

Central Avenue Safety Improvement Project

Scope of Work: PS&E Phase

1. Project Management

The scope outlined below for Project Management will cover activities through the Plans, Specifications, and Estimates (PS&E) phase. The subtasks described below will allow CDM Smith to 1) measure contract conformance, 2) manage risks, changes and quality, 3) lead the consulting team, 4) communicate with the City of Alameda, and 5) successfully deliver the requirements of this Scope of Work.

1.1 Project Management Plan (PMP)

CDM Smith will update and maintain the PMP that was developed during the Project Initiation Document (PID) phase and maintained during the Project Approval and Environmental Document (PA&ED) phase, that will include a project risk register, project schedule and issues log. The risk register will identify potential risks and delineate the actions needed to mitigate the risks. The project schedule will reflect the workflow that culminates in deliverable submittals. It will include project meetings and will reflect City review timelines. The PMP will be reviewed at the monthly coordination meetings and updated accordingly.

Assumption(s):

1. The PMP, including risk register, project schedule, and issues log, will be updated monthly.

Deliverable(s):

1. Project Management Plan (updated monthly)
 - a. Risk Register (XLSX)
 - b. Project Schedule (PDF)
 - c. Issues Log (XLSX)

1.2 Monthly Progress Reports and Invoices

Each month, CDM Smith will submit a progress report and invoice in a format that is agreed upon by the City. Charges, including Subconsultant charges, will be tracked at the task level. The progress reports will include a summary of start, finish, and percent complete for deliverable tasks performed during the billing period, percent complete of overall project elements, and a list of the anticipated deliverable tasks for the next month. Meetings attended will be cited. The progress reports will also identify any problems, issues, concerns or potential scope, schedule, and budget impacts with potential solutions for resolving them.

Assumption(s):

1. Monthly progress reports and invoices will be for the period of February 2021 through June 2022.

Deliverable(s):

1. Monthly progress reports and invoices (PDF, 8)

1.3 Subconsultant Management

CDM Smith will manage team resources to achieve project goals in a consistent, coordinated, and orderly manner. This task includes the work necessary to provide the leadership that the team will need to understand project interfaces, deadlines, budget constraints, and other issues.

CDM Smith will prepare the Subconsultant's contract agreements and will manage Subconsultants so that the CDM Smith Team effectively implements the work plan and coordinates work activities. CDM Smith will review Subconsultants' work; but that review is included as part of the specific task for which the work is developed.

CDM Smith will review the Subconsultants' monthly progress reports and invoices to verify the tasks completed and charges are consistent with the scope of work.

1.4 Document Control

CDM Smith will prepare an electronic filing system for this project and maintain project documents on a project-specific Workroom (SharePoint) site. CDM Smith will maintain a log of requested and provided project data filed on the Workroom. CDM Smith will post draft and final submittal deliverable documents to the Workroom. Posting to the Workroom will constitute a submittal of the deliverable. A register of the deliverables that itemizes deliverable description, associated task, firm responsible, number of copies, and date submitted will be developed. The register will be updated following each submittal and kept on the Workroom.

Deliverable(s):

1. Project specific Workroom (SharePoint site)
2. Register of Deliverables (XLSX)
3. Data Request Log (XLSX)

1.5 Quality Management

The major purpose of a quality program is to validate that the checked and reviewed deliverable documents comply with applicable regulatory and design criteria, codes, and standards in a consistent and uniform manner using industry standards and applicable requirements. Quality Assurance (QA) and Quality Control (QC) program requirements will be included in a Quality Management Plan (QMP).

CDM Smith will update the project-specific QMP from the PID and PA&ED phases covering the QA and QC for this project. The QMP will include a list of deliverables subject to quality control and prescribe the appropriate QC process for that deliverable.

The CDM Smith Quality Manager (CQM) will confirm that QC procedures defined in the QMP are met prior to the release of deliverables to the City. The City Project Manager will review the quality audits conducted by the CDM Smith CQM and at its discretion perform its own review of project QC documentation in coordination with the CQM.

QC processes will be integrated as activities, with durations, in the project schedule, implementing the QC process into the workflow for each deliverable. The cost for implementing the QC process is included in the task that prescribes the deliverable. It is not included in this task.

Assumption(s):

1. The QMP will be revised based on one round of consolidated non-conflicting comments from the City.
2. The QMP will be made available to team members and they will certify that they have read it.
3. QC processes will be integrated into the project schedule.

Deliverable(s):

1. Draft Quality Management Plan (DOCX)
2. Final Quality Management Plan (PDF)
3. Quality Control Log (XLSX)

2. Project Team Meetings

CDM Smith will plan and facilitate project meetings for the duration of the project. Agendas and meeting notes will be provided for project meetings.

2.1 Project Kick-off Meeting

CDM Smith will prepare and conduct a kick-off meeting for the PS&E phase with City staff. The meeting will address the project's measures of success, roles, responsibilities, quality control procedures, and operating guidelines. The meeting is needed to ensure effective communications and decision-making during the subsequent project execution activities.

CDM Smith attendees will be limited to the CDM Smith Principal-in-Charge, Project Manager and Task Leads.

CDM Smith will prepare meeting notes. The draft meeting notes will be sent to the City project manager for review. The City's comments will be incorporated into the final meeting notes.

Assumption(s):

1. The Project Kick-off Meeting will be two (2) hours in length and will be held at the City of Alameda City Hall.
2. Attendees for CDM Smith will include the Project Manager, the Principal-in-Charge, the Design Lead, and the design leads for two (2) subconsultants.

Deliverable(s):

1. Project kick-off meeting agenda
2. Meeting notes

2.2 Management Team Meetings

CDM Smith will plan and facilitate up to eight (8), 30-minute, management team meetings, held via conference call. The purpose of the meetings is to discuss and update the PMP, schedule, risk register, and issues log. Attendees will include the Project Manager from CDM Smith and the Project Manager from the City.

Assumption(s):

1. Management Team Meetings will be up to thirty (30) minutes and will be held every month.
2. Management Team Meetings will be attended by the CDM Smith Project Manager and the CDM Smith Principal-in-Charge.
3. Management Team Meetings will be scheduled by CDM Smith and held via Skype.

