

19 June 2015



Camino Real Regional Mobility Authority  
El Paso Streetcar Project  
Risk Allocation

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## Purpose

The El Paso Streetcar Project Management Team (EPSC PM Team) engaged the services of AECOM's risk management group (Risk Team) to help identify risk events for the El Paso Streetcar Project and to ensure that the allocation of this risk was clearly and unambiguously communicated within the RFP Documents.

A Risk Allocation Table has been developed and provided as part of the infrastructure Contract Request for Proposal (RFP) Document for the El Paso Streetcar Project. This memorandum, provided as a Reference Document accompanies the Risk Allocation table developed for the RFP and seeks to explain the intent of the Risk Allocation table. Reference Documents are not Contract Documents and are provided solely for the purposes of disclosure and, in the case of general industry and general governmental manuals and publications, of guidance regarding Good Industry Practice.

## Risk Allocation

The proponent is required to read and understand the RFP documents, construction drawings and specifications; and prepare its technical and commercial proposal based on his understanding of the scope of work and approach. The Risk Allocation Table is provided to assist the Respondent by identifying potential areas of risk or uncertainty in the project, clarify who is ultimately responsible for its outcome and provide a reference of the location within the RFP Documents that discusses the specific contractual risk allocation that may be encountered during project execution. The objectives of this process are to create mutual trust and respect for each party's respective roles and interests in the Project while recognizing the risk allocation inherent in the Contract Documents. The Project Contractor, Owner and other relevant parties shall meet regularly (e.g., as a "partnering team") throughout the life of the Project at partnering meetings to discuss specific interface issues, oversight interface issues, division of responsibilities, communication channels, and other matters as the parties agree.

The Risk Allocation Table has been structured by risk area:

- OCS & Traction Power,
- Utilities,
- Contract Interface
- ROW/Permits & Approvals
- CBD-4 Project Integration
- General Construction Requirements
- Funding, Inflation, Cost Escalation
- Stakeholder Management
- Traffic Management
- Environmental Mitigation
- Document Control
- Other

It provides risk statements that have been purposely worded to specify potential causes and consequences should the risk be realized. It also provides a very discrete allocation of whether the particular risk is a responsibility of the:

- Project Owner,
- Project Design team, and/or
- Project Contractor (proponent).

The objective of the Risk Allocation Table is to state financial and decision making responsibility in the event a risk is realized. The construction of the project remains the responsibility of the Contractor, including the identification of potential risk events throughout construction execution.

It must be noted that the Risk Allocation table is provided as a guide for elements that may be misunderstood and by no means represents the complete set of potential risk events or responsibilities for each of the project participants.

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Attachment A

Risk Allocation Table

PROJECT EL PASO STREETCAR PROJECT  
 DOCUMENT PURPOSE RISK ALLOCATION TABLE  
 DATE OF ISSUE 6/19/2015  
 VERSION 0



| Risk #                          | Risk Allocation Statement  | Risk Allocation |          |            | Notes and Reference to Relevant Section of the RFP  |
|---------------------------------|--|-----------------|----------|------------|---|
|                                 |  | Owner           | Designer | Contractor |   |
| <b>OCS &amp; Traction Power</b> |  |                 |          |            |   |
| 1                               | Differing Site Conditions - unknown basements or underground voids that could not have been known based on reasonable investigations before the RFP due date | x               |          |            | See General Conditions, Article 3, Section 5 - Differing Site Conditions, and Section 4 - Changes in the Work.<br><br>The design includes contingency to account for a certain distance of pole relocation.   |
| 2                               | Differing Site Condition - unknown ground conditions that could not have been known based on reasonable investigations before the RFP due date               | x               |          |            | See General Conditions, Article 3, Section 5 - Differing Site Conditions, and Section 4 - Changes in the Work.  |
| 3                               | Differing site conditions resulting in the need for redesign of system components  | x               |          |            | See General Conditions, Article 3, Section 5 - Differing Site Conditions, and Section 4 - Changes in the Work.  |
|                                 | Cost and delay of damage to unknown basements or underground voids   |                 |          | x          | The Contractor is required to perform pot hole excavation at OCS pole locations to avoid damage to unknown basements. The Contractor is required to raise discoveries with the Owner prior to damage being incurred.<br><br>See Plan Sheet G008 - General Notes |
| 5                               | Cost and delay of damage to basements indicated in plans or surveys  |                 |          | x          | See General Conditions, Article 6, Section 16 - Protecting Adjacent Property, and Section 17 - Responsibility for Damage Claims   |
| 6                               | Contractor driven changes resulting in a cost savings  | x               |          | x          | See General Conditions, Article 7, Section 5.10.1 - Contractor Proposed Revisions   |
| 7                               | Contractor driven changes resulting in a cost increase   |                 |          | x          | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 3, Section 5 - Differing Site Conditions  |
| 8                               | CRRMA requested changes  | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 - Prosecution and Progress  |

