

BART Agreement Number: 6M8143

Approval Date: 07/18/2025

Work Plan B.57-01 Biddability/Constructability Review for Project 15NL004, 15NL005

Scope:

These services are as described as follows:

Task 1 - Project Management:

- Project management support throughout the schedule outline in this work plan proposal.
- Coordinate HDR's project staff with BART's project staff.
- Attend weekly construction progress meetings set up by BART staff.
- Take meeting minutes.
- Attend HDR kick-off meeting with BART staff and CM team.
- Design Quality management process for project deliverables
- Develop project schedule and update accordingly
- Internal design team document control process to be coordinated with BART's team process

Task 2 – Coliseum Station Platform Elevators – C&B Review:

The Scope of services will include provision of design/construction engineering expertise to perform the following services at the request of BART.

- Constructability/Biddability and Cost Estimate reviews of contract design at IFB design including but not limited to the following tasks:
 - Become familiar with all drawings, specifications, and other contract documents to evaluate whether all details of the scope can be built per plans and specifications; that the contract documents will facilitate the receipt of reliable, responsive bids; and minimize post-bid contract changes.
 - Attend a meeting with the design team to discuss and understand the project details, including scope, work location(s), and known constraints. At this stage, provide review of available developed design at a depth commensurate with the level of detail provided.
 - Field visits and inspections as requested to understand existing conditions and potential construction/design issues.
 - Assess the possibility of differing site conditions and whether any additional field investigation/survey/potholing is recommended to better identify potential construction conflicts. Suggest alternatives for possible routing, equipment locations, footing modifications and excavations to avoid or limit the possibility of conflicts in areas where excessive hidden obstacles or other differing site conditions can be anticipated.
 - Review site access restrictions, space requirements for equipment and construction activities
 - Ensure contract documents include mitigations for any impacts of the work including but not limited to access restrictions to ensure potential construction impacts are resolved before beginning construction
 - Ensure the scope of work is clear and consistent across all contract documents to eliminate any ambiguities and maximize the biddability of the contract.
 - Evaluate the construction schedule assumptions for reasonableness, recommending modifications as appropriate based on potential deficiencies identified.

- Review proposed hours of work, staging areas (day shift, night shift), and required District support.
 - Other technical support or other services as required.
- Cost estimate peer reviews of contract design at the IFB design including but not limited to the following tasks:
 - Assess schedule and estimate for assumptions.
 - Review estimate mark-ups and suggest adjustments for current bid market.
 - Review estimate for pricing that is excessively high or low.
 - Identify any scope missing from the estimates.
 - Review Bid Schedules.
- Site visit(s) to Stations.

Task 3 – Pittsburgh Bay Point Station Platform Elevators – C&B Review

- Similar to C&B review scope as Task 2 above but for the Two (2) elevators located at BART's Pittsburgh Bay Point Station.

Assumptions:

General

- HDR will not be held liable for any construction, schedule or cost impacts that arise from the *Issued for Bid* Design Plans and Contract Manuals that were completed and signed by their respective design consultant.
- HDR is not accepting or approving design submittals in lieu of BART
- Constructability and Biddability Review to be performed by HDR team to provide feedback and comments that may help avoid future conflicts and construction schedule impacts.
 - HDR to confirm with C&B review that contract documents completed by original design consultants meet BART Facility Standards and additional design standards, guidelines and requirements that were agreed to be followed by BART and original design consultant for each project.
 - Project Schedule will be developed that would include the following:
 - First C&B Review period performed by HDR
 - Submit comments and C&B checklist to BART for review
 - Comment Resolution Meeting with BART and Original Design Consultant (separate meeting with Each original design consultant)
 - Second round of review performed by HDR to confirm comments were addressed adequately by comparing the comment response and update drawing sets provided by each of the original design consultant
 - Provide final C&B Checklist and summary to BART
 - BART approval that comments were addressed and progress project forward, as needed
 - BART to provide the valuable information to HDR to perform a thorough Constructability and Biddability Review of each of the Station elevator projects mentioned above (Coliseum Station and Pittsburgh Bay Point Station).