Deliverable(s):

1. Meeting agendas (8)
2. Meeting notes (8).

2.3 Project Team Coordination Meetings

CDM Smith will plan and facilitate up to eight (8), one-hour, monthly Project Team Coordination meetings which will be held to coordinate work and resolve project issues. City staff, the CDM Smith Project Manager and task leads will attend as appropriate for the topics of the meeting. Meeting will be held via conference call.

Assumption(s):

1. Project Team Coordination Meetings will be attended by the CDM Smith Project Manager and task leads as needed, up to four (4) attendees.
2. Project Team Coordination Meetings will be up to one (1) hour in length.
3. Project Team Coordination Meetings will be scheduled by CDM Smith and held via Skype.

Deliverable(s):

1. Meeting agendas (8)
2. Meeting notes (8)

3. Public Outreach and Meetings**3.1 Stakeholder Meetings**

CDM Smith will facilitate up to two (2) stakeholder meetings to coordinate on design elements for the project, with a particular focus on the Central Avenue/Webster Street

and Central Avenue/Third Street intersections. Stakeholders will be identified in close consultation with the City and may include local business owners and business associations; bicycle, pedestrian, and/or transit advocates; students and school representatives; and/or residents along the corridor. This scope assumes that City staff will provide contact information for individual stakeholders and will provide the meeting space; CDM Smith will prepare meeting materials (as described in Task 3.3 below) and facilitate the meetings.

Assumption(s):

1. The City will provide the meeting location with required furniture, such as tables and chairs, or CDM Smith will provide a conference call line.
2. CDM Smith will prepare meeting materials (as described in Task 3.3 below) and will facilitate the meetings.
3. Stakeholder meetings will be attended by up to four (4) attendees.
4. Stakeholder meetings will be up to two (2) hours in length.

Deliverable(s):

1. Meeting agendas (2)
2. Meeting notes (2)

3.2 Technical Advisory Committee (TAC) Meeting

CDM Smith will facilitate one (1) TAC meeting at the start of the PS&E process. The suggested TAC meeting would be held to review the 65 Percent design plans and gather input from TAC members. CDM Smith will work closely with City staff to identify TAC members; preliminarily, we recommend that TAC members include internal City representatives from the Transportation Planning, Community Development, Public Works and other relevant departments as well as AC Transit and the San Francisco Bay Trail representatives. CDM Smith will prepare meeting materials; City staff will be responsible for final determination of TAC membership and will arrange meeting logistics.

Assumption(s):

1. The City will arrange meeting rooms for the TAC meeting and will invite TAC members to the meeting.
2. CDM Smith will prepare meeting materials (as described in Task 3.3 below) and will facilitate the meeting.
3. The TAC meeting will be attended by up to four (4) attendees from CDM Smith.
4. The TAC meeting will be up to two (2) hours in length.

Deliverable(s):

1. Meeting agenda (PDF)
2. Meeting notes

3.3 Public Outreach Materials and Graphics

CDM Smith will provide meeting materials such as renderings, maps, and layouts for use at the Stakeholder Meetings and the TAC Meeting in Tasks 3.1 and 3.2, respectively.

This task provides an allocation of time and expense for the development and reproduction of outreach materials. Specific materials will be determined in coordination with the City project manager and the CDM Smith project manager during the project execution within the budget allotted.

CDM Smith will support City staff in clarifying the specific questions for which the City is seeking within the Stakeholder meetings and TAC meeting, that will focus on answers to those questions that move the process forward without reopening aspects of the design that will not change.

Assumption(s):

1. The City project manager and the CDM Smith project manager will determine the public outreach materials to be produced, within the budget allotted for this task.

Deliverable(s):

1. Content for the Stakeholder meetings and TAC meeting.

4. Caltrans Project Development

4.1 Design Exception Fact Sheets

CDM Smith will update the Advisory and Mandatory Design Exception Fact Sheets prepared during the PA&ED phase for approval of non-standard design features by Caltrans based on geometric changes during the PS&E phase.

Assumption(s):

1. The Design Exception Fact Sheets will be revised based on one round of consolidated non-conflicting comments from the City.
2. Caltrans will provide one round of comments.
3. One comment resolution meeting will be attended at Caltrans District 4 offices in Oakland, CA.

Deliverable(s):

1. Draft Advisory Design Exception Fact Sheet to the City (DOCX)
2. Draft Advisory Design Exception Fact Sheet to Caltrans (DOCX and PDF)
3. Final Advisory Design Exception Fact Sheet to Caltrans (PDF)
4. Draft Mandatory Design Exception Fact Sheet to the City (DOCX)
5. Draft Mandatory Design Exception Fact Sheet to Caltrans (DOCX and PDF)
6. Final Mandatory Design Exception Fact Sheet to Caltrans (PDF)

4.2 Caltrans PDT and Coordination Meetings

CDM Smith will facilitate up to four (4) Project Development Team (PDT) meetings with Caltrans. The meetings will be held at the Caltrans District 4 offices in Oakland, California. CDM Smith will prepare an agenda and PowerPoint presentation for each of these meetings.

CDM Smith will also prepare draft and final meeting notes. The draft meeting notes will be sent to the City and Caltrans project managers for review. Comments from the City and Caltrans will be incorporated into the final meeting notes.

Assumption(s):

1. PDT Meetings will be held at the Caltrans District 4 offices in Oakland.
2. PDT Meetings will occur semi-monthly.
3. Focus Meeting will be held at the Caltrans District 4 offices in Oakland or via Skype.

Deliverable(s):

1. PDT Meeting agendas (PDF, 4)
2. PDT Meeting PowerPoint presentation (PPTX and PDF, 4)
3. Draft PDT Meeting notes (DOCX, 4)
4. Final PDT Meeting notes (PDF, 4)

5. Traffic Analysis

5.1 Final Transportation Management Plan

CDM Smith will update the draft Transportation Management Plan (TMP) prepared in the PA&ED phase to support the PS&E phase. The final TMP will be prepared in accordance with Caltrans' *Transportation Management Plan Guidelines*. The TMP will outline strategies to minimize traffic disruption and congestion during construction. Caltrans TMP Guidelines include operational and demand management strategies in six broad categories. CDM Smith will analyze the various TMP strategies in each of the six categories and will identify whether each strategy will be suitable and what emphasis (high or low) should be assigned to each selected strategy. Once the list of appropriate elements is established, an approximate cost will be developed for each selected strategy. The final step is to compare TMP costs to the expected delay costs requiring mitigation to check for reasonableness and adjust the plan accordingly. One revision to the TMP will be prepared to incorporate comments. The TMP will also make specific provisions for pedestrian and bicycle traffic. No additional traffic counts will be required for the TMP. Supplemental traffic counts to analyze detours are not included in this scope of work. The work does not include specific parking analysis for temporary loss of parking due to construction.