| Risk #                    | Risk Allocation Statement  | Risk Allocation |          |            | Notes and Reference to Relevant Section of the RFP   |
|---------------------------|--|-----------------|----------|------------|--|
|                           |  | Owner           | Designer | Contractor |  |
| <b>Utilities</b>          |  |                 |          |            |  |
| 9                         | Differing Site Conditions - damage to unknown or misidentified utilities                       |                 |          | x          | See EP-UTL COORD RELO Utility Coordination & Relocation, Part 1. Description<br><br>The Contractor is required to raise issues of unknown utilities with the Owner before damage is incurred. The Contractor must also coordinate with the Utility company to expedite relocation.                           |
| 10                        | Permanent electrical service connection - Field Coordination responsibility by Contractor      |                 |          | x          | See General Conditions, Article 4, Section 6 - Cooperating with Utilities<br><br>See EP-UTL COORD RELO Utility Coordination & Relocation, Part 1. Description  |
| 11                        | Permanent electrical service connection - Planning effort by Owner or delay by Utility company | x               |          |            | See EP-UTL COORD RELO Utility Coordination & Relocation, Part 1. Description   |
| 12                        | Delays for relocating known utilities - Field Coordination responsibility by Contractor        |                 |          | x          | See General Conditions, Article 4, Section 6 - Cooperating with Utilities<br><br>See EP-UTL COORD RELO Utility Coordination & Relocation, Part 1. Description  |
| 13                        | Delays for relocating known utilities - Planning effort by Owner or delay by Utility company   | x               |          |            | See EP-UTL COORD RELO Utility Coordination & Relocation, Part 1. Description   |
| 14                        | Shared access to the construction site - Field Coordination responsibility by Contractor       |                 |          | x          | See General Conditions, Article 4, Section 6 - Cooperating with Utilities<br><br>See EP-UTL COORD RELO Utility Coordination & Relocation, Part 1. Description  |
| 15                        | Shared access to the construction site - Planning effort by Owner or delay by Utility company  | x               |          |            | See EP-UTL COORD RELO Utility Coordination & Relocation, Part 1. Description   |
| <b>Contract Interface</b> |  |                 |          |            |  |
| 16                        | Infrastructure / PCC Interface   |                 |          | x          | Contractor is required to achieve key milestone within certain period of NTP as identified in RFP. The milestones will only be extended to the extent that there is a qualifying Change Order or Force Majeure Event.<br><br>See General Conditions, Article 7, Section 6 - Failure To Complete Work On Time |
| 17                        | PCC Vehicle Contractor caused delays   | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 - Prosecution and Progress   |
| 18                        | Third-Party caused delays  | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 - Prosecution and Progress   |

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|                                    |  | Owner           | Designer | Contractor |  |
| <b>ROW/Permits &amp; Approvals</b> |  |                 |          |            |  |
| 19                                 | Delay in Contractor permit acquisition   |                 |          | x          | See General Conditions, Article 6, Section 5 - Permits, Licenses and Taxes, and Section 8 - Preservation of Cultural and Natural Resources and the Environment   |
| 20                                 | Delay in Owner permit acquisition  | x               |          |            | See General Conditions, Article 6, Section 5 - Permits, Licenses and Taxes, and Section 7 - Preservation of Cultural and Natural Resources and the Environment.<br><br>If there are delays in Owner Permits, the Owner will refer to the Change Order Process. See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 -Prosecution and Progress |
| 21                                 | Compliance with all state and local requirements, including permits  |                 |          | x          | See General Conditions, Article 6, Section 3 - Laws to be Observed   |
| 22                                 | Owner leases and rights of entry agreements as per CRRMA's reference design  | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 - Prosecution and Progress   |
| 23                                 | Leases and rights of entry agreements requested by Contractor but not in the CRRMA's reference design                          |                 |          | x          | See General Conditions, Article 6, Section 7 - Preservation of Cultural and Natural Resources and the Environment  |
| 24                                 | Cost and schedule impact of any changes to permit requirements based on changes required by TxDOT, CRRMA and other Authorities | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 - Prosecution and Progress   |
| <b>CBD-4</b>                       |  |                 |          |            |  |
| 25                                 | Scope integration of the CBD-4 project   | x               | x        |            | Details provided in Addendum.  |
| 26                                 | Co-ordination of the CBD-4 Project (phasing/ staging etc.)   |                 |          | x          | See General Conditions, Article 4, Section 7 - Cooperation Between Contractors   |
| <b>Stakeholder Management</b>      |  |                 |          |            |  |
| 39                                 | Public complaint due to construction process   |                 |          | x          | See ITP, Section 4.3.3.1 Project Management Plan, Section (d) Community Relations Program, and Section 4.3.3.2 Project Approach, Section (d) Environmental Commitments, Permitting and Mitigation  |
| 40                                 | Unidentified internal stakeholder training requirements  | x               |          |            | Special Specification EP-PUBLIC INFO Public Information Specification This spec does not contain "training" but does outline meeting requirements and frequency.   |
| 41                                 | Identified internal stakeholder training requirements  |                 |          | x          | Special Specification EP-PUBLIC INFO Public Information Specification This spec does not contain "training" but does outline meeting requirements and frequency.   |
| 42                                 | Construction near active railroad (including safety requirements)  |                 |          | x          | See General Conditions, Article 4, Section 8 - Cooperation With Railroads.   |
| 43                                 | Construction on and over active highway (including safety requirements)  |                 |          | x          | Contractor will follow the approved Traffic Control Plan.  |