- The following contract documents are expected to be received by HDR at the minimum, but not limited, in order to perform the Constructability and Biddability Review for each project (Coliseum and Pittsburg Bay Point Station Elevator projects), separately:
 - 100% design plans, specifications and cost estimate
 - Project design and construction schedule
 - Latest BART design review comments made on the respective design submittal milestone
 - Design variances and/or rfi's submitted for each project
 - Summary of issues and previous design conflicts/directions forward that were done during design progression
 - Basis of Design reports
 - Scope of Work/Project Requirements Summary requested by BART
 - Risk Matrix pertaining to respective project
- HDR to provide feedback and comments based on the review, HDR will set up a meeting to go over potential construction and schedule impacts with BART staff and CM team.
- BART to provide responses and direction forward to HDR for each comment or potential conflict found from the constructability review.
- Major construction impacts found from the constructability review will be documented as part of BARTs risk management for tracking and closure.
- HDR will support that comments are closed appropriately by original design consultant that were made on their project contract documents.
 - BART to formally approve that comments have been closed appropriately and/or have a path forward that BART accepts.
- BART to provide necessary documentation and process to get HDR staff badges for site visits
- Design Variances needed (if any) have already been identified by the original Design Consultants during their respective design progression and in progress to be closed with the respective parties needed for approval.
- Risk Management & Mitigation process has been developed and updated by BART
- Project Construction Schedule and updates from BART to be shared with HDR.
- HDR team to attend bi-weekly meetings with BART team to provide project progress and go over any issues/concerns that are found during project progression.
- Up to four (4) comment resolution meetings expected to have HDR team attend.
 - Two (2) for each project separately
 - Option for some team members to attend virtually
- HDR to have access to discuss/communicate with original design consultant about their respective project design to be able to expedite certain responses and feedback needed by HDR during C&B review.
- up to two (2) additional site visits by HDR team for each project – total of four (4)

Coliseum Station – 15NL-004

- Design is for two (2) station platform elevators – Hydraulic Elevators
- Original Design Consultant – PGH Wong Engineering Inc.
- Latest project deliverable submitted by design consultant to BART – 100% Design submittal
- Deliverable requirements for 100% submittal done by original design consultant includes, at the minimum the following:
 - 100% design plans, specs and cost estimate
- BART has already submitted technical, progress review, constructability and biddability comments previous milestone deliverable package.

- These comments remain open, and BART wants HDR to review/support that they get closed properly by the original design consultant.
- BART to provide the responses made by original design consultant to HDR
- HDR to perform and provide additional C&B comments based on HDR's independent review of the contract documents provided by BART for this specific project.
- BART to provide design variances that are still pending appropriate agency approvals
 - Based on discussions with BART, there are none for this project.

Pittsburg Bay Point Station – 15NL-005

- Design is for two (2) station platform elevators – Hydraulic Elevators
- Original Design Consultant – Parsons Corporation
- Latest project deliverable submitted by design consultant to BART – 100% Design submittal
- Deliverable requirements for 100% submittal done by original design consultant includes, at the minimum the following:
 - 100% design plans, specs and cost estimate
- BART has already submitted technical, progress review, constructability and biddability comments previous milestone deliverable package.
 - These comments remain open, and BART wants HDR to review/support that they get closed properly by the original design consultant.
 - BART to provide the responses made by original design consultant to HDR
 - HDR to perform and provide additional C&B comments based on HDR's independent review of the contract documents provided by BART for this specific project.
- BART to provide design variances that are still pending appropriate agency approvals
 - Based on discussions with BART, there is one main one still pending that is in regard to the elevator speed not meeting BFS minimum requirement.
 - Design to be affected based on outcome or direction provided to this variance
 - HDR C&B review can be limited based on the additional subsequential design changes needed to be done to meet this BFS requirement and pending status of the variance.
 - BART and HDR to discuss this variance and implications on additional potential risks and seismic evaluation implications, separately.
 - The C&B review to be performed by HDR is for the current 100% set of plans, specifications and cost estimate. The review of revised plans based on the variance mentioned above is not part of allocated budget submitted with this scope, as agreed to with BART. A new work plan proposal will be submitted if BART would like HDR to conduct an additional C&B review of the revised plans that are affected by disposition of this variance.

Prime: HDR Engineering

Subconsultants: None

Total Work Plan Value: \$ 375,772