Assumption(s):

1. The TMP will be revised based on one round of consolidated non-conflicting comments from the City.

2. Caltrans will provide one round of comments.

Deliverable(s):

1. Draft Final TMP to the City (DOCX)
2. Draft Final TMP to Caltrans (DOCX and PDF)
3. Revised Final TMP to Caltrans (DOCX and PDF)

6. Environmental

This scope assumes the project will have a categorical exemption/categorical exclusion (CE/CATEX).

6.1 Environmental Review

CDM Smith will work with the City to review any project changes during the PS&E phase to ensure environmental compliance with any commitments made in the CE/CATEX.

Assumption(s):

1. The CE/CATEX produced during the PA&ED phase will not be revised.

Deliverable(s):

1. No specific deliverables will be prepared as part of this task.

7. Support Services

7.1 Right-of-Way Coordination

CDM Smith will conduct research for Right-of-Way Plans that show the existing property lines. CDM Smith will define the extent of permanent easement and temporary construction easement acquisition necessary for project construction. The Right-of-Way Plan will show the right-of-way centerlines, section lines, quarter section lines, City limits, existing right-of-way parcel lines, proposed right-of-way lines, and proposed easement lines.

It is anticipated that no fee acquisition right-of-way is needed for the project but approximately 10 temporary construction easements (TCE) and 30 rights of entry (ROE) may be required.

The right of way impacts for the needed TCE's are assumed to be minor with minimal amount of square footage needed, uncomplicated, and any valuation would be \$10,000 or less. Based on this, it is assumed that sufficient valuation of each required interest can be accomplished via completion of a Waiver Valuation. Such valuations will be prepared in accordance with federal regulation 49 CFR 24.102(c)(2) and the Caltrans Right-of-Way Manual and will be provided in lieu of full appraisal and appraisal review reports. If these assumptions prove false, costs for full appraisal and appraisal review reports would be required and are not included in this scope of work.

To acquire the necessary interests for the project, the following are the services to be provided:

- R/W Project Management
- Preliminary Title Reports
- Right of Entry Agreements
- Waiver Valuations
- Acquisition/Negotiations
- Escrow Coordination
- R/W Certification

R/W Project Management

- Assisting with the development of administrative policies, procedures, and forms necessary to carry out the initial program.
- Ongoing general consultation and project coordination with the City and other project team members.
- Preparation of tracking reports that monitor the completion of project milestones of the various disciplines involved on the project.
- Coordinate with federal and state oversight agencies as applicable.

Title Investigation Services –Condition of Title Reports

- Secure vesting deeds, property profile, and tax map for each property.
- Secure a condition of title report for each property requiring a TCE.
- Secure copies of recorded back-up documents as needed.
- Share condition of title report information with right of way engineer, surveyor, and valuation staff for their use on the project.

Rights of Entry Support Services

- Draft Right of Entry (ROE) documents and secure approval as to form from City.
- Establish personal contact with property owners, wherever possible, present details of ROE.
- Negotiate with property owners and secure execution of required agreements.
- Provide regular status updates to any relevant parties associated with the Project Team.

- Facilitation of any payments, if any, from City to private property owners via mail.

Waiver Valuations

- Mail a “Notice of Decision to Inspect” letter and acquisition policies brochure to the property owner requesting permission to conduct an on-site inspection of the property, advising them of their right to accompany the inspector, and requesting information regarding the property which could influence the acquisition value.
- Inspect each property personally with the owner (if possible) and document the inspection with photographs for use in the report.
- Prepare an estimate of the probable cost of each easement interest, including (if applicable) damages to improvements, using created data sets from various real estate value databases.
- Prepare waiver valuation report, formatted according to Federal and State guidelines.
- Provide QA/QC of final work product, submit to client and other Project Team members and respond to inquiries.

Property Acquisitions/Negotiations

Negotiations

Following the City’s approval of just compensation, CDM Smith will present the City’s written purchase offer to the owners and/or owner’s representative. Negotiations will involve an interactive, face-to-face discussion with each property owner about subject property; explanation of the project and its impacts to the property; explanation of the valuation process and how the value was concluded; and answer any questions or concerns the owner may have.

All our agents are licensed with the DRE and trained to utilize a non-coercive, integrative negotiation style to overcome all hurdles in reaching a settlement in the most efficient manner possible. Our agents will negotiate in good faith, with an open mind for creative solutions that would be mutually beneficial to all parties involved. In the event a counter proposal is made, CDM Smith will evaluate its merits and make recommendations if an administrative adjustment or settlement is warranted based on the facts. CDM Smith consults with the real estate appraiser to provide supplemental research and analysis of property owner presented reports or theories. Supplemental negotiations may also include addressing any objection or question concerning the project the owner has by conferring with the City’s Project Manager. Once an agreement is reached, CDM Smith will submit the appropriate executed documents to the City for approval; including letters of recommendation with supporting documentation if an administrative settlement is being recommended.

Acquisitions

- Establish and maintain complete and current ownership files in a form acceptable to the City.

- Receive and analyze title information, waiver valuation reports, and legal descriptions in sufficient detail to negotiate with property owners and other parties.
- Prepare all offer letters and summary statements in accordance with state or federal regulations and approval of the City.
- Present written purchase offers to owners or their representatives in person, when possible. Secure receipt of delivery of offer as practical.
- Follow-up and negotiate with each property owner, as necessary; prepare and submit recommended settlement justifications to client for review and approval; review any independent appraisal secured by property owner and coordinate reimbursement of appraisal fees (up to \$5,000) with the City. Ongoing negotiations and settlement discussions will continue until settlement or impasse is reached.
- Prepare and assemble acquisition contracts, deeds, and related acquisition documents required for the acquisition of necessary property interests.
- Maintain a diary report of all contacts made with property owners or representatives and a summary of the status of negotiations indicating attitude of owners, problem areas, and other pertinent information. Copies of all applicable written correspondence will be maintained in files.
- Prepare an impasse letter for any parcel where, after diligent attempts to settle by negotiation, it appears eminent domain will be needed or prudent to acquire the needed interest.
- Transmit executed acquisition documents to client. Each transmittal package shall include a fully executed and properly notarized deed(s), fully executed acquisition contract with attachments, and a brief settlement memorandum which summarizes pertinent data relative to the transaction.

