

## Kimley-Horn 35% Augmentation Scope of Work and Budget

### 35% Plans Package

#### 1. Project Management

##### *Project Management, Coordination, Administration, and Accounting*

For this scope of work it is assumed the management activities will last up to 5 months, including up to two submittal cycles consisting of a draft 35% submittal, review and finalized 35% plan set submittal. This task covers project management, attendance at project meetings, Peninsula Corridors Joint Powers Board (Caltrain) and City of Mountain View coordination, and project accounting. The management activities are as outlined in the following sub-task descriptions:

##### *Sub-Task—Project Administration*

Kimley-Horn staff's administration efforts include initial development and maintenance of project schedule (Critical Path Method or equal), work plan, and processing timely invoices.

##### *DELIVERABLES:*

- *Electronic copy of Project Schedule and Monthly Invoices*
- *Updated 35% Cost Estimate*
- *Internal Project Files and Work Plan*
- *File correspondence, emails, and memos*

##### *Sub-Task—Meetings*

Kimley-Horn will participate in monthly design coordination meetings. We assume the majority of these will be handled via conference call, with a total of three (3) in-person meetings. Ahead of these meetings, we will develop short bullet-point agendas. In-person meetings will be held at the City or Caltrain offices.

Kimley-Horn will take and distribute draft meeting minutes after each meeting for review and comment/approval. Comments will be incorporated and final meeting minutes will be distributed to Caltrain and City staff.

##### *DELIVERABLE:*

- *Meeting agendas*
- *Electronic copy of meeting minutes (draft and final) Attendance at up to three (3) project meetings*

##### *Sub-Task—Coordination*

Kimley-Horn will coordinate with project stakeholders, including:

- Caltrain
- City of Mountain View
- County
- Utility Companies
- VTA

##### *DELIVERABLE:*

- *Electronic copy of meeting minutes*

##### *Sub-Task—Quality Control*

Kimley-Horn follows a structured QC/QA process that will be implemented throughout the life of the project. Senior staff will perform independent reviews ahead of major report and plan submittals (35%) to confirm the quality of our deliverables.

##### *DELIVERABLE:*

- *QC/QA check prints*

## 2. Data Collection

*Potholing* – Up to 20 Additional Potholes will be performed by a qualified and licensed subsurface utility exploration (SUE) Contractor. Potholing effort will include required permitting, traffic control, and field mobilization. Any required permit fees will be paid by the Client. Pothole data will be used to revise as necessary existing utility locations, size, and depths. Pothole data will be provided and added to the existing Pothole exhibit as well as the existing utility matrix.

**DELIVERABLES:**

- *Electronic copy of Pothole Data, including Utility depth, size, type, location, material, and any other field observations encountered*

*Additional Survey* – Kimley-Horn team will perform additional hard shots to cover expanded areas of the project limits and proposed work. See Attachment A for the detailed areas of hard shots (Mark Thomas – Subconsultant). Hard shots to include: curb, gutter, median shots and/or centerline shots every 50' to get roadway crown slopes, utilities, trees/vegetation.

**DELIVERABLES:**

- *Electronic copy of survey hard shots in CADD per project DATUM requirements*

## 3. Civil Improvement Plans

*Demo and Removal Plans* – Stand alone demolition and removal sheets will be developed for the entire project limits of proposed work. 10 Demo sheets at 20 scale are anticipated.

*Roadway Profile Sheets* – Using the additional survey information collected in the field an expanded DTM (3-dimensional grading surface) will be created. The Kimley-Horn team will then develop proposed profiles of new curb alignments and roadway centerlines as applicable. New 20 scale profile sheets, anticipated to be 7 sheets in total, will be developed for the following roadways:

- i. Central Expressway,
- ii. Moffett Blvd,
- iii. Evelyn Ave,
- iv. Castro Street
- v. Easy Street

**DELIVERABLES:**

- *Six (6) half-size hard copies of 35% Demolition and Roadway Profile Sheets*
- *Three (3) full-size hard copies of 35% Demolition and Roadway Profile Sheets*

## 4. Drainage Plans

*Temporary Drainage Plans* – 35% Erosion and Water Pollution Control Plans will be developed and include proposed work in all roadway/project areas. 16 sheets are anticipated.

