PROJECT MANAGEMENT PLAN

ENGINEER will implement and monitor the Project Management Plan (PMP) for an additional 13 months, due to the additional reviews and submittals required by UPRR.

B. QUALITY CONTROL PLAN

ENGINEER will implement and monitor the Quality Control Plan for an additional 13 months, due to the additional reviews and submittals required by UPRR.

C. BUDGETING

ENGINEER will implement and monitor the Budgeting for an additional 13 months, due to the additional reviews and submittals required by UPRR.

D. COST ACCOUNTING

ENGINEER will implement and monitor the Cost Accounting for an additional 13 months, due to the additional reviews and submittals required by UPRR.

E. SCHEDULING

ENGINEER will monitor and update the schedule for the project for an additional 13 months, due to the additional reviews and submittals required by UPRR.

1 **F. CONTRACT ADMINISTRATION AND MEETINGS**

2 1. Project Management and Administration

3 Additional 13 months of project management is required by the ENGINEER for the continuing design
4 efforts related to gaining approval of UPRR's track and structure plans.

5 2. Project Meetings

6 ENGINEER will attend up to 13 additional monthly PDT meetings for resolution of issues and to
7 apprise the participating agencies of the progress of the PROJECT. The ENGINEER shall attend up
8 to 20 additional meetings for agency coordination and project coordination.

9 If additional meetings are needed due to the quality and inaccuracy of the ENGINEER's submittals,
10 then the additional meetings shall be scheduled and conducted by the ENGINEER. Any costs incurred
11 by the ENGINEER for these meetings shall be at the expense of the ENGINEER.

12

13 **G. CONTRACT DELIVERABLES**

14 ENGINEER will manage additional UPRR submittals.

15 **H. OUTREACH**

16 No Change. See Agreement.

17 **I. UNION PACIFIC PAYMENTS**

18 No Change. See Amendment No. 1

19

ARTICLE AIII • PLANNING AND PROJECT DEVELOPMENT

20 **A. RESEARCH AND DATA GATHERING**

21 No Change. See Agreement.

22 **B. PERMITS**

23 No Change. See Agreement.

24 **C. DESIGN SURVEYS**

25 No Change. See Agreement.

26 **D. PRELIMINARY GEOTECHNICAL INVESTIGATIONS**

27 1. Preliminary Foundation Report

28 No Change. See Agreement.

29 2. Phase 1 Environmental Site Assessment

- 1 No Change. See Agreement.
- 2 3. Aerially Deposited Lead (ADL) Survey
- 3 No change. See Agreement.
- 4 4. Phase II Environmental Site Assessment
- 5 No change. Amendment No. 1.
- 6 Task 1 – Commercial Structure Investigation / Former Agricultural Use
- 7 No Change. See Amendment No. 1.
- 8 Task 2 – Soil Disposal Profiling
- 9 No change. See Amendment No. 1.
- 10 Task 3 – Lead and Asbestos Survey
- 11 No Change. See Amendment No. 1.
- 12 5. Bly Channel Geotechnical Investigation
- 13 Task 1 – Field Preparation and Permit
- 14 No Change. See Amendment No. 1.
- 15 Task 2 – Field Exploration Program
- 16 No Change. See Amendment No. 1.
- 17 Task 3 – Laboratory Testing
- 18 No Change. See Amendment No. 1.
- 19 Task 4 – Geotechnical Analyses and Project Management
- 20 No Change. See Amendment No. 1.
- 21 Task 5 –Report Preparation/Deliverables
- 22 No Change. See Amendment No. 1.

E. PLANNING STUDIES

- 24 No Change. See Agreement and Amendment No. 1

F. VISUAL AIDS

- 26 No change. See Agreement.

G. ENVIRONMENTAL DETERMINATION AND ENVIRONMENTAL ISSUES

- 28 This Amendment No. 2 contains two additional tasks (I and II) as noted below:

- 29 I. Process extension of the 404 and 401 permits
Engineering Services Agreement • Scope of Services • Amendment No. 2

1 The USACE Section 404 Permit and the Santa Ana RWQCB Section 401 Water Quality
2 Certification are set to expire on March 18, 2022. From that date, there is an extension noted
3 in the 404 permit for one year and the 401 permit mirrors the 404 permit. The overall project
4 activities are expected to progress past March of 2023. ENGINEER will coordinate with the
5 agency to confirm the one-year extension while working to reauthorize the USACE Section 404
6 Permit and the Santa Ana RWQCB Section 401 Water Quality Certification+

7 II. Update PD/Limits in the Southern area of the current limits to accommodate UPRR's preferred signal
8 pad location.

9 a. This is an optional task which will only be utilized upon authorization. There is a possibility that
10 UPRR requires the signal pad location on the Southern end to extend past the impact limits
11 outside of the current areas identified for temporary and permanent impacts and associated
12 required project mitigation.

13 b. Engineer will re-define the potential project impact (temporary and permanent) limits based on
14 additional design and in coordination with the COUNTY.

15 c. Update the Biological Technical report as needed.

16 d. Review and update the delineation and delineation report to address potential areas of impact.

17 e. Update Field Survey for localized area of potential new impacts to include:

18 i. Riparian Species Surveys

19 ii. Narrow Endemic Plant Surveys

20 iii. Burrowing Owl Surveys

21 f. Identification of potential streambeds, wetlands and WOTUS, formal wetlands delineation may
22 be necessary for permitting.

23 g. Cultural review will expand on the original study and the original report will be amended to include
24 the additional impacted area.

25 h. Determine recommended mitigation measures by working with the County and State agencies.

26 i. Work with the County, State and regulatory agencies to update Permits and Determination of
27 Biologically Equivalent or Superior Preservation (DBESP).

28 **1. Water Quality and Erosion**

29 No change. See Agreement

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2. Floodplain

No Change. See Agreement.

3. Noise Study Report (NSR)

No Change. See Agreement.

4. Cultural Resources Report

See Section II above.

5. Community Impact Assessment Memorandum

No Change.

6. Preparation and Processing of Regulatory Permits

See Section II above.

7. Preparation and Processing of MSHCP Consistency Determination and DBESP

See Section II above.

H. PRELIMINARY ENGINEERING REPORT

No Change. See Agreement.

I. GEOMETRIC APPROVAL DRAWINGS

No Change. See Agreement.

J. DESIGN DRAINAGE REPORT

UPRR is requiring a separate drainage study report specific to their facility's improvements. ENGINEER will complete this drainage study report.

K. GEOTECHNICAL DESIGN REPORT

No Change. See Agreement.

L. RIGHT-OF-WAY MAPS

Additional reviews and updates will be required to the Right of Way maps based on current alignment revisions and configuration changes requested from UPRR.

M. AGREEMENTS

No Change. See Agreement.

N. UTILITY COORDINATION

ENGINEER will provide additional utility coordination services for an extended period to address any potential utility issues that might arise with UPRR's plans, schedule and comments. This includes UPRR's Engineering Services Agreement • Scope of Services • Amendment No. 2

1 requirement to relocate all utilities within 150' of their structure.