Escrow Coordination for Temporary Construction Easements

- Conduct an in-house escrow and coordinate execution of closing instructions pursuant to the terms of the right of way agreement.
- Review settlement statement and deed for accuracy.
- Upon all terms and conditions of the right-of-way agreement being met, request funds from City for payment of acquisition price.
- Upon receipt of funds from City, if recording TCE, record deed, release check to property owner by mail, FedEx or agent delivers.
- File documents from the beginning to the end and close file.

ROW Certification

- Attend certification planning meeting with the Caltrans' R/W Coordinator and project team.
- If applicable, acquire and include relocation activities as required for completion of certification form including utility notices and hi-low risk utility sheets as provided by the project's utility coordination team and engineers for Caltrans Right of Way Coordinator review.
- Verify that all interests necessary for the project have been secured. Prepare certification forms, in coordination with the engineer and the client, to include the compilation of all necessary back-up documents required including deed, final order of condemnation, access easements, cooperative agreements, permits, right of entries, etc.
- Attend and coordinate pre and post-audit submittal meetings.

Assumption(s):

1. Legal descriptions to accompany TCEs are to be provided by others.
2. Appraisal and appraisal review reports are not part of this proposal.
3. For TCE only acquisitions, escrows will be handled in-house with no clearance of title matters or subordination of liens or easements.
4. The actual costs for the owner's appraisals and the temporary easement acquisition costs will be paid by the City.

Deliverable(s):

1. Ten (10) Condition of Title Reports and underlying documents
2. Up to thirty (30) Right of Entry documents.
3. Up to ten (10) Waiver Valuations
4. Ten (10) written offer of just compensations, deeds, and right-of-way agreements; executed deeds and right-of-way agreements and administrative settlement, if applicable; and, closed file.
5. Final closed case and recorded deeds.
6. Right-of-Way Certification Form and all supporting documentation.

7.2 Hydrology and Hydraulic Analysis

CDM Smith will update the Drainage Report prepared during the PA&ED phase to incorporate any changes in the design during the PS&E phase. The PS&E level revisions will describe any changes made to the project drainage and water quality design features during the final design process. The hydraulic sizing calculations for the project drainage and water quality improvements will be finalized and documented in the Drainage Report.

Assumption(s):

1. The Hydrology and Hydraulic analyses will be conducted in accordance with the most recent versions of the Caltrans Highway Design Manual, the Statewide Stormwater Management Plan, the Project Planning and Design Guide, and the Caltrans NPDES Permit. Additional guidance, as appropriate, will also be obtained in the Alameda County Flood Control & Water Conservation District Hydrology and Hydraulics Manual.
2. The Drainage Report will be revised based on one set of consolidated non-conflicting comments from the City and one set of consolidated non-conflicting comments from Caltrans.

Deliverable(s):

1. Draft Drainage Report to the City (PDF and DOCX)
2. Draft Drainage Report to Caltrans (PDF and DOCX)
3. Final Drainage Report (PDF and DOCX)

7.3 Stormwater Data Report

The PA&ED level Stormwater Data Report (SWDR) will be revised to document the stormwater strategy of the project and the associated design details of BMPs incorporated into the project final design. Comments received from the City and Caltrans on the PA&ED level SWDR will also be incorporated as part of this SWDR revision.

Assumption(s):

1. The SWDR will be revised based on one set of consolidated non-conflicting comments from the City and one set of consolidated non-conflicting comments from Caltrans.

Deliverable(s):

1. Draft SWDR to the City (PDF and DOCX)
2. Draft SWDR to Caltrans (PDF and DOCX)
3. Final SWDR (PDF and DOCX)

7.4 Permitting

Permits for the proposed project identified in the PA&ED phase will be re-evaluated during the PS&E Phase. The project plans and specification will need to comply with the Caltrans Statewide Stormwater Permit and the City of Alameda MS4 permit for stormwater management. It is anticipated that the following permits will be required prior to construction of the project:

- State Water Resources Control Board (SWRCB) Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) for coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.
- Caltrans Encroachment Permit for work within the Caltrans Right-of-Way.

- City of Alameda Certificate of Approval to remove protected trees within Central Avenue Right-of-Way.

In addition to the permits above, the contractor will be required to obtain additional permits prior to construction which may include the following:

- Bay Area Air Quality Management District (BAAQMD) dust control during grading and construction activities and other air quality permits for the operation of mobile equipment.
- State Water Resources Control or Regional Water Quality Control Board permits for offsite disposal of excavated material at a landfill or other approved disposal site.

Assumption(s):

1. The following permits will be required:
 - a. National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.
 - b. Caltrans Encroachment Permit
 - c. City of Alameda Certificate of Approval
2. A City of Alameda Marsh Crust Permit will not be required.
3. The contractor will be responsible for obtaining BAAQMD, State Water Resources Control, and Regional Water Quality Control Board permits
4. The NPDES General Permit will be revised based on one set of consolidated non-conflicting comments from the City.
5. The Caltrans Encroachment Permit will be revised based on one set of consolidated non-conflicting comments from the City and one set of consolidated non-conflicting comments from Caltrans.
6. City of Alameda Certificate of Approval will be revised based on one set of consolidated non-conflicting comments from the City.

Deliverable(s):

1. A list of permits to be acquired by the contractor, including description of permit process, submittal requirements, schedule, and acquisition responsibility.
2. Blank agency permit application and checklist requirements for all required permits to be acquired by the contractor.
3. Draft NPDES General Permit (PDF)
4. Final NPDES General Permit (PDF)
5. Draft Caltrans Encroachment Permit to the City (PDF)
6. Draft Caltrans Encroachment Permit to Caltrans (PDF)
7. Final Caltrans Encroachment Permit to Caltrans (PDF)
8. Draft City of Alameda Certificate of Approval (PDF)
9. Final City of Alameda Certificate of Approval (PDF)

8. Engineering Plans, Specifications, and Estimates

8.1 65% Plan Development

CDM Smith will update the 35% plans prepared in the PA&ED phase based on comments on the 35% plans from the City, TAC members, and Caltrans. CDM Smith will incorporate consolidated and non-conflicting comments from the City and Caltrans on the 35% percent submittal and provide written responses as to how those comments will be addressed in the 65% design.