*Stormwater and drainage report* – Hydrology and hydraulics will be analyzed. The following effort is included:

- Review as-builts for storm drain infrastructure in the vicinity of the project area.
- Create high-level existing and proposed condition hydrology exhibits.
- Perform hydrology calculations for existing and proposed conditions to quantify the storm water runoff.

- Preliminarily size pipes with Bentley's Flowmaster Software.
- Draft and Final report summarizing findings. Assumes up to two (2) review cycles.

*Permanent Drainage Plans* – 35% Storm Drain Plan and Profile sheets will be developed. Plan and profile sheets will include mainline and lateral pipes, sizing, material, depth, inlet size and type, location, invert elevations, and slopes. Infrastructure sizing, including inlets, mainlines, and laterals, will be based on the findings of the hydrology and hydraulics report. 10 sheets are anticipated to be developed.

**DELIVERABLES:**

- Six (6) half-size hard copies of 35% Temporary and Permanent Drainage Plans
- Three (3) full-size hard copies of 35% Temporary and Permanent Drainage Plans
- Two (2) copies of Draft and Final Hydrology and Hydraulic Report

5. Signing and Striping

*Signage Sheets* – New 35% signage design will be added to the existing 35% striping sheets previously developed for all project areas, including the following roadways: Moffett Blvd., Central Expressway, Castro St., Evelyn Ave, Easy St., and Franklin St. It is anticipated that 10 striping / signage sheets will be required at 20 scale.

**DELIVERABLES:**

- Six (6) half-size hard copies of 35% Signage and Striping Plans
- Three (3) full-size hard copies of 35% Signage and Striping Plans

6. Construction Staging Plans

Staging and conceptual phasing plans will be developed as part of the 35% augmentation submittal package. This effort will include the following components of work:

- Interim design and staging plans for Castro St. / Central Expressway at-grade rail crossing. The interim design will address the need to accommodate pedestrian and bicycle users traveling between Castro St. and Central Expressway during construction of the undercrossing. The preliminary design and phasing will be developed to provide continuous access between these roadways until the undercrossing is complete and operational. 4 Sheets anticipated
- Staging plans for the Central Expressway undercrossing construction. Preliminary phasing and staging of work will be developed to accommodate both pedestrians, bicyclists and vehicles traveling through the Central Expressway / Moffett Blvd. intersection. With exception of vehicles traveling southbound to Castro St. which will be closed permanently following completion of the Evelyn Ramp to Shoreline Blvd. connection, all directional traffic flows will need to be maintained during construction at this intersection. 4 sheets anticipated.
- Staging plans for Evelyn Ramp. Evelyn Ramp construction will be required to be completed prior to vehicular closure of the Castro St. / Central Expressway at-grade intersection. Staging and phasing plans will address this required phasing as well as the required Franklin Street closure. 2 sheets anticipated
- Staging plans for Moffett Blvd. will be required to accommodate both half and full street reconstruction of the roadway between Central Expressway and Central Avenue. 2 sheets anticipated.

**DELIVERABLES:**

- Six (6) half-size hard copies of 35% Construction Staging Plans
- Three (3) full-size hard copies of 35% Construction Staging Plans

## 7. Traffic Handling Plans

Traffic handling plans will be developed as part of the 35% augmentation submittal package. The traffic handling plans are expected to include multiple unique phases as well as standard traffic handling details as required to safely and adequately route traffic through and around expected construction zones and staging. Preliminary traffic handling plans will be developed for the following roadways:

- a. Central Expressway, 8 sheets anticipated
- b. Evelyn Avenue, 3 sheets anticipated
- c. Castro Street, 3 sheets anticipated
- d. Moffett Blvd., 6 sheets anticipated

### *DELIVERABLES:*

- Six (6) half-size hard copies of 35% Traffic Handling Plans
- Three (3) full-size hard copies of 35% Traffic Handling Plans

## 8. Existing and Proposed Utility Plans

*Existing Utility Plans and Matrix* - Following completion of potholing the information gathered will be used to update the existing utility cadd base files, including layout location, material type, size, and depth information. The data will be added into the existing utility matrix including any new information acquired for utility ownership. New stand-alone existing utility plans will be developed, 6 sheets anticipated.