2 **O. MISCELLANEOUS DESIGN SUPPORT**

3 1. Design Exceptions

4 ENGINEER will prepare the Design Exceptions required by the UPRR for the following nonstandard
5 UPRR designed facilities:

- 6 • Locating a turnout in a vertical curve. This is an existing condition that will be maintained. UPRR
7 requires a design exception to be submitted to remove and replace the existing turnout with a
8 new turnout, of the same size, in the same location.
- 9 • Overlapping vertical and horizontal curves. Per survey data, this is an existing condition that will
10 be maintained in the shoofly and permanent final condition.

11 2. Traffic Management Plan

12 No Change. See Agreement.

13 3. Track Design

14 ENGINEER will review and update track design based on UPRR comments and changes.
15 ENGINEER will review current railroad design standards against the more complex design and
16 technical requirements which may not be addressed in the railroad design standards. ENGINEER will
17 develop a revised design approach for modified alignment. ENGINEER will respond to additional
18 UPRR comments and resubmit proposed resolutions.

19 **Task 1: Project Meetings**

20 The ENGINEER shall participate in the COUNTY's coordination with UPRR for up to six additional
21 design submittal review meetings. The ENGINEER will participate in weekly bi-design progress
22 meetings (a total of 22 meetings). All meetings will be conference calls with screen share software or
23 in person as permitted by jurisdictional authorities and COUNTY policies. It is assumed that 3
24 representatives from the ENGINEER's track and track drainage design team will be present. These
25 meetings will be 2 hours in length.

26 Any additional submittal meetings conducted by the ENGINEER due to the quality and inaccuracy of
27 the submittals will be at the expense of the ENGINEER.

28 **Task 2: UPRR Design**

29 ENGINEER will prepare and submit additional UPRR submittal packages to address changes and
Engineering Services Agreement • Scope of Services • Amendment No. 2

1 comments. Update trackwork horizontal alignments and vertical profiles (6 shoofly and 6 permanent,
2 12 total), special trackwork, track construction phasing, quantity takeoffs, drainage facilities, utilities,
3 structures, cut/fill lines, typical sections and grading cross sections (50' intervals), right of way, and
4 property lines within the project area, so that engineering decisions can be made with knowledge of
5 potential impacts and their cost. Update final construction documents for trackwork and track
6 drainage to incorporate UPRR comments and update procurement documents.

7 The assumed sheet count is as follows:

8 General: 5 Sheets

9 Quantity Takeoffs: 1 Sheet

10 Construction Phasing: 6 Sheets

11 Plan and Profile: 37 Sheets

12 Typical Cross Sections: 3 Sheets

13 Track/Structures Details: 3 Sheets

14 Drainage Details: 3 Sheets

15 Total Count: 64 Sheets (excluding cross sections)

16 These additional plan sheets are in excess of what was documented in Amendment No. 1 and include
17 sheets that were excluded from the plan set in that amendment.

18 Update construction phasing plans showing a basic schematic of the track for each phase.
19 Incorporate additional design detail to represent detailed items such as rail/structures interface,
20 drainage culvert extensions, culvert headwall extensions, and temporary shoring. The UPRR
21 requested that the shoofly track be broken into phases, this could not have been anticipated and the
22 UPRR makes these determinations on a case by case basis. This phasing change then impacts the
23 profiles, construction notes and cross sections.

24 ENGINEER will prepare technical specifications for trackwork. ENGINEER will coordinate with
25 UPRR after approval of the 25% plans to determine new track materials to be installed for the project.
26 Review and update design deviations specifically required by project constraints and submit for UPRR
27 approval.

28 The ENGINEER assumes that UPRR will complete all the train signal design required for the project.

29 The ENGINEER will coordinate the track design with UPRR for train signal improvements.

1 The ENGINEER assumes the design ENGINEER, Kimley Horn, will complete the design for the
2 Pedley at-grade crossing and all coordination required for UPRR approval. The ENGINEER will
3 coordinate with Kimley Horn to ensure the elements of the UPRR approved grade crossing design
4 are included in the ENGINEER's trackwork specifications.

5
6 The ENGINEER assumes the following is required for each milestone submittal:

7 10% Submittal: 4 UPRR Reviews

8 25% Submittal: 3 UPRR Reviews (note: one took place after approval of 25% plans)

9 30% Submittal: Anticipate 1 UPRR Review

10 90% Submittal: Anticipate 1 UPRR Review

11 100% Submittal: Anticipate 1 UPRR Review

12 The ENGINEER will develop additional responses to UPRR railroad track design comments for the
13 30%, 90%, and 100% submittals.

14 If the COUNTY deems portions of a submittal do not follow applicable standards, ENGINEER will correct
15 the deficiencies in the submittal at their own expense.

16 4. Pump Station Design

17 No Change

18 **ARTICLE AIV • STRUCTURES**

19 **A. STRUCTURE TYPE SELECTION AND BRIDGE GENERAL PLANS**

20 No Change. See Agreement and Amendment No. 1.

21 **B. GEOTECHNICAL COORDINATION AND FOUNDATION REPORT**

22 Two additional borings were required by UPRR for approval of the structure. These borings were outside
23 of the borings noted in both the original scope and the Amendment No. 1 scope.

24 **C. STRUCTURAL DESIGN AND CALCULATIONS**

25 ENGINEER will review and update structural design calculations in conformance with AREMA 2018 design
26 specifications and procedures for the railroad bridge. UPRR comments at 60% exceeded the scope of the
27 review intent at that stage of plan review leading to extra response efforts. ENGINEER will update structure
28 plans and calculations to incorporate UPRR's extensive comments received as part of the 60% plan
29 preparation.

1 **D. INDEPENDENT CHECK REVIEW AND QUALITY CONTROL**

2 ENGINEER will conduct an Independent Quality Control Check for the railroad bridge based on the revised
3 design due to comments from UPRR.

4 **E. STRUCTURE SPECIFICATIONS & ESTIMATES**

5 ENGINEER will update structural special provisions and quantity calculations for the Bly Channel box
6 structure and the UPRR bridge, as well as the associated retaining walls supporting the Jurupa Road
7 underpass and any culvert crossings.

8 **F. INITIAL STRUCTURE PS&E (65% UNCHECKED PLANS)**

9 UPRR comments at 60% plans submittal exceeded the scope of the review intent at that stage of plan
10 review leading to extra response efforts. ENGINEER will update structure plans to a final level of detail
11 instead of a 60% plan level of detail.

12 **G. INTERMEDIATE STRUCTURE PS&E (90% CHECKED PLANS)**

13 ENGINEER will provide additional plan sheets that are needed to properly address UPRR's comments on
14 the plans.

15 **H. DRAFT FINAL STRUCTURE PS&E (95%)**

16 No Change. See Agreement and Amendment No. 1

17 **I. FINAL STRUCTURE PS&E**

18 No Change. See Agreement and Amendment No. 1.

19 **J. UNION PACIFIC RAILROAD STRUCTURE PLAN SUBMITTAL AND APPROVAL PROCESS**

20 ENGINEER will respond to additional clarifications and comments provided by UPRR. ENGINEER will
21 update submittals accordingly. Amendment No. 1 noted one submittal per milestone.