Title Sheet, Sheet Index and General Notes, Key Map, and Abbreviations and Legend

CDM Smith will update the Title Sheet containing project information, a Vicinity Map, and a Location Map.

CDM Smith will update the Index of Sheets containing the sheet number, drawing number, and sheet description for all sheets. CDM Smith will update general notes for the project.

CDM Smith will update a list of abbreviations and a legend containing all symbols and linetypes used in the plans.

CDM Smith will update a Key Map to show the limits of each plan sheet within the overall project area.

Survey Control, Monumentation, and Centerline Alignment

CDM Smith will update plans showing centerline bearings, alignment data, survey control points, and monument.

Right-of-Way

CDM Smith will update Right-of-Way Plans that show the existing property lines. CDM Smith will define the extent of permanent easement and temporary construction easement acquisition necessary for project construction.

The Right-of-Way Plan will show the right-of-way centerlines, section lines, quarter section lines, City limits, existing right-of-way parcel lines, proposed right-of-way lines, and proposed easement lines.

It is anticipated that no fee acquisition right-of-way is needed for the project.

Demolition

CDM Smith will update demolition plans that existing features and elements to be demolished or removed. CDM Smith will identify removal and salvage items and determine the disposition thereof.

Typical Sections

CDM Smith will update typical sections to capture all the scenarios along the corridor. The pavement section design will be based on recommendations from the Geotechnical Materials Report.

Existing Conditions

CDM Smith will update plans showing the existing conditions of the Central Avenue corridor.

Plan and Profile

CDM Smith will update preliminary plan and profile sheets showing profile grades and geometric data.

Intersection Details

CDM Smith will update intersection detail plans showing geometric data, including station/offsets, elevations, and curve data for proposed intersection improvement.

Curb Ramp Details

CDM Smith will prepare curb ramp details showing station/offsets, elevation, and ramp grades complying with the requirements of the United States Access Board's Public Rights-of-Way Accessibility Guidelines (PROWAG) and accepted construction tolerances.

Drainage Plan, Profiles, and Details

CDM Smith will update the 35% drainage system design for surface and sub-surface conveyances, drainage inlets, and water quality improvements as modifications to the existing system and for new facilities. It is assumed that the existing upstream and downstream drainage facilities that are outside of the project area are adequately sized and functioning as required and no design for improving these facilities is included.

CDM Smith will continue development of the drainage and water quality design drawings to illustrate the new stormwater facilities and their connections to the existing facilities. Drainage systems will be numbered and depicted in accordance with Caltrans conventions and will include the necessary details to clearly present the design concepts. The 65% level details are intended to provide a basis for the 65% cost estimates and will include preliminary level construction details. Technical specifications associated with the drainage and water quality design will also be identified and outlined during this task.

Water Quality Controls

As determined through finalization of the SWDR and input from the City and Caltrans, CDM Smith will continue to incorporate Design Pollution Prevention (DPP) and treatment BMPs, as appropriate, into the project design.

Because the newly added impervious area is less than 50% of the total project area, it is assumed that the sediment treatment BMPs will only treat the newly added impervious surface. It is also assumed that the trash related treatment BMPs will only be required in the high trash generating segment of the project area (industrial and commercially zoned land use areas). It is assumed that sufficient space is available within the existing project area boundaries to incorporate the water quality improvements.

The drainage and water quality design will comply with the applicable City and Caltrans flood control standards and water quality control requirements as follows:

1. The drainage design will be conducted in accordance with the most recent versions of the Caltrans Highway Design Manual and the Project Planning and Design Guide as on July 1, 2019. Additional guidance, as appropriate, will also be obtained in the Alameda County Flood Control & Water Conservation District Hydrology and Hydraulics Manual.
2. The capacity of the existing, downstream drainage infrastructure is sufficient to convey the 10-year peak flows from the project area without causing runoff to spread into the travelled lanes of Central Avenue.
3. Water quality facilities (treatment BMPs) will be designed in accordance with the sizing requirements specified in the Caltrans NPDES permit.

Existing Utility Plan

CDM Smith will update existing utility plans showing the location and type of all known utilities based on Task 7.4 Utility Coordination and Exploration of the PA&ED phase scope of work.

Utility Relocation and Protection Plan

CDM Smith will identify high risk utilities and utilities that are in conflict with the proposed project construction.

CDM Smith will update plans to show utility protections and relocations, both by the City's contractor and by others. CDM Smith will work with utility owners to identify appropriate locations for relocated utility facilities and establish preliminary protection and relocation schedules and requirements. CDM Smith will adhere to all utility company standards and requirements and make necessary utility plan revisions as become necessary during final plan design and approvals.

It is assumed the relocation of water, gas, electric, petroleum, telephone, and other communication facilities will be designed and carried out by their respective owners.

Stage Construction and Traffic Handling

CDM Smith will prepare traffic control plans with an outline for construction staging for areas of new pavement and hardscape construction. Construction staging will depict how construction of the project can be phased while accommodating existing vehicular, bicycle and pedestrian traffic, identifying necessary dimensions for work zones and work zone protections. CDM Smith will develop a concept for maintaining traffic flow through and around the work zones coordinated with the construction staging. Maintenance of traffic plans will depict schematically how many lanes of travel are open in each direction for each stage of construction, corresponding pavement delineation, and necessary signage in construction zones identifying travel routes and times for specific zones of construction activity. Maintenance of traffic will conform to the requirements of the California Manual on Uniform Traffic Control Devices (CA MUTCD).

Signing and Striping

CDM Smith will update preliminary plans depicting proposed pavement delineation and pavement markings, including curb colors for color-specified parking, lane lines, bikeway

marking, and pedestrian crosswalk markings. The limits of pavement delineation are assumed to match the roadway improvement limits. Proposed roadway signing plans will be developed at this time.