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|  |  | Owner           | Designer | Contractor |   |
| <b>General Construction Requirements</b>   |  |                 |          |            |   |
| 27   | Construction phasing and sequencing of work along the project alignment                            |                 |          | x          | See General Conditions, Article 4, Section 7 - Cooperation Between Contractors  |
| 28   | Changes needed due to construction defects, nonconforming work, or inadequate performance          |                 |          | x          | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 4, Section 11 - Removal of Unacceptable and Unauthorized Work   |
| 29   | CM caused delays for Safety, Quality or Environmental Requirements                                 |                 |          | x          | See General Conditions, Article 3, Section 4 - Changes in the Work and Article 3, Section 6 - Requests for Additional Compensation and Damages  |
| 30   | Damage to infrastructure of known condition during construction                                    |                 |          | x          | Contractor is required to perform condition assessment prior to mobilization and supply to the Owner a DVD of the project site. This will become a part of the known conditions.<br><br>See General Conditions Article 2, Section 4.  |
| 31   | Damage to infrastructure of unknown conditions during construction                                 |                 |          | x          | See General Conditions Article 2, Section 4.  |
| 32   | Procurement of all construction materials and equipment and coordination with construction vendors |                 |          | x          | See General Conditions, Article 3 - Scope of Work   |
| 33   | Safety and Security Certification  | x               | x        | x          | General Conditions Article 6 Section 18 - Contractor's Responsibility for Work  |
| 34   | Change in the Law during the construction period   | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 - Prosecution and Progress  |
| <b>Funding, Inflation, Cost Escalation</b> |  |                 |          |            |   |
| 35   | Escalation of construction price if NTP is delayed beyond 90 days from proposal date               | x               |          | x          | The CRRMA reserves the right to defer the issuance of NTP for up to 90 days after the Proposal Due Date. Proposals, including prices, must remain valid for 90 days after the Proposal Due Date.<br><br>See ITP Section 1.0 Item 1.5 Award and Issuance of Notice-To-Proceed. |
| 36   | Construction cost escalation   |                 |          | x          | See ITP Section 3.0 Procurement Process Item 3.6.2 - Price Proposal and Section 4.4 - Price Proposal  |
| 37   | General Inflation, commodity and equipment price inflation   |                 |          | x          | See ITP Section 3.0 Procurement Process Item 3.6.2 - Price Proposal and Section 4.4 - Price Proposal  |
| 38   | Labor escalation/premium   |                 |          | x          | See ITP Section 3.0 Procurement Process Item 3.6.2 - Price Proposal and Section 4.4 - Price Proposal  |



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|---------------------------------|--|-----------------|----------|------------|---|
|                                 |  | Owner           | Designer | Contractor |   |
| <b>Traffic Management</b>       |  |                 |          |            |   |
| 44                              | Traffic Management (pedestrian and vehicles)   |                 |          | x          | The Contractor is required to submit their Traffic Control Plan to the City of El Paso for Approval. See Plan Sheet TC100 - Construction Narrative                      |
| 45                              | Traffic Management - Hospital, emergency vehicle & ER Access   |                 |          | x          | The Contractor is required to submit their Traffic Control Plan to the City of El Paso for Approval. See Plan Sheet TC100 - Construction Narrative                      |
| 46                              | Known special events and dates included in the RFP   |                 |          | x          | See Plan Sheet TC100 - Construction Narrative   |
| 47                              | Additional special events that delay the Contractors critical path   | x               |          |            | See Plan Sheet TC100 - Construction Narrative   |
| 48                              | Delay due to adjacent developments with permitted use of sidewalks/ parking lots along project alignment   | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 -Prosecution and Progress, and Article 4, Section 7 - Cooperation Between Contractors |
| <b>Environmental Mitigation</b> |  |                 |          |            |   |
| 49                              | Remediation of Hazardous Material not introduced by the Contractor   | x               | x        |            | See General Conditions, Article 5, Section 12 - Hazardous Materials   |
| 50                              | Remediation of Hazardous Materials introduced by the Contractor  |                 |          | x          | See General Conditions, Article 5, Section 12 - Hazardous Materials   |
| 51                              | Changes to environmental mitigation requirements   | x               |          |            | See General Conditions, Article 3, Section 4 - Changes in the Work, and Article 7 -Prosecution and Progress   |
| <b>Other</b>                    |  |                 |          |            |   |
| 54                              | Safe Construction Environment  |                 |          | x          | See General Conditions, Article 6, Section 2 - Safety   |
| 55                              | Force Majeure Event / Act of God (e.g., natural disaster, acts of war, state of emergency) that directly affects the Contractor's critical path. | x               |          |            | See General Condition, Article 6, Section 18.1 - Contractor's Responsibility for Work.  |