22 The ENGINEER assumes the following additional submittals are required for each milestone
23 submittal:

24 30% Submittal: 1 UPRR Review

25 60% Submittal: 4 UPRR Reviews

26 Final Plans (100%) Submittal: Assume 2 UPRR Review.

27 The ENGINEER will develop additional responses to UPRR structure design comments for the 60%
28 and 100% submittals as needed.

29 If the COUNTY deems portions of a submittal do not follow applicable standards, ENGINEER will
Engineering Services Agreement • Scope of Services • Amendment No. 2

1 correct the deficiencies in the submittal at their own expense.

2
3 **K. BOX CULVERT EXTENSION**

4 ENGINEER will respond to additional clarifications and comments provided by UPRR. Update submittals
5 accordingly.

6 The ENGINEER assumes the following is required for each milestone submittal:

7 Concept (10%) Submittal: 2 UPRR Reviews

8 30% Submittal: 2 UPRR Reviews

9 60% Submittal: 2 UPRR Reviews

10 Final Plans (100%) Submittal: Assume 1 UPRR Review

11 The ENGINEER will develop additional responses to UPRR structure design comments for the 60%
12 and 100% submittals as needed.

13 Culvert extension near MP 48.56 is anticipated to have the following submittals

14 Concept (10%) Submittal: 2 UPRR Reviews

15 30% Submittal: Assume 3 UPRR Reviews

16 60% Submittal: Assume 2 UPRR Reviews

17 Final Plans (100%) Submittal: Assume 1 UPRR Review

18 If the COUNTY deems portions of a submittal do not follow applicable standards, ENGINEER will correct
19 the deficiencies in the submittal at their own expense.

20 **ARTICLE AV • ROADWAY**

21 **A. BASIC ROADWAY PLANS**

22 No Change. See Agreement. Future roadway changes are not covered in this Amendment No. 2.

23 **B. CALCULATIONS**

24 No Change. See Agreement. Future changes are not covered in this Amendment No. 2.

25 Calculation changes due to the accuracy and quality of the PS&E package will be at the expense of the
26 ENGINEER.

27 **C. DRAINAGE PLANS**

28 1. Storm Drain Plans

29 ENGINEER will provide additional design and coordination with Riverside County Flood Control
Engineering Services Agreement • Scope of Services • Amendment No. 2

1 (RCFC) & Water Conservation District (WCD) resulting from design revisions and UPRR comments.

2 2. Bly Channel Culvert Extension

3 ENGINEER will provide additional design and coordination with RCFC & WCD resulting from design
4 revisions and UPRR comments including an additional submittal, review, and comment resolution.

5 **D. TRAFFIC AND ELECTRICAL PLANS**

6 No Change. See Agreement and Amendment No. 1.

7 **E. MISCELLANEOUS PLANS**

8 1. Utility Composite Plans

9 No Change. See Agreement and Amendment No. 1.

10 2. Right-of-Way Requirements

11 ENGINEER will update the Right-of-way Requirements Map.

12 3. Track Plans

13 No Change. See Agreement and Amendment No. 1.

14 4. Retaining Wall Plans

15 No Change. See Agreement and Amendment No. 1.

16 5. Pump Station Plans

17 No Change. See Agreement and Amendment No. 1.

18 6. Parking Lot

19 No Change. See Agreement and Amendment No. 1

20 **F. INTERMEDIATE REVIEWS**

21 No Change. See Agreement and Amendment No. 1.

22 **G. SPECIFICATIONS AND ESTIMATE**

23 Review and update railroad specifications to accommodate UPRR Requirements. No changes to the
24 roadway specifications are covered in this Amendment No. 2.

25 **H. QUALITY CONTROL**

26 Implement quality control reviews on additional design submittals consistent with the project quality
27 management plan.

28 **I. DRAFT PS&E (95% COMPLETE)**

29 Incorporate additional design revisions and comments into the draft PS&E documents.
Engineering Services Agreement • Scope of Services • Amendment No. 2

1 **J. FINAL PS&E (100% COMPLETE)**

2 Incorporate additional design revisions and comments into the final PS&E documents.

3 **K. CONSTRUCTABILITY REVIEW**

4 No Change. See Agreement and Amendment No. 1.

5 **L. SCHEDULE OF SERVICES**

6 UPRR Track Submittals

7 April 2020 – 10% UPRR Track Submittal

8 June 2020 – 10% UPRR Track Resubmittal

9 August 2020 – 10% UPRR Track Resubmittal

10 October 2020 – 10% UPRR Track Resubmittal

11 December 2020 - 25% UPRR Track Submittal

12 March 2021 - 25% UPRR Track Resubmittal

13 July 2021 - 25% UPRR Track Resubmittal

14 September 2021 – 25% UPRR Track Resubmittal (after approval of 25% plans)

15 December 2021 - 30% UPRR Track Submittal

16 March 2022 - 90% UPRR Track Submittal

17 May 2022 (Assumed) - 100% UPRR Track Submittal

18
19 **ARTICLE AVI • CONSTRUCTION BIDDING PHASE**

20 During the bidding cycle, the ENGINEER helped answer over 400 RFIs and supported 8 addendums. In
21 addition, UPRR's review of the structure included several preferential comments, in order to bid the most
22 accurate set possible, we were not only responding to comments but updating plans to include in the
23 addendum at the same time.

24 **ARTICLE AVII • CONSTRUCTION SUPPORT PHASE**

25 Additional funding for Design Services During Construction support is being added to the current level of
26 support from the ENGINEER. All provision included in Article AVII of the original Engineering Services
27 Agreement apply to this additional work. In addition, Design Services During Construction for Environmental
28 is added to the existing scope for Phase IV of the work according to the terms set forth in Article AVII in the
29 original Engineering Services Agreement. The Environmental Services work will consist mainly of site visits
Engineering Services Agreement • Scope of Services • Amendment No. 2

1 and RFI responses during construction.

2 **ARTICLE AVIII • COMPUTER FACILITIES**

3 **A. CALCULATIONS**

4 No Change. See Agreement.

5 **B. COMPUTER AIDED DRAFTING AND DESIGN (CADD)**

6 No Change. See Agreement.

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8 **ARTICLE AIX • VALUE ENGINEERING**

9 No Change. See Agreement.

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**AMENDMENT 2 • APPENDIX C2
JURUPA ROAD GRADE SEPARATION
AMENDMENT NO. 2
FEE PROPOSAL**

Jurupa Road Grade Separation Amendment No. 2 Fee Proposal

March 14, 2022

COMPANIES	PHASE I	PHASE II	PHASE III	PHASE IV	Phase All Contingency	TOTAL
Original Budget + Amendment 1	\$ 2,533,051.28	\$ 4,125,268.98	\$ 38,100.08	\$ 327,404.26	\$ 200,000.00	\$ 7,223,824.60
AMENDMENT (No. 2)	\$ 412,891.01	\$ 1,366,178.74	\$ 149,227.08	\$ 608,474.38		\$ 2,536,771.21
HNTB Prime	\$ 282,680.01	\$ 1,366,178.74	\$ 149,227.08	\$ 598,474.38		\$ 2,396,560.21
Advanced Civil Technologies (ACT) Third Party Coord/Construction Staging						
Arellano Associates Public Outreach						
Leighton Consulting Geotechnical & Haz Mat Phase I						
LIN Consulting Traffic Engineering						
Safeprobe Potholing						
Tatsumi and Partners, Inc. Landscape Architecture						
Towill Right-of-Way Requirements Map						
Vandermost Consulting Services (VCS) Environmental Services	\$ 130,211.00			\$ 10,000.00		\$ 140,211.00
GRAND TOTAL	\$ 2,945,942.29	\$ 5,491,447.72	\$ 187,327.16	\$ 935,878.64	\$ 200,000.00	\$ 9,760,595.81