Traffic Signal and RRFB

CDM Smith will update plans for new traffic signals at the following intersection, if applicable:

- Central Avenue and Third Street

CDM Smith will update plans for the modification of existing traffic signals and modification at the following intersections:

- Central Avenue and Pacific Avenue/Main Street
- Central Avenue and Fourth Street
- Central Avenue and Webster Street
- Central Avenue and Eighth Street
- Central Avenue and Encinal Avenue/Sherman Street

CDM Smith will prepare 35% design plans for rectangular rapid flashing beacons (RRFB) at the following locations:

- Central Avenue and Lincoln Avenue
- Central Avenue and Crown Drive
- Central Avenue and Page Street
- Central Avenue and Caroline Street

The plans will include the locations of service and controller cabinets, signal poles and safety lighting, signal heads, vehicle detection, existing and proposed signal phasing, and pole and equipment and conductor schedules.

Street Lighting

CDM Smith will update plans for the street lighting improvements as well as prepare photometric plans at marked crosswalk locations along the Central Avenue corridor.

Water Pollution Control during Construction

CDM Smith will continue identification of temporary construction site best management practices (BMPs), compile the required information to support the development of the project Stormwater Pollution Prevention Plan (SWPPP), and update the water pollution control drawings. It is assumed that the Construction Contractor will be responsible for the development and implementation of the SWPPP, based on information provided in the design documents.

Landscape and Irrigation

CDM Smith will update planting and landscape materials plans showing location of existing and proposed trees, extents of new planting areas with lists of species to be planted, site furnishings and paving materials. Proposed plantings will comply with both the Model Water Efficient Landscape Ordinance (MWELo) and Rescape California.

CDM Smith will update tree preservation and removal plans showing trees to be removed, trees to remain, and tree protection measures including fencing and root buffers.

CDM Smith will update irrigation plans for planted areas requiring irrigation. Irrigation will be low water use and comply with both MWELo and Rescape California.

Assumption(s):

1. 65% Plans for one (1) option will be prepared.
2. 65% Plans will comply with the Bay Area Rapid Transit District (BART) CAD Standards Manual.
3. 65% Plans will consist of:
 - a. Title Sheet (1)
 - b. Sheet Index and General Notes (1)
 - c. Abbreviations (1)
 - d. Legend (1)
 - e. Key Map (2, 1" = 100')
 - f. Survey Control, Monumentation, and Centerline Alignment (4, 1" = 100')
 - g. Right-of-Way Plan (4, 1" = 40')
 - h. Demolition Plan (4, 1" = 40')
 - i. Typical Sections (4)
 - j. Existing Conditions (4, 1" = 20')
 - k. Plan and Profiles (16, 1" = 20')
 - l. Intersection Details (20, 1" = 10')
 - m. Curb Ramp Details (16, 1"=5')
 - n. Typical Details (3)
 - o. Drainage and Water Quality Plans (8, 1" = 40')
 - p. Drainage and Water Quality Profiles (8, 1" = 10')
 - q. Drainage and Water Quality Details (2)
 - r. Existing Utility Plan (4, 1" = 20')
 - s. Utility Relocation and Protection and Plan (4, 1"=20')
 - t. Stage Construction and Traffic Handling (16, 1"=50')
 - u. Signing and Striping (4, 1" = 40')
 - v. Traffic Signal and RRFB Plans (1"=20')
 - w. Street Lighting Plans (12)
 - x. Temporary Water Pollution Control Drawings (2, 1" = 100')
 - y. Planting and Landscape Materials Plans (8, 1" = 20')
 - z. Irrigation Plans and Details (8, 1"= 20')
 - aa. Tree Preservation and Removal Plans and Details (8, 1"=20')

Deliverable(s):

1. 65% plan set (half-size PDF)
2. Responses to City comments on the 65% plans (XLSX)
3. Responses to Caltrans comments on the 65% plans (XLSX)

8.2 65% Specifications

CDM Smith will identify all work items necessary for construction of the project. CDM Smith will assemble data and prepare drafts of (1) necessary modifications to the Caltrans Standard Special Provisions, (2) any necessary additional technical specifications, and (3) the “boilerplate” provided by the City.

Deliverable(s):

1. 65% Specifications (DOCX and PDF)

8.3 65% Engineer’s Opinion of Probable Construction Costs

CDM Smith will calculate construction quantities for cost estimating purposes based on the 65% design plans. Unit costs will be obtained from the Caltrans Cost Data Book, recent bid information, and in conjunction with City staff. Allowances will be included for any items not completely defined and measurable for construction cost.

Assumption(s):

1. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, CDM Smith will have no control over cost or price of labor and materials, unknown or latent conditions of existing equipment or structures that might affect operation or maintenance costs, competitive bidding procedures and market conditions, time or quality of performance by operating personnel or third parties, and other economic and operational factors that might materially affect the ultimate project cost or schedule. CDM Smith, therefore, will not warranty that the actual project costs, financial aspects, economic feasibility, or schedules will not vary from CDM Smith’s opinions, analyses, projections, or estimates.
2. Opinions of cost will include appropriate contingency factors to account for project uncertainties that cannot be explicitly accounted for at the project’s various engineering stages. Risks that have been identified will be listed along with potential cost and schedule impacts.
3. The effort to prepare quantities for the estimate unit cost items and lump sums will be provided under the respective design discipline task using the City’s standard measurements.
4. All “soft costs” to be included within the cost estimate, such as City procured items and City self-performed work will be provided to CDM Smith two weeks before the estimate due date.
5. Quantities will be developed from engineered drawings to the maximum extent feasible.
6. Quantities will be developed and broken out on block by block basis.

Deliverable(s):

1. 65% Engineer's Opinion of Probable Construction Costs (XLSX and PDF)

8.4 95% Plan Development

CDM Smith will update the 65% plans based on comments on the 65% plans from the City and Caltrans. CDM Smith will incorporate consolidated and non-conflicting comments from the City and Caltrans on the 65% percent submittal and provide written responses as to how those comments will be addressed in the 95% design.

