

# California High-Speed Train Project



## TECHNICAL MEMORANDUM

### CHSTP Utility Strategy TM 200.02

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**ABSTRACT**

This memo is intended to establish policies, procedures, and practices for mitigation of existing utilities within the California High-Speed Train Project (CHSTP) construction limits and also for bringing new utility services for High-Speed Train (HST) operation.



## 1.0 INTRODUCTION

### 1.1 PURPOSE OF TECHNICAL MEMORANDUM

This memo is intended to establish policies, procedures, and practices for mitigation of existing utilities within the California High-Speed Train Project (CHSTP) construction limits and also for bringing new utility services for High-Speed Train (HST) operation.

## 2.0 DEFINITION OF TECHNICAL TOPIC

Not applicable.

## 3.0 ASSESSMENT / ANALYSIS

The following steps are recommended for:

- Identification and protection or relocation of existing utilities that are within the construction limits
- New utility services needed for CHST operations.

### 3.1 PROTECTION OR RELOCATION OF EXISTING UTILITIES WITHIN THE PROPOSED AUTHORITY'S RIGHT-OF-WAY AND CHST CONSTRUCTION LIMITS

1. Identification of Utilities: This initial task is performed by the Regional Consultants (RCs) during the 15% preliminary engineering phase and with support from utility owners. RCs research the existing utility records and identify utilities within the proposed Authority right-of-way and construction limits. RCs provide the utility owners the HST proposed project improvements and the identified existing utilities and request for verification of these utilities. Utility owners will provide their utility maps to RCs and verify locations of their utilities within the right-of-way and construction limits. RCs will then request positive location of utilities through Authority's Utility Coordinator.
2. Determination of whether the utility can be protected or requires relocation: During the 15% preliminary engineering phase, RCs make a determination whether the existing utilities can be protected in place or need to be relocated. This determination will be based on Program Management Team (PMT) guidelines provided to RCs and in coordination with utility owners. If utilities can be protected in place, steps 3, 4, and 6 will be followed. If utilities need to be relocated, steps 3 and 5 through 12 will be followed.
3. Determination of the existing utility owner property rights: Based on the 15% preliminary engineering design, RCs shall provide location of utilities in conflict within the proposed Authority's right-of-way and construction limits to the Authority's Utility Coordinator and to the utility owners. The Authority's Utility Coordinator then requests utility owners to provide their property rights for the impacted utilities to the Authority.
4. Development of protection requirements: When the RC and utility owner agree that the impacted utility can be protected in place, the RC confirms that decision with the PMT and includes the protection requirements into the



Authority's Design-Build, or Design-Bid-Build, contract documents. This activity is performed by the RC during 30% preliminary design phase. The protection contract package shall be based on utility owner and CHSTP requirements and shall include the engineer's estimate and design approval from both the utility owner and the Authority.

5. Notice to Relocate to utility owners: If it is determined that the utility needs to be relocated, RCs prepare and transmit the draft Notice(s) for relocation to the Authority for review and issuance to utility owner(s). This activity needs to happen after the approval of the Environmental Document.
6. Design Agreement with the utility owner for protection or relocation of the utility: This document will establish design responsibility (by utility owner or the Authority), design schedule, and cost reimbursement method based on the utility owner's property rights and relocation responsibility. The agreement will be developed by the Authority and utility owner with support from the PMT. The Design Agreement process can start during the 30% preliminary engineering if there is only one HST alignment and no utility relocation is required. If there are multiple alignments or utility needs to be relocated, Design Agreement should start after the approval of the Environmental Document.
7. If relocation is required, develop and execute Utility Relocation and Cost Sharing Agreement: This agreement will specify construction and inspection responsibilities, schedule, and cost reimbursement method. This agreement will be developed by the Authority and utility owner with support from the PMT after approval of the relocation design and approval of the Environmental Document. If the utility is located within a railroad right-of-way, a separate Right of Entry and Construction Agreement with the railroad will be required. The agreements with the railroad will be developed by the Authority and the railroad company with support from the PMT after the approval of utility relocation design.
8. Acquire new right-of-way for the relocated utility: If the utility is located within an easement or fee ownership, the Authority will acquire the right-of-way for the relocated utility. If the utility is in franchise or under a revocable license, the utility owner shall acquire the needed right-of-way. Acquiring right-of-way shall start after the approval of the Environmental Document.
9. Issue the utility relocation construction contract: Based on the Relocation and Cost Sharing Agreement, either the Authority, with support from the PMT, or the utility owner will issue the construction contract for the relocation of the utility.
10. Inspection of relocation activities: This activity will be performed by both the utility owner and the Authority's construction management consultants to ensure compliance with both parties' requirements.
11. Survey of relocated utilities (by Authority's surveyor): Preparation of as-built plans (by designer of utility relocation plans) and incorporation of the as-built plans into the Authority's Design-Build contract plans (by Regional Consultants or Authority's Design-Build contractor depending on the timing



of relocation completion with respect to issuance of Design-Build procurement package)

12. Convey new property rights to utility owner: If the Authority acquires the right-of-way for the relocated utility, it will convey the new property rights to the utility owner. The PMT will support the Authority in the conveyance process.