- Phase I Preliminary Engineering & Environmental
- Phase II Plans, Specs & Estimates
- Phase III Bid Support
- Phase IV Construction Support

Jurupa Road Grade Separation Amendment No. 2 Fee Proposal Summary

March 14, 2022

COMPANIES	PHASE I	PHASE II	PHASE III	PHASE IV	TOTAL
HNTB Prime	\$ 282,680.01	\$ 1,366,178.74	\$ 149,227.08	\$ 598,474.38	\$ 2,396,560.21
Advanced Civil Technologies (ACT) Third Party Coord/Construction Staging					
Arellano Associates Public Outreach					
Leighton Consulting Geotechnical & Haz Mat Phase I					
LIN Consulting Traffic Engineering					
Safeprobe Potholing					
Tatsumi and Partners, Inc. Landscape Architecture					
Towill Right-of-Way Requirements Map					
Vandermost Consulting Services (VCS) Environmental Services	\$ 130,211.00			\$ 10,000.00	\$ 140,211.00
TOTAL	\$ 412,891.01	\$ 1,366,178.74	\$ 149,227.08	\$ 608,474.38	\$ 2,536,771.21

- Phase I Preliminary Engineering & Environmental
- Phase II Plans, Specs & Estimates
- Phase III Bid Support
- Phase IV Construction Support

FEE PROPOSAL WORKSHEET

COMPANY: HNTB	SCOPE OF WORK: Project Summary	PHASE: All Phases
PROJECT: Jurupa Road Grade Separation		DATE: March 14, 2022

DIRECT LABOR

PERSONNEL	POSITION	HOURS	RATE	AMOUNT	
Adam Dayhoff	Project Manager	320	@ \$120.00	\$38,400.00	
Shannon Willits	DPM/Lead Civil	1,710	@ \$82.96	\$141,861.60	
Kelly Lumen	Quality Manager	299	@ \$67.52	\$20,188.48	
Steve Greene	Lead Traffic	75	@ \$100.00	\$7,500.00	
	Technical Manager	1,239	@ \$100.00	\$123,900.00	
	Technical Lead	2,309	@ \$76.31	\$176,199.79	
	Sr. Project Engineer	1,896	@ \$67.15	\$127,316.40	
	Project Engineer/Planner	324	@ \$54.36	\$17,612.64	
	Engineer/Planner III	1,042	@ \$41.60	\$43,347.20	
	Engineer II	3,574	@ \$36.52	\$130,522.48	
	Engineer I	465	@ \$33.72	\$15,679.80	
	CADD-Civil	705	@ \$44.48	\$31,358.40	
	Project Analyst	218	@ \$44.46	\$9,692.28	
	Administrative Assistant	16	@ \$29.07	\$465.12	
Nien Wang	Lead Structures		\$100.00		
	Structures Sr. Project Engineer		\$68.88		
	Structures Project Engineer		\$59.44		
	Structures Engineer III		\$47.87		
	Structures Engineer II		\$46.72		
	CADD-Structures		\$58.72		
		TOTAL HOURS	14,192	TOTAL DIRECT LABOR	\$884,044.19

MULTIPLIERS

ESCALATION @	(Rates Vary by Phase)		
OVERHEAD @	97.96% (of Direct Labor + Escalation)	\$866,009.69	
PAYROLL ADDITIVES @	48.27% (of Direct Labor + Escalation)	\$426,728.13	
PROFIT (FIXED FEE) @	10.0% (of Direct Labor + Escalation + Overhead + Payroll Additives)	\$217,678.20	
		TOTAL MULTIPLIERS	\$1,510,416.02

OTHER DIRECT COSTS

... Billed at Actual Cost ...

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT	
Travel/Mileage		MI			
Traffic Counts		LS			
Printing, Plotting & Copies		LS			
Exhibits, Plotting & Mounting	1	LS @	\$2,100.00	\$2,100.00	
				TOTAL ODC'S	\$2,100.00

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC'S	TOTAL	
Advanced Civil Technologies (ACT)					
Arellano Associates					
Leighton Consulting					
LIN Consulting					
Safeprobe					
Tatsumi and Partners, Inc.					
Towill					
Vandermost Consulting Services (VCS)	\$140,211.00			\$140,211.00	
				TOTAL SUBCONSULTANT SERVICES	\$140,211.00
				TOTAL	\$2,536,771.21

FEE PROPOSAL WORKSHEET

COMPANY HNTB	SCOPE OF WORK Preliminary Engineering & Environmental	PHASE Phase I
PROJECT Jurupa Road Grade Separation		DATE March 14, 2022

DIRECT LABOR

PERSONNEL	POSITION	HOURS		RATE	AMOUNT	
Adam Dayhoff	Project Manager	106	@	\$120.00	\$12,720.00	
Shannon Willits	DPM/Lead Civil	457	@	\$82.96	\$37,912.72	
Kelly Lumen	Quality Manager	34	@	\$67.52	\$2,295.68	
Steve Greene	Lead Traffic			\$100.00		
	Technical Manager	75	@	\$100.00	\$7,500.00	
	Technical Lead	310	@	\$76.31	\$23,656.10	
	Sr. Project Engineer	40	@	\$67.15	\$2,686.00	
	Project Engineer/Planner	80	@	\$54.36	\$4,348.80	
	Engineer/Planner III			\$41.60		
	Engineer II	60	@	\$36.52	\$2,191.20	
	Engineer I	80	@	\$33.72	\$2,697.60	
	CADD-Civil			\$44.48		
	Project Analyst	188	@	\$44.46	\$8,358.48	
	Administrative Assistant			\$29.07		
Nien Wang	Lead Structures			\$100.00		
	Structures Sr. Project Engineer			\$68.88		
	Structures Project Engineer			\$59.44		
	Structures Engineer III			\$47.87		
	Structures Engineer II			\$46.72		
	CADD-Structures			\$58.72		
		TOTAL HOURS		1,430	TOTAL DIRECT LABOR	\$104,366.58

MULTIPLIERS

ESCALATION @		(of Direct Labor)		
OVERHEAD @	97.96%	(of Direct Labor + Escalation)	\$102,237.50	
PAYROLL ADDITIVES @	48.27%	(of Direct Labor + Escalation)	\$50,377.75	
PROFIT (FIXED FEE) @	10.0%	(of Direct Labor + Escalation + Overhead + Payroll Additives)	\$25,698.18	
			TOTAL MULTIPLIERS	\$178,313.43