*Proposed Utility Plans and Profiles* – Proposed utility layout sheets will be developed based on pothole data information and updated existing utility layouts. Water, gas, and sewer relocations required at the proposed undercrossings at Central Expressway and Castro Street will include preliminary profiles. Relocated communication and electrical lines will have proposed depths called out in plan sheets. 10 sheets anticipated.

### *DELIVERABLES:*

- Six (6) half-size hard copies of 35% Existing and Proposed Utility Plans
- Three (3) full-size hard copies of 35% Existing and Proposed Utility Plans
- Utility Matrix Spreadsheet

## 9. Trackwork Plans

Temporary removal of existing northbound and southbound Caltrain tracks will be required for construction of the proposed undercrossing. Preliminary track plan sheets will be developed for reconstruction of affected track segments. Required removals, modifications, and improvements to track signaling associated with the removal of the Castro Street signalized intersection crossing will not be included in the 35% augmentation plan set and will be addressed in future project submittal phases. 3 track sheets anticipated.

### *DELIVERABLES:*

- Six (6) half-size hard copies of 35% Track Plans
- Three (3) full-size hard copies of 35% Track Plans

## 10. Architectural Plans

Detail sheets further defining wall surface treatments of undercrossings and portals will be developed in the 35% augmentation plan set. 2 sheets are anticipated. Refined architectural section and profile views of the undercrossing, accessways, and portals to be completed in future phases of design.

### *DELIVERABLES:*

- Six (6) half-size hard copies of 35% Architectural Detail Sheets

- *Three (3) full-size hard copies of 35% Architectural Detail Sheets*

## 11. Communication Plans

Preliminary communication plans will be developed for the 35% augmentation plan set. The communication plans will provide locations of proposed CCTV cameras, type, and direction/coverage area; along with associated schematic conduit layout and size. 4 plan sheets at 20 scale are anticipated. Variable message sign (VMS) details, type, location, size, and content will be developed in the 65% design phase.

### *DELIVERABLES:*

- *Six (6) half-size hard copies of 35% Communication Plan Sheets*
- *Three (3) full-size hard copies of 35% Communication Plan Sheets*

## 12. Structural Plans

Undercrossing, accessway, and portal structural plans and details will be further defined in the 35% augmentation package. Design refinement will include added dimensions, added clarity on foundation and footing information, structural wall information, heights, and clearances. No Type Selection Report (TSR), additional geotechnical borings, analyses, or geotechnical report is included in this scope of work. A full geotechnical report, including field borings at Evelyn Ramp and the undercrossings/portals will be performed in the 65% design phase. Therefore, further detailed refinement and design of all proposed CIDH piles and structural walls will be deferred to the future phase of work. This augmentation structural scope of work is limited to design/plan sheet additions that do not require additional geotechnical input at this time. No new structural sheets are anticipated to be developed for the 35% augmentation package.

### *DELIVERABLES:*

- *Six (6) half-size hard copies of 15% Refined Structural Plan Sheets*
- *Three (3) full-size hard copies of 15% Refined Structural Plan Sheets*

## 13. Electrical and Lighting Plans

Kimley-Horn will coordinate with Caltrain and the City on required lighting levels and perform a lighting analysis in all proposed undercrossing, accessway, and portal locations. The lighting analysis will detail candlelight levels in all areas of said proposed improvements. Lighting plan sheets and schematic layout of electrical conduit will be developed. Proposed light types and size/wattage will be provided along with conduit type and size. Lighting plan sheets along existing roadways including Evelyn Rd, Castro St., Central Expressway, and Moffett Boulevard that require light relocations due to proposed improvements will be developed. No lighting analysis along existing roadways will be performed. The existing light spacing, type, pole, and foundation, per County and City standards will be utilized. 8 sheets in total are anticipated.