### 3.2 NEW UTILITY SERVICES IN SUPPORT OF CHST OPERATIONS

1. Identification of utilities needed for the operation of CHSTP: During the 15% preliminary design phase, the RCs and PMT will identify the utilities needed for CHSTP operations.
2. Identify new utility services that require regulatory approval and obtain regulatory approval: PMT will identify new utility services that need regulatory approval and will support the Authority to obtain the required approvals during 30% preliminary engineering.
3. Develop and execute Design and Construction Agreement for new services: After the approval of the Environmental Document, the PMT will prepare draft Design and Construction Agreements for new services for the Authority's review and execution with the utility providers.
4. Establish and purchase right-of-way for the new utility services: After the approval of the Environmental Document, the utility provider will design its new services for HST operations and will establish the required right-of-way. The PMT, with support from utility providers, will assist the Authority with the acquisition of required property rights.
5. Issue contract for procurement and construction of new utility services: After the execution of a Design and Construction Agreement (step 3) and purchase of new right-of-way (step 4), the utility owner will issue a contract for the requested new service.
6. Inspection of new utility installation: If any portion of the new utility installation falls inside the Authority's right-of-way, inspection of the work will be performed by utility owner and Authority's construction management consultants to ensure compliance with both parties' requirements.
7. Survey of new utility installation: If any portion of the new utility is inside the Authority's right-of-way, the Authority's surveyor will survey the utility inside the right-of-way for preparation of property rights documents.
8. Preparation of as-built- plans: The utility company shall prepare the as-built plans for the new service within the Authority's right-of-way and provide the as-built information to the Authority's Design-Build or other construction contractor for incorporation into the project as-built plans.
9. Convey new property rights to utility owner: If right-of-way for the new utility service is acquired by the Authority, the acquired property and any property rights within the Authority's right-of-way will be conveyed to the utility owner with support from the PMT.



## **4.0 SUMMARY AND RECOMMENDATIONS**

### **4.1 POLICY RECOMMENDATION**

It is recommended to adopt Caltrans policy and procedures, where applicable, for utility encroachment and relocation policy within the Authority's right-of-way or construction limits. This recommendation is based on the multiple utilities that the Authority will interface with during construction and utility owners' familiarity with Caltrans utility policy and procedures.

### **4.2 COORDINATION RECOMMENDATION WITH UTILITY OWNERS**

It is recommended to engage the utility owners as early as possible during the project development phase of the CHSTP to allow sufficient time for constructive coordination and development of cost effective solutions. Furthermore, it is recommended to obtain commitment from the owners to deliver the new services or the required relocation work on schedule. This commitment is especially important for new services and relocation of utilities that are on the critical path. This commitment may require the owner to assign dedicated staff to design, oversee the design, and construct and oversee the construction of new or relocated facilities.

## **5.0 SOURCE INFORMATION AND REFERENCES**

Not applicable.

## **6.0 DESIGN MANUAL CRITERIA**

Not applicable.



## APPENDIX A

### ROLES AND RESPONSIBILITY MATRIX

Step	Activity	When	RC	PMT/ CMT	Authority	Utility Owner
1	Identification of Utilities	15% Design	R		S	A
2	Determination of whether utility can be protected or requires relocation	15% Design	R	S		A
3	Determination of the existing utility owner property rights	15% Design	R		S	A
4	Development of protection requirements	30% Design	R	S		A
5	Notice to Relocate to utility owners	After issuance of ROD	R	S	A	
6	Design Agreement with utility owners for protection or relocation of the utility	During 30% design if there is only one HST alignment. Otherwise, after issuance of ROD	S	S	R	A
7	Utility Relocation Agreement, if relocation is required.	After issuance of ROD and execution of the Design Agreement or can be combined with the Design Agreement	S	S	R	A
7A	Right of Entry and Construction Agreement with Railroads, if utilities to be relocated are inside railroad right-of-way	After issuance of ROD and in concert with Utility Relocation Agreement with the utility owner	S	S	R	S
8	Acquire right-of-way for the relocated utility (if Authority is responsible per Relocation Agreement)	After issuance of ROD and execution of the Relocation Agreement	S	S	R	
	(if Utility is responsible per Relocation Agreement)		S	S		R
9	Issue the utility owner relocation construction contact (if Authority is responsible per Relocation Agreement)	After issuance of ROD and completion of design and execution of the Relocation Agreement	S	R	A	
	(if utility owner is responsible per Relocation Agreement)					R
10	Inspection of relocated utilities	During the relocation of utility		A		A
11	Survey of relocated utilities; preparation of as-built plans; and incorporation into Authority's Design-Build contract plans	After installation of the utilities; upon completion of the relocation work	A	R		A
11	Convey new property rights to utility owner	After completion of utility relocation or protection of utility in place		S	R	