OTHER DIRECT COSTS

*** Billed at Actual Cost ***

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Travel/Mileage		MI		
Traffic Counts		LS		
Printing, Plotting & Copies		LS		
Exhibits, Plotting & Mounting		LS		
Travel/Mileage (LS		
				TOTAL ODC'S

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC'S	TOTAL
Advanced Civil Technologies (ACT)				
Arellano Associates				
Leighton Consulting				
LIN Consulting				
Safeprobe				
Tatsumi and Partners, Inc.				
Towill				
Vandermost Consulting Services (VCS)	\$130,211.00			\$130,211.00
TOTAL SUBCONSULTANT SERVICES				\$130,211.00
TOTAL				\$412,891.01

FEE PROPOSAL WORKSHEET

COMPANY HNTB	SCOPE OF WORK Plans, Specs & Estimates	PHASE Phase II
PROJECT Jurupa Road Grade Separation		DATE March 14, 2022

DIRECT LABOR

PERSONNEL	POSITION	HOURS		RATE	AMOUNT	
Adam Dayhoff	Project Manager	140	@	\$120.00	\$16,800.00	
Shannon Willits	DPM/Lead Civil	283	@	\$82.96	\$23,477.68	
Kelly Lumen	Quality Manager	120	@	\$67.52	\$8,102.40	
Steve Greene	Lead Traffic			\$100.00		
	Technical Manager	532	@	\$100.00	\$53,200.00	
	Technical Lead	1,644	@	\$76.31	\$125,453.64	
	Sr. Project Engineer	1,596	@	\$67.15	\$107,171.40	
	Project Engineer/Planner	124	@	\$54.36	\$6,740.64	
	Engineer/Planner III	642	@	\$41.60	\$26,707.20	
	Engineer II	2,794	@	\$36.52	\$102,036.88	
	Engineer I	385	@	\$33.72	\$12,982.20	
	CADD-Civil	478	@	\$44.48	\$21,261.44	
	Project Analyst			\$44.46		
	Administrative Assistant	16	@	\$29.07	\$465.12	
Nien Wang	Lead Structures			\$100.00		
	Structures Sr. Project Engineer			\$68.88		
	Structures Project Engineer			\$59.44		
	Structures Engineer III			\$47.87		
	Structures Engineer II			\$46.72		
	CADD-Structures			\$58.72		
		TOTAL HOURS		8,754	TOTAL DIRECT LABOR	\$504,398.60

MULTIPLIERS

ESCALATION @		(of Direct Labor)		
OVERHEAD @	97.96%	(of Direct Labor + Escalation)	\$494,108.87	
PAYROLL ADDITIVES @	48.27%	(of Direct Labor + Escalation)	\$243,473.20	
PROFIT (FIXED FEE) @	10.0%	(of Direct Labor + Escalation + Overhead + Payroll Additives)	\$124,198.07	
			TOTAL MULTIPLIERS	\$861,780.14

OTHER DIRECT COSTS

*** Billed at Actual Cost ***

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Travel/Mileage		MI		
Traffic Counts		LS		
Printing, Plotting & Copies		LS		
Exhibits, Plotting & Mounting		LS		
				TOTAL ODC'S

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC's	TOTAL
Advanced Civil Technologies (ACT)				
Arellano Associates				
Leighton Consulting				
LIN Consulting				
Safeprobe				
Tatsumi and Partners, Inc.				
Towill				
Vandermost Consulting Services (VCS)				
				TOTAL SUBCONSULTANT SERVICES

TOTAL **\$1,366,178.74**

FEE PROPOSAL WORKSHEET

COMPANY HNTB	SCOPE OF WORK Bid Support	PHASE Phase III
PROJECT Jurupa Road Grade Separation		DATE March 14, 2022

DIRECT LABOR

PERSONNEL	POSITION	HOURS	RATE	AMOUNT
Adam Dayhoff	Project Manager	32	@ \$120.00	\$3,840.00
Shannon Willits	DPM/Lead Civil	100	@ \$82.96	\$8,296.00
Kelly Lumen	Quality Manager	20	@ \$67.52	\$1,350.40
Steve Greene	Lead Traffic		\$100.00	
	Technical Manager	140	@ \$100.00	\$14,000.00
	Technical Lead	170	@ \$76.31	\$12,972.70
	Sr. Project Engineer		\$67.15	
	Project Engineer/Planner	40	@ \$54.36	\$2,174.40
	Engineer/Planner III		\$41.60	
	Engineer II	320	@ \$36.52	\$11,686.40
	Engineer I		\$33.72	
	CADD-Civil		\$44.48	
	Project Analyst		\$44.46	
	Administrative Assistant		\$29.07	
Nien Wang	Lead Structures		\$100.00	
	Structures Sr. Project Engineer		\$68.88	
	Structures Project Engineer		\$59.44	
	Structures Engineer III		\$47.87	
	Structures Engineer II		\$46.72	
	CADD-Structures		\$58.72	

TOTAL HOURS **822** TOTAL DIRECT LABOR **\$54,319.90**

MULTIPLIERS

ESCALATION @		(of Direct Labor)	
OVERHEAD @	97.96%	(of Direct Labor + Escalation)	\$53,211.77
PAYROLL ADDITIVES @	48.27%	(of Direct Labor + Escalation)	\$26,220.22
PROFIT (FIXED FEE) @	10.0%	(of Direct Labor + Escalation + Overhead + Payroll Additives)	\$13,375.19
		TOTAL MULTIPLIERS	\$92,807.18

OTHER DIRECT COSTS

*** Billed at Actual Cost ***

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Travel/Mileage		MI		
Traffic Counts		LS		
Printing, Plotting & Copies		LS		
Exhibits, Plotting & Mounting	1	LS @	\$2,100.00	\$2,100.00

TOTAL ODC'S **\$2,100.00**

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC's	TOTAL
Advanced Civil Technologies (ACT)				
Arellano Associates				
Leighton Consulting				
LIN Consulting				
Safeprobe				
Tatsumi and Partners, Inc.				
Towill				
Vandermost Consulting Services (VCS)				

TOTAL SUBCONSULTANT SERVICES

TOTAL **\$149,227.08**

FEE PROPOSAL WORKSHEET

COMPANY HNTB	SCOPE OF WORK Construction Support	PHASE Phase IV
PROJECT Jurupa Road Grade Separation		DATE March 14, 2022

DIRECT LABOR

PERSONNEL	POSITION	HOURS	RATE	AMOUNT	
Adam Dayhoff	Project Manager	42	@ \$120.00	\$5,040.00	
Shannon Willits	DPM/Lead Civil	870	@ \$82.96	\$72,175.20	
Kelly Lumen	Quality Manager	125	@ \$67.52	\$8,440.00	
Steve Greene	Lead Traffic	75	@ \$100.00	\$7,500.00	
	Technical Manager	492	@ \$100.00	\$49,200.00	
	Technical Lead	185	@ \$76.31	\$14,117.35	
	Sr. Project Engineer	260	@ \$67.15	\$17,459.00	
	Project Engineer/Planner	80	@ \$54.36	\$4,348.80	
	Engineer/Planner III	400	@ \$41.60	\$16,640.00	
	Engineer II	400	@ \$36.52	\$14,608.00	
	Engineer I		\$33.72		
	CADD-Civil	227	@ \$44.48	\$10,096.96	
	Project Analyst	30	@ \$44.46	\$1,333.80	
	Administrative Assistant		\$29.07		
Nien Wang	Lead Structures		\$100.00		
	Structures Sr. Project Engineer		\$68.88		
	Structures Project Engineer		\$59.44		
	Structures Engineer III		\$47.87		
	Structures Engineer II		\$46.72		
	CADD-Structures		\$58.72		
		TOTAL HOURS	3,186	TOTAL DIRECT LABOR	\$220,959.11