Assumption(s):

1. 95% Plans for one (1) option will be prepared.
2. 95% Plans will comply with the Bay Area Rapid Transit District (BART) CAD Standards Manual.
3. 95% Plans will consist of:
 - a. Title Sheet (1)
 - b. Sheet Index and General Notes (1)
 - c. Abbreviations (1)
 - d. Legend (1)
 - e. Key Map (2, 1" = 100')
 - f. Survey Control, Monumentation, and Centerline Alignment (4, 1" = 100')
 - g. Right-of-Way Plan (4, 1" = 40')
 - h. Demolition Plan (4, 1" = 40')
 - i. Typical Sections (4)
 - j. Existing Conditions (4, 1" = 20')
 - k. Plan and Profiles (16, 1" = 20')
 - l. Intersection Details (20, 1" = 10')
 - m. Curb Ramp Details (16, 1"=5')
 - n. Typical Details (3)
 - o. Drainage and Water Quality Plans (8, 1" = 40')
 - p. Drainage and Water Quality Profiles (8, 1" = 10')
 - q. Drainage and Water Quality Details (2)
 - r. Existing Utility Plan (4, 1" = 20')
 - s. Utility Relocation and Protection and Plan (4, 1"=20')
 - t. Stage Construction and Traffic Handling (16, 1"=50')
 - u. Signing and Striping (4, 1" = 40')
 - v. Traffic Signal and RRFB Plans (1"=20')
 - w. Street Lighting Plans (12)
 - x. Temporary Water Pollution Control Drawings (2, 1" = 100')
 - y. Planting and Landscape Materials Plans (8, 1" = 20')
 - z. Irrigation Plans and Details (8, 1"= 20')
 - aa. Tree Preservation and Removal Plans and Details (8, 1"=20')

Deliverable(s):

1. 95% plan set (half-size PDF)
2. Responses to City comments on the 95% plans (XLSX)

3. Responses to Caltrans comments on the 95% plans (XLSX)

8.5 95% Specifications

CDM Smith update the project specifications.

Deliverable(s):

1. 95% Specifications (DOCX and PDF)

8.6 95% Engineer's Opinion of Probable Construction Costs

CDM Smith will update construction quantities for cost estimating purposes based on the 95% design plans. Unit costs will be obtained from the Caltrans Cost Data Book, recent bid information, and in conjunction with City staff. Allowances will be included for any items not completely defined and measurable for construction cost.

Assumption(s):

1. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, CDM Smith will have no control over cost or price of labor and materials, unknown or latent conditions of existing equipment or structures that might affect operation or maintenance costs, competitive bidding procedures and market conditions, time or quality of performance by operating personnel or third parties, and other economic and operational factors that might materially affect the ultimate project cost or schedule. CDM Smith, therefore, will not warranty that the actual project costs, financial aspects, economic feasibility, or schedules will not vary from CDM Smith's opinions, analyses, projections, or estimates.
2. Opinions of cost will include appropriate contingency factors to account for project uncertainties that cannot be explicitly accounted for at the project's various engineering stages. Risks that have been identified will be listed along with potential cost and schedule impacts.
3. The effort to prepare quantities for the estimate unit cost items and lump sums will be provided under the respective design discipline task using the City's standard measurements.
4. All "soft costs" to be included within the cost estimate, such as City procured items and City self-performed work will be provided to CDM Smith two weeks before the estimate due date.
5. Quantities will be developed from engineered drawings to the maximum extent feasible.
6. Quantities will be developed and broken out on block by block basis.

Deliverable(s):

1. 95% Engineer's Opinion of Probable Construction Costs (XLSX and PDF)

8.7 100% Plan Development

CDM Smith will update the 95% plans based on comments on the 95% plans from the City and Caltrans. CDM Smith will incorporate consolidated and non-conflicting comments

from the City and Caltrans on the 95% percent submittal and provide written responses as to how those comments will be addressed in the 100% design.

Assumption(s):

1. 100% Plans for one (1) option will be prepared.
2. 100% Plans will comply with the Bay Area Rapid Transit District (BART) CAD Standards Manual.
3. 100% Plans will consist of:
 - a. Title Sheet (1)
 - b. Sheet Index and General Notes (1)
 - c. Abbreviations (1)
 - d. Legend (1)
 - e. Key Map (2, 1" = 100')
 - f. Survey Control, Monumentation, and Centerline Alignment (4, 1" = 100')
 - g. Right-of-Way Plan (4, 1" = 40')
 - h. Demolition Plan (4, 1" = 40')
 - i. Typical Sections (4)
 - j. Existing Conditions (4, 1" = 20')
 - k. Plan and Profiles (16, 1" = 20')
 - l. Intersection Details (20, 1" = 10')
 - m. Curb Ramp Details (16, 1"=5')
 - n. Typical Details (3)
 - o. Drainage and Water Quality Plans (8, 1" = 40')
 - p. Drainage and Water Quality Profiles (8, 1" = 10')
 - q. Drainage and Water Quality Details (2)
 - r. Existing Utility Plan (4, 1" = 20')
 - s. Utility Relocation and Protection and Plan (4, 1"=20')
 - t. Stage Construction and Traffic Handling (16, 1"=50')
 - u. Signing and Striping (4, 1" = 40')
 - v. Traffic Signal and RRFB Plans (1"=20')
 - w. Street Lighting Plans (12)
 - x. Temporary Water Pollution Control Drawings (2, 1" = 100')
 - y. Planting and Landscape Materials Plans (8, 1" = 20')
 - z. Irrigation Plans and Details (8, 1"= 20')
 - aa. Tree Preservation and Removal Plans and Details (8, 1"=20')

Deliverable(s):

1. 100% plan set (half-size PDF)
2. Responses to City comments on the 100% plans (XLSX)
3. Responses to Caltrans comments on the 100% plans (XLSX)

8.8 100% Specifications

CDM Smith update the project specifications.

Deliverable(s):

1. 100% Specifications (DOCX and PDF)

8.9 100% Engineer's Opinion of Probable Construction Costs

CDM Smith will update construction quantities for cost estimating purposes based on the 100% design plans. Unit costs will be obtained from the Caltrans Cost Data Book, recent bid information, and in conjunction with City staff. Allowances will be included for any items not completely defined and measurable for construction cost.