R = Responsible for Preparation  
Action

S= Support

A=



## APPENDIX B

### SEQUENCE OF UTILITY ACTIVITIES WITH ROLES AND RESPONSIBILITIES

Step	Activity	When	RC	PMT/CMT	Authority	Utility Owner
1	<b>Identification of Utilities</b>	15% Design	1. RC to identify utilities within the proposed Authority's right of way and construction limits and provide the limits to utility owners to verify and provide their utility maps to RC.			1. Provide RC with the latest utility map of their facilities
		15% Design	2. RC to request for positive location of utilities through Authority's Utility Coordinator		Process the request for positive location of utilities to utility owners	2. Perform positive location of utilities within the proposed construction limits
2	<b>Determination of whether utility can be protected or requires relocation</b>	15% Design	Evaluate the level of conflict and make a determination whether the utility can be protected in place or needs relocation.	Provide the guidelines for determining the protection and relocation requirements		Provide utility requirements for protection of utility in place. Concurrence with protection or relocation of the utility.



4	<b>Development of protection requirements</b>	30% Design	Include the utility protection requirements into plans and specs	Package the protection requirements into DB procurement documents		Provide the utility protection requirements to RC
5	<b>Notice to Relocate to Utility Owners</b>	After issuance of ROD	Prepare draft Issue Notice to Relocate to Utility Owners for transmittal by the Authority	Review the draft Notice and submit to Authority for issuance	Issue Notice to Relocate to Utility Owners	
6	<b>Design Agreement with Utility Owners for protection or relocation of the utility</b>	During 30% design if there is only one HST alignment. Otherwise, after issuance of ROD	Provide support to the PMT as needed	Provide support to the Authority as needed	Prepare Design Agreement. Establish scope (who performs the design), schedule, cost and cost sharing split based on Utility owner property rights	Participate in negotiation and execution of the Design Agreement
7	<b>Utility Relocation Agreement, if relocation is required.</b>	After issuance of ROD and execution of the Design Agreement or can be combined with the Design Agreement	Provide support to the PMT as needed	Provide support to the Authority as needed	Prepare Relocation Agreement. Establish scope (who performs the relocation, inspection, and acquiring right of way), schedule, cost and cost sharing split based on Utility owner property rights	Participate in negotiation and execution of the Relocation Agreement



7A	<b>Right of Entry and Construction Agreement with Railroads, if utilities to be relocated are inside railroad right of way</b>	After issuance of ROD and in concert with Utility Relocation Agreement with the utility owner	Provide support to the PMT as needed	Provide support to the Authority as needed	Prepare Right of Entry and Relocation Agreement with the railroad. Establish scope (who performs the relocation, inspection), schedule, cost and reimbursement for railroad flagging and monitoring costs	Provide support to the Authority as needed
8	<b>Acquire right of way for the relocated utility</b>	After issuance of ROD and execution of the Relocation Agreement	Provide support (such as plats and legal for the relocated utility) to the PMT as needed	Provide support to the Authority as needed	Acquire right of way if responsible for the task based on the Relocation Agreement	Acquire right of way if responsible for the task based on the Relocation Agreement
9	<b>Issue the utility relocation construction contract</b>	After issuance of ROD and completion of design and execution of the Relocation Agreement	Provide support to the PMT as needed	Provide support to the Authority as needed	Issue the Relocation Construction contract if responsible for the task based on Relocation Agreement	Issue the Relocation Construction contract if responsible for the task based on Relocation Agreement
10	<b>Inspection of relocated utilities</b>	During the relocation of utility		Provide inspection services for the Authority to ensure compliance with CHSTP requirements		Provide inspection services to ensure compliance with utility's requirements



11	<b>Survey of relocated utilities; preparation of as-built plans; and incorporation into Authority's Design-Build contract plans</b>	After installation of the utilities; upon completion of the relocation work	Incorporation of as-built plans into Authority's Design-Build contract documents if work is completed prior to start of Design-Build construct.	Provide inspection and surveying support to the Authority if the relocation is not included in DB contract		Provide surveying services
11	<b>Convey new property rights to Utility Owner</b>	After completion of utility relocation or protection of utility in place		Provide support to the Authority as needed	Transfer new property rights to Utility Owner if new right of way was acquired by the Authority	Accept the new right of way from the Authority



### APPENDIX C

#### SEQUENCE OF UTILITY ACTIVITIES WITH ROLES AND RESPONSIBILITIES