MULTIPLIERS

ESCALATION @		(of Direct Labor)		
OVERHEAD @	97.96%	(of Direct Labor + Escalation)	\$216,451.54	
PAYROLL ADDITIVES @	48.27%	(of Direct Labor + Escalation)	\$106,656.96	
PROFIT (FIXED FEE) @	10.0%	(of Direct Labor + Escalation + Overhead + Payroll Additives)	\$54,406.76	
			TOTAL MULTIPLIERS	\$377,515.27

OTHER DIRECT COSTS

*** Billed at Actual Cost ***

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Travel/Mileage		MI		
Traffic Counts		LS		
Printing, Plotting & Copies		LS		
Exhibits, Plotting & Mounting		LS		
				TOTAL ODC'S

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC'S	TOTAL	
Advanced Civil Technologies (ACT)					
Arellano Associates					
Leighton Consulting					
LIN Consulting					
Safeprobe					
Tatsumi and Partners, Inc.					
Towill					
Vandermost Consulting Services (VCS)	\$10,000.00			\$10,000.00	
				TOTAL SUBCONSULTANT SERVICES	\$10,000.00

TOTAL **\$608,474.38**

MANHOURLY WORKSHEET	
COMPANY HNTB	SCOPE OF WORK Manhour Summary
PROJECT Jurupa Road Grade Separation	PHASE All Phases
	DATE March 14, 2022

TASK	PROJECT MANAGER	DEPT LEAD CHIEF	QUALITY MANAGER	LEAD TRAFFIC	TECHNICAL MANAGER	TECHNICAL LEAD	SR. PROJECT ENGINEER	PROJECT ENGINEER/PLANNER	ENGINEER/PLANNER II	ENGINEER II	ENGINEER I	CAD/CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	(Top & Bottom) HOURS
	\$224.70	\$182.88	\$270.85	\$270.85	\$206.89	\$181.88	\$147.24	\$112.67	\$98.92	\$91.33	\$120.48	\$120.48	\$78.74		
PHASE TOTALS	320	1,710	299	75	1,239	2,309	1,896	324	1,042	3,574	465	705	218	16	14,192

PHASE I	PHASE II	PHASE III	PHASE IV
106	140	32	42
457	283	100	870
34	120	20	125
310	1,596	170	260
40	1,644	140	185
75	532	140	492
75	532	140	492
310	1,596	170	260
40	1,644	140	185
80	124	40	80
80	124	40	80
60	2,794	320	400
60	2,794	320	400
80	385	478	227
188	478	30	30
1,430	8,754	822	3,186
1,430	8,754	822	3,186

TASK	LEAD STRUCTURES	STRUCTURES SR PROJECT ENGINEER	STRUCTURES PROJECT ENGINEER	STRUCTURES ENGINEER III	STRUCTURES ENGINEER II	CAD/STRUCTURES	HOURS
	\$186.58	\$161.00	\$129.46	\$126.54	\$159.04		
PHASE TOTALS	276.65	186.58	161.00	129.46	126.54	159.04	14,192

PHASE I	PHASE II	PHASE III	PHASE IV

MANHOOUR WORKSHEET

COMPANY	SCOPE OF WORK	PHASE
HNTB	Preliminary Engineering & Environmental	Phase I
PROJECT		DATE
Jurupa Road Grade Separation		March 14, 2022

TASK	PROJECT MANAGER	DEP. LEAD CIVIL	LEAD TRAFFIC	TECHNICAL LEAD	SR. PROJECT ENGINEER	ENGINEER/PLANNER	ENGINEER/PLANNER III	ENGINEER I	CAD/CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	HOURS	COST
	106	457	34	75	310	40	80	80	188	1,430			

TASK	PROJECT MANAGER	DEP. LEAD CIVIL	LEAD TRAFFIC	TECHNICAL LEAD	SR. PROJECT ENGINEER	ENGINEER/PLANNER	ENGINEER/PLANNER III	ENGINEER I	CAD/CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	HOURS	COST
ARTICLE AII - PROJECT ADMINISTRATION													
A. Project Management Plan	10	30	8	4	4							56	\$ 13,364
B. Quality Control Plan		20	12	20								52	\$ 12,106
C. Budgeting (13 months)	10	72					100					182	\$ 31,471
D. Cost Accounting (13 months)	10	72										82	\$ 19,429
E. Scheduling (13 months)	10	70	12									180	\$ 31,771
F. Contract Administration and Meetings													
F.1 Project Management/Administration (13 mos)	30	120										150	\$ 36,715
F.2 Project Meetings (13 PDT meetings)	26	26		26	40	40						184	\$ 36,555
G. Contract Deliverables													
H. Outreach													
H.1 Collateral Materials & Coordination													
H.2 Open House Community Meetings													
H.3 Stakeholder and Business Briefings													
I. Union Pacific Payments													
ARTICLE AIII - PLANNING AND PROJECT DEVELOPMENT													
A. Research and Data Gathering													
B. Permits													
C. Design Surveys													
D. Preliminary Geotechnical Investigations													
D.1 Preliminary Foundation Report													
D.2 Phase I Environmental Site Assessment													
D.3 Aerially Deposited Lead (ADL) Survey													
E. Planning Studies													
E.1 Geometrics													
E.2 Draft Drainage Analysis													
E.3 Utility Impact Identification													
E.4 Structure Advance Planning Study													
E.5 Track Geometrics													
E.6 Estimate of Probable Cost													
E.7 Schedule													

MANHOUR WORKSHEET

COMPANY: HNTB
 PROJECT: Jurupa Road Grade Separation
 SCOPE OF WORK: Preliminary Engineering & Environmental
 PHASE: Phase I
 DATE: March 14, 2022

TASK	PROJECT MANAGER	DEPUTY CIVIL	QUALITY MANAGER	LEAD TRAFFIC	TECHNICAL MANAGER	TECHNICAL LEAD	SR. PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER/PLANNER	ENGINEER/PLANNER II	ENGINEER I	CADD/CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	HOURS	COST
E. 8 Constructability																
E. 9 Traffic Study																
E. 10 Landscape and Aesthetics																
F. Visual Aids																
F. 1 Photo Simulations (9)																
F. 2 Videos (1)																
G. Environmental Determination and Issues																
G. 1 Process extension of permits	1			5											6	\$ 1,579
G. 2 Potential update to PD/Limits	2	4		20											26	\$ 6,966
H. Preliminary Engineering Report																
I. Geometric Approval Drawings																
J. Design Drainage Report & WQMP	2	4	2			40					80				128	\$ 16,496
K. Geotechnical Design Report																
L. Right-of-Way Maps	2	2													4	\$ 1,099
M. Agreements																
N. Utility Coordination																
N.1 Utility Research & Mapping																
N.2 Utility Coordination & Meetings	2	30				280									312	\$ 65,264
N.3 Utility Potholing																
N.4 Electric and Water Service Meters																
O. Miscellaneous Design Support																
O.1 Design Exceptions	2	6						40							68	\$ 9,866
O.2 Traffic Management Plan										20						
O.3 Track Design																