Assumption(s):

1. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, CDM Smith will have no control over cost or price of labor and materials, unknown or latent conditions of existing equipment or structures that might affect operation or maintenance costs, competitive bidding procedures and market conditions, time or quality of performance by operating personnel or third parties, and other economic and operational factors that might materially affect the ultimate project cost or schedule. CDM Smith, therefore, will not warranty that the actual project costs, financial aspects, economic feasibility, or schedules will not vary from CDM Smith's opinions, analyses, projections, or estimates.
2. Opinions of cost will include appropriate contingency factors to account for project uncertainties that cannot be explicitly accounted for at the project's various engineering stages. Risks that have been identified will be listed along with potential cost and schedule impacts.
3. The effort to prepare quantities for the estimate unit cost items and lump sums will be provided under the respective design discipline task using the City's standard measurements.
4. All "soft costs" to be included within the cost estimate, such as City procured items and City self-performed work will be provided to CDM Smith two weeks before the estimate due date.
5. Quantities will be developed from engineered drawings to the maximum extent feasible.
6. Quantities will be developed and broken out on block by block basis.

Deliverable(s):

1. 100% Engineer's Opinion of Probable Construction Costs (XLSX and PDF)

8.10 Issue for Bid (IFB) PS&E Package

Based on comments from City staff from the 100% plan check, CDM Smith will revise the PS&E and produce and Issue for Bid (IFB) package for construction bidding.

Assumption(s):

1. IFB Plans for one (1) option will be prepared.
2. IFB Plans will comply with the Bay Area Rapid Transit District (BART) CAD Standards Manual.
3. IFB Plans will consist of:

- a. Title Sheet (1)
 - b. Sheet Index and General Notes (1)
 - c. Abbreviations (1)
 - d. Legend (1)
 - e. Key Map (2, 1" = 100')
 - f. Survey Control, Monumentation, and Centerline Alignment (4, 1" = 100')
 - g. Right-of-Way Plan (4, 1" = 40')
 - h. Demolition Plan (4, 1" = 40')
 - i. Typical Sections (4)
 - j. Existing Conditions (4, 1" = 20')
 - k. Plan and Profiles (16, 1" = 20')
 - l. Intersection Details (20, 1" = 10')
 - m. Curb Ramp Details (16, 1"=5')
 - n. Typical Details (3)
 - o. Drainage and Water Quality Plans (8, 1" = 40')
 - p. Drainage and Water Quality Profiles (8, 1" = 10')
 - q. Drainage and Water Quality Details (2)
 - r. Existing Utility Plan (4, 1" = 20')
 - s. Utility Relocation and Protection and Plan (4, 1"=20')
 - t. Stage Construction and Traffic Handling (16, 1"=50')
 - u. Signing and Striping (4, 1" = 40')
 - v. Traffic Signal and RRFB Plans (1"=20')
 - w. Street Lighting Plans (12)
 - x. Temporary Water Pollution Control Drawings (2, 1" = 100')
 - y. Planting and Landscape Materials Plans (8, 1" = 20')
 - z. Irrigation Plans and Details (8, 1"= 20')
 - aa. Tree Preservation and Removal Plans and Details (8, 1"=20')
4. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, CDM Smith will have no control over cost or price of labor and materials, unknown or latent conditions of existing equipment or structures that might affect operation or maintenance costs, competitive bidding procedures and market conditions, time or quality of performance by operating personnel or third parties, and other economic and operational factors that might materially affect the ultimate project cost or schedule. CDM Smith, therefore, will not warranty that the actual project costs, financial aspects, economic feasibility, or schedules will not vary from CDM Smith's opinions, analyses, projections, or estimates.
 5. Opinions of cost will include appropriate contingency factors to account for project uncertainties that cannot be explicitly accounted for at the project's various engineering stages. Risks that have been identified will be listed along with potential cost and schedule impacts.
 6. The effort to prepare quantities for the estimate unit cost items and lump sums will be provided under the respective design discipline task using the City's standard measurements.

7. All “soft costs” to be included within the cost estimate, such as City procured items and City self-performed work will be provided to CDM Smith two weeks before the estimate due date.
8. Quantities will be developed from engineered drawings to the maximum extent feasible.
9. Quantities will be developed and broken out on block by block basis.

Deliverable(s):

1. IFB plan set (full-size PDF)
2. IFB plan set (signed and sealed hard copy, 1)
3. Responses to City comments on the 100% plans (XLSX)
4. Responses to Caltrans comments on the 100% plans (XLSX)
5. IFB Specifications (DOCX and PDF)
6. IFB Engineer’s Opinion of Probable Construction Costs (XLSX and PDF)

9. Construction Bid Support

9.1 Construction Bid Support

CDM Smith will provide bidding support to the City during the construction contract procurement process. Services will include responding to bidders’ questions and providing information and clarification regarding the project design and technical specifications. Design addenda will be produced if necessary, to clarify design issues. The development of addenda to address unforeseen or new conditions outside the control of CDM Smith, is not included.

Following the bidding process, changes to the design resulting from bidding questions/clarifications and addenda will be incorporated into the design to produce a conformed set of final construction documents. The final construction documents will be reviewed and sealed by a registered civil engineer and will provide necessary plans, specifications, and quantity estimates, for use by the selected contractor for construction of the project.

Activities may include:

- Providing input to City staff to answer up to twenty (20) questions from potential bidders during the advertisement period
- Preparing revised documents associated with Addenda packages
- Preparing up to two (2) Addenda to the final bid package, as required to be Issued for Bid to City staff.
- Attend a pre-bid meeting and assist the City with responses to prospective bidder questions during the bid process.
- Attend a pre-construction meeting, if the City determines one is needed.

Assumption(s):

1. Bidding period will be eight (8) weeks for less.
2. The City will produce the necessary hard copies and manage distribution to potential contractors for bidding purposes.
3. The City is responsible for all bidding services required for procurement of a project construction contractor. Bidding support such as advertisement, bid tabulation and review, award recommendations, etc., is not included in this scope of work.
4. Bidder questions during the advertisement permit for the construction contract will be addressed and documented.
5. Design addenda, due to unforeseen or changed conditions identified during the bidding process, are not included in this scope of work.

Deliverable(s):

1. Input to answer up to twenty (20) bid questions
2. Addenda to the final bid package (PDF, 2)
3. Conformed Plans (full-size signed hardcopy sealed and signed by a professional engineer licensed in the State of California)
4. Conformed Plans (full-size PDF)
5. Conformed Engineer's Opinion of Probable Construction Costs (PDF)
6. Conformed Specifications (PDF)