### *DELIVERABLES:*

- *Lighting analysis exhibit*
- *Six (6) half-size hard copies of 35% Lighting and Electrical Sheets*
- *Three (3) full-size hard copies of 35% Lighting and Electrical Sheets*

## 14. Traffic Signal Plans

Preliminary signal layout sheets and signal phasing plans will be developed for the proposed modification of the Central Expressway / Moffett Boulevard Intersection and the proposed new Evelyn Rd (ramp) / Shoreline Boulevard intersection. Layout sheets will include schematic conduit layouts and conduit schedules, vehicle detection type and locations, preliminary pole and foundation sizes and type, and signal head placements. 6 sheets in total are anticipated.

*DELIVERABLES:*

- *Six (6) half-size hard copies of 35% Traffic Signal Plans*
- *Three (3) full-size hard copies of 35% Traffic Signal Plans*

## 15. R/W Data

Temporary Construction Easement (TCE) sheets will be developed. The TCE sheets will include required locations of construction easements for all project areas. Easement locations, dimensions, and property ownership will be provided on the plan sheets. 3 plan sheets anticipated at 40 scale.

Temporary Laydown areas will be determined and shown on plan sheets. The laydown area plan sheets will provide property ownership information, location, anticipated dimensions, and proposed access in and out of the laydown areas needed during construction. 3 plan sheets at 40 scale are anticipated.

*DELIVERABLES:*

- *Six (6) half-size hard copies of 35% TCE and Laydown Area Plan Sheets*
- *Three (3) full-size hard copies of 35% TCE and Laydown Area Plan Sheets*

## 16. Risk Register

A risk register will be developed per typical Caltrans PSR-PDS standards. The risk register spreadsheet will include risk levels of Low, Medium, and High with risk items detailed in the left column. The Kimley-Horn team will coordinate with Caltrain and City of Mountain View staff to determine a comprehensive risk item list for the register and associated assessments for each.

*DELIVERABLES:*

- *Electronic copy of Risk Register to be provided.*

## 17. Basis of Design Report

A Basis of Design Report will be drafted and submitted to Caltrain and the City as part of the 35% augmentation scope of work. The report will detail applicable design standards for each component of the project. The project area encompasses numerous jurisdictional boundaries including, Caltrain, City of Mountain View, and the County. Design standards will generally be applied and utilized per local jurisdictions. In an effort to achieve consistency across jurisdictional boundaries the Kimley-Horn team will coordinate with the three primary agency stakeholders to determine any discrepancies between standards and select the most appropriate design standard if necessary.

*DELIVERABLES:*

- *Electronic copy of Basis of Design Report to be provided.*

## Kimley-Horn 35% Augmentation Budget

Task	Name	KHA Estimate
1	Project Management	\$17,000
2	Data Collection - Potholes (20)	\$40,000
	Tasi Support	\$5,000
3	Civil Improvement	
	Demo and Removal Plans (10 Sheets)	\$20,000
	Profile Sheets (7 Sheets) + Grading/DTM	\$33,000
	Additional Survey	\$38,000
4	Temp Drainage Plans (8 Sheets)	\$12,000
	Perm Drainage Plans (10 sheets)	\$17,000
	Stormwater/Drainage 35% Report	\$19,900
5	Striping Plan Sheets (10 sheets)	\$18,800
6	Construction Staging Plans (10 sheets)	\$22,000
7	Traffic Handling Plans (20 sheets)	\$37,500
8	Utility Plans	\$17,500
9	Trackwork Plans (3 sheets)	\$9,000
10	Architectural Plans (2 sheets)	\$7,000
11	Communication Plans (4 sheets)	\$7,500
12	Structure Plans (updates to 6 sheets)	\$16,000
13	Electrical and Lighting Plans (8 sheets)	\$16,000
14	Traffic Signal Plans (6 sheets)	\$12,000
15	R/W - TCE Layout Sheets (3 sheets)	\$6,600
	R/W - Temp Laydown Area (3 sheets)	\$5,700
16	Project Schedule	\$2,500
17	Basis of Design	\$10,000
	Risk Register	\$5,000
	Geotech/Foundation Report	\$5,000
	Additional Services	\$20,000
	<b>KHA Team Total</b>	<b>\$420,000</b>