MANHOUR WORKSHEET		SCOPE OF WORK	PHASE
COMPANY	HNTB	Plans, Specs & Estimates	Phase II
PROJECT	Jurupa Road Grade Separation		DATE
			March 14, 2022

TASK	PROJECT MANAGER	DEPT LEAD CIVL	QUALITY MANAGER	LEAD TRAFFIC	TECHNICAL MANAGER	TECHNICAL LEAD	SR. PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER/PLANNER II	ENGINEER I	CAD/CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	HOURS	COST
	140	283	120	532	1,644	1,596	124	642	2,794	385	478	16	8,754		

Task	140	283	120	532	1,644	1,596	124	642	2,794	385	478	16	8,754		
ARTICLE AIV - STRUCTURES															
A. Structure Type Selection and Bridge General Plans	2	4		40				40						86	\$ 16,890
B. Geotechnical Coordination and Foundation Report	2	4		40	100	150		210						506	\$ 81,106
C. Structural Design and Calculations	2	4		20	40			380						446	\$ 52,821
D. Independent Check Review and Quality Control	1	2		10	15			120		99				247	\$ 27,495
E. Structure Specifications & Estimates	20	77		120	320	300		490		200				1,527	\$ 249,572
F. Initial Structure PS&E (65% unchecked plans)															
G. Intermediate Structure PS&E (90% Checked Plans)															
H. Draft Final Structure PS&E (95%)															
I. Final Structure PS&E	10	20		22	100			230						382	\$ 57,122
J. UPRR Structure Submittals	30	60		20	320			390		200				1,020	\$ 151,633
K. Box Culvert Plans															
ARTICLE AV - ROADWAY															
A. Basic Roadway Plans															
A.1 Title Sheet/General Sheets															
A.2 Horizontal Control Plans															
A.3 Typical Sections															
A.4 Plan & Profile Sheets															
A.5 Construction Details															
A.6 Grading Plans															
A.7 Removal Plans															
A.8 Planting & Irrigation Plans															
B. Calculations															
B.1 Geometric Traverse & Right-of-Way															
B.2 Grid Grades															
B.3 Profile															
B.4 Earthwork Quantities															
B.5 Other Quantities															
C. Drainage Plans															
C.1 Storm Drain Plans	2	8			40	200					60			310	\$ 54,319
C.2 BMP & Erosion Control Plans	1	4			2	6					18			31	\$ 4,897

MANHOUR WORKSHEET

COMPANY: HNTB
 PROJECT: Jurupa Road Grade Separation
 SCOPE OF WORK: Plans, Specs & Estimates
 PHASE: Phase II
 DATE: March 14, 2022

TASK	PROJECT MANAGER	DEPUTY PROJECT MANAGER	QUALITY MANAGER	LEAD TRAFFIC	TECHNICAL MANAGER	TECHNICAL LEAD	SR. PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER/PLANNER III	ENGINEER II	ENGINEER I	CAD/CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	HOURS	COST
D. Traffic & Electrical Plans																
D.1 Street Lighting Plans																
D.2 Stage Construction & Traffic Handling																
D.3 Detour Routing Plan																
D.4 Signal Plan																
D.5 Striping & Signing Plans																
D.6 Bridge Lighting Plans																
E. Miscellaneous Plans																
E.1 Utility Composite Plans																
E.2 Electrical & Water Meter Plans																
E.3 Right-of-Way Requirements																
E.4 Track Plans																
E.5 Retaining Wall Plans																
F. Intermediate Reviews																
G. Specifications and Estimate	6	16											6	79	\$ 13,138	
H. Quality Control	8	10	120											138	\$ 26,793	
I. Draft PS&E																
I.1 Plans																
I.2 Special Provisions																
I.3 Design Calculations																
I.4 Roadway Quantities & Cost Estimate																
J. Final PS&E (100% Complete)	16	54		6	6	13	100	2	160	80			10	447	\$ 61,433	
K. Constructability Reviews																
L. UPRR Track Submittals	40	20		250	700	925	600	800	200					3,535	\$ 568,959	

MANHOOUR WORKSHEET

COMPANY: HNTB
 PROJECT: Jurupa Road Grade Separation
 SCOPE OF WORK: Bid Support
 PHASE: Phase III
 DATE: March 14, 2022

TASK	PROJECT MANAGER	DEPUTY MANAGER	QUALITY MANAGER	LEAD TRAFFIC	TECHNICAL LEAD	SR. PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER/PLANNER II	ENGINEER I	CADD CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	HOURS	COST
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32	100	20	140	170	40	320	822							
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ARTICLE AVI - CONSTRUCTION BIDDING PHASE

- A. Project Administration (6 months)
- B. Construction Bidding Services

Additional RFIs	20	60	10	75	90	20	200	475	\$	83,455
Additional Addendums	12	40	10	65	80	20	120	347	\$	63,672

MANHOURLY WORKSHEET

COMPANY: HNTB
 PROJECT: Jurupa Road Grade Separation
 SCOPE OF WORK: Construction Support
 PHASE: Phase IV
 DATE: March 14, 2022

TASK	PROJECT MANAGER	DP/LEAD CIVIL	QUALITY MANAGER	LEAD TRAFFIC	TECHNICAL MANAGER	TECHNICAL LEAD	SR. PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER/PLANNER	ENGINEER/PLANNER III	ENGINEER II	ENGINEER I	CADD/CIVIL	PROJECT ANALYST	ADMINISTRATIVE ASSISTANT	HOURS	COST
	\$294.70	\$162.86	\$270.85	\$270.85	\$208.89	\$181.88	\$147.24	\$112.67	\$99.52	\$91.33	\$120.48	\$120.48	\$120.42	\$78.74		3,186	

Total Manhours

42 870 125 75 492 185 260 80 400 400 400 227 30 3,186

ARTICLE AVII - CONSTRUCTION SUPPORT PHASE

Task Description	42	870	125	75	492	185	260	80	400	400	400	227	30	3,186	Hours	Cost
A. Project Administration (12 months)	12	120			12								30		174	\$ 37,727
B. Pre-Construction Meeting	10	100			100		75		80						365	\$ 75,460
C. Meetings & Site Reviews	10	200	100	75	300	110	110	200	200	400		167			1,672	\$ 293,011
D. Response to Inquiries/RFI's	10	450	25	80	75	75	80	80	120			60			975	\$ 192,276
E. Submittal & Shop Drawing Review																
F. Change Order Support																
G. Outreach Support																
H. As-Builts																

FEE PROPOSAL WORKSHEET

COMPANY VCS	SCOPE OF WORK Preliminary Engineering & Environmental	PHASE Phase I
PROJECT Jurupa Road Grade Separation		DATE March 14, 2022

DIRECT LABOR

PERSONNEL	POSITION	HOURS		RATE	AMOUNT
Julie Beeman	President	48	@	\$313.31	\$15,038.88
Wade Caffrey	Vice President	105	@	\$185.85	\$19,514.25
Dan Bott	Director CEQA / Director Cultural	81	@	\$172.09	\$13,939.29
Eric Turner	Director, Env Services	214	@	\$165.20	\$35,352.80
Carla Marriner	Senior Project Manager II	56	@	\$125.15	\$7,008.40
Darcy Hardwick	Senior Project Manager I	77	@	\$103.25	\$7,950.25
Kathy Douglas	Project Manager III	90	@	\$97.57	\$8,781.30
Sierra Valladares	Project Manager I	44	@	\$87.87	\$3,866.28
Willa Summer	Project Manager	40	@	\$85.91	\$3,436.40
Chris Eljenholm	Asst. Project Manager	90	@	\$79.16	\$7,124.40
Linda Bo	Production Coordinator	60	@	\$106.24	\$6,374.40
Brianna Granados	Office Assistant	27	@	\$68.83	\$1,824.35
		TOTAL HOURS	779	TOTAL DIRECT LABOR	\$130,211.00

MULTIPLIERS

ESCALATION @	(of Direct Labor)
OVERHEAD @	(of Direct Labor + Escalation)
PAYROLL ADDITIVES @	(of Direct Labor + Escalation)
PROFIT (FIXED FEE) @	(of Direct Labor + Escalation + Overhead + Payroll Additives)
TOTAL MULTIPLIERS	

OTHER DIRECT COSTS

... Billed at Actual Cost ...

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Travel/Mileage		MI		
Traffic Counts		LS		
Printing, Plotting & Copies		LS		
Exhibits, Plotting & Mounting		LS		
				TOTAL ODC'S

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC's	TOTAL
TOTAL SUBCONSULTANT SERVICES				

TOTAL **\$130,211.00**

MANHOOUR WORKSHEET

COMPANY: **VCS**
 PROJECT: **Jurupa Road Grade Separation**
 SCOPE OF WORK: **Preliminary Engineering & Environmental**
 PHASE: **Phase I**
 DATE: **March 14, 2022**

TASK	President	Vice President	Director CGQA / Director Cultural	Director Env Services	Senior Project Manager II	Senior Project Manager I	Project Manager-III	Project Manager-I	Project Manager	Asst. Project Manager	Productive Coordinator	Office Assistant	HOURS	COST
	1333.0	248.60	377.00	346.00	346.00	346.00	107.9	342.00	174.76	305.00	342.00	342.00	932	

Total Manhours 48 105 81 214 56 77 90 44 40 90 60 27 932

ARTICLE AIII - PLANNING AND PROJECT DEVELOPMENT

Task	48	105	81	214	56	77	90	44	40	90	60	27	932	HOURS	COST
G. Environmental Determination and Issues															
G.I Process extension of permits		1					4			2		2	9	9	\$ 875
G.II Reauthroize 404 and 401 permits	3	5						4				2	14	14	\$ 2,336
G.II Delineation and Delineation Report	2	10	5	10				20			30	1	78	78	\$ 10,000
G.II Riparian Species Surveys	4	10		60	40	35				40		3	192	192	\$ 25,000
G.II Narrow Endemic Plant Survey	1	8		16		16				8		4	53	53	\$ 7,000
G.II Burrowing Owl Surveys	1	8		40		40	40			30		5	124	124	\$ 15,000
G.II Biological Report Revisions	3	8		40		10			30		30	3	114	114	\$ 15,000
G.II Update permits and DBESP	16	20	16	8		10			10			5	85	85	\$ 15,000
G.II Updates to Curfital Report	10	15	40	20		20	30		10			2	127	127	\$ 20,000
G.II Coordination of permits and DBESP	8	20	20	20	16	16	16	20				1	137	137	\$ 20,000

FEE PROPOSAL WORKSHEET

COMPANY VCS	SCOPE OF WORK Construction Support	PHASE Phase IV
PROJECT Jurupa Road Grade Separation		DATE: March 14, 2022

DIRECT LABOR

PERSONNEL	POSITION	HOURS		RATE	AMOUNT
Julie Beeman	President	5	@	\$313.31	\$1,566.55
Wade Caffrey	Vice President	19	@	\$185.85	\$3,531.15
Dan Bott	Director CEQA / Director Cultural	1	@	\$172.09	\$172.09
Eric Turner	Director, Env Services	8	@	\$165.20	\$1,321.60
Carla Marriner	Senior Project Manager II	1	@	\$125.15	\$125.15
Darcy Hardwick	Senior Project Manager I	2	@	\$103.25	\$206.50
Kathy Douglas	Project Manager III	6	@	\$97.57	\$585.42
Sierra Valladares	Project Manager I	2	@	\$87.87	\$175.74
Willa Summer	Project Manager			\$85.91	
Chris Eljenholm	Asst. Project Manager	7	@	\$79.16	\$554.12
Linda Bo	Production Coordinator	12	@	\$106.24	\$1,274.88
Brianna Granados	Office Assistant	7	@	\$68.83	\$486.80
		TOTAL HOURS	46	TOTAL DIRECT LABOR	\$10,000.00

MULTIPLIERS

ESCALATION @	(of Direct Labor)
OVERHEAD @	(of Direct Labor + Escalation)
PAYROLL ADDITIVES @	(of Direct Labor + Escalation)
PROFIT (FIXED FEE) @	(of Direct Labor + Escalation + Overhead + Payroll Additives)
TOTAL MULTIPLIERS	

OTHER DIRECT COSTS

... Billed at Actual Cost ...

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Travel/Mileage		MI		
Traffic Counts		LS		
Printing, Plotting & Copies		LS		
Exhibits, Plotting & Mounting		LS		
				TOTAL ODC'S

SUB CONSULTANT SERVICES

COMPANY	LABOR	MULTIPLIERS	ODC's	TOTAL
TOTAL SUBCONSULTANT SERVICES				

TOTAL \$10,000.00

MANHOURE WORKSHEET

COMPANY: VCS
 PROJECT: Jurupa Road Grade Separation
 SCOPE OF WORK: Construction Support
 PHASE: Phase IV
 DATE: March 14, 2022

TASK	President	Vice President	Director CMAA / Director General	Director Engineering	Senior Project Manager I	Senior Project Manager II	Senior Project Manager III	Project Manager I	Project Manager II	Project Manager III	Asst. Project Manager	Production Coordinator	Office Assistant	HOURS	COST
	5	19	1	8	1	2	6	2	7	12	7	7	7	70	

Total Manhours

ARTICLE AVII - CONSTRUCTION SUPPORT PHASE

A. Project Administration (12 months)	6									12				18	\$ 2,390
B. Pre-Construction Meeting	1	1	1	1										5	\$ 962
C. Meetings & Site Reviews	2	6	5	5	6			5				7		31	\$ 4,036
D. Response to Inquiries/RFI's															
E. Submittal & Shop Drawing Review	2	6	2	2	2			2						16	\$ 2,613
F. Change Order Support															
G. Outreach Support															
H. As-